

Jrgen J Hubbuch

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215
papers

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h-index

52
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228
ext. papers

4,912
ext. citations

4.4
avg, IF

5.97
L-index

#	Paper	IF	Citations
215	Integrated bioprocesses. <i>Current Opinion in Microbiology</i> , 2005 , 8, 294-300	7.9	110
214	High Throughput Screening of Chromatographic Phases for Rapid Process Development. <i>Chemical Engineering and Technology</i> , 2005 , 28, 1274-1284	2	110
213	High Throughput Screening for the Design and Optimization of Chromatographic Processes □ Miniaturization, Automation and Parallelization of Breakthrough and Elution Studies. <i>Chemical Engineering and Technology</i> , 2008 , 31, 893-903	2	106
212	Effects of ionic strength and mobile phase pH on the binding orientation of lysozyme on different ion-exchange adsorbents. <i>Journal of Chromatography A</i> , 2008 , 1194, 11-21	4.5	94
211	Mechanism and kinetics of protein transport in chromatographic media studied by confocal laser scanning microscopy. Part I. The interplay of sorbent structure and fluid phase conditions. <i>Journal of Chromatography A</i> , 2003 , 1021, 93-104	4.5	94
210	High-gradient magnetic affinity separation of trypsin from porcine pancreatin. <i>Biotechnology and Bioengineering</i> , 2002 , 79, 301-13	4.9	85
209	Application of an aqueous two-phase systems high-throughput screening method to evaluate mAb HCP separation. <i>Biotechnology and Bioengineering</i> , 2011 , 108, 69-81	4.9	82
208	Rational and systematic protein purification process development: the next generation. <i>Trends in Biotechnology</i> , 2009 , 27, 673-9	15.1	81
207	High gradient magnetic separation versus expanded bed adsorption: a first principle comparison. <i>Bioseparation</i> , 2001 , 10, 99-112		80
206	High throughput screening techniques in downstream processing: Preparation, characterization and optimization of aqueous two-phase systems. <i>Chemical Engineering Science</i> , 2007 , 62, 2011-2021	4.4	78
205	Biomass/adsorbent electrostatic interactions in expanded bed adsorption: a zeta potential study. <i>Biotechnology and Bioengineering</i> , 2003 , 83, 149-57	4.9	69
204	High-throughput screening of packed-bed chromatography coupled with SELDI-TOF MS analysis: monoclonal antibodies versus host cell protein. <i>Biotechnology and Bioengineering</i> , 2007 , 98, 440-50	4.9	65
203	Dynamics of protein uptake within the adsorbent particle during packed bed chromatography. <i>Biotechnology and Bioengineering</i> , 2002 , 80, 359-68	4.9	64
202	A novel approach to characterize the binding orientation of lysozyme on ion-exchange resins. <i>Journal of Chromatography A</i> , 2007 , 1149, 312-20	4.5	62
201	Next generation vaccines and vectors: Designing downstream processes for recombinant protein-based virus-like particles. <i>Biotechnology Journal</i> , 2015 , 10, 715-27	5.6	57
200	Superparamagnetic adsorbents for high-gradient magnetic fishing of lectins out of legume extracts. <i>Biotechnology and Bioengineering</i> , 2004 , 87, 311-23	4.9	57
199	Protein-labeling effects in confocal laser scanning microscopy. <i>Journal of Physical Chemistry B</i> , 2005 , 109, 13811-7	3.4	53

