Andrew L Zydney

List of Publications by Year
in descending order

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260 papers	15,245 citations	22153 59 h-index	22832 112 g-index
272 all docs	272 docs citations	272 times ranked	8375 citing authors

#	Article	IF	Citations
1	The behavior of suspensions and macromolecular solutions in crossflow microfiltration. Journal of Membrane Science, 1994, 96, 1-58.	8.2	1,180
2	A Combined Pore Blockage and Cake Filtration Model for Protein Fouling during Microfiltration. Journal of Colloid and Interface Science, 2000, 232, 389-399.	9.4	650
3	Bioprocess membrane technology. Journal of Membrane Science, 2007, 297, 16-50.	8.2	637
4	Humic Acid Fouling during Ultrafiltration. Environmental Science & Technology, 2000, 34, 5043-5050.	10.0	396
5	Membrane separations in biotechnology. Current Opinion in Biotechnology, 2001, 12, 208-211.	6.6	379
6	Tight ultrafiltration membranes for enhanced separation of dyes and Na2SO4 during textile wastewater treatment. Journal of Membrane Science, 2016, 514, 217-228.	8.2	378
7	Humic acid fouling during microfiltration. Journal of Membrane Science, 1999, 157, 1-12.	8.2	375
8	Permeability and selectivity analysis for ultrafiltration membranes. Journal of Membrane Science, 2005, 249, 245-249.	8.2	337
9	A CONCENTRATION POLARIZATION MODEL FOR THE FILTRATE FLUX IN CROSS-FLOW MICROFILTRATION OF PARTICULATE SUSPENSIONS. Chemical Engineering Communications, 1986, 47, 1-21.	2.6	306
10	Polyacrylamide degradation and its implications in environmental systems. Npj Clean Water, 2018, 1, .	8.0	271
11	Diffusive and convective protein transport through asymmetric membranes. AICHE Journal, 1991, 37, 1497-1510.	3.6	244
12	Continuous downstream processing for high value biological products: A Review. Biotechnology and Bioengineering, 2016, 113, 465-475.	3.3	224
13	Effect of solution pH and ionic strength on the separation of albumin from immunoglobulins (IgG) by selective filtration. Biotechnology and Bioengineering, 1994, 43, 960-968.	3.3	219
14	Protein Separations Using Membrane Filtration: New Opportunities for Whey Fractionation. International Dairy Journal, 1998, 8, 243-250.	3.0	208
15	Stagnant film model for concentration polarization in membrane systems. Journal of Membrane Science, 1997, 130, 275-281.	8.2	205
16	Analysis of humic acid fouling during microfiltration using a pore blockageâ€“cake filtration model. Journal of Membrane Science, 2002, 198, 51-62.	8.2	200
17	Mechanisms for BSA fouling during microfiltration. Journal of Membrane Science, 1995, 107, 115-127.	8.2	197
18	Nanoscale control of internal inhomogeneity enhances water transport in desalination membranes. Science, 2021, 371, 72-75.	12.6	193

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19	Effect of membrane morphology on the initial rate of protein fouling during microfiltration. Journal of Membrane Science, 1999, 155, 261-275.	8.2	176
20	Effect of electrostatic, hydrodynamic, and Brownian forces on particle trajectories and sieving in normal flow filtration. Journal of Colloid and Interface Science, 2004, 269, 425-431.	9.4	166
21	High performance tangential flow filtration. , 1997, 56, 71-82.		156
22	Impact of Undergraduate Research Experience in Engineering. Journal of Engineering Education, 2002, 91, 151-157.	3.0	156
23	The influence of protein aggregates on the fouling of microfiltration membranes during stirred cell filtration. Journal of Membrane Science, 1993, 80, 175-187.	8.2	154
24	High-performance silicon nanopore hemofiltration membranes. Journal of Membrane Science, 2009, 326, 58-63.	8.2	151
25	A two-stage ultrafiltration process for fractionation of whey protein isolate. Journal of Membrane Science, 2004, 231, 159-167.	8.2	145
