

Miguel J Bagajewicz

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

156
papers

3,901
citations

33
h-index

55
g-index

161
ext. papers

4,251
ext. citations

3.6
avg, IF

5.78
L-index

#	Paper	IF	Citations
156	Globally optimal design of intensified shell and tube heat exchangers using complete set trimming. <i>Computers and Chemical Engineering</i> , 2022 , 158, 107644	4	1
155	Does Pressure-Retarded Osmosis Help Reverse Osmosis in Desalination?. <i>Industrial & Engineering Chemistry Research</i> , 2021 , 60, 4366-4374	3.9	1
154	New superstructure-based model for the globally optimal synthesis of refinery hydrogen networks. <i>Journal of Cleaner Production</i> , 2021 , 292, 126022	10.3	4
153	Global optimization of the design of horizontal shell and tube condensers. <i>Chemical Engineering Science</i> , 2021 , 236, 116474	4.4	4
152	Computational Study of the Use of Set Trimming for the Globally Optimal Design of Gasketed-Plate Heat Exchangers. <i>Industrial & Engineering Chemistry Research</i> , 2021 , 60, 1746-1755	3.9	1
151	Globally optimal synthesis of heat exchanger networks. Part III: Non-isothermal mixing in minimal and non-minimal networks. <i>AIChE Journal</i> , 2021 , 67, e17393	3.6	1
150	Globally optimal design of kettle vaporizers. <i>Thermal Science and Engineering Progress</i> , 2021 , 25, 100962	3.6	3
149	Globally optimal synthesis of heat exchanger networks. Part II: Non-minimal networks. <i>AIChE Journal</i> , 2020 , 66, e16264	3.6	3
148	Globally optimal synthesis of heat exchanger networks. Part I: Minimal networks. <i>AIChE Journal</i> , 2020 , 66, e162667	3.6	4
147	Set Trimming Procedure for the Design Optimization of Shell and Tube Heat Exchangers. <i>Industrial & Engineering Chemistry Research</i> , 2020 , 59, 14048-14054	3.9	4
146	Nonlinear Model for the Globally Optimal Design of Vertical Vapor Liquid Separation Vessels. <i>Industrial & Engineering Chemistry Research</i> , 2020 , 59, 21155-21166	3.9	0
145	110th Anniversary: On the Departure from Heuristics and Simplified Models toward Globally Optimal Design of Process Equipment. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 18684-18702	3.9	15
144	Optimal Design of Double Pipe Heat Exchanger Structures. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 12080-12096	3.9	6
143	Globally Optimal Design Optimization of Cooling Water Systems. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 9473-9485	3.9	1
142	Linear method for the design of shell and tube heat exchangers using the Bell-Delaware method. <i>AIChE Journal</i> , 2019 , 65, e16602	3.6	7
141	Globally optimal design of air coolers considering fan performance. <i>Applied Thermal Engineering</i> , 2019 , 161, 114188	5.8	5
140	Global Optimization of Counter Current Gasketed Plate Heat Exchanger. <i>Computer Aided Chemical Engineering</i> , 2019 , 46, 259-264	0.6	1