198	A tool for selective inline quantification of co-eluting proteins in chromatography using spectral analysis and partial least squares regression. <i>Biotechnology and Bioengineering</i> , 2014 , 111, 1365-73	4.9	52
197	High Throughput Screening for the Design and Optimization of Chromatographic Processes: Automated Optimization of Chromatographic Phase Systems. <i>Chemical Engineering and Technology</i> , 2009 , 32, 140-154	2	52
196	Downstream processing of virus-like particles: single-stage and multi-stage aqueous two-phase extraction. <i>Journal of Chromatography A</i> , 2015 , 1383, 35-46	4.5	51
195	High-throughput methods for miniaturization and automation of monoclonal antibody purification processes. <i>Biotechnology Progress</i> , 2012 , 28, 723-32	2.8	51
194	Mechanism and kinetics of protein transport in chromatographic media studied by confocal laser scanning microscopy. Part II. Impact on chromatographic separations. <i>Journal of Chromatography A</i> , 2003 , 1021, 105-15	4.5	50
193	Scalable recovery of plasmid DNA based on aqueous two-phase separation. <i>Biotechnology and Applied Biochemistry</i> , 2005 , 42, 57-66	2.8	50
192	Molecular dynamics simulations on aqueous two-phase systems - Single PEG-molecules in solution. <i>BMC Biophysics</i> , 2012 , 5, 14	0	49
191	Systematic generation of buffer systems for pH gradient ion exchange chromatography and their application. <i>Journal of Chromatography A</i> , 2013 , 1285, 78-87	4.5	48
190	Separation of genomic DNA, RNA, and open circular plasmid DNA from supercoiled plasmid DNA by combining denaturation, selective renaturation and aqueous two-phase extraction. <i>Biotechnology and Bioengineering</i> , 2007 , 96, 57-66	4.9	47
189	High Throughput Screening for the Design and Optimization of Chromatographic Processes: Assessment of Model Parameter Determination from High Throughput Compatible Data. <i>Chemical Engineering and Technology</i> , 2008 , 31, 1846-1855	2	45
188	Model-based integrated optimization and evaluation of a multi-step ion exchange chromatography. <i>Separation and Purification Technology</i> , 2014 , 136, 207-222	8.3	43
187	Alternative separation steps for monoclonal antibody purification: combination of centrifugal partitioning chromatography and precipitation. <i>Journal of Chromatography A</i> , 2013 , 1319, 118-26	4.5	43
186	A sub-two minutes method for monoclonal antibody-aggregate quantification using parallel interlaced size exclusion high performance liquid chromatography. <i>Journal of Chromatography A</i> , 2011 , 1218, 9010-8	4.5	43
185	Advances in downstream processing of biologics - Spectroscopy: An emerging process analytical technology. <i>Journal of Chromatography A</i> , 2017 , 1490, 2-9	4.5	42
184	Effect of PEG molecular weight and PEGylation degree on the physical stability of PEGylated lysozyme. <i>International Journal of Pharmaceutics</i> , 2017 , 519, 408-417	6.5	42
183	Comparison of chromatographic ion-exchange resins VI. Weak anion-exchange resins. <i>Journal of Chromatography A</i> , 2007 , 1164, 82-94	4.5	41
182	Advances in inline quantification of co-eluting proteins in chromatography: Process-data-based model calibration and application towards real-life separation issues. <i>Biotechnology and Bioengineering</i> , 2015 , 112, 1406-16	4.9	37
181	Determination of protein phase diagrams by microbatch experiments: exploring the influence of precipitants and pH. <i>International Journal of Pharmaceutics</i> , 2015 , 479, 28-40	6.5	37

180	A critical review of recent trends, and a future perspective of optical spectroscopy as PAT in biopharmaceutical downstream processing. <i>Analytical and Bioanalytical Chemistry</i> , 2020 , 412, 2047-2064 ^{4,4}	4.4	36
179	Exploitation of the coil-globule plasmid DNA transition induced by small changes in temperature, pH salt, and poly(ethylene glycol) compositions for directed partitioning in aqueous two-phase systems. <i>Langmuir</i> , 2006 , 22, 4282-90	4	36
178	Isoform separation and binding site determination of mono-PEGylated lysozyme with pH gradient chromatography. <i>Journal of Chromatography A</i> , 2012 , 1268, 102-8	4.5	35
177	Optimization of random PEGylation reactions by means of high throughput screening. <i>Biotechnology and Bioengineering</i> , 2014 , 111, 104-14	4.9	34
176	High throughput screening based selection of phases for aqueous two-phase system-centrifugal partitioning chromatography of monoclonal antibodies. <i>Journal of Chromatography A</i> , 2012 , 1252, 104-14 ⁵	4.5	34
175	Confocal laser scanning microscopy as an analytical tool in chromatographic research. <i>Bioprocess and Biosystems Engineering</i> , 2008 , 31, 241-59	3.7	34
174	Detailed analysis of membrane adsorber pore structure and protein binding by advanced microscopy. <i>Journal of Membrane Science</i> , 2008 , 320, 456-467	9.6	34
173	Characterization of highly concentrated antibody solution - A toolbox for the description of protein long-term solution stability. <i>MAbs</i> , 2017 , 9, 1169-1185	6.6	33
172	On-Demand Production of Flow-Reactor Cartridges by 3D Printing of Thermostable Enzymes. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 5539-5543	16.4	33
171	In-line Fourier-transform infrared spectroscopy as a versatile process analytical technology for preparative protein chromatography. <i>Journal of Chromatography A</i> , 2018 , 1547, 37-44	4.5	33
170	Selective protein quantification for preparative chromatography using variable pathlength UV/Vis spectroscopy and partial least squares regression. <i>Chemical Engineering Science</i> , 2018 , 176, 157-164	4.4	33
169	Selective high throughput protein quantification based on UV absorption spectra. <i>Biotechnology and Bioengineering</i> , 2013 , 110, 448-60	4.9	33
168	Competitive adsorption of labeled and native protein in confocal laser scanning microscopy. <i>Biotechnology and Bioengineering</i> , 2006 , 95, 58-66	4.9	32
167	Real-time monitoring and control of the load phase of a protein A capture step. <i>Biotechnology and Bioengineering</i> , 2017 , 114, 368-373	4.9	31
166	A label-free methodology for selective protein quantification by means of absorption measurements. <i>Biotechnology and Bioengineering</i> , 2011 , 108, 2661-9	4.9	31
165	The influence of homogenisation conditions on biomass-adsorbent interactions during ion-exchange expanded bed adsorption. <i>Biotechnology and Bioengineering</i> , 2006 , 94, 543-53	4.9	31
164	Downstream process development strategies for effective bioprocesses: Trends, progress, and combinatorial approaches. <i>Engineering in Life Sciences</i> , 2017 , 17, 1142-1158	3.4	30
163	Direct quantification of intraparticle protein diffusion in chromatographic media. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 1429-36	3.4	30