26	Fouling behavior of zwitterionic membranes: Impact of electrostatic and hydrophobic interactions. Journal of Membrane Science, 2014, 452, 97-103.	8.2	143
27	Use of the log-normal probability density function to analyze membrane pore size distributions: functional forms and discrepancies. Journal of Membrane Science, 1994, 91, 293-298.	8.2	136
28	Effects of solution environment on humic acid fouling during microfiltration. Desalination, 1999, 122, 63-76.	8.2	121
29	Effects of intermolecular thiol-disulfide interchange reactions on bsa fouling during microfiltration. Biotechnology and Bioengineering, 1994, 44, 972-982.	3.3	117
30	Permeabilityâ€“selectivity analysis for ultrafiltration: Effect of pore geometry. Journal of Membrane Science, 2010, 349, 405-410.	8.2	117
31	Protein fractionation using electrostatic interactions in membranel filtration. Biotechnology and Bioengineering, 1995, 48, 406-414.	3.3	110
32	Theoretical analysis of pore size distribution effects on membrane transport. Journal of Membrane Science, 1993, 82, 211-227.	8.2	108
33	Electrostatic and Electrokinetic Interactions during Protein Transport through Narrow Pore Membranes. Industrial & Engineering Chemistry Research, 1994, 33, 2473-2482.	3.7	107
34	Ultrafiltration membrane performance: Effects of pore blockage/constriction. Journal of Membrane Science, 2013, 434, 106-120.	8.2	107
35	Effect of solution pH on protein transport through ultrafiltration membranes. , 1999, 64, 27-37.		106
36	Electrostatic effects on protein partitioning in size-exclusion chromatography and membrane ultrafiltration. Journal of Chromatography A, 1998, 796, 229-238.	3.7	105

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37	Boundary Effects on the Electrophoretic Motion of a Charged Particle in a Spherical Cavity. Journal of Colloid and Interface Science, 1995, 169, 476-485.	9.4	103
38	Protein fouling during microfiltration: Comparative behavior of different model proteins. , 1997, 55, 91-100.		100
39	Separation of ?-lactalbumin and ?-lactoglobulin using membrane ultrafiltration. Biotechnology and Bioengineering, 2003, 83, 201-209.	3.3	99
40	Transmembrane pressure profiles during constant flux microfiltration of bovine serum albumin. Journal of Membrane Science, 2002, 209, 363-377.	8.2	96
41	Protein adsorption in asymmetric ultrafiltration membranes with highly constricted pores. Journal of Colloid and Interface Science, 1990, 134, 563-575.	9.4	95
42	Bench-scale testing of surfactant-modified reverse osmosis/nanofiltration membranes. Desalination, 1998, 115, 15-32.	8.2	95
43	Intermolecular electrostatic interactions and their effect on flux and protein deposition during protein filtration. Biotechnology Progress, 1994, 10, 207-213.	2.6	94
44	Perspectives on integrated continuous bioprocessingâ€"opportunities and challenges. Current Opinion in Chemical Engineering, 2015, 10, 8-13.	7.8	92
45	Effect of Membrane Charge on Flow and Protein Transport during Ultrafiltration. Biotechnology Progress, 2006, 22, 484-492.	2.6	91
46	Hydraulic permeability of protein layers deposited during ultrafiltration. Journal of Colloid and Interface Science, 1991, 142, 41-60.	9.4	90
47	Dextran transport through asymmetric ultrafiltration membranes: Comparison with hydrodynamic models. Journal of Membrane Science, 1992, 68, 21-41.	8.2	89
48	Contributions to electrostatic interactions on protein transport in membrane systems. AICHE Journal, 2001, 47, 1101-1114.	3.6	82
49	Theoretical analysis of convective flow profiels in a hollow-fiber membrane bioreactor. Chemical Engineering Science, 1990, 45, 3211-3220.	3.8	79
