

Marianthi G Ierapetritou

List of Publications by Year in descending order

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250
papers

9,538
citations

29994

54
h-index

62479

80
g-index

261
all docs

261
docs citations

261
times ranked

5154
citing authors

#	ARTICLE	IF	CITATIONS
1	Advances in surrogate based modeling, feasibility analysis, and optimization: A review. Computers and Chemical Engineering, 2018, 108, 250-267.	2.0	437
2	Process scheduling under uncertainty: Review and challenges. Computers and Chemical Engineering, 2008, 32, 715-727.	2.0	295
3	A review of the Residence Time Distribution (RTD) applications in solid unit operations. Powder Technology, 2012, 228, 416-423.	2.1	175
4	Characterizing continuous powder mixing using residence time distribution. Chemical Engineering Science, 2011, 66, 417-425.	1.9	166
5	Refinery Short-Term Scheduling Using Continuous Time Formulation: Crude-Oil Operations. Industrial & Engineering Chemistry Research, 2003, 42, 3085-3097.	1.8	154
6	An integrated approach for dynamic flowsheet modeling and sensitivity analysis of a continuous tablet manufacturing process. Computers and Chemical Engineering, 2012, 42, 30-47.	2.0	150
7	Global Optimization in Design under Uncertainty: Feasibility Test and Flexibility Index Problems. Industrial & Engineering Chemistry Research, 2001, 40, 4267-4282.	1.8	136
8	Efficient short-term scheduling of refinery operations based on a continuous time formulation. Computers and Chemical Engineering, 2004, 28, 1001-1019.	2.0	127
9	Perspectives on the continuous manufacturing of powder-based pharmaceutical processes. AIChE Journal, 2016, 62, 1846-1862.	1.8	127
10	Characterization of continuous convective powder mixing processes. Powder Technology, 2008, 182, 368-378.	2.1	115
11	Integration of Scheduling and Control with Closed Loop Implementation. Industrial & Engineering Chemistry Research, 2012, 51, 8550-8565.	1.8	111
12	Digital Twins in Pharmaceutical and Biopharmaceutical Manufacturing: A Literature Review. Processes, 2020, 8, 1088.	1.3	108
13	Petroleum Refining Operations: Key Issues, Advances, and Opportunities. Industrial & Engineering Chemistry Research, 2011, 50, 1161-1170.	1.8	105
14	An engineering study on the enhanced control and operation of continuous manufacturing of pharmaceutical tablets via roller compaction. International Journal of Pharmaceutics, 2012, 438, 307-326.	2.6	105
15	Batch Plant Design and Operations under Uncertainty. Industrial & Engineering Chemistry Research, 1996, 35, 772-787.	1.8	102
16	A New Approach for Efficient Rescheduling of Multiproduct Batch Plants. Industrial & Engineering Chemistry Research, 2000, 39, 4228-4238.	1.8	101
17	Optimal design of sustainable chemical processes and supply chains: A review. Computers and Chemical Engineering, 2012, 44, 94-103.	2.0	99
18	Mixed-Integer Linear Programming Model for Gasoline Blending and Distribution Scheduling. Industrial & Engineering Chemistry Research, 2003, 42, 825-835.	1.8	98