162	Estimation of adsorption isotherm and mass transfer parameters in protein chromatography using artificial neural networks. <i>Journal of Chromatography A</i> , 2017 , 1487, 211-217	4.5	29
161	High-throughput screening-based selection and scale-up of aqueous two-phase systems for pDNA purification. <i>Journal of Separation Science</i> , 2012 , 35, 3197-207	3.4	28
160	Generation of equally sized particle plaques using solid-liquid suspensions. <i>Biotechnology Progress</i> , 2006 , 22, 914-8	2.8	27
159	Simulating and Optimizing Preparative Protein Chromatography with ChromX. <i>Journal of Chemical Education</i> , 2015 , 92, 1497-1502	2.4	26
158	Single amino acid fingerprinting of the human antibody repertoire with high density peptide arrays. <i>Journal of Immunological Methods</i> , 2017 , 443, 45-54	2.5	25
157	Evaluation of PEG/phosphate aqueous two-phase systems for the purification of the chicken egg white protein avidin by using high-throughput techniques. <i>Chemical Engineering Science</i> , 2013 , 104, 945-956	4.5	25
156	Adjoint-based estimation and optimization for column liquid chromatography models. <i>Computers and Chemical Engineering</i> , 2014 , 64, 41-54	4	25
155	Changes in retention behavior of fluorescently labeled proteins during ion-exchange chromatography caused by different protein surface labeling positions. <i>Biotechnology and Bioengineering</i> , 2007 , 98, 193-200	4.9	25
154	Prediction uncertainty assessment of chromatography models using Bayesian inference. <i>Journal of Chromatography A</i> , 2019 , 1587, 101-110	4.5	25
153	Influence of binding pH and protein solubility on the dynamic binding capacity in hydrophobic interaction chromatography. <i>Journal of Chromatography A</i> , 2015 , 1396, 77-85	4.5	24
152	Modeling and simulation of anion-exchange membrane chromatography for purification of Sf9 insect cell-derived virus-like particles. <i>Journal of Chromatography A</i> , 2016 , 1429, 142-54	4.5	23
151	Feasibility of using continuous chromatography in downstream processing: Comparison of costs and product quality for a hybrid process vs. a conventional batch process. <i>Journal of Biotechnology</i> , 2017 , 259, 213-220	3.7	22
150	Isolation and Purification of Biotechnological Products. <i>Journal of Non-Equilibrium Thermodynamics</i> , 2007 , 32,	3.8	22
149	UV absorption-based inverse modeling of protein chromatography. <i>Engineering in Life Sciences</i> , 2016 , 16, 99-106	3.4	21
148	Microfluidics on liquid handling stations (E-on-LHS): an industry compatible chip interface between microfluidics and automated liquid handling stations. <i>Lab on A Chip</i> , 2013 , 13, 2337-43	7.2	21
147	Non-invasive high throughput approach for protein hydrophobicity determination based on surface tension. <i>Biotechnology and Bioengineering</i> , 2015 , 112, 2485-94	4.9	20
146	3D-Printed Phenacrylate Decarboxylase Flow Reactors for the Chemoenzymatic Synthesis of 4-Hydroxystilbene. <i>Chemistry - A European Journal</i> , 2019 , 25, 15998	4.8	20
145	Multi-attribute PAT for UF/DF of Proteins-Monitoring Concentration, particle sizes, and Buffer Exchange. <i>Analytical and Bioanalytical Chemistry</i> , 2020 , 412, 2123-2136	4.4	19

