Efstratios N Pistikopoulos

List of Publications by Year
in descending order

355	13,732	22132	30058
papers	citations	59 h-index	103 g-index

548	548	548	6689
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The explicit linear quadratic regulator for constrained systems. Automatica, 2002, 38, 3-20.	3.0	2,616
2	A two-stage stochastic programming model for the optimal design of distributed energy systems. Applied Energy, 2013, 103, 135-144.	5.1	248
3	Optimal design of dynamic systems under uncertainty. AICHE Journal, 1996, 42, 2251-2272.	1.8	237
4	A rolling horizon optimization framework for the simultaneous energy supply and demand planning in microgrids. Applied Energy, 2015, 155, 485-501.	5.1	226
5	An overview of process systems engineering approaches for process intensification: State of the art. Chemical Engineering and Processing: Process Intensification, 2018, 133, 160-210.	1.8	216
6	An Algorithm for the Solution of Multiparametric Mixed Integer Linear Programming Problems. Annals of Operations Research, 2000, 99, 123-139.	2.6	198
7	A multiparametric programming approach for mixed-integer quadratic engineering problems. Computers and Chemical Engineering, 2002, 26, 715-733.	2.0	190
8	Recent advances in optimization-based simultaneous process and control design. Computers and Chemical Engineering, 2004, 28, 2069-2086.	2.0	190
9	Model-based blood glucose control for type 1 diabetes via parametric programming. IEEE Transactions on Biomedical Engineering, 2006, 53, 1478-1491.	2.5	174
10	Generalized modular representation framework for process synthesis. AICHE Journal, 1996, 42, 1010-1032.	1.8	168
11	On-line optimization via off-line parametric optimization tools. Computers and Chemical Engineering, 2002, 26, 175-185.	2.0	161
12	A Multiparametric Programming Approach for Linear Process Engineering Problems under Uncertainty. Industrial & Engineering Chemistry Research, 1997, 36, 717-728.	1.8	148
13	Flexibility Analysis of Dynamic Systems. Industrial & Engineering Chemistry Research, 1995, 34, 4451-4462.	1.8	146
14	Stochastic optimization based algorithms for process synthesis under uncertainty. Computers and Chemical Engineering, 1998, 22, 647-671.	2.0	135
15	Energy production planning of a network of micro combined heat and power generators. Applied Energy, 2013, 102, 1522-1534.	5.1	131
16	A spatial multi-period long-term energy planning model: A case study of the Greek power system. Applied Energy, 2014, 115, 456-482.	5.1	126
17	PAROCâ€”An integrated framework and software platform for the optimisation and advanced model-based control of process systems. Chemical Engineering Science, 2015, 136, 115-138.	1.9	125
18	A Food-Energy-Water Nexus approach for land use optimization. Science of the Total Environment, 2019, 659, 7-19.	3.9	122

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19	A bilevel programming framework for enterprise-wide process networks under uncertainty. Computers and Chemical Engineering, 2004, 28, 1121-1129.	2.0	120
20	Modeling and optimization of polygeneration energy systems. Catalysis Today, 2007, 127, 347-359.	2.2	120
21	A Case Study in Simultaneous Design and Control Using Rigorous, Mixed-Integer Dynamic Optimization Models. Industrial & Engineering Chemistry Research, 2002, 41, 760-778.	1.8	113
22	Parametric global optimisation for bilevel programming. Journal of Global Optimization, 2007, 38, 609-623.	1.1	108
23	New algorithms for mixed-integer dynamic optimization. Computers and Chemical Engineering, 2003, 27, 647-668.	2.0	106
24	Algorithms for the Solution of Multiparametric Mixed-Integer Nonlinear Optimization Problems. Industrial & Engineering Chemistry Research, 1999, 38, 3976-3987.	1.8	104
25	Design of robust model-based controllers via parametric programming. Automatica, 2004, 40, 189-201.	3.0	104
