

# Daniel G Bracewell

## List of Publications by Year in descending order

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124  
papers

3,670  
citations

147801

31  
h-index

161849

54  
g-index

125  
all docs

125  
docs citations

125  
times ranked

3257  
citing authors

#	ARTICLE	IF	CITATIONS
1	Reactor design for continuous monoclonal antibody precipitation based upon micro-mixing. Journal of Chemical Technology and Biotechnology, 2022, 97, 2434-2447.	3.2	5
2	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
3	Identification and classification of host cell proteins during biopharmaceutical process development. Biotechnology Progress, 2022, 38, e3224.	2.6	4
4	Analysis of fouling and breakthrough of process related impurities during depth filtration using confocal microscopy. Biotechnology Progress, 2022, 38, e3233.	2.6	7
5	Strategies to control therapeutic antibody glycosylation during bioprocessing: Synthesis and separation. Biotechnology and Bioengineering, 2022, 119, 1343-1358.	3.3	11
6	GFP-tagging of extracellular vesicles for rapid process development. Biotechnology Journal, 2022, 17, e2100583.	3.5	3
7	Investigating heparin affinity chromatography for extracellular vesicle purification and fractionation. Journal of Chromatography A, 2022, 1670, 462987.	3.7	17
8	A rational approach to improving titer in <i>Escherichia coli</i> -based cell-free protein synthesis reactions. Biotechnology Progress, 2021, 37, e3062.	2.6	9
9	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
10	Escherichia coli-Based Cell-Free Protein Synthesis for Iterative Design of Tandem-Core Virus-Like Particles. Vaccines, 2021, 9, 193.	4.4	3
11	Multivariate statistical data analysis of cell-free protein synthesis toward monitoring and control. AIChE Journal, 2021, 67, e17257.	3.6	3
12	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
13	Enriching leukapheresis improves T cell activation and transduction efficiency during CAR T processing. Molecular Therapy - Methods and Clinical Development, 2021, 20, 675-687.	4.1	28
14	Nanoparticle tracking analysis as a process analytical tool for characterising magnetosome preparations. Food and Bioproducts Processing, 2021, 127, 426-434.	3.6	5
15	High-resolution imaging of depth filter structures using X-ray computed tomography. Journal of Materials Science, 2021, 56, 15313.	3.7	1
16	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
17	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
18	High-Throughput Process Development for the Chromatographic Purification of Viral Antigens. Methods in Molecular Biology, 2021, 2183, 119-182.	0.9	1

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19	Liposome Sterile Filtration Characterization via X-ray Computed Tomography and Confocal Microscopy. <i>Membranes</i> , 2021, 11, 905.	3.0	1
20	Packed bed compression visualisation and flow simulation using an erosion-dilation approach. <i>Journal of Chromatography A</i> , 2020, 1611, 460601.	3.7	7
21	Chromatography process development aided by a dye-based assay. <i>Journal of Chemical Technology and Biotechnology</i> , 2020, 95, 132-141.	3.2	6
22	Improving the reaction mix of a <i>Pichia pastoris</i> cell-free system using a design of experiments approach to minimise experimental effort. <i>Synthetic and Systems Biotechnology</i> , 2020, 5, 137-144.	3.7	15
23	Synthesis and Assembly of Hepatitis B Virus-Like Particles in a <i>Pichia pastoris</i> Cell-Free System. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 72.	4.1	30
24	In situ neutron scattering of antibody adsorption during protein A chromatography. <i>Journal of Chromatography A</i> , 2020, 1617, 460842.	3.7	6
25	Holistic process development to mitigate proteolysis of a subunit rotavirus vaccine candidate produced in <i>Pichia pastoris</i> by means of an acid pH pulse during fed-batch fermentation. <i>Biotechnology Progress</i> , 2020, 36, e2966.	2.6	12
26	Analytical tools for monitoring changes in physical and chemical properties of chromatography resin upon reuse. <i>Electrophoresis</i> , 2019, 40, 3074-3083.	2.4	3
27	Lentiviral Vector Purification Using Nanofiber Ion-Exchange Chromatography. <i>Molecular Therapy - Methods and Clinical Development</i> , 2019, 15, 52-62.	4.1	31
28	Adenovirus 5 recovery using nanofiber ion-exchange adsorbents. <i>Biotechnology and Bioengineering</i> , 2019, 116, 1698-1709.	3.3	22
29	Characterisation of porous anodic alumina membranes for ultrafiltration of protein nanoparticles as a size mimic of virus particles. <i>Journal of Membrane Science</i> , 2019, 580, 77-91.	8.2	10
30	Identification of upstream culture conditions and harvest time parameters that affect host cell protein clearance. <i>Biotechnology Progress</i> , 2019, 35, e2805.	2.6	12
31	Precipitation as an Enabling Technology for the Intensification of Biopharmaceutical Manufacture. <i>Trends in Biotechnology</i> , 2019, 37, 237-241.	9.3	39
32	Manufacturing Exosomes: A Promising Therapeutic Platform. <i>Trends in Molecular Medicine</i> , 2018, 24, 242-256.	6.7	292
33	Flocculation on a chip: a novel screening approach to determine floc growth rates and select flocculating agents. <i>Lab on A Chip</i> , 2018, 18, 585-594.	6.0	12
34	Lifetime and Aging of Chromatography Resins during Biopharmaceutical Manufacture. <i>Trends in Biotechnology</i> , 2018, 36, 992-995.	9.3	20
35	Ultra scale-down approaches to study the centrifugal harvest for viral vaccine production. <i>Biotechnology and Bioengineering</i> , 2018, 115, 1226-1238.	3.3	2
36	Protein A chromatography resin lifetime impact of feed composition. <i>Biotechnology Progress</i> , 2018, 34, 412-419.	2.6	12

