Christoph Herwig

List of Publications by Year
in descending order

230	5,741	94381 37	133188 59
papers	citations	h-index	g-index

236	236	236	5135
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Development of a fed-batch process for a recombinant Pichia pastoris Î”och1 strain expressing a plant peroxidase. Microbial Cell Factories, 2015, 14, 1.	1.9	198
2	Microbials for the production of monoclonal antibodies and antibody fragments. Trends in Biotechnology, 2014, 32, 54-60.	4.9	192
3	A comprehensive and quantitative review of dark fermentative biohydrogen production. Microbial Cell Factories, 2012, 11, 115.	1.9	169
4	The filamentous fungal pelletâ€”relationship between morphology and productivity. Applied Microbiology and Biotechnology, 2018, 102, 2997-3006.	1.7	154
5	Recombinant protein expression in Pichia pastoris strains with an engineered methanol utilization pathway. Microbial Cell Factories, 2012, 11, 22.	1.9	151
6	Essential prerequisites for successful bioprocess development of biological CH₄production from CO₂and H₂. Critical Reviews in Biotechnology, 2015, 35, 141-151.	5.1	110
7	Analysis of process related factors to increase volumetric productivity and quality of biomethane with Methanothermobacter marburgensis. Applied Energy, 2014, 132, 155-162.	5.1	99
8	Data science tools and applications on the way to Pharma 4.0. Drug Discovery Today, 2019, 24, 1795-1805.	3.2	91
9	Impact of Glycerol as Carbon Source onto Specific Sugar and Inducer Uptake Rates and Inclusion Body Productivity in E. coli BL21(DE3). Bioengineering, 2018, 5, 1.	1.6	90
10	Increased poly-Î²-hydroxybutyrate production from carbon dioxide in randomly mutated cells of cyanobacterial strain Synechocystis sp. PCC 6714: Mutant generation and characterization. Bioresource Technology, 2018, 266, 34-44.	4.8	84
11	Between the Poles of Dataâ€Driven and Mechanistic Modeling for Process Operation. Chemie-Ingenieur-Technik, 2017, 89, 542-561.	0.4	80
12	Real-time estimation of biomass and specific growth rate in physiologically variable recombinant fed-batch processes. Bioprocess and Biosystems Engineering, 2013, 36, 1205-1218.	1.7	79
13	A dynamic method based on the specific substrate uptake rate to set up a feeding strategy for Pichia pastoris. Microbial Cell Factories, 2011, 10, 14.	1.9	77
14	Science-based bioprocess design for filamentous fungi. Trends in Biotechnology, 2013, 31, 37-44.	4.9	72
15	Spore germination of <scp>T</scp>richodermaÂatroviride is inhibited by its <scp>L</scp>ys<scp>M</scp> protein <scp>TAL</scp>6. FEBS Journal, 2013, 280, 1226-1236.	2.2	68
16	Soft sensor assisted dynamic bioprocess control: Efficient tools for bioprocess development. Chemical Engineering Science, 2013, 96, 190-198.	1.9	66
17	On-line stoichiometry and identification of metabolic state under dynamic process conditions. Biotechnology and Bioengineering, 2001, 75, 345-354.	1.7	64
18	Knockout of an endogenous mannosyltransferase increases the homogeneity of glycoproteins produced in Pichia pastoris. Scientific Reports, 2013, 3, 3279.	1.6	62

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19	Photosynthetic poly-Î²-hydroxybutyrate accumulation in unicellular cyanobacterium Synechocystis sp. PCC 6714. AMB Express, 2017, 7, 143.	1.4	61
20	A fast approach to determine a fed batch feeding profile for recombinant Pichia pastoris strains. Microbial Cell Factories, 2011, 10, 85.	1.9	59
21	Model-Based Methods in the Biopharmaceutical Process Lifecycle. Pharmaceutical Research, 2017, 34, 2596-2613.	1.7	58
22	Model-based tools for optimal experiments in bioprocess engineering. Current Opinion in Chemical Engineering, 2018, 22, 244-252.	3.8	58
23	Investigation of the interactions of critical scale-up parameters (pH, pO2 and pCO2) on CHO batch performance and critical quality attributes. Bioprocess and Biosystems Engineering, 2017, 40, 251-263.	1.7	57
