

# Miguel J Bagajewicz

## List of Publications by Year in descending order

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158  
papers

4,533  
citations

109137

35  
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128067

60  
g-index

161  
all docs

161  
docs citations

161  
times ranked

1638  
citing authors

#	ARTICLE	IF	CITATIONS
1	A review of recent design procedures for water networks in refineries and process plants. Computers and Chemical Engineering, 2000, 24, 2093-2113.	2.0	336
2	On the optimality conditions of water utilization systems in process plants with single contaminants. Chemical Engineering Science, 2000, 55, 5035-5048.	1.9	171
3	Energy efficient water utilization systems in process plants. Computers and Chemical Engineering, 2002, 26, 59-79.	2.0	154
4	On the Use of Linear Models for the Design of Water Utilization Systems in Process Plants with a Single Contaminant. Chemical Engineering Research and Design, 2001, 79, 600-610.	2.7	141
5	Managing financial risk in planning under uncertainty. AIChE Journal, 2004, 50, 963-989.	1.8	122
6	Mass/heat-exchange network representation of distillation networks. AIChE Journal, 1992, 38, 1769-1800.	1.8	121
7	Design and retrofit of sensor networks in process plants. AIChE Journal, 1997, 43, 2300-2306.	1.8	113
8	Algorithmic procedure to design water utilization systems featuring a single contaminant in process plants. Chemical Engineering Science, 2001, 56, 1897-1911.	1.9	99
9	Risk Management in the Scheduling of Batch Plants under Uncertain Market Demand. Industrial & Engineering Chemistry Research, 2004, 43, 741-750.	1.8	95
10	Synthesis of non-isothermal heat integrated water networks in chemical processes. Computers and Chemical Engineering, 2008, 32, 3130-3142.	2.0	94
11	On the necessary conditions of optimality of water utilization systems in process plants with multiple contaminants. Chemical Engineering Science, 2003, 58, 5349-5362.	1.9	93
12	On zero water discharge solutions in the process industry. Journal of Environmental Management, 2004, 8, 151-171.	1.7	91
13	Targeting procedures for energy savings by heat integration across plants. AIChE Journal, 1999, 45, 1721-1742.	1.8	87
14	On the state space approach to mass/heat exchanger network design**First presented in the 1990 Annual AIChE Meeting in Chicago, paper #22d.. Chemical Engineering Science, 1998, 53, 2595-2621.	1.9	76
15	Prediction of protein solubility in <i>Escherichia coli</i> using logistic regression. Biotechnology and Bioengineering, 2010, 105, 374-383.	1.7	76
16	A robust method to obtain optimal and sub-optimal design and retrofit solutions of water utilization systems with multiple contaminants in process plants. Computers and Chemical Engineering, 2000, 24, 1461-1466.	2.0	70
17	Energy savings in the total site heat integration across many plants. Computers and Chemical Engineering, 2000, 24, 1237-1242.	2.0	69
18	Gross error modeling and detection in plant linear dynamic reconciliation. Computers and Chemical Engineering, 1998, 22, 1789-1809.	2.0	62