26	Batch Plant Design and Operations under Uncertainty. Industrial & Engineering Chemistry Research, 1996, 35, 772-787.	1.8	102
27	Reactive Scheduling by a Multiparametric Programming Rolling Horizon Framework: A Case of a Network of Combined Heat and Power Units. Industrial & Engineering Chemistry Research, 2014, 53, 4366-4386.	1.8	96
28	Optimal design of solvent blends for environmental impact minimization. AICHE Journal, 1999, 45, 817-843.	1.8	92
29	Sustainable ammonia production through process synthesis and global optimization. AICHE Journal, 2019, 65, e16498.	1.8	92
30	A mixed integer optimization formulation for the well scheduling problem on petroleum fields. Computers and Chemical Engineering, 2005, 29, 1523-1541.	2.0	89
31	A Parametric MINLP Algorithm for Process Synthesis Problems under Uncertainty. Industrial & Engineering Chemistry Research, 1996, 35, 147-158.	1.8	87
32	On-line optimization via off-line parametric optimization tools. Computers and Chemical Engineering, 2000, 24, 183-188.	2.0	87
33	The interactions of design control and operability in reactive distillation systems. Computers and Chemical Engineering, 2002, 26, 735-746.	2.0	84
34	Hydrogen infrastructure design and optimization: A case study of China. International Journal of Hydrogen Energy, 2008, 33, 5275-5286.	3.8	84
35	POP â€“ Parametric Optimization Toolbox. Industrial & Engineering Chemistry Research, 2016, 55, 8979-8991.	1.8	82
36	Advances in Energy Systems Engineering. Industrial & Engineering Chemistry Research, 2011, 50, 4915-4926.	1.8	81

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37	â€˜Closing the loopâ€™ in biological systems modeling â€” From the in silico to the in vitro. Automatica, 2011, 47, 1147-1155.	3.0	81
38	Optimal delivery of chemotherapeutic agents in cancer. Computers and Chemical Engineering, 2008, 32, 99-107.	2.0	80
39	Advanced Model-Based Control Studies for the Induction and Maintenance of Intravenous Anaesthesia. IEEE Transactions on Biomedical Engineering, 2015, 62, 832-841.	2.5	79
40	Synthesis and Retrofit Design of Operable Heat Exchanger Networks. 1. Flexibility and Structural Controllability Aspects. Industrial & Engineering Chemistry Research, 1994, 33, 1718-1737.	1.8	78
41	A multiâ€objective optimization approach to polygeneration energy systems design. AICHE Journal, 2010, 56, 1218-1234.	1.8	78
42	Circular Economy - A challenge and an opportunity for Process Systems Engineering. Computers and Chemical Engineering, 2020, 133, 106629.	2.0	77
43	Process design and control optimization: A simultaneous approach by multiâ€parametric programming. AICHE Journal, 2017, 63, 4827-4846.	1.8	75
44	Modular synthesis framework for combined separation/reaction systems. AICHE Journal, 2001, 47, 629-649.	1.8	74
45	An energy systems engineering approach to the optimal design of energy systems in commercial buildings. Energy Policy, 2010, 38, 4224-4231.	4.2	74
46	Towards the integration of process design, control and scheduling: Are we getting closer?. Computers and Chemical Engineering, 2016, 91, 85-92.	2.0	74
47	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.	1.3	73
48	Big data approach to batch process monitoring: Simultaneous fault detection and diagnosis using nonlinear support vector machine-based feature selection. Computers and Chemical Engineering, 2018, 115, 46-63.	2.0	73
49	Integration and Computational Issues in Stochastic Design and Planning Optimization Problems. Industrial & Engineering Chemistry Research, 1999, 38, 3056-3068.	1.8	71
50	Optimization and Control of Pressure Swing Adsorption Processes Under Uncertainty. AICHE Journal, 2013, 59, 120-131.	1.8	69
51	Flexibility analysis and design of linear systems by parametric programming. AICHE Journal, 2000, 46, 335-354.	1.8	67