24	Quantitative analysis of media dilution rate effects on Methanothermobacter marburgensis grown in continuous culture on H2 and CO2. Biomass and Bioenergy, 2012, 36, 293-301.	2.9	54
25	Reagent-free monitoring of multiple clinically relevant parameters in human blood plasma using a mid-infrared quantum cascade laser based sensor system. Analyst, The, 2013, 138, 4022.	1.7	53
26	Multi-analyte quantification in bioprocesses by Fourier-transform-infrared spectroscopy by partial least squares regression and multivariate curve resolution. Analytica Chimica Acta, 2014, 807, 103-110.	2.6	52
27	Current and future requirements to industrial analytical infrastructureâ€"part 2: smart sensors. Analytical and Bioanalytical Chemistry, 2020, 412, 2037-2045.	1.9	52
28	The E. coli pET expression system revisitedâ€"mechanistic correlation between glucose and lactose uptake. Applied Microbiology and Biotechnology, 2016, 100, 8721-8729.	1.7	51
29	Generally applicable fed-batch culture concept based on the detection of metabolic state by on-line balancing. Biotechnology and Bioengineering, 2003, 82, 627-639.	1.7	49
30	Custom made inclusion bodies: impact of classical process parameters and physiological parameters on inclusion body quality attributes. Microbial Cell Factories, 2018, 17, 148.	1.9	47
31	Dynamic process conditions in bioprocess development. Engineering in Life Sciences, 2013, 13, 88-101.	2.0	46
32	Production and purification of the multifunctional enzyme horseradish peroxidase. Pharmaceutical Bioprocessing, 2013, 1, 283-295.	0.8	45
33	Perspectives of inclusion bodies for bio-based products: curse or blessing?. Applied Microbiology and Biotechnology, 2019, 103, 1143-1153.	1.7	45
34	PAT method to gather bioprocess parameters in real-time using simple input variables and first principle relationships. Chemical Engineering Science, 2010, 65, 5734-5746.	1.9	43
35	Tunable recombinant protein expression in E. coli: promoter systems and genetic constraints. Applied Microbiology and Biotechnology, 2017, 101, 501-512.	1.7	43
36	A dynamic fed batch strategy for a Pichia pastoris mixed feed system to increase process understanding. Biotechnology Progress, 2012, 28, 878-886.	1.3	41

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37	Elevated pCO₂ affects the lactate metabolic shift in CHO cell culture processes. Engineering in Life Sciences, 2018, 18, 204-214.	2.0	41
38	A novel method for fast and statistically verified morphological characterization of filamentous fungi. Fungal Genetics and Biology, 2012, 49, 499-510.	0.9	40
39	Purification and basic biochemical characterization of 19 recombinant plant peroxidase isoenzymes produced in Pichia pastoris. Protein Expression and Purification, 2014, 95, 104-112.	0.6	40
40	Quantitative feature extraction from the Chinese hamster ovary bioprocess bibliome using a novel meta-analysis workflow. Biotechnology Advances, 2016, 34, 621-633.	6.0	40
41	Teaching an old pET new tricks: tuning of inclusion body formation and properties by a mixed feed system in E. coli. Applied Microbiology and Biotechnology, 2018, 102, 667-676.	1.7	40
42	Bioprocess Engineering Aspects of Sustainable Polyhydroxyalkanoate Production in Cyanobacteria. Bioengineering, 2018, 5, 111.	1.6	38
43	A small metabolic flux model to identify transient metabolic regulations in Saccharomyces cerevisiae. Bioprocess and Biosystems Engineering, 2002, 24, 395-403.	1.7	37
44	Metabolic Control in Mammalian Fed-Batch Cell Cultures for Reduced Lactic Acid Accumulation and Improved Process Robustness. Bioengineering, 2016, 3, 5.	1.6	37
45	Tunable recombinant protein expression in E. coli: enabler for continuous processing?. Applied Microbiology and Biotechnology, 2016, 100, 5719-5728.	1.7	36
