Andrew L Zydney

List of Publications by Year
in descending order

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260 papers	15,245 citations	25423 59 h-index	25983 112 g-index
272 all docs	272 docs citations	272 times ranked	9479 citing authors

#	Article	IF	Citations
1	Analysis of tradeoffs between purification factor and yield for highâ€performance countercurrent membrane purification for protein separations. Biotechnology Progress, 2022, 38, e3221.	1.3	2
2	Design and optimization of Single Pass Tangential Flow Filtration for inline concentration of monoclonal antibodies. Journal of Membrane Science, 2022, 643, 120047.	4.1	5
3	Enablers of continuous processing of biotherapeutic products. Trends in Biotechnology, 2022, 40, 804-815.	4.9	12
4	Scaleâ€up issues for commercial depth filters in bioprocessing. Biotechnology and Bioengineering, 2022, , .	1.7	0
5	Role of membrane structure on the filtrate flux during monoclonal antibody filtration through virus retentive membranes. Biotechnology Progress, 2022, 38, e3231.	1.3	6
6	Enhancing the performance of sterile filtration for viral vaccines and model nanoparticles using an appropriate prefilter. Journal of Membrane Science, 2022, 647, 120264.	4.1	5
7	Effect of operating pressure on protein fouling during constant-pressure virus removal filtration. Journal of Membrane Science, 2022, 648, 120351.	4.1	11
8	Retention and Fouling during Nanoparticle Filtration: Implications for Membrane Purification of Biotherapeutics. Membranes, 2022, 12, 299.	1.4	2
9	Bacterial Retention during Filtration of a Live Attenuated Virus Vaccine through the Sartobran P Sterile Filter. Journal of Pharmaceutical Sciences, 2022, , .	1.6	1
10	Effect of filtrate flux and process disruptions on virus retention by a relatively homogeneous virus removal membrane. Biotechnology Progress, 2022, 38, e3255.	1.3	2
11	Process- and Product-Related Foulants in Virus Filtration. Bioengineering, 2022, 9, 155.	1.6	4
12	<scp>Scaleâ€up</scp>â€‰issues during sterile filtration of glycoconjugate vaccines. Biotechnology Progress, 2022, 38, e3260.	1.3	4
13	Development of a transient inline spiking system for evaluating virus clearance in continuous bioprocessingâ€”Proof of concept for virus filtration. Biotechnology and Bioengineering, 2022, 119, 2134-2141.	1.7	4
14	Evaluating Nanoparticle Hydrophobicity Using Analytical Membrane Hydrophobic Interaction Chromatography. Analytical Chemistry, 2022, 94, 8668-8673.	3.2	4
15	Flow and residence time distribution in small-scale dual-layer depth filter capsules. Journal of Membrane Science, 2021, 617, 118625.	4.1	7
16	Antibody retention by virus filtration membranes: Polarization and sieving effects. Journal of Membrane Science, 2021, 620, 118884.	4.1	13
17	New developments in membranes for bioprocessing â€“ A review. Journal of Membrane Science, 2021, 620, 118804.	4.1	44
18	Purification of Cas9â€”<scp>RNA</scp> complexes by ultrafiltration. Biotechnology Progress, 2021, 37, e3104.	1.3	2

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19	Effect of membrane pore structure on fouling behavior of glycoconjugate vaccines. Journal of Membrane Science, 2021, 619, 118797.	4.1	14
20	Enhanced filtration performance using<scp>feedâ€andâ€bleed</scp>configuration for purification of antibody precipitates. Biotechnology Progress, 2021, 37, e3082.	1.3	8
21	Evaluation of a sterile filtration process for viral vaccines using a model nanoparticle suspension. Biotechnology and Bioengineering, 2021, 118, 106-115.	1.7	13
22	Nanoscale control of internal inhomogeneity enhances water transport in desalination membranes. Science, 2021, 371, 72-75.	6.0	193
