Daniel G Bracewell

List of Publications by Year
in descending order

124	3,670	147801	161849
papers	citations	31 h-index	54 g-index

125	125	125	3257
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Manufacturing Exosomes: A Promising Therapeutic Platform. Trends in Molecular Medicine, 2018, 24, 242-256.	6.7	292
2	Soft sensors in bioprocessing: A status report and recommendations. Biotechnology Journal, 2012, 7, 1040-1048.	3.5	180
3	The future of host cell protein (HCP) identification during process development and manufacturing linked to a riskâ€based management for their control. Biotechnology and Bioengineering, 2015, 112, 1727-1737.	3.3	137
4	Advances in product release strategies and impact on bioprocess design. Trends in Biotechnology, 2009, 27, 477-485.	9.3	136
5	Optimising the design and operation of semi-continuous affinity chromatography for clinical and commercial manufacture. Journal of Chromatography A, 2013, 1284, 17-27.	3.7	121
6	Protein A chromatography increases monoclonal antibody aggregation rate during subsequent low pH virus inactivation hold. Journal of Chromatography A, 2015, 1415, 83-90.	3.7	117
7	Host cell protein dynamics in the supernatant of a mAb producing CHO cell line. Biotechnology and Bioengineering, 2012, 109, 971-982.	3.3	108
8	The dynamics of the CHO host cell protein profile during clarification and protein A capture in a platform antibody purification process. Biotechnology and Bioengineering, 2013, 110, 240-251.	3.3	91
9	Host cell protein adsorption characteristics during protein a chromatography. Biotechnology Progress, 2012, 28, 1037-1044.	2.6	84
10	Measurement and control of host cell proteins (HCPs) in CHO cell bioprocesses. Current Opinion in Biotechnology, 2014, 30, 153-160.	6.6	83
11	Nanofibre fabrication in a temperature and humidity controlled environment for improved fibre consistency. Journal of Materials Science, 2011, 46, 3890-3898.	3.7	82
12	Performance prediction of industrial centrifuges using scale-down models. Bioprocess and Biosystems Engineering, 2004, 26, 385-391.	3.4	76
13	Design of high productivity sequential multi-column chromatography for antibody capture. Food and Bioproducts Processing, 2014, 92, 233-241.	3.6	73
14	Bioprocess Engineering Issues That Would Be Faced in Producing a DNA Vaccine at up to 100 m3 Fermentation Scale for an Influenza Pandemic. Biotechnology Progress, 2005, 21, 1577-1592.	2.6	66
15	Fabricating electrospun cellulose nanofibre adsorbents for ion-exchange chromatography. Journal of Chromatography A, 2015, 1376, 74-83.	3.7	60
16	Determining Antibody Stability: Creation of Solid-Liquid Interfacial Effects within a High Shear Environment. Biotechnology Progress, 2007, 23, 0-0.	2.6	59
17	An automated microscale chromatographic purification of virus-like particles as a strategy for process development. Biotechnology and Applied Biochemistry, 2007, 47, 131.	3.1	57
18	Design of high productivity antibody capture by protein A chromatography using an integrated experimental and modeling approach. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2012, 899, 116-126.	2.3	56