46	Quantitative analysis of the regulation scheme of invertase expression inSaccharomyces cerevisiae. Biotechnology and Bioengineering, 2001, 76, 247-258.	1.7	35
47	Purification of a recombinant plant peroxidase produced in Pichia pastoris by a simple 2-step strategy. Protein Expression and Purification, 2012, 86, 89-97.	0.6	35
48	A rapid method for the differentiation of yeast cells grown under carbon and nitrogen-limited conditions by means of partial least squares discriminant analysis employing infrared micro-spectroscopic data of entire yeast cells. Talanta, 2012, 99, 566-573.	2.9	35
49	Combining Mechanistic Modeling and Raman Spectroscopy for Realâ€Time Monitoring of Fedâ€Batch Penicillin Production. Chemie-Ingenieur-Technik, 2016, 88, 764-776.	0.4	35
50	The impact of pH inhomogeneities on CHO cell physiology and fedâ€batch process performance â€“ twoâ€compartment scaleâ€down modelling and intracellular pH excursion. Biotechnology Journal, 2017, 12, 1600633.	1.8	35
51	Workflow to set up substantial target-oriented mechanistic process models in bioprocess engineering. Process Biochemistry, 2017, 62, 24-36.	1.8	35
52	Combining mechanistic and dataâ€driven approaches to gain process knowledge on the control of the metabolic shift to lactate uptake in a fedâ€batch <scp>CHO</scp> process. Biotechnology Progress, 2015, 31, 1657-1668.	1.3	34
53	On-line multiple component analysis for efficient quantitative bioprocess development. Journal of Biotechnology, 2013, 163, 362-370.	1.9	33
54	Optimizing cofactor availability for the production of recombinant heme peroxidase in Pichia pastoris. Microbial Cell Factories, 2015, 14, 4.	1.9	33

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55	Ultrasound-Enhanced Attenuated Total Reflection Mid-infrared Spectroscopy In-Line Probe: Acquisition of Cell Spectra in a Bioreactor. Analytical Chemistry, 2015, 87, 2314-2320.	3.2	32
56	State estimation for a penicillin fed-batch process combining particle filtering methods with online and time delayed offline measurements. Chemical Engineering Science, 2018, 177, 234-244.	1.9	32
57	Determination of carbohydrates present in Saccharomyces cerevisiae using mid-infrared spectroscopy and partial least squares regression. Analytical and Bioanalytical Chemistry, 2013, 405, 8241-8250.	1.9	31
58	A novel realâ€time method to estimate volumetric mass biodensity based on the combination of dielectric spectroscopy and softâ€sensors. Journal of Chemical Technology and Biotechnology, 2015, 90, 262-272.	1.6	31
59	Radial line-scans as representative sampling strategy in dried-droplet laser ablation of liquid samples deposited on pre-cut filter paper disks. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2014, 101, 123-129.	1.5	30
60	Knowledge management in the QbD paradigm: manufacturing of biotech therapeutics. Trends in Biotechnology, 2015, 33, 381-387.	4.9	30
61	Increased carbohydrate production from carbon dioxide in randomly mutated cells of cyanobacterial strain Synechocystis sp. PCC 6714: Bioprocess understanding and evaluation of productivities. Bioresource Technology, 2019, 273, 277-287.	4.8	30
62	Universal Capacitance Model for Real-Time Biomass in Cell Culture. Sensors, 2015, 15, 22128-22150.	2.1	29
63	Mechanistic platform knowledge of concomitant sugar uptake in Escherichia coli BL21(DE3) strains. Scientific Reports, 2017, 7, 45072.	1.6	29
64	The Rocky Road From Fed-Batch to Continuous Processing With E. coli. Frontiers in Bioengineering and Biotechnology, 2019, 7, 328.	2.0	29
65	Current and future requirements to industrial analytical infrastructureâ€”part 1: process analytical laboratories. Analytical and Bioanalytical Chemistry, 2020, 412, 2027-2035.	1.9	29