23	Keeping chemical engineering education relevant. AICHE Journal, 2021, 67, e17203.	1.8	1
24	Membrane fouling by lysozyme: Effect of local interaction. AICHE Journal, 2021, 67, e17212.	1.8	12
25	Characterization of dextran transport and molecular weight cutoff (MWCO) of large pore size hollow fiber ultrafiltration membranes. Journal of Membrane Science, 2021, 622, 119025.	4.1	7
26	Letter to the Editor: In Memory of Michel Jaffrin. Journal of Membrane Science, 2021, 624, 119120.	4.1	0
27	Molecular dynamics study on membrane fouling by oppositely charged proteins. AICHE Journal, 2021, 67, e17335.	1.8	8
28	Quantitative interpretation of protein breakthrough curves in small-scale depth filter modules for bioprocessing. Journal of Membrane Science, 2021, 627, 119217.	4.1	6
29	Prefiltration enhances performance of sterile filtration for glycoconjugate vaccines. Biotechnology Progress, 2021, 37, e3180.	1.3	4
30	High Performance Countercurrent Membrane Purification for protein separations. Journal of Membrane Science, 2021, 633, 119396.	4.1	10
31	Retention characteristics of sterile filters â€“ Effect of pore size and structure. Journal of Membrane Science, 2021, 635, 119436.	4.1	14
32	Single Pass Tangential Flow Filtration (SPTFF) of monoclonal antibodies: Experimental studies and theoretical analysis. Journal of Membrane Science, 2021, 637, 119606.	4.1	11
33	Internal membrane fouling by proteins during microfiltration. Journal of Membrane Science, 2021, 637, 119589.	4.1	24
34	Depth filtration in bioprocessing â€” new opportunities for an old technology. Current Opinion in Chemical Engineering, 2021, 34, 100746.	3.8	11
35	FIB-SEM tomography reveals the nanoscale 3D morphology of virus removal filters. Journal of Membrane Science, 2021, 640, 119766.	4.1	18
36	Fouling Behavior during Sterile Filtration of Different Glycoconjugate Serotypes Used in Conjugate Vaccines. Pharmaceutical Research, 2021, 38, 155-163.	1.7	6

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37	Single-use, single-pass tangential flow filtration using low-cost hollow fiber modules. Journal of Membrane Science, 2020, 595, 117517.	4.1	23
38	Quantitative analysis of internal flow distribution and pore interconnectivity within asymmetric virus filtration membranes. Journal of Membrane Science, 2020, 595, 117578.	4.1	13
39	Mechanical degradation of polyacrylamide at ultra high deformation rates during hydraulic fracturing. Environmental Science: Water Research and Technology, 2020, 6, 166-172.	1.2	6
40	Improved protein A resin for antibody capture in a continuous countercurrent tangential chromatography system. Biotechnology and Bioengineering, 2020, 117, 646-653.	1.7	14
41	RNA size and 3-dimensional structure determine ultrafiltration behavior of small RNA molecules. Separation and Purification Technology, 2020, 237, 116372.	3.9	8
42	pH and excipient profiles during formulation of highly concentrated biotherapeutics using bufferless media. Biotechnology and Bioengineering, 2020, 117, 3390-3399.	1.7	7
43	Modified intermediate pore blockage model describes fouling behavior during sterile filtration of glycoconjugate vaccines. Journal of Membrane Science, 2020, 613, 118495.	4.1	13
44	Effectiveness of host cell protein removal using depth filtration with a filter containing diatomaceous earth. Biotechnology Progress, 2020, 36, e3028.	1.3	17
45	Visualizing effects of protein fouling on capture profiles in the Planova BioEX and 20N virus filters. Journal of Membrane Science, 2020, 610, 118271.	4.1	11