#	ARTICLE	IF	CITATIONS
19	Robust Optimization for Process Scheduling Under Uncertainty. <i>Industrial & Engineering Chemistry Research</i> , 2008, 47, 4148-4157.	1.8	93
20	System-wide hybrid MPC–PID control of a continuous pharmaceutical tablet manufacturing process via direct compaction. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2013, 85, 1164-1182.	2.0	89
21	Accelerating Benders method using covering cut bundle generation. <i>International Transactions in Operational Research</i> , 2010, 17, 221-237.	1.8	87
22	A systematic framework for onsite design and implementation of a control system in a continuous tablet manufacturing process. <i>Computers and Chemical Engineering</i> , 2014, 66, 186-200.	2.0	85
23	Implementation of an advanced hybrid MPC–PID control system using PAT tools into a direct compaction continuous pharmaceutical tablet manufacturing pilot plant. <i>International Journal of Pharmaceutics</i> , 2014, 473, 38-54.	2.6	80
24	Robust Short-Term Scheduling of Multiproduct Batch Plants under Demand Uncertainty. <i>Industrial & Engineering Chemistry Research</i> , 2001, 40, 4543-4554.	1.8	79
25	Investigation of the effect of impeller rotation rate, powder flow rate, and cohesion on powder flow behavior in a continuous blender using PEPT. <i>Chemical Engineering Science</i> , 2010, 65, 5658-5668.	1.9	79
26	Surrogate-Based Optimization of Expensive Flowsheet Modeling for Continuous Pharmaceutical Manufacturing. <i>Journal of Pharmaceutical Innovation</i> , 2013, 8, 131-145.	1.1	77
27	Process analysis and optimization of continuous pharmaceutical manufacturing using flowsheet models. <i>Computers and Chemical Engineering</i> , 2017, 107, 77-91.	2.0	77
28	From process control to supply chain management: An overview of integrated decision making strategies. <i>Computers and Chemical Engineering</i> , 2017, 106, 826-835.	2.0	75
29	Feasibility analysis of black-box processes using an adaptive sampling Kriging-based method. <i>Computers and Chemical Engineering</i> , 2012, 36, 358-368.	2.0	74
30	A kriging method for the solution of nonlinear programs with black-box functions. <i>AIChE Journal</i> , 2007, 53, 2001-2012.	1.8	72
31	Modeling of Particulate Processes for the Continuous Manufacture of Solid-Based Pharmaceutical Dosage Forms. <i>Processes</i> , 2013, 1, 67-127.	1.3	72
32	Novel Optimization Approach of Stochastic Planning Models. <i>Industrial & Engineering Chemistry Research</i> , 1994, 33, 1930-1942.	1.8	70
33	Design Space of Pharmaceutical Processes Using Data-Driven-Based Methods. <i>Journal of Pharmaceutical Innovation</i> , 2010, 5, 119-137.	1.1	70
34	Hybrid simulation based optimization approach for supply chain management. <i>Computers and Chemical Engineering</i> , 2012, 47, 183-193.	2.0	70
35	Integrated production planning and scheduling optimization of multisite, multiproduct process industry. <i>Computers and Chemical Engineering</i> , 2012, 37, 214-226.	2.0	70
36	Integration of scheduling and control under uncertainties: Review and challenges. <i>Chemical Engineering Research and Design</i> , 2016, 116, 98-113.	2.7	70

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37	Rolling horizon based planning and scheduling integration with production capacity consideration. Chemical Engineering Science, 2010, 65, 5887-5900.	1.9	69
38	Aromatics from Lignocellulosic Biomass: Economic Analysis of the Production of p- <i>Xylene</i> from 5- <i>Hydroxymethylfurfural</i> . AICHE Journal, 2013, 59, 2079-2087.	1.8	69
39	Effects of rotation rate, mixing angle, and cohesion in two continuous powder mixers—A statistical approach. Powder Technology, 2009, 194, 217-227.	2.1	68
40	A simulation-based optimization framework for integrating scheduling and model predictive control, and its application to air separation units. Computers and Chemical Engineering, 2018, 113, 139-151.	2.0	67
41	Integration of scheduling and control for batch processes using multi-parametric model predictive control. AICHE Journal, 2014, 60, 3169-3183.	1.8	65
42	Computational Approaches for Studying the Granular Dynamics of Continuous Blending Processes, 1—DEM Based Methods. Macromolecular Materials and Engineering, 2011, 296, 290-307.	1.7	64
43	Real time monitoring of powder blend bulk density for coupled feed-forward/feed-back control of a continuous direct compaction tablet manufacturing process. International Journal of Pharmaceutics, 2015, 495, 612-625.	2.6	64
44	Integrated production planning and scheduling using a decomposition framework. Chemical Engineering Science, 2009, 64, 3585-3597.	1.9	62
45	Production planning and scheduling integration through augmented Lagrangian optimization. Computers and Chemical Engineering, 2010, 34, 996-1006.	2.0	62
46	Alternative Approaches for <i>p-Xylene</i> Production from Starch: Techno-Economic Analysis. Industrial & Engineering Chemistry Research, 2014, 53, 10688-10699.	1.8	62
47	A novel feasibility analysis method for black-box processes using a radial basis function adaptive sampling approach. AICHE Journal, 2017, 63, 532-550.	1.8	62
48	Comparison between Batch and Continuous Monoclonal Antibody Production and Economic Analysis. Industrial & Engineering Chemistry Research, 2019, 58, 5851-5863.	1.8	62
49	Improving benders decomposition using maximum feasible subsystem (MFS) cut generation strategy. Computers and Chemical Engineering, 2010, 34, 1237-1245.	2.0	61
50	Decomposition approaches for the efficient solution of short-term scheduling problems. Computers and Chemical Engineering, 2003, 27, 1261-1276.	2.0	60
51	Hierarchical approach for production planning and scheduling under uncertainty. Chemical Engineering and Processing: Process Intensification, 2007, 46, 1129-1140.	1.8	59
52	A kriging based method for the solution of mixed-integer nonlinear programs containing black-box functions. Journal of Global Optimization, 2009, 43, 191-205.	1.1	59
53	Computer-Aided Flowsheet Simulation of a Pharmaceutical Tablet Manufacturing Process Incorporating Wet Granulation. Journal of Pharmaceutical Innovation, 2013, 8, 11-27.	1.1	59
54	Reactive scheduling using parametric programming. AICHE Journal, 2008, 54, 2610-2623.	1.8	56

