Patrice Huguet

List of Publications by Year
in descending order

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Version: 2024-02-01

57 papers	1,456 citations	361413 20 h-index	330143 37 g-index
58 all docs	58 docs citations	58 times ranked	1365 citing authors

#	Article	IF	Citations
1	Intensive current transfer in membrane systems: Modelling, mechanisms and application in electrodialysis. Advances in Colloid and Interface Science, 2010, 160, 101-123.	14.7	292
2	Chronopotentiometry applied to the study of ion transfer through anion exchange membranes. Journal of Membrane Science, 2004, 228, 65-76.	8.2	126
3	Application of relaxation periods during electrodialysis of a casein solution: Impact on anion-exchange membrane fouling. Journal of Membrane Science, 2007, 287, 41-50.	8.2	85
4	3 In situ and operando determination of the water content distribution in proton conducting membranes for fuel cells: a critical review. Energy and Environmental Science, 2012, 5, 8824.	30.8	73
5	Determination of the pKa of poly (4-vinylpyridine)-based weak anion exchange membranes for the investigation of the side proton leakage. Journal of Membrane Science, 2009, 326, 650-658.	8.2	68
6	A top surface liquid layer during membrane formation using vapor-induced phase separation (VIPS)â€"Evidence and mechanism of formation. Journal of Membrane Science, 2008, 310, 278-288.	8.2	61
7	In situ analysis of water management in operating fuel cells by confocal Raman spectroscopy. Electrochemistry Communications, 2011, 13, 418-422.	4.7	53
8	Ageing of ion-exchange membranes used in electrodialysis: Investigation of static parameters, electrolyte permeability and tensile strength. Separation and Purification Technology, 2011, 80, 270-275.	7.9	42
9	In situ confocal-Raman measurement of water and methanol concentration profiles in NafionÂ® membrane under cross-transport conditions. Journal of Power Sources, 2008, 176, 39-45.	7.8	41
10	Effect of pulsed electric field on electrodialysis of a NaCl solution in sub-limiting current regime. Electrochimica Acta, 2015, 164, 267-280.	5.2	38
11	Solventâ€"Diluent Interaction-Mediated Solvation Structure of Localized High-Concentration Electrolytes. ACS Applied Materials & Interfaces, 2022, 14, 4211-4219.	8.0	34
12	Probing proton dissociation in ionic polymers by means of in situ ATR-FTIR spectroscopy. Physical Chemistry Chemical Physics, 2008, 10, 1577.	2.8	33
13	Mathematical modeling of transport properties of proton-exchange membranes containing immobilized nanoparticles. International Journal of Hydrogen Energy, 2016, 41, 15605-15614.	7.1	30
14	Electrochemical and Raman Spectroscopy Study of a Nafion Perfluorosulfonic Membrane in Organic Solventâ^'Water Mixtures. Journal of Physical Chemistry B, 2001, 105, 4151-4154.	2.6	28
15	In-Situ Measurement of Electroosmotic Drag Coefficient in Nafion Membrane for the PEMFC. Journal of Physical Chemistry B, 2011, 115, 12835-12844.	2.6	27
16	Depthâ€resolved microâ€Raman spectroscopy of triâ€layer PFSA membrane for PEM fuel cells: how to obtain reliable inner water contents. Journal of Raman Spectroscopy, 2013, 44, 321-328.	2.5	27
17	Swelling and permeability of NafionÂ®117 in waterâ€"methanol solutions: An experimental and modelling investigation. Journal of Membrane Science, 2011, 377, 54-64.	8.2	25
18	Insights from the Physicochemical and Electrochemical Screening of the Potentiality of the Chemically Synthesized Polyaniline. Journal of the Electrochemical Society, 2020, 167, 066503.	2.9	23