46	High throughput solubility and redissolution screening for antibody purification via combined <scp>PEG</scp> and zinc chloride precipitation. Biotechnology Progress, 2020, 36, e3041.	1.3	16
47	Stereospecific interactions between histidine and monoclonal antibodies. Biotechnology and Bioengineering, 2019, 116, 2632-2639.	1.7	6
48	Continuous precipitation for monoclonal antibody capture using countercurrent washing by microfiltration. Biotechnology Progress, 2019, 35, e2886.	1.3	39
49	Impact of protein fouling on nanoparticle capture within the ViresolveÂ® Pro and ViresolveÂ® NFP virus removal membranes. Biotechnology and Bioengineering, 2019, 116, 2285-2291.	1.7	21
50	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.	1.7	15
51	Multistage continuous countercurrent diafiltration for formulation of monoclonal antibodies. Biotechnology Progress, 2019, 35, e2810.	1.3	26
52	Mass Balance Model with Donnan Equilibrium Accurately Describes Unusual pH and Excipient Profiles during Diafiltration of Monoclonal Antibodies. Biotechnology Journal, 2019, 14, 1800517.	1.8	17
53	Purification of a conjugated polysaccharide vaccine using tangential flow diafiltration. Biotechnology and Bioengineering, 2019, 116, 591-597.	1.7	11
54	Effects of polyamines on the ultrafiltration of plasmid DNA. Biotechnology Progress, 2019, 35, e2765.	1.3	3

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55	Hollow fiber countercurrent dialysis for continuous buffer exchange of highâ€value biotherapeutics. Biotechnology Progress, 2019, 35, e2763.	1.3	16
56	Transport Characteristics of Asymmetric Cellulose Triacetate Hemodialysis Membranes. Blood Purification, 2018, 45, 46-52.	0.9	8
57	Probing pore structure of virus filters using scanning electron microscopy with gold nanoparticles. Journal of Membrane Science, 2018, 552, 144-152.	4.1	38
58	Slit pores preferred over cylindrical pores for high selectivity in biomolecular filtration. Journal of Colloid and Interface Science, 2018, 517, 176-181.	5.0	8
59	Intermolecular interactions in highly concentrated formulations of recombinant therapeutic proteins. Current Opinion in Biotechnology, 2018, 53, 59-64.	3.3	24
60	Countercurrent staged diafiltration for formulation of high value proteins. Biotechnology and Bioengineering, 2018, 115, 139-144.	1.7	34
61	Chemical Degradation of Polyacrylamide during Hydraulic Fracturing. Environmental Science & Technology, 2018, 52, 327-336.	4.6	68
62	Improving extraction and post-purification concentration of membrane proteins. Analyst, The, 2018, 143, 1378-1386.	1.7	16
63	Polyacrylamide degradation and its implications in environmental systems. Npj Clean Water, 2018, 1, .	3.1	271
64	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.	1.0	19
65	Polyacrylamide in hydraulic fracturing fluid causes severe membrane fouling during flowback water treatment. Journal of Membrane Science, 2018, 560, 125-131.	4.1	25
66	Impact of module geometry on the ultrafiltration behavior of capsular polysaccharides for vaccines. Journal of Membrane Science, 2018, 561, 19-25.	4.1	8
67	Development of a Hydrodynamic Cleaning Cycle for Ultrafiltration/Diafiltration Processes Used for Monoclonal Antibody Formulation. Industrial & Engineering Chemistry Research, 2018, 57, 16110-16115.	1.8	4
68	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.	1.2	39
69	Ultrafiltration behavior of an Fc-fusion protein: Filtrate flux data and modeling. Journal of Membrane Science, 2017, 528, 171-177.	4.1	15
70	Effect of ionic strength on membrane fouling during ultrafiltration of plasmid DNA. Separation and Purification Technology, 2017, 176, 287-293.	3.9	5
71	Effects of Histidine and Sucrose on the Biophysical Properties of a Monoclonal Antibody. Pharmaceutical Research, 2017, 34, 629-639.	1.7	28
