

Anion-exchange membranes in electrochemical energy

Energy and Environmental Science

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Citation Report

#	ARTICLE	IF	CITATIONS
1	International experts meet in Germany to discuss trends in anion exchange membranes. Fuel Cells Bulletin, 2014, 2014, 12-15.	0.1	1
2	Anion-exchange membranes in electrochemical energy systems. Energy and Environmental Science, 2014, 7, 3135-3191.	30.8	1,617
3	Water uptake profile in a model ion-exchange membrane: Conditions for water-rich channels. Journal of Chemical Physics, 2015, 142, 114906.	3.0	15
4	Highly Water Resistant Anion Exchange Membrane for Fuel Cells. Macromolecular Rapid Communications, 2015, 36, 1362-1367.	3.9	12
5	Toward an Active and Stable Catalyst for Oxygen Evolution in Acidic Media: Ti ⁴⁺ -Stabilized MnO ₂ . Advanced Energy Materials, 2015, 5, 1500991.	19.5	177
6	Nanostructured Ion-Exchange Membranes for Fuel Cells: Recent Advances and Perspectives. Advanced Materials, 2015, 27, 5280-5295.	21.0	335
7	Structure-Property Relationships in Hydroxide-Exchange Membranes with Cation Strings and High Ion-Exchange Capacity. ChemSusChem, 2015, 8, 4229-4234.	6.8	85
8	Anion-Exchange Membranes for Fuel Cells: Synthesis Strategies, Properties and Perspectives. Fuel Cells, 2015, 15, 761-780.	2.4	83
9	Synthesis and characterization of benzimidazolium-functionalized polysulfones as anion-exchange membranes. Journal of Polymer Science Part A, 2015, 53, 2363-2373.	2.3	13
10	Recent Progress on Fe/N/C Electrocatalysts for the Oxygen Reduction Reaction in Fuel Cells. Catalysts, 2015, 5, 1167-1192.	3.5	68
11	Breath Figure Method for Construction of Honeycomb Films. Membranes, 2015, 5, 399-424.	3.0	62
12	Ruthenium-Alloy Electrocatalysts with Tunable Hydrogen Oxidation Kinetics in Alkaline Electrolyte. Journal of Physical Chemistry C, 2015, 119, 13481-13487.	3.1	104
13	A mini-review on anion exchange membranes for fuel cell applications: Stability issue and addressing strategies. International Journal of Hydrogen Energy, 2015, 40, 7348-7360.	7.1	260
14	Mechanical Performance of Polyisoprene Copolymer Anion Exchange Membranes by Varying Crosslinking Methods. Journal of the Electrochemical Society, 2015, 162, H206-H212.	2.9	9
15	Ceramic anion-exchange membranes based on microporous supports infiltrated with hydrated zirconium dioxide. RSC Advances, 2015, 5, 46348-46358.	3.6	29
16	The Effect of Carbonate and pH on Hydrogen Oxidation and Oxygen Reduction on Pt-Based Electrocatalysts in Alkaline Media. ECS Transactions, 2015, 69, 995-1005.	0.5	0
17	Alkaline Stability of Quaternary Ammonium Cations for Alkaline Fuel Cell Membranes and Ionic Liquids. ChemSusChem, 2015, 8, 513-523.	6.8	547
18	Stability and Activity of Pt/ITO Electrocatalyst for Oxygen Reduction Reaction in Alkaline Media. Electrochimica Acta, 2015, 157, 175-182.	5.2	38

