

Anurag S Rathore

List of Publications by Year in descending order

Source: [//exaly.com/author-pdf/5226047/publications.pdf](https://exaly.com/author-pdf/5226047/publications.pdf)

Version: 2024-02-01

333
papers

6,415
citations

79946

39
h-index

110988

64
g-index

348
all docs

348
docs citations

348
times ranked

5005
citing authors

#	ARTICLE	IF	CITATIONS
1	Quality by design for biopharmaceuticals. <i>Nature Biotechnology</i> , 2009, 27, 26-34.	20.8	676
2	Roadmap for implementation of quality by design (QbD) for biotechnology products. <i>Trends in Biotechnology</i> , 2009, 27, 546-553.	9.5	350
3	High-throughput process development for biopharmaceutical drug substances. <i>Trends in Biotechnology</i> , 2011, 29, 127-135.	9.5	153
4	Case study and application of process analytical technology (PAT) towards bioprocessing: Use of online high-performance liquid chromatography (HPLC) for making real-time pooling decisions for process chromatography. <i>Biotechnology and Bioengineering</i> , 2008, 100, 306-316.	3.5	111
5	Circular Dichroism Spectroscopy as a Tool for Monitoring Aggregation in Monoclonal Antibody Therapeutics. <i>Analytical Chemistry</i> , 2014, 86, 11606-11613.	6.8	111
6	Design of experiments applications in bioprocessing: Concepts and approach. <i>Biotechnology Progress</i> , 2014, 30, 86-99.	2.6	104
7	Defining Process Design Space for Biotech Products: Case Study of <i>Pichia pastoris</i> Fermentation. <i>Biotechnology Progress</i> , 2008, 24, 655-662.	2.6	90
8	Follow-on protein products: scientific issues, developments and challenges. <i>Trends in Biotechnology</i> , 2009, 27, 698-705.	9.5	90
9	Application of Multivariate Analysis toward Biotech Processes: Case Study of a Cell-Culture Unit Operation. <i>Biotechnology Progress</i> , 2007, 23, 61-67.	2.6	87
10	Application of Multivariate Data Analysis for Identification and Successful Resolution of a Root Cause for a Bioprocessing Application. <i>Biotechnology Progress</i> , 2008, 24, 720-726.	2.6	81
11	QbD/PAT for bioprocessing: moving from theory to implementation. <i>Current Opinion in Chemical Engineering</i> , 2014, 6, 1-8.	8.0	81
12	Oxidation and Deamidation of Monoclonal Antibody Products: Potential Impact on Stability, Biological Activity, and Efficacy. <i>Journal of Pharmaceutical Sciences</i> , 2022, 111, 903-918.	3.3	70
13	Mechanistic modeling of ion-exchange process chromatography of charge variants of monoclonal antibody products. <i>Journal of Chromatography A</i> , 2015, 1426, 140-153.	3.8	69
14	Recent developments in chromatographic purification of biopharmaceuticals. <i>Biotechnology Letters</i> , 2018, 40, 895-905.	2.2	69
15	Application of near-infrared (NIR) spectroscopy for screening of raw materials used in the cell culture medium for the production of a recombinant therapeutic protein. <i>Biotechnology Progress</i> , 2010, 26, 527-531.	2.6	63
16	Avoiding antibody aggregation during processing: Establishing hold times. <i>Biotechnology Journal</i> , 2014, 9, 1195-1205.	3.7	63
17	Bioprocess Control: Current Progress and Future Perspectives. <i>Life</i> , 2021, 11, 557.	2.5	60
18	Aggregation Kinetics for IgG1-Based Monoclonal Antibody Therapeutics. <i>AAPS Journal</i> , 2016, 18, 689-702.	4.7	55

#	ARTICLE	IF	CITATIONS
19	Chemometrics applications in biotech processes: A review. <i>Biotechnology Progress</i> , 2011, 27, 307-315.	2.6	52
20	Integrating systems analysis and control for implementing process analytical technology in bioprocess development. <i>Journal of Chemical Technology and Biotechnology</i> , 2015, 90, 583-589.	3.1	51
21	Quality by Design (QbD)-Based Process Development for Purification of a Biotherapeutic. <i>Trends in Biotechnology</i> , 2016, 34, 358-370.	9.5	51
22	Continuous precipitation of process related impurities from clarified cell culture supernatant using a novel coiled flow inversion reactor (CFIR). <i>Biotechnology Journal</i> , 2016, 11, 1320-1331.	3.7	49
23	An NIR-based PAT approach for real-time control of loading in Protein A chromatography in continuous manufacturing of monoclonal antibodies. <i>Biotechnology and Bioengineering</i> , 2020, 117, 673-686.	3.5	49
24	Case study and application of process analytical technology (PAT) towards bioprocessing: II. Use of ultra-performance liquid chromatography (UPLC) for making real-time pooling decisions for process chromatography. <i>Biotechnology and Bioengineering</i> , 2008, 101, 1366-1374.	3.5	47
25	Refolding of biotech therapeutic proteins expressed in bacteria: review. <i>Journal of Chemical Technology and Biotechnology</i> , 2013, 88, 1794-1806.	3.1	47
26	Multimodal Chromatography for Purification of Biotherapeutics – A Review. <i>Current Protein and Peptide Science</i> , 2018, 20, 4-13.	1.5	47
27	Optimization of a refolding step for a therapeutic fusion protein in the quality by design (QbD) paradigm. <i>Journal of Separation Science</i> , 2012, 35, 3160-3169.	2.9	46
28	Application of process analytical technology for downstream purification of biotherapeutics. <i>Journal of Chemical Technology and Biotechnology</i> , 2015, 90, 228-236.	3.1	46
29	Process integration and control in continuous bioprocessing. <i>Current Opinion in Chemical Engineering</i> , 2018, 22, 18-25.	8.0	45
30	Rapid analysis of charge variants of monoclonal antibodies using non-linear salt gradient in cation-exchange high performance liquid chromatography. <i>Journal of Chromatography A</i> , 2015, 1406, 175-185.	3.8	43
31	CFD of mixing of multi-phase flow in a bioreactor using population balance model. <i>Biotechnology Progress</i> , 2016, 32, 613-628.	2.6	43
32	Use of HPLC as an Enabler of Process Analytical Technology in Process Chromatography. <i>Analytical Chemistry</i> , 2018, 90, 7824-7829.	6.8	43
33	Generalizing a two-conformation model for describing salt and temperature effects on protein retention and stability in hydrophobic interaction chromatography. <i>Journal of Chromatography A</i> , 2007, 1157, 197-206.	3.8	42
34	Glycosylation of monoclonal antibody products: Current status and future prospects. <i>Biotechnology Progress</i> , 2016, 32, 1091-1102.	2.6	42
35	Should charge variants of monoclonal antibody therapeutics be considered critical quality attributes?. <i>Electrophoresis</i> , 2016, 37, 2338-2346.	2.9	42
36	Comparison of different options for harvest of a therapeutic protein product from high cell density yeast fermentation broth. <i>Biotechnology and Bioengineering</i> , 2006, 94, 91-104.	3.5	41