144	Concentration-dependent changes in apparent diffusion coefficients as indicator for colloidal stability of protein solutions. <i>International Journal of Pharmaceutics</i> , 2016 , 511, 276-287	6.5	19
143	High-throughput characterization of virus-like particles by interlaced size-exclusion chromatography. <i>Vaccine</i> , 2016 , 34, 1259-67	4.1	19
142	A novel method to evaluate protein solubility using a high throughput screening approach. <i>Chemical Engineering Science</i> , 2009 , 64, 3778-3788	4.4	19
141	Developing a chromatographic column model for bovine serum albumin on strong anion-exchanger Source30Q using data from confocal laser scanning microscopy. <i>Journal of Chromatography A</i> , 2006 , 1137, 63-75	4.5	19
140	The influence of biomass on the hydrodynamic behavior and stability of expanded beds. <i>Biotechnology and Bioengineering</i> , 2004 , 87, 337-46	4.9	19
139	Impact of Polymer Bioconjugation on Protein Stability and Activity Investigated with Discrete Conjugates: Alternatives to PEGylation. <i>Biomacromolecules</i> , 2018 , 19, 4250-4262	6.9	19
138	Calibration-free inverse modeling of ion-exchange chromatography in industrial antibody purification. <i>Engineering in Life Sciences</i> , 2016 , 16, 107-113	3.4	18
137	High-throughput micro-scale cultivations and chromatography modeling: Powerful tools for integrated process development. <i>Biotechnology and Bioengineering</i> , 2015 , 112, 2123-33	4.9	18
136	Investigation of pore diffusion hindrance of monoclonal antibody in hydrophobic interaction chromatography using confocal laser scanning microscopy. <i>Journal of Chromatography A</i> , 2007 , 1149, 178-88	4.5	18
135	Biochemical engineering aspects of expanded bed adsorption. <i>Advances in Biochemical Engineering/Biotechnology</i> , 2005 , 92, 101-23	1.7	18
134	Water on hydrophobic surfaces: Mechanistic modeling of hydrophobic interaction chromatography. <i>Journal of Chromatography A</i> , 2016 , 1465, 71-8	4.5	18
133	An integrated precipitation and ion-exchange chromatography process for antibody manufacturing: Process development strategy and continuous chromatography exploration. <i>Journal of Chromatography A</i> , 2018 , 1533, 66-76	4.5	18
132	Predictive approach for protein aggregation: Correlation of protein surface characteristics and conformational flexibility to protein aggregation propensity. <i>Biotechnology and Bioengineering</i> , 2017 , 114, 1170-1183	4.9	17
131	Manipulation of lysozyme phase behavior by additives as function of conformational stability. <i>International Journal of Pharmaceutics</i> , 2015 , 494, 370-80	6.5	17
130	High-throughput process development of an alternative platform for the production of virus-like particles in <i>Escherichia coli</i> . <i>Journal of Biotechnology</i> , 2016 , 219, 7-19	3.7	17
129	Analytical characterization of complex, biotechnological feedstocks by pH gradient ion exchange chromatography for purification process development. <i>Journal of Chromatography A</i> , 2013 , 1311, 55-64	4.5	17
128	Root cause investigation of deviations in protein chromatography based on mechanistic models and artificial neural networks. <i>Journal of Chromatography A</i> , 2017 , 1515, 146-153	4.5	17
127	Straightforward method for calibration of mechanistic cation exchange chromatography models for industrial applications. <i>Biotechnology Progress</i> , 2020 , 36, e2984	2.8	16

126	A versatile noninvasive method for adsorber quantification in batch and column chromatography based on the ionic capacity. <i>Biotechnology Progress</i> , 2016 , 32, 666-77	2.8	16
125	Characterization of aqueous two phase systems by combining lab-on-a-chip technology with robotic liquid handling stations. <i>Journal of Chromatography A</i> , 2014 , 1367, 68-77	4.5	16
124	Impact of additives on the formation of protein aggregates and viscosity in concentrated protein solutions. <i>International Journal of Pharmaceutics</i> , 2017 , 516, 82-90	6.5	16
123	A new fluid distribution system for scale-flexible expanded bed adsorption. <i>Biotechnology and Bioengineering</i> , 2002 , 78, 35-43	4.9	16
122	The use of ion-selective electrodes for evaluating residence time distributions in expanded bed adsorption systems. <i>Biotechnology Progress</i> , 2001 , 17, 1128-36	2.8	16
121	Influence of macromolecular precipitants on phase behavior of monoclonal antibodies. <i>Biotechnology Progress</i> , 2015 , 31, 145-53	2.8	15
120	High-throughput downstream process development for cell-based products using aqueous two-phase systems. <i>Journal of Chromatography A</i> , 2016 , 1464, 1-11	4.5	15
119	Robust high-throughput batch screening method in 384-well format with optical in-line resin quantification. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2015 , 988, 98-105	3.2	14
118	Antibody fingerprints in lyme disease deciphered with high density peptide arrays. <i>Engineering in Life Sciences</i> , 2017 , 17, 1078-1087	3.4	14
117	Squeeze flow rheometry as a novel tool for the characterization of highly concentrated protein solutions. <i>Biotechnology and Bioengineering</i> , 2016 , 113, 576-87	4.9	14
116	Application of spectral deconvolution and inverse mechanistic modelling as a tool for root cause investigation in protein chromatography. <i>Journal of Chromatography A</i> , 2016 , 1437, 158-167	4.5	14
115	Process monitoring of virus-like particle reassembly by diafiltration with UV/Vis spectroscopy and light scattering. <i>Biotechnology and Bioengineering</i> , 2019 , 116, 1366-1379	4.9	13
114	Integrated development of up- and downstream processes supported by the Cherry-TagIT for real-time tracking of stability and solubility of proteins. <i>Journal of Biotechnology</i> , 2015 , 200, 27-37	3.7	13
113	The Biomaker: an entry-level bioprinting device for biotechnological applications. <i>Journal of Chemical Technology and Biotechnology</i> , 2018 , 93, 792-799	3.5	13
112	Application of genetic algorithms and response surface analysis for the optimization of batch chromatographic systems. <i>Biochemical Engineering Journal</i> , 2012 , 63, 66-75	4.2	13
111	Molecular dynamics simulations of aqueous two-phase systems: Understanding phase formation and protein partitioning. <i>Chemical Engineering Science</i> , 2013 , 96, 142-151	4.4	13
110	Perspectives of aerosol-photopolymerization: Nanoscale polymer particles. <i>Chemical Engineering Science</i> , 2013 , 101, 248-252	4.4	13
109	A comprehensive molecular dynamics approach to protein retention modeling in ion exchange chromatography. <i>Journal of Chromatography A</i> , 2015 , 1381, 184-93	4.5	13