52	Optimal solvent design for batch separation based on economic performance. AICHE Journal, 2003, 49, 3095-3109.	1.8	67
53	Parametric Controllers in Simultaneous Process and Control Design Optimization. Industrial & Engineering Chemistry Research, 2003, 42, 4545-4563.	1.8	67
54	Design of solvents for optimal reaction rate constants. AICHE Journal, 2007, 53, 1240-1256.	1.8	67

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55	A nonlinear support vector machineâ€based feature selection approach for fault detection and diagnosis: Application to the Tennessee Eastman process. AICHE Journal, 2019, 65, 992-1005.	1.8	67
56	On multi-parametric programming and its applications in process systems engineering. Chemical Engineering Research and Design, 2016, 116, 61-82.	2.7	66
57	Systematic development of predictive mathematical models for animal cell cultures. Computers and Chemical Engineering, 2010, 34, 1192-1198.	2.0	63
58	Smart manufacturing and energy systems. Computers and Chemical Engineering, 2018, 114, 130-144.	2.0	62
59	A multi-parametric programming approach for multilevel hierarchical and decentralised optimisation problems. Computational Management Science, 2009, 6, 377-397.	0.8	61
60	An energy systems engineering approach for the design and operation of microgrids in residential applications. Chemical Engineering Research and Design, 2013, 91, 2054-2069.	2.7	60
61	Explicit hybrid model-predictive control: The exact solution. Automatica, 2015, 58, 152-159.	3.0	60
62	Optimal design of energy systems using constrained grey-box multi-objective optimization. Computers and Chemical Engineering, 2018, 116, 488-502.	2.0	60
63	Decomposition Based Stochastic Programming Approach for Polygeneration Energy Systems Design under Uncertainty. Industrial & Engineering Chemistry Research, 2010, 49, 3295-3305.	1.8	58
64	Explicit model predictive control: A connected-graph approach. Automatica, 2017, 76, 103-112.	3.0	58
65	Optimization of Well Oil Rate Allocations in Petroleum Fields. Industrial & Engineering Chemistry Research, 2004, 43, 3513-3527.	1.8	56
66	Advanced control strategies for the multicolumn countercurrent solvent gradient purification process. AICHE Journal, 2016, 62, 2341-2357.	1.8	56
67	An algorithm for multiparametric mixed-integer linear programming problems. Operations Research Letters, 1999, 24, 139-148.	0.5	54
68	Dynamic modeling and explicit/multi-parametric MPC control of pressure swing adsorption systems. Journal of Process Control, 2011, 21, 151-163.	1.7	52
69	Flexibility analysis and design using a parametric programming framework. AICHE Journal, 2002, 48, 2851-2868.	1.8	51
70	BIOPROCESS SYSTEMS ENGINEERING: TRANSFERRING TRADITIONAL PROCESS ENGINEERING PRINCIPLES TO INDUSTRIAL BIOTECHNOLOGY. Computational and Structural Biotechnology Journal, 2012, 3, e201210022.	1.9	50
71	A hierarchical clustering decomposition algorithm for optimizing renewable power systems with storage. Applied Energy, 2020, 270, 115190.	5.1	49
72	A Reduced Space Branch and Bound Algorithm for Global optimization. Journal of Global Optimization, 1997, 11, 287-311.	1.1	48

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73	Computer-Aided Solvent Design for Reactions: Maximizing Product Formation. Industrial & Engineering Chemistry Research, 2008, 47, 5190-5202.	1.8	48
74	A multi-objective optimization for the design and operation of a hydrogen network for transportation fuel. Chemical Engineering Research and Design, 2018, 131, 279-292.	2.7	48
75	A global optimization algorithm for generalized semi-infinite, continuous minimax with coupled constraints and bi-level problems. Journal of Global Optimization, 2009, 44, 235-250.	1.1	47
76	Integrated process design, scheduling, and control using multiparametric programming. Computers and Chemical Engineering, 2019, 125, 164-184.	2.0	47
