

Yossef A Elabd

List of Publications by Year in descending order

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106
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57758

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60623

81
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110
all docs

110
docs citations

110
times ranked

6097
citing authors

#	ARTICLE	IF	CITATIONS
1	Block Copolymers for Fuel Cells. <i>Macromolecules</i> , 2011, 44, 1-11.	4.8	465
2	Polymer electrolyte membranes for the direct methanol fuel cell: A review. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2006, 44, 2201-2225.	2.1	414
3	Relative Chemical Stability of Imidazolium-Based Alkaline Anion Exchange Polymerized Ionic Liquids. <i>Macromolecules</i> , 2011, 44, 8494-8503.	4.8	261
4	Super Proton Conductive High-Purity Nafion Nanofibers. <i>Nano Letters</i> , 2010, 10, 3785-3790.	9.1	260
5	Effect of Nanoscale Morphology on the Conductivity of Polymerized Ionic Liquid Block Copolymers. <i>Macromolecules</i> , 2011, 44, 5727-5735.	4.8	258
6	Triblock copolymer ionomer membranes. <i>Journal of Membrane Science</i> , 2003, 217, 227-242.	8.2	217
7	Polymerized Ionic Liquids: The Effect of Random Copolymer Composition on Ion Conduction. <i>Macromolecules</i> , 2009, 42, 4809-4816.	4.8	194
8	Dielectric and Viscoelastic Responses of Imidazolium-Based Ionomers with Different Counterions and Side Chain Lengths. <i>Macromolecules</i> , 2014, 47, 777-790.	4.8	179
9	Ion Dynamics in Porous Carbon Electrodes in Supercapacitors Using in Situ Infrared Spectroelectrochemistry. <i>Journal of the American Chemical Society</i> , 2013, 135, 12818-12826.	13.7	174
10	Transport Properties of Sulfonated Poly(styrene- <i>b</i> -isobutylene- <i>b</i> -styrene) Triblock Copolymers at High Ion-Exchange Capacities. <i>Macromolecules</i> , 2006, 39, 399-407.	4.8	171
11	Anion exchanged polymerized ionic liquids: High free volume single ion conductors. <i>Polymer</i> , 2011, 52, 1309-1317.	3.8	165
12	Polymerized Ionic Liquid Block and Random Copolymers: Effect of Weak Microphase Separation on Ion Transport. <i>Macromolecules</i> , 2012, 45, 7027-7035.	4.8	164
13	Network Structure and Strong Microphase Separation for High Ion Conductivity in Polymerized Ionic Liquid Block Copolymers. <i>Macromolecules</i> , 2013, 46, 5290-5300.	4.8	156
14	Electrospinning and Solution Properties of Nafion and Poly(acrylic acid). <i>Macromolecules</i> , 2008, 41, 128-135.	4.8	147
15	Alkyl-Substituted N-Vinylimidazolium Polymerized Ionic Liquids: Thermal Properties and Ionic Conductivities. <i>Macromolecular Chemistry and Physics</i> , 2011, 212, 2522-2528.	2.2	139
16	Triblock copolymer ionomer membranes. <i>Journal of Membrane Science</i> , 2004, 231, 181-188.	8.2	133
17	Chemical Bath Deposition of ZnO Nanowires at Near-Neutral pH Conditions without Hexamethylenetetramine (HMTA): Understanding the Role of HMTA in ZnO Nanowire Growth. <i>Langmuir</i> , 2011, 27, 3672-3677.	3.5	123
18	Correlating backbone-backbone distance to ionic conductivity in amorphous polymerized ionic liquids. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2012, 50, 338-346.	2.1	122