50	Faculty Perspectives Regarding the Undergraduate Research Experience in Science and Engineering. Journal of Engineering Education, 2002, 91, 291-297.	3.0	77
51	Charge Regulation and Electrostatic Interactions for a Spherical Particle in a Cylindrical Pore. Journal of Colloid and Interface Science, 1997, 192, 338-349.	9.4	76
52	Compaction and permeability effects with virus filtration membranes. Journal of Membrane Science, 2005, 254, 71-79.	8.2	76
53	Fouling of microfiltration membranes by flowback and produced waters from the Marcellus shale gas play. Water Research, 2016, 99, 162-170.	11.3	76
54	Application of a pore-blockage?Cake-filtration model to protein fouling during microfiltration. Biotechnology and Bioengineering, 2002, 79, 260-270.	3.3	72

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55	Role of electrostatic interactions during protein ultrafiltration. Advances in Colloid and Interface Science, 2010, 160, 40-48.	14.7	72
56	Flux-dependent transmission of supercoiled plasmid DNA through ultrafiltration membranes. Journal of Membrane Science, 2007, 294, 169-177.	8.2	71
57	Improving dextran tests for ultrafiltration membranes: Effect of device format. Journal of Membrane Science, 2007, 291, 180-190.	8.2	69
58	Measurement of Protein Charge and Ion Binding Using Capillary Electrophoresis. Analytical Chemistry, 1998, 70, 1581-1584.	6.5	68
59	Chemical Degradation of Polyacrylamide during Hydraulic Fracturing. Environmental Science & Technology, 2018, 52, 327-336.	10.0	68
60	Protein-Membrane Interactions During Hemodialysis Effects on Solute Transport. ASAIO Journal, 1998, 44, 319-326.	1.6	66
61	Recovery of small dye molecules from aqueous solutions using charged ultrafiltration membranes. Journal of Hazardous Materials, 2015, 284, 58-64.	12.4	65
62	Effect of bleach on the transport characteristics of polysulfone hemodialyzers. Journal of Membrane Science, 2004, 243, 389-399.	8.2	62
63	Effects of membrane pore geometry on fouling behavior during yeast cell microfiltration. Journal of Membrane Science, 2006, 285, 334-342.	8.2	61
64	Hydraulic permeability of protein deposits formed during microfiltration: effect of solution pH and ionic strength. Journal of Membrane Science, 1994, 95, 71-81.	8.2	60
65	Determination of Effective Protein Charge by Capillary Electrophoresis:Â Effects of Charge Regulation in the Analysis of Charge Ladders. Analytical Chemistry, 2000, 72, 5714-5717.	6.5	60
66	Influence of proteinâ€“protein interactions on bulk mass transport during ultrafiltration. Journal of Membrane Science, 1997, 125, 93-108.	8.2	59
67	Development and characterization of nanoporous carbon membranes for protein ultrafiltration. Journal of Membrane Science, 2007, 295, 40-49.	8.2	57
68	Intermolecular Interactions and the Viscosity of Highly Concentrated Monoclonal Antibody Solutions. Pharmaceutical Research, 2015, 32, 3102-3109.	3.5	57
69	Protein Fouling of Asymmetric and Composite Microfiltration Membranes. Industrial & Engineering Chemistry Research, 2001, 40, 1412-1421.	3.7	55
70	Staging of affinity ultrafiltration processes for chiral separations. Journal of Membrane Science, 2002, 209, 107-119.	8.2	53
71	Membrane technology for purification of therapeutic proteins. Biotechnology and Bioengineering, 2009, 103, 227-230.	3.3	53
72	Separation of PEGylated Î±â€Łactalbumin from Unreacted Precursors and Byproducts Using Ultrafiltration. Biotechnology Progress, 2007, 23, 1417-1424.	2.6	50

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73	Theoretical analysis of particle trajectories and sieving in a two-dimensional cross-flow filtration system. Journal of Membrane Science, 2006, 281, 666-675.	8.2	49
