Cleo Kontoravdi

List of Publications by Year
in descending order

81	2,399	186265	233421
papers	citations	28 h-index	45 g-index

88	88	88	2196
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Rapid Antibody in CHO Cells Via RNA and CGE-LIF N-Glycomics. Methods in Molecular Biology, 2022, 2370, 147-167.	0.9	0
2	Population balance modelling captures host cell protein dynamics in CHO cell cultures. PLoS ONE, 2022, 17, e0265886.	2.5	4
3	Polymer Encapsulation of Bacterial Biosensors Enables Coculture with Mammalian Cells. ACS Synthetic Biology, 2022, 11, 1303-1312.	3.8	7
4	Pandemic-response adenoviral vector and RNA vaccine manufacturing. Npj Vaccines, 2022, 7, 29.	6.0	12
5	Quality by Design for enabling RNA platform production processes. Trends in Biotechnology, 2022, 40, 1213-1228.	9.3	36
6	Immunoglobulin G N-glycan Biomarkers for Autoimmune Diseases: Current State and a Glycoinformatics Perspective. International Journal of Molecular Sciences, 2022, 23, 5180.	4.1	10
7	An experimental approach probing the conformational transitions and energy landscape of antibodies: a glimmer of hope for reviving lost therapeutic candidates using ionic liquid. Chemical Science, 2021, 12, 9528-9545.	7.4	14
8	Glycoengineering Chinese hamster ovary cells: a short history. Biochemical Society Transactions, 2021, 49, 915-931.	3.4	10
9	Osmolality Effects on CHO Cell Growth, Cell Volume, Antibody Productivity and Glycosylation. International Journal of Molecular Sciences, 2021, 22, 3290.	4.1	30
10	Quality by design modelling to support rapid RNA vaccine production against emerging infectious diseases. Npj Vaccines, 2021, 6, 65.	6.0	36
11	Hitting the sweet spot with capillary electrophoresis: advances in N-glycomics and glycoproteomics. Current Opinion in Biotechnology, 2021, 71, 182-190.	6.6	1
12	DigiGlyc: A hybrid tool for reactive scheduling in cell culture systems. Computers and Chemical Engineering, 2021, 154, 107460.	3.8	11
13	Synergising stoichiometric modelling with artificial neural networks to predict antibody glycosylation patterns in Chinese hamster ovary cells. Computers and Chemical Engineering, 2021, 154, 107471.	3.8	21
14	Resources, Production Scales and Time Required for Producing RNA Vaccines for the Global Pandemic Demand. Vaccines, 2021, 9, 3.	4.4	74
15	Cell-free protein synthesis using Chinese hamster ovary cells. Methods in Enzymology, 2021, 659, 411-435.	1.0	1
16	Model Identifies Genetic Predisposition of Alzheimerâ€™s Disease as Key Decider in Cell Susceptibility to Stress. International Journal of Molecular Sciences, 2021, 22, 12001.	4.1	1
17	Model-Based Planning and Delivery of Mass Vaccination Campaigns against Infectious Disease: Application to the COVID-19 Pandemic in the UK. Vaccines, 2021, 9, 1460.	4.4	8
18	Engineering challenges in therapeutic protein product and process design. Current Opinion in Chemical Engineering, 2020, 27, 81-88.	7.8	38

