

Suzanne S Farid

List of Publications by Year in descending order

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Version: 2024-02-01

101
papers

3,069
citations

186265

28
h-index

189892

50
g-index

109
all docs

109
docs citations

109
times ranked

2246
citing authors

#	ARTICLE	IF	CITATIONS
1	Process economics of industrial monoclonal antibody manufacture. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2007, 848, 8-18.	2.3	318
2	Fed-batch and perfusion culture processes: Economic, environmental, and operational feasibility under uncertainty. <i>Biotechnology and Bioengineering</i> , 2013, 110, 206-219.	3.3	240
3	Allogeneic cell therapy bioprocess economics and optimization: Single-use cell expansion technologies. <i>Biotechnology and Bioengineering</i> , 2014, 111, 69-83.	3.3	151
4	Integrated continuous bioprocessing: Economic, operational, and environmental feasibility for clinical and commercial antibody manufacture. <i>Biotechnology Progress</i> , 2017, 33, 854-866.	2.6	135
5	Optimising the design and operation of semi-continuous affinity chromatography for clinical and commercial manufacture. <i>Journal of Chromatography A</i> , 2013, 1284, 17-27.	3.7	121
6	Shear stress analysis of mammalian cell suspensions for prediction of industrial centrifugation and its verification. <i>Biotechnology and Bioengineering</i> , 2006, 95, 483-491.	3.3	102
7	Decision-Support Tool for Assessing Biomanufacturing Strategies under Uncertainty: Stainless Steel versus Disposable Equipment for Clinical Trial Material Preparation. <i>Biotechnology Progress</i> , 2008, 21, 486-497.	2.6	101
8	Human pluripotent stem cell-derived products: Advances towards robust, scalable and cost-effective manufacturing strategies. <i>Biotechnology Journal</i> , 2015, 10, 83-95.	3.5	82
9	A computer-aided approach to compare the production economics of fed-batch and perfusion culture under uncertainty. <i>Biotechnology and Bioengineering</i> , 2006, 93, 687-697.	3.3	78
10	Allogeneic cell therapy bioprocess economics and optimization: downstream processing decisions. <i>Regenerative Medicine</i> , 2015, 10, 591-609.	1.7	59
11	A roadmap for cost-of-goods planning to guide economic production of cell therapy products. <i>Cytotherapy</i> , 2017, 19, 1383-1391.	0.7	59
12	Technologies for large-scale umbilical cord-derived MSC expansion: Experimental performance and cost of goods analysis. <i>Biochemical Engineering Journal</i> , 2018, 135, 36-48.	3.6	55
13	Impact of allogeneic stem cell manufacturing decisions on cost of goods, process robustness and reimbursement. <i>Biochemical Engineering Journal</i> , 2018, 137, 132-151.	3.6	52
14	Application of a Decision-Support Tool to Assess Pooling Strategies in Perfusion Culture Processes under Uncertainty. <i>Biotechnology Progress</i> , 2008, 21, 1231-1242.	2.6	50
15	Industry 4.0: a vision for personalized medicine supply chains?. <i>Cell & Gene Therapy Insights</i> , 2016, 2, 263-270.	0.1	48
16	Autologous CAR T-cell therapies supply chain: challenges and opportunities?. <i>Cancer Gene Therapy</i> , 2020, 27, 799-809.	4.6	46
17	Modelling biopharmaceutical manufacture: Design and implementation of SimBiopharma. <i>Computers and Chemical Engineering</i> , 2007, 31, 1141-1158.	3.8	43
18	Benchmarking biopharmaceutical process development and manufacturing cost contributions to R&D. <i>MAbs</i> , 2020, 12, 1754-999.	5.2	41