77	Proactive Scheduling under Uncertainty:â€‰ A Parametric Optimization Approach. Industrial & Engineering Chemistry Research, 2007, 46, 8044-8049.	1.8	46
78	Recent advances in multiparametric nonlinear programming. Computers and Chemical Engineering, 2010, 34, 707-716.	2.0	44
79	Model predictive control of anesthesia under uncertainty. Computers and Chemical Engineering, 2014, 71, 699-707.	2.0	43
80	Interactions of Maintenance and Production Planning for Multipurpose Process PlantsA System Effectiveness Approach. Industrial & Engineering Chemistry Research, 2001, 40, 3195-3207.	1.8	42
81	Scenario-based strategic supply chain design and analysis for the forest biorefinery using an operational supply chain model. International Journal of Production Economics, 2013, 144, 618-634.	5.1	41
82	Simultaneous Process Scheduling and Control: A Multiparametric Programming-Based Approach. Industrial & Engineering Chemistry Research, 2018, 57, 3963-3976.	1.8	39
83	Synthesis of Operable Process Intensification Systemsâ€”Steady-State Design with Safety and Operability Considerations. Industrial & Engineering Chemistry Research, 2019, 58, 6049-6068.	1.8	39
84	The regulatory logic of mâ€‹xylene biodegradation by Pseudomonas putida mtâ€‹2 exposed by dynamic modelling of the principal node Ps/Pr of the TOL plasmid. Environmental Microbiology, 2010, 12, 1705-1718.	1.8	38
85	Multiparametric programming based algorithms for pure integer and mixed-integer bilevel programming problems. Computers and Chemical Engineering, 2010, 34, 2097-2106.	2.0	38
86	Towards the Grand Unification of Process Design, Scheduling, and Controlâ€”Utopia or Reality?. Processes, 2019, 7, 461.	1.3	38
87	An optimization framework for the design of reverse osmosis desalination plants under food-energy-water nexus considerations. Desalination, 2021, 503, 114937.	4.0	38
88	Optimization of a network of compressors in parallel: Operational and maintenance planning â€“ The air separation plant case. Applied Energy, 2015, 146, 453-470.	5.1	37
89	A Multiscale Energy Systems Engineering Approach for Renewable Power Generation and Storage Optimization. Industrial & Engineering Chemistry Research, 2020, 59, 7706-7721.	1.8	37
90	Integrating deep learning models and multiparametric programming. Computers and Chemical Engineering, 2020, 136, 106801.	2.0	37

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91	Environmental impact minimization through material substitution: a multi-objective optimization approach. Green Chemistry, 2004, 6, 407.	4.6	36
92	A Systematic Framework for the synthesis of operable process intensification systems â€“ Reactive separation systems. Computers and Chemical Engineering, 2020, 134, 106675.	2.0	36
93	Development of a dynamic model of monoclonal antibody production and glycosylation for product quality monitoring. Computers and Chemical Engineering, 2007, 31, 392-400.	2.0	35
94	Combined model approximation techniques and multiparametric programming for explicit nonlinear model predictive control. Computers and Chemical Engineering, 2012, 42, 277-287.	2.0	35
95	A novel approach to scheduling of zero-wait batch processes under processing time variations. Computers and Chemical Engineering, 2007, 31, 101-106.	2.0	34
96	From multi-parametric programming theory to MPC-on-a-chip multi-scale systems applications. Computers and Chemical Engineering, 2012, 47, 57-66.	2.0	34
97	A branch and bound method for the solution of multiparametric mixed integer linear programming problems. Journal of Global Optimization, 2014, 59, 527-543.	1.1	34
98	Modeling and solution for steelmaking scheduling with batching decisions and energy constraints. Computers and Chemical Engineering, 2018, 116, 368-384.	2.0	34