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19	Polysulfones with highly localized imidazolium groups for anion exchange membranes. <i>Journal of Membrane Science</i> , 2015, 481, 164-171.	8.2	84
20	Hydroxide based Benzyltrimethylammonium Degradation: Quantification of Rates and Degradation Technique Development. <i>Journal of the Electrochemical Society</i> , 2015, 162, F366-F372.	2.9	62
21	Surface charge enhanced carbon electrodes for stable and efficient capacitive deionization using inverted adsorption-desorption behavior. <i>Energy and Environmental Science</i> , 2015, 8, 897-909.	30.8	335
22	Graphene Oxide-Polymer Nanocomposite Anion-Exchange Membranes. <i>Journal of the Electrochemical Society</i> , 2015, 162, F419-F426.	2.9	40
23	Poly(phenylene oxide) functionalized with quaternary ammonium groups via flexible alkyl spacers for high-performance anion exchange membranes. <i>Journal of Materials Chemistry A</i> , 2015, 3, 5280-5284.	10.3	247
24	Fabrication of spinel ferrite based alkaline anion exchange membrane water electrolyzers for hydrogen production. <i>RSC Advances</i> , 2015, 5, 34100-34108.	3.6	53
25	Enhancement of hydroxide conductivity by grafting flexible pendant imidazolium groups into poly(arylene ether sulfone) as anion exchange membranes. <i>Journal of Materials Chemistry A</i> , 2015, 3, 18105-18114.	10.3	116
26	Polybenzimidazole-crosslinked poly(vinylbenzyl chloride) with quaternary 1,4-diazabicyclo (2.2.2) octane groups as high-performance anion exchange membrane for fuel cells. <i>Journal of Power Sources</i> , 2015, 296, 204-214.	7.8	97
27	An integrally thin skinned asymmetric architecture design for advanced anion exchange membranes for vanadium flow batteries. <i>Journal of Materials Chemistry A</i> , 2015, 3, 16948-16952.	10.3	59
28	Robust Hydroxide Ion Conducting Poly(biphenyl alkylene)s for Alkaline Fuel Cell Membranes. <i>ACS Macro Letters</i> , 2015, 4, 814-818.	4.8	267
29	Separators used in microbial electrochemical technologies: Current status and future prospects. <i>Bioresource Technology</i> , 2015, 195, 170-179.	9.6	124
30	Imidazolium Cations with Exceptional Alkaline Stability: A Systematic Study of Structure-Stability Relationships. <i>Journal of the American Chemical Society</i> , 2015, 137, 8730-8737.	13.7	363
31	A strategy to construct alkali-stable anion exchange membranes bearing ammonium groups via flexible spacers. <i>Journal of Materials Chemistry A</i> , 2015, 3, 15015-15019.	10.3	95
32	A review of radiation-grafted polymer electrolyte membranes for alkaline polymer electrolyte membrane fuel cells. <i>Journal of Power Sources</i> , 2015, 293, 946-975.	7.8	80
33	Sustainable synthesis of a high performance inter-polymer anion exchange membrane employing concentrated solar radiation in a crucial functionalization step. <i>Journal of Membrane Science</i> , 2015, 493, 373-381.	8.2	11
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35	Optimizing Oxygen Reduction Catalyst Morphologies from First Principles. <i>Journal of Physical Chemistry C</i> , 2015, 119, 16804-16810.	3.1	16
36	Permethyl Cobaltocenium (Cp* ₂ Co ⁺) as an Ultra-Stable Cation for Polymer Hydroxide-Exchange Membranes. <i>Scientific Reports</i> , 2015, 5, 11668.	3.3	111

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37	Correlating Hydrogen Oxidation/Evolution Reaction Activity with the Minority Weak Hydrogen-Binding Sites on Ir/C Catalysts. <i>ACS Catalysis</i> , 2015, 5, 4449-4455.	11.2	114
38	Anion exchange membranes (AEMs) based on poly(2,6-dimethyl-1,4-phenylene oxide) (PPO) and its derivatives. <i>Polymer Chemistry</i> , 2015, 6, 5809-5826.	3.9	119
39	Effect of cationic molecules on the oxygen reduction reaction on fuel cell grade Pt/C (20 wt%) catalyst in potassium hydroxide (aq, 1 mol dm ⁻³). <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 12135-12145.	2.8	20
40	Highly stable anion exchange membranes based on quaternized polypropylene. <i>Journal of Materials Chemistry A</i> , 2015, 3, 12284-12296.	10.3	144
41	Thermal crosslinking of an alkaline anion exchange membrane bearing unsaturated side chains. <i>Journal of Membrane Science</i> , 2015, 490, 1-8.	8.2	87
42	Highly Stable Anion Exchange Membranes with Internal Cross-Linking Networks. <i>Advanced Functional Materials</i> , 2015, 25, 2583-2589.	14.9	114
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46	Direct Methanol Anion Exchange Membrane Fuel Cell with a Non-Platinum Group Metal Cathode based on Iron-Aminoantipyrine Catalyst. <i>Electrochimica Acta</i> , 2015, 175, 202-208.	5.2	34
47	A review on recent developments of anion exchange membranes for fuel cells and redox flow batteries. <i>RSC Advances</i> , 2015, 5, 37206-37230.	3.6	209
48	Anisotropic radio-chemically pore-filled anion exchange membranes for solid alkaline fuel cell (SAFC). <i>Journal of Membrane Science</i> , 2015, 495, 206-215.	8.2	26
49	Pd/Ni Synergistic Activity for Hydrogen Oxidation Reaction in Alkaline Conditions. <i>Electrochimica Acta</i> , 2015, 176, 1074-1082.	5.2	56
50	Segregated Pt on Pd nanotubes for enhanced oxygen reduction activity in alkaline electrolyte. <i>Chemical Communications</i> , 2015, 51, 16633-16636.	4.1	17
51	Mechanically Tough and Chemically Stable Anion Exchange Membranes from Rigid-Flexible Semi-Interpenetrating Networks. <i>Chemistry of Materials</i> , 2015, 27, 6689-6698.	6.7	149
52	Integrated Production, Extraction, and Concentration of Acetic Acid from CO ₂ through Microbial Electrosynthesis. <i>Environmental Science and Technology Letters</i> , 2015, 2, 325-328.	8.7	161
53	Stable Elastomeric Anion Exchange Membranes Based on Quaternary Ammonium-Tethered Polystyrene- <i>b</i> -poly(ethylene-co-butylene)- <i>b</i> -polystyrene Triblock Copolymers. <i>Macromolecules</i> , 2015, 48, 7085-7095.	4.8	198
54	A durable anion conducting membrane with packed anion-exchange sites and an aromatic backbone for solid-state alkaline fuel cells. <i>Polymer Chemistry</i> , 2015, 6, 7964-7973.	3.9	25