74	Radius of gyration of plasmid DNA isoforms from static light scattering. Biotechnology and Bioengineering, 2010, 107, 134-142.	3.3	49
75	Characterizing the surface charge of synthetic nanomembranes by the streaming potential method. Journal of Colloid and Interface Science, 2010, 348, 85-95.	9.4	49
76	Effect of Blood Contact on the Transport Properties of Hemodialysis Membranes: A Two-Layer Membrane Model. Blood Purification, 1994, 12, 292-307.	1.8	48
77	Effect of ionic environment on BSA filtration and the properties of BSA deposits. Desalination, 1993, 90, 147-159.	8.2	44
78	High throughput screening for membrane process development. Journal of Membrane Science, 2004, 237, 181-188.	8.2	44
79	Probing effects of pressure release on virus capture during virus filtration using confocal microscopy. Biotechnology and Bioengineering, 2015, 112, 2115-2122.	3.3	44
80	New developments in membranes for bioprocessing â€“ A review. Journal of Membrane Science, 2021, 620, 118804.	8.2	44
81	A Facile Surface Modification for Antifouling Reverse Osmosis Membranes Using Polydopamine under UV Irradiation. Industrial & Engineering Chemistry Research, 2017, 56, 5756-5760.	3.7	44
82	Protein Fouling of Virus Filtration Membranes: Effects of Membrane Orientation and Operating Conditions. Biotechnology Progress, 2006, 22, 1163-1169.	2.6	43
83	Ultrafiltration membrane synthesis by nanoscale templating of porous carbon. Journal of Membrane Science, 2002, 198, 173-186.	8.2	42
84	Measurement of membrane pore interconnectivity. Journal of Membrane Science, 2000, 170, 101-112.	8.2	40
85	Diffusive Silicon Nanopore Membranes for Hemodialysis Applications. PLoS ONE, 2016, 11, e0159526.	2.5	40
86	Scale-up of microfiltration systems: fouling phenomena and Vmax analysis. Desalination, 2002, 146, 75-81.	8.2	39
87	Internal virus polarization model for virus retention by the Ultipor^{Â®} VF Grade DV20 membrane. Biotechnology Progress, 2014, 30, 856-863.	2.6	39
88	A combined ultrafiltrationâ€“reverse osmosis process for external reuse of Weiyuan shale gas flowback and produced water. Environmental Science: Water Research and Technology, 2018, 4, 942-955.	2.4	39
89	Continuous precipitation for monoclonal antibody capture using countercurrent washing by microfiltration. Biotechnology Progress, 2019, 35, e2886.	2.6	39
90	Use of confocal scanning laser microscopy to study virus retention during virus filtration. Journal of Membrane Science, 2011, 379, 260-267.	8.2	38

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91	Probing pore structure of virus filters using scanning electron microscopy with gold nanoparticles. Journal of Membrane Science, 2018, 552, 144-152.	8.2	38
92	Pore size distribution effects on electrokinetic phenomena in semipermeable membranes. Journal of Membrane Science, 1995, 105, 203-215.	8.2	37
93	Protein transport through zwitterionic ultrafiltration membranes. Journal of Membrane Science, 2012, 397-398, 1-8.	8.2	37
94	Purification of monoclonal antibodies from clarified cell culture fluid using Protein A capture continuous countercurrent tangential chromatography. Journal of Biotechnology, 2015, 213, 54-64.	3.8	37
95	Effects of a pressure release on virus retention with the Ultipor DV20 membrane. Biotechnology and Bioengineering, 2014, 111, 545-551.	3.3	35
96	Use of fluorescently-labeled nanoparticles to study pore morphology and virus capture in virus filtration membranes. Journal of Membrane Science, 2017, 536, 52-58.	8.2	35
97	Particleâ€“particle interactions during normal flow filtration: Model simulations. Chemical Engineering Science, 2005, 60, 4073-4082.	3.8	34
98	Countercurrent staged diafiltration for formulation of high value proteins. Biotechnology and Bioengineering, 2018, 115, 139-144.	3.3	34