99	A Hybrid Parametric/Stochastic Programming Approach for Mixed-Integer Linear Problems under Uncertainty. Industrial & Engineering Chemistry Research, 1997, 36, 2262-2270.	1.8	33
100	Multi-objective blood glucose control for type 1 diabetes. Medical and Biological Engineering and Computing, 2009, 47, 343-352.	1.6	33
101	A systems engineering framework for the optimization of food supply chains under circular economy considerations. Science of the Total Environment, 2021, 794, 148726.	3.9	33
102	Modular representation synthesis framework for homogeneous azeotropic separation. AICHE Journal, 1999, 45, 1701-1720.	1.8	31
103	A Hybrid Parametric/Stochastic Programming Approach for Mixed-Integer Nonlinear Problems under Uncertainty. Industrial & Engineering Chemistry Research, 2002, 41, 67-77.	1.8	31
104	Operability and control in process intensification and modular design: Challenges and opportunities. AICHE Journal, 2021, 67, e17204.	1.8	31
105	Modeling and Analysis of Individualized Pharmacokinetics and Pharmacodynamics for Volatile Anesthesia. IEEE Transactions on Biomedical Engineering, 2014, 61, 25-34.	2.5	29
106	Decentralized Multiparametric Model Predictive Control for Domestic Combined Heat and Power Systems. Industrial & Engineering Chemistry Research, 2016, 55, 3313-3326.	1.8	29
107	Model Use in WEF Nexus Analysis: a Review of Issues. Current Sustainable/Renewable Energy Reports, 2017, 4, 144-152.	1.2	29
108	Towards unravelling the kinetics of an acute myeloid leukaemia model system under oxidative and starvation stress: a comparison between two- and three-dimensional cultures. Bioprocess and Biosystems Engineering, 2015, 38, 1589-1600.	1.7	28

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109	Multi-objective optimization with convex quadratic cost functions: A multi-parametric programming approach. Computers and Chemical Engineering, 2016, 85, 36-39.	2.0	28
110	Explicit hybrid model predictive control strategies for intravenous anaesthesia. Computers and Chemical Engineering, 2017, 106, 814-825.	2.0	28
111	Process resilience analysis based data-driven maintenance optimization: Application to cooling tower operations. Computers and Chemical Engineering, 2019, 121, 27-45.	2.0	28
112	Disaster-Resilient Design of Manufacturing Facilities Through Process Integration: Principal Strategies, Perspectives, and Research Challenges. Frontiers in Sustainability, 2020, 1, .	1.3	28
113	An Integrated Framework for Robust and Flexible Process Systems. Industrial & Engineering Chemistry Research, 1999, 38, 133-143.	1.8	27
114	A multi-parametric programming approach for constrained dynamic programming problems. Optimization Letters, 2008, 2, 267-280.	0.9	27
115	Design of optimal patient-specific chemotherapy protocols for the treatment of acute myeloid leukemia (AML). Computers and Chemical Engineering, 2013, 57, 187-195.	2.0	27
116	On the global solution of multi-parametric mixed integer linear programming problems. Journal of Global Optimization, 2013, 57, 51-73.	1.1	27
117	Advanced modelâ€based control strategies for the intensification of upstream and downstream processing in mAb production. Biotechnology Progress, 2017, 33, 966-988.	1.3	27
118	A Multi-Parametric optimization approach for bilevel mixed-integer linear and quadratic programming problems. Computers and Chemical Engineering, 2019, 125, 98-113.	2.0	27
119	Energy Portfolio Assessment Tool (EPAT): Sustainable energy planning using the WEF nexus approach â€“ Texas case. Science of the Total Environment, 2019, 648, 1649-1664.	3.9	27
120	HY-POP: Hyperparameter optimization of machine learning models through parametric programming. Computers and Chemical Engineering, 2020, 139, 106902.	2.0	27
121	Improving Embryonic Stem Cell Expansion through the Combination of Perfusion and Bioprocess Model Design. PLoS ONE, 2013, 8, e81728.	1.1	27
