Suzanne S Farid

List of Publications by Year
in descending order

101	3,069	186254	189881
papers	citations	28 h-index	50 g-index

109	109	109	2246
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Process economics of industrial monoclonal antibody manufacture. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2007, 848, 8-18.	2.3	318
2	Fedâ€batch and perfusion culture processes: Economic, environmental, and operational feasibility under uncertainty. Biotechnology and Bioengineering, 2013, 110, 206-219.	3.3	240
3	Allogeneic cell therapy bioprocess economics and optimization: Singleâ€use cell expansion technologies. Biotechnology and Bioengineering, 2014, 111, 69-83.	3.3	151
4	Integrated continuous bioprocessing: Economic, operational, and environmental feasibility for clinical and commercial antibody manufacture. Biotechnology Progress, 2017, 33, 854-866.	2.6	135
5	Optimising the design and operation of semi-continuous affinity chromatography for clinical and commercial manufacture. Journal of Chromatography A, 2013, 1284, 17-27.	3.7	121
6	Shear stress analysis of mammalian cell suspensions for prediction of industrial centrifugation and its verification. Biotechnology and Bioengineering, 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. Biotechnology Progress, 2008, 21, 486-497.	2.6	101
8	Human pluripotent stem cellâ€derived products: Advances towards robust, scalable and costâ€effective manufacturing strategies. Biotechnology Journal, 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. Biotechnology and Bioengineering, 2006, 93, 687-697.	3.3	78
10	Allogeneic cell therapy bioprocess economics and optimization: downstream processing decisions. Regenerative Medicine, 2015, 10, 591-609.	1.7	59
11	A roadmap for cost-of-goods planning to guide economic production of cell therapy products. Cytotherapy, 2017, 19, 1383-1391.	0.7	59
12	Technologies for large-scale umbilical cord-derived MSC expansion: Experimental performance and cost of goods analysis. Biochemical Engineering Journal, 2018, 135, 36-48.	3.6	55
13	Impact of allogeneic stem cell manufacturing decisions on cost of goods, process robustness and reimbursement. Biochemical Engineering Journal, 2018, 137, 132-151.	3.6	52
14	Application of a Decision-Support Tool to Assess Pooling Strategies in Perfusion Culture Processes under Uncertainty. Biotechnology Progress, 2008, 21, 1231-1242.	2.6	50
15	Industry 4.0: a vision for personalized medicine supply chains?. Cell & Gene Therapy Insights, 2016, 2, 263-270.	0.1	48
16	Autologous CAR T-cell therapies supply chain: challenges and opportunities?. Cancer Gene Therapy, 2020, 27, 799-809.	4.6	46
17	Modelling biopharmaceutical manufacture: Design and implementation of SimBiopharma. Computers and Chemical Engineering, 2007, 31, 1141-1158.	3.8	43
18	Benchmarking biopharmaceutical process development and manufacturing cost contributions to R&D. MAbs, 2020, 12, 1754999.	5.2	41

