

Polymeric materials as anion-exchange membranes for

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Relative Chemical Stability of Imidazolium-Based Alkaline Anion Exchange Polymerized Ionic Liquids. <i>Macromolecules</i> , 2011, 44, 8494-8503.	2.2	261
2	Radiolytic preparation of ETFE and PFA based anion exchange membranes for alkaline fuel cell. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2011, 269, 2509-2513.	0.6	9
3	Random and block styrenic copolymers bearing both ammonium and fluorinated side groups. <i>Journal of Polymer Science Part A</i> , 2011, 49, 4668-4679.	2.5	15
4	Anion- or Cation-Exchange Membranes for NaBH ₄ /H ₂ O ₂ Fuel Cells?. <i>Membranes</i> , 2012, 2, 478-492.	1.4	26
5	[P1.035] New Copolymers for Solid Alkaline Fuel Cell Membranes. <i>Procedia Engineering</i> , 2012, 44, 753-755.	1.2	0
6	The effect of particle size and surface area on the ion conductivity of layered double hydroxide. <i>Electrochemistry Communications</i> , 2012, 25, 50-53.	2.3	37
7	Tertiary sulfonium as a cationic functional group for hydroxide exchange membranes. <i>RSC Advances</i> , 2012, 2, 12683.	1.7	165
8	Hydroxide Degradation Pathways for Substituted Trimethylammonium Cations: A DFT Study. <i>Journal of Physical Chemistry C</i> , 2012, 116, 9419-9426.	1.5	176
9	Interplay between the Structure and Relaxations in Selemion AMV Hydroxide Conducting Membranes for AEMFC Applications. <i>Journal of Physical Chemistry C</i> , 2012, 116, 23965-23973.	1.5	28
10	An Overview of Polymer Electrolyte Membranes for Fuel Cell Applications. <i>ACS Symposium Series</i> , 2012, , 147-164.	0.5	18
11	Bis-imidazolium-based anion-exchange membranes for alkaline fuel cells. <i>Journal of Power Sources</i> , 2012, 217, 329-335.	4.0	99
12	Kinetics of RAFT homopolymerisation of vinylbenzyl chloride in the presence of xanthate or trithiocarbonate. <i>European Polymer Journal</i> , 2012, 48, 1348-1356.	2.6	19
13	Poly(imide)/Organically-Modified Montmorillonite Nanocomposite as a Potential Membrane for Alkaline Fuel Cells. <i>Membranes</i> , 2012, 2, 430-439.	1.4	7
14	Phosphonium-Functionalized Polyethylene: A New Class of Base-Stable Alkaline Anion Exchange Membranes. <i>Journal of the American Chemical Society</i> , 2012, 134, 18161-18164.	6.6	425
15	Comparison of different types of membrane in alkaline direct ethanol fuel cells. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 14536-14542.	3.8	73
16	New LDPE based anion-exchange membranes for alkaline solid polymeric electrolyte water electrolysis. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 14992-15002.	3.8	100
17	Synthesis and characterization of quaternary ammonium functionalized fluorene-containing cardo polymers for potential anion exchange membrane water electrolyzer applications. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 16168-16176.	3.8	21
18	Membrane electrode assemblies based on porous silver electrodes for alkaline anion exchange membrane fuel cells. <i>Electrochimica Acta</i> , 2012, 82, 284-290.	2.6	24

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19	Radiation-induced synthesis of solid alkaline exchange membranes with quaternized 1,4-diazabicyclo[2,2,2] octane pendant groups for fuel cell application. <i>Polymer</i> , 2012, 53, 4652-4661.	1.8	23
20	Electrically conductive membrane of polyaniline-titanium(IV)phosphate cation exchange nanocomposite: Applicable for detection of Pb(II) using its ion-selective electrode. <i>Journal of Industrial and Engineering Chemistry</i> , 2012, 18, 1937-1944.	2.9	45
21	Sodium chloride sorption in sulfonated polymers for membrane applications. <i>Journal of Membrane Science</i> , 2012, 423-424, 195-208.	4.1	128
22	Backbone stability of quaternized polyaromatics for alkaline membrane fuel cells. <i>Journal of Membrane Science</i> , 2012, 423-424, 438-449.	4.1	254
23	Block Copolymers Containing Quaternary Benzyl Ammonium Cations for Alkaline Anion Exchange Membrane Fuel Cells (AAEMFC). <i>ACS Symposium Series</i> , 2012, , 253-265.	0.5	2