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19	Financial risk management in the planning of refinery operations. <i>International Journal of Production Economics</i> , 2006, 103, 64-86.	5.1	61
20	On the role of microeconomics, planning, and finances in product design. <i>AIChE Journal</i> , 2007, 53, 3155-3170.	1.8	59
21	Rigorous Procedure for the Design of Conventional Atmospheric Crude Fractionation Units. Part I:Â Targeting. <i>Industrial &amp; Engineering Chemistry Research</i> , 2001, 40, 617-626.	1.8	58
22	New rigorous one-step MILP formulation for heat exchanger network synthesis. <i>Computers and Chemical Engineering</i> , 2005, 29, 1945-1976.	2.0	58
23	Multiple plant heat integration in a total site. <i>AIChE Journal</i> , 2002, 48, 2255-2270.	1.8	52
24	On a New MILP Model for the Planning of Heat-Exchanger Network Cleaning. <i>Industrial &amp; Engineering Chemistry Research</i> , 2004, 43, 3924-3938.	1.8	52
25	New MILP formulation for instrumentation network design and upgrade. <i>AIChE Journal</i> , 2002, 48, 2271-2282.	1.8	48
26	A novel rolling horizon strategy for the strategic planning of supply chains. Application to the sugar cane industry of Argentina. <i>Computers and Chemical Engineering</i> , 2011, 35, 2540-2563.	2.0	48
27	Design and upgrade of nonredundant and redundant linear sensor networks. <i>AIChE Journal</i> , 1999, 45, 1927-1938.	1.8	47
28	A new approach for global optimization of a class of MINLP problems with applications to water management and pooling problems. <i>AIChE Journal</i> , 2012, 58, 2320-2335.	1.8	47
29	Integral approach to plant linear dynamic reconciliation. <i>AIChE Journal</i> , 1997, 43, 2546-2558.	1.8	46
30	New measures and procedures to manage financial risk with applications to the planning of gas commercialization in Asia. <i>Computers and Chemical Engineering</i> , 2004, 28, 2791-2821.	2.0	46
31	Cost-optimal design of reliable sensor networks. <i>Computers and Chemical Engineering</i> , 2000, 23, 1757-1762.	2.0	42
32	All-At-Once and Step-Wise Detailed Retrofit of Heat Exchanger Networks Using an MILP Model. <i>Industrial &amp; Engineering Chemistry Research</i> , 2010, 49, 6080-6103.	1.8	42
33	Novel bound contraction procedure for global optimization of bilinear MINLP problems with applications to water management problems. <i>Computers and Chemical Engineering</i> , 2011, 35, 446-455.	2.0	42
34	Instrumentation network design and upgrade for process monitoring and fault detection. <i>AIChE Journal</i> , 2004, 50, 1870-1880.	1.8	41
35	Product design in price-competitive markets: A case study of a skin moisturizing lotion. <i>AIChE Journal</i> , 2011, 57, 160-177.	1.8	41
36	Financial Risk Management in Offshore Oil Infrastructure Planning and Scheduling. <i>Industrial &amp; Engineering Chemistry Research</i> , 2004, 43, 3063-3072.	1.8	37

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37	Simultaneous estimation of biases and leaks in process plants. <i>Computers and Chemical Engineering</i> , 1999, 23, 841-857.	2.0	35
38	Pareto Optimal Solutions Visualization Techniques for Multiobjective Design and Upgrade of Instrumentation Networks. <i>Industrial &amp; Engineering Chemistry Research</i> , 2003, 42, 5195-5203.	1.8	35
39	Instrumentation design based on optimal Kalman filtering. <i>Journal of Process Control</i> , 2005, 15, 629-638.	1.7	34
40	Profit-based grassroots design and retrofit of water networks in process plants. <i>Computers and Chemical Engineering</i> , 2009, 33, 436-453.	2.0	33
41	Multipurpose Heat-Exchanger Networks for Heat Integration Across Plants. <i>Industrial &amp; Engineering Chemistry Research</i> , 2001, 40, 5585-5603.	1.8	32
42	Data Reconciliation in Gas Pipeline Systems. <i>Industrial &amp; Engineering Chemistry Research</i> , 2003, 42, 5596-5606.	1.8	32
43	Integrated Model for Refinery Planning, Oil Procuring, and Product Distribution. <i>Industrial &amp; Engineering Chemistry Research</i> , 2009, 48, 463-482.	1.8	31
44	Financial Risk Management in the Design of Water Utilization Systems in Process Plants. <i>Industrial &amp; Engineering Chemistry Research</i> , 2003, 42, 5249-5255.	1.8	29
45	Design of Crude Fractionation Units with Preflashing or Prefractionation:â€‰ Energy Targeting. <i>Industrial &amp; Engineering Chemistry Research</i> , 2002, 41, 3003-3011.	1.8	28
46	Use of inventory and option contracts to hedge financial risk in planning under uncertainty. <i>AIChE Journal</i> , 2004, 50, 990-998.	1.8	28
47	Management of Pricing Policies and Financial Risk as a Key Element for Short Term Scheduling Optimization. <i>Industrial &amp; Engineering Chemistry Research</i> , 2005, 44, 557-575.	1.8	28
48	Duality of sensor network design models for parameter estimation. <i>AIChE Journal</i> , 1999, 45, 661-664.	1.8	27
49	On the use of heat pumps in total site heat integration. <i>Computers and Chemical Engineering</i> , 2003, 27, 1707-1719.	2.0	27
50	Reallocation and upgrade of instrumentation in process plants. <i>Computers and Chemical Engineering</i> , 2000, 24, 1945-1959.	2.0	26
51	New Tool for the Evaluation of the Scheduling of Preventive Maintenance for Chemical Process Plants. <i>Industrial &amp; Engineering Chemistry Research</i> , 2008, 47, 1910-1924.	1.8	26
52	Design of Nonlinear Sensor Networks for Process Plants. <i>Industrial &amp; Engineering Chemistry Research</i> , 2008, 47, 5529-5542.	1.8	26
53	Global Optimization of Water Management Problems Using Linear Relaxation and Bound Contraction Methods. <i>Industrial &amp; Engineering Chemistry Research</i> , 2011, 50, 3738-3753.	1.8	26
54	Computation of Natural Gas Pipeline Hydraulics. <i>Industrial &amp; Engineering Chemistry Research</i> , 2014, 53, 10707-10720.	1.8	26