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19	Established Bioprocesses for Producing Antibodies as aÂBasis for Future Planning. Advances in Biochemical Engineering/Biotechnology, 2006, 101, 1-42.	1.1	39
20	A common framework for integrated and continuous biomanufacturing. Biotechnology and Bioengineering, 2021, 118, 1735-1749.	3.3	39
21	Modelling of the biopharmaceutical drug development pathway and portfolio management. Computers and Chemical Engineering, 2005, 29, 1357-1368.	3.8	37
22	Capacity planning for batch and perfusion bioprocesses across multiple biopharmaceutical facilities. Biotechnology Progress, 2014, 30, 594-606.	2.6	36
23	A Tool for Modeling Strategic Decisions in Cell Culture Manufacturing. Biotechnology Progress, 2000, 16, 829-836.	2.6	33
24	Combining Multiple Quantitative and Qualitative Goals When Assessing Biomanufacturing Strategies under Uncertainty. Biotechnology Progress, 2008, 21, 1183-1191.	2.6	33
25	Onâ€Line Control of Glucose Concentration in Highâ€Yielding Mammalian Cell Cultures Enabled Through Oxygen Transfer Rate Measurements. Biotechnology Journal, 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. Biotechnology Progress, 2011, 27, 1718-1729.	2.6	30
27	Potential of Continuous Manufacturing for Liposomal Drug Products. Biotechnology Journal, 2019, 14, e1700740.	3.5	30
28	Endâ€toâ€end continuous bioprocessing: Impact on facility design, cost of goods, and cost of development for monoclonal antibodies. Biotechnology and Bioengineering, 2021, 118, 3468-3485.	3.3	30
29	Modern day monitoring and control challenges outlined on an industrial-scale benchmark fermentation process. Computers and Chemical Engineering, 2019, 130, 106471.	3.8	29
30	A multi-level meta-heuristic algorithm for the optimisation of antibody purification processes. Biochemical Engineering Journal, 2012, 69, 144-154.	3.6	28
31	Predicting performance of constant flow depth filtration using constant pressure filtration data. Journal of Membrane Science, 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. Computers and Chemical Engineering, 2019, 121, 212-223.	3.8	27
33	Lentiviral vector bioprocess economics for cell and gene therapy commercialization. Biochemical Engineering Journal, 2021, 167, 107868.	3.6	26
34	A multi-criteria decision-making framework for the selection of strategies for acquiring biopharmaceutical manufacturing capacity. Computers and Chemical Engineering, 2007, 31, 889-901.	3.8	25
35	Machine learning application in personalised lung cancer recurrence and survivability prediction. Computational and Structural Biotechnology Journal, 2022, 20, 1811-1820.	4.1	25
36	Data mining for rapid prediction of facility fit and debottlenecking of biomanufacturing facilities. Journal of Biotechnology, 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. Journal of Chemical Technology and Biotechnology, 2011, 86, 1125-1129.	3.2	23
38	Optimising chromatography strategies of antibody purification processes by mixed integer fractional programming techniques. Computers and Chemical Engineering, 2014, 68, 151-164.	3.8	23
39	Patient-specific hiPSC bioprocessing for drug screening: Bioprocess economics and optimisation. Biochemical Engineering Journal, 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. Industrial & Engineering Chemistry Research, 2016, 55, 4599-4612.	3.7	23
41	Multiâ€criteria manufacturability indices for ranking highâ€concentration monoclonal antibody formulations. Biotechnology and Bioengineering, 2017, 114, 2043-2056.	3.3	23
42	Multiobjective Long-Term Planning of Biopharmaceutical Manufacturing Facilities. Biotechnology Progress, 2007, 23, 1383-1393.	2.6	22
43	High-Throughput Raman Spectroscopy Combined with Innovate Data Analysis Workflow to Enhance Biopharmaceutical Process Development. Processes, 2020, 8, 1179.	2.8	22
44	A decisional-support tool to model the impact of regulatory compliance activities in the biomanufacturing industry. Computers and Chemical Engineering, 2004, 28, 727-735.	3.8	21
45	Decisional tool to assess current and future process robustness in an antibody purification facility. Biotechnology Progress, 2012, 28, 1019-1028.	2.6	21
46	Designing costâ€effective biopharmaceutical facilities using mixedâ€integer optimization. Biotechnology Progress, 2013, 29, 1472-1483.	2.6	21
47	Advanced control strategies for bioprocess chromatography: Challenges and opportunities for intensified processes and next generation products. Journal of Chromatography A, 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. Biochemical Engineering Journal, 2018, 137, 192-204.	3.6	20
49	A decade in review: use of data analytics within the biopharmaceutical sector. Current Opinion in Chemical Engineering, 2021, 34, 100758.	7.8	20
50	Strategic Biopharmaceutical Portfolio Development: An Analysis of Constraint-Induced Implications. Biotechnology Progress, 2008, 24, 698-713.	2.6	18
51	Closedâ€loop optimization of chromatography column sizing strategies in biopharmaceutical manufacture. Journal of Chemical Technology and Biotechnology, 2014, 89, 1481-1490.	3.2	18
52	Advanced multivariate data analysis to determine the root cause of trisulfide bond formation in a novel antibodyâ€“peptide fusion. Biotechnology and Bioengineering, 2017, 114, 2222-2234.	3.3	18
53	A software tool to assist business-process decision-making in the biopharmaceutical industry. Biotechnology Progress, 2004, 20, 1096-1102.	2.6	17
54	Process change evaluation framework for allogeneic cell therapies: impact on drug development and commercialization. Regenerative Medicine, 2016, 11, 287-305.	1.7	17