24	Degradation of Imidazolium- and Quaternary Ammonium-Functionalized Poly(fluorenyl ether ketone) Tj ETQq1 1 0.784314 rgBT /Overdo	4.0	220
25	Direct oxidation alkaline fuelcells: from materials to systems. <i>Energy and Environmental Science</i> , 2012, 5, 5668-5680.	15.6	228
26	Radio-Chemically Pore-Filled Anion Exchange Membranes for Solid Alkaline Fuel Cells (SAFC). <i>ECS Meeting Abstracts</i> , 2012, , .	0.0	0
27	Phenyltrimethylammonium Functionalized Polysulfone Anion Exchange Membranes. <i>Macromolecules</i> , 2012, 45, 2411-2419.	2.2	167
28	Chemical Stability of Anion Exchange Membranes for Alkaline Fuel Cells. <i>ACS Symposium Series</i> , 2012, , 233-251.	0.5	16
29	Engineering the Van der Waals Interaction in Cross-Linking-Free Hydroxide Exchange Membranes for Low Swelling and High Conductivity. <i>ChemSusChem</i> , 2012, 5, 843-848.	3.6	67
30	Non-platinum cathode catalysts for alkaline membrane fuel cells. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 4406-4412.	3.8	186
32	Polyacrylonitrile-based organic-inorganic composite anion-exchange membranes: Preparation, characterization and its application in making ion-selective membrane electrode for determination of As(V). <i>Desalination</i> , 2012, 289, 21-26.	4.0	14
33	Heterogeneous anion-selective membranes: Influence of a water-soluble component in the membrane on the morphology and ionic conductivity. <i>Journal of Membrane Science</i> , 2012, 401-402, 83-88.	4.1	19
34	Silicate-based polymer-nanocomposite membranes for polymer electrolyte membrane fuel cells. <i>Progress in Polymer Science</i> , 2012, 37, 842-869.	11.8	186
35	Electrical conductivity relaxation in PVOH+LiH ₂ PO ₄ +Al ₂ O ₃ polymer composites. <i>Ionics</i> , 2013, 19, 83-89.	1.2	3
36	Preparation and characterization of composite membranes with ionic liquid polymer-functionalized multiwalled carbon nanotubes for alkaline fuel cells. <i>RSC Advances</i> , 2013, 3, 13477.	1.7	50
37	A strategy for disentangling the conductivity-stability dilemma in alkaline polymer electrolytes. <i>Energy and Environmental Science</i> , 2013, 6, 2912.	15.6	150

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39	Ultrathin composite membrane of alkaline polymer electrolyte for fuel cell applications. <i>Journal of Materials Chemistry A</i> , 2013, 1, 12497.	5.2	56
40	Heterogeneous anion conducting membranes based on linear and crosslinked KOH doped polybenzimidazole for alkaline water electrolysis. <i>Journal of Membrane Science</i> , 2013, 447, 424-432.	4.1	86
41	Water Uptake and Ion Mobility in Cross-Linked Bis(terpyridine)ruthenium-Based Anion Exchange Membranes. <i>Macromolecules</i> , 2013, 46, 9279-9287.	2.2	72
42	Best Practices for Investigating Anion Exchange Membrane Suitability for Alkaline Electrochemical Devices: Case Study Using Quaternary Ammonium Poly(2,6-dimethyl 1,4-phenylene)oxide Anion Exchange Membranes. <i>Journal of the Electrochemical Society</i> , 2013, 160, F1258-F1274.	1.3	85
43	Nanostructured Fe ²⁺ /Ag electrocatalysts for the oxygen reduction reaction in alkaline media. <i>Journal of Materials Chemistry A</i> , 2013, 1, 13337.	5.2	33
44	Counterion Effect on the Properties of Anion-Conducting Polymer Electrolyte Membranes Prepared by Radiation-Induced Graft Polymerization. <i>Macromolecular Chemistry and Physics</i> , 2013, 214, 1756-1762.	1.1	16
45	Impact of 1 mmol dm ⁻³ concentrations of small molecules containing nitrogen-based cationic groups on the oxygen reduction reaction on polycrystalline platinum in aqueous KOH (1 mol dm ⁻³). <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 18992.	1.3	16
46	The reaction between Nafion sulfonyl fluoride precursor membrane and 1,4-dimethylpiperazine does not yield reliable anion-exchange membranes. <i>Journal of Materials Chemistry A</i> , 2013, 1, 1018-1021.	5.2	12