#	Article	IF	Citations
19	Rapid development and deployment of highâ€volume vaccines for pandemic response. Journal of Advanced Manufacturing and Processing, 2020, 2, e10060.	2.4	53
20	The era of big data: Genome-scale modelling meets machine learning. Computational and Structural Biotechnology Journal, 2020, 18, 3287-3300.	4.1	47
21	High resolution biosensor to test the capping level and integrity of mRNAs. Nucleic Acids Research, 2020, 48, e129-e129.	14.5	8
22	Harnessing the potential of artificial neural networks for predicting protein glycosylation. Metabolic Engineering Communications, 2020, 10, e00131.	3.6	50
23	Techno-Economic Assessment of Cell-Free Synthesis of Monoclonal Antibodies Using CHO Cell Extracts. Processes, 2020, 8, 454.	2.8	5
24	Design, Development and Optimization of a Functional Mammalian Cell-Free Protein Synthesis Platform. Frontiers in Bioengineering and Biotechnology, 2020, 8, 604091.	4.1	9
25	Emerging Technologies for Lowâ€Cost, Rapid Vaccine Manufacture. Biotechnology Journal, 2019, 14, e1800376.	3.5	86
26	A modelâ€based quantification of the impact of new manufacturing technologies on developing country vaccine supply chain performance: A Kenyan case study. Journal of Advanced Manufacturing and Processing, 2019, 1, .	2.4	18
27	Modelling the osmotic behaviour of human mesenchymal stem cells. Biochemical Engineering Journal, 2019, 151, 107296.	3.6	14
28	Low-cost and user-friendly biosensor to test the integrity of mRNA molecules suitable for field applications. Biosensors and Bioelectronics, 2019, 137, 199-206.	10.1	8
29	Constrained global sensitivity analysis for bioprocess design space identification. Computers and Chemical Engineering, 2019, 125, 558-568.	3.8	22
30	Modelâ€based optimization of antibody galactosylation in CHO cell culture. Biotechnology and Bioengineering, 2019, 116, 1612-1626.	3.3	56
31	CHO cell cultures in shake flasks and bioreactors present different host cell protein profiles in the supernatant. Biochemical Engineering Journal, 2019, 144, 185-192.	3.6	9
32	Strategic Framework for Parameterization of Cell Culture Models. Processes, 2019, 7, 174.	2.8	2
33	Host cell protein removal from biopharmaceutical preparations: Towards the implementation of quality by design. Biotechnology Advances, 2018, 36, 1223-1237.	11.7	43
34	Mild hypothermic culture conditions affect residual host cell protein composition post-Protein A chromatography. MAbs, 2018, 10, 476-487.	5.2	17
35	Exploring cellular behavior under transient gene expression and its impact on mAb productivity and Fcâ€glycosylation. Biotechnology and Bioengineering, 2018, 115, 512-518.	3.3	8
36	Computational tools for predicting and controlling the glycosylation of biopharmaceuticals. Current Opinion in Chemical Engineering, 2018, 22, 89-97.	7.8	14

#	Article	IF	Citations
37	Wholeâ€cell Escherichia coli lactate biosensor for monitoring mammalian cell cultures during biopharmaceutical production. Biotechnology and Bioengineering, 2017, 114, 1290-1300.	3.3	42
38	Cascading effect in bioprocessingâ€"The impact of mild hypothermia on CHO cell behavior and host cell protein composition. Biotechnology and Bioengineering, 2017, 114, 2771-2781.	3.3	25
39	Modelâ€based investigation of intracellular processes determining antibody Fcâ€glycosylation under mild hypothermia. Biotechnology and Bioengineering, 2017, 114, 1570-1582.	3.3	36
40	Multi-stage population balance model to understand the dynamics of fed-batch CHO cell culture. Computer Aided Chemical Engineering, 2017, 40, 2821-2826.	0.5	1
41	A theoretical estimate for nucleotide sugar demand towards Chinese Hamster Ovary cellular glycosylation. Scientific Reports, 2016, 6, 28547.	3.3	30
42	Designing an Artificial Golgi reactor to achieve targeted glycosylation of monoclonal antibodies. AICHE Journal, 2016, 62, 2959-2973.	3.6	4
43	Modelling of amorphous cellulose depolymerisation by cellulases, parametric studies and optimisation. Biochemical Engineering Journal, 2016, 105, 455-472.	3.6	18
44	An improved model framework linking the extracellular environment to antibody glycosylation. BMC Proceedings, 2015, 9, .	1.6	0
45	Understanding the impact of different bioprocess conditions on monoclonal antibody glycosylation in CHO cell cultures through experimental and computational analyses. BMC Proceedings, 2015, 9, .	1.6	0
46	Advances in the Development of Biotherapeutics. BioMed Research International, 2015, 2015, 1-2.	1.9	3
47	How does mild hypothermia affect monoclonal antibody glycosylation?. Biotechnology and Bioengineering, 2015, 112, 1165-1176.	3.3	89
48	A multiâ€pronged investigation into the effect of glucose starvation and culture duration on fedâ€batch CHO cell culture. Biotechnology and Bioengineering, 2015, 112, 2172-2184.	3.3	54
49	Amino acid and glucose metabolism in fedâ€batch CHO cell culture affects antibody production and glycosylation. Biotechnology and Bioengineering, 2015, 112, 521-535.	3.3	152
50	Genetically-encoded biosensors for monitoring cellular stress in bioprocessing. Current Opinion in Biotechnology, 2015, 31, 50-56.	6.6	42
51	Metabolic characterization and modeling of fermentation process of an engineered Geobacillus thermoglucosidasius strain for bioethanol production with gas stripping. Chemical Engineering Science, 2015, 122, 138-149.	3.8	18
52	Insights on biomarkers from Chinese hamster ovary â€˜omicsâ€™ studies. Pharmaceutical Bioprocessing, 2014, 2, 389-401.	0.8	2
53	Towards Controlling the Glycoform: A Model Framework Linking Extracellular Metabolites to Antibody Glycosylation. International Journal of Molecular Sciences, 2014, 15, 4492-4522.	4.1	73
54	Analysis of Chinese hamster ovary cell metabolism through a combined computational and experimental approach. Cytotechnology, 2014, 66, 945-966.	1.6	12