139	Globally Optimal Design of Double Pipe Heat Exchangers using Local Properties and Discretized Models. <i>Computer Aided Chemical Engineering</i> , 2019 , 187-192	0.6	1
138	Reverse Osmosis Network Rigorous Design Optimization. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 3060-3071	3.9	9
137	Globally optimal linear approach to the design of heat exchangers using threshold fouling modeling. <i>AIChE Journal</i> , 2018 , 64, 2089-2102	3.6	3
136	Globally optimal linear approach for the design of process equipment: The case of air coolers. <i>AIChE Journal</i> , 2018 , 64, 886-903	3.6	8
135	Challenges in Replacing Heuristics-Based Trial-and-Error Procedures by Mathematical Optimization for Basic Equipment Design. <i>Computer Aided Chemical Engineering</i> , 2018 , 44, 439-444	0.6	1
134	Alternative Mixed-Integer Linear Programming Formulations for Shell and Tube Heat Exchanger Optimal Design. <i>Industrial & Engineering Chemistry Research</i> , 2017 , 56, 5970-5979	3.9	16
133	Global Optimization of Heat Exchanger Networks. Part 1: Stages/Substages Superstructure. <i>Industrial & Engineering Chemistry Research</i> , 2017 , 56, 5944-5957	3.9	16
132	Global Optimization of Heat Exchanger Networks. Part 2: Stages/Substages Superstructure with Variable Cp. <i>Industrial & Engineering Chemistry Research</i> , 2017 , 56, 5958-5969	3.9	2
131	Incorporating Fouling Modeling into Shell-and-Tube Heat Exchanger Design. <i>Industrial & Engineering Chemistry Research</i> , 2017 , 56, 4377-4385	3.9	9
130	Heat Exchanger Design Optimization Considering Threshold Fouling Modelling. <i>Computer Aided Chemical Engineering</i> , 2017 , 40, 799-804	0.6	
129	Linear method for the design of shell and tube heat exchangers including fouling modeling. <i>Applied Thermal Engineering</i> , 2017 , 125, 1345-1353	5.8	15
128	Shell and tube heat exchanger design using mixed-integer linear programming. <i>AIChE Journal</i> , 2017 , 63, 1907-1922	3.6	15
127	Global optimization of heat exchanger networks using a new generalized superstructure. <i>Chemical Engineering Science</i> , 2016 , 147, 30-46	4.4	15
126	Global Optimization of Gasoline Blending Model using Bound Contraction Technique. <i>Computer Aided Chemical Engineering</i> , 2016 , 38, 1293-1298	0.6	2
125	Model Reformulation and Global Optimization of Oil Production Using Gas Lift. <i>Industrial & Engineering Chemistry Research</i> , 2016 , 55, 10114-10120	3.9	1
124	Global Optimization of the Stage-wise Superstructure Model for Heat Exchanger Networks. <i>Industrial & Engineering Chemistry Research</i> , 2015 , 54, 1595-1604	3.9	20
123	On the Minimum Number of Units in Heat Exchanger Networks. <i>Industrial & Engineering Chemistry Research</i> , 2014 , 53, 16899-16904	3.9	3
122	Computation of Natural Gas Pipeline Hydraulics. <i>Industrial & Engineering Chemistry Research</i> , 2014 , 53, 10707-10720	3.9	18

121	Retrofit of Crude Units Preheating Trains: Mathematical Programming versus Pinch Technology. <i>Industrial & Engineering Chemistry Research</i> , 2013 , 52, 14913-14926	3.9	16
120	Efficient Approximate Methods for the Design and Upgrade of Sensor Networks. <i>Industrial & Engineering Chemistry Research</i> , 2012 , 120411151511005	3.9	1
119	Global optimization based on subspaces elimination: Applications to generalized pooling and water management problems. <i>AIChE Journal</i> , 2012 , 58, 2336-2345	3.6	8
118	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	3.6	43
117	Data Reconciliation and Software Methods for Bias Detection 2011 , 364-381		
116	Instrumentation in Processes and Automation 2011 , 72-89		
115	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	4	40
114	Product design in price-competitive markets: A case study of a skin moisturizing lotion. <i>AIChE Journal</i> , 2011 , 57, 160-177	3.6	29
113	New efficient breadth-first/level traversal tree search method for the design and upgrade of sensor networks. <i>AIChE Journal</i> , 2011 , 57, 1302-1309	3.6	11
112	New sensor network design and retrofit method based on value of information. <i>AIChE Journal</i> , 2011 , 57, 2136-2148	3.6	7
111	Global Optimization of Water Management Problems Using Linear Relaxation and Bound Contraction Methods. <i>Industrial & Engineering Chemistry Research</i> , 2011 , 50, 3738-3753	3.9	21
110	Planning Model for the Design and/or Retrofit of Industrial Water Systems. <i>Industrial & Engineering Chemistry Research</i> , 2011 , 50, 3788-3797	3.9	14
109	Software Accuracy-Based Sensor Network Design and Upgrade in Process Plants. <i>Industrial & Engineering Chemistry Research</i> , 2011 , 50, 4850-4857	3.9	1
108	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	4	32
107	Parallel computing approaches to sensor network design using the value paradigm. <i>Computers and Chemical Engineering</i> , 2011 , 35, 1119-1134	4	4
106	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	0.6	6
105	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	2.2	3
104	Optimization of Preventive Maintenance in Chemical Process Plants. <i>Industrial & Engineering Chemistry Research</i> , 2010 , 49, 4329-4339	3.9	19