#	Article	IF	Citations
19	A monolith purification process for virus-like particles from yeast homogenate. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2012, 880, 82-89.	2.3	52
20	Nanofiber adsorbents for high productivity downstream processing. Biotechnology and Bioengineering, 2013, 110, 1119-1128.	3.3	49
21	Factors influencing antibody stability at solidâ€“liquid interfaces in a high shear environment. Biotechnology Progress, 2009, 25, 1499-1507.	2.6	48
22	Nanofiber adsorbents for high productivity continuous downstream processing. Journal of Biotechnology, 2015, 213, 74-82.	3.8	48
23	A model based approach for identifying robust operating conditions for industrial chromatography with process variability. Chemical Engineering Science, 2014, 116, 284-295.	3.8	45
24	A Microscale Yeast Cell Disruption Technique for Integrated Process Development Strategies. Biotechnology Progress, 2008, 24, 606-614.	2.6	44
25	Masking of the Fc region in human IgG4 by constrained X-ray scattering modelling: implications for antibody function and therapy. Biochemical Journal, 2010, 432, 101-114.	3.7	40
26	Host cell protein dynamics in recombinant CHO cells. Bioengineered, 2013, 4, 288-291.	3.2	40
27	Cell free protein synthesis: a viable option for stratified medicines manufacturing?. Current Opinion in Chemical Engineering, 2017, 18, 77-83.	7.8	39
28	Precipitation as an Enabling Technology for the Intensification of Biopharmaceutical Manufacture. Trends in Biotechnology, 2019, 37, 237-241.	9.3	39
29	Integration of scale-down experimentation and general rate modelling to predict manufacturing scale chromatographic separations. Journal of Chromatography A, 2010, 1217, 6917-6926.	3.7	37
30	Modelling of industrial biopharmaceutical multicomponent chromatography. Chemical Engineering Research and Design, 2014, 92, 1304-1314.	5.6	37
31	Evaluation of fluorescent dyes to measure protein aggregation within mammalian cell culture supernatants. Journal of Chemical Technology and Biotechnology, 2018, 93, 909-917.	3.2	37
32	Step change in the efficiency of centrifugation through cell engineering: coâ€expression of Staphylococcal nuclease to reduce the viscosity of the bioprocess feedstock. Biotechnology and Bioengineering, 2009, 104, 134-142.	3.3	32
33	Bioprocess monitoring: An optical biosensor for rapid bioproduct analysis. Journal of Biotechnology, 1998, 65, 69-80.	3.8	31
34	Lentiviral Vector Purification Using Nanofiber Ion-Exchange Chromatography. Molecular Therapy - Methods and Clinical Development, 2019, 15, 52-62.	4.1	31
35	Design and characterization of a microfluidic packed bed system for protein breakthrough and dynamic binding capacity determination. Biotechnology Progress, 2009, 25, 277-285.	2.6	30
36	A microscale approach for predicting the performance of chromatography columns used to recover therapeutic polyclonal antibodies. Journal of Chromatography A, 2009, 1216, 7806-7815.	3.7	30

#	Article	IF	Citations
37	Synthesis and Assembly of Hepatitis B Virus-Like Particles in a Pichia pastoris Cell-Free System. Frontiers in Bioengineering and Biotechnology, 2020, 8, 72.	4.1	30
38	Differential response in downstream processing of CHO cells grown under mild hypothermic conditions. Biotechnology Progress, 2013, 29, 688-696.	2.6	28
39	X-ray computed tomography of packed bed chromatography columns for three dimensional imaging and analysis. Journal of Chromatography A, 2017, 1487, 108-115.	3.7	28
40	Mechanical characterisation of agarose-based chromatography resins for biopharmaceutical manufacture. Journal of Chromatography A, 2017, 1530, 129-137.	3.7	28
41	Enriching leukapheresis improves TÂcell activation and transduction efficiency during CAR T processing. Molecular Therapy - Methods and Clinical Development, 2021, 20, 675-687.	4.1	28
42	Chemical and biological characterisation of a sensor surface for bioprocess monitoring. Biosensors and Bioelectronics, 2011, 26, 2940-2947.	10.1	26
43	Dual Data-Independent Acquisition Approach Combining Global HCP Profiling and Absolute Quantification of Key Impurities during Bioprocess Development. Analytical Chemistry, 2018, 90, 1241-1247.	6.5	26
44	Residual on column host cell protein analysis during lifetime studies of protein A chromatography. Journal of Chromatography A, 2016, 1461, 70-77.	3.7	25
45	An optical biosensor for real-time chromatography monitoring: Breakthrough determination. Biosensors and Bioelectronics, 1998, 13, 847-853.	10.1	24
46	Impact of aeration strategy on CHO cell performance during antibody production. Biotechnology Progress, 2013, 29, 116-126.	2.6	23
47	A Framework for the Prediction of Scale-Up When Using Compressible Chromatographic Packings. Biotechnology Progress, 2007, 23, 413-422.	2.6	22
48	Protein denaturation and protein:drugs interactions from intrinsic protein fluorescence measurements at the nanolitre scale. Protein Science, 2010, 19, 1544-1554.	7.6	22
49	Chromatography modelling to describe protein adsorption at bead level. Journal of Chromatography A, 2013, 1284, 44-52.	3.7	22
50	Fouling of an anion exchange chromatography operation in a monoclonal antibody process: Visualization and kinetic studies. Biotechnology and Bioengineering, 2013, 110, 2425-2435.	3.3	22
51	Adenovirus 5 recovery using nanofiber ionâ€exchange adsorbents. Biotechnology and Bioengineering, 2019, 116, 1698-1709.	3.3	22
52	A systematic approach for modeling chromatographic processesâ€”Application to protein purification. AICHE Journal, 2008, 54, 965-977.	3.6	21
53	Advanced control strategies for bioprocess chromatography: Challenges and opportunities for intensified processes and next generation products. Journal of Chromatography A, 2021, 1639, 461914.	3.7	21
54	Shear Effects on Aluminum Phosphate Adjuvant Particle Properties in Vaccine Drug Products. Journal of Pharmaceutical Sciences, 2015, 104, 378-387.	3.3	20