66	Multi-parameter flow cytometry as a process analytical technology (PAT) approach for the assessment of bacterial ghost production. Applied Microbiology and Biotechnology, 2016, 100, 409-418.	1.7	28
67	Experimental verification and comparison of model predictive, PID and model inversion control in a Penicillium chrysogenum fed-batch process. Process Biochemistry, 2020, 90, 1-11.	1.8	28
68	Efficient feeding profile optimization for recombinant protein production using physiological information. Bioprocess and Biosystems Engineering, 2012, 35, 1637-1649.	1.7	27
69	Monoliths in Bioprocess Technology. Chromatography (Basel), 2015, 2, 195-212.	1.2	27
70	Workflow for Targetâ€Oriented Parametrization of an Enhanced Mechanistic Cell Culture Model. Biotechnology Journal, 2018, 13, e1700395.	1.8	27
71	Production of a recombinant peroxidase in different glyco-engineered Pichia pastoris strains: a morphological and physiological comparison. Microbial Cell Factories, 2018, 17, 183.	1.9	27
72	Switching industrial production processes from complex to defined media: method development and case study using the example of Penicillium chrysogenum. Microbial Cell Factories, 2012, 11, 88.	1.9	26

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73	In-depth characterization of the raw material corn steep liquor and its bioavailability in bioprocesses of Penicillium chrysogenum. Process Biochemistry, 2018, 70, 20-28.	1.8	26
74	Development of a generic reversed-phase liquid chromatography method for protein quantification using analytical quality-by-design principles. Journal of Pharmaceutical and Biomedical Analysis, 2020, 188, 113412.	1.4	26
75	Modelâ€based analysis on the extractability of information from data in dynamic fedâ€batch experiments. Biotechnology Progress, 2013, 29, 285-296.	1.3	25
76	Production strategies for active heme-containing peroxidases from E. coli inclusion bodies â€“ a review. Biotechnology Reports (Amsterdam, Netherlands), 2016, 10, 75-83.	2.1	25
77	Bioprocess monitoring: minimizing sample matrix effects for total protein quantification with bicinchoninic acid assay. Journal of Industrial Microbiology and Biotechnology, 2016, 43, 1271-1280.	1.4	25
78	Biofuels and CO₂neutrality: an opportunity. Biofuels, 2012, 3, 413-426.	1.4	24
79	Morphological analysis of the filamentous fungus Penicillium chrysogenum using flow cytometryâ€"the fast alternative to microscopic image analysis. Applied Microbiology and Biotechnology, 2017, 101, 7675-7688.	1.7	24
80	Know-how and know-why in biochemical engineering. Biotechnology Advances, 2003, 21, 417-430.	6.0	23
81	Effect of post-induction substrate oscillation on recombinant alkaline phosphatase production expressed in Escherichia coli. Journal of Bioscience and Bioengineering, 2011, 112, 606-610.	1.1	23
82	Investigation of the physiological response to oxygen limited process conditions of Pichia pastoris Mut+ strain using a two-compartment scale-down system. Journal of Bioscience and Bioengineering, 2013, 116, 371-379.	1.1	23
83	Quantitative comparison of dynamic physiological feeding profiles for recombinant protein production with PichiaÂpastoris. Bioprocess and Biosystems Engineering, 2014, 37, 1163-1172.	1.7	23
84	Physiological description of multivariate interdependencies between process parameters, morphology and physiology during fedâ€batch penicillin production. Biotechnology Progress, 2014, 30, 689-699.	1.3	23
85	Soft sensor for monitoring biomass subpopulations in mammalian cell culture processes. Biotechnology Letters, 2017, 39, 1667-1673.	1.1	23
86	Model predictive control in comparison to elemental balance control in an E. coli fed-batch. Chemical Engineering Science, 2018, 191, 459-467.	1.9	23