103	On the Degeneracy of the Water/Wastewater Allocation Problem in Process Plants. <i>Industrial & Engineering Chemistry Research</i> , 2010 , 49, 4340-4351	3.9	17
102	All-At-Once and Step-Wise Detailed Retrofit of Heat Exchanger Networks Using an MILP Model. <i>Industrial & Engineering Chemistry Research</i> , 2010 , 49, 6080-6103	3.9	38
101	COMPARATIVE ANALYSIS OF DIFFERENT ASSUMPTIONS FOR THE DESIGN OF SINGLE-CONTAMINANT WATER NETWORKS. <i>Chemical Engineering Communications</i> , 2010 , 197, 859-880	2.2	1
100	Prediction of protein solubility in Escherichia coli using logistic regression. <i>Biotechnology and Bioengineering</i> , 2010 , 105, 374-83	4.9	56
99	On the appropriate architecture of the water/wastewater allocation problem in process plants. <i>Computer Aided Chemical Engineering</i> , 2009 , 26, 1-20	0.6	16
98	On the appropriate modeling of process plant water systems. <i>AIChE Journal</i> , 2009 , 56, NA-NA	3.6	8
97	Financial risk management in the design of products under uncertainty. <i>Computers and Chemical Engineering</i> , 2009 , 33, 1056-1066	4	15
96	Design of medical diagnostics products: A case-study of a saliva diagnostics kit. <i>Computers and Chemical Engineering</i> , 2009 , 33, 1067-1076	4	12
95	Profit-based grassroots design and retrofit of water networks in process plants. <i>Computers and Chemical Engineering</i> , 2009 , 33, 436-453	4	30
94	On the impact of sensor maintenance policies on stochastic-based accuracy. <i>Computers and Chemical Engineering</i> , 2009 , 33, 1491-1498	4	5
93	Integrated Model for Refinery Planning, Oil Procuring, and Product Distribution. <i>Industrial & Engineering Chemistry Research</i> , 2009 , 48, 463-482	3.9	28
92	Product Design: A Case Study of Slow-Release Carpet Deodorizers/Disinfectants. <i>Industrial & Engineering Chemistry Research</i> , 2008 , 47, 1192-1200	3.9	18
91	Optimization of preventive maintenance scheduling in processing plants. <i>Computer Aided Chemical Engineering</i> , 2008 , 25, 319-324	0.6	10
90	New Tool for the Evaluation of the Scheduling of Preventive Maintenance for Chemical Process Plants. <i>Industrial & Engineering Chemistry Research</i> , 2008 , 47, 1910-1924	3.9	23
89	On the Use of Net Present Value in Investment Capacity Planning Models. <i>Industrial & Engineering Chemistry Research</i> , 2008 , 47, 9413-9416	3.9	20
88	Design of Nonlinear Sensor Networks for Process Plants. <i>Industrial & Engineering Chemistry Research</i> , 2008 , 47, 5529-5542	3.9	24
87	A new approach for the design of multicomponent water/wastewater networks. <i>Computer Aided Chemical Engineering</i> , 2008 , 25, 43-48	0.6	10
86	A microeconomics-based approach to product design under uncertainty. <i>Computer Aided Chemical Engineering</i> , 2008 , 181-186	0.6	