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55	Effect of tracer material properties on the residence time distribution (RTD) of continuous powder blending operations. Part I of II: Experimental evaluation. Powder Technology, 2019, 342, 744-763.	2.1	56
56	Determination of operability limits using simplicial approximation. AIChE Journal, 2002, 48, 2902-2909.	1.8	55
57	Challenges and opportunities in modeling pharmaceutical manufacturing processes. Computers and Chemical Engineering, 2015, 81, 32-39.	2.0	55
58	Simulation and economic analysis of 5-hydroxymethylfurfural conversion to 2,5-furandicarboxylic acid. Computers and Chemical Engineering, 2013, 52, 26-34.	2.0	54
59	Closed-Loop Feedback Control of a Continuous Pharmaceutical Tablet Manufacturing Process via Wet Granulation. Journal of Pharmaceutical Innovation, 2014, 9, 16-37.	1.1	54
60	Generate Pareto optimal solutions of scheduling problems using normal boundary intersection technique. Computers and Chemical Engineering, 2007, 31, 268-280.	2.0	53
61	Near infrared spectroscopic calibration models for real time monitoring of powder density. International Journal of Pharmaceutics, 2016, 512, 61-74.	2.6	53
62	Design Optimization under Parameter Uncertainty for General Black-Box Models. Industrial & Engineering Chemistry Research, 2002, 41, 6687-6697.	1.8	51
63	On-the-fly reduction of kinetic mechanisms using element flux analysis. Chemical Engineering Science, 2010, 65, 1173-1184.	1.9	51
64	Dynamic Data-Driven Modeling of Pharmaceutical Processes. Industrial & Engineering Chemistry Research, 2011, 50, 6743-6754.	1.8	51
65	Derivative-free optimization for expensive constrained problems using a novel expected improvement objective function. AIChE Journal, 2014, 60, 2462-2474.	1.8	51
66	Economic Analysis of Batch and Continuous Biopharmaceutical Antibody Production: a Review. Journal of Pharmaceutical Innovation, 2020, 15, 182-200.	1.1	51
67	New approach for quantifying process feasibility: Convex and 1-D quasi-convex regions. AIChE Journal, 2001, 47, 1407-1417.	1.8	49
68	Process scheduling under uncertainty using multiparametric programming. AIChE Journal, 2007, 53, 3183-3203.	1.8	49
69	A New Methodology for the General Multiparametric Mixed-Integer Linear Programming (MILP) Problems. Industrial & Engineering Chemistry Research, 2007, 46, 5141-5151.	1.8	48
70	Feasibility and flexibility analysis of black-box processes Part 1: Surrogate-based feasibility analysis. Chemical Engineering Science, 2015, 137, 986-1004.	1.9	48
71	Using a material property library to find surrogate materials for pharmaceutical process development. Powder Technology, 2018, 339, 659-676.	2.1	47
72	Reduced-order discrete element method modeling. Chemical Engineering Science, 2013, 95, 12-26.	1.9	46

