

Pierre Aimar

List of Publications by Year in descending order

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106
papers

5,882
citations

61857

43
h-index

76769

74
g-index

109
all docs

109
docs citations

109
times ranked

4282
citing authors

#	ARTICLE	IF	CITATIONS
1	Self-Cleaning Interfaces of Polydimethylsiloxane Grafted with pH-Responsive Zwitterionic Copolymers. <i>Langmuir</i> , 2019, 35, 1357-1368.	1.6	24
2	New membranes based on polyethersulfone “SlipSkin”, polymer blends with low fouling and high blood compatibility. <i>Separation and Purification Technology</i> , 2019, 225, 60-73.	3.9	22
3	A zwitterionic interpenetrating network for improving the blood compatibility of polypropylene membranes applied to leukodepletion. <i>Journal of Membrane Science</i> , 2019, 584, 148-160.	4.1	30
4	Healing kinetics of diabetic wounds controlled with charge-biased hydrogel dressings. <i>Journal of Materials Chemistry B</i> , 2019, 7, 7184-7194.	2.9	12
5	A Nondestructive Surface Zwitterionization of Polydimethylsiloxane for the Improved Human Blood-inert Properties. <i>ACS Applied Bio Materials</i> , 2019, 2, 39-48.	2.3	12
6	Bioinspired Pseudozwitterionic Hydrogels with Bioactive Enzyme Immobilization via pH-Responsive Regulation. <i>Langmuir</i> , 2019, 35, 1909-1918.	1.6	17
7	Specific energy requirement of direct contact membrane distillation. <i>Chemical Engineering Research and Design</i> , 2017, 128, 15-26.	2.7	39
8	Insight into the transport mechanism of solute removed in dialysis by a membrane with double functionality. <i>Chemical Engineering Research and Design</i> , 2017, 126, 97-108.	2.7	6
9	Preparation of multifunctional hollow fiber nanofiltration membranes by dynamic assembly of weak polyelectrolyte multilayers. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2017, 533, 286-295.	2.3	27
10	Effect of operational parameters on the performance of a magnetic responsive biocatalytic membrane reactor. <i>Chemical Engineering Journal</i> , 2017, 308, 853-862.	6.6	19
11	FTIR mapping as a simple and powerful approach to study membrane coating and fouling. <i>Journal of Membrane Science</i> , 2016, 520, 477-489.	4.1	29
12	Pectinases immobilization on magnetic nanoparticles and their anti-fouling performance in a biocatalytic membrane reactor. <i>RSC Advances</i> , 2016, 6, 98737-98747.	1.7	29
13	Antifouling pseudo-zwitterionic poly(vinylidene fluoride) membranes with efficient mixed-charge surface grafting via glow dielectric barrier discharge plasma-induced copolymerization. <i>Journal of Membrane Science</i> , 2016, 516, 13-25.	4.1	83
14	Characterization of <i>Skeletonema costatum</i> intracellular organic matter and study of nanomechanical properties under different solution conditions. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2016, 506, 154-161.	2.3	5
15	Design of PVDF/PEGMA-b-PS-b-PEGMA membranes by VIPS for improved biofouling mitigation. <i>Journal of Membrane Science</i> , 2016, 510, 355-369.	4.1	40
16	Effect of module design and flow patterns on performance of membrane distillation process. <i>Chemical Engineering Journal</i> , 2015, 277, 368-377.	6.6	42
17	Hemocompatibility of PVDF/PS-b-PEGMA membranes prepared by LIPS process. <i>Journal of Membrane Science</i> , 2015, 477, 101-114.	4.1	41
18	Low-biofouling membranes prepared by liquid-induced phase separation of the PVDF/polystyrene-b-poly (ethylene glycol) methacrylate blend. <i>Journal of Membrane Science</i> , 2014, 450, 340-350.	4.1	129