85	New method for sensor network design and upgrade for optimal process monitoring. <i>Computer Aided Chemical Engineering</i> , 2008 , 429-434	0.6	1
84	Stochastic-based accuracy of data reconciliation estimators for linear systems. <i>Computers and Chemical Engineering</i> , 2008 , 32, 1257-1269	4	10
83	Synthesis of non-isothermal heat integrated water networks in chemical processes. <i>Computers and Chemical Engineering</i> , 2008 , 32, 3130-3142	4	90
82	Financial Risk Management with Product Pricing in the Planning of Refinery Operations. <i>Industrial & Engineering Chemistry Research</i> , 2008 , 47, 6622-6639	3.9	22
81	On the role of microeconomics, planning, and finances in product design. <i>AIChE Journal</i> , 2007 , 53, 3155-3170	3.6	54
80	Design of non-isothermal process water networks. <i>Computer Aided Chemical Engineering</i> , 2007 , 377-382	0.6	5
79	Simultaneous treatment of environmental and financial risk in process design. <i>International Journal of Environment and Pollution</i> , 2007 , 29, 30	0.7	1
78	Value of accuracy in linear systems. <i>AIChE Journal</i> , 2006 , 52, 638-650	3.6	9
77	Efficient Procedure for the Design and Upgrade of Sensor Networks Using Cutsets and Rigorous Decomposition. <i>Industrial & Engineering Chemistry Research</i> , 2006 , 45, 6687-6697	3.9	14
76	Rigorous Methodology for the Design and Upgrade of Sensor Networks Using Cutsets. <i>Industrial & Engineering Chemistry Research</i> , 2006 , 45, 6679-6686	3.9	17
75	Financial Risk Management for Investment Planning of New Commodities Considering Plant Location and Budgeting. <i>Industrial & Engineering Chemistry Research</i> , 2006 , 45, 7582-7591	3.9	10
74	Financial risk management in the planning of refinery operations. <i>International Journal of Production Economics</i> , 2006 , 103, 64-86	9.3	57
73	On a New MILP Model for the Planning of Heat-Exchanger Network Cleaning. Part III: Multiperiod Cleaning under Uncertainty with Financial Risk Management. <i>Industrial & Engineering Chemistry Research</i> , 2005 , 44, 8136-8146	3.9	16
72	Management of Pricing Policies and Financial Risk as a Key Element for Short Term Scheduling Optimization. <i>Industrial & Engineering Chemistry Research</i> , 2005 , 44, 557-575	3.9	25
71	Integration of Process Systems Engineering and Business Decision Making Tools: Financial Risk Management and Other Emerging Procedures 2005 , 323-377		2
70	Instrumentation design based on optimal Kalman filtering. <i>Journal of Process Control</i> , 2005 , 15, 629-638	3.9	25
69	New rigorous one-step MILP formulation for heat exchanger network synthesis. <i>Computers and Chemical Engineering</i> , 2005 , 29, 1945-1976	4	44
68	Economic value of precision in the monitoring of linear systems. <i>AIChE Journal</i> , 2005 , 51, 1304-1309	3.6	17