#	Article	IF	Citations
55	A framework for the systematic design of fedâ€batch strategies in mammalian cell culture. Biotechnology and Bioengineering, 2014, 111, 2466-2476.	3.3	32
56	Global sensitivity analysis and meta-modeling of an ethanol production process. Chemical Engineering Science, 2014, 114, 114-127.	3.8	31
57	A systems biology approach to optimising hosts for industrial protein production. Biotechnology Letters, 2013, 35, 1961-1969.	2.2	6
58	Development and design of bio-pharmaceutical processes. Current Opinion in Chemical Engineering, 2013, 2, 435-441.	7.8	17
59	An optimized method for extraction and quantification of nucleotides and nucleotide sugars from mammalian cells. Analytical Biochemistry, 2013, 443, 172-180.	2.4	39
60	Dynamic profiling of amino acid transport and metabolism in Chinese hamster ovary cell culture. BMC Proceedings, 2013, 7, .	1.6	5
61	A quantitative and mechanistic model for monoclonal antibody glycosylation as a function of nutrient availability during cell culture. BMC Proceedings, 2013, 7, .	1.6	7
62	Comparative analysis of amino acid metabolism and transport in CHO variants with different levels of productivity. Journal of Biotechnology, 2013, 168, 543-551.	3.8	13
63	Integration of models and experimentation to optimise the production of potential biotherapeutics. Drug Discovery Today, 2013, 18, 1250-1255.	6.4	24
64	Analysis of the landscape of biologically-derived pharmaceuticals in Europe: Dominant production systems, molecule types on the rise and approval trends. European Journal of Pharmaceutical Sciences, 2013, 48, 428-441.	4.0	31
65	Applying quality by design to glycoprotein therapeutics: experimental and computational efforts of process control. Pharmaceutical Bioprocessing, 2013, 1, 51-69.	0.8	23
66	Evaluation of transfection methods for transient gene expression in Chinese hamster ovary cells. Advances in Bioscience and Biotechnology (Print), 2013, 04, 1013-1019.	0.7	17
67	Systematic Methodology for the Development of Mathematical Models for Biological Processes. Methods in Molecular Biology, 2013, 1073, 177-190.	0.9	2
68	The Role of ER Stress-Induced Apoptosis in Neurodegeneration. Current Alzheimer Research, 2012, 9, 373-387.	1.4	69
69	Genome-based kinetic modeling of cytosolic glucose metabolism in industrially relevant cell lines: Saccharomyces cerevisiae and Chinese hamster ovary cells. Bioprocess and Biosystems Engineering, 2012, 35, 1023-1033.	3.4	14
70	Metabolic network reconstruction: advances in in silico interpretation of analytical information. Current Opinion in Biotechnology, 2012, 23, 77-82.	6.6	21
71	Dynamic Optimization of Bioprocesses. Applied Mathematics, 2012, 03, 1487-1495.	0.4	6
72	Quantification of intracellular nucleotide sugars and formulation of a mathematical model for prediction of their metabolism. BMC Proceedings, 2011, 5, P10.	1.6	1

#	Article	IF	Citations
73	A dynamic mathematical model for monoclonal antibody Nâ€linked glycosylation and nucleotide sugar donor transport within a maturing Golgi apparatus. Biotechnology Progress, 2011, 27, 1730-1743.	2.6	110
74	â€˜Closing the loopâ€™ in biological systems modeling â€" From the in silico to the in vitro. Automatica, 2011, 47, 1147-1155.	5.0	81
75	Towards the implementation of quality by design to the production of therapeutic monoclonal antibodies with desired glycosylation patterns. Biotechnology Progress, 2010, 26, 1505-1527.	2.6	117
76	Systematic development of predictive mathematical models for animal cell cultures. Computers and Chemical Engineering, 2010, 34, 1192-1198.	3.8	63
77	Application of Global Sensitivity Analysis to Determine Goals for Design of Experiments: An Example Study on Antibody-Producing Cell Cultures. Biotechnology Progress, 2008, 21, 1128-1135.	2.6	73
78	Cell cycle modelling for off-line dynamic optimisation of mammalian cultures. Computer Aided Chemical Engineering, 2008, , 109-114.	0.5	3
79	Development of a dynamic model of monoclonal antibody production and glycosylation for product quality monitoring. Computers and Chemical Engineering, 2007, 31, 392-400.	3.8	35
80	Modeling Amino Acid Metabolism in Mammalian Cellsâ€Toward the Development of a Model Library. Biotechnology Progress, 2007, 23, 1261-1269.	2.6	20
81	Dynamic model of MAb production and glycosylation for the purpose of product quality control. Computer Aided Chemical Engineering, 2005, 20, 307-312.	0.5	1