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73	Branched-chain amino acid supplementation: impact on signaling and relevance to critical illness. <i>Wiley Interdisciplinary Reviews: Systems Biology and Medicine</i> , 2013, 5, 449-460.	6.6	46
74	A review of existing mixing indices in solid-based continuous blending operations. <i>Powder Technology</i> , 2020, 373, 195-209.	2.1	46
75	Effects of glucose and insulin on HepG2 cell metabolism. <i>Biotechnology and Bioengineering</i> , 2010, 107, 347-356.	1.7	45
76	Flowsheet optimization of an integrated continuous purification-processing pharmaceutical manufacturing operation. <i>Chemical Engineering Science</i> , 2013, 102, 56-66.	1.9	45
77	Optimizing continuous powder mixing processes using periodic section modeling. <i>Chemical Engineering Science</i> , 2012, 80, 70-80.	1.9	44
78	Renewable lubricants with tailored molecular architecture. <i>Science Advances</i> , 2019, 5, eaav5487.	4.7	44
79	Parametric process synthesis for general nonlinear models. <i>Computers and Chemical Engineering</i> , 2003, 27, 1499-1512.	2.0	43
80	Uncertainty reduction and characterization for complex environmental fate and transport models: An empirical Bayesian framework incorporating the stochastic response surface method. <i>Water Resources Research</i> , 2003, 39, .	1.7	43
81	Short-Term Scheduling under Uncertainty Using MILP Sensitivity Analysis. <i>Industrial & Engineering Chemistry Research</i> , 2004, 43, 3782-3791.	1.8	43
82	A Robust Event-Based Continuous Time Formulation for Tank Transfer Scheduling. <i>Industrial & Engineering Chemistry Research</i> , 2007, 46, 9126-9136.	1.8	43
83	Model-Based Control-Loop Performance of a Continuous Direct Compaction Process. <i>Journal of Pharmaceutical Innovation</i> , 2011, 6, 249-263.	1.1	43
84	Dynamic Flowsheet Model Development and Sensitivity Analysis of a Continuous Pharmaceutical Tablet Manufacturing Process Using the Wet Granulation Route. <i>Processes</i> , 2019, 7, 234.	1.3	43
85	The Future is Garbage: Repurposing of Food Waste to an Integrated Biorefinery. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 8124-8136.	3.2	42
86	Use of genomic data in risk assessment case study: II. Evaluation of the dibutyl phthalate toxicogenomic data set. <i>Toxicology and Applied Pharmacology</i> , 2013, 271, 349-362.	1.3	41
87	Life Cycle Assessment of Biobased p-Xylene Production. <i>Industrial & Engineering Chemistry Research</i> , 2015, 54, 2366-2378.	1.8	41
88	An Integrated Approach to Simulation of Pharmaceutical Processes for Solid Drug Manufacture. <i>Industrial & Engineering Chemistry Research</i> , 2014, 53, 5128-5147.	1.8	40
89	An integrated framework for scheduling and control using fast model predictive control. <i>AIChE Journal</i> , 2015, 61, 3304-3319.	1.8	40
90	Process synthesis optimization and flexibility evaluation of air separation cycles. <i>AIChE Journal</i> , 2005, 51, 1190-1200.	1.8	39

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91	Hybrid DEM-compartment modeling approach for granular mixing. <i>AIChE Journal</i> , 2007, 53, 119-128.	1.8	39
92	Computational Approaches for Studying the Granular Dynamics of Continuous Blending Processes, 2 nd Population Balance and Data-Based Methods. <i>Macromolecular Materials and Engineering</i> , 2012, 297, 9-19.	1.7	39
93	A Combined Feed-Forward/Feed-Back Control System for a QbD-Based Continuous Tablet Manufacturing Process. <i>Processes</i> , 2015, 3, 339-356.	1.3	39
94	Feasibility and flexibility analysis of black-box processes part 2: Surrogate-based flexibility analysis. <i>Chemical Engineering Science</i> , 2015, 137, 1005-1013.	1.9	39
95	A framework of hybrid model development with identification of plant-model mismatch. <i>AIChE Journal</i> , 2020, 66, e16996.	1.8	39
96	Feasibility Evaluation of Nonconvex Systems Using Shape Reconstruction Techniques. <i>Industrial & Engineering Chemistry Research</i> , 2005, 44, 3638-3647.	1.8	38
97	Similarities and differences between the concepts of operability and flexibility: The steady-state case. <i>AIChE Journal</i> , 2010, 56, 702-716.	1.8	37
98	Comparison of the cytokine and chemokine dynamics of the early inflammatory response in models of burn injury and infection. <i>Cytokine</i> , 2011, 55, 362-371.	1.4	37
99	A graph-based approach to developing adaptive representations of complex reaction mechanisms. <i>Combustion and Flame</i> , 2008, 155, 585-604.	2.8	36
100	Centralized-decentralized optimization for refinery scheduling. <i>Computers and Chemical Engineering</i> , 2009, 33, 2091-2105.	2.0	36
101	Supply chain management using an optimization driven simulation approach. <i>AIChE Journal</i> , 2013, 59, 4612-4626.	1.8	36
102	Predictive Modeling for Pharmaceutical Processes Using Kriging and Response Surface. <i>Journal of Pharmaceutical Innovation</i> , 2009, 4, 174-186.	1.1	34
103	Discrete Element Modeling (DEM) for mixing of cohesive solids in rotating cylinders. <i>Powder Technology</i> , 2018, 335, 124-136.	2.1	34
104	Framework for evaluating the feasibility/operability of nonconvex processes. <i>AIChE Journal</i> , 2003, 49, 1233-1240.	1.8	32
105	Periodic section modeling of convective continuous powder mixing processes. <i>AIChE Journal</i> , 2012, 58, 69-78.	1.8	32
106	Production planning optimization of an ethylene plant considering process operation and energy utilization. <i>Computers and Chemical Engineering</i> , 2016, 87, 1-12.	2.0	32
107	Process Intensification for Cellulosic Biorefineries. <i>ChemSusChem</i> , 2017, 10, 2566-2572.	3.6	32
108	Measurement of residence time distribution in a rotary calciner. <i>AIChE Journal</i> , 2013, 59, 4068-4076.	1.8	31