108	Moving through three-dimensional phase diagrams of monoclonal antibodies. <i>Biotechnology Progress</i> , 2014 , 30, 1103-13	2.8	13
107	Effect of lysozyme solid-phase PEGylation on reaction kinetics and isoform distribution. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2015 , 1002, 313-8	3.2	12
106	Examination of a genetic algorithm for the application in high-throughput downstream process development. <i>Biotechnology Journal</i> , 2012 , 7, 1203-15	5.6	12
105	Modeling of complex antibody elution behavior under high protein load densities in ion exchange chromatography using an asymmetric activity coefficient. <i>Biotechnology Journal</i> , 2017 , 12, 1600336	5.6	11
104	Comparison of Tobacco Host Cell Protein Removal Methods by Blanching Intact Plants or by Heat Treatment of Extracts. <i>Journal of Visualized Experiments</i> , 2016 ,	1.6	11
103	Self-interaction chromatography in pre-packed columns: a critical evaluation of self-interaction chromatography methodology to determine the second virial coefficient. <i>Journal of Chromatography A</i> , 2013 , 1293, 75-84	4.5	11
102	Short-cut method for the correction of light attenuation influences in the experimental data obtained from confocal laser scanning microscopy. <i>Journal of Chromatography A</i> , 2006 , 1136, 29-38	4.5	11
101	3D-Printable and Enzymatically Active Composite Materials Based on Hydrogel-Filled High Internal Phase Emulsions. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020 , 8, 713	5.8	11
100	Prediction of salt effects on protein phase behavior by HIC retention and thermal stability. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2016 , 128, 216-225	3.5	10
99	Perspectives of aerosol-photopolymerization: organic-inorganic hybrid nanoparticles. <i>Colloid and Polymer Science</i> , 2014 , 292, 1241-1247	2.4	10
98	Identification of a Tetanus Toxin Specific Epitope in Single Amino Acid Resolution. <i>Biotechnology Journal</i> , 2017 , 12, 1700197	5.6	10
97	High-throughput process development of purification alternatives for the protein avidin. <i>Biotechnology Progress</i> , 2015 , 31, 957-73	2.8	10
96	A novel two-zone protein uptake model for affinity chromatography and its application to the description of elution band profiles of proteins fused to a family 9 cellulose binding module affinity tag. <i>Journal of Chromatography A</i> , 2007 , 1160, 137-49	4.5	10
95	Analysis of phase behavior and morphology during freeze-thaw applications of lysozyme. <i>International Journal of Pharmaceutics</i> , 2019 , 555, 153-164	6.5	10
94	Integrated Process for Capture and Purification of Virus-Like Particles: Enhancing Process Performance by Cross-Flow Filtration. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020 , 8, 489	5.8	9
93	Impact of polymer surface characteristics on the microrheological measurement quality of protein solutions - A tracer particle screening. <i>International Journal of Pharmaceutics</i> , 2016 , 505, 246-54	6.5	9
92	Machine-assisted cultivation and analysis of biofilms. <i>Scientific Reports</i> , 2019 , 9, 8933	4.9	9
91	Automated measurement of apparent protein solubility to rapidly assess complex parameter interactions. <i>Food and Bioprocess Processing</i> , 2014 , 92, 133-142	4.9	9

90	A high-throughput 2D-analytical technique to obtain single protein parameters from complex cell lysates for in silico process development of ion exchange chromatography. <i>Journal of Chromatography A</i> , 2013 , 1318, 84-91	4.5	9
89	Detection, Quantification, and Propagation of Uncertainty in High-Throughput Experimentation by Monte Carlo Methods. <i>Chemical Engineering and Technology</i> , 2012 , 35, 1456-1464	2	9
88	The influence of mixed salts on the capacity of HIC adsorbers: A predictive correlation to the surface tension and the aggregation temperature. <i>Biotechnology Progress</i> , 2016 , 32, 346-54	2.8	9
87	Quantification of PEGylated proteases with varying degree of conjugation in mixtures: An analytical protocol combining protein precipitation and capillary gel electrophoresis. <i>Journal of Chromatography A</i> , 2016 , 1462, 153-64	4.5	9
86	Preparative Protein Crystallization. <i>Chemical Engineering and Technology</i> , 2019 , 42, 2275-2281	2	9
85	Predicting recombinant protein expression experiments using molecular dynamics simulation. <i>Chemical Engineering Science</i> , 2015 , 121, 340-350	4.4	8
84	Accurate retention time determination of co-eluting proteins in analytical chromatography by means of spectral data. <i>Biotechnology and Bioengineering</i> , 2013 , 110, 683-93	4.9	8
83	Orientation of monoclonal antibodies in ion-exchange chromatography: A predictive quantitative structure-activity relationship modeling approach. <i>Journal of Chromatography A</i> , 2017 , 1510, 33-39	4.5	8
82	Influence of structure properties on protein-protein interactions-QSAR modeling of changes in diffusion coefficients. <i>Biotechnology and Bioengineering</i> , 2017 , 114, 821-831	4.9	8
81	Investigation and prediction of protein precipitation by polyethylene glycol using quantitative structure-activity relationship models. <i>Journal of Biotechnology</i> , 2017 , 241, 87-97	3.7	8
80	Critical evaluation and comparison of fluid distribution systems for industrial scale expanded bed adsorption chromatography columns. <i>Journal of Chromatography A</i> , 2008 , 1198-1199, 131-9	4.5	8
79	Cationic Aerosol Photopolymerization. <i>Macromolecular Materials and Engineering</i> , 2015 , 300, 136-139	3.9	7
78	Perspectives of Aerosol-Photopolymerization: Nanostructured Polymeric Particles. <i>Macromolecular Materials and Engineering</i> , 2014 , 299, 1316-1328	3.9	7
77	Adsorption of colloidal proteins in ion-exchange chromatography under consideration of charge regulation. <i>Journal of Chromatography A</i> , 2020 , 1611, 460608	4.5	7
76	Cross-scale quality assessment of a mechanistic cation exchange chromatography model. <i>Biotechnology Progress</i> , 2021 , 37, e3081	2.8	7
75	Application of Empirical Phase Diagrams for Multidimensional Data Visualization of High-Throughput Microbatch Crystallization Experiments. <i>Journal of Pharmaceutical Sciences</i> , 2018 , 107, 2063-2069	3.9	7
74	An orientation sensitive approach in biomolecule interaction quantitative structure-activity relationship modeling and its application in ion-exchange chromatography. <i>Journal of Chromatography A</i> , 2017 , 1482, 48-56	4.5	6
73	A mechanistic model of ion-exchange chromatography on polymer fiber stationary phases. <i>Journal of Chromatography A</i> , 2016 , 1475, 18-30	4.5	6