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19	Sulfonation and characterization of poly(styrene-isobutylene-styrene) triblock copolymers at high ion-exchange capacities. <i>Polymer</i> , 2004, 45, 3037-3043.	3.8	114
20	High Hydroxide Conductivity in Polymerized Ionic Liquid Block Copolymers. <i>ACS Macro Letters</i> , 2013, 2, 575-580.	4.8	111
21	Nafion®/poly(vinyl alcohol) blends: Effect of composition and annealing temperature on transport properties. <i>Journal of Membrane Science</i> , 2006, 282, 217-224.	8.2	103
22	Block copolymer/ionic liquid films: The effect of ionic liquid composition on morphology and ion conduction. <i>Polymer</i> , 2010, 51, 5516-5524.	3.8	96
23	Diffusion and Sorption of Methanol and Water in Nafion Using Time-Resolved Fourier Transform Infrared Attenuated Total Reflectance Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2007, 111, 13221-13230.	2.6	93
24	Non-Fickian Diffusion of Water in Nafion. <i>Macromolecules</i> , 2010, 43, 4667-4678.	4.8	86
25	Diffusion of Water in Nafion Using Time-Resolved Fourier Transform Infrared Attenuated Total Reflectance Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2009, 113, 4257-4266.	2.6	82
26	Polymerized Ionic Liquids: Solution Properties and Electrospinning. <i>Macromolecules</i> , 2009, 42, 3368-3373.	4.8	81
27	Highly Selective Polymer Electrolyte Membranes from Reactive Block Polymers. <i>Macromolecules</i> , 2009, 42, 6075-6085.	4.8	79
28	Direct methanol fuel cell performance of Nafion®/poly(vinyl alcohol) blend membranes. <i>Journal of Power Sources</i> , 2006, 163, 386-391.	7.8	74
29	Alkaline Chemical Stability of Polymerized Ionic Liquids with Various Cations. <i>Macromolecules</i> , 2015, 48, 7071-7084.	4.8	73
30	Polymerized ionic liquid block copolymers for electrochemical energy. <i>Journal of Materials Chemistry A</i> , 2015, 3, 24187-24194.	10.3	72
31	Alkaline Chemical Stability and Ion Transport in Polymerized Ionic Liquids with Various Backbones and Cations. <i>Macromolecules</i> , 2016, 49, 3382-3394.	4.8	68
32	Thermal and ion transport properties of hydrophilic and hydrophobic polymerized styrenic imidazolium ionic liquids. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2011, 49, 1287-1296.	2.1	66
33	Water Clustering in Glassy Polymers. <i>Journal of Physical Chemistry B</i> , 2013, 117, 10629-10640.	2.6	65
34	Ionic Liquid Dynamics in Nanoporous Carbon Nanofibers in Supercapacitors Measured with <i>in Operando</i> Infrared Spectroelectrochemistry. <i>Journal of Physical Chemistry C</i> , 2014, 118, 21846-21855.	3.1	64
35	Time-resolved Fourier transform infrared/attenuated total reflection spectroscopy for the measurement of molecular diffusion in polymers. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2003, 41, 2794-2807.	2.1	63
36	Supramolecular Multiblock Polystyrene-Polyisobutylene Copolymers via Ionic Interactions. <i>Macromolecules</i> , 2014, 47, 4387-4396.	4.8	61