87	A Novel Application for Low Frequency Electrochemical Impedance Spectroscopy as an Online Process Monitoring Tool for Viable Cell Concentrations. Sensors, 2016, 16, 1900.	2.1	22
88	A novel method to recover inclusion body protein from recombinant E. coli fed-batch processes based on phage Î¦X174-derived lysis protein E. Applied Microbiology and Biotechnology, 2017, 101, 5603-5614.	1.7	22
89	Controlling the specific growth rate via biomass trend regulation in filamentous fungi bioprocesses. Chemical Engineering Science, 2017, 172, 32-41.	1.9	22
90	Optimized bioreactor setup for scale-up studies of extreme halophilic cultures. Biochemical Engineering Journal, 2018, 130, 39-46.	1.8	22

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91	Scaleâ€down simulators for mammalian cell culture as tools to access the impact of inhomogeneities occurring in largeâ€scale bioreactors. Engineering in Life Sciences, 2020, 20, 197-204.	2.0	22
92	Glyco-variant library of the versatile enzyme horseradish peroxidase. Glycobiology, 2014, 24, 852-863.	1.3	21
93	Stoichiometric and kinetic analysis of extreme halophilic Archaea on various substrates in a corrosion resistant bioreactor. New Biotechnology, 2014, 31, 80-89.	2.4	21
94	Quantification of cell lysis during CHO bioprocesses: Impact on cell count, growth kinetics and productivity. Journal of Biotechnology, 2015, 207, 67-76.	1.9	21
95	Inclusion Body Bead Size in E. coli Controlled by Physiological Feeding. Microorganisms, 2018, 6, 116.	1.6	21
96	The filamentous fungus Penicillium chrysogenum analysed via flow cytometryâ€"a fast and statistically sound insight into morphology and viability. Applied Microbiology and Biotechnology, 2019, 103, 6725-6735.	1.7	21
97	Potential applications of halophilic microorganisms for biological treatment of industrial process brines contaminated with aromatics. Journal of Industrial Microbiology and Biotechnology, 2021, 48, .	1.4	21
98	Information Processing: Rate-Based Investigation of Cell Physiological Changes along Design Space Development. PDA Journal of Pharmaceutical Science and Technology, 2012, 66, 526-541.	0.3	20
99	Soft-sensor assisted dynamic investigation of mixed feed bioprocesses. Process Biochemistry, 2013, 48, 1839-1847.	1.8	20
100	Observability analysis of biochemical process models as a valuable tool for the development of mechanistic soft sensors. Biotechnology Progress, 2015, 31, 1703-1715.	1.3	20
101	Development of a mixed feed strategy for a recombinant Pichia pastoris strain producing with a de-repression promoter. Microbial Cell Factories, 2015, 14, 101.	1.9	20
102	At-line determination of spore inoculum quality in Penicillium chrysogenum bioprocesses. Applied Microbiology and Biotechnology, 2016, 100, 5363-5373.	1.7	20
103	Integrated Process Modelingâ€"A Process Validation Life Cycle Companion. Bioengineering, 2017, 4, 86.	1.6	20
104	Characterizing the effect of expression of an acetyl-CoA synthetase insensitive to acetylation on co-utilization of glucose and acetate in batch and continuous cultures of E. coli W. Microbial Cell Factories, 2018, 17, 109.	1.9	20
105	Combining light microscopy, dielectric spectroscopy, MALDI intact cell mass spectrometry, FTIR spectromicroscopy and multivariate data mining for morphological and physiological bioprocess characterization of filamentous organisms. Fungal Genetics and Biology, 2013, 51, 1-11.	0.9	19
106	Boosting Recombinant Inclusion Body Productionâ€"From Classical Fed-Batch Approach to Continuous Cultivation. Frontiers in Bioengineering and Biotechnology, 2019, 7, 297.	2.0	19
107	Lymphocyte expansion in bioreactors: upgrading adoptive cell therapy. Journal of Biological Engineering, 2021, 15, 13.	2.0	19
108	Probeless non-invasive near-infrared spectroscopic bioprocess monitoring using microspectrometer technology. Analytical and Bioanalytical Chemistry, 2020, 412, 2103-2109.	1.9	18