#	Article	IF	Citations
55	Lifetime and Aging of Chromatography Resins during Biopharmaceutical Manufacture. Trends in Biotechnology, 2018, 36, 992-995.	9.3	20
56	Comparison of Techniques for Monitoring Antibody Fragment Production in E. coli Fermentation Cultures. Biotechnology Progress, 2002, 18, 1431-1438.	2.6	18
57	Ultra Scaleâ€Down To Define and Improve the Relationship between Flocculation and Discâ€Stack Centrifugation. Biotechnology Progress, 2008, 24, 426-431.	2.6	18
58	An automated packed Protein G micro-pipette tip assay for rapid quantification of polyclonal antibodies in ovine serum. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2010, 878, 3067-3075.	2.3	18
59	Assessment of the manufacturability of Escherichia coli high cell density fermentations. Biotechnology Progress, 2011, 27, 1488-1496.	2.6	17
60	Understanding the Relationship Between Biotherapeutic Protein Stability and Solidâ€“Liquid Interfacial Shear in Constant Region Mutants of IgG1 and IgG4. Journal of Pharmaceutical Sciences, 2014, 103, 437-444.	3.3	17
61	Investigating heparin affinity chromatography for extracellular vesicle purification and fractionation. Journal of Chromatography A, 2022, 1670, 462987.	3.7	17
62	Impact of clarification strategy on chromatographic separations: Preâ€processing of cell homogenates. Biotechnology and Bioengineering, 2008, 100, 941-949.	3.3	16
63	<scp>UV</scp> resonance Raman spectroscopy: a process analytical tool for host cell <scp>DNA</scp> and <scp>RNA</scp> dynamics in mammalian cell lines. Journal of Chemical Technology and Biotechnology, 2015, 90, 237-243.	3.2	16
64	Exploiting the intracellular compartmentalization characteristics of the S. cerevisiae host cell for enhancing primary purification of lipidâ€envelope virusâ€like particles. Biotechnology Progress, 2010, 26, 26-33.	2.6	15
65	Microfluidic Chromatography for Early Stage Evaluation of Biopharmaceutical Binding and Separation Conditions. Separation Science and Technology, 2010, 46, 185-194.	2.5	15
66	An integrated experimental and economic evaluation of cell therapy affinity purification technologies. Regenerative Medicine, 2017, 12, 397-417.	1.7	15
67	Improving the reaction mix of a Pichia pastoris cell-free system using a design of experiments approach to minimise experimental effort. Synthetic and Systems Biotechnology, 2020, 5, 137-144.	3.7	15
68	Quantifying Process Tradeoffs in the Operation of Chromatographic Sequences. Biotechnology Progress, 2008, 19, 1315-1322.	2.6	13
69	Ultra scaleâ€down approach to correct dispersive and retentive effects in smallâ€scale columns when predicting larger scale elution profiles. Biotechnology Progress, 2009, 25, 1103-1110.	2.6	13
70	Product and contaminant measurement in bioprocess development by SELDIâ€MS. Biotechnology Progress, 2010, 26, 881-887.	2.6	13
71	Neutron reflectivity measurement of protein Aâ€“antibody complex at the solid-liquid interface. Journal of Chromatography A, 2017, 1499, 118-131.	3.7	13
72	Three dimensional characterisation of chromatography bead internal structure using X-ray computed tomography and focused ion beam microscopy. Journal of Chromatography A, 2018, 1566, 79-88.	3.7	13