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19	Fabricating hemocompatible bi-continuous PEGylated PVDF membranes via vapor-induced phase inversion. <i>Journal of Membrane Science</i> , 2014, 470, 18-29.	4.1	48
20	Pilot scale study of chlorination-induced transport property changes of a seawater reverse osmosis membrane. <i>Desalination</i> , 2013, 311, 24-30.	4.0	17
21	Human hepatic cell behavior on polysulfone membrane with double porosity level. <i>Journal of Membrane Science</i> , 2013, 428, 454-461.	4.1	9
22	Surface Self-Assembled PEGylation of Fluoro-Based PVDF Membranes via Hydrophobic-Driven Copolymer Anchoring for Ultra-Stable Biofouling Resistance. <i>Langmuir</i> , 2013, 29, 10183-10193.	1.6	74
23	Mass transfer in a membrane aerated biofilm. <i>Water Research</i> , 2012, 46, 4761-4769.	5.3	17
24	Accelerated Ageing of Crosslinked Polyamide Membranes. <i>Procedia Engineering</i> , 2012, 44, 789.	1.2	2
25	Mass transfer properties of chlorinated aromatic polyamide reverse osmosis membranes. <i>Separation and Purification Technology</i> , 2012, 101, 60-67.	3.9	9
26	Protocol for the assessment of viral retention capability of membranes. <i>Journal of Membrane Science</i> , 2011, 381, 41-49.	4.1	5
27	Permeability and chemical analysis of aromatic polyamide based membranes exposed to sodium hypochlorite. <i>Journal of Membrane Science</i> , 2011, 375, 220-230.	4.1	121
28	Colloidal surface interactions and membrane fouling: Investigations at pore scale. <i>Advances in Colloid and Interface Science</i> , 2011, 164, 2-11.	7.0	101
29	Effects of Ionic Strength on Bacteriophage MS2 Behavior and Their Implications for the Assessment of Virus Retention by Ultrafiltration Membranes. <i>Applied and Environmental Microbiology</i> , 2011, 77, 229-236.	1.4	38
30	Towards green membranes: preparation of cellulose acetate ultrafiltration membranes using methyl lactate as a biosolvent. <i>International Journal of Sustainable Engineering</i> , 2011, 4, 75-83.	1.9	63
31	Slow colloidal aggregation and membrane fouling. <i>Journal of Membrane Science</i> , 2010, 360, 70-76.	4.1	50
32	Effects of membrane alterations on bacterial retention. <i>Journal of Membrane Science</i> , 2010, 348, 56-65.	4.1	13
33	Polyelectrolyte multilayer films as backflushable nanofiltration membranes with tunable hydrophilicity and surface charge. <i>Journal of Membrane Science</i> , 2010, 349, 268-278.	4.1	75
34	Calibration of ultrafiltration membranes against size exclusion chromatography columns. <i>Journal of Membrane Science</i> , 2010, 346, 233-239.	4.1	8
35	Adsorption of MS2 bacteriophage on ultrafiltration membrane laboratory equipments. <i>Desalination</i> , 2010, 250, 762-766.	4.0	12
36	Effects of ionic strength on bacteriophage MS2 behavior: implications on the assessment of virus retention by ultrafiltration membranes. , 2010, , .		0

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37	Potable water production by membrane processes: membrane characterization using a series of bacterial strains. <i>Water Science and Technology: Water Supply</i> , 2009, 9, 405-412.	1.0	2
38	Role of the cell-wall structure in the retention of bacteria by microfiltration membranes. <i>Journal of Membrane Science</i> , 2009, 326, 178-185.	4.1	92
39	Filtration method characterizing the reversibility of colloidal fouling layers at a membrane surface: Analysis through critical flux and osmotic pressure. <i>Journal of Colloid and Interface Science</i> , 2008, 320, 483-490.	5.0	29
40	Coagulation and flocculation of laterite suspensions with low levels of aluminium chloride and polyacrylamids. <i>Chemical Engineering and Processing: Process Intensification</i> , 2008, 47, 1509-1519.	1.8	16
41	Ageing of polysulfone membranes in contact with bleach solution: Role of radical oxidation and of some dissolved metal ions. <i>Chemical Engineering and Processing: Process Intensification</i> , 2008, 47, 48-56.	1.8	76
42	Analysing flux decline in dead-end filtration. <i>Chemical Engineering Research and Design</i> , 2008, 86, 1281-1293.	2.7	94
43	Retention of Bentonite in Granular Natural Pozzolan: Implications for Water Filtration. <i>Separation Science and Technology</i> , 2008, 43, 1621-1631.	1.3	1
44	A new combination of a membrane and a photocatalytic reactor for the depollution of turbid water. <i>Applied Catalysis B: Environmental</i> , 2007, 72, 197-204.	10.8	86
45	Removal of bisphenol A by a nanofiltration membrane in view of drinking water production. <i>Water Research</i> , 2006, 40, 3793-3799.	5.3	177
46	Numerical simulation of colloidal dispersion filtration: description of critical flux and comparison with experimental results. <i>Desalination</i> , 2006, 192, 74-81.	4.0	28
47	Degradation of polysulfone membranes due to contact with bleaching solution. <i>Desalination</i> , 2006, 199, 70-72.	4.0	19
48	Membrane processes for water disinfection: investigation on bacterial transfer mechanisms. <i>Desalination</i> , 2006, 199, 81-83.	4.0	9
49	Experimental study of the effects of hypochlorite on polysulfone membrane properties. <i>Journal of Membrane Science</i> , 2006, 277, 137-147.	4.1	124
50	Critical and sustainable fluxes: Theory, experiments and applications. <i>Journal of Membrane Science</i> , 2006, 281, 42-69.	4.1	626
51	Distributions of critical flux: modelling, experimental analysis and consequences for cross-flow membrane filtration. <i>Journal of Membrane Science</i> , 2005, 250, 223-234.	4.1	31
52	Membrane photoreactor (MPR) for the mineralisation of organic pollutants from turbid effluents. <i>Journal of Membrane Science</i> , 2005, 258, 71-77.	4.1	17
53	Critical fouling conditions induced by colloidal surface interaction: from causes to consequences. <i>Desalination</i> , 2005, 175, 21-27.	4.0	31
54	Dichloroaniline retention by nanofiltration membranes. <i>Water Research</i> , 2005, 39, 1594-1600.	5.3	45