72	High-throughput cell quantification assays for use in cell purification development - enabling technologies for cell production. <i>Biotechnology Journal</i> , 2016 , 11, 676-86	5.6	6
71	Multi-step high-throughput conjugation platform for the development of antibody-drug conjugates. <i>Journal of Biotechnology</i> , 2018 , 278, 48-55	3.7	6
70	Defined polymer shells on nanoparticles via a continuous aerosol-based process. <i>Journal of Nanoparticle Research</i> , 2014 , 16, 1	2.3	6
69	Molecular dynamics simulations approach for the characterization of peptides with respect to hydrophobicity. <i>Journal of Physical Chemistry B</i> , 2014 , 118, 1707-14	3.4	6
68	Prediction and characterization of the stability enhancing effect of the Cherry-Tag α in highly concentrated protein solutions by complex rheological measurements and MD simulations. <i>International Journal of Pharmaceutics</i> , 2017 , 531, 360-371	6.5	6
67	Development and characterization of an automated high throughput screening method for optimization of protein refolding processes. <i>Journal of Separation Science</i> , 2012 , 35, 3149-59	3.4	6
66	Deconvolution of high-throughput multicomponent isotherms using multivariate data analysis of protein spectra. <i>Engineering in Life Sciences</i> , 2016 , 16, 194-201	3.4	6
65	A phase diagram-based toolbox to assess the impact of freeze/thaw ramps on the phase behavior of proteins. <i>Bioprocess and Biosystems Engineering</i> , 2020 , 43, 179-192	3.7	6
64	Monitoring of antibody-drug conjugation reactions with UV/Vis spectroscopy. <i>Journal of Biotechnology</i> , 2018 , 288, 15-22	3.7	6
63	High-throughput downstream process development for cell-based products using aqueous two-phase systems (ATPS) - A case study. <i>Biotechnology Journal</i> , 2017 , 12, 1600587	5.6	5
62	Investigation of the reversibility of freeze/thaw stress-induced protein instability using heat cycling as a function of different cryoprotectants. <i>Bioprocess and Biosystems Engineering</i> , 2020 , 43, 1309-1327	3.7	5
61	3D bioprinting \square Flow cytometry as analytical strategy for 3D cell structures. <i>Bioprinting</i> , 2018 , 11, e000237	3.7	5
60	Cell Separation in Aqueous Two-Phase Systems - Influence of Polymer Molecular Weight and Tie-Line Length on the Resolution of Five Model Cell Lines. <i>Biotechnology Journal</i> , 2018 , 13, 1700250	5.6	5
59	High-throughput characterization of an insect cell-free expression. <i>Engineering in Life Sciences</i> , 2014 , 14, 409-417	3.4	5
58	Model-Based Investigation on the Mass Transfer and Adsorption Mechanisms of Mono-Pegylated Lysozyme in Ion-Exchange Chromatography. <i>Biotechnology Journal</i> , 2017 , 12, 1700255	5.6	5
57	Computational study of elements of stability of a four-helix bundle protein biosurfactant. <i>Journal of Computer-Aided Molecular Design</i> , 2015 , 29, 47-58	4.2	5
56	Rapid quantification of protein-polyethylene glycol conjugates by multivariate evaluation of chromatographic data. <i>Journal of Chromatography A</i> , 2012 , 1257, 41-7	4.5	5
55	Factorization of preparative protein chromatograms with hard-constraint multivariate curve resolution and second-derivative pretreatment. <i>Journal of Chromatography A</i> , 2019 , 1585, 152-160	4.5	5