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19	Established Bioprocesses for Producing Antibodies as a Basis for Future Planning. <i>Advances in Biochemical Engineering/Biotechnology</i> , 2006, 101, 1-42.	1.1	39
20	A common framework for integrated and continuous biomanufacturing. <i>Biotechnology and Bioengineering</i> , 2021, 118, 1735-1749.	3.3	39
21	Modelling of the biopharmaceutical drug development pathway and portfolio management. <i>Computers and Chemical Engineering</i> , 2005, 29, 1357-1368.	3.8	37
22	Capacity planning for batch and perfusion bioprocesses across multiple biopharmaceutical facilities. <i>Biotechnology Progress</i> , 2014, 30, 594-606.	2.6	36
23	A Tool for Modeling Strategic Decisions in Cell Culture Manufacturing. <i>Biotechnology Progress</i> , 2000, 16, 829-836.	2.6	33
24	Combining Multiple Quantitative and Qualitative Goals When Assessing Biomanufacturing Strategies under Uncertainty. <i>Biotechnology Progress</i> , 2008, 21, 1183-1191.	2.6	33
25	On-Line Control of Glucose Concentration in High-Yielding Mammalian Cell Cultures Enabled Through Oxygen Transfer Rate Measurements. <i>Biotechnology Journal</i> , 2018, 13, e1700607.	3.5	31
26	Application of quality by design principles to the development and technology transfer of a major process improvement for the manufacture of a recombinant protein. <i>Biotechnology Progress</i> , 2011, 27, 1718-1729.	2.6	30
27	Potential of Continuous Manufacturing for Liposomal Drug Products. <i>Biotechnology Journal</i> , 2019, 14, e1700740.	3.5	30
28	End-to-end continuous bioprocessing: Impact on facility design, cost of goods, and cost of development for monoclonal antibodies. <i>Biotechnology and Bioengineering</i> , 2021, 118, 3468-3485.	3.3	30
29	Modern day monitoring and control challenges outlined on an industrial-scale benchmark fermentation process. <i>Computers and Chemical Engineering</i> , 2019, 130, 106471.	3.8	29
30	A multi-level meta-heuristic algorithm for the optimisation of antibody purification processes. <i>Biochemical Engineering Journal</i> , 2012, 69, 144-154.	3.6	28
31	Predicting performance of constant flow depth filtration using constant pressure filtration data. <i>Journal of Membrane Science</i> , 2017, 531, 138-147.	8.2	28
32	Fast genetic algorithm approaches to solving discrete-time mixed integer linear programming problems of capacity planning and scheduling of biopharmaceutical manufacture. <i>Computers and Chemical Engineering</i> , 2019, 121, 212-223.	3.8	27
33	Lentiviral vector bioprocess economics for cell and gene therapy commercialization. <i>Biochemical Engineering Journal</i> , 2021, 167, 107868.	3.6	26
34	A multi-criteria decision-making framework for the selection of strategies for acquiring biopharmaceutical manufacturing capacity. <i>Computers and Chemical Engineering</i> , 2007, 31, 889-901.	3.8	25
35	Machine learning application in personalised lung cancer recurrence and survivability prediction. <i>Computational and Structural Biotechnology Journal</i> , 2022, 20, 1811-1820.	4.1	25
36	Data mining for rapid prediction of facility fit and debottlenecking of biomanufacturing facilities. <i>Journal of Biotechnology</i> , 2014, 179, 17-25.	3.8	24

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37	How implementation of Quality by Design and advances in Biochemical Engineering are enabling efficient bioprocess development and manufacture. <i>Journal of Chemical Technology and Biotechnology</i> , 2011, 86, 1125-1129.	3.2	23
38	Optimising chromatography strategies of antibody purification processes by mixed integer fractional programming techniques. <i>Computers and Chemical Engineering</i> , 2014, 68, 151-164.	3.8	23
39	Patient-specific hiPSC bioprocessing for drug screening: Bioprocess economics and optimisation. <i>Biochemical Engineering Journal</i> , 2016, 108, 84-97.	3.6	23
40	Integrated Optimization of Upstream and Downstream Processing in Biopharmaceutical Manufacturing under Uncertainty: A Chance Constrained Programming Approach. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 4599-4612.	3.7	23
41	Multi-criteria manufacturability indices for ranking high-concentration monoclonal antibody formulations. <i>Biotechnology and Bioengineering</i> , 2017, 114, 2043-2056.	3.3	23
42	Multiobjective Long-Term Planning of Biopharmaceutical Manufacturing Facilities. <i>Biotechnology Progress</i> , 2007, 23, 1383-1393.	2.6	22
43	High-Throughput Raman Spectroscopy Combined with Innovate Data Analysis Workflow to Enhance Biopharmaceutical Process Development. <i>Processes</i> , 2020, 8, 1179.	2.8	22
44	A decisional-support tool to model the impact of regulatory compliance activities in the biomanufacturing industry. <i>Computers and Chemical Engineering</i> , 2004, 28, 727-735.	3.8	21
45	Decisional tool to assess current and future process robustness in an antibody purification facility. <i>Biotechnology Progress</i> , 2012, 28, 1019-1028.	2.6	21
46	Designing cost-effective biopharmaceutical facilities using mixed-integer optimization. <i>Biotechnology Progress</i> , 2013, 29, 1472-1483.	2.6	21
47	Advanced control strategies for bioprocess chromatography: Challenges and opportunities for intensified processes and next generation products. <i>Journal of Chromatography A</i> , 2021, 1639, 461914.	3.7	21
48	Cost-effective bioprocess design for the manufacture of allogeneic CAR-T cell therapies using a decisional tool with multi-attribute decision-making analysis. <i>Biochemical Engineering Journal</i> , 2018, 137, 192-204.	3.6	20
49	A decade in review: use of data analytics within the biopharmaceutical sector. <i>Current Opinion in Chemical Engineering</i> , 2021, 34, 100758.	7.8	20
50	Strategic Biopharmaceutical Portfolio Development: An Analysis of Constraint-Induced Implications. <i>Biotechnology Progress</i> , 2008, 24, 698-713.	2.6	18
51	Closed-loop optimization of chromatography column sizing strategies in biopharmaceutical manufacture. <i>Journal of Chemical Technology and Biotechnology</i> , 2014, 89, 1481-1490.	3.2	18
52	Advanced multivariate data analysis to determine the root cause of trisulfide bond formation in a novel antibody-peptide fusion. <i>Biotechnology and Bioengineering</i> , 2017, 114, 2222-2234.	3.3	18
53	A software tool to assist business-process decision-making in the biopharmaceutical industry. <i>Biotechnology Progress</i> , 2004, 20, 1096-1102.	2.6	17
54	Process change evaluation framework for allogeneic cell therapies: impact on drug development and commercialization. <i>Regenerative Medicine</i> , 2016, 11, 287-305.	1.7	17