#	ARTICLE	IF	CITATIONS
37	Continuous refolding of a biotech therapeutic in a novel Coiled Flow Inverter Reactor. Chemical Engineering Science, 2016, 140, 153-160.	4.0	41
38	Analytical Platform for Monitoring Aggregation of Monoclonal Antibody Therapeutics. Pharmaceutical Research, 2019, 36, 152.	3.6	40
39	An overview of mechanistic modeling of liquid chromatography. Preparative Biochemistry and Biotechnology, 2019, 49, 623-638.	2.0	40
40	Design, preparation, and evaluation of liposomal gel formulations for treatment of acne: <i>in vitro</i> and <i>in vivo</i> studies. Drug Development and Industrial Pharmacy, 2019, 45, 395-404.	2.1	40
41	Large scale demonstration of a process analytical technology application in bioprocessing: Use of online high performance liquid chromatography for making real time pooling decisions for process chromatography. Biotechnology Progress, 2010, 26, 448-457.	2.6	39
42	Guidance for performing multivariate data analysis of bioprocessing data: Pitfalls and recommendations. Biotechnology Progress, 2014, 30, 967-973.	2.6	39
43	A novel multimodal chromatography based single step purification process for efficient manufacturing of an E. coli based biotherapeutic protein product. Journal of Chromatography A, 2013, 1314, 188-198.	3.8	37
44	Mechanistic understanding of fouling of protein A chromatography resin. Journal of Chromatography A, 2016, 1459, 78-88.	3.8	37
45	Non-protein A purification platform for continuous processing of monoclonal antibody therapeutics. Journal of Chromatography A, 2018, 1579, 60-72.	3.8	37
46	Multi-period scheduling of a multi-stage multi-product bio-pharmaceutical process. Computers and Chemical Engineering, 2013, 57, 95-103.	3.9	36
47	Artificial intelligence and machine learning applications in biopharmaceutical manufacturing. Trends in Biotechnology, 2023, 41, 497-510.	9.5	36
48	Guidelines on Similar Biologics: Regulatory Requirements for Marketing Authorization in India. PDA Journal of Pharmaceutical Science and Technology, 2012, 66, 393-393.	0.6	35
49	Reinforcement learning based optimization of process chromatography for continuous processing of biopharmaceuticals. Chemical Engineering Science, 2021, 230, 116171.	4.0	34
50	Fermentanomics: Relating quality attributes of a monoclonal antibody to cell culture process variables and raw materials using multivariate data analysis. Biotechnology Progress, 2015, 31, 1586-1599.	2.6	33
51	Comparison of PAT based approaches for making real-time pooling decisions for process chromatography – use of feed forward control. Journal of Chemical Technology and Biotechnology, 2015, 90, 341-348.	3.1	32
52	Integrated continuous processing of proteins expressed as inclusion bodies: GCSF as a case study. Biotechnology Progress, 2017, 33, 998-1009.	2.6	32
53	Challenges in process control for continuous processing for production of monoclonal antibody products. Current Opinion in Chemical Engineering, 2021, 31, 100671.	8.0	32
54	Implementing PAT for single-pass tangential flow ultrafiltration for continuous manufacturing of monoclonal antibodies. Journal of Membrane Science, 2020, 613, 118492.	8.3	31

#	ARTICLE	IF	CITATIONS
55	Knowledge management in the QbD paradigm: manufacturing of biotech therapeutics. Trends in Biotechnology, 2015, 33, 381-387.	9.5	30
56	RNA dependent RNA polymerase (RdRp) as a drug target for SARS-CoV2. Journal of Biomolecular Structure and Dynamics, 2022, 40, 6039-6051.	3.6	30
57	CFD based mass transfer modeling of a single use bioreactor for production of monoclonal antibody biotherapeutics. Chemical Engineering Journal, 2021, 412, 128592.	13.0	30
58	Applications of capillary electrophoresis for biopharmaceutical product characterization. Electrophoresis, 2022, 43, 143-166.	2.9	30
59	Analytical Similarity Assessment of Biosimilars: Global Regulatory Landscape, Recent Studies and Major Advancements in Orthogonal Platforms. Frontiers in Bioengineering and Biotechnology, 2022, 10, 832059.	4.2	30
60	N-Glycosylation of monoclonal antibody therapeutics: A comprehensive review on significance and characterization. Analytica Chimica Acta, 2022, 1209, 339828.	5.5	30
61	Enablers for QbD implementation: Mechanistic modeling for ion-exchange membrane chromatography. Journal of Membrane Science, 2016, 500, 86-98.	8.3	29
62	Amino acid supplementation for enhancing recombinant protein production in <i>E. coli</i> . Biotechnology and Bioengineering, 2020, 117, 2420-2433.	3.5	29
63	ATF for cell culture harvest clarification: mechanistic modelling and comparison with TFF. Journal of Chemical Technology and Biotechnology, 2017, 92, 732-740.	3.1	27
64	Integrated Chromatographic Platform for Simultaneous Separation of Charge Variants and Aggregates from Monoclonal Antibody Therapeutic Products. Biotechnology Journal, 2017, 12, 1700133.	3.7	27
65	Economic assessment of continuous processing for manufacturing of biotherapeutics. Biotechnology Progress, 2021, 37, e3108.	2.6	27
66	Case study and application of process analytical technology (PAT) towards bioprocessing: Use of tryptophan fluorescence as an online tool for making pooling decisions for process chromatography. Biotechnology Progress, 2009, 25, 1433-1439.	2.6	26
67	Residual on column host cell protein analysis during lifetime studies of protein A chromatography. Journal of Chromatography A, 2016, 1461, 70-77.	3.8	26
68	AI-ML applications in bioprocessing: ML as an enabler of real time quality prediction in continuous manufacturing of mAbs. Computers and Chemical Engineering, 2022, 164, 107896.	3.9	26
69	Chemometrics application in biotech processes: assessing comparability across processes and scales. Journal of Chemical Technology and Biotechnology, 2014, 89, 1311-1316.	3.1	25
70	Assessment of Structural and Functional Comparability of Biosimilar Products: Trastuzumab as a Case Study. BioDrugs, 2020, 34, 209-223.	5.0	25
71	Impact of mAb Aggregation on Its Biological Activity: Rituximab as a Case Study. Journal of Pharmaceutical Sciences, 2020, 109, 2684-2698.	3.3	24
72	Modeling of Filtration Processes—Microfiltration and Depth Filtration for Harvest of a Therapeutic Protein Expressed in <i>Pichia pastoris</i> at Constant Pressure. Bioengineering, 2014, 1, 260-277.	3.6	23

#	ARTICLE	IF	CITATIONS
73	Assessing analytical comparability of biosimilars: GCSF as a case study. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2016, 1032, 165-171.	2.4	23
74	Engineering Staphylococcal Protein A for high-throughput affinity purification of monoclonal antibodies. <i>Biotechnology Advances</i> , 2020, 44, 107632.	12.0	23
75	High throughput process development (HTPD) platform for membrane chromatography. <i>Journal of Membrane Science</i> , 2013, 442, 245-253.	8.3	22
76	Bridging the gap between PAT concepts and implementation: An integrated software platform for fermentation. <i>Biotechnology Journal</i> , 2016, 11, 164-171.	3.7	22
77	Mechanistic Modeling Based PAT Implementation for Ion-Exchange Process Chromatography of Charge Variants of Monoclonal Antibody Products. <i>Biotechnology Journal</i> , 2017, 12, 1700286.	3.7	22
78	Lifetime and Aging of Chromatography Resins during Biopharmaceutical Manufacture. <i>Trends in Biotechnology</i> , 2018, 36, 992-995.	9.5	22
79	Application of CFD in Bioprocessing: Separation of mammalian cells using disc stack centrifuge during production of biotherapeutics. <i>Journal of Biotechnology</i> , 2018, 267, 1-11.	3.9	22
80	Analytical QbD: Development of a native gel electrophoresis method for measurement of monoclonal antibody aggregates. <i>Electrophoresis</i> , 2014, 35, 2163-2171.	2.9	21
81	Economic benefits of membrane chromatography versus packed bed column purification of therapeutic proteins expressed in microbial and mammalian hosts. <i>Journal of Chemical Technology and Biotechnology</i> , 2017, 92, 59-68.	3.1	21
82	COVID-19 pandemic: mechanism, diagnosis, and treatment. <i>Journal of Chemical Technology and Biotechnology</i> , 2021, 96, 299-308.	3.1	21
83	Using Statistical Analysis for Setting Process Validation Acceptance Criteria for Biotech Products. <i>Biotechnology Progress</i> , 2007, 23, 55-60.	2.6	20
84	Considerations for Biotechnology Product Quality by Design. , 2009, , 9-30.		20
85	Use of the design of experiments approach for the development of a refolding technology for progenipoietin-1, a recombinant human cytokine fusion protein from <i>Escherichia coli</i> inclusion bodies. <i>Biotechnology and Applied Biochemistry</i> , 2009, 54, 85-92.	3.1	20
86	Chemometrics applications in biotech processes: Assessing process comparability. <i>Biotechnology Progress</i> , 2012, 28, 121-128.	2.6	20
87	Mechanistic modeling of viral filtration. <i>Journal of Membrane Science</i> , 2014, 458, 96-103.	8.3	20
88	Establishing analytical comparability for biosimilars: filgrastim as a case study. <i>Analytical and Bioanalytical Chemistry</i> , 2014, 406, 6569-6576.	3.9	20
89	Process development in the QbD paradigm: Role of process integration in process optimization for production of biotherapeutics. <i>Biotechnology Progress</i> , 2016, 32, 355-362.	2.6	20
90	The influence of domestic manufacturing capabilities on biologic pricing in emerging economies. <i>Nature Biotechnology</i> , 2019, 37, 498-501.	20.8	20