47	Aromatic polyelectrolytes via polyacylation of pre-quaternized monomers for alkaline fuel cells. <i>Journal of Materials Chemistry A</i> , 2013, 1, 2595.	5.2	97
48	Ion Motion in Anion and Proton-Conducting Triblock Copolymers. <i>Macromolecules</i> , 2013, 46, 949-956.	2.2	63
49	Chitosan biopolymer for fuel cell applications. <i>Carbohydrate Polymers</i> , 2013, 92, 955-975.	5.1	311
50	Phenolphthalein-based cardo poly(arylene ether sulfone): Preparation and application to separation membranes. <i>Journal of Applied Polymer Science</i> , 2013, 128, 1-12.	1.3	30
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52	Cross-linked anion exchange membranes for alkaline fuel cells synthesized using a solvent free strategy. <i>Journal of Power Sources</i> , 2013, 233, 259-268.	4.0	57
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55	Ion and water transport in functionalized PEEK membranes. <i>Journal of Membrane Science</i> , 2013, 429, 13-22.	4.1	34

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57	Ionic liquid/poly(ionic liquid)-based electrolytes for energy devices. <i>Polymer International</i> , 2013, 62, 335-337.	1.6	80
58	Preparation of new polymethylmethacrylate-silica gel anion exchange composite fibers and its application in making membrane electrode for the determination of As(V). <i>Desalination</i> , 2013, 319, 10-17.	4.0	9
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61	Anion-Conductive Multiblock Aromatic Copolymer Membranes: Structure-Property Relationships. <i>Journal of Physical Chemistry C</i> , 2013, 117, 15468-15477.	1.5	40
62	Preparation of anion exchange membranes by an efficient chloromethylation method and homogeneous quaternization/crosslinking strategy. <i>Solid State Ionics</i> , 2013, 245-246, 8-18.	1.3	38
63	Novel alkaline anion exchange membranes containing pendant benzimidazolium groups for alkaline fuel cells. <i>Journal of Membrane Science</i> , 2013, 443, 193-200.	4.1	113
64	Stability of composite anion exchange membranes with various functional groups and their performance for energy conversion. <i>Journal of Membrane Science</i> , 2013, 443, 28-35.	4.1	87
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67	A convenient, efficient and green route for preparing anion exchange membranes for potential application in alkaline fuel cells. <i>Journal of Membrane Science</i> , 2013, 425-426, 190-199.	4.1	27
69	Highly Stable Alkaline Polymer Electrolyte Based on a Poly(ether ether ketone) Backbone. <i>ACS Applied Materials & Interfaces</i> , 2013, 5, 13405-13411.	4.0	91
70	Ion Clustering in Quaternary Ammonium Functionalized Benzylmethyl Containing Poly(arylene ether) Tj ETQq1 1 0.784314 rgBT /Overlo	2.2	134
71	Investigation of Cation Degradation in Anion Exchange Membranes Using Multi-Dimensional NMR Spectroscopy. <i>Journal of the Electrochemical Society</i> , 2013, 160, F1006-F1021.	1.3	74
72	Influence of Bound Ion on the Morphology and Conductivity of Anion-Conducting Block Copolymers. <i>Macromolecules</i> , 2013, 46, 1519-1527.	2.2	59
73	Alkaline stability of poly(phenylene)-based anion exchange membranes with various cations. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2013, 51, 1736-1742.	2.4	241
74	Synthesis and structure-conductivity relationship of polystyrene-block-poly(vinyl benzyl) Tj ETQq1 1 0.784314 rgBT /Overlo Part B: Polymer Physics, 2013, 51, 1751-1760.	2.4	75

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76	Positively Charged Polystyrene Blended Quaternized Chitosan for Anion Exchange Membranes. <i>Journal of the Electrochemical Society</i> , 2013, 160, F168-F174.	1.3	17
77	Modulation of the electrochemical properties of SBS-based anionic membranes by the amine molecular structure. <i>E-Polymers</i> , 2013, 13, .	1.3	8
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80	Two-dimensional NMR spectroscopy reveals cation-triggered backbone degradation in polysulfone-based anion exchange membranes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 2490-2495.	3.3	416