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109	Effect of material properties on the residence time distribution (RTD) characterization of powder blending unit operations. Part II of II: Application of models. Powder Technology, 2019, 344, 525-544.	2.1	31
110	Using Compartment Modeling to Investigate Mixing Behavior of a Continuous Mixer. Journal of Pharmaceutical Innovation, 2008, 3, 161-174.	1.1	30
111	Quality by Design Methodology for Development and Scale-up of Batch Mixing Processes. Journal of Pharmaceutical Innovation, 2008, 3, 258-270.	1.1	30
112	Characterization of feeder effects on continuous solid mixing using fourier series analysis. AIChE Journal, 2011, 57, 1144-1153.	1.8	30
113	Short-term scheduling of a large-scale oil refinery operations: Incorporating logistics details. AIChE Journal, 2011, 57, 1570-1584.	1.8	30
114	Ambient-pressure lignin valorization to high-performance polymers by intensified reductive catalytic deconstruction. Science Advances, 2022, 8, eabj7523.	4.7	30
115	Discrete element reduced-order modeling of dynamic particulate systems. AIChE Journal, 2014, 60, 3184-3194.	1.8	29
116	Techno-economic and life cycle analysis of different types of hydrolysis process for the production of p-Xylene. Computers and Chemical Engineering, 2019, 121, 685-695.	2.0	29
117	Characterizing powder mixing processes utilizing compartment models. International Journal of Pharmaceutics, 2006, 320, 14-22.	2.6	28
118	Predictive modeling of pharmaceutical processes with missing and noisy data. AIChE Journal, 2010, 56, 2860-2872.	1.8	28
119	Integrated model of refining and petrochemical plant for enterprise-wide optimization. Computers and Chemical Engineering, 2017, 97, 194-207.	2.0	28
120	A multiscale DEM-PBM approach for a continuous comilling process using a mechanistically developed breakage kernel. Chemical Engineering Science, 2018, 178, 211-221.	1.9	28
121	One-step lignocellulose depolymerization and saccharification to high sugar yield and less condensed isolated lignin. Green Chemistry, 2021, 23, 1200-1211.	4.6	28
122	Speed-up Benders decomposition using maximum density cut (MDC) generation. Annals of Operations Research, 2013, 210, 101-123.	2.6	27
123	Determination of the Confidence Interval of the Relative Standard Deviation Using Convolution. Journal of Pharmaceutical Innovation, 2013, 8, 72-82.	1.1	27
124	Modeling the effects of material properties on tablet compaction: A building block for controlling both batch and continuous pharmaceutical manufacturing processes. International Journal of Pharmaceutics, 2018, 543, 274-287.	2.6	27
125	Development of an adaptive chemistry model considering micromixing effects. Chemical Engineering Science, 2003, 58, 4537-4555.	1.9	26
126	Biomass-based chemical production using techno-economic and life cycle analysis. AIChE Journal, 2019, 65, e16660.	1.8	26