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37	Evaluation of fluorescent dyes to measure protein aggregation within mammalian cell culture supernatants. <i>Journal of Chemical Technology and Biotechnology</i> , 2018, 93, 909-917.	3.2	37
38	Dual Data-Independent Acquisition Approach Combining Global HCP Profiling and Absolute Quantification of Key Impurities during Bioprocess Development. <i>Analytical Chemistry</i> , 2018, 90, 1241-1247.	6.5	26
39	Dynamic modelling of aqueous two-phase systems to quantify the impact of bioprocess design, operation and variability. <i>Food and Bioproducts Processing</i> , 2018, 107, 10-24.	3.6	8
40	Measurement of impurities to support process development and manufacture of biopharmaceuticals. <i>TrAC - Trends in Analytical Chemistry</i> , 2018, 101, 120-128.	11.4	11
41	The effect of feed quality due to clarification strategy on the design and performance of protein A periodic counter-current chromatography. <i>Biotechnology Progress</i> , 2018, 34, 1380-1392.	2.6	11
42	Three dimensional characterisation of chromatography bead internal structure using X-ray computed tomography and focused ion beam microscopy. <i>Journal of Chromatography A</i> , 2018, 1566, 79-88.	3.7	13
43	X-ray computed tomography of packed bed chromatography columns for three dimensional imaging and analysis. <i>Journal of Chromatography A</i> , 2017, 1487, 108-115.	3.7	28
44	Effects of lysosomal biotherapeutic recombinant protein expression on cell stress and protease and general host cell protein release in Chinese hamster ovary cells. <i>Biotechnology Progress</i> , 2017, 33, 666-676.	2.6	7
45	Neutron reflectivity measurement of protein A-antibody complex at the solid-liquid interface. <i>Journal of Chromatography A</i> , 2017, 1499, 118-131.	3.7	13
46	An integrated experimental and economic evaluation of cell therapy affinity purification technologies. <i>Regenerative Medicine</i> , 2017, 12, 397-417.	1.7	15
47	Fluorescence based real time monitoring of fouling in process chromatography. <i>Scientific Reports</i> , 2017, 7, 45640.	3.3	9
48	Drying techniques for the visualisation of agarose-based chromatography media by scanning electron microscopy. <i>Biotechnology Journal</i> , 2017, 12, 1600583.	3.5	10
49	Mechanical characterisation of agarose-based chromatography resins for biopharmaceutical manufacture. <i>Journal of Chromatography A</i> , 2017, 1530, 129-137.	3.7	28
50	Cell free protein synthesis: a viable option for stratified medicines manufacturing?. <i>Current Opinion in Chemical Engineering</i> , 2017, 18, 77-83.	7.8	39
51	Residual on column host cell protein analysis during lifetime studies of protein A chromatography. <i>Journal of Chromatography A</i> , 2016, 1461, 70-77.	3.7	25
52	An ultra scale-down approach identifies host cell protein differences across a panel of mAb producing CHO cell line variants. <i>Biotechnology Journal</i> , 2016, 11, 415-424.	3.5	12
53	Shear Effects on Aluminum Phosphate Adjuvant Particle Properties in Vaccine Drug Products. <i>Journal of Pharmaceutical Sciences</i> , 2015, 104, 378-387.	3.3	20
54	Dynamic Simulation of a Batch Aqueous Two-Phase Extraction Process for Î±-Amylase. <i>Computer Aided Chemical Engineering</i> , 2015, 37, 713-718.	0.5	1