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55	A scale-down mimic for mapping the process performance of centrifugation, depth and sterile filtration. <i>Biotechnology and Bioengineering</i> , 2016, 113, 1934-1941.	3.3	17
56	Multivariate Data Analysis Methodology to Solve Data Challenges Related to Scale-Up Model Validation and Missing Data on a Micro-Bioreactor System. <i>Biotechnology Journal</i> , 2020, 15, 1800684.	3.5	17
57	Integrated approach to improving the value potential of biopharmaceutical R&D portfolios while mitigating risk. <i>Journal of Chemical Technology and Biotechnology</i> , 2006, 81, 1705-1714.	3.2	16
58	Mathematical programming approaches for downstream processing optimisation of biopharmaceuticals. <i>Chemical Engineering Research and Design</i> , 2015, 94, 18-31.	5.6	16
59	An integrated experimental and economic evaluation of cell therapy affinity purification technologies. <i>Regenerative Medicine</i> , 2017, 12, 397-417.	1.7	15
60	Stochastic Combinatorial Optimization Approach to Biopharmaceutical Portfolio Management. <i>Industrial & Engineering Chemistry Research</i> , 2008, 47, 8762-8774.	3.7	14
61	Multiobjective evolutionary optimization in antibody purification process design. <i>Biochemical Engineering Journal</i> , 2014, 91, 250-264.	3.6	13
62	Dynamic scheduling of multi-product continuous biopharmaceutical facilities: A hyper-heuristic framework. <i>Computers and Chemical Engineering</i> , 2019, 125, 71-88.	3.8	13
63	Integrated Continuous Biomanufacturing: Industrialization on the Horizon. <i>Biotechnology Journal</i> , 2019, 14, e1800722.	3.5	13
64	Medium Term Planning of Biopharmaceutical Manufacture with Uncertain Fermentation Titers. <i>Biotechnology Progress</i> , 2006, 22, 1630-1636.	2.6	13
65	Data integrity within the biopharmaceutical sector in the era of Industry 4.0. <i>Biotechnology Journal</i> , 2022, 17, e2100609.	3.5	13
66	High throughput process development workflow with advanced decision-support for antibody purification. <i>Journal of Chromatography A</i> , 2019, 1596, 104-116.	3.7	12
67	Integration of stochastic simulation with multivariate analysis: Short-term facility fit prediction. <i>Biotechnology Progress</i> , 2013, 29, 368-377.	2.6	11
68	Process economics evaluation of cell-free synthesis for the commercial manufacture of antibody drug conjugates. <i>Biotechnology Journal</i> , 2021, 16, 2000238.	3.5	11
69	Integrated economic and experimental framework for screening of primary recovery technologies for high cell density CHO cultures. <i>Biotechnology Journal</i> , 2016, 11, 899-909.	3.5	10
70	Gene therapy process change evaluation framework: Transient transfection and stable producer cell line comparison. <i>Biochemical Engineering Journal</i> , 2021, 176, 108202.	3.6	10
71	Prediction of biopharmaceutical facility fit issues using decision tree analysis. <i>Computer Aided Chemical Engineering</i> , 2013, 32, 61-66.	0.5	9
72	Dynamic Simulation Framework for Design of Lean Biopharmaceutical Manufacturing Operations. <i>Computer Aided Chemical Engineering</i> , 2009, 26, 1069-1073.	0.5	8