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127	Integration of planning, scheduling and control problems using data-driven feasibility analysis and surrogate models. <i>Computers and Chemical Engineering</i> , 2020, 134, 106714.	2.0	26
128	A framework for supply chain optimization for modular manufacturing with production feasibility analysis. <i>Computers and Chemical Engineering</i> , 2021, 145, 107175.	2.0	26
129	Uncertainty analysis on the righthand side for MILP problems. <i>AIChE Journal</i> , 2006, 52, 2486-2495.	1.8	25
130	Optimal operation and control of intensified processes – challenges and opportunities. <i>Current Opinion in Chemical Engineering</i> , 2019, 25, 82-86.	3.8	25
131	Recent advances in integrated process analytical techniques, modeling, and control strategies to enable continuous biomanufacturing of monoclonal antibodies. <i>Journal of Chemical Technology and Biotechnology</i> , 2022, 97, 2317-2335.	1.6	25
132	Design of flexible reduced kinetic mechanisms. <i>AIChE Journal</i> , 2001, 47, 2461-2473.	1.8	24
133	A rational design approach for amino acid supplementation in hepatocyte culture. <i>Biotechnology and Bioengineering</i> , 2009, 103, 1176-1191.	1.7	24
134	Model development and prediction of particle size distribution, density and friability of a comilling operation in a continuous pharmaceutical manufacturing process. <i>International Journal of Pharmaceutics</i> , 2018, 549, 271-282.	2.6	24
135	Design space maintenance by online model adaptation in pharmaceutical manufacturing. <i>Computers and Chemical Engineering</i> , 2019, 127, 254-271.	2.0	24
136	Discrete element modeling for continuous powder feeding operation: Calibration and system analysis. <i>International Journal of Pharmaceutics</i> , 2020, 585, 119427.	2.6	24
137	Integrated Moving Horizon-Based Dynamic Real-Time Optimization and Hybrid MPC-PID Control of a Direct Compaction Continuous Tablet Manufacturing Process. <i>Journal of Pharmaceutical Innovation</i> , 2015, 10, 233-253.	1.1	22
138	Constrained optimization of black-box stochastic systems using a novel feasibility enhanced Kriging-based method. <i>Computers and Chemical Engineering</i> , 2018, 118, 210-223.	2.0	22
139	A comparative assessment of efficient uncertainty analysis techniques for environmental fate and transport models: application to the FACT model. <i>Journal of Hydrology</i> , 2005, 307, 204-218.	2.3	21
140	A Kriging-Based Approach to MINLP Containing Black-Box Models and Noise. <i>Industrial & Engineering Chemistry Research</i> , 2008, 47, 6101-6125.	1.8	21
141	Scheduling of Loading and Unloading of Crude Oil in a Refinery with Optimal Mixture Preparation. <i>Industrial & Engineering Chemistry Research</i> , 2009, 48, 2624-2633.	1.8	21
142	A novel and systematic approach to identify the design space of pharmaceutical processes. <i>Computers and Chemical Engineering</i> , 2018, 115, 309-322.	2.0	21
143	Data-driven feasibility analysis for the integration of planning and scheduling problems. <i>Optimization and Engineering</i> , 2019, 20, 1029-1066.	1.3	21
144	Modular Design Optimization using Machine Learning-based Flexibility Analysis. <i>Journal of Process Control</i> , 2020, 90, 18-34.	1.7	21