67	On the definition of software accuracy in redundant measurement systems. <i>AICHE Journal</i> , 2005 , 51, 1201-1206	3.6	14
66	Managing financial risk in the planning of heat exchanger cleaning. <i>Computer Aided Chemical Engineering</i> , 2004 , 18, 235-240	0.6	2
65	Managing financial risk in planning under uncertainty. <i>AICHE Journal</i> , 2004 , 50, 963-989	3.6	112
64	Use of inventory and option contracts to hedge financial risk in planning under uncertainty. <i>AICHE Journal</i> , 2004 , 50, 990-998	3.6	25
63	Instrumentation network design and upgrade for process monitoring and fault detection. <i>AICHE Journal</i> , 2004 , 50, 1870-1880	3.6	36
62	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	4	41
61	On a New MILP Model for the Planning of Heat-Exchanger Network Cleaning \square <i>Industrial & Engineering Chemistry Research</i> , 2004 , 43, 3924-3938	3.9	39
60	Risk Management in the Scheduling of Batch Plants under Uncertain Market Demand. <i>Industrial & Engineering Chemistry Research</i> , 2004 , 43, 741-750	3.9	81
59	Financial Risk Management in Offshore Oil Infrastructure Planning and Scheduling. <i>Industrial & Engineering Chemistry Research</i> , 2004 , 43, 3063-3072	3.9	30
58	Instrumentation Design and Upgrade for Principal Components Analysis Monitoring. <i>Industrial & Engineering Chemistry Research</i> , 2004 , 43, 2150-2159	3.9	21
57	On zero water discharge solutions in the process industry. <i>Journal of Environmental Management</i> , 2004 , 8, 151-171		81
56	On the necessary conditions of optimality of water utilization systems in process plants with multiple contaminants. <i>Chemical Engineering Science</i> , 2003 , 58, 5349-5362	4.4	87
55	On the use of heat pumps in total site heat integration. <i>Computers and Chemical Engineering</i> , 2003 , 27, 1707-1719	4	23
54	Financial Risk Management in the Planning of Energy Recovery in the Total Site \square <i>Industrial & Engineering Chemistry Research</i> , 2003 , 42, 5239-5248	3.9	12
53	Pareto Optimal Solutions Visualization Techniques for Multiobjective Design and Upgrade of Instrumentation Networks. <i>Industrial & Engineering Chemistry Research</i> , 2003 , 42, 5195-5203	3.9	32
52	Financial Risk Management in the Design of Water Utilization Systems in Process Plants. <i>Industrial & Engineering Chemistry Research</i> , 2003 , 42, 5249-5255	3.9	24
51	Data Reconciliation in Gas Pipeline Systems. <i>Industrial & Engineering Chemistry Research</i> , 2003 , 42, 5596-5606	3.9	26
50	Multiple plant heat integration in a total site. <i>AICHE Journal</i> , 2002 , 48, 2255-2270	3.6	49

49	New MILP formulation for instrumentation network design and upgrade. <i>AICHE Journal</i> , 2002 , 48, 2271-2282	3.2	41
48	A review of techniques for instrumentation design and upgrade in process plants. <i>Canadian Journal of Chemical Engineering</i> , 2002 , 80, 3-16	2.3	18
47	Energy efficient water utilization systems in process plants. <i>Computers and Chemical Engineering</i> , 2002 , 26, 59-79	4	139
46	Design of Crude Fractionation Units with Preflashing or Prefractionation: Energy Targeting. <i>Industrial & Engineering Chemistry Research</i> , 2002 , 41, 3003-3011	3.9	21
45	Design of Crude Distillation Plants with Vacuum Units. II. Heat Exchanger Network Design. <i>Industrial & Engineering Chemistry Research</i> , 2002 , 41, 6100-6106	3.9	8
44	On the Energy Efficiency of Stripping-Type Crude Distillation. <i>Industrial & Engineering Chemistry Research</i> , 2002 , 41, 5819-5825	3.9	8
43	Design of Crude Distillation Plants with Vacuum Units. I. Targeting. <i>Industrial & Engineering Chemistry Research</i> , 2002 , 41, 6094-6099	3.9	20
42	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		1
41	An MILP Model for Cost Optimal Instrumentation Network Design and Upgrade for Fault Detection. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2001 , 34, 237-242		1
40	Review of Recent Results in Instrumentation Design and Upgrade for Process Plants. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2001 , 34, 227-232		1
39	On the use of heat belts for energy integration across many plants in the total site. <i>Canadian Journal of Chemical Engineering</i> , 2001 , 79, 633-642	2.3	11
38	Algorithmic procedure to design water utilization systems featuring a single contaminant in process plants. <i>Chemical Engineering Science</i> , 2001 , 56, 1897-1911	4.4	92
37	On the Use of Linear Models for the Design of Water Utilization Systems in Process Plants with a Single Contaminant. <i>Chemical Engineering Research and Design</i> , 2001 , 79, 600-610	5.5	126
36	ON A SYSTEMATIC DESIGN PROCEDURE FOR SINGLE COMPONENT WATER UTILIZATION SYSTEMS IN PROCESS PLANTS. <i>Chemical Engineering Communications</i> , 2001 , 186, 183-203	2.2	17
35	Rigorous Procedure for the Design of Conventional Atmospheric Crude Fractionation Units. Part I: Targeting. <i>Industrial & Engineering Chemistry Research</i> , 2001 , 40, 617-626	3.9	52
34	Multipurpose Heat-Exchanger Networks for Heat Integration Across Plants. <i>Industrial & Engineering Chemistry Research</i> , 2001 , 40, 5585-5603	3.9	31
33	Rigorous Procedure for the Design of Conventional Atmospheric Crude Fractionation Units. Part II: Heat Exchanger Network. <i>Industrial & Engineering Chemistry Research</i> , 2001 , 40, 627-634	3.9	20
32	Energy savings in the total site heat integration across many plants. <i>Computers and Chemical Engineering</i> , 2000 , 24, 1237-1242	4	65