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73	Multi-objective biopharma capacity planning under uncertainty using a flexible genetic algorithm approach. <i>Computers and Chemical Engineering</i> , 2019, 128, 35-52.	3.8	7
74	Mixed integer optimisation of antibody purification processes. <i>Computer Aided Chemical Engineering</i> , 2013, 32, 157-162.	0.5	7
75	A new lot sizing and scheduling heuristic for multi-site biopharmaceutical production. <i>Journal of Heuristics</i> , 2017, 23, 231-256.	1.4	6
76	Estimating capital investment and facility footprint in cell therapy facilities. <i>Biochemical Engineering Journal</i> , 2020, 155, 107439.	3.6	6
77	Representative mammalian cell culture test materials for assessment of primary recovery technologies: A rapid method with industrial applicability. <i>Biotechnology Journal</i> , 2015, 10, 162-170.	3.5	5
78	Bioprocesses for Cell Therapies. , 2018, , 899-930.		5
79	Efficient Discovery of Chromatography Equipment Sizing Strategies for Antibody Purification Processes Using Evolutionary Computing. <i>Lecture Notes in Computer Science</i> , 2012, , 468-477.	1.3	5
80	Retrofit Decisions within the Biopharmaceutical Industry. <i>Food and Bioproducts Processing</i> , 2006, 84, 84-89.	3.6	4
81	Machine learning reveals hidden stability code in protein native fluorescence. <i>Computational and Structural Biotechnology Journal</i> , 2021, 19, 2750-2760.	4.1	4
82	Medium Term Planning of Biopharmaceutical Manufacture with Uncertain Fermentation Titers. <i>Biotechnology Progress</i> , 2006, 22, 1630-1636.	2.6	4
83	Medium term planning of biopharmaceutical manufacture under uncertainty. <i>Computer Aided Chemical Engineering</i> , 2006, 21, 2069-2074.	0.5	3
84	Corrections. <i>Biotechnology Progress</i> , 2008, 21, 320-320.	2.6	3
85	Windows of operation for bioreactor design for the controlled formation of tissue-engineered arteries. <i>Biotechnology Progress</i> , 2009, 25, 842-853.	2.6	3
86	Manufacturability Indices for High-Concentration Monoclonal Antibody Formulations. <i>Computer Aided Chemical Engineering</i> , 2015, 37, 2147-2152.	0.5	3
87	Designing multi-product biopharmaceutical facilities using evolutionary algorithms. <i>Computer Aided Chemical Engineering</i> , 2011, , 286-290.	0.5	3
88	Production planning of batch and semi-continuous bioprocesses across multiple biopharmaceutical facilities. <i>Computer Aided Chemical Engineering</i> , 2012, 30, 377-381.	0.5	2
89	An Optimisation-based Approach for Biopharmaceutical Manufacturing. <i>Computer Aided Chemical Engineering</i> , 2014, 33, 1183-1188.	0.5	2
90	An automated laboratory-scale methodology for the generation of sheared mammalian cell culture samples. <i>Biotechnology Journal</i> , 2017, 12, 1600730.	3.5	2

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91	Tuning Evolutionary Multiobjective Optimization for Closed-Loop Estimation of Chromatographic Operating Conditions. Lecture Notes in Computer Science, 2014, , 741-750.	1.3	2
92	Integration of stochastic simulation with advanced multivariate and visualisation analyses for rapid prediction of facility fit issues in biopharmaceutical processes. Computer Aided Chemical Engineering, 2011, , 1356-1360.	0.5	2
93	Computer-Aided Design and Evaluation of Batch and Continuous Multi-Mode Biopharmaceutical Manufacturing Processes. Computer Aided Chemical Engineering, 2012, 30, 487-491.	0.5	1
94	Continuous-Time Heuristic Model for Medium-Term Capacity Planning of a Multi-Suite, Multi-Product Biopharmaceutical Facility. Computer Aided Chemical Engineering, 2017, 40, 1303-1308.	0.5	1
95	How should we evaluate the cost-effectiveness of CAR T-cell therapies?. Health Policy and Technology, 2020, 9, 271-273.	2.5	1
96	A Multiobjective Evolutionary Optimization Framework for Protein Purification Process Design. Lecture Notes in Computer Science, 2014, , 498-507.	1.3	1
97	A hierarchical framework for modelling biopharmaceutical manufacture to address process and business needs. Computer Aided Chemical Engineering, 2000, , 673-678.	0.5	0
98	Decision-Support Tool for Risk Analysis in Biopharmaceutical Manufacture. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2001, 34, 161-165.	0.4	0
99	A tool for modelling the impact of regulatory compliance activities on the biomanufacturing industry. Computer Aided Chemical Engineering, 2003, , 1109-1114.	0.5	0
100	Combinatorial Optimisation Algorithms for Strategic Biopharmaceutical Portfolio & Capacity Management. Computer Aided Chemical Engineering, 2009, 26, 1063-1068.	0.5	0
101	Decisional tool for cost of goods analysis of bioartificial liver devices for routine clinical use. Cytotherapy, 2021, 23, 683-693.	0.7	0