#	ARTICLE	IF	CITATIONS
91	Process analytical technology implementation for protein refolding: GCSF as a case study. <i>Biotechnology and Bioengineering</i> , 2019, 116, 1039-1052.	3.5	20
92	LC-MS based case-by-case analysis of the impact of acidic and basic charge variants of bevacizumab on stability and biological activity. <i>Scientific Reports</i> , 2021, 11, 2487.	3.4	20
93	Chemometrics applications in biotechnology processes: Predicting column integrity and impurity clearance during reuse of chromatography resin. <i>Biotechnology Progress</i> , 2012, 28, 1308-1314.	2.6	19
94	Role of Organic Modifier and Gradient Shape in RP-HPLC Separation: Analysis of GCSF Variants. <i>Journal of Chromatographic Science</i> , 2015, 53, 417-423.	1.5	18
95	Maximizing biomass concentration in baker's yeast process by using a decoupled geometric controller for substrate and dissolved oxygen. <i>Bioresource Technology</i> , 2015, 196, 160-168.	9.7	18
96	Optimization of ion exchange sigmoidal gradients using hybrid models: Implementation of quality by design in analytical method development. <i>Journal of Chromatography A</i> , 2017, 1491, 145-152.	3.8	18
97	Automation of Dead End Filtration: An Enabler for Continuous Processing of Biotherapeutics. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 758.	4.2	18
98	Biomass to fuels and chemicals: A review of enabling processes and technologies. <i>Journal of Chemical Technology and Biotechnology</i> , 2022, 97, 597-607.	3.1	18
99	Dimerization of SARS-CoV-2 nucleocapsid protein affects sensitivity of ELISA based diagnostics of COVID-19. <i>International Journal of Biological Macromolecules</i> , 2022, 200, 428-437.	7.7	18
100	Analytical characterization of in vitro refolding in the quality by design paradigm: Refolding of recombinant human granulocyte colony stimulating factor. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2016, 126, 124-131.	2.9	17
101	Opossum peptide that can neutralize rattlesnake venom is expressed in <i>Escherichia coli</i> . <i>Biotechnology Progress</i> , 2017, 33, 81-86.	2.6	17
102	Role of raw materials in biopharmaceutical manufacturing: risk analysis and fingerprinting. <i>Current Opinion in Biotechnology</i> , 2018, 53, 99-105.	6.8	17
103	Harnessing the power of electrophoresis and chromatography: Offline coupling of reverse phase liquid chromatography-capillary zone electrophoresis-tandem mass spectrometry for peptide mapping for monoclonal antibodies. <i>Journal of Chromatography A</i> , 2020, 1620, 460954.	3.8	17
104	Quality by Design: An Overview of the Basic Concepts. , 0, , 1-8.		16
105	Two-stage chromatographic separation of aggregates for monoclonal antibody therapeutics. <i>Journal of Chromatography A</i> , 2014, 1368, 155-162.	3.8	16
106	Implementation of Quality by Design for processing of food products and biotherapeutics. <i>Food and Bioprocess Technology</i> , 2016, 99, 231-243.	3.7	16
107	Role of Knowledge Management in Development and Lifecycle Management of Biopharmaceuticals. <i>Pharmaceutical Research</i> , 2017, 34, 243-256.	3.6	16
108	QbD Based Media Development for the Production of Fab Fragments in <i>E. coli</i> . <i>Bioengineering</i> , 2019, 6, 29.	3.6	16

#	ARTICLE	IF	CITATIONS
109	Understanding the mechanism of copurification of "difficult to remove" host cell proteins in rituximab biosimilar products. <i>Biotechnology Progress</i> , 2020, 36, e2936.	2.6	16
110	Development of an integrated continuous PEGylation and purification Process for granulocyte colony stimulating factor. <i>Journal of Biotechnology</i> , 2020, 322, 79-89.	3.9	16
111	Control of surge tanks for continuous manufacturing of monoclonal antibodies. <i>Biotechnology and Bioengineering</i> , 2021, 118, 1913-1931.	3.5	16
112	Raman spectroscopy for in situ, real time monitoring of protein aggregation in lyophilized biotherapeutic products. <i>International Journal of Biological Macromolecules</i> , 2021, 179, 309-313.	7.7	16
113	A novel aqueous two phase assisted platform for efficient removal of process related impurities associated with E. coli based biotherapeutic protein products. <i>Journal of Chromatography A</i> , 2013, 1307, 49-57.	3.8	15
114	Modeling and prediction of excipient and pH drifts during ultrafiltration/diafiltration of monoclonal antibody biotherapeutic for high concentration formulations. <i>Separation and Purification Technology</i> , 2020, 238, 116392.	8.1	15
115	Contribution of protein A step towards cost of goods for continuous production of monoclonal antibody therapeutics. <i>Journal of Chemical Technology and Biotechnology</i> , 2022, 97, 2420-2433.	3.1	15
116	Complete or periodic continuity in continuous manufacturing platforms for production of monoclonal antibodies?. <i>Biotechnology Journal</i> , 2021, 16, e2000524.	3.7	15
117	Enablers of continuous processing of biotherapeutic products. <i>Trends in Biotechnology</i> , 2022, 40, 804-815.	9.5	15
118	Continuous integrated manufacturing for biopharmaceuticals: A new paradigm or an empty promise?. <i>Biotechnology and Bioengineering</i> , 2023, 120, 333-351.	3.5	15
119	Case Study on Definition of Process Design Space for a Microbial Fermentation Step. , 0, , 85-109.		14
120	Knowledge management in a waste based biorefinery in the QbD paradigm. <i>Bioresource Technology</i> , 2016, 215, 63-75.	9.7	14
121	Artificial neural network (ANN)-based prediction of depth filter loading capacity for filter sizing. <i>Biotechnology Progress</i> , 2016, 32, 1436-1443.	2.6	14
122	Simplified Methods Based on Mechanistic Models for Understanding and Designing Chromatography Processes for Proteins and Other Biological Products - Yamamoto Models and Yamamoto Approach. , 2017, , 111-157.		14
123	Peptide Dendrons as Thermal-Stability Amplifiers for Immunoglobulin G1 Monoclonal Antibody Biotherapeutics. <i>Bioconjugate Chemistry</i> , 2017, 28, 2549-2559.	3.8	14
124	Design of experiments applications in bioprocessing: Chromatography process development using split design of experiments. <i>Biotechnology Progress</i> , 2019, 35, e2730.	2.6	14
125	A novel reactor configuration for continuous virus inactivation. <i>Biochemical Engineering Journal</i> , 2021, 167, 107885.	3.8	14
126	Near Infrared Spectroscopy as a PAT tool for monitoring and control of protein and excipient concentration in ultrafiltration of highly concentrated antibody formulations. <i>International Journal of Pharmaceutics</i> , 2021, 600, 120456.	5.4	14