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109	Generation of PHB from Spent Sulfite Liquor Using Halophilic Microorganisms. Microorganisms, 2015, 3, 268-289.	1.6	17
110	A combination of HPLC and automated data analysis for monitoring the efficiency of high-pressure homogenization. Microbial Cell Factories, 2017, 16, 134.	1.9	17
111	Modelâ€based analysis on the relationship of signal quality to realâ€time extraction of information in bioprocesses. Biotechnology Progress, 2012, 28, 265-275.	1.3	16
112	Tunable recombinant protein expression with E. coli in a mixed-feed environment. Applied Microbiology and Biotechnology, 2014, 98, 2937-2945.	1.7	16
113	Media photoâ€degradation in pharmaceutical biotechnology â€“ impact of ambient light on media quality, cell physiology, and IgG production in CHO cultures. Journal of Chemical Technology and Biotechnology, 2018, 93, 2141-2151.	1.6	16
114	Morphological and physiological characterization of filamentous Lentzea aerocolonigenes: Comparison of biopellets by microscopy and flow cytometry. PLoS ONE, 2020, 15, e0234125.	1.1	16
115	Advances in monitoring and control of refolding kinetics combining PAT and modeling. Applied Microbiology and Biotechnology, 2021, 105, 2243-2260.	1.7	16
116	Experimental methods for screening parameters influencing the growth to product yield (Y_(x/CH4)) of a biological methane production (BMP) process performed with Methanothermobacter marburgensis. AIMS Bioengineering, 2014, 1, 72-87.	0.6	16
117	How to trigger periplasmic release in recombinant Escherichia coli: A comparative analysis. Engineering in Life Sciences, 2017, 17, 215-222.	2.0	15
118	Low-Frequency Electrochemical Impedance Spectroscopy as a Monitoring Tool for Yeast Growth in Industrial Brewing Processes. Chemosensors, 2017, 5, 24.	1.8	15
119	Monitoring and control strategies for inclusion body production in E. coli based on glycerol consumption. Journal of Biotechnology, 2019, 296, 75-82.	1.9	15
120	A robust flow cytometry-based biomass monitoring tool enables rapid at-line characterization of S. cerevisiae physiology during continuous bioprocessing of spent sulfite liquor. Analytical and Bioanalytical Chemistry, 2020, 412, 2137-2149.	1.9	15
121	Establishing recombinant production of pediocin PA-1 in Corynebacterium glutamicum. Metabolic Engineering, 2021, 68, 34-45.	3.6	15
122	A dynamic method for the investigation of induced state metabolic capacities as a function of temperature. Microbial Cell Factories, 2013, 12, 94.	1.9	14
123	Analysis of H2 to CO2 yield and physiological key parameters of Enterobacter aerogenes and Caldicellulosiruptor saccharolyticus. International Journal of Hydrogen Energy, 2013, 38, 10245-10251.	3.8	14
124	An Integrated Downstream Process Development Strategy along QbD Principles. Bioengineering, 2014, 1, 213-230.	1.6	14
125	Generic biomass estimation methods targeting physiologic process control in induced bacterial cultures. Engineering in Life Sciences, 2016, 16, 720-730.	2.0	14
126	Quantitative determination of nine waterâ€soluble vitamins in the complex matrix of corn steep liquor for raw material quality assessment. Journal of Chemical Technology and Biotechnology, 2017, 92, 2106-2113.	1.6	14

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127	Role of Knowledge Management in Development and Lifecycle Management of Biopharmaceuticals. Pharmaceutical Research, 2017, 34, 243-256.	1.7	14
128	Provable Data Integrity in the Pharmaceutical Industry based on Version Control Systems and the Blockchain. PDA Journal of Pharmaceutical Science and Technology, 2019, 73, pdajpst.2018.009407.	0.3	14