99	Hydraulic resistance of red cell beds in an unstirred filtration cell. Chemical Engineering Science, 1989, 44, 147-159.	3.8	33
100	Theoretical Analysis of the Effect of Membrane Morphology on Fouling during Microfiltration. Separation Science and Technology, 1999, 34, 2461-2483.	2.5	33
101	Effect of membrane morphology on system capacity during normal flow microfiltration. Biotechnology and Bioengineering, 2003, 83, 537-543.	3.3	33
102	Optimization of ultrafiltration/diafiltration processes for partially bound impurities. Biotechnology and Bioengineering, 2004, 87, 286-292.	3.3	33
103	Overview of Fouling Phenomena and Modeling Approaches for Membrane Bioreactors. Separation Science and Technology, 2006, 41, 1231-1251.	2.5	33
104	Ultrafiltration characteristics of pegylated proteins. Biotechnology and Bioengineering, 2006, 95, 474-482.	3.3	33
105	Bulk Mass Transport Limitations during Highâ€Flux Hemodialysis. Artificial Organs, 1993, 17, 919-924.	1.9	33
106	Elongational flow model for transmission of supercoiled plasmid DNA during membrane ultrafiltration. Journal of Membrane Science, 2009, 329, 201-208.	8.2	33
107	The osmotic pressure of highly concentrated monoclonal antibody solutions: Effect of solution conditions. Biotechnology and Bioengineering, 2014, 111, 529-536.	3.3	33
108	Diffusiophoresis contributes significantly to colloidal fouling in low salinity reverse osmosis systems. Journal of Membrane Science, 2015, 479, 67-76.	8.2	33

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109	Effect of protein adsorption on the transport characteristics of asymmetric ultrafiltration membranes. Biotechnology Progress, 1992, 8, 553-561.	2.6	32
110	CHIRAL SEPARATIONS USING ULTRAFILTRATION WITH A STEREOSELECTIVE BINDING AGENT. Separation Science and Technology, 2001, 36, 1575-1594.	2.5	32
111	Effect of spacer arm length on the performance of charge-modified ultrafiltration membranes. Journal of Membrane Science, 2008, 313, 304-314.	8.2	32
112	Protein a chromatography at high titers. Biotechnology and Bioengineering, 2013, 110, 2445-2451.	3.3	32
113	Effect of ion binding on protein transport through ultrafiltration membranes. , 1999, 63, 298-307.		31
114	High resolution protein separations using affinity ultrafiltration with small charged ligands. Journal of Membrane Science, 2006, 280, 781-789.	8.2	31
115	Continuous Countercurrent Tangential Chromatography for Monoclonal Antibody Purification. Separation Science and Technology, 2013, 48, 1289-1297.	2.5	31
116	Ultrafiltration of highly concentrated antibody solutions: Experiments and modeling for the effects of module and buffer conditions. Biotechnology Progress, 2016, 32, 692-701.	2.6	31
117	Ultrafiltration behavior of monoclonal antibodies and Fcâ€fusion proteins: Effects of physical properties. Biotechnology and Bioengineering, 2017, 114, 2057-2065.	3.3	31
118	Analysis of protein fouling during ultrafiltration using a two-layer membrane model. , 1998, 59, 451-460.		30
119	Effect of solution pH on protein transmission and membrane capacity during virus filtration. Biotechnology and Bioengineering, 2008, 100, 108-117.	3.3	30
120	Separation of plasmid DNA isoforms by highly converging flow through small membrane pores. Journal of Colloid and Interface Science, 2011, 357, 548-553.	9.4	30
121	Effects of solution conditions on virus retention by the Viresolve^{Â®}NFP filter. Biotechnology Progress, 2015, 31, 1280-1286.	2.6	30
122	Sieving characteristics of multilayer ultrafiltration membranes. Journal of Membrane Science, 1997, 131, 155-165.	8.2	29
123	Development of high performance charged ligands to control protein transport through charge-modified ultrafiltration membranes. Journal of Membrane Science, 2010, 362, 434-443.	8.2	29