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55	Global Optimization of the Stage-wise Superstructure Model for Heat Exchanger Networks. <i>Industrial &amp; Engineering Chemistry Research</i> , 2015, 54, 1595-1604.	1.8	26
56	Rigorous Procedure for the Design of Conventional Atmospheric Crude Fractionation Units. Part II:Â Heat Exchanger Network. <i>Industrial &amp; Engineering Chemistry Research</i> , 2001, 40, 627-634.	1.8	25
57	<i>110th Anniversary</i>: On the Departure from Heuristics and Simplified Models toward Globally Optimal Design of Process Equipment. <i>Industrial &amp; Engineering Chemistry Research</i> , 2019, 58, 18684-18702.	1.8	25
58	Instrumentation Design and Upgrade for Principal Components Analysis Monitoring. <i>Industrial &amp; Engineering Chemistry Research</i> , 2004, 43, 2150-2159.	1.8	24
59	Financial Risk Management with Product Pricing in the Planning of Refinery Operations. <i>Industrial &amp; Engineering Chemistry Research</i> , 2008, 47, 6622-6639.	1.8	24
60	ON A SYSTEMATIC DESIGN PROCEDURE FOR SINGLE COMPONENT WATER UTILIZATION SYSTEMS IN PROCESS PLANTS. <i>Chemical Engineering Communications</i> , 2001, 186, 183-203.	1.5	23
61	A review of techniques for instrumentation design and upgrade in process plants. <i>Canadian Journal of Chemical Engineering</i> , 2002, 80, 3-16.	0.9	23
62	On the Use of Net Present Value in Investment Capacity Planning Models. <i>Industrial &amp; Engineering Chemistry Research</i> , 2008, 47, 9413-9416.	1.8	23
63	Alternative Mixed-Integer Linear Programming Formulations for Shell and Tube Heat Exchanger Optimal Design. <i>Industrial &amp; Engineering Chemistry Research</i> , 2017, 56, 5970-5979.	1.8	22
64	Design of Crude Distillation Plants with Vacuum Units. I. Targeting. <i>Industrial &amp; Engineering Chemistry Research</i> , 2002, 41, 6094-6099.	1.8	21
65	Optimization of Preventive Maintenance in Chemical Process Plants. <i>Industrial &amp; Engineering Chemistry Research</i> , 2010, 49, 4329-4339.	1.8	21
66	Shell and tube heat exchanger design using mixedâ€integer linear programming. <i>AIChE Journal</i> , 2017, 63, 1907-1922.	1.8	21
67	Design of water utilization systems in process plants with a single contaminant. <i>Waste Management</i> , 2000, 20, 659-664.	3.7	20
68	Economic value of precision in the monitoring of linear systems. <i>AIChE Journal</i> , 2005, 51, 1304-1309.	1.8	20
69	Global Optimization of Heat Exchanger Networks. Part 1: Stages/Substages Superstructure. <i>Industrial &amp; Engineering Chemistry Research</i> , 2017, 56, 5944-5957.	1.8	20
70	On a New MILP Model for the Planning of Heat-Exchanger Network Cleaning. Part III:Â Multiperiod Cleaning under Uncertainty with Financial Risk Management. <i>Industrial &amp; Engineering Chemistry Research</i> , 2005, 44, 8136-8146.	1.8	19
71	Product Design:Â A Case Study of Slow-Release Carpet Deodorizers/Disinfectants. <i>Industrial &amp; Engineering Chemistry Research</i> , 2008, 47, 1192-1200.	1.8	19
72	On the appropriate architecture of the water/wastewater allocation problem in process plants. <i>Computer Aided Chemical Engineering</i> , 2009, 26, 1-20.	0.3	19