#	Article	IF	Citations
73	Rapid Developability Assessments to Formulate Recombinant Protein Antigens as Stable, Low-Cost, Multi-Dose Vaccine Candidates: Case-Study With Non-Replicating Rotavirus (NRRV) Vaccine Antigens. Journal of Pharmaceutical Sciences, 2021, 110, 1042-1053.	3.3	13
74	An In-Line Flow Injection Optical Biosensor for Real-Time Bioprocess Monitoring. Food and Bioproducts Processing, 2002, 80, 71-77.	3.6	12
75	Characterization and feasibility of a miniaturized stirred tank bioreactor to perform E. coli high cell density fedâ€batch fermentations. Biotechnology Progress, 2012, 28, 66-75.	2.6	12
76	The challenges of product- and process-related impurities to an evolving biopharmaceutical industry. Bioanalysis, 2013, 5, 123-126.	1.5	12
77	Scaleâ€down characterization of postâ€centrifuge flocculation processes for highâ€throughput process development. Biotechnology and Bioengineering, 2014, 111, 2486-2498.	3.3	12
78	An ultra scaleâ€down approach identifies host cell protein differences across a panel of mAb producing CHO cell line variants. Biotechnology Journal, 2016, 11, 415-424.	3.5	12
79	Flocculation on a chip: a novel screening approach to determine floc growth rates and select flocculating agents. Lab on A Chip, 2018, 18, 585-594.	6.0	12
80	Protein A chromatography resin lifetimeâ€"impact of feed composition. Biotechnology Progress, 2018, 34, 412-419.	2.6	12
81	Identification of upstream culture conditions and harvest time parameters that affect host cell protein clearance. Biotechnology Progress, 2019, 35, e2805.	2.6	12
82	Holistic process development to mitigate proteolysis of a subunit rotavirus vaccine candidate produced in <scp>Pichia pastoris</scp> by means of an acid pH pulse during fedâ€batch fermentation. Biotechnology Progress, 2020, 36, e2966.	2.6	12
83	Dual salt precipitation for the recovery of a recombinant protein from Escherichia coli. Biotechnology Progress, 2011, 27, 1306-1314.	2.6	11
84	Measurement of impurities to support process development and manufacture of biopharmaceuticals. TrAC - Trends in Analytical Chemistry, 2018, 101, 120-128.	11.4	11
85	The effect of feed quality due to clarification strategy on the design and performance of protein A periodic counterâ€current chromatography. Biotechnology Progress, 2018, 34, 1380-1392.	2.6	11
86	Analytics of host cell proteins (HCPs): lessons from biopharmaceutical mAb analysis for Gene therapy products. Current Opinion in Biotechnology, 2021, 71, 98-104.	6.6	11
87	Strategies to control therapeutic antibody glycosylation during bioprocessing: Synthesis and separation. Biotechnology and Bioengineering, 2022, 119, 1343-1358.	3.3	11
88	Study of the conditions for multiâ€modal chromatographic capture of Fabâ€² from dualâ€salt precipitated E. coli homogenate. Journal of Chemical Technology and Biotechnology, 2013, 88, 372-377.	3.2	10
89	Drying techniques for the visualisation of agaroseâ€based chromatography media by scanning electron microscopy. Biotechnology Journal, 2017, 12, 1600583.	3.5	10
90	Characterisation of porous anodic alumina membranes for ultrafiltration of protein nanoparticles as a size mimic of virus particles. Journal of Membrane Science, 2019, 580, 77-91.	8.2	10