72	Ultrafiltration behavior of monoclonal antibodies and Fcâ€fusion proteins: Effects of physical properties. Biotechnology and Bioengineering, 2017, 114, 2057-2065.	1.7	31

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73	Silicon nanoporous membranes as a rigorous platform for validation of biomolecular transport models. Journal of Membrane Science, 2017, 536, 44-51.	4.1	11
74	Use of fluorescently-labeled nanoparticles to study pore morphology and virus capture in virus filtration membranes. Journal of Membrane Science, 2017, 536, 52-58.	4.1	35
75	pH variations during diafiltration due to buffer nonidealities. Biotechnology Progress, 2017, 33, 1555-1560.	1.3	9
76	Quantitative study of RNA transmission through ultrafiltration membranes. Journal of Membrane Science, 2017, 544, 272-277.	4.1	18
77	Effect of zinc chloride and PEG concentrations on the critical flux during tangential flow microfiltration of BSA precipitates. Biotechnology Progress, 2017, 33, 1561-1567.	1.3	15
78	Continuous countercurrent tangential chromatography for mixed mode post-capture operations in monoclonal antibody purification. Journal of Chromatography A, 2017, 1511, 37-44.	1.8	14
79	A Facile Surface Modification for Antifouling Reverse Osmosis Membranes Using Polydopamine under UV Irradiation. Industrial & Engineering Chemistry Research, 2017, 56, 5756-5760.	1.8	44
80	Diffusive Silicon Nanopore Membranes for Hemodialysis Applications. PLoS ONE, 2016, 11, e0159526.	1.1	40
81	Ultrafiltration of highly concentrated antibody solutions: Experiments and modeling for the effects of module and buffer conditions. Biotechnology Progress, 2016, 32, 692-701.	1.3	31
82	Enhanced purification of plasmid DNA isoforms by exploiting ionic strength effects during ultrafiltration. Biotechnology and Bioengineering, 2016, 113, 783-789.	1.7	9
83	Performance optimization of continuous countercurrent tangential chromatography for antibody capture. Biotechnology Progress, 2016, 32, 430-439.	1.3	14
84	Concentrating membrane proteins using ultrafiltration without concentrating detergents. Biotechnology and Bioengineering, 2016, 113, 2122-2130.	1.7	10
85	Fouling of microfiltration membranes by flowback and produced waters from the Marcellus shale gas play. Water Research, 2016, 99, 162-170.	5.3	76
86	Size-based separation of supercoiled plasmid DNA using ultrafiltration. Journal of Colloid and Interface Science, 2016, 472, 195-201.	5.0	10
87	Tight ultrafiltration membranes for enhanced separation of dyes and Na2SO4 during textile wastewater treatment. Journal of Membrane Science, 2016, 514, 217-228.	4.1	378
88	Effect of electrostatic interactions on the ultrafiltration behavior of charged bacterial capsular polysaccharides. Biotechnology Progress, 2016, 32, 1531-1538.	1.3	7
89	Twisted hollow fiber membranes for enhanced mass transfer. Journal of Membrane Science, 2016, 514, 586-594.	4.1	17
90	Effects of solution conditions on characteristics and size exclusion chromatography of pneumococcal polysaccharides and conjugate vaccines. Carbohydrate Polymers, 2016, 152, 12-18.	5.1	12

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91	Continuous downstream processing for high value biological products: A Review. Biotechnology and Bioengineering, 2016, 113, 465-475.	1.7	224
92	Charged Ultrafiltration Membrane. , 2016, , 372-373.		0
93	Probing effects of pressure release on virus capture during virus filtration using confocal microscopy. Biotechnology and Bioengineering, 2015, 112, 2115-2122.	1.7	44