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73	Global optimization of heat exchanger networks using a new generalized superstructure. <i>Chemical Engineering Science</i> , 2016, 147, 30-46.	1.9	19
74	Comparison of steady state and integral dynamic data reconciliation. <i>Computers and Chemical Engineering</i> , 2000, 24, 2367-2383.	2.0	18
75	Rigorous Methodology for the Design and Upgrade of Sensor Networks Using Cutsets. <i>Industrial &amp; Engineering Chemistry Research</i> , 2006, 45, 6679-6686.	1.8	18
76	Financial risk management in the design of products under uncertainty. <i>Computers and Chemical Engineering</i> , 2009, 33, 1056-1066.	2.0	18
77	Linear method for the design of shell and tube heat exchangers including fouling modeling. <i>Applied Thermal Engineering</i> , 2017, 125, 1345-1353.	3.0	18
78	Hydrogen sulfide removal by supported vanadium oxide. <i>Environmental Science &amp; Technology</i> , 1988, 22, 467-470.	4.6	17
79	On the definition of software accuracy in redundant measurement systems. <i>AIChE Journal</i> , 2005, 51, 1201-1206.	1.8	17
80	On the Degeneracy of the Water/Wastewater Allocation Problem in Process Plants. <i>Industrial &amp; Engineering Chemistry Research</i> , 2010, 49, 4340-4351.	1.8	17
81	Efficient Procedure for the Design and Upgrade of Sensor Networks Using Cutsets and Rigorous Decomposition. <i>Industrial &amp; Engineering Chemistry Research</i> , 2006, 45, 6687-6697.	1.8	16
82	Retrofit of Crude Units Preheating Trains: Mathematical Programming versus Pinch Technology. <i>Industrial &amp; Engineering Chemistry Research</i> , 2013, 52, 14913-14926.	1.8	16
83	On the Impact of Corrective Maintenance in the Design of Sensor Networks. <i>Industrial &amp; Engineering Chemistry Research</i> , 2000, 39, 977-981.	1.8	15
84	Optimization of preventive maintenance scheduling in processing plants. <i>Computer Aided Chemical Engineering</i> , 2008, 25, 319-324.	0.3	15
85	Planning Model for the Design and/or Retrofit of Industrial Water Systems. <i>Industrial &amp; Engineering Chemistry Research</i> , 2011, 50, 3788-3797.	1.8	15
86	On a Strategy of Serial Identification with Collective Compensation for Multiple Gross Error Estimation in Linear Steady-State Reconciliation. <i>Industrial &amp; Engineering Chemistry Research</i> , 1999, 38, 2119-2128.	1.8	14
87	Stochastic-based accuracy of data reconciliation estimators for linear systems. <i>Computers and Chemical Engineering</i> , 2008, 32, 1257-1269.	2.0	14
88	New superstructure-based model for the globally optimal synthesis of refinery hydrogen networks. <i>Journal of Cleaner Production</i> , 2021, 292, 126022.	4.6	14
89	Energy savings horizons for the retrofit of chemical processes. Application to crude fractionation units. <i>Computers and Chemical Engineering</i> , 1998, 23, 1-9.	2.0	13
90	On the Performance of Principal Component Analysis in Multiple Gross Error Identification. <i>Industrial &amp; Engineering Chemistry Research</i> , 1999, 38, 2005-2012.	1.8	13