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55	The future of host cell protein (HCP) identification during process development and manufacturing linked to a risk-based management for their control. <i>Biotechnology and Bioengineering</i> , 2015, 112, 1727-1737.	3.3	137
56	Fabricating electrospun cellulose nanofibre adsorbents for ion-exchange chromatography. <i>Journal of Chromatography A</i> , 2015, 1376, 74-83.	3.7	60
57	Nanofiber adsorbents for high productivity continuous downstream processing. <i>Journal of Biotechnology</i> , 2015, 213, 74-82.	3.8	48
58	Protein A chromatography increases monoclonal antibody aggregation rate during subsequent low pH virus inactivation hold. <i>Journal of Chromatography A</i> , 2015, 1415, 83-90.	3.7	117
59	<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. <i>Journal of Chemical Technology and Biotechnology</i> , 2015, 90, 237-243.	3.2	16
60	Understanding the Relationship Between Biotherapeutic Protein Stability and Solid-Liquid Interfacial Shear in Constant Region Mutants of IgG1 and IgG4. <i>Journal of Pharmaceutical Sciences</i> , 2014, 103, 437-444.	3.3	17
61	Measurement of Uptake Curves and Adsorption Isotherms by Automated Microscale Chromatography Pipette Tips. <i>Methods in Molecular Biology</i> , 2014, 1129, 67-73.	0.9	0
62	Measurement and control of host cell proteins (HCPs) in CHO cell bioprocesses. <i>Current Opinion in Biotechnology</i> , 2014, 30, 153-160.	6.6	83
63	A model based approach for identifying robust operating conditions for industrial chromatography with process variability. <i>Chemical Engineering Science</i> , 2014, 116, 284-295.	3.8	45
64	Modelling of industrial biopharmaceutical multicomponent chromatography. <i>Chemical Engineering Research and Design</i> , 2014, 92, 1304-1314.	5.6	37
65	Design of high productivity sequential multi-column chromatography for antibody capture. <i>Food and Bioproducts Processing</i> , 2014, 92, 233-241.	3.6	73
66	The future for biosensors in biopharmaceutical production. <i>Pharmaceutical Bioprocessing</i> , 2014, 2, 121-124.	0.8	1
67	Scale-down characterization of post-centrifuge flocculation processes for high-throughput process development. <i>Biotechnology and Bioengineering</i> , 2014, 111, 2486-2498.	3.3	12
68	Study of the conditions for multi-modal chromatographic capture of Fab <sup>2</sup> from dual-salt precipitated <i>E. coli</i> homogenate. <i>Journal of Chemical Technology and Biotechnology</i> , 2013, 88, 372-377.	3.2	10
69	Chromatography modelling to describe protein adsorption at bead level. <i>Journal of Chromatography A</i> , 2013, 1284, 44-52.	3.7	22
70	Differential response in downstream processing of CHO cells grown under mild hypothermic conditions. <i>Biotechnology Progress</i> , 2013, 29, 688-696.	2.6	28
71	Nanofiber adsorbents for high productivity downstream processing. <i>Biotechnology and Bioengineering</i> , 2013, 110, 1119-1128.	3.3	49
72	Optimising the design and operation of semi-continuous affinity chromatography for clinical and commercial manufacture. <i>Journal of Chromatography A</i> , 2013, 1284, 17-27.	3.7	121