#	ARTICLE	IF	CITATIONS
127	Multiattribute Monitoring of Charge-Based Heterogeneity of Recombinant Monoclonal Antibodies Using 2D HIC-WCX-MS. <i>Analytical Chemistry</i> , 2022, 94, 15018-15026.	6.8	14
128	Protein A chromatography resin lifetimeâ€™s impact of feed composition. <i>Biotechnology Progress</i> , 2018, 34, 412-419.	2.6	13
129	Monitoring and Control of Bioreactor: Basic Concepts and Recent Advances. , 2018, , 201-237.		13
130	An application of Nano Differential Scanning Fluorimetry for Higher Order Structure assessment between mAb originator and biosimilars: Trastuzumab and Rituximab as case studies. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2020, 186, 113270.	2.9	13
131	Structure-Based Design of Small Peptide Ligands to Inhibit Early-Stage Protein Aggregation Nucleation. <i>Journal of Chemical Information and Modeling</i> , 2020, 60, 3304-3314.	5.7	13
132	Current status and future challenges in transitioning to continuous bioprocessing of virusâ€™like particles. <i>Journal of Chemical Technology and Biotechnology</i> , 2022, 97, 2376-2385.	3.1	13
133	Rapid aggregation of therapeutic monoclonal antibodies by bubbling induced air/liquid interfacial and agitation stress at different conditions. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2021, 168, 97-109.	4.4	13
134	Harnessing the power of electrophoresis and chromatography: Offline coupling of reverse phase liquid chromatographyâ€™capillary zone electrophoresisâ€™tandem mass spectrometry for analysis of host cell proteins in monoclonal antibody producing CHO cell line. <i>Electrophoresis</i> , 2021, 42, 735-741.	2.9	13
135	Determination of Critical Quality Attributes for a Biotherapeutic in the QbD Paradigm: GCSF as a Case Study. <i>AAPS Journal</i> , 2017, 19, 1826-1841.	4.7	12
136	Kinetics and Characterization of Non-enzymatic Fragmentation of Monoclonal Antibody Therapeutics. <i>Pharmaceutical Research</i> , 2018, 35, 142.	3.6	12
137	Process development in the Quality by Design paradigm: Modeling of Protein A chromatography resin fouling. <i>Journal of Chromatography A</i> , 2018, 1570, 56-66.	3.8	12
138	Biosimilars in Developed Economies: Overview, Status, and Regulatory Considerations. <i>Regulatory Toxicology and Pharmacology</i> , 2020, 110, 104525.	2.8	12
139	Implementation of quality by design toward processing of food products. <i>Preparative Biochemistry and Biotechnology</i> , 2017, 47, 435-440.	2.0	11
140	Comparison and implementation of different control strategies for improving production of rHSA using <i>Pichia pastoris</i> . <i>Journal of Biotechnology</i> , 2019, 290, 33-43.	3.9	11
141	Multi-wavelength UV-based PAT tool for measuring protein concentration. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2022, 207, 114394.	2.9	11
142	Challenges in Expression and Purification of Functional Fab Fragments in <i>E. coli</i> : Current Strategies and Perspectives. <i>Fermentation</i> , 2022, 8, 175.	3.1	11
143	Near-infrared spectroscopy based monitoring of all 20 amino acids in mammalian cell culture broth. <i>Talanta</i> , 2023, 254, 124187.	5.7	11
144	Process characterization of the chromatographic steps in the purification process of a recombinant <i>Escherichia coli</i> -expressed protein. <i>Biotechnology and Applied Biochemistry</i> , 2003, 37, 51.	3.1	10

#	ARTICLE	IF	CITATIONS
145	Mechanistic modeling of hydrophobic interaction chromatography for monoclonal antibody purification: process optimization in the quality by design paradigm. <i>Journal of Chemical Technology and Biotechnology</i> , 2017, 92, 2527-2537.	3.1	10
146	Implementation of a fluorescence based PAT control for fouling of protein A chromatography resin. <i>Journal of Chemical Technology and Biotechnology</i> , 2017, 92, 2799-2807.	3.1	10
147	Monitoring and Control of Bioethanol Production From Lignocellulosic Biomass. , 2018, , 727-749.		10
148	The selection of highly specific and selective aptamers using modified SELEX and their use in process analytical techniques for Lucentis bioproduction. <i>RSC Advances</i> , 2020, 10, 28906-28917.	3.7	10
149	Regulatory considerations in biosimilars: Asia pacific regions. <i>Preparative Biochemistry and Biotechnology</i> , 2021, 51, 1-8.	2.0	10
150	Effect of vitamins and metal ions on productivity and charge heterogeneity of IgG1 expressed in CHO cells. <i>Biotechnology Journal</i> , 2021, 16, e2000464.	3.7	10
151	Synergistic Effects of Natural Compounds Toward Inhibition of SARS-CoV-2 3CL Protease. <i>Journal of Chemical Information and Modeling</i> , 2021, 61, 5708-5718.	5.7	10
152	Unexplored Excipients in Biotherapeutic Formulations: Natural Osmolytes as Potential Stabilizers Against Thermally Induced Aggregation of IgG1 Biotherapeutics. <i>AAPS PharmSciTech</i> , 2022, 23, 26.	3.4	10
153	QbD for Raw Materials. , 0, , 193-209.		9
154	Fluorescence based real time monitoring of fouling in process chromatography. <i>Scientific Reports</i> , 2017, 7, 45640.	3.4	9
155	Continuous Downstream Processing for Production of Biotech Therapeutics. , 2017, , 259-288.		9
156	Approval of biosimilars: a review of unsuccessful regulatory filings. <i>Expert Opinion on Biological Therapy</i> , 2021, 21, 19-28.	3.2	9
157	Mechanistic modelling of Chinese hamster ovary cell clarification using acoustic wave separator. <i>Chemical Engineering Science</i> , 2021, 246, 116894.	4.0	9
158	Role of data science in managing COVID-19 pandemic. <i>Indian Chemical Engineer</i> , 2020, 62, 385-395.	1.5	9
159	Cole modeling of real-time capacitance data for estimation of cell physiological properties in recombinant <i>Escherichia coli</i> cultivation. <i>Biotechnology and Bioengineering</i> , 2022, 119, 922-935.	3.5	9
160	Advances in bioreactor control for production of biotherapeutic products. <i>Biotechnology and Bioengineering</i> , 2023, 120, 1189-1214.	3.5	9
161	Cyclodextrins as selectivity enhancers in capillary zone electrophoresis of proteins. <i>Electrophoresis</i> , 1998, 19, 2285-2289.	2.9	8
162	Monitoring Quality of Biotherapeutic Products Using Multivariate Data Analysis. <i>AAPS Journal</i> , 2016, 18, 793-800.	4.7	8