54	Precipitation of complex antibody solutions: influence of contaminant composition and cell culture medium on the precipitation behavior. <i>Bioprocess and Biosystems Engineering</i> , 2019 , 42, 1039-1051	3.7	4
53	Correlating multidimensional short-term empirical protein properties to long-term protein physical stability data via empirical phase diagrams. <i>International Journal of Pharmaceutics</i> , 2019 , 560, 166-174	6.5	4
52	Surface tension determination by means of liquid handling stations. <i>Engineering in Life Sciences</i> , 2016 , 16, 532-537	3.4	4
51	Packing characteristics of winged shaped polymer fiber supports for preparative chromatography. <i>Journal of Chromatography A</i> , 2018 , 1553, 67-80	4.5	4
50	High-throughput screening of aqueous biphasic systems with ionic liquids as additives for extraction and purification of enveloped virus-like particles. <i>Engineering Reports</i> , 2019 , 1, e12030	1.2	4
49	High throughput screening setup of a scale-down device for membrane chromatography-aggregate removal of monoclonal antibodies. <i>Biotechnology Progress</i> , 2020 , 36, e3055	2.8	4
48	Water on hydrophobic surfaces: mechanistic modeling of polyethylene glycol-induced protein precipitation. <i>Bioprocess and Biosystems Engineering</i> , 2019 , 42, 513-520	3.7	4
47	High-Throughput Column Chromatography Performed on Liquid Handling Stations 2017 , 293-332		3
46	Strategy for assessment of the colloidal and biological stability of H1N1 influenza A viruses. <i>International Journal of Pharmaceutics</i> , 2017 , 517, 80-87	6.5	3
45	Fourier-transform infrared spectroscopy as a process analytical technology for near real time in-line estimation of the degree of PEGylation in chromatography. <i>Journal of Chromatography A</i> , 2019 , 1608, 460410	4.5	3
44	Systematic purification of salt-intolerant proteins by ion-exchange chromatography: The example of human β -galactosidase A. <i>Engineering in Life Sciences</i> , 2015 , 15, 195-207	3.4	3
43	Light extinction and scattering by agarose based resin beads and applications in high-throughput screening. <i>Journal of Chromatography A</i> , 2015 , 1397, 52-8	4.5	3
42	Custom-tailored adsorbers: A molecular dynamics study on optimal design of ion exchange chromatography material. <i>Journal of Chromatography A</i> , 2015 , 1413, 60-7	4.5	3
41	Modeling of hydrophobic interaction chromatography for the separation of antibody-drug conjugates and its application towards quality by design. <i>Journal of Biotechnology</i> , 2020 , 317, 48-58	3.7	3
40	Apparent protein cloud point temperature determination using a low volume high-throughput cryogenic device in combination with automated imaging. <i>Bioprocess and Biosystems Engineering</i> , 2020 , 43, 439-456	3.7	3
39	Protein adsorption on ion exchange adsorbers: A comparison of a stoichiometric and non-stoichiometric modeling approach. <i>Journal of Chromatography A</i> , 2021 , 1653, 462397	4.5	3
38	Influence of the production system on the surface properties of influenza A virus particles. <i>Engineering in Life Sciences</i> , 2017 , 17, 1071-1077	3.4	2
37	Kinetic reaction modeling for antibody-drug conjugate process development. <i>Journal of Biotechnology</i> , 2019 , 306, 71-80	3.7	2

36	High-throughput computational pipeline for 3-D structure preparation and in silico protein surface property screening: A case study on HBcAg dimer structures. <i>International Journal of Pharmaceutics</i> , 2019 , 563, 337-346	6.5	2
35	Ensembles of Hydrophobicity Scales as Potent Classifiers for Chimeric Virus-Like Particle Solubility - An Amino Acid Sequence-Based Machine Learning Approach. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020 , 8, 395	5.8	2
34	Immobilization of β -Galactosidase by Encapsulation of Enzyme-Conjugated Polymer Nanoparticles Inside Hydrogel Microparticles.. <i>Frontiers in Bioengineering and Biotechnology</i> , 2021 , 9, 818053	5.8	2
33	Advances in Resins for Ion-Exchange Chromatography. <i>Advances in Chromatography</i> , 2009 ,		2
32	Time-Dependent Multi-Light-Source Image Classification Combined With Automated Multidimensional Protein Phase Diagram Construction for Protein Phase Behavior Analysis. <i>Journal of Pharmaceutical Sciences</i> , 2020 , 109, 331-339	3.9	2
31	Temperature Based Process Characterization of Pharmaceutical Freeze-Thaw Operations. <i>Frontiers in Bioengineering and Biotechnology</i> , 2021 , 9, 617770	5.8	2
30	Photoinitiated miniemulsion polymerization in microfluidic chips on automated liquid handling stations: Proof of concept. <i>Engineering in Life Sciences</i> , 2016 , 16, 505-514	3.4	2
29	A multisensor approach for improved protein A load phase monitoring by conductivity-based background subtraction of UV spectra. <i>Biotechnology and Bioengineering</i> , 2021 , 118, 905-917	4.9	2
28	Image analysis as PAT-Tool for use in extrusion-based bioprinting. <i>Bioprinting</i> , 2021 , 21, e00112	7	2
27	Application of ultraviolet, visible, and infrared light imaging in protein-based biopharmaceutical formulation characterization and development studies. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2021 , 165, 319-336	5.7	2
26	In silico process characterization for biopharmaceutical development following the quality by design concept. <i>Biotechnology Progress</i> , 2021 , e3196	2.8	2
25	Piezoelectric Silicon Micropump for Drug Delivery Applications. <i>Applied Sciences (Switzerland)</i> , 2021 , 11, 8008	2.6	2
24	Analysis of complex protein elution behavior in preparative ion exchange processes using a colloidal particle adsorption model. <i>Journal of Chromatography A</i> , 2021 , 1654, 462439	4.5	2
23	Automated image processing as an analytical tool in cell cryopreservation for bioprocess development. <i>Bioprocess and Biosystems Engineering</i> , 2019 , 42, 665-675	3.7	1
22	Cell-free expression of recombinant antigens of <i>Borrelia burgdorferi</i> and microarray-based multiplex detection using different patient sera. <i>Engineering in Life Sciences</i> , 2014 , 14, 399-408	3.4	1
21	Modeling the Gibbs-Donnan effect during ultrafiltration and diafiltration processes using the Poisson-Boltzmann theory in combination with a basic Stern model. <i>Journal of Membrane Science</i> , 2022 , 648, 120333	9.6	1
20	Thiol-Functional Polymer Nanoparticles via Aerosol Photopolymerization.. <i>Polymers</i> , 2021 , 13,	4.5	1
19	Optimization of a Soft Ensemble Vote Classifier for the Prediction of Chimeric Virus-Like Particle Solubility and Other Biophysical Properties. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020 , 8, 881	5.8	1