94	Effects of solution conditions on virus retention by the Viresolve^{Â®}NFP filter. Biotechnology Progress, 2015, 31, 1280-1286.	1.3	30
95	Purification of monoclonal antibodies from clarified cell culture fluid using Protein A capture continuous countercurrent tangential chromatography. Journal of Biotechnology, 2015, 213, 54-64.	1.9	37
96	Use of preconditioning to control membrane fouling and enhance performance during ultrafiltration of plasmid DNA. Journal of Membrane Science, 2015, 479, 117-122.	4.1	10
97	Diffusiophoresis contributes significantly to colloidal fouling in low salinity reverse osmosis systems. Journal of Membrane Science, 2015, 479, 67-76.	4.1	33
98	Perspectives on integrated continuous bioprocessingâ€"opportunities and challenges. Current Opinion in Chemical Engineering, 2015, 10, 8-13.	3.8	92
99	Ultrafiltration behavior of bacterial polysaccharides used in vaccines. Journal of Membrane Science, 2015, 490, 294-300.	4.1	18
100	Intermolecular Interactions and the Viscosity of Highly Concentrated Monoclonal Antibody Solutions. Pharmaceutical Research, 2015, 32, 3102-3109.	1.7	57
101	Theoretical analysis of the ultrafiltration behavior of highly concentrated protein solutions. Journal of Membrane Science, 2015, 494, 216-223.	4.1	25
102	Recovery of small dye molecules from aqueous solutions using charged ultrafiltration membranes. Journal of Hazardous Materials, 2015, 284, 58-64.	6.5	65
103	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.	1.3	16
104	Application of periodic backpulsing to reduce membrane fouling during ultrafiltration of plasmid DNA. Journal of Membrane Science, 2015, 473, 102-108.	4.1	13
105	Analysis of the effects of electrostatic interactions on protein transport through zwitterionic ultrafiltration membranes using protein charge ladders. Journal of Applied Polymer Science, 2015, 132, .	1.3	3
106	PEGylation. , 2015, , 1-2.		0
107	Effects of a pressure release on virus retention with the Ultipor DV20 membrane. Biotechnology and Bioengineering, 2014, 111, 545-551.	1.7	35
108	Fouling behavior of zwitterionic membranes: Impact of electrostatic and hydrophobic interactions. Journal of Membrane Science, 2014, 452, 97-103.	4.1	143

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109	The osmotic pressure of highly concentrated monoclonal antibody solutions: Effect of solution conditions. Biotechnology and Bioengineering, 2014, 111, 529-536.	1.7	33
110	Internal virus polarization model for virus retention by the Ultipor^{Â®} VF Grade DV20 membrane. Biotechnology Progress, 2014, 30, 856-863.	1.3	39
111	Outside-in hemofiltration for prolonged operation without clogging. Journal of Membrane Science, 2014, 464, 173-178.	4.1	15
112	Membrane fouling during ultrafiltration of plasmid DNA through semipermeable membranes. Journal of Membrane Science, 2014, 450, 189-196.	4.1	15
113	ÃŸ-Lactoglobulin and Alpha-Lactalbumin Separation. , 2014, , 1-2.		0
114	Continuous Countercurrent Tangential Chromatography for Monoclonal Antibody Purification. Separation Science and Technology, 2013, 48, 1289-1297.	1.3	31
115	Improved Method for Evaluating the Dead Volume and Proteinâ€“Protein Interactions by Self-Interaction Chromatography. Analytical Chemistry, 2013, 85, 9101-9106.	3.2	9
116	Effects of Pressure and Electrical Charge on Macromolecular Transport Across Bovine Lens Basement Membrane. Biophysical Journal, 2013, 104, 1476-1484.	0.2	17
117	Intermolecular interactions during ultrafiltration of pegylated proteins. Biotechnology Progress, 2013, 29, 655-663.	1.3	3
118	Ultrafiltration membrane performance: Effects of pore blockage/constriction. Journal of Membrane Science, 2013, 434, 106-120.	4.1	107