81	Stabilizing the Imidazolium Cation in Hydroxide-Exchange Membranes for Fuel Cells. <i>ChemSusChem</i> , 2013, 6, 2079-2082.	3.6	92
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83	Hydration and Proton Conductivity of Ionomers: The Model Case of Sulfonated Aromatic Polymers. <i>Frontiers in Energy Research</i> , 2014, 2, .	1.2	7
85	Hydroxide Degradation Pathways for Substituted Benzyltrimethyl Ammonium: A DFT Study. <i>ECS Electrochemistry Letters</i> , 2014, 4, F13-F16.	1.9	19
86	Simple and facile synthesis of water-soluble poly(phosphazanium) polymer electrolytes. <i>RSC Advances</i> , 2014, 4, 61869-61876.	1.7	9
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95	Palladium-Based Anion-Exchange Membrane Fuel Cell Using KOH-Doped Polybenzimidazole as the Electrolyte. <i>ChemPlusChem</i> , 2014, 79, 400-405.	1.3	18
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97	Crosslinked poly(vinylbenzyl chloride) with a macromolecular crosslinker for anion exchange membrane fuel cells. <i>Journal of Power Sources</i> , 2014, 248, 905-914.	4.0	95
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101	Influence of Sulfone Linkage on the Stability of Aromatic Quaternary Ammonium Polymers for Alkaline Fuel Cells. <i>Journal of the Electrochemical Society</i> , 2014, 161, F615-F621.	1.3	69
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103	Preparation of ion-exchange materials and membranes. <i>Desalination</i> , 2014, 342, 156-174.	4.0	76
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113	Poly(2,6-dimethyl-1,4-phenylene oxide) Blended with Poly(vinylbenzyl chloride)- <i>b</i> -polystyrene for the Formation of Anion Exchange Membranes. <i>Macromolecules</i> , 2014, 47, 6757-6767.	2.2	43
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115	Preparation of radiation-grafted powders for use as anion exchange ionomers in alkaline polymer electrolyte fuel cells. <i>Journal of Materials Chemistry A</i> , 2014, 2, 5124-5130.	5.2	103
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124	Highly Stable N ₃ -Substituted Imidazolium-Based Alkaline Anion Exchange Membranes: Experimental Studies and Theoretical Calculations. <i>Macromolecules</i> , 2014, 47, 208-216.	2.2	150
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126	Enhancement of hydroxide conductivity by the di-quaternization strategy for poly(ether ether ketone) based anion exchange membranes. <i>Journal of Materials Chemistry A</i> , 2014, 2, 12222.	5.2	71
127	Synthesis and Evaluation of Carbon Nanotubes Supported Silver Catalyst for Alkaline Fuel Cell. <i>Electroanalysis</i> , 2014, 26, 2380-2387.	1.5	36
128	Anion-conducting ionomers: Study of type of functionalizing amine and macromolecular cross-linking. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 14039-14049.	3.8	58
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134	Anion Conductive Aromatic Block Copolymers Containing Diphenyl Ether or Sulfide Groups for Application to Alkaline Fuel Cells. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 17044-17052.	4.0	45
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136	Hydroxide Degradation Pathways for Imidazolium Cations: A DFT Study. <i>Journal of Physical Chemistry C</i> , 2014, 118, 9880-9888.	1.5	102
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143	Hydroxide-ion induced degradation pathway for dimethylimidazolium groups in anion exchange membranes. <i>Journal of Membrane Science</i> , 2014, 462, 112-118.	4.1	40
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145	Imidazolium Cation Based Anion-Conducting Electrolyte Membranes Prepared by Radiation Induced Grafting for Direct Hydrazine Hydrate Fuel Cells. <i>Journal of the Electrochemical Society</i> , 2014, 161, F889-F893.	1.3	21
146	Anion Exchange Fuel Cell Membranes Prepared from ^3H Borylation and Suzuki Coupling Reactions. <i>Macromolecules</i> , 2014, 47, 1973-1980.	2.2	86
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