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73	Impact of aeration strategy on CHO cell performance during antibody production. <i>Biotechnology Progress</i> , 2013, 29, 116-126.	2.6	23
74	Fouling of an anion exchange chromatography operation in a monoclonal antibody process: Visualization and kinetic studies. <i>Biotechnology and Bioengineering</i> , 2013, 110, 2425-2435.	3.3	22
75	The challenges of product- and process-related impurities to an evolving biopharmaceutical industry. <i>Bioanalysis</i> , 2013, 5, 123-126.	1.5	12
76	The dynamics of the CHO host cell protein profile during clarification and protein A capture in a platform antibody purification process. <i>Biotechnology and Bioengineering</i> , 2013, 110, 240-251.	3.3	91
77	A model based approach to an adaptive design space in chromatography. <i>Computer Aided Chemical Engineering</i> , 2013, 32, 115-120.	0.5	3
78	Host cell protein dynamics in recombinant CHO cells. <i>Bioengineered</i> , 2013, 4, 288-291.	3.2	40
79	A monolith purification process for virus-like particles from yeast homogenate. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2012, 880, 82-89.	2.3	52
80	Design of high productivity antibody capture by protein A chromatography using an integrated experimental and modeling approach. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2012, 899, 116-126.	2.3	56
81	Optimization of protein A chromatography for antibody capture. <i>Computer Aided Chemical Engineering</i> , 2012, 30, 1367-1371.	0.5	1
82	Soft sensors in bioprocessing: A status report and recommendations. <i>Biotechnology Journal</i> , 2012, 7, 1040-1048.	3.5	180
83	Host cell protein adsorption characteristics during protein a chromatography. <i>Biotechnology Progress</i> , 2012, 28, 1037-1044.	2.6	84
84	Characterization and feasibility of a miniaturized stirred tank bioreactor to perform <i>E. coli</i> high cell density fed-batch fermentations. <i>Biotechnology Progress</i> , 2012, 28, 66-75.	2.6	12
85	Host cell protein dynamics in the supernatant of a mAb producing CHO cell line. <i>Biotechnology and Bioengineering</i> , 2012, 109, 971-982.	3.3	108
86	Nanofibre fabrication in a temperature and humidity controlled environment for improved fibre consistency. <i>Journal of Materials Science</i> , 2011, 46, 3890-3898.	3.7	82
87	Demonstration of the use of windows of operation to visualize the effects of fouling on the performance of a chromatographic step. <i>Biotechnology Progress</i> , 2011, 27, 1009-1017.	2.6	8
88	Assessment of the manufacturability of <i>Escherichia coli</i> high cell density fermentations. <i>Biotechnology Progress</i> , 2011, 27, 1488-1496.	2.6	17
89	Dual salt precipitation for the recovery of a recombinant protein from <i>Escherichia coli</i> . <i>Biotechnology Progress</i> , 2011, 27, 1306-1314.	2.6	11
90	Mass spectrometry to describe product and contaminant adsorption properties for bioprocess development. <i>Biotechnology and Bioengineering</i> , 2011, 108, 1862-1871.	3.3	2

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91	Chemical and biological characterisation of a sensor surface for bioprocess monitoring. <i>Biosensors and Bioelectronics</i> , 2011, 26, 2940-2947.	10.1	26
92	Evaluation of the impact of lipid fouling during the chromatographic purification of virus-like particles from <i>Saccharomyces cerevisiae</i> . <i>Journal of Chemical Technology and Biotechnology</i> , 2010, 85, 209-215.	3.2	9
93	Exploiting the intracellular compartmentalization characteristics of the <i>S. cerevisiae</i> host cell for enhancing primary purification of lipid envelope virus-like particles. <i>Biotechnology Progress</i> , 2010, 26, 26-33.	2.6	15
94	Product and contaminant measurement in bioprocess development by SELDI-MS. <i>Biotechnology Progress</i> , 2010, 26, 881-887.	2.6	13
95	Report and recommendation of a workshop on education and training for measurement, monitoring, modelling and control (M <sup>3</sup> C) in biochemical engineering. <i>Biotechnology Journal</i> , 2010, 5, 359-367.	3.5	4
96	An automated packed Protein G micro-pipette tip assay for rapid quantification of polyclonal antibodies in ovine serum. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2010, 878, 3067-3075.	2.3	18
97	Integration of scale-down experimentation and general rate modelling to predict manufacturing scale chromatographic separations. <i>Journal of Chromatography A</i> , 2010, 1217, 6917-6926.	3.7	37
98	Protein denaturation and protein:drugs interactions from intrinsic protein fluorescence measurements at the nanolitre scale. <i>Protein Science</i> , 2010, 19, 1544-1554.	7.6	22
99	Masking of the Fc region in human IgG4 by constrained X-ray scattering modelling: implications for antibody function and therapy. <i>Biochemical Journal</i> , 2010, 432, 101-114.	3.7	40
100	Microfluidic Chromatography for Early Stage Evaluation of Biopharmaceutical Binding and Separation Conditions. <i>Separation Science and Technology</i> , 2010, 46, 185-194.	2.5	15
101	Advances in product release strategies and impact on bioprocess design. <i>Trends in Biotechnology</i> , 2009, 27, 477-485.	9.3	136
102	Use of PAT principles for the open-loop control of laboratory and pilot-scale chromatography columns. <i>Journal of Chemical Technology and Biotechnology</i> , 2009, 84, 1314-1322.	3.2	6
103	Step change in the efficiency of centrifugation through cell engineering: co-expression of <i>Staphylococcal nuclease</i> to reduce the viscosity of the bioprocess feedstock. <i>Biotechnology and Bioengineering</i> , 2009, 104, 134-142.	3.3	32
104	Ultra scale-down approach to correct dispersive and retentive effects in small-scale columns when predicting larger scale elution profiles. <i>Biotechnology Progress</i> , 2009, 25, 1103-1110.	2.6	13
105	Factors influencing antibody stability at solid-liquid interfaces in a high shear environment. <i>Biotechnology Progress</i> , 2009, 25, 1499-1507.	2.6	48
106	Design and characterization of a microfluidic packed bed system for protein breakthrough and dynamic binding capacity determination. <i>Biotechnology Progress</i> , 2009, 25, 277-285.	2.6	30
107	A microscale approach for predicting the performance of chromatography columns used to recover therapeutic polyclonal antibodies. <i>Journal of Chromatography A</i> , 2009, 1216, 7806-7815.	3.7	30
108	Impact of clarification strategy on chromatographic separations: Pre-processing of cell homogenates. <i>Biotechnology and Bioengineering</i> , 2008, 100, 941-949.	3.3	16