119	Protein a chromatography at high titers. Biotechnology and Bioengineering, 2013, 110, 2445-2451.	1.7	32
120	Separation of plasmid DNA isoforms using centrifugal ultrafiltration. BioTechniques, 2012, 53, 49-56.	0.8	7
121	Development of an optimized dextran retention test for large pore size hollow fiber ultrafiltration membranes. Journal of Membrane Science, 2012, 421-422, 32-38.	4.1	16
122	Protein transport through zwitterionic ultrafiltration membranes. Journal of Membrane Science, 2012, 397-398, 1-8.	4.1	37
123	High Performance Ultrafiltration Membranes. Membrane Science and Technology, 2011, , 333-352.	0.5	11
124	Understanding dextran retention data for hollow fiber ultrafiltration membranes. Journal of Membrane Science, 2011, 385-386, 243-250.	4.1	15
125	Dextran sieving test for characterization of virus filtration membranes. Journal of Membrane Science, 2011, 379, 239-248.	4.1	23
126	Use of confocal scanning laser microscopy to study virus retention during virus filtration. Journal of Membrane Science, 2011, 379, 260-267.	4.1	38

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127	Countercurrent tangential chromatography for largeâ€scale protein purification. Biotechnology and Bioengineering, 2011, 108, 582-591.	1.7	28
128	Purification of singly PEGylated Î±â€lactalbumin using charged ultrafiltration membranes. Biotechnology and Bioengineering, 2011, 108, 822-829.	1.7	29
129	Separation of plasmid DNA isoforms by highly converging flow through small membrane pores. Journal of Colloid and Interface Science, 2011, 357, 548-553.	5.0	30
130	Role of electrostatic interactions during protein ultrafiltration. Advances in Colloid and Interface Science, 2010, 160, 40-48.	7.0	72
131	Permeabilityâ€“selectivity analysis for ultrafiltration: Effect of pore geometry. Journal of Membrane Science, 2010, 349, 405-410.	4.1	117
132	Radius of gyration of plasmid DNA isoforms from static light scattering. Biotechnology and Bioengineering, 2010, 107, 134-142.	1.7	49
133	Characterizing the surface charge of synthetic nanomembranes by the streaming potential method. Journal of Colloid and Interface Science, 2010, 348, 85-95.	5.0	49
134	Effect of electrostatic interactions on transmission of PEGylated proteins through charged ultrafiltration membranes. Journal of Membrane Science, 2010, 353, 60-69.	4.1	28
135	Development of high performance charged ligands to control protein transport through charge-modified ultrafiltration membranes. Journal of Membrane Science, 2010, 362, 434-443.	4.1	29
136	Modeling electrostatic exclusion effects during ion exchange chromatography of monoclonal antibodies. Biotechnology and Bioengineering, 2009, 102, 1131-1140.	1.7	27
137	Membrane technology for purification of therapeutic proteins. Biotechnology and Bioengineering, 2009, 103, 227-230.	1.7	53
138	Sidney Loeb collection. Journal of Membrane Science, 2009, 339, 1-4.	4.1	0
139	Effect of surface charge distribution on protein transport through semipermeable ultrafiltration membranes. Journal of Membrane Science, 2009, 337, 324-331.	4.1	25
140	High-performance silicon nanopore hemofiltration membranes. Journal of Membrane Science, 2009, 326, 58-63.	4.1	151
141	Elongational flow model for transmission of supercoiled plasmid DNA during membrane ultrafiltration. Journal of Membrane Science, 2009, 329, 201-208.	4.1	33
142	Plasmid DNA transmission through charged ultrafiltration membranes. Journal of Membrane Science, 2009, 344, 123-128.	4.1	21
143	Size exclusion chromatography of plasmid DNA isoforms. Journal of Chromatography A, 2009, 1216, 6295-6302.	1.8	24