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55	Improvement of a method for the characterization of ultrafiltration membranes by measurements of tracers retention. <i>Journal of Membrane Science</i> , 2004, 238, 177-190.	4.1	58
56	The origin of high hydraulic resistance for filter cakes of deformable particles: cell-bed deformation or surface-layer effect?. <i>Chemical Engineering Science</i> , 2004, 59, 5819-5829.	1.9	37
57	Filtration of yeast suspensions: experimental observations and modelling of dead-end filtration with a compressible cake. <i>Desalination</i> , 2002, 147, 19-23.	4.0	9
58	Modelling of filtration: from the polarised layer to deposit formation and compaction. <i>Desalination</i> , 2002, 145, 139-146.	4.0	53
59	On an experimental method to measure critical flux in ultrafiltration. <i>Desalination</i> , 2002, 146, 91-96.	4.0	134
60	Cake collapse in frontal filtration of colloidal aggregates: mechanisms and consequences. <i>Desalination</i> , 2002, 146, 155-161.	4.0	14
61	Study of the effects of defects in ultrafiltration membranes on the water flux and the molecular weight cut-off. <i>Desalination</i> , 2002, 149, 485-491.	4.0	28
62	Modelling of the conversion of weak organic acids by bipolar membrane electrodialysis. <i>Desalination</i> , 2002, 149, 399-404.	4.0	20
63	A unifying model for concentration polarization, gel-layer formation and particle deposition in cross-flow membrane filtration of colloidal suspensions. <i>Chemical Engineering Science</i> , 2002, 57, 77-91.	1.9	188
64	Cake Collapse in Pressure Filtration. <i>Langmuir</i> , 2001, 17, 7137-7144.	1.6	51
65	Protein fractionation using selective adsorption on clay surface before filtration. <i>Journal of Membrane Science</i> , 2001, 186, 165-181.	4.1	49
66	Production processes of fermented organic acids targeted around membrane operations: design of the concentration step by conventional electrodialysis. <i>Journal of Membrane Science</i> , 2001, 191, 129-142.	4.1	69
67	An experimental study of caseinomacropptide hydrolysis by trypsin in a continuous membrane reactor. <i>Biochemical Engineering Journal</i> , 2001, 8, 195-202.	1.8	31
68	Structural characterisation of deposits formed during frontal filtration. <i>Journal of Membrane Science</i> , 2000, 174, 189-204.	4.1	58
69	Application of a convection-diffusion-electrophoretic migration model to ultrafiltration of lysozyme at different pH values and ionic strengths. <i>Journal of Membrane Science</i> , 2000, 179, 163-174.	4.1	38
70	Ultrafiltration of an olive oil emulsion stabilized by an anionic surfactant. <i>Journal of Membrane Science</i> , 2000, 166, 177-188.	4.1	37
71	Fractionation of model proteins using their physicochemical properties. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 1998, 138, 185-205.	2.3	85
72	Coagulation of colloids in a boundary layer during cross-flow filtration. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 1998, 138, 217-230.	2.3	42