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91	Financial Risk Management in the Planning of Energy Recovery in the Total Site. Industrial & Engineering Chemistry Research, 2003, 42, 5239-5248.	1.8	13
92	Design of medical diagnostics products: A case-study of a saliva diagnostics kit. Computers and Chemical Engineering, 2009, 33, 1067-1076.	2.0	13
93	Linear method for the design of shell and tube heat exchangers using the Bell's Delaware method. AIChE Journal, 2019, 65, e16602.	1.8	13
94	A new approach for the design of multicomponent water/wastewater networks. Computer Aided Chemical Engineering, 2008, 25, 43-48.	0.3	12
95	On the appropriate modeling of process plant water systems. AIChE Journal, 2010, 56, 668-689.	1.8	12
96	New efficient breadth-first/level traversal tree search method for the design and upgrade of sensor networks. AIChE Journal, 2011, 57, 1302-1309.	1.8	12
97	ON THE DESIGN FLEXIBILITY OF ATMOSPHERIC CRUDE FRACTIONATION UNITS. Chemical Engineering Communications, 1998, 166, 111-136.	1.5	11
98	On the use of heat belts for energy integration across many plants in the total site. Canadian Journal of Chemical Engineering, 2001, 79, 633-642.	0.9	11
99	Incorporating Fouling Modeling into Shell-and-Tube Heat Exchanger Design. Industrial & Engineering Chemistry Research, 2017, 56, 4377-4385.	1.8	11
100	Reverse Osmosis Network Rigorous Design Optimization. Industrial & Engineering Chemistry Research, 2019, 58, 3060-3071.	1.8	11
101	On the probability distribution and reconciliation of process plant data. Computers and Chemical Engineering, 1996, 20, 813-819.	2.0	10
102	Design of Crude Distillation Plants with Vacuum Units. II. Heat Exchanger Network Design. Industrial & Engineering Chemistry Research, 2002, 41, 6100-6106.	1.8	10
103	Financial Risk Management for Investment Planning of New Commodities Considering Plant Location and Budgeting. Industrial & Engineering Chemistry Research, 2006, 45, 7582-7591.	1.8	10
104	Value of accuracy in linear systems. AIChE Journal, 2006, 52, 638-650.	1.8	10
105	Globally optimal linear approach for the design of process equipment: The case of air coolers. AIChE Journal, 2018, 64, 886-903.	1.8	9
106	Globally optimal design of air coolers considering fan performance. Applied Thermal Engineering, 2019, 161, 114188.	3.0	9
107	Set Trimming Procedure for the Design Optimization of Shell and Tube Heat Exchangers. Industrial & Engineering Chemistry Research, 2020, 59, 14048-14054.	1.8	9
108	On the Energy Efficiency of Stripping-Type Crude Distillation. Industrial & Engineering Chemistry Research, 2002, 41, 5819-5825.	1.8	8