#	ARTICLE	IF	CITATIONS
163	High performance liquid chromatography (HPLC) based direct and simultaneous estimation of excipients in biopharmaceutical products. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2019, 1117, 118-126.	2.4	8
164	Population balance modelling of aggregation of monoclonal antibody based therapeutic proteins. <i>Chemical Engineering Science</i> , 2020, 216, 115479.	4.0	8
165	Microaerobic fermentation alters lactose metabolism in <i>Escherichia coli</i> . <i>Applied Microbiology and Biotechnology</i> , 2020, 104, 5773-5785.	3.7	8
166	Pretreatments for enhancing clarification efficiency of depth filtration during production of monoclonal antibody therapeutics. <i>Biotechnology Progress</i> , 2020, 36, e2996.	2.6	8
167	Process analytical technology application for protein PEGylation using near infrared spectroscopy: G-CSF as a case study. <i>Journal of Biotechnology</i> , 2021, 325, 303-311.	3.9	8
168	Supplementation of critical amino acids improves glycerol and lactose uptake and enhances recombinant protein production in <i>Escherichia coli</i> . <i>Biotechnology Journal</i> , 2021, 16, e2100143.	3.7	8
169	Using a Risk Assessment Process to Determine Criticality of Product Quality Attributes. , 2009, , 53-84.		8
170	Impact of various factors on the kinetics of non-enzymatic fragmentation of a monoclonal antibody. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2022, 178, 131-139.	4.4	8
171	Digitization in bioprocessing: The role of soft sensors in monitoring and control of downstream processing for production of biotherapeutic products. <i>Biosensors and Bioelectronics: X</i> , 2022, 12, 100263.	1.8	8
172	Rapid Estimation of Size-Based Heterogeneity in Monoclonal Antibodies by Machine Learning-Enhanced Dynamic Light Scattering. <i>Analytical Chemistry</i> , 2023, 95, 8299-8309.	6.8	8
173	Harvest of a Therapeutic Protein Product from High Cell Density Fermentation Broths. <i>Biotechnology and Bioprocessing Series</i> , 2006, , 1-58.	0.0	7
174	Capacity optimization and scheduling of a multiproduct manufacturing facility for biotech products. <i>Biotechnology Progress</i> , 2014, 30, 1221-1230.	2.6	7
175	Production of Protein Therapeutics in the Quality by Design (QbD) Paradigm. <i>Topics in Medicinal Chemistry</i> , 2016, , 41-67.	0.0	7
176	Enabler for process analytical technology implementation in <i>Pichia pastoris</i> fermentation: Fluorescence-based soft sensors for rapid quantitation of product titer. <i>Engineering in Life Sciences</i> , 2017, 17, 448-457.	4.0	7
177	Mechanistic modeling based process analytical technology implementation for pooling in hydrophobic interaction chromatography. <i>Biotechnology Progress</i> , 2019, 35, e2758.	2.6	7
178	Does interaction of monoclonal antibody charge variants with VEGF-A and ELISA reagents affect its quantification?. <i>Analytical Biochemistry</i> , 2020, 590, 113513.	2.5	7
179	The global landscape on interchangeability of biosimilars. <i>Expert Opinion on Biological Therapy</i> , 2022, 22, 133-148.	3.2	7
180	A novel piperazine derivative that targets hepatitis B surface antigen effectively inhibits tenofovir resistant hepatitis B virus. <i>Scientific Reports</i> , 2021, 11, 11723.	3.4	7

#	ARTICLE	IF	CITATIONS
181	Freeze thaw and lyophilization induced alteration in mAb therapeutics: Trastuzumab as a case study. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2021, 201, 114122.	2.9	7
182	Application of advanced machine learning algorithms for anomaly detection and quantitative prediction in protein A chromatography. <i>Journal of Chromatography A</i> , 2022, 1682, 463486.	3.8	7
183	A native multi-dimensional monitoring workflow for at-line characterization of mAb titer, size, charge, and glycoform heterogeneities in cell culture supernatant. <i>Journal of Chromatography A</i> , 2023, 1696, 463983.	3.8	7
184	Pat Tools for Biologics: Considerations and Challenges. , 2009, , 211-253.		6
185	Qualitative and quantitative examination of non-specific protein adsorption on filter membrane disks of a commercially available high throughput chromatography device. <i>Journal of Membrane Science</i> , 2014, 451, 312-318.	8.3	6
186	Process Development in the QbD Paradigm: Mechanistic Modeling of Antisolvent Crystallization for Production of Pharmaceuticals. <i>Crystal Growth and Design</i> , 2018, 18, 3352-3359.	3.2	6
187	Shadow pricing and the art of profiteering from outdated therapies. <i>Nature Biotechnology</i> , 2019, 37, 217-220.	20.8	6
188	Phosphate starvation controls lactose metabolism to produce recombinant protein in <i>Escherichia coli</i> . <i>Applied Microbiology and Biotechnology</i> , 2020, 104, 9707-9718.	3.7	6
189	Multiobjective Optimization for Enhanced Production of Therapeutic Proteins in <i>Escherichia coli</i> : Application of Real-Time Dielectric Spectroscopy. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 21841-21853.	3.8	6
190	Monitoring size and oligomeric-state distribution of therapeutic mAbs by NMR and DLS: Trastuzumab as a case study. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2021, 195, 113841.	2.9	6
191	Identification and characterization of carbonylation sites in trastuzumab biosimilars. <i>International Journal of Biological Macromolecules</i> , 2021, 169, 95-102.	7.7	6
192	Regulatory considerations in biosimilars: Latin America region. <i>Preparative Biochemistry and Biotechnology</i> , 2021, 51, 201-206.	2.0	6
193	Process development in the QbD paradigm: Implementing design of experiments (DoE) in anti-solvent crystallization for production of pharmaceuticals. <i>Journal of Crystal Growth</i> , 2021, 571, 126263.	1.6	6
194	Biopharmaceutical Industry Capability Building in India: Report from a Symposium. <i>Journal of Pharmaceutical Innovation</i> , 2022, 17, 1555-1562.	2.4	6
195	Assessment of Functional Characterization and Comparability of Biotherapeutics: a Review. <i>AAPS Journal</i> , 2022, 24, 15.	4.7	6
196	FDA Warning Letters: A Retrospective Analysis of Letters Issued to Pharmaceutical Companies from 2010-2020. <i>Journal of Pharmaceutical Innovation</i> , 2023, 18, 665-674.	2.4	6
197	Combined Presence of Ferrous Ions and Hydrogen Peroxide in Normal Saline and In Vitro Models Induces Enhanced Aggregation of Therapeutic IgG due to Hydroxyl Radicals. <i>Molecular Pharmaceutics</i> , 2023, 20, 3033-3048.	4.7	6
198	Recent advancements in snake antivenom production. <i>International Journal of Biological Macromolecules</i> , 2023, 240, 124478.	7.7	6