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109	A systematic approach for modeling chromatographic processes—Application to protein purification. <i>AIChE Journal</i> , 2008, 54, 965-977.	3.6	21
110	Quantifying Process Tradeoffs in the Operation of Chromatographic Sequences. <i>Biotechnology Progress</i> , 2008, 19, 1315-1322.	2.6	13
111	Principal Component Score Modeling for the Rapid Description of Chromatographic Separations. <i>Biotechnology Progress</i> , 2008, 24, 202-208.	2.6	7
112	Ultra Scale—Down To Define and Improve the Relationship between Flocculation and Disc—Stack Centrifugation. <i>Biotechnology Progress</i> , 2008, 24, 426-431.	2.6	18
113	A Microscale Yeast Cell Disruption Technique for Integrated Process Development Strategies. <i>Biotechnology Progress</i> , 2008, 24, 606-614.	2.6	44
114	A Framework for the Prediction of Scale-Up When Using Compressible Chromatographic Packings. <i>Biotechnology Progress</i> , 2007, 23, 413-422.	2.6	22
115	Determining Antibody Stability: Creation of Solid-Liquid Interfacial Effects within a High Shear Environment. <i>Biotechnology Progress</i> , 2007, 23, 0-0.	2.6	59
116	An automated microscale chromatographic purification of virus-like particles as a strategy for process development. <i>Biotechnology and Applied Biochemistry</i> , 2007, 47, 131.	3.1	57
117	A methodology for the graphical determination of operating conditions of chromatographic sequences incorporating the trade-offs between purity and yield. <i>Journal of Chemical Technology and Biotechnology</i> , 2006, 81, 1803-1813.	3.2	7
118	Bioprocess Engineering Issues That Would Be Faced in Producing a DNA Vaccine at up to 100 m <sup>3</sup> Fermentation Scale for an Influenza Pandemic. <i>Biotechnology Progress</i> , 2005, 21, 1577-1592.	2.6	66
119	Performance prediction of industrial centrifuges using scale-down models. <i>Bioprocess and Biosystems Engineering</i> , 2004, 26, 385-391.	3.4	76
120	Addressing a whole bioprocess in real-time using an optical biosensor—formation, recovery and purification of antibody fragments from a recombinant <i>E. coli</i> host. <i>Bioprocess and Biosystems Engineering</i> , 2004, 26, 271-82.	3.4	9
121	An In-Line Flow Injection Optical Biosensor for Real-Time Bioprocess Monitoring. <i>Food and Bioprocesses Processing</i> , 2002, 80, 71-77.	3.6	12
122	Comparison of Techniques for Monitoring Antibody Fragment Production in <i>E. coli</i> Fermentation Cultures. <i>Biotechnology Progress</i> , 2002, 18, 1431-1438.	2.6	18
123	An optical biosensor for real-time chromatography monitoring: Breakthrough determination. <i>Biosensors and Bioelectronics</i> , 1998, 13, 847-853.	10.1	24
124	Bioprocess monitoring: An optical biosensor for rapid bioproduct analysis. <i>Journal of Biotechnology</i> , 1998, 65, 69-80.	3.8	31