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56	Synthesis and Alkaline Stability of Solubilized Anion Exchange Membrane Binders Based on Poly(phenylene oxide) Functionalized with Quaternary Ammonium Groups via a Hexyl Spacer. Journal of the Electrochemical Society, 2015, 162, F1236-F1242.	2.9	47
57	Interplay between solid state transitions, conductivity mechanisms, and electrical relaxations in a [PVBtMA] [Br]-b-PMB diblock copolymer membrane for electrochemical applications. Physical Chemistry Chemical Physics, 2015, 17, 31125-31139.	2.8	29
58	Reviewâ€”Recent Progress in Electrocatalysts for Oxygen Reduction Suitable for Alkaline Anion Exchange Membrane Fuel Cells. Journal of the Electrochemical Society, 2015, 162, F1504-F1539.	2.9	129
59	Modification of poly(aryl ether ketone) using imidazolium groups as both pendants and bridging joints for anion exchange membranes. European Polymer Journal, 2015, 73, 116-126.	5.4	58
60	Guanidinium based blend anion exchange membranes for direct methanol alkaline fuel cells (DMAFCs). Journal of Power Sources, 2015, 300, 95-103.	7.8	37
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70	Oxygen Evolution Reaction Electrocatalysis on Transition Metal Oxides and (Oxy)hydroxides: Activity Trends and Design Principles. Chemistry of Materials, 2015, 27, 7549-7558.	6.7	944
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79	Hydrogen Oxidation and Evolution Reaction Kinetics on Carbon Supported Pt, Ir, Rh, and Pd Electrocatalysts in Acidic Media. Journal of the Electrochemical Society, 2015, 162, F190-F203.	2.9	412
80	Novel morpholinium-functionalized anion-exchange PBI-polymer blends. Journal of Materials Chemistry A, 2015, 3, 1110-1120.	10.3	53
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83	Direct Alcohol Fuel Cells: Nanostructured Materials for the Electrooxidation of Alcohols in Alkaline Media. Nanostructure Science and Technology, 2016, , 477-516.	0.1	5
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110	Development of a cross-linked quaternized poly(styrene-b-isobutylene-b-styrene)/graphene oxide composite anion exchange membrane for direct alkaline methanol fuel cell application. <i>RSC Advances</i> , 2016, 6, 52122-52130.	3.6	28
111	Trends in Catalysis and Catalyst Cost Effectiveness for N ₂ H ₄ Fuel Cells and Sensors: a Rotating Disk Electrode (RDE) Study. <i>Journal of Physical Chemistry C</i> , 2016, 120, 4717-4738.	3.1	51
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122	Recent progress in alkaline direct ethylene glycol fuel cells for sustainable energy production. <i>Journal of Power Sources</i> , 2016, 329, 484-501.	7.8	154
123	Imidazolium-Functionalized Poly(arylene ether sulfone) Anion-Exchange Membranes Densely Grafted with Flexible Side Chains for Fuel Cells. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 25279-25288.	8.0	140
124	Improved hydrogen oxidation reaction under alkaline conditions by ruthenium-iridium alloyed nanoparticles. <i>Journal of Materials Chemistry A</i> , 2016, 4, 15980-15985.	10.3	86
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143	Side-chain-type anion exchange membranes bearing pendant quaternary ammonium groups via flexible spacers for fuel cells. Journal of Materials Chemistry A, 2016, 4, 13938-13948.	10.3	177
144	Anion exchange membranes with well-defined ion transporting nanochannels via self-assembly of polymerizable ionic liquids. Journal of Materials Chemistry A, 2016, 4, 13316-13323.	10.3	21

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146	Facilitating Anion Transport in Polyolefin-Based Anion Exchange Membranes via Bulky Side Chains. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 23321-23330.	8.0	91
147	Effect of Surface Ion Conductivity of Anion Exchange Membranes on Fuel Cell Performance. <i>Langmuir</i> , 2016, 32, 9557-9565.	3.5	15
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