#	ARTICLE	IF	CITATIONS
199	Applications of Design Space for Biopharmaceutical Purification Processes. , 0, , 127-142.		5
200	Knowledge Management and Process Monitoring of Pharmaceutical Processes in the Quality by Design Paradigm. Advances in Biochemical Engineering/Biotechnology, 2012, 132, 217-247.	0.0	5
201	On-line implementation of decoupled input-output linearizing controller in Baker's yeast fermentation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 259-264.	0.4	5
202	Computational Fluid Dynamics for Bioreactor Design. , 2016, , 295-322.		5
203	Process for production and purification of lethal toxin neutralizing factor (LTNF) from <i>E. coli</i> and its economic analysis. Journal of Chemical Technology and Biotechnology, 2018, 93, 959-967.	3.1	5
204	Implementing Process Analytical Technology for the Production of Recombinant Proteins in <i>Escherichia coli</i> Using an Advanced Controller Scheme. Biotechnology Journal, 2019, 14, e1800556.	3.7	5
205	Analytical tools for monitoring changes in physical and chemical properties of chromatography resin upon reuse. Electrophoresis, 2019, 40, 3074-3083.	2.9	5
206	Covid 19 " pandemic in India. Journal of Chemical Technology and Biotechnology, 2020, 95, 1841-1841.	3.1	5
207	Polymer-Coated Fiber Optic Sensor as a Process Analytical Tool for Biopharmaceutical Impurity Detection. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 7666-7674.	4.7	5
208	A novel strategy for efficient expression of an antibody fragment in <i>Escherichia coli</i> : <i>ranibizumab</i> as a case study. Journal of Chemical Technology and Biotechnology, 2022, 97, 42-54.	3.1	5
209	Purification of Therapeutic Antibodies by Protein A Affinity Chromatography. Methods in Molecular Biology, 2022, 2313, 169-177.	0.0	5
210	Stability of Therapeutic Enzymes: Challenges and Recent Advances. Advances in Experimental Medicine and Biology, 2019, 1148, 131-150.	0.0	5
211	Process analytical technology in continuous processing: Model-based real time control of pH between capture chromatography and viral inactivation for monoclonal antibody production. Journal of Chromatography A, 2021, 1658, 462614.	3.8	5
212	Slow post-induction specific growth rate enhances recombinant protein expression in <i>Escherichia coli</i> : Pramlintide multimer and ranibizumab production as case studies. Process Biochemistry, 2022, 114, 21-27.	3.8	5
213	Dynamics of biosimilar uptake in emerging markets. Expert Opinion on Biological Therapy, 2022, 22, 679-688.	3.2	5
214	Optimization of multi flow rate loading strategy for process intensification of Protein A chromatography. Journal of Chromatography Open, 2022, 2, 100049.	2.3	5
215	Atomic Layer Deposition Coating on the Surface of Active Pharmaceutical Ingredients to Reduce Surface Charge Build-Up. ACS Applied Materials & Interfaces, 2022, 14, 27195-27202.	8.3	5
216	Process Analytical Technology (PAT) Implementation for Membrane Operations in Continuous Manufacturing of mAbs: Model-Based Control of Single-Pass Tangential Flow Ultrafiltration. AAPS Journal, 2022, 24, .	4.7	5

#	ARTICLE	IF	CITATIONS
217	An accelerated approach for mechanistic model based prediction of linear gradient elution ion-exchange chromatography of proteins. <i>Journal of Chromatography A</i> , 2022, 1680, 463423.	3.8	5
218	Digital twin of a continuous chromatography process for mAb purification: Design and model-based control. <i>Biotechnology and Bioengineering</i> , 2023, 120, 748-766.	3.5	5
219	Rapid analysis of titer, aggregate, and intact mass of antibody therapeutics using automated multi-dimensional liquid chromatography coupled with native mass spectroscopy. <i>Journal of Separation Science</i> , 2023, 46, .	2.9	5
220	Development of a low-cost, high-throughput native polyacrylamide gel electrophoresis (N-PAGE) protocol for lipoprotein sub-fractionation using Quality by Design approach. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2014, 92, 119-126.	2.9	4
221	Process Analytical Technologies in Biopharmaceutical Process Development. <i>Journal of Chemical Technology and Biotechnology</i> , 2015, 90, 213-214.	3.1	4
222	Simulation of Process Chromatography. , 2017, , 81-110.		4
223	Implementation of QbD for Manufacturing of Biologics—Has It Met the Expectations?. , 2018, , 1051-1073.		4
224	Usability of NISTmAb reference material for biosimilar analytical development. <i>Analytical and Bioanalytical Chemistry</i> , 2019, 411, 2867-2883.	3.9	4
225	Neural network-based fingerprinting of monoclonal antibody aggregation using biolayer interferometry. <i>Analytical and Bioanalytical Chemistry</i> , 2020, 412, 2177-2186.	3.9	4
226	Novel semi-automated fluorescence microscope imaging algorithm for monitoring IgG aggregates in serum. <i>Scientific Reports</i> , 2021, 11, 11375.	3.4	4
227	Need for a risk-based control strategy for managing glycosylation profile for biosimilar products. <i>Expert Opinion on Biological Therapy</i> , 2022, 22, 123-131.	3.2	4
228	Assessing the Structural and Functional Similarity of Insulin Glargine Biosimilars. <i>Journal of Diabetes Science and Technology</i> , 2023, 17, 417-427.	2.4	4
229	Pharmacophore screening to identify natural origin compounds to target RNA-dependent RNA polymerase (RdRp) of SARS-CoV2. <i>Molecular Diversity</i> , 2022, 26, 2613-2629.	4.1	4
230	A Charge Variant of Bevacizumab Offers Enhanced FcRn-Dependent Pharmacokinetic Half-Life and Efficacy. <i>Pharmaceutical Research</i> , 2022, 39, 851-865.	3.6	4
231	Ion exchange chromatography hyphenated with fluorescence detector as a sensitive alternative to UV detector: Applications in biopharmaceutical analysis. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2022, 1212, 123511.	2.4	4
232	High-throughput capillary electrophoresis analysis of biopharmaceuticals utilizing sequential injections. <i>Electrophoresis</i> , 2023, 44, 767-774.	2.9	4
233	Multiattribute Monitoring of Aggregates and Charge Variants of Monoclonal Antibody through Native 2D-SEC-MS-WCX-MS. <i>Journal of the American Society for Mass Spectrometry</i> , 2023, 34, 1263-1271.	3.1	4
234	What should next-generation analytical platforms for biopharmaceutical production look like? Trends in <i>Biotechnology</i> , 2024, 42, 282-292.	9.5	4

#	ARTICLE	IF	CITATIONS
235	Process Analytical Technology: Strategies for Biopharmaceuticals. , 0, , 1543-1565.		3
236	High-Throughput Process Development: II. Membrane Chromatography. Methods in Molecular Biology, 2014, 1129, 39-44.	0.0	3
237	Biosimilars in India. Journal of Proteomics, 2015, 127, 71-72.	2.5	3
238	Midâ€UV Protein Absorption Spectra and Partial Least Squares Regression as Screening and PAT Tool. , 2017, , 501-536.		3
239	Development of Continuous Capture Steps in Bioprocess Applications. , 2017, , 159-175.		3
240	Approval of Ogivri. PDA Journal of Pharmaceutical Science and Technology, 2018, 72, 1-1.	0.6	3
241	Enhanced product understanding in the QbD paradigm: linkage between charge heterogeneity and stability of monoclonal antibody therapeutic products. Journal of Chemical Technology and Biotechnology, 2018, 93, 2102-2110.	3.1	3
242	Process Analysis: High Performance Liquid Chromatography. , 2018, , .		3
243	Effect of chemically defined growth medium components on characteristics of bacterial inclusion bodies. Journal of Chemical Technology and Biotechnology, 2020, 95, 1640-1648.	3.1	3
244	Life Span Studies for Chromatography and Filtration Media. , 2005, , 169-204.		3
245	Ethanol as additive enhances expression of Ranibizumab in Escherichia coli: Impact on cellular physiology and transcriptome. Process Biochemistry, 2022, 112, 167-176.	3.8	3
246	Raman spectroscopy as process analytical technology tool for monitoring atomic layer deposition (ALD) of drug particles. Materials Chemistry and Physics, 2022, 282, 125976.	4.1	3
247	Achieving charge variant profile of innovator molecule during development of monoclonal antibody based biosimilars â€ Use of media components. Biochemical Engineering Journal, 2022, 182, 108438.	3.8	3
248	Elucidating chemical and disulfide heterogeneities in rituximab using reduced and nonâ€reduced peptide mapping. Journal of Separation Science, 2022, 45, 2887-2900.	2.9	3
249	Continuous manufacturing of monoclonal antibodies: Automated downstream control strategy for dynamic handling of titer variations. Journal of Chromatography A, 2022, 1682, 463496.	3.8	3
250	Innovating manufacturing technology in emerging economies. Nature Biotechnology, 2022, 40, 1714-1716.	20.8	3
251	Continuous manufacturing of monoclonal antibodies: Dynamic control of multiple integrated polishing chromatography steps using BioSMB. Journal of Chromatography A, 2023, 1690, 463784.	3.8	3
252	Long term culturing of CHO cells: phenotypic drift and quality attributes of the expressed monoclonal antibody. Biotechnology Letters, 2023, 45, 357-370.	2.2	3