122	An improved decomposition algorithm for optimization under uncertainty. Computers and Chemical Engineering, 2000, 23, 1589-1604.	2.0	26
123	Recent Advances in Explicit Multiparametric Nonlinear Model Predictive Control. Industrial & Engineering Chemistry Research, 2011, 50, 609-619.	1.8	26
124	Modelling the Delta1/Notch1 Pathway: In Search of the Mediator(s) of Neural Stem Cell Differentiation. PLoS ONE, 2011, 6, e14668.	1.1	26
125	Linking genes to microbial growth kineticsâ€”An integrated biochemical systems engineering approach. Metabolic Engineering, 2011, 13, 401-413.	3.6	26
126	A Two-Stage Method for the Approximate Solution of General Multiparametric Mixed-Integer Linear Programming Problems. Industrial & Engineering Chemistry Research, 2012, 51, 8095-8107.	1.8	26

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127	Theoretical and algorithmic advances in multi-parametric programming and control. Computational Management Science, 2012, 9, 183-203.	0.8	26
128	<italic>In Silico</italic> Closed-Loop Control Validation Studies for Optimal Insulin Delivery in Type 1 Diabetes. IEEE Transactions on Biomedical Engineering, 2015, 62, 2369-2378.	2.5	26
129	A dynamic programming based approach for explicit model predictive control of hybrid systems. Computers and Chemical Engineering, 2015, 72, 126-144.	2.0	26
130	Simultaneous design & control of a reactive distillation system â€“ A parametric optimization & control approach. Chemical Engineering Science, 2021, 230, 116232.	1.9	26
131	A multi-scale energy systems engineering approach towards integrated multi-product network optimization. Applied Energy, 2021, 281, 116020.	5.1	26
132	An MINLP retrofit approach for improving the flexibility of heat exchanger networks. Annals of Operations Research, 1993, 42, 119-168.	2.6	25
133	Robust model-based tracking control using parametric programming. Computers and Chemical Engineering, 2004, 28, 195-207.	2.0	25
134	Generalized modular framework for the synthesis of heat integrated distillation column sequences. Chemical Engineering Science, 2005, 60, 4678-4701.	1.9	25
135	A Hierarchical Optimization Approach to Optimal Production Scheduling in an Industrial Continuous Olefin Polymerization Reactor. Macromolecular Reaction Engineering, 2009, 3, 36-46.	0.9	25
136	A mixed-integer programming approach to strategic planning of chemical centres: A case study in the UK. Computers and Chemical Engineering, 2011, 35, 1359-1373.	2.0	25
137	Moving horizon estimation: Error dynamics and bounding error sets for robust control. Automatica, 2013, 49, 943-948.	3.0	25
138	Assisting continuous biomanufacturing through advanced control in downstream purification. Computers and Chemical Engineering, 2019, 125, 232-248.	2.0	25
139	Parametric optimization and control for a smart Proton Exchange Membrane Water Electrolysis (PEMWE) system. Journal of Process Control, 2020, 91, 37-49.	1.7	25
140	Modelling and control of drug delivery systems. Computers and Chemical Engineering, 2005, 29, 2290-2296.	2.0	24
141	Multiparametric Programming in Process Systems Engineering: Recent Developments and Path Forward. Frontiers in Chemical Engineering, 2021, 2, .	1.3	24
142	Robustness criteria in process design optimization under uncertainty. Computers and Chemical Engineering, 1999, 23, S459-S462.	2.0	23
143	A multi-scale energy systems engineering approach to residential combined heat and power systems. Computers and Chemical Engineering, 2017, 102, 128-138.	2.0	23
144	DOMINO: Data-driven Optimization of bi-level Mixed-Integer NOnlinear Problems. Journal of Global Optimization, 2020, 78, 1-36.	1.1	23

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145	C.A. Floudas, Nonlinear and Mixed-Integer Optimization. Fundamentals and Applications. Journal of Global Optimization, 1998, 12, 108-110.	1.1	22