129	Scale-up challenges and requirement of technology-transfer for cyanobacterial poly (3-hydroxybutyrate) production in industrial scale. International Journal of Biobased Plastics, 2019, 1, 60-71.	5.6	14
130	Reducing phenotypic instabilities of a microbial population during continuous cultivation based on cell switching dynamics. Biotechnology and Bioengineering, 2021, 118, 3847-3859.	1.7	14
131	Mixotrophic co-utilization of glucose and carbon monoxide boosts ethanol and butanol productivity of continuous Clostridium carboxidivorans cultures. Bioresource Technology, 2022, 353, 127138.	4.8	14
132	Quantitative comparison of transient growth ofSaccharomyces cerevisiae, Saccharomyces kluyveri, andKluyveromyces lactis. Biotechnology and Bioengineering, 2003, 81, 837-847.	1.7	13
133	Ex situonline monitoring: application, challenges and opportunities for biopharmaceuticals processes. Pharmaceutical Bioprocessing, 2014, 2, 285-300.	0.8	13
134	Investigation of physiological limits and conditions for robust bioprocessing of an extreme halophilic archaeon using external cell retention system. Biochemical Engineering Journal, 2014, 90, 140-148.	1.8	13
135	Dynamics in bioprocess development forPichia pastoris. Bioengineered, 2014, 5, 401-404.	1.4	13
136	Examining the freezing process of an intermediate bulk containing an industrially relevant protein. Enzyme and Microbial Technology, 2015, 71, 13-19.	1.6	13
137	A control strategy to investigate the relationship between specific productivity and high-mannose glycoforms in CHO cells. Applied Microbiology and Biotechnology, 2016, 100, 7011-7024.	1.7	13
138	Comparison of Particle Filter and Extended Kalman Filter Algorithms for Monitoring of Bioprocesses. Computer Aided Chemical Engineering, 2017, , 1483-1488.	0.3	13
139	Characterization of photosynthetically synthesized poly(3-hydroxybutyrate) using a randomly mutated strain of Synechocystis sp. PCC 6714. International Journal of Biobased Plastics, 2019, 1, 48-59.	5.6	13
140	The Lazarus Escherichia coli Effect: Recovery of Productivity on Glycerol/Lactose Mixed Feed in Continuous Biomanufacturing. Frontiers in Bioengineering and Biotechnology, 2020, 8, 993.	2.0	13
141	Noninvasive online monitoring of Corynebacterium glutamicum fed-batch bioprocesses subject to spent sulfite liquor raw material uncertainty. Bioresource Technology, 2021, 321, 124395.	4.8	13
142	Advanced Development Strategies for Biopharmaceutical Cell Culture Processes. Current Pharmaceutical Biotechnology, 2015, 16, 983-1001.	0.9	13
143	Risk-based Process Development of Biosimilars as Part of the Quality by Design Paradigm. PDA Journal of Pharmaceutical Science and Technology, 2013, 67, 569-580.	0.3	12
144	Identification of lipophilic bioproduct portfolio from bioreactor samples of extreme halophilic archaea with HPLC-MS/MS. Analytical and Bioanalytical Chemistry, 2014, 406, 2421-2432.	1.9	12

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145	At-line determining spore germination of Penicillium chrysogenum bioprocesses in complex media. Applied Microbiology and Biotechnology, 2016, 100, 8923-8930.	1.7	12
146	Comparison of Fiber Optic and Conduit Attenuated Total Reflection (ATR) Fourier Transform Infrared (FT-IR) Setup for In-Line Fermentation Monitoring. Applied Spectroscopy, 2016, 70, 1965-1973.	1.2	12
147	Simple monitoring of cell leakiness and viability in Escherichia coli bioprocessesâ€"A case study. Engineering in Life Sciences, 2017, 17, 598-604.	2.0	12
148	Workflow for multi-analyte bioprocess monitoring demonstrated on inline NIR spectroscopy of P. chrysogenum fermentation. Analytical and Bioanalytical Chemistry, 2017, 409, 797-805.	1.9	12
149	Model-based optimization of temperature and pH shift to increase volumetric productivity of a Chinese hamster ovary fed-batch process. Journal of Bioscience and Bioengineering, 2019, 128, 710-715.	1.1	12