#	ARTICLE	IF	CITATIONS
253	Monitoring oxidation in recombinant monoclonal antibodies at subunit level through two-dimensional liquid chromatography coupled with mass spectrometry. <i>Journal of Chromatography Open</i> , 2023, 3, 100086.	2.3	3
254	A novel filter-assisted protein precipitation (FAPP) based sample pre-treatment method for LC-MS peptide mapping for biosimilar characterization. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2023, 234, 115527.	2.9	3
255	NIR spectroscopy-enabled chemometrics for multianalyte monitoring in microbial fermentation. <i>Biotechnology and Bioengineering</i> , 2024, 121, 1803-1819.	3.5	3
256	High-Throughput Process Development: I. Process Chromatography. <i>Methods in Molecular Biology</i> , 2014, 1129, 29-37.	0.0	2
257	A Practical Discussion of Risk Management for Manufacturing of Pharmaceutical Products. <i>PDA Journal of Pharmaceutical Science and Technology</i> , 2014, 68, 271-280.	0.6	2
258	Model-Based Preparative Chromatography Process Development in the QbD Paradigm. , 2017, , 1-10.		2
259	Chemometrics Applications in Process Chromatography. , 2017, , 479-500.		2
260	High-Throughput Process Development. , 2017, , 269-291.		2
261	A three plus three parameters mechanistic model for viral filtration. <i>Biotechnology Progress</i> , 2017, 33, 1538-1547.	2.6	2
262	Understanding Oxidation Propensity in GCSF and Assessment of its Safety and Efficacy. <i>Pharmaceutical Research</i> , 2020, 37, 207.	3.6	2
263	Modulation of <scp>granulocyte colony stimulating factor</scp> conformation and receptor binding by methionine oxidation. <i>Proteins: Structure, Function and Bioinformatics</i> , 2021, 89, 68-80.	3.2	2
264	Considerations related to comparative clinical studies for biosimilars. <i>Expert Opinion on Drug Safety</i> , 2021, 20, 265-274.	2.5	2
265	A simple, rapid, and robust identity testing of biotherapeutics using FTIR spectroscopy. <i>Electrophoresis</i> , 2021, 42, 1655-1664.	2.9	2
266	Evolution and Integration of Quality by Design and Process Analytical Technology. , 2009, , 255-286.		2
267	Aggregation Kinetics for Monoclonal Antibody Products. <i>International Journal of Chemical Engineering and Applications (IJCEA)</i> , 2014, 5, 433-438.	0.3	2
268	Image Analysis Algorithm-Based Platform for Determining Micron and Higher Aggregate Size Distribution of Therapeutic IgG Using Brightfield and Fluorescence Microscope Images. <i>Pharmaceutical Research</i> , 2021, 38, 1747-1763.	3.6	2
269	Process optimization using machine learning enhanced design of experiments (DOE): ranibizumab refolding as a case study. <i>Reaction Chemistry and Engineering</i> , 2023, 8, 592-603.	3.5	2
270	A review of therapeutic failures in late-stage clinical trials. <i>Expert Opinion on Pharmacotherapy</i> , 2023, 24, 389-399.	1.9	2

#	ARTICLE	IF	CITATIONS
271	Postâ€refolding stability considerations for optimization of inâ€vitro refolding: Lâ€asparaginase as a case study. <i>Biotechnology Journal</i> , 2023, 18, .	3.7	2
272	Profiling Enzyme Activity of <sc>l</sc>-Asparaginase II by NMR-Based Methyl Fingerprinting at Natural Abundance. <i>Journal of the American Chemical Society</i> , 2023, 145, 10826-10838.	14.6	2
273	An efficient computational protocol for templateâ€based design of peptides that inhibit interactions involving SARSâ€CoVâ€2 proteins. <i>Proteins: Structure, Function and Bioinformatics</i> , 2023, 91, 1222-1234.	3.2	2
274	A Domain-Shift Invariant CNN Framework for Cardiac MRI Segmentation Across Unseen Domains. <i>Journal of Digital Imaging</i> , 2023, 36, 2148-2163.	3.0	2
275	Recent progress in high-throughput and automated characterization of N-glycans in monoclonal antibodies. <i>TrAC - Trends in Analytical Chemistry</i> , 2023, 169, 117397.	11.9	2
276	An Online Two-Dimensional Approach to Characterizing the Charge-Based Heterogeneity of Recombinant Monoclonal Antibodies Using a 2D-CEXâ€AEXâ€MS Workflow. <i>Journal of the American Society for Mass Spectrometry</i> , 2023, 34, 2801-2810.	3.1	2
277	Developing cyber-physical system and digital twin for smart manufacturing: Methodology and case study of continuous clarification. <i>Journal of Industrial Information Integration</i> , 2024, 38, 100577.	6.9	2
278	Multi-objective optimization of continuous CHO cell clarification using acoustic wave separation. <i>Separation and Purification Technology</i> , 2024, 338, 126579.	8.1	2
279	Convolutional Neural Networks Guided Raman Spectroscopy as a Process Analytical Technology (PAT) Tool for Monitoring and Simultaneous Prediction of Monoclonal Antibody Charge Variants. <i>Pharmaceutical Research</i> , 2024, 41, 463-479.	3.6	2
280	Use of Computational Fluid Dynamics for Development and Scale-Up of a Helical Coil Heat Exchanger for Dissolution of a Thermally Labile API. <i>Organic Process Research and Development</i> , 2013, 17, 1311-1319.	3.0	1
281	Scaledown of Biopharmaceutical Purification Operations. , 0, , 127-146.		1
282	Aqueous Two-Phase-Assisted Precipitation of Proteins: A Platform for Isolation of Process-Related Impurities from Therapeutic Proteins. <i>Methods in Molecular Biology</i> , 2014, 1129, 101-110.	0.0	1
283	Role of Proteomics in Characterization of Biosimilar Products. , 2016, , 83-97.		1
284	Use of polymeric membranes for purification of an E. coli expressed biotherapeutic protein. <i>Preparative Biochemistry and Biotechnology</i> , 2016, 46, 183-191.	2.0	1
285	Labâ€Scale Development of Chromatography Processes. , 2017, , 333-380.		1
286	Process intensification in peptide manufacturing: Recombinant lethal toxin neutralizing factor (rLTNF) as a case study. <i>Process Biochemistry</i> , 2020, 90, 193-203.	3.8	1
287	Process Analytical Technology Implementation for Peptide Manufacturing: Cleavage Reaction of Recombinant Lethal Toxin Neutralizing Factor Concatemer as a Case Study. <i>Analytical Chemistry</i> , 2020, 92, 5676-5681.	6.8	1
288	A chemical engineer's take of COVIDâ€19 epidemiology. <i>AIChE Journal</i> , 2021, 67, e17359.	3.6	1