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73	Experimental determination of four characteristics used to predict the retention of a ceramic nanofiltration membrane. <i>Journal of Membrane Science</i> , 1997, 129, 147-160.	4.1	51
74	Modification of clay cake permeability by adsorption of protein. <i>Journal of Membrane Science</i> , 1997, 137, 31-44.	4.1	35
75	Whey protein fractionation: Isoelectric precipitation of β -lactalbumin under gentle heat treatment. , 1997, 56, 391-397.		68
76	Optimisation of a whey protein fractionation process based on the selective precipitation of β -lactalbumin. <i>Dairy Science and Technology</i> , 1997, 77, 411-423.	0.9	48
77	Coagulation of colloids retained by porous wall. <i>AIChE Journal</i> , 1996, 42, 3523-3532.	1.8	51
78	Influence of surface interaction on transfer during colloid ultrafiltration. <i>Journal of Membrane Science</i> , 1996, 115, 49-63.	4.1	93
79	A comment on the concentration polarization build-up in hollow fibers. <i>Journal of Membrane Science</i> , 1996, 114, 131-133.	4.1	1
80	Model for colloidal fouling of membranes. <i>AIChE Journal</i> , 1995, 41, 368-376.	1.8	243
81	Thermal isoelectric precipitation of β -lactalbumin from a whey protein concentrate: Influence of protein-calcium complexation. <i>Biotechnology and Bioengineering</i> , 1995, 47, 121-130.	1.7	47
82	An appropriate molecular size parameter for porous membranes calibration. <i>Journal of Membrane Science</i> , 1995, 103, 105-115.	4.1	97
83	Continuous monitoring of sodium concentration in blood during haemodialysis by a selective membrane and conductivity sensor. <i>Sensors and Actuators B: Chemical</i> , 1995, 27, 465-467.	4.0	7
84	Use of the log-normal probability density function to analyze membrane pore size distributions: functional forms and discrepancies. <i>Journal of Membrane Science</i> , 1994, 91, 293-298.	4.1	136
85	Study of streaming potentials of clean and fouled ultrafiltration membranes. <i>Journal of Membrane Science</i> , 1994, 88, 211-222.	4.1	86
86	Transmission of bio-molecules through porous membranes triggered by an external electric field. <i>Journal of Controlled Release</i> , 1994, 29, 113-123.	4.8	4
87	A simulation study of the adsorption-concentration polarisation interplay in protein ultrafiltration. <i>Chemical Engineering Science</i> , 1993, 48, 2753-2765.	1.9	48
88	Separation albumin-PEG: Transmission of PEG through ultrafiltration membranes. <i>Biotechnology and Bioengineering</i> , 1993, 41, 1039-1047.	1.7	38
89	Diffusive flows in ultrafiltration and their effect on membrane retention properties. <i>Journal of Membrane Science</i> , 1993, 80, 73-83.	4.1	6
90	Ideal limiting fluxes in ultrafiltration: comparison of various theoretical relationships. <i>Journal of Membrane Science</i> , 1993, 80, 107-115.	4.1	60

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91	Enhanced separation of albumin-poly(ethylene glycol) by combination of ultrafiltration and electrophoresis. <i>Journal of Membrane Science</i> , 1993, 80, 221-232.	4.1	35
92	Comparative study of micro- and ultrafiltration membranes using STM, AFM and SEM techniques. <i>Ultramicroscopy</i> , 1992, 41, 235-244.	0.8	32
93	First investigations on the use of scanning tunnelling microscopy (STM) for the characterisation of porous membranes. <i>Journal of Membrane Science</i> , 1992, 67, 295-300.	4.1	10
94	Ultrafiltration of bentonite suspensions with hollow fiber membranes. <i>Journal of Membrane Science</i> , 1992, 74, 51-69.	4.1	26
95	Limiting flux in membrane separations: A model based on the viscosity dependency of the mass transfer coefficient. <i>Chemical Engineering Science</i> , 1992, 47, 579-586.	1.9	99
96	Concentration polarisation build-up in hollow fibers: a method of measurement and its modelling in ultrafiltration. <i>Journal of Membrane Science</i> , 1991, 59, 81-99.	4.1	38
97	Effects of protein fouling on the apparent pore size distribution of sieving membranes. <i>Journal of Membrane Science</i> , 1991, 56, 13-28.	4.1	89
98	Albumin denaturation during ultrafiltration: Effects of operating conditions and consequences on membrane fouling. <i>Biotechnology and Bioengineering</i> , 1991, 38, 528-534.	1.7	135
99	Membrane Partition and Mass Transfer in Ultrafiltration. <i>Separation Science and Technology</i> , 1990, 25, 507-534.	1.3	10
100	A contribution to the translation of retention curves into pore size distributions for sieving membranes. <i>Journal of Membrane Science</i> , 1990, 54, 321-338.	4.1	191
101	Yeast cell harvesting from cider using microfiltration. <i>Journal of Chemical Technology and Biotechnology</i> , 1990, 47, 365-376.	1.6	21
102	Role of some whey components on mass transfer in ultrafiltration. <i>Biotechnology and Bioengineering</i> , 1989, 34, 171-179.	1.7	37
103	Transfer of dextran through ultrafiltration membranes: a study of rejection data analysed by gel permeation chromatography. <i>Journal of Membrane Science</i> , 1989, 45, 17-36.	4.1	73
104	Mass transfer limitations during ultrafiltration of cheese whey with inorganic membranes. <i>Journal of Membrane Science</i> , 1988, 38, 203-221.	4.1	70
105	Membrane-solute interactions: influence on pure solvent transfer during ultrafiltration. <i>Journal of Membrane Science</i> , 1986, 29, 207-224.	4.1	81
106	A novel approach to transfer-limiting phenomena during ultrafiltration of macromolecules. <i>Industrial & Engineering Chemistry Fundamentals</i> , 1986, 25, 789-798.	0.7	39