144	Importance of Biopolymer Molecular Flexibility in Ultrafiltration Processes. Industrial & Engineering Chemistry Research, 2009, 48, 2395-2403.	1.8	11

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145	Silicon nanopore membrane technology for an implantable artificial kidney. , 2009, , .		6
146	Effect of spacer arm length on the performance of charge-modified ultrafiltration membranes. Journal of Membrane Science, 2008, 313, 304-314.	4.1	32
147	Saltâ€induced changes in plasmid DNA transmission through ultrafiltration membranes. Biotechnology and Bioengineering, 2008, 99, 390-398.	1.7	28
148	Effect of solution pH on protein transmission and membrane capacity during virus filtration. Biotechnology and Bioengineering, 2008, 100, 108-117.	1.7	30
149	Separation of Protein Charge Variants by Ultrafiltration. Biotechnology Progress, 2008, 20, 543-549.	1.3	27
150	High Performance Tangential Flow Filtration Using Charged Affinity Ligands. Separation Science and Technology, 2007, 42, 2365-2385.	1.3	8
151	Improving dextran tests for ultrafiltration membranes: Effect of device format. Journal of Membrane Science, 2007, 291, 180-190.	4.1	69
152	Bioprocess membrane technology. Journal of Membrane Science, 2007, 297, 16-50.	4.1	637
153	Performance Characteristics of Nanoporous Carbon Membranes for Protein Ultrafiltration. Biotechnology Progress, 2007, 23, 0-0.	1.3	6
154	Separation of PEGylated Î±â€Lactalbumin from Unreacted Precursors and Byproducts Using Ultrafiltration. Biotechnology Progress, 2007, 23, 1417-1424.	1.3	50
155	In Vitro Comparison of Peracetic Acid and Bleach Cleaning of Polysulfone Hemodialysis Membranes. Artificial Organs, 2007, 31, 452-460.	1.0	9
156	Development and characterization of nanoporous carbon membranes for protein ultrafiltration. Journal of Membrane Science, 2007, 295, 40-49.	4.1	57
157	Flux-dependent transmission of supercoiled plasmid DNA through ultrafiltration membranes. Journal of Membrane Science, 2007, 294, 169-177.	4.1	71
158	Overview of Fouling Phenomena and Modeling Approaches for Membrane Bioreactors. Separation Science and Technology, 2006, 41, 1231-1251.	1.3	33
159	Effect of Membrane Charge on Flow and Protein Transport during Ultrafiltration. Biotechnology Progress, 2006, 22, 484-492.	1.3	91
160	Protein Fouling of Virus Filtration Membranes: Effects of Membrane Orientation and Operating Conditions. Biotechnology Progress, 2006, 22, 1163-1169.	1.3	43
161	High resolution protein separations using affinity ultrafiltration with small charged ligands. Journal of Membrane Science, 2006, 280, 781-789.	4.1	31
162	Theoretical analysis of particle trajectories and sieving in a two-dimensional cross-flow filtration system. Journal of Membrane Science, 2006, 281, 666-675.	4.1	49

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163	Effects of membrane pore geometry on fouling behavior during yeast cell microfiltration. Journal of Membrane Science, 2006, 285, 334-342.	4.1	61
164	Development of an electroosmotic pump for high performance actuation. Journal of Membrane Science, 2006, 286, 153-160.	4.1	26
165	Ultrafiltration characteristics of pegylated proteins. Biotechnology and Bioengineering, 2006, 95, 474-482.	1.7	33
166	Phosphate Clearance for Bleach Reprocessed Polysulfone Hemodialyzers: Effects of Electrostatic Interactions. ASAIO Journal, 2005, 51, 748-753.	0.9	3
167	Permeability and selectivity analysis for ultrafiltration membranes. Journal of Membrane Science, 2005, 249, 245-249.	4.1	337
168	Compaction and permeability effects with virus filtration membranes. Journal of Membrane Science, 2005, 254, 71-79.	4.1	76