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37	Bicontinuous Alkaline Fuel Cell Membranes from Strongly Self-Segregating Block Copolymers. <i>Macromolecules</i> , 2013, 46, 7332-7340.	4.8	59
38	Ultra-low platinum loadings in polymer electrolyte membrane fuel cell electrodes fabricated via simultaneous electrospinning/electrospraying method. <i>Journal of Power Sources</i> , 2014, 264, 42-48.	7.8	58
39	Biomimetic Pattern Transfer. <i>Advanced Functional Materials</i> , 2005, 15, 189-195.	14.9	56
40	The influence of thermal history on structure and water transport in Parylene C coatings. <i>Polymer</i> , 2011, 52, 5378-5386.	3.8	56
41	Bromide and Hydroxide Conductivityâ€Morphology Relationships in Polymerized Ionic Liquid Block Copolymers. <i>Macromolecules</i> , 2015, 48, 4850-4862.	4.8	55
42	Membranes with Oriented Polyelectrolyte Nanodomains. <i>Chemistry of Materials</i> , 2006, 18, 4875-4881.	6.7	54
43	Modifying the Electrocatalystâ€Ionomer Interface via Sulfonated Poly(ionic liquid) Block Copolymers to Enable High-Performance Polymer Electrolyte Fuel Cells. <i>ACS Energy Letters</i> , 2020, 5, 1726-1731.	17.4	50
44	Single-Wall Carbon Nanotube Latexes. <i>ACS Applied Materials & Interfaces</i> , 2010, 2, 649-653.	8.0	48
45	Tuning Ion Conducting Pathways Using Holographic Polymerization. <i>Nano Letters</i> , 2012, 12, 310-314.	9.1	46
46	Development of phosphonium-based bicarbonate anion exchange polymer membranes. <i>Journal of Membrane Science</i> , 2013, 443, 93-99.	8.2	45
47	Nonequilibrium Sorption of Water in Polylactide. <i>Macromolecules</i> , 2012, 45, 7486-7494.	4.8	44
48	Electrosensitive Permeability of Membranes with Oriented Polyelectrolyte Nanodomains. <i>Macromolecules</i> , 2007, 40, 781-782.	4.8	43
49	Polymerized ionic liquid diblock copolymer as solid-state electrolyte and separator in lithium-ion battery. <i>Polymer</i> , 2016, 101, 311-318.	3.8	43
50	Polymerized ionic liquid diblock copolymers with long alkyl side-chain length. <i>Polymer</i> , 2014, 55, 3360-3369.	3.8	40
51	Prediction and validation of diffusion coefficients in a model drug delivery system using microsecond atomistic molecular dynamics simulation and vapour sorption analysis. <i>Soft Matter</i> , 2014, 10, 7480-7494.	2.7	39
52	Influence of water vapor on the gas permeability of polymerized ionic liquids membranes. <i>Journal of Membrane Science</i> , 2015, 487, 199-208.	8.2	36
53	Highly porous Ti ₄ O ₇ reactive electrochemical water filtration membranes fabricated via electrospinning/electrospraying. <i>AIChE Journal</i> , 2016, 62, 508-524.	3.6	36
54	Nafion® nanofibers and their effect on polymer electrolyte membrane fuel cell performance. <i>Journal of Power Sources</i> , 2009, 186, 385-392.	7.8	35

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55	Anion exchange membranes derived from nafion precursor for the alkaline fuel cell. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2012, 50, 552-562.	2.1	35
56	Polymerized ionic liquid diblock copolymers: impact of water/ion clustering on ion conductivity. <i>Soft Matter</i> , 2016, 12, 1133-1144.	2.7	33
57	Thermogravimetric characterization of sulfonated poly(styrene-isobutylene-styrene) block copolymers: effects of processing conditions. <i>Thermochimica Acta</i> , 2005, 430, 149-154.	2.7	32
58	Non-Fickian Diffusion of Water in Polylactide. <i>Industrial & Engineering Chemistry Research</i> , 2013, 52, 8664-8673.	3.7	31
59	Polymerized ionic liquid diblock copolymer as an ionomer and anion exchange membrane for alkaline fuel cells. <i>Chemical Engineering Science</i> , 2016, 154, 119-127.	3.8	30
60	Synthesis and High Alkaline Chemical Stability of Polyionic Liquids with Methylpyrrolidinium, Methylpiperidinium, Methylazepanium, Methylazocanium, and Methylazonanium Cations. <i>ACS Macro Letters</i> , 2019, 8, 540-545.	4.8	29
61	Effect of Polytetrafluoroethylene on Ultra-Low Platinum Loaded Electrospun/Electrosprayed Electrodes in Proton Exchange Membrane Fuel Cells. <i>Electrochimica Acta</i> , 2014, 139, 217-224.	5.2	28
62	High Production Rate of High Purity, High Fidelity Nafion Nanofibers via Needleless Electrospinning. <i>ACS Applied Polymer Materials</i> , 2019, 1, 2731-2740.	4.4	28
63	Liquid Water Transport in Polylactide Homo and Graft Copolymers. <i>ACS Applied Materials & Interfaces</i> , 2011, 3, 3997-4006.	8.0	27
64	Hydroxide conducting polymerized ionic liquid pentablock terpolymer anion exchange membranes with methylpyrrolidinium cations. <i>Polymer</i> , 2018, 134, 221-226.	3.8	26
65	Binder-free three-dimensional high energy density electrodes for ionic-liquid supercapacitors. <i>Chemical Communications</i> , 2015, 51, 13760-13763.	4.1	25
66	In Situ Molecular Level Measurements of Ion Dynamics in an Electrochemical Capacitor. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 3297-3301.	4.6	23
67	Ion transport in hydroxide conducting block copolymers. <i>Molecular Systems Design and Engineering</i> , 2019, 4, 519-530.	3.4	23
68	Prediction of Water Solubility in Glassy Polymers Using Nonequilibrium Thermodynamics. <i>Industrial & Engineering Chemistry Research</i> , 2013, 52, 12865-12875.	3.7	22
69	Separating solvation from molecular diffusion in polymers. <i>AIChE Journal</i> , 2001, 47, 1255-1262.	3.6	21
70	Anion exchange membranes derived from nafion precursor for the alkaline fuel cell: Effect of cation type on properties. <i>Journal of Applied Polymer Science</i> , 2013, 127, 298-307.	2.6	21
71	Hybrid-Capacitors with Polyaniline/Carbon Electrodes Fabricated via Simultaneous Electrospinning/Electrospraying. <i>Electrochimica Acta</i> , 2017, 229, 65-72.	5.2	20
72	Multicomponent diffusion of hydrogen-bonding solutes in a polymer. <i>AIChE Journal</i> , 2002, 48, 1610-1620.	3.6	19