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109	Global optimization based on subspaces elimination: Applications to generalized pooling and water management problems. <i>AICHE Journal</i> , 2012, 58, 2336-2345.	1.8	8
110	Optimal Design of Double Pipe Heat Exchanger Structures. <i>Industrial &amp; Engineering Chemistry Research</i> , 2019, 58, 12080-12096.	1.8	8
111	Globally optimal design of intensified shell and tube heat exchangers using complete set trimming. <i>Computers and Chemical Engineering</i> , 2022, 158, 107644.	2.0	8
112	Integrating pricing policies in the strategic planning of supply chains: A case study of the sugar cane industry in Argentina. <i>Computer Aided Chemical Engineering</i> , 2010, , 103-108.	0.3	7
113	New sensor network design and retrofit method based on value of information. <i>AICHE Journal</i> , 2011, 57, 2136-2148.	1.8	7
114	Globally optimal linear approach to the design of heat exchangers using threshold fouling modeling. <i>AICHE Journal</i> , 2018, 64, 2089-2102.	1.8	7
115	Globally optimal synthesis of heat exchanger networks. Part <sc>II</sc>: <sc>Non- $\epsilon$ minimal</sc> networks. <i>AICHE Journal</i> , 2020, 66, e16264.	1.8	7
116	Global optimization of the design of horizontal shell and tube condensers. <i>Chemical Engineering Science</i> , 2021, 236, 116474.	1.9	7
117	Design of non-isothermal process water networks. <i>Computer Aided Chemical Engineering</i> , 2007, , 377-382.	0.3	6
118	On the impact of sensor maintenance policies on stochastic-based accuracy. <i>Computers and Chemical Engineering</i> , 2009, 33, 1491-1498.	2.0	6
119	Globally optimal synthesis of heat exchanger networks. Part I: Minimal networks. <i>AICHE Journal</i> , 2020, 66, e162667.	1.8	6
120	Computational Study of the Use of Set Trimming for the Globally Optimal Design of Gasketed-Plate Heat Exchangers. <i>Industrial &amp; Engineering Chemistry Research</i> , 2021, 60, 1746-1755.	1.8	6
121	Globally optimal synthesis of heat exchanger networks. Part III: Non- $\epsilon$ isothermal mixing in minimal and non- $\epsilon$ minimal networks. <i>AICHE Journal</i> , 2021, 67, e17393.	1.8	6
122	REMOVING SINGULARITIES AND ASSESSING UNCERTAINTIES IN TWO EFFICIENT GROSS ERROR COLLECTIVE COMPENSATION METHODS. <i>Chemical Engineering Communications</i> , 2000, 178, 1-20.	1.5	5
123	Performance evaluation of PCA tests for multiple gross error identification. <i>Computers and Chemical Engineering</i> , 1999, 23, S589-S592.	2.0	4
124	A New MILP Formulation for Instrumentation Network Design and Upgrade. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2001, 34, 261-266.	0.4	4
125	ON THE APPLICATION OF A CONSUMER PREFERENCE-BASED METHOD FOR DESIGNING PRODUCTS TO WINE FERMENTATION MONITORING DEVICES. <i>Chemical Engineering Communications</i> , 2010, 198, 255-272.	1.5	4
126	Parallel computing approaches to sensor network design using the value paradigm. <i>Computers and Chemical Engineering</i> , 2011, 35, 1119-1134.	2.0	4