#	ARTICLE	IF	CITATIONS
289	Ion Exchange Chromatographic Methods for Purification of Therapeutic Antibodies. <i>Methods in Molecular Biology</i> , 2022, 2313, 179-186.	0.0	1
290	NMR based quality evaluation of mAb therapeutics: A proof of concept higher order structure biosimilarity assessment of trastuzumab biosimilars. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2022, 214, 114710.	2.9	1
291	Control of Continuous Manufacturing Processes for Production of Monoclonal Antibodies. , 2022, , 39-74.		1
292	Prevalence of highly actionable mutations among Indian patients with advanced non-small cell lung cancer: A systematic review and meta-analysis. <i>Asia-Pacific Journal of Clinical Oncology</i> , 2023, 19, 158-171.	1.3	1
293	Multi-Level High-Throughput Screening for Discovery of Ligands That Inhibit Insulin Aggregation. <i>Molecular Pharmaceutics</i> , 2022, 19, 3770-3783.	4.7	1
294	Role of oxidative stress in modulating CHO cell culture performance: Impact on titer and quality attributes of a monoclonal antibody therapeutic. <i>Journal of Chemical Technology and Biotechnology</i> , 2023, 98, 651-660.	3.1	1
295	Assessment of structural and functional similarity of biosimilar products: Bevacizumab as a case study. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2023, 1229, 123896.	2.4	1
296	A novel method for continuous chromatographic separation of monoclonal antibody charge variants by combining displacement mode chromatography and step elution. <i>Biotechnology Progress</i> , 2024, 40, .	2.6	1
297	Reversed phase high performance liquid chromatography for monitoring type-16 human papilloma virus like particles. <i>Journal of Chromatography Open</i> , 2024, 5, 100107.	2.3	1
298	Automated Method for Quantification of 20 Amino Acids in Cell Culture Media During Biopharmaceutical Development. <i>BioTechniques</i> , 2024, 76, 27-36.	1.8	1
299	LC-MS Characterization and Stability Assessment Elucidate Correlation Between Charge Variant Composition and Degradation of Monoclonal Antibody Therapeutics. <i>AAPS Journal</i> , 2024, 26, .	4.7	1
300	Assessment of change in the basic variants composition of trastuzumab during dilution in saline for administration. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2024, 199, 114295.	4.4	1
301	Holistic process control framework for smart biomanufacturing: A deep learning driven approach. <i>Computers and Chemical Engineering</i> , 2024, 187, 108742.	3.9	1
302	Titer and charge-based heterogeneity multiattribute monitoring of mAbs in cell culture harvest using 2D ProA CEX MS. <i>Talanta</i> , 2024, 276, 126232.	5.7	1
303	A deep learning-aided multi-objective optimization of a downstream process for production of monoclonal antibody products. <i>Biochemical Engineering Journal</i> , 2024, 208, 109357.	3.8	1
304	American Chemical Society: Division of Biochemical Technology (BIOT). <i>Biotechnology Progress</i> , 2008, 24, 487-487.	2.6	0
305	The Scare of Adventitious Agents in Therapeutic Products. <i>PDA Journal of Pharmaceutical Science and Technology</i> , 2014, 68, 192-192.	0.6	0
306	Development and Commercialization of Biosimilars in India: Current Regulatory and Clinical Experience. <i>AAPS Advances in the Pharmaceutical Sciences Series</i> , 2018, , 653-674.	0.0	0

#	ARTICLE	IF	CITATIONS
307	A novel approach for protein identification from complex cell proteome using modified peptide mass fingerprinting algorithm. <i>Electrophoresis</i> , 2019, 40, 3062-3073.	2.9	0
308	Mechanistic explanation of structural and functional changes induced by methionine mutation in G-CSF protein. <i>Current Research in Biotechnology</i> , 2020, 2, 37-44.	3.8	0
309	Checking counterfeiting of pharmaceutical products by attenuated total reflection mid-infrared spectroscopy. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2021, 255, 119710.	4.0	0
310	Implications of Deep-sea Seabed Mining on Marine Ecosystems – Introduction to a Special Series of Papers. <i>Integrated Environmental Assessment and Management</i> , 2021, , .	3.2	0
311	Long-term Scheduling of a Multi-stage Multi-product Bio-pharmaceutical Process. <i>Computer Aided Chemical Engineering</i> , 2012, 31, 1145-1149.	0.1	0
312	Continuous Processing To Enable Manufacturing Of Affordable Biotherapeutics. , 2018, , .		0
313	Cyclodextrins as modulators for separation of charged variants of mAbs by capillary zone electrophoresis. <i>Journal of Chromatography Open</i> , 2021, 1, 100011.	2.3	0
314	High-Throughput Process Development: – Process Chromatography. <i>Methods in Molecular Biology</i> , 2021, 2178, 11-20.	0.0	0
315	High-Throughput Process Development: – Membrane Chromatography. <i>Methods in Molecular Biology</i> , 2021, 2178, 21-26.	0.0	0
316	Aqueous Two-Phase-Assisted Precipitation of Proteins: A Platform for Isolation of Process-Related Impurities from Therapeutic Proteins. <i>Methods in Molecular Biology</i> , 2021, 2178, 81-91.	0.0	0
317	Emerging themes and factors influencing the prices of biotherapeutics. <i>World Medical and Health Policy</i> , 0, , .	1.4	0
318	Application of PAT in pharmaceutical manufacturing: model-based control of particle size distribution in anti-solvent aided crystallization. <i>Journal of Chemical Technology and Biotechnology</i> , 2023, 98, 2806-2811.	3.1	0
319	Does Aggregation of Therapeutic IgGs in PBS Offer a True Picture of What Happens in Models Derived from Human Body Fluids?. <i>Journal of Pharmaceutical Sciences</i> , 2024, 113, 596-603.	3.3	0
320	Improved Stability and Manufacturability of Nucleocapsid Antigens for SARS-CoV2 Diagnostics through Protein Engineering. <i>Biomolecules</i> , 2023, 13, 1524.	4.2	0
321	Development of continuous processing platform utilizing aqueous two-phase extraction for purification of monoclonal antibodies. <i>Journal of Chromatography A</i> , 2024, 1715, 464605.	3.8	0
322	Current status and future prospective of breast cancer immunotherapy. <i>Advances in Protein Chemistry and Structural Biology</i> , 2024, , 293-326.	0.5	0
323	On-line PAT based monitoring and control of resin aging in protein A chromatography for COGs reduction. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2024, 1234, 124010.	2.4	0
324	Taurine, a Naturally Occurring Amino Acid, as a Physical Stability Enhancer of Different Monoclonal Antibodies. <i>AAPS Journal</i> , 2024, 26, .	4.7	0

#	ARTICLE	IF	CITATIONS
325	Impact of Excipient Extraction and Buffer Exchange on Recombinant Monoclonal Antibody Stability. <i>Molecular Pharmaceutics</i> , 2024, 21, 1872-1883.	4.7	0
326	Novel purification platform based on multimodal preparative scale separation of mAb fragments and aggregates. <i>Journal of Chromatography A</i> , 2024, 1721, 464806.	3.8	0
327	DeepDepth: Prediction of O(6)-methylguanine-DNA methyltransferase genotype in glioblastoma patients using multimodal representation learning based on deep feature fusion. <i>Neural Computing and Applications</i> , 2024, 36, 11507-11523.	5.7	0
328	Explainable AI for CHO cell culture media optimization and prediction of critical quality attribute. <i>Applied Microbiology and Biotechnology</i> , 2024, 108, .	3.7	0
329	Snakebite Management: The Need of Reassessment, International Relations, and Effective Economic Measures to Reduce the Considerable SBE Burden. <i>Journal of Epidemiology and Global Health</i> , 0, , .	3.0	0
330	Process development in Quality-by-Design paradigm for anti-solvent aided crystallization: impact of crystallization parameters on particle morphology and dissolution behaviour of Dextansoprazole active pharmaceutical ingredient. <i>Journal of Chemical Technology and Biotechnology</i> , 2024, 99, 1734-1742.	3.1	0
331	A Cyber-Physical Production System for the Integrated Operation and Monitoring of a Continuous Manufacturing Train for the Production of Monoclonal Antibodies. <i>Bioengineering</i> , 2024, 11, 610.	3.6	0
332	Deep learning framework for peak detection at the intact level of therapeutic proteins. <i>Journal of Separation Science</i> , 2024, 47, .	2.9	0
333	Aggregation of therapeutic monoclonal antibodies due to thermal and air/liquid interfacial agitation stress: Occurrence, stability assessment strategies, aggregation mechanism, influencing factors, and ways to enhance stability. <i>International Journal of Pharmaceutics</i> , 2024, 666, 124735.	5.4	0