146	Linearly Constrained Global Optimization and Stochastic Differential Equations. Journal of Global Optimization, 2006, 36, 191-217.	1.1	22
147	Multiperiod Planning of Enterprise-wide Supply Chains Using an Operation Policy. Industrial & Engineering Chemistry Research, 2007, 46, 8058-8065.	1.8	22
148	Modeling, estimation and control of the anaesthesia process. Computers and Chemical Engineering, 2017, 107, 318-332.	2.0	22
149	A data-driven alarm and event management framework. Journal of Loss Prevention in the Process Industries, 2019, 62, 103959.	1.7	22
150	Synthesis of operable process intensification systems: advances and challenges. Current Opinion in Chemical Engineering, 2019, 25, 101-107.	3.8	22
151	Global superstructure optimisation of red blood cell production in a parallelised hollow fibre bioreactor. Computers and Chemical Engineering, 2014, 71, 532-553.	2.0	21
152	A systematic framework for the design, simulation and optimization of personalized healthcare: Making and healing blood. Computers and Chemical Engineering, 2015, 81, 80-93.	2.0	21
153	A hierarchical Food-Energy-Water Nexus (FEW-N) decision-making approach for Land Use Optimization. Computer Aided Chemical Engineering, 2018, 44, 1885-1890.	0.3	21
154	Grouping of complex substances using analytical chemistry data: A framework for quantitative evaluation and visualization. PLoS ONE, 2019, 14, e0223517.	1.1	21
155	An Energy-Water-Food Nexus-based Decision-making Framework to Guide National Priorities in Qatar. Sustainable Cities and Society, 2021, 75, 103342.	5.1	21
156	A framework to predict the price of energy for the end-users with applications to monetary and energy policies. Nature Communications, 2021, 12, 18.	5.8	21
157	A quadratic approximationâ€based algorithm for the solution of multiparametric mixedâ€integer nonlinear programming problems. AIChE Journal, 2013, 59, 483-495.	1.8	20
158	Free Energy Predictions of Ligand Binding to an Î±-Helix Using Steered Molecular Dynamics and Umbrella Sampling Simulations. Journal of Chemical Information and Modeling, 2014, 54, 2093-2104.	2.5	19
159	Data for WEF Nexus Analysis: a Review of Issues. Current Sustainable/Renewable Energy Reports, 2017, 4, 137-143.	1.2	19
160	On unbounded and binary parameters in multi-parametric programming: applications to mixed-integer bilevel optimization and duality theory. Journal of Global Optimization, 2017, 69, 587-606.	1.1	19
161	Reprint of: Big data approach to batch process monitoring: Simultaneous fault detection and diagnosis using nonlinear support vector machine-based feature selection. Computers and Chemical Engineering, 2018, 116, 503-520.	2.0	19
162	On the global and efficient solution of stochastic batch plant design problems. Computers and Chemical Engineering, 1997, 21, 1411-1431.	2.0	18

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163	Empowering the Performance of Advanced NMPC by Multiparametric Programmingâ€"An Application to a PEM Fuel Cell System. Industrial & Engineering Chemistry Research, 2013, 52, 4863-4873.	1.8	18
164	Approximate solution of mp-MILP problems using piecewise affine relaxation of bilinear terms. Computers and Chemical Engineering, 2014, 61, 136-155.	2.0	18
165	Design optimization of an internal combustion engine powered CHP system for residential scale application. Computational Management Science, 2014, 11, 237-266.	0.8	18
166	Cyclin and DNA Distributed Cell Cycle Model for GS-NS0 Cells. PLoS Computational Biology, 2015, 11, e1004062.	1.5	18
167	Intelligent, model-based control towards the intensification of downstream processes. Computers and Chemical Engineering, 2017, 105, 173-184.	2.0	18
168	B-POP: Bi-level parametric optimization toolbox. Computers and Chemical Engineering, 2019, 122, 193-202.	2.0	18