169	Particleâ€“particle interactions during normal flow filtration: Model simulations. Chemical Engineering Science, 2005, 60, 4073-4082.	1.9	34
170	Clarification of Yeast Cell Suspensions by Depth Filtration. Biotechnology Progress, 2005, 21, 1552-1557.	1.3	11
171	Effect of Peracetic Acid Reprocessing on the Transport Characteristics of Polysulfone Hemodialyzers. Artificial Organs, 2005, 29, 166-173.	1.0	8
172	Controlling protein transport in ultrafiltration using small charged ligands. Biotechnology and Bioengineering, 2005, 91, 733-742.	1.7	22
173	Effect of Bleach Reprocessing Upon the Clearance Characteristics and Surface Charge of Polysulfone Hemodialyzers. ASAIO Journal, 2004, 50, 246-252.	0.9	11
174	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.	5.0	166
175	Use of protein charge ladders to study electrostatic interactions during protein ultrafiltration. Biotechnology and Bioengineering, 2004, 85, 166-176.	1.7	15
176	Retention of small charged impurities during ultrafiltration. Biotechnology and Bioengineering, 2004, 87, 7-13.	1.7	21
177	Optimization of ultrafiltration/diafiltration processes for partially bound impurities. Biotechnology and Bioengineering, 2004, 87, 286-292.	1.7	33
178	A two-stage ultrafiltration process for fractionation of whey protein isolate. Journal of Membrane Science, 2004, 231, 159-167.	4.1	145
179	High throughput screening for membrane process development. Journal of Membrane Science, 2004, 237, 181-188.	4.1	44
180	The effect of membrane properties on the separation of protein charge variants using ultrafiltration. Journal of Membrane Science, 2004, 243, 379-388.	4.1	19

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181	Effect of bleach on the transport characteristics of polysulfone hemodialyzers. Journal of Membrane Science, 2004, 243, 389-399.	4.1	62
182	Separation of ?-lactalbumin and ?-lactoglobulin using membrane ultrafiltration. Biotechnology and Bioengineering, 2003, 83, 201-209.	1.7	99
183	Effect of membrane morphology on system capacity during normal flow microfiltration. Biotechnology and Bioengineering, 2003, 83, 537-543.	1.7	33
184	Importance of asymmetric structure in determining mass transport characteristics of hollow fiber hemodialyzers. Journal of Membrane Science, 2003, 224, 39-49.	4.1	25
185	Fouling phenomena during microfiltration: effects of pore blockage, cake filtration, and membrane morphology. Membrane Science and Technology, 2003, 8, 27-44.	0.5	8
186	Impact of Undergraduate Research Experience in Engineering. Journal of Engineering Education, 2002, 91, 151-157.	1.9	156
187	Faculty Perspectives Regarding the Undergraduate Research Experience in Science and Engineering. Journal of Engineering Education, 2002, 91, 291-297.	1.9	77
188	Effects of Bleach Reprocessing on Hemodialysis Membranes. Materials Research Society Symposia Proceedings, 2002, 752, 1.	0.1	0
189	Filtrate Flux and Sieving Characteristics of Virus Filtration Membranes. Materials Research Society Symposia Proceedings, 2002, 752, 1.	0.1	0
190	Affinity ultrafiltration: Effects of ligand binding on selectivity and process optimization. Biotechnology and Bioengineering, 2002, 77, 256-265.	1.7	22
191	Application of a pore-blockage?Cake-filtration model to protein fouling during microfiltration. Biotechnology and Bioengineering, 2002, 79, 260-270.	1.7	72
192	Ultrafiltration membrane synthesis by nanoscale templating of porous carbon. Journal of Membrane Science, 2002, 198, 173-186.	4.1	42
193	Analysis of humic acid fouling during microfiltration using a pore blockageâ€“cake filtration model. Journal of Membrane Science, 2002, 198, 51-62.	4.1	200
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