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73	Diffusion of acetonitrile in conformational isomers of an H12MDI polyurethane. <i>Polymer</i> , 2000, 41, 2203-2212.	3.8	18
74	Plasma-aided template synthesis of inorganic nanotubes and nanorods. <i>Journal of Materials Chemistry</i> , 2007, 17, 1593.	6.7	17
75	Enzymatic Writing to Soft Films: Potential to Filter, Store, and Analyze Biologically Relevant Chemical Information. <i>Advanced Functional Materials</i> , 2014, 24, 480-491.	14.9	17
76	Chemical Stability of Anion Exchange Membranes for Alkaline Fuel Cells. <i>ACS Symposium Series</i> , 2012, , 233-251.	0.5	16
77	Impact of ionomer resistance in nanofiber-nanoparticle electrodes for ultra-low platinum fuel cells. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 6245-6256.	7.1	16
78	Lithium ion conducting polymerized ionic liquid pentablock terpolymers as solid-state electrolytes. <i>Polymer</i> , 2019, 161, 128-138.	3.8	16
79	Effect of Penetrant-Polymer Interactions on Molecular Diffusion in Conformational Isomers of a Heterogeneous Polymer. <i>Macromolecules</i> , 2001, 34, 6268-6273.	4.8	15
80	Sulfonated pentablock terpolymers as membranes and ionomers in hydrogen fuel cells. <i>Journal of Membrane Science</i> , 2021, 633, 119330.	8.2	15
81	Sulfonated Polymerized Ionic Liquid Block Copolymers. <i>Macromolecular Rapid Communications</i> , 2016, 37, 1200-1206.	3.9	13
82	Diffusion of Liquid Water in Free-Standing Polymer Films Using Pressure-Contact Time-Resolved Fourier Transform Infrared Attenuated Total Reflectance Spectroscopy. <i>Industrial & Engineering Chemistry Research</i> , 2017, 56, 3464-3476.	3.7	13
83	Lithium-Ion Transport in Poly(ionic liquid) Diblock Copolymer Electrolytes: Impact of Salt Concentration and Cation and Anion Chemistry. <i>Macromolecules</i> , 2021, 54, 8780-8797.	4.8	13
84	Impact of ionic liquid on lithium ion battery with a solid poly(ionic liquid) pentablock terpolymer as electrolyte and separator. <i>Polymer</i> , 2020, 209, 122975.	3.8	11
85	Effect of alkaline exchange polymerized ionic liquid block copolymer ionomers on the kinetics of fuel cell half reactions. <i>Journal of Electroanalytical Chemistry</i> , 2016, 783, 182-187.	3.8	9
86	Plasma assisted synthesis of hollow nanofibers using electrospun sacrificial templates. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2007, 265, 23-30.	1.4	8
87	Nanofiber Cathode Catalyst Layer Model for a Proton Exchange Membrane Fuel Cell. <i>Journal of Fuel Cell Science and Technology</i> , 2014, 11, .	0.8	8
88	Acetic Acid Diffusion in Polyisobutylene: Probing Small Molecule Structures. <i>Industrial & Engineering Chemistry Research</i> , 2001, 40, 3076-3084.	3.7	7
89	In Situ Spectroscopic Measurements of Individual Cation and Anion Dynamics in a RuO ₂ Electrochemical Capacitor. <i>Journal of the Electrochemical Society</i> , 2013, 160, A862-A868.	2.9	6
90	Ionic Liquids in Polymer Design. <i>Macromolecular Rapid Communications</i> , 2016, 37, 1105-1105.	3.9	6