169	Adjustable robust optimization through multi-parametric programming. Optimization Letters, 2020, 14, 873-887.	0.9	18
170	Data-Driven Prescriptive Maintenance: Failure Prediction Using Ensemble Support Vector Classification for Optimal Process and Maintenance Scheduling. Industrial & Engineering Chemistry Research, 2020, 59, 19607-19622.	1.8	18
171	A dataâ€driven optimization algorithm for differential algebraic equations with numerical infeasibilities. AICHE Journal, 2020, 66, e16657.	1.8	18
172	Data-driven optimization of mixed-integer bi-level multi-follower integrated planning and scheduling problems under demand uncertainty. Computers and Chemical Engineering, 2022, 156, 107551.	2.0	18
173	Proactive scheduling of batch processes by a combined robust optimization and multiparametric programming approach. AICHE Journal, 2013, 59, 4184-4211.	1.8	17
174	A mathematical model of subpopulation kinetics for the deconvolution of leukaemia heterogeneity. Journal of the Royal Society Interface, 2015, 12, 20150276.	1.5	17
175	Design of multi-parametric NCO tracking controllers for linear dynamic systems. Computers and Chemical Engineering, 2016, 92, 64-77.	2.0	17
176	A Multiparametric Mixed-integer Bi-level Optimization Strategy for Supply Chain Planning Under Demand Uncertainty * *We are grateful to the Department of Chemical Engineering and the Faculty of Engineering of Imperial College London for an EPSRC-funded Doctoral Training Partnership (DTP) studentship. Financial support from Texas A & M University and Texas A & M Energy Institute is also gratefully acknowledged. IFAC-PapersOnLine, 2017, 50, 10178-10183.	0.5	17
177	Enhancing natural gas-to-liquids (GTL) processes through chemical looping for syngas production: Process synthesis and global optimization. Computers and Chemical Engineering, 2018, 113, 222-239.	2.0	17
178	A framework for the synthesis of reactive absorption columns. Chemical Engineering and Processing: Process Intensification, 2006, 45, 276-290.	1.8	16
179	Hybrid generalized modular/collocation framework for distillation column synthesis. AICHE Journal, 2006, 52, 1038-1056.	1.8	16
180	Simultaneous Fault Detection and Identification in Continuous Processes via nonlinear Support Vector Machine based Feature Selection. Computer Aided Chemical Engineering, 2018, 44, 2077-2082.	0.3	16

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181	Multi-scale energy systems engineering for optimal natural gas utilization. Catalysis Today, 2020, 356, 18-26.	2.2	16
182	Integrated Modeling of Transfer Learning and Intelligent Heuristic Optimization for a Steam Cracking Process. Industrial & Engineering Chemistry Research, 2020, 59, 16357-16367.	1.8	16
183	Simultaneous design of explicit/multi-parametric constrained moving horizon estimation and robust model predictive control. Computers and Chemical Engineering, 2013, 54, 24-33.	2.0	15
184	Simultaneous reduced order multi-parametric moving horizon estimation and model based control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 45-50.	0.4	15
185	Multi-parametric global optimization approach for tri-level mixed-integer linear optimization problems. Journal of Global Optimization, 2019, 74, 443-465.	1.1	15
186	The exact solution of multiparametric quadratically constrained quadratic programming problems. Journal of Global Optimization, 2021, 79, 59-85.	1.1	15
187	Generalized Modular Framework for the Representation and Synthesis of Complex Distillation Column Sequences. Industrial & Engineering Chemistry Research, 2005, 44, 4656-4675.	1.8	14
188	Computational approach for understanding and improving GS-NS0 antibody production under hyperosmotic conditions. Journal of Bioscience and Bioengineering, 2012, 113, 88-98.	1.1	14
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