#	Article	IF	Citations
91	Addressing a whole bioprocess in real-time using an optical biosensor-formation, recovery and purification of antibody fragments from a recombinant E. coli host. Bioprocess and Biosystems Engineering, 2004, 26, 271-82.	3.4	9
92	Evaluation of the impact of lipid fouling during the chromatographic purification of virusâ€like particles from Saccharomyces cerevisiae. Journal of Chemical Technology and Biotechnology, 2010, 85, 209-215.	3.2	9
93	Fluorescence based real time monitoring of fouling in process chromatography. Scientific Reports, 2017, 7, 45640.	3.3	9
94	A rational approach to improving titer in <scp>Escherichia coli</scp>â€based cellâ€free protein synthesis reactions. Biotechnology Progress, 2021, 37, e3062.	2.6	9
95	Demonstration of the use of windows of operation to visualize the effects of fouling on the performance of a chromatographic step. Biotechnology Progress, 2011, 27, 1009-1017.	2.6	8
96	Dynamic modelling of aqueous two-phase systems to quantify the impact of bioprocess design, operation and variability. Food and Bioproducts Processing, 2018, 107, 10-24.	3.6	8
97	Novel constructs and 1-step chromatography protocols for the production of Porcine Circovirus 2d (PCV2d) and Circovirus 3 (PCV3) subunit vaccine candidates. Food and Bioproducts Processing, 2022, 131, 125-135.	3.6	8
98	A methodology for the graphical determination of operating conditions of chromatographic sequences incorporating the trade-offs between purity and yield. Journal of Chemical Technology and Biotechnology, 2006, 81, 1803-1813.	3.2	7
99	Principal Component Score Modeling for the Rapid Description of Chromatographic Separations. Biotechnology Progress, 2008, 24, 202-208.	2.6	7
100	Effects of lysosomal biotherapeutic recombinant protein expression on cell stress and protease and general host cell protein release inChinese hamster ovary cells. Biotechnology Progress, 2017, 33, 666-676.	2.6	7
101	Packed bed compression visualisation and flow simulation using an erosion-dilation approach. Journal of Chromatography A, 2020, 1611, 460601.	3.7	7
102	Analysis of fouling and breakthrough of process related impurities during depth filtration using confocal microscopy. Biotechnology Progress, 2022, 38, e3233.	2.6	7
103	Use of PAT principles for the openâ€loop control of laboratory and pilotâ€scale chromatography columns. Journal of Chemical Technology and Biotechnology, 2009, 84, 1314-1322.	3.2	6
104	Chromatography process development aided by a dyeâ€based assay. Journal of Chemical Technology and Biotechnology, 2020, 95, 132-141.	3.2	6
105	In situ neutron scattering of antibody adsorption during protein A chromatography. Journal of Chromatography A, 2020, 1617, 460842.	3.7	6
106	Nanoparticle tracking analysis as a process analytical tool for characterising magnetosome preparations. Food and Bioproducts Processing, 2021, 127, 426-434.	3.6	5
107	Reactor design for continuous monoclonal antibody precipitation based upon microâ€mixing. Journal of Chemical Technology and Biotechnology, 2022, 97, 2434-2447.	3.2	5
108	Report and recommendation of a workshop on education and training for measurement, monitoring, modelling and control (M³C) in biochemical engineering. Biotechnology Journal, 2010, 5, 359-367.	3.5	4

#	Article	IF	Citations
109	Identification and classification of host cell proteins during biopharmaceutical process development. Biotechnology Progress, 2022, 38, e3224.	2.6	4
110	A model based approach to an adaptive design space in chromatography. Computer Aided Chemical Engineering, 2013, 32, 115-120.	0.5	3
111	Analytical tools for monitoring changes in physical and chemical properties of chromatography resin upon reuse. Electrophoresis, 2019, 40, 3074-3083.	2.4	3
112	Escherichia coli-Based Cell-Free Protein Synthesis for Iterative Design of Tandem-Core Virus-Like Particles. Vaccines, 2021, 9, 193.	4.4	3
113	Multivariate statistical data analysis of cellâ€free protein synthesis toward monitoring and control. AICHE Journal, 2021, 67, e17257.	3.6	3
114	GFPâ€tagging of extracellular vesicles for rapid process development. Biotechnology Journal, 2022, 17, e2100583.	3.5	3
115	Mass spectrometry to describe product and contaminant adsorption properties for bioprocess development. Biotechnology and Bioengineering, 2011, 108, 1862-1871.	3.3	2
116	Ultra scaleâ€down approaches to study the centrifugal harvest for viral vaccine production. Biotechnology and Bioengineering, 2018, 115, 1226-1238.	3.3	2
117	Optimization of protein A chromatography for antibody capture. Computer Aided Chemical Engineering, 2012, 30, 1367-1371.	0.5	1
118	The future for biosensors in biopharmaceutical production. Pharmaceutical Bioprocessing, 2014, 2, 121-124.	0.8	1
119	Dynamic Simulation of a Batch Aqueous Two-Phase Extraction Process for Î±-Amylase. Computer Aided Chemical Engineering, 2015, 37, 713-718.	0.5	1
120	High-resolution imaging of depth filter structures using X-ray computed tomography. Journal of Materials Science, 2021, 56, 15313.	3.7	1
121	Lipid reduction to improve clarification and filterability during primary recovery of intracellular products in yeast lysates using exogenous lipase. Journal of Chemical Technology and Biotechnology, 2021, 96, 3166.	3.2	1
122	High-Throughput Process Development for the Chromatographic Purification of Viral Antigens. Methods in Molecular Biology, 2021, 2183, 119-182.	0.9	1
123	Liposome Sterile Filtration Characterization via X-ray Computed Tomography and Confocal Microscopy. Membranes, 2021, 11, 905.	3.0	1
124	Measurement of Uptake Curves and Adsorption Isotherms by Automated Microscale Chromatography Pipette Tips. Methods in Molecular Biology, 2014, 1129, 67-73.	0.9	0