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91	Modeling and Observer-Based Monitoring of RAFT Homopolymerization Reactions. Processes, 2019, 7, 768.	2.8	6
92	Characterization of a Sulfonated Poly(Ionic Liquid) Block Copolymer as an Ionomer for Proton Exchange Membrane Fuel Cells using Rotating Disk Electrode. Journal of the Electrochemical Society, 2021, 168, 124511.	2.9	6
93	Dehumidification via polymer electrolyte membrane electrolysis with sulfonated pentablock terpolymer. Journal of Membrane Science, 2022, 658, 120709.	8.2	6
94	Nanoporous and proton conductive hydrophobicâ€“hydrophilic copolymer thermoset membranes. Journal of Polymer Science, Part B: Polymer Physics, 2010, 48, 1245-1255.	2.1	5
95	Nitrogenâ€“doped carbons derived from poly(ionic liquid)s with various backbones and cations. Polymer International, 2019, 68, 1599-1609.	3.1	5
96	Polymer-Polymer Nanocomposite Membranes as Breathable Barriers with Electro-Sensitive Permeability. ACS Symposium Series, 2009, , 307-322.	0.5	4
97	Super Proton Conductive Nafion Nanofibers: Discovery, Fabrication, Properties, and Fuel Cell Performance. ECS Transactions, 2011, 41, 1503-1506.	0.5	3
98	The Further Improvement of the Ionic Thermoelectric Generator. IEEE Transactions on Industry Applications, 2015, 51, 1132-1136.	4.9	3
99	Sorption and Diffusion Selectivity of Methanol/Water Mixtures in NAFION. NATO Science for Peace and Security Series C: Environmental Security, 2008, , 189-208.	0.2	3
100	Kinetic and thermomechanical analysis of hydrophobicâ€“hydrophilic copolymer thermosets synthesized via freeâ€“radical polymerization. Journal of Applied Polymer Science, 2010, 115, 1419-1427.	2.6	2
101	Water Transport in Proton Exchange Membranes: Insights from Time-Resolved Infrared Spectroscopy. ECS Transactions, 2010, 33, 1029-1033.	0.5	2
102	3D patterned electrodes for ultra-low platinum fuel cells. International Journal of Hydrogen Energy, 2022, 47, 8993-9003.	7.1	1
103	The further improvement of the ionic thermoelectric generator. , 2013, , .		0
104	HAADF STEM of Phase Separated Anion Exchange Membranes Prepared by Ultracryomicrotomy. Microscopy and Microanalysis, 2014, 20, 470-471.	0.4	0
105	Room Temperature Solid-State Lithium Polymer Battery with Polyionic Liquid Pentablock Terpolymer Electrolyte. ECS Meeting Abstracts, 2019, , .	0.0	0
106	Alkaline Fuel Cell Performance of Saturated N-Heterocyclic Cationic Multiblock Polymers. ECS Meeting Abstracts, 2019, , .	0.0	0