124	Purification of singly PEGylated Î±â€lactalbumin using charged ultrafiltration membranes. Biotechnology and Bioengineering, 2011, 108, 822-829.	3.3	29
125	Hindered protein diffusion in asymmetric ultrafiltration membranes with highly constricted pores. Journal of Membrane Science, 1990, 49, 287-303.	8.2	28
126	Diffusive and convective solute transport through hemodialysis membranes: A hydrodynamic analysis. Journal of Biomedical Materials Research Part B, 1994, 28, 573-582.	3.1	28

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127	Saltâ€induced changes in plasmid DNA transmission through ultrafiltration membranes. Biotechnology and Bioengineering, 2008, 99, 390-398.	3.3	28
128	Effect of electrostatic interactions on transmission of PEGylated proteins through charged ultrafiltration membranes. Journal of Membrane Science, 2010, 353, 60-69.	8.2	28
129	Countercurrent tangential chromatography for largeâ€scale protein purification. Biotechnology and Bioengineering, 2011, 108, 582-591.	3.3	28
130	Effects of Histidine and Sucrose on the Biophysical Properties of a Monoclonal Antibody. Pharmaceutical Research, 2017, 34, 629-639.	3.5	28
131	Separation of Protein Charge Variants by Ultrafiltration. Biotechnology Progress, 2008, 20, 543-549.	2.6	27
132	Modeling electrostatic exclusion effects during ion exchange chromatography of monoclonal antibodies. Biotechnology and Bioengineering, 2009, 102, 1131-1140.	3.3	27
133	Development of an electroosmotic pump for high performance actuation. Journal of Membrane Science, 2006, 286, 153-160.	8.2	26
134	Multistage continuous countercurrent diafiltration for formulation of monoclonal antibodies. Biotechnology Progress, 2019, 35, e2810.	2.6	26
135	Importance of asymmetric structure in determining mass transport characteristics of hollow fiber hemodialyzers. Journal of Membrane Science, 2003, 224, 39-49.	8.2	25
136	Effect of surface charge distribution on protein transport through semipermeable ultrafiltration membranes. Journal of Membrane Science, 2009, 337, 324-331.	8.2	25
137	Theoretical analysis of the ultrafiltration behavior of highly concentrated protein solutions. Journal of Membrane Science, 2015, 494, 216-223.	8.2	25
138	Polyacrylamide in hydraulic fracturing fluid causes severe membrane fouling during flowback water treatment. Journal of Membrane Science, 2018, 560, 125-131.	8.2	25
139	Size exclusion chromatography of plasmid DNA isoforms. Journal of Chromatography A, 2009, 1216, 6295-6302.	3.7	24
140	Intermolecular interactions in highly concentrated formulations of recombinant therapeutic proteins. Current Opinion in Biotechnology, 2018, 53, 59-64.	6.6	24
141	Internal membrane fouling by proteins during microfiltration. Journal of Membrane Science, 2021, 637, 119589.	8.2	24
142	A Stefan-Maxwell Analysis of Protein Transport in Porous Membranes. Separation Science and Technology, 1988, 23, 1799-1811.	2.5	23
143	Dextran sieving test for characterization of virus filtration membranes. Journal of Membrane Science, 2011, 379, 239-248.	8.2	23
144	Single-use, single-pass tangential flow filtration using low-cost hollow fiber modules. Journal of Membrane Science, 2020, 595, 117517.	8.2	23

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145	Affinity ultrafiltration: Effects of ligand binding on selectivity and process optimization. Biotechnology and Bioengineering, 2002, 77, 256-265.	3.3	22
146	Controlling protein transport in ultrafiltration using small charged ligands. Biotechnology and Bioengineering, 2005, 91, 733-742.	3.3	22
147	Sieving Characteristics of Albumin Deposits Formed during Microfiltration. Journal of Colloid and Interface Science, 1993, 158, 136-145.	9.4	21