18	Modeling the impact of amino acid substitution in a monoclonal antibody on cation exchange chromatography. <i>Biotechnology and Bioengineering</i> , 2021 , 118, 2923-2933	4.9	1
17	Implementation of an analytical microfluidic device for the quantification of protein concentrations in high-throughput format. <i>Engineering in Life Sciences</i> , 2016 , 16, 515-524	3.4	1
16	Influence of image analysis strategy, cooling rate, and sample volume on apparent protein cloud-point temperature determination. <i>Bioprocess and Biosystems Engineering</i> , 2021 , 44, 525-536	3.7	1
15	Impact of freeze-thaw processes on monoclonal antibody platform process development. <i>Biotechnology and Bioengineering</i> , 2021 , 118, 3914-3925	4.9	1
14	Process development exploiting competitive adsorption-based displacement effects in monoclonal antibody aggregate removal-A new high-throughput screening procedure for membrane chromatography. <i>Biotechnology and Applied Biochemistry</i> , 2021 ,	2.8	1
13	Comparison of UV- and Raman-based monitoring of the Protein A load phase and evaluation of data fusion by PLS models and CNNs. <i>Biotechnology and Bioengineering</i> , 2021 , 118, 4255-4268	4.9	1
12	Exploration of fiber-based cation exchange adsorbents for the removal of monoclonal antibody aggregates. <i>Journal of Chromatography A</i> , 2021 , 1654, 462451	4.5	1
11	Raman spectroscopy as a process analytical technology to investigate biopharmaceutical freeze concentration processes. <i>Biotechnology and Bioengineering</i> , 2021 , 118, 4708-4719	4.9	1
10	On the analysis of chromatographic biopharmaceutical data by curve resolution techniques in the framework of the area of feasible solutions. <i>Journal of Chromatography A</i> , 2020 , 1627, 461420	4.5	0
9	Process development for cross-flow diafiltration-based VLP disassembly: A novel high-throughput screening approach. <i>Biotechnology and Bioengineering</i> , 2021 , 118, 3926-3940	4.9	0
8	Investigation of Lysozyme Diffusion in Agarose Hydrogels Employing a Microfluidics-Based UV Imaging Approach.. <i>Frontiers in Bioengineering and Biotechnology</i> , 2022 , 10, 849271	5.8	0
7	Evaluation of the Reproducibility and Robustness of Extrusion-Based Bioprinting Processes Applying a Flow Sensor.. <i>Frontiers in Bioengineering and Biotechnology</i> , 2022 , 10, 831350	5.8	0
6	HIGH-THROUGHPUT SCREENING AND MODELING TECHNOLOGIES FOR PROCESS DEVELOPMENT IN ANTIBODY PURIFICATION 2017 , 515-535		
5	Redesigning food protein formulations with empirical phase diagrams: A case study on glycerol-poor and glycerol-free formulations. <i>Food Research International</i> , 2019 , 125, 108609	7	
4	Soluble full-length expression and characterization of snRNP protein U1-68/70K. <i>Protein Expression and Purification</i> , 2014 , 104, 65-70	2	
3	Streamlined process development procedure incorporating the selection of various stationary phase types established in a mAb aggregate reduction study with different mixed mode ligands.. <i>Biotechnology Progress</i> , 2021 , e3230	2.8	
2	Modifying an ßTApurifier System for the Automated Acquisition of Samples for Kinetic Modeling of Batch Reactions. <i>SLAS Technology</i> , 2020 , 25, 106-110	3	
1	High throughput screening of fiber-based adsorbents for material and process development. <i>Journal of Chromatography A</i> , 2021 , 1653, 462387	4.5	