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145	Equation-free, coarse-grained computational optimization using timesteppers. <i>Chemical Engineering Science</i> , 2006, 61, 779-793.	1.9	20
146	Pathway analysis of liver metabolism under stressed condition. <i>Journal of Theoretical Biology</i> , 2011, 272, 131-140.	0.8	20
147	Improvement of Tablet Coating Uniformity Using a Quality by Design Approach. <i>AAPS PharmSciTech</i> , 2012, 13, 231-246.	1.5	20
148	Scale-up strategy for continuous powder blending process. <i>Powder Technology</i> , 2013, 235, 55-69.	2.1	20
149	A novel framework of surrogate-based feasibility analysis for establishing design space of twin-column continuous chromatography. <i>International Journal of Pharmaceutics</i> , 2021, 609, 121161.	2.6	20
150	Adaptive multiscale solution of dynamical systems in chemical processes using wavelets. <i>Computers and Chemical Engineering</i> , 2003, 27, 131-142.	2.0	19
151	Model Independent Parametric Decision Making. <i>Annals of Operations Research</i> , 2004, 132, 135-155.	2.6	19
152	Stochastic MINLP optimization using simplicial approximation. <i>Computers and Chemical Engineering</i> , 2007, 31, 1081-1087.	2.0	19
153	Flexibility assessment and risk management in supply chains. <i>AIChE Journal</i> , 2015, 61, 4166-4178.	1.8	19
154	A Systematic Framework for Data Management and Integration in a Continuous Pharmaceutical Manufacturing Processing Line. <i>Processes</i> , 2018, 6, 53.	1.3	19
155	On the global and efficient solution of stochastic batch plant design problems. <i>Computers and Chemical Engineering</i> , 1997, 21, 1411-1431.	2.0	18
156	The dynamics of the early inflammatory response in double-hit burn and sepsis animal models. <i>Cytokine</i> , 2011, 56, 494-502.	1.4	18
157	Comparison of Biodiesel Performance Based on HCCI Engine Simulation Using Detailed Mechanism with On-the-fly Reduction. <i>Energy & Fuels</i> , 2012, 26, 976-983.	2.5	18
158	Capacity expansion planning through augmented Lagrangian optimization and scenario decomposition. <i>AIChE Journal</i> , 2012, 58, 871-883.	1.8	18
159	A Decomposition Approach for the Solution of Scheduling Including Process Dynamics of Continuous Processes. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 1266-1280.	1.8	18
160	Advanced Model Predictive Feedforward/Feedback Control of a Tablet Press. <i>Journal of Pharmaceutical Innovation</i> , 2017, 12, 110-123.	1.1	18
161	Process flowsheet optimization of chemicals production from biomass derived glucose solutions. <i>Computers and Chemical Engineering</i> , 2017, 102, 258-267.	2.0	18
162	Transcriptional and metabolic flux profiling of triadimefon effects on cultured hepatocytes. <i>Toxicology and Applied Pharmacology</i> , 2010, 248, 165-177.	1.3	17

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163	Multi-element Flux Analysis for the Incorporation of Detailed Kinetic Mechanisms in Reactive Simulations. <i>Energy & Fuels</i> , 2010, 24, 309-317.	2.5	17
164	Computer Aided Design and Analysis of Continuous Pharmaceutical Manufacturing Processes. <i>Computer Aided Chemical Engineering</i> , 2011, 29, 216-220.	0.3	17
165	A method for solving the general parametric linear complementarity problem. <i>Annals of Operations Research</i> , 2010, 181, 485-501.	2.6	16
166	Metabolic flux determination in perfused livers by mass balance analysis: Effect of fasting. <i>Biotechnology and Bioengineering</i> , 2010, 107, 825-835.	1.7	16
167	A hybrid kinetic mechanism reduction scheme based on the on-the-fly reduction and quasi-steady-state approximation. <i>Chemical Engineering Science</i> , 2013, 93, 150-162.	1.9	16
168	Review of the important challenges and opportunities related to modeling of mammalian cell bioreactors. <i>AIChE Journal</i> , 2017, 63, 398-408.	1.8	16
169	Investigation on the effect of blade patterns on continuous solid mixing performance. <i>Canadian Journal of Chemical Engineering</i> , 2011, 89, 969-984.	0.9	15
170	Metabolic response of perfused livers to various oxygenation conditions. <i>Biotechnology and Bioengineering</i> , 2011, 108, 2947-2957.	1.7	15
171	Dynamics of Short-Term Gene Expression Profiling in Liver Following Thermal Injury. <i>Journal of Surgical Research</i> , 2012, 176, 549-558.	0.8	15
172	Hybrid Simulation Based Optimization Framework for Centralized and Decentralized Supply Chains. <i>Industrial & Engineering Chemistry Research</i> , 2014, 53, 3996-4007.	1.8	15
173	A novel adaptive sampling based methodology for feasible region identification of compute intensive models using artificial neural network. <i>AIChE Journal</i> , 2021, 67, e17095.	1.8	15
174	Cost and energy efficient cyclic separation of 5-hydroxymethyl furfural from an aqueous solution. <i>Green Chemistry</i> , 2021, 23, 4008-4023.	4.6	15
175	Pathway modeling of microarray data: A case study of pathway activity changes in the testis following in utero exposure to dibutyl phthalate (DBP). <i>Toxicology and Applied Pharmacology</i> , 2013, 271, 386-394.	1.3	14
176	Phthalic anhydride production from hemicellulose solutions: Technoeconomic analysis and life cycle assessment. <i>AIChE Journal</i> , 2015, 61, 3708-3718.	1.8	14
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