V MarÃ-a BarragÃ¡n

List of Publications by Year
in descending order

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58 papers	1,680 citations	394421 19 h-index	276875 41 g-index
58 all docs	58 docs citations	58 times ranked	1702 citing authors

#	Article	IF	Citations
1	A review of the state-of-the-art of the methanol crossover in direct methanol fuel cells. Journal of Power Sources, 1999, 84, 70-74.	7.8	776
2	Estimation of the membrane methanol diffusion coefficient from open circuit voltage measurements in a direct methanol fuel cell. Journal of Power Sources, 2002, 104, 66-72.	7.8	82
3	Currentâ€“Voltage Curves for Ion-Exchange Membranes: A Method for Determining the Limiting Current Density. Journal of Colloid and Interface Science, 1998, 205, 365-373.	9.4	80
4	Thermo-osmosis of mixtures of water and methanol through a Nafion membrane. Journal of Membrane Science, 2006, 274, 116-122.	8.2	54
5	Transport of methanol and water through Nafion membranes. Journal of Power Sources, 2004, 130, 22-29.	7.8	50
6	Water uptake and salt transport through Nafion cation-exchange membranes with different thicknesses. Chemical Engineering Science, 2012, 72, 1-9.	3.8	50
7	Electroosmosis through a Cation-Exchange Membrane: Effect of an ac Perturbation on the Electroosmotic Flow. Journal of Colloid and Interface Science, 2000, 230, 359-366.	9.4	39
8	Thermo-osmosis in Membrane Systems: A Review. Journal of Non-Equilibrium Thermodynamics, 2017, 42, .	4.2	36
9	Water and methanol transport in Nafion membranes with different cationic forms. Journal of Power Sources, 2006, 160, 181-186.	7.8	29
10	On the Fixed Charge Concentration and the Water Electroosmotic Transport in a Cellulose Acetate Membrane. Journal of Colloid and Interface Science, 1995, 172, 361-367.	9.4	28
11	Permeation of electrolyte waterâ€“methanol solutions through a Nafion membrane. Journal of Colloid and Interface Science, 2003, 268, 476-481.	9.4	28
12	Sorption and permeation of solutions of chloride salts, water and methanol in a Nafion membrane. Electrochimica Acta, 2006, 51, 6297-6303.	5.2	28
13	On the methanolâ€“water electroosmotic transport in a Nafion membrane. Journal of Membrane Science, 2004, 236, 109-120.	8.2	26
14	Comparative study of liquid uptake and permeation characteristics of sulfonated cation-exchange membranes in water and methanol. Journal of Membrane Science, 2008, 323, 421-427.	8.2	24
15	Correlations between water uptake and effective fixed charge concentration at high univalent electrolyte concentrations in sulfonated polymer cation-exchange membranes with different morphology. Electrochimica Acta, 2011, 56, 8630-8637.	5.2	23
16	Study of the activation energy for transport of water and methanol through a Nafion membrane. Chemical Engineering Journal, 2009, 152, 20-25.	12.7	21
17	Chronopotentiometric study of a Nafion membrane in presence of glucose. Journal of Membrane Science, 2016, 510, 79-90.	8.2	21
18	Membrane potentials and electrolyte permeation in a cation-exchange membrane. Journal of Membrane Science, 1999, 154, 261-272.	8.2	20

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19	Currentâ€“Voltage Curves for a Cation-Exchange Membrane in Methanolâ€“Water Electrolyte Solutions. Journal of Colloid and Interface Science, 2002, 247, 138-148.	9.4	20
20	A comparative study of the electro-osmotic behavior of cation and anion exchange membranes in alcohol-water media. Electrochimica Acta, 2015, 154, 166-176.	5.2	19
21	Swelling and electro-osmotic properties of cation-exchange membranes with different structures in methanolâ€“water media. Journal of Power Sources, 2008, 185, 822-827.	7.8	17
22	Effect of Unstirred Solution Layers on Electro-Osmotic Permeability of Cation-Exchange Membranes. Journal of Colloid and Interface Science, 1994, 168, 458-464.	9.4	15
23	Liquid transport through sulfonated cation-exchange membranes for different waterâ€“alcohol solutions. Chemical Engineering Journal, 2010, 162, 643-648.	12.7	14
24	Experimental estimation of equilibrium and transport properties of sulfonated cation-exchange membranes with different morphologies. Journal of Colloid and Interface Science, 2009, 333, 497-502.	9.4	13
25	Thermoelectric Power of Ion Exchange Membrane Cells Relevant to Reverse Electrodialysis Plants. Physical Review Applied, 2019, 11, .	3.8	12
26	On current dependence of the electro-osmotic permeability in ion-exchange membranes. Journal of Membrane Science, 1994, 95, 1-10.	8.2	11
27	Simultaneous electroosmotic and permeation flows through a Nafion membrane. Journal of Colloid and Interface Science, 2004, 277, 176-183.	9.4	11
28	Swelling properties of alkali-metal doped polymeric anion-exchange membranes in alcohol media for application in fuel cells. International Journal of Hydrogen Energy, 2016, 41, 14160-14170.	7.1	10
29	Experimental determination of the streaming potential across cation-exchange membranes with different morphologies. Journal of Membrane Science, 2016, 500, 16-24.	8.2	10
30	Perspectives on Thermoelectric Energy Conversion in Ion-Exchange Membranes. Entropy, 2018, 20, 905.	2.2	10
31	The Correlation between the Water Content and Electrolyte Permeability of Cation-Exchange Membranes. International Journal of Molecular Sciences, 2020, 21, 5897.	4.1	10
32	Effect of unstirred solution layers on the thermal membrane potential through cation-exchange membranes. Journal of Membrane Science, 1997, 125, 219-229.	8.2	8
33	Osmotic behavior of a Nafion membrane in methanolâ€“water electrolyte solutions. Journal of Colloid and Interface Science, 2003, 263, 217-222.	9.4	8
34	Streaming potential across cation-exchange membranes in methanolâ€“water electrolyte solutions. Journal of Colloid and Interface Science, 2006, 294, 473-481.	9.4	8
35	Salt diffusion through cation-exchange membranes in alcoholâ€“water solutions. Separation and Purification Technology, 2009, 64, 321-325.	7.9	7
36	Influence of the cationic form of an ion-exchange membrane in the permeability and solubility of methanol/water mixtures. Separation and Purification Technology, 2015, 148, 10-14.	7.9	7