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19	Operando Î¼ -Raman study of the actual water content of perfluorosulfonic acid membranes in the fuel cell. Journal of Power Sources, 2017, 356, 200-211.	7.8	22
20	Artificial nucleation sites with stable SEI for Li metal anodes by aggressive Al pulverization. Nano Energy, 2020, 73, 104746.	16.0	22
21	Characterisation of cation exchange membrane in hydro-organic media by electrochemistry and Raman spectroscopy. Physical Chemistry Chemical Physics, 2001, 3, 1481-1485.	2.8	20
22	Raman Microspectroscopy as a Useful Tool for In Situ and Operando Studies of Water Transport in Perfluorosulfonic Membranes for PEMFCs. Fuel Cells, 2014, 14, 677-693.	2.4	19
23	Modeling of essential oils adsorption onto clays towards a better understanding of their interactions. Journal of Molecular Liquids, 2018, 249, 132-143.	4.9	19
24	Electromembrane process with pulsed electric field. Desalination, 2006, 199, 62-63.	8.2	18
25	Behaviour of the calibration of a Raman spectrometer with temperature changes. Journal of Raman Spectroscopy, 1997, 28, 785-789.	2.5	17
26	Upstream microelectrodialysis for heavy metals detection on boron doped diamond. Journal of Electroanalytical Chemistry, 2012, 670, 50-55.	3.8	17
27	The crossed interdiffusion of sodium nitrate and sulfate through an anion exchange membrane, as studied by Raman spectroscopy. New Journal of Chemistry, 2005, 29, 955.	2.8	16
28	Non-linear analysis in estimating model parameters for thymol adsorption onto hydroxyiron-clays. Journal of Molecular Liquids, 2017, 244, 201-210.	4.9	16
29	Physicochemical and electrochemical characterization of Nafion-type membranes with embedded silica nanoparticles: Effect of functionalization. Electrochimica Acta, 2021, 370, 137689.	5.2	15
30	Contribution of Raman Spectroscopy to the Comprehension of Limiting Phenomena Occurring with a Vinylpyridinium Anion Exchange Membrane during the Electrolysis of Cr(VI) Solutions. Journal of Physical Chemistry B, 1999, 103, 11366-11371.	2.6	14
31	Influence of Compressive Stress on the Water Content of Perfluorosulphonated Membranes: A Î¼â€Raman Study. Fuel Cells, 2012, 12, 162-168.	2.4	14
32	Protonation and diffusion phenomena in poly(4-vinylpyridine)-based weak anion-exchange membranes. Journal of Membrane Science, 2009, 340, 257-265.	8.2	13
33	Nanostructured Carbon-Nitrogen-Sulfur-Nickel Networks Derived From Polyaniline as Bifunctional Catalysts for Water Splitting. Frontiers in Chemistry, 2020, 8, 385.	3.6	13
34	Confocal Raman micro-spectroscopy and electrochemical investigation of anion transport through ion-exchange membranes. Desalination, 2002, 149, 429-433.	8.2	11
35	Asymmetric bi-layer PFSA membranes as model systems for the study of water management in the PEMFC. Physical Chemistry Chemical Physics, 2014, 16, 20941-20956.	2.8	11
36	Raman spectroscopy investigation and improved knowledge on industrial cation-exchange membranes involved in electrodialysis process. Journal of Molecular Structure, 1996, 379, 219-226.	3.6	10

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37	Mathematical modeling of concentration dependences of electric conductivity and diffusion permeability of anion-exchange membranes soaked in wine. Petroleum Chemistry, 2017, 57, 511-517.	1.4	9
38	Method for the determination of spectral shifts in Raman spectroscopy. Journal of Raman Spectroscopy, 1995, 26, 243-253.	2.5	8
39	Title is missing!. Journal of Applied Electrochemistry, 1999, 29, 371-382.	2.9	8
40	Developing a Macroscopic Mechanistic Model for Low Molecular Weight Diffusion through Polymers in the Rubbery State. Industrial & Engineering Chemistry Research, 2016, 55, 5078-5089.	3.7	7
41	The poisoning effect of mercury complexes with an anionic exchange membrane used in an electrodialysis process: a Raman study. New Journal of Chemistry, 1998, 22, 233-235.	2.8	5
42	Operando Âµ-Raman study of the membrane water content in the polymer electrolyte membrane fuel cell: Effects of gas flow-field geometry and temperature. Electrochimica Acta, 2021, 372, 137904.	5.2	4
43	Finalization and illustration of indirect Raman difference spectroscopy. Journal of Raman Spectroscopy, 1998, 29, 353-358.	2.5	3
44	In situ confocal-Raman imagery of ion and solvent transport through an ion-exchange membrane. Desalination, 2006, 200, 173-174.	8.2	3
45	Effect of pulsed electric field on anion-exchange membrane fouling during electrodialysis of a casein solution. Desalination, 2006, 200, 208-209.	8.2	3
46	Accurate relative calibration of a multi-channel Raman spectrometer. Journal of Raman Spectroscopy, 1995, 26, 325-326.	2.5	2
47	Determination of the temperature of a gas by a simple and accurate Raman method. Journal of Raman Spectroscopy, 1995, 26, 327-329.	2.5	2
48	Confocal Raman Microscopy for Membrane Content Visualization. , 0, , 127-149.		2
49	Study of ionic transport in anion-exchange membranes: relationship between structure and transport properties. Desalination, 2006, 200, 155-156.	8.2	1
50	Effect of coating and plasma treatments on the induced coupled plasma-reactive ionic etching of boron-doped diamond for microelectromechanical systems (MEMS) applications. Nanoscience Methods, 2014, 3, 1-10.	1.0	1
51	Microanalytical System for Concentration by Microelectrodialysis and Electrodetection on Boron Doped Diamond. Sensor Letters, 2011, 9, 2305-2308.	0.4	1
52	Chemical Vapor Deposition of Thick Tungsten Coatings: Mass Transport Modelling and Experiments. Journal De Physique III, 1995, 5, 1145-1160.	0.3	1
53	Operando Î¼-Raman Measurement of Water Distribution Along and Across the Membrane in a Fuel Cell. Journal of the Electrochemical Society, 2022, 169, 074502.	2.9	1
54	Determination of shifts by means of the absolute area of the difference spectrum: cases of non-rigorous application of the theory. Journal of Molecular Structure, 2000, 526, 309-315.	3.6	0

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55	Fuel Cell Performance and Water Transport Properties of Asymmetric Bi-Layer Proton Conducting Membranes. ECS Meeting Abstracts, 2012, , .	0.0	0
56	In situ Î¼-Raman spectroscopy study of an isolated micrometer-size pseudo-single crystal of Î²-H2NiO2 under electrochemical operation. Ionics, 2014, 20, 593-599.	2.4	0
57	Chemical Vapour Deposition of Thick Tungsten Coatings : Raman Measurements and Mass Transport Modelling. European Physical Journal Special Topics, 1995, 05, C5-143-C5-150.	0.2	0