148	Retention of small charged impurities during ultrafiltration. Biotechnology and Bioengineering, 2004, 87, 7-13.	3.3	21
149	Plasmid DNA transmission through charged ultrafiltration membranes. Journal of Membrane Science, 2009, 344, 123-128.	8.2	21
150	Impact of protein fouling on nanoparticle capture within the ViresolveÂ® Pro and ViresolveÂ® NFP virus removal membranes. Biotechnology and Bioengineering, 2019, 116, 2285-2291.	3.3	21
151	The effect of membrane properties on the separation of protein charge variants using ultrafiltration. Journal of Membrane Science, 2004, 243, 379-388.	8.2	19
152	Effects of Plasma Proteins on the Transport and Surface Characteristics of Polysulfone/Polyethersulfone and Asymmetric Cellulose Triacetate High Flux Dialyzers. Artificial Organs, 2018, 42, 1070-1077.	1.9	19
153	Ultrafiltration behavior of bacterial polysaccharides used in vaccines. Journal of Membrane Science, 2015, 490, 294-300.	8.2	18
154	Quantitative study of RNA transmission through ultrafiltration membranes. Journal of Membrane Science, 2017, 544, 272-277.	8.2	18
155	FIB-SEM tomography reveals the nanoscale 3D morphology of virus removal filters. Journal of Membrane Science, 2021, 640, 119766.	8.2	18
156	Concentration effects on membrane sieving: development of a stagnant filmmodel incorporating the effects of solute-solute interactions. Journal of Membrane Science, 1992, 68, 183-190.	8.2	17
157	Effects of Pressure and Electrical Charge on Macromolecular Transport Across Bovine Lens Basement Membrane. Biophysical Journal, 2013, 104, 1476-1484.	0.5	17
158	Twisted hollow fiber membranes for enhanced mass transfer. Journal of Membrane Science, 2016, 514, 586-594.	8.2	17
159	Mass Balance Model with Donnan Equilibrium Accurately Describes Unusual pH and Excipient Profiles during Diafiltration of Monoclonal Antibodies. Biotechnology Journal, 2019, 14, 1800517.	3.5	17
160	Effectiveness of host cell protein removal using depth filtration with a filter containing diatomaceous earth. Biotechnology Progress, 2020, 36, e3028.	2.6	17
161	pH and salt effects on chiral separations using affinity ultrafiltration. Desalination, 2002, 148, 159-164.	8.2	16
162	Development of an optimized dextran retention test for large pore size hollow fiber ultrafiltration membranes. Journal of Membrane Science, 2012, 421-422, 32-38.	8.2	16

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163	Effects of chemical sanitization using <scp>N</scp>a<scp>OH</scp> on the properties of polysulfone and polyethersulfone ultrafiltration membranes. Biotechnology Progress, 2015, 31, 90-96.	2.6	16
164	Improving extraction and post-purification concentration of membrane proteins. Analyst, The, 2018, 143, 1378-1386.	3.5	16
165	Hollow fiber countercurrent dialysis for continuous buffer exchange of highâ€value biotherapeutics. Biotechnology Progress, 2019, 35, e2763.	2.6	16
166	High throughput solubility and redissolution screening for antibody purification via combined <scp>PEG</scp> and zinc chloride precipitation. Biotechnology Progress, 2020, 36, e3041.	2.6	16
167	A RED CELL DEFORMATION MODEL FOR HEMOLYSIS IN CROSS FLOW MEMBRANE PLASMAPHERESIS. Chemical Engineering Communications, 1984, 30, 191-207.	2.6	15
168	Boundary effects on the sedimentation and hindered diffusion of charged particles. AICHE Journal, 1996, 42, 2101-2111.	3.6	15
169	Use of protein charge ladders to study electrostatic interactions during protein ultrafiltration. Biotechnology and Bioengineering, 2004, 85, 166-176.	3.3	15
170	Understanding dextran retention data for hollow fiber ultrafiltration membranes. Journal of Membrane Science, 2011, 385-386, 243-250.	8.2	15