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55	A scaleâ€down mimic for mapping the process performance of centrifugation, depth and sterile filtration. Biotechnology and Bioengineering, 2016, 113, 1934-1941.	3.3	17
56	Multivariate Data Analysis Methodology to Solve Data Challenges Related to Scaleâ€Up Model Validation and Missing Data on a Microâ€Bioreactor System. Biotechnology Journal, 2020, 15, 1800684.	3.5	17
57	Integrated approach to improving the value potential of biopharmaceutical R&D portfolios while mitigating risk. Journal of Chemical Technology and Biotechnology, 2006, 81, 1705-1714.	3.2	16
58	Mathematical programming approaches for downstream processing optimisation of biopharmaceuticals. Chemical Engineering Research and Design, 2015, 94, 18-31.	5.6	16
59	An integrated experimental and economic evaluation of cell therapy affinity purification technologies. Regenerative Medicine, 2017, 12, 397-417.	1.7	15
60	Stochastic Combinatorial Optimization Approach to Biopharmaceutical Portfolio Management. Industrial & Engineering Chemistry Research, 2008, 47, 8762-8774.	3.7	14
61	Multiobjective evolutionary optimization in antibody purification process design. Biochemical Engineering Journal, 2014, 91, 250-264.	3.6	13
62	Dynamic scheduling of multi-product continuous biopharmaceutical facilities: A hyper-heuristic framework. Computers and Chemical Engineering, 2019, 125, 71-88.	3.8	13
63	Integrated Continuous Biomanufacturing: Industrialization on the Horizon. Biotechnology Journal, 2019, 14, e1800722.	3.5	13
64	Medium Term Planning of Biopharmaceutical Manufacture with Uncertain Fermentation Titers. Biotechnology Progress, 2006, 22, 1630-1636.	2.6	13
65	Data integrity within the biopharmaceutical sector in the era of Industry 4.0. Biotechnology Journal, 2022, 17, e2100609.	3.5	13
66	High throughput process development workflow with advanced decision-support for antibody purification. Journal of Chromatography A, 2019, 1596, 104-116.	3.7	12
67	Integration of stochastic simulation with multivariate analysis: Shortâ€term facility fit prediction. Biotechnology Progress, 2013, 29, 368-377.	2.6	11
68	Process economics evaluation of cellâ€free synthesis for the commercial manufacture of antibody drug conjugates. Biotechnology Journal, 2021, 16, 2000238.	3.5	11
69	Integrated economic and experimental framework for screening of primary recovery technologies for high cell density CHO cultures. Biotechnology Journal, 2016, 11, 899-909.	3.5	10
70	Gene therapy process change evaluation framework: Transient transfection and stable producer cell line comparison. Biochemical Engineering Journal, 2021, 176, 108202.	3.6	10
71	Prediction of biopharmaceutical facility fit issues using decision tree analysis. Computer Aided Chemical Engineering, 2013, 32, 61-66.	0.5	9
72	Dynamic Simulation Framework for Design of Lean Biopharmaceutical Manufacturing Operations. Computer Aided Chemical Engineering, 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. Computers and Chemical Engineering, 2019, 128, 35-52.	3.8	7
74	Mixed integer optimisation of antibody purification processes. Computer Aided Chemical Engineering, 2013, 32, 157-162.	0.5	7
75	A new lot sizing and scheduling heuristic for multi-site biopharmaceutical production. Journal of Heuristics, 2017, 23, 231-256.	1.4	6
76	Estimating capital investment and facility footprint in cell therapy facilities. Biochemical Engineering Journal, 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. Biotechnology Journal, 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. Lecture Notes in Computer Science, 2012, , 468-477.	1.3	5
80	Retrofit Decisions within the Biopharmaceutical Industry. Food and Bioproducts Processing, 2006, 84, 84-89.	3.6	4
81	Machine learning reveals hidden stability code in protein native fluorescence. Computational and Structural Biotechnology Journal, 2021, 19, 2750-2760.	4.1	4
82	Medium Term Planning of Biopharmaceutical Manufacture with Uncertain Fermentation Titers. Biotechnology Progress, 2006, 22, 1630-1636.	2.6	4
83	Medium term planning of biopharmaceutical manufacture under uncertainty. Computer Aided Chemical Engineering, 2006, 21, 2069-2074.	0.5	3
84	Corrections. Biotechnology Progress, 2008, 21, 320-320.	2.6	3
85	Windows of operation for bioreactor design for the controlled formation of tissueâ€engineered arteries. Biotechnology Progress, 2009, 25, 842-853.	2.6	3
86	Manufacturability Indices for High-Concentration Monoclonal Antibody Formulations. Computer Aided Chemical Engineering, 2015, 37, 2147-2152.	0.5	3
87	Designing multi-product biopharmaceutical facilities using evolutionary algorithms. Computer Aided Chemical Engineering, 2011, , 286-290.	0.5	3
88	Production planning of batch and semi-continuous bioprocesses across multiple biopharmaceutical facilities. Computer Aided Chemical Engineering, 2012, 30, 377-381.	0.5	2
89	An Optimisation-based Approach for Biopharmaceutical Manufacturing. Computer Aided Chemical Engineering, 2014, 33, 1183-1188.	0.5	2
90	An automated laboratoryâ€scale methodology for the generation of sheared mammalian cell culture samples. Biotechnology Journal, 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