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37	Testing a simple Lee's disc method for estimating throuh-plane thermal conductivity of polymeric ion-exchange membranes. International Journal of Heat and Mass Transfer, 2022, 184, 122295.	4.8	5
38	On the dependence of the thermal membrane potential across cation-exchange membranes on the mean temperature. Journal of Membrane Science, 1997, 134, 75-84.	8.2	4
39	Effect of an ac Perturbation on the Electroosmotic Behavior of a Cation-Exchange Membrane. Influence of the Cation Nature. Journal of Colloid and Interface Science, 2001, 240, 182-189.	9.4	4
40	Effect of an AC perturbation on a desalination electrodialysis process. Desalination, 2002, 142, 235-244.	8.2	4
41	Simultaneous electroosmotic and permeation flows through a Nafion membrane. Journal of Colloid and Interface Science, 2005, 288, 540-547.	9.4	4
42	Estimation of the through-plane thermal conductivity of polymeric ion-exchange membranes using finite element technique. International Journal of Heat and Mass Transfer, 2021, 176, 121469.	4.8	4
43	Influence of a Microwave Irradiation on the Swelling and Permeation Properties of a Nafion Membrane. Journal of Membrane and Separation Technology, 2015, 4, 32-39.	0.4	4
44	Two Methods for Determination of Transport Numbers in Ion-Exchange Membranes. International Journal of Thermophysics, 2022, 43, 1.	2.1	4
45	Methanol-Water Solution Transport in Nafion Membranes with Different Cationic Forms. Separation Science and Technology, 2011, 46, 944-949.	2.5	3
46	Viscoelastic deformation of sulfonated polymeric cation-exchange membranes exposed to a pressure gradient. Materials Chemistry and Physics, 2014, 146, 65-72.	4.0	3
47	Streaming Potential and Hydraulic Permeation Through Cation-Exchange Membranes. Journal of Non-Equilibrium Thermodynamics, 1997, 22, .	4.2	2
48	Determination of Diffusion Salt Flow Through Membranes from Measurements of Electric Conductance. Journal of Non-Equilibrium Thermodynamics, 1997, 22, .	4.2	2
49	Effect of the Temperature on the Electroosmotic Permeability of a Cation-Exchange Membrane. Journal of Colloid and Interface Science, 1997, 195, 114-120.	9.4	2
50	Testing the computer assisted solution of the electrical analogy in a heat transfer process with a phase change which has an analytical solution. International Journal of Refrigeration, 2002, 25, 532-537.	3.4	2
51	Study of the Internal Morphology of Cation-Exchange Membranes by Means of Electroosmotic Permeability Relaxations. Journal of Physical Chemistry B, 2009, 113, 12952-12957.	2.6	2
52	Short-Circuit Current in Polymeric Membrane-Based Thermocells: An Experimental Study. Membranes, 2021, 11, 480.	3.0	2
53	On the electrokinetic characterization of charged polymeric membranes by transversal streaming potential. Electrochimica Acta, 2021, 387, 138462.	5.2	2
54	Fluid flow modeling in a sulfonated cationâ€exchange membrane. Journal of Applied Polymer Science, 2009, 114, 1412-1416.	2.6	1

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55	Estimation of the temperature of a radiating body by measuring the stationary temperatures of a thermometer placed at different distances. European Journal of Physics, 2016, 37, 045104.	0.6	1
56	Electroosmotic Transport through a Cation-Exchange Membrane: Effect of the Stirring on the Dependence of the Electroosmotic Permeability on the Temperature. Journal of Colloid and Interface Science, 1999, 212, 65-73.	9.4	0
57	Electro-Osmotic Behavior of Polymeric Cation-Exchange Membranes in Ethanol-Water Solutions. Entropy, 2020, 22, 692.	2.2	0
58	Estimation of the filament temperature of an incandescent lamp from an energy balance in steady-state conditions. Journal of Thermal Analysis and Calorimetry, 2021, 144, 1381-1387.	3.6	0