171	Outside-in hemofiltration for prolonged operation without clogging. Journal of Membrane Science, 2014, 464, 173-178.	8.2	15
172	Membrane fouling during ultrafiltration of plasmid DNA through semipermeable membranes. Journal of Membrane Science, 2014, 450, 189-196.	8.2	15
173	Ultrafiltration behavior of an Fc-fusion protein: Filtrate flux data and modeling. Journal of Membrane Science, 2017, 528, 171-177.	8.2	15
174	Effect of zinc chloride and PEG concentrations on the critical flux during tangential flow microfiltration of BSA precipitates. Biotechnology Progress, 2017, 33, 1561-1567.	2.6	15
175	New insights into the performance characteristics of the Planovaâ€series hollowâ€fiber parvovirus filters using confocal and electron microscopy. Biotechnology and Bioengineering, 2019, 116, 2010-2017.	3.3	15
176	Performance optimization of continuous countercurrent tangential chromatography for antibody capture. Biotechnology Progress, 2016, 32, 430-439.	2.6	14
177	Continuous countercurrent tangential chromatography for mixed mode post-capture operations in monoclonal antibody purification. Journal of Chromatography A, 2017, 1511, 37-44.	3.7	14
178	Improved protein A resin for antibody capture in a continuous countercurrent tangential chromatography system. Biotechnology and Bioengineering, 2020, 117, 646-653.	3.3	14
179	Effect of membrane pore structure on fouling behavior of glycoconjugate vaccines. Journal of Membrane Science, 2021, 619, 118797.	8.2	14
180	Retention characteristics of sterile filters â€“ Effect of pore size and structure. Journal of Membrane Science, 2021, 635, 119436.	8.2	14

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181	Application of periodic backpulsing to reduce membrane fouling during ultrafiltration of plasmid DNA. Journal of Membrane Science, 2015, 473, 102-108.	8.2	13
182	Quantitative analysis of internal flow distribution and pore interconnectivity within asymmetric virus filtration membranes. Journal of Membrane Science, 2020, 595, 117578.	8.2	13
183	Modified intermediate pore blockage model describes fouling behavior during sterile filtration of glycoconjugate vaccines. Journal of Membrane Science, 2020, 613, 118495.	8.2	13
184	Antibody retention by virus filtration membranes: Polarization and sieving effects. Journal of Membrane Science, 2021, 620, 118884.	8.2	13
185	Evaluation of a sterile filtration process for viral vaccines using a model nanoparticle suspension. Biotechnology and Bioengineering, 2021, 118, 106-115.	3.3	13
186	Solute Washout Experiments for Characterizing Mass Transport in Hollow Fiber Immunoisolation Membranes. Annals of Biomedical Engineering, 1998, 26, 618-626.	2.5	12
187	Effects of solution conditions on characteristics and size exclusion chromatography of pneumococcal polysaccharides and conjugate vaccines. Carbohydrate Polymers, 2016, 152, 12-18.	10.2	12
188	Membrane fouling by lysozyme: Effect of local interaction. AICHE Journal, 2021, 67, e17212.	3.6	12
189	Enablers of continuous processing of biotherapeutic products. Trends in Biotechnology, 2022, 40, 804-815.	9.3	12
190	Effect of Bleach Reprocessing Upon the Clearance Characteristics and Surface Charge of Polysulfone Hemodialyzers. ASAIO Journal, 2004, 50, 246-252.	1.6	11
191	Clarification of Yeast Cell Suspensions by Depth Filtration. Biotechnology Progress, 2005, 21, 1552-1557.	2.6	11
192	Importance of Biopolymer Molecular Flexibility in Ultrafiltration Processes. Industrial & Engineering Chemistry Research, 2009, 48, 2395-2403.	3.7	11
193	High Performance Ultrafiltration Membranes. Membrane Science and Technology, 2011, , 333-352.	0.5	11
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