150	Combining Protein and Strain Engineering for the Production of Glyco-Engineered Horseradish Peroxidase C1A in Pichia pastoris. International Journal of Molecular Sciences, 2015, 16, 23127-23142.	1.8	11
151	Fed-Batch Production of Bacterial Ghosts Using Dielectric Spectroscopy for Dynamic Process Control. Microorganisms, 2016, 4, 18.	1.6	11
152	Comparison of data science workflows for root cause analysis of bioprocesses. Bioprocess and Biosystems Engineering, 2019, 42, 245-256.	1.7	11
153	Effects of temperature shifts and oscillations on recombinant protein production expressed in Escherichia coli. Bioprocess and Biosystems Engineering, 2013, 36, 1571-1577.	1.7	10
154	A novel toolbox for E. coli lysis monitoring. Analytical and Bioanalytical Chemistry, 2017, 409, 667-671.	1.9	10
155	Model-based Analysis and Optimisation of a Continuous Corynebacterium glutamicum Bioprocess Utilizing Lignocellulosic Waste. IFAC-PapersOnLine, 2019, 52, 181-186.	0.5	10
156	Soft Sensor-Based Monitoring and Efficient Control Strategies of Biomass Concentration for Continuous Cultures of Haloferax mediterranei and Their Application to an Industrial Production Chain. Microorganisms, 2019, 7, 648.	1.6	10
157	Determination of a Dynamic Feeding Strategy for Recombinant Pichia pastoris Strains. Methods in Molecular Biology, 2014, 1152, 185-194.	0.4	10
158	Physiological capacities decline during induced bioprocesses leading to substrate accumulation. Biotechnology Journal, 2017, 12, 1600547.	1.8	9
159	How to Determine Interdependencies of Glucose and Lactose Uptake Rates for Heterologous Protein Production with E. coli. Methods in Molecular Biology, 2017, 1586, 397-408.	0.4	9
160	Prediction of filamentous process performance attributes by CSL quality assessment using mid-infrared spectroscopy and chemometrics. Journal of Biotechnology, 2018, 265, 93-100.	1.9	9
161	Production of Active Recombinant Hyaluronidase Inclusion Bodies from Apis mellifera in E. coli Bl21(DE3) and characterization by FT-IR Spectroscopy. International Journal of Molecular Sciences, 2020, 21, 3881.	1.8	9
162	A Reliable Automated Sampling System for On-Line and Real-Time Monitoring of CHO Cultures. Processes, 2020, 8, 637.	1.3	9

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163	Integrated Process Model Applications Linking Bioprocess Development to Quality by Design Milestones. Bioengineering, 2021, 8, 156.	1.6	9
164	Propagation of measurement accuracy to biomass soft-sensor estimation and control quality. Analytical and Bioanalytical Chemistry, 2017, 409, 693-706.	1.9	8
165	Workflow for Criticality Assessment Applied in Biopharmaceutical Process Validation Stage 1. Bioengineering, 2017, 4, 85.	1.6	8
166	Repetitive Fed-Batch: A Promising Process Mode for Biomanufacturing With E. coli. Frontiers in Bioengineering and Biotechnology, 2020, 8, 573607.	2.0	8
167	Microbial technologies for biotherapeutics production: Key tools for advanced biopharmaceutical process development and control. Drug Discovery Today: Technologies, 2020, 38, 9-24.	4.0	8
168	Quantitative analysis of the impact of HXK2 and REG1 deletion in Saccharomyces cerevisiae on invertase expression and respiration. Enzyme and Microbial Technology, 2002, 31, 505-515.	1.6	7
169	Twoâ€compartment processing as a tool to boost recombinant protein production. Engineering in Life Sciences, 2014, 14, 118-128.	2.0	7
170	Substrate oscillations boost recombinant protein release from EscherichiaÂcoli. Bioprocess and Biosystems Engineering, 2014, 37, 881-890.	1.7	7
171	A robust feeding strategy to maintain setâ€point glucose in mammalian fedâ€batch cultures when input parameters have a large error. Biotechnology Progress, 2017, 33, 317-336.	1.3	7
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