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127	On the Minimum Number of Units in Heat Exchanger Networks. Industrial & Engineering Chemistry Research, 2014, 53, 16899-16904.	1.8	4
128	Design Optimization of Double-Pipe Heat Exchangers Using a Discretized Model. Industrial & Engineering Chemistry Research, 2021, 60, 17611-17625.	1.8	4
129	A MIXED INTEGER LINEAR PROGRAMMING-BASED TECHNIQUE FOR THE ESTIMATION OF MULTIPLE GROSS ERRORS IN PROCESS MEASUREMENTS. Chemical Engineering Communications, 2000, 177, 139-155.	1.5	3
130	Integration of Process Systems Engineering and Business Decision Making Tools: Financial Risk Management and Other Emerging Procedures. , 2005, , 323-377.		3
131	Global Optimization of Heat Exchanger Networks. Part 2: Stages/Substages Superstructure with Variable $C_p$ . Industrial & Engineering Chemistry Research, 2017, 56, 5958-5969.	1.8	3
132	PERFORMANCE EVALUATION OF PCA TESTS IN SERIAL ELIMINATION STRATEGIES FOR GROSS ERROR IDENTIFICATION. Chemical Engineering Communications, 2000, 183, 119-139.	1.5	2
133	Review of Recent Results in Instrumentation Design and Upgrade for Process Plants. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2001, 34, 227-232.	0.4	2
134	Managing financial risk in the planning of heat exchanger cleaning. Computer Aided Chemical Engineering, 2004, 18, 235-240.	0.3	2
135	COMPARATIVE ANALYSIS OF DIFFERENT ASSUMPTIONS FOR THE DESIGN OF SINGLE-CONTAMINANT WATER NETWORKS. Chemical Engineering Communications, 2010, 197, 859-880.	1.5	2
136	EFFICIENT APPROXIMATE METHODS FOR THE DESIGN AND UPGRADE OF SENSOR NETWORKS. Industrial & Engineering Chemistry Research, 0, , 120411151511005.	1.8	2
137	Globally Optimal Design Optimization of Cooling Water Systems. Industrial & Engineering Chemistry Research, 2019, 58, 9473-9485.	1.8	2
138	Does Pressure-Retarded Osmosis Help Reverse Osmosis in Desalination?. Industrial & Engineering Chemistry Research, 2021, 60, 4366-4374.	1.8	2
139	Global Optimization of Counter Current Gasketed Plate Heat Exchanger. Computer Aided Chemical Engineering, 2019, 46, 259-264.	0.3	2
140	Global Optimization of Gasoline Blending Model using Bound Contraction Technique. Computer Aided Chemical Engineering, 2016, 38, 1293-1298.	0.3	2
141	An MILP Model for Cost Optimal Instrumentation Network Design and Upgrade for Fault Detection. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2001, 34, 237-242.	0.4	1
142	Simultaneous treatment of environmental and financial risk in process design. International Journal of Environment and Pollution, 2007, 29, 30.	0.2	1
143	New method for sensor network design and upgrade for optimal process monitoring. Computer Aided Chemical Engineering, 2008, , 429-434.	0.3	1
144	Software Accuracy-Based Sensor Network Design and Upgrade in Process Plants. Industrial & Engineering Chemistry Research, 2011, 50, 4850-4857.	1.8	1

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145	Model Reformulation and Global Optimization of Oil Production Using Gas Lift. Industrial & Engineering Chemistry Research, 2016, 55, 10114-10120.	1.8	1
146	Challenges in Replacing Heuristics-Based Trial-and-Error Procedures by Mathematical Optimization for Basic Equipment Design. Computer Aided Chemical Engineering, 2018, 44, 439-444.	0.3	1
147	Globally Optimal Design of Double Pipe Heat Exchangers using Local Properties and Discretized Models. Computer Aided Chemical Engineering, 2019, , 187-192.	0.3	1
148	Nonlinear Model for the Globally Optimal Design of Vertical Vapor Liquid Separation Vessels. Industrial & Engineering Chemistry Research, 2020, 59, 21155-21166.	1.8	1
149	Globally optimal design of kettle vaporizers. Thermal Science and Engineering Progress, 2021, 25, 100962.	1.3	1
150	MILP APPROACH FOR THE DESIGN OF VERTICAL VAPOR-LIQUID SEPARATION VESSELS- COMPARISON WITH HEURISTICS. Latin American Applied Research, 2020, 50, 65-70.	0.2	1
151	A microeconomics-based approach to product design under uncertainty. Computer Aided Chemical Engineering, 2008, , 181-186.	0.3	0
152	Performance Analysis of Absorption Chillers Using Data Reconciliation. , 2010, , .		0
153	Data Reconciliation and Software Methods for Bias Detection. , 2011, , 364-381.		0
154	Instrumentation in Processes and Automation. , 2011, , 72-89.		0
155	Heat Exchanger Design Optimization Considering Threshold Fouling Modelling. Computer Aided Chemical Engineering, 2017, 40, 799-804.	0.3	0
156	Financial Risk Management in Refinery Operations Planning. , 2013, , 631-645.		0
157	Design of shell and tube heat exchangers considering the interaction of fouling and hydraulics. AIChE Journal, 0, , .	1.8	0
158	Design of double pipe heat exchanger structures using linear models and smart enumeration. Brazilian Journal of Chemical Engineering, 0, , 1.	0.7	0