31	A robust method to obtain optimal and sub-optimal design and retrofit solutions of water utilization systems with multiple contaminants in process plants. <i>Computers and Chemical Engineering</i> , 2000 , 24, 1461-1466	4	63
30	Comparison of steady state and integral dynamic data reconciliation. <i>Computers and Chemical Engineering</i> , 2000 , 24, 2367-2383	4	15
29	A review of recent design procedures for water networks in refineries and process plants. <i>Computers and Chemical Engineering</i> , 2000 , 24, 2093-2113	4	308
28	Reallocation and upgrade of instrumentation in process plants. <i>Computers and Chemical Engineering</i> , 2000 , 24, 1945-1959	4	22
27	Cost-optimal design of reliable sensor networks. <i>Computers and Chemical Engineering</i> , 2000 , 23, 1757-1762	4	35
26	Design of water utilization systems in process plants with a single contaminant. <i>Waste Management</i> , 2000 , 20, 659-664	8.6	18
25	On the optimality conditions of water utilization systems in process plants with single contaminants. <i>Chemical Engineering Science</i> , 2000 , 55, 5035-5048	4.4	155
24	PERFORMANCE EVALUATION OF PCA TESTS IN SERIAL ELIMINATION STRATEGIES FOR GROSS ERROR IDENTIFICATION. <i>Chemical Engineering Communications</i> , 2000 , 183, 119-139	2.2	1
23	A MIXED INTEGER LINEAR PROGRAMMING-BASED TECHNIQUE FOR THE ESTIMATION OF MULTIPLE GROSS ERRORS IN PROCESS MEASUREMENTS. <i>Chemical Engineering Communications</i> , 2000 , 177, 139-155	2.2	3
22	REMOVING SINGULARITIES AND ASSESSING UNCERTAINTIES IN TWO EFFICIENT GROSS ERROR COLLECTIVE COMPENSATION METHODS. <i>Chemical Engineering Communications</i> , 2000 , 178, 1-20	2.2	3
21	On the Impact of Corrective Maintenance in the Design of Sensor Networks. <i>Industrial & Engineering Chemistry Research</i> , 2000 , 39, 977-981	3.9	13
20	Simultaneous estimation of biases and leaks in process plants. <i>Computers and Chemical Engineering</i> , 1999 , 23, 841-857	4	27
19	Performance evaluation of PCA tests for multiple gross error identification. <i>Computers and Chemical Engineering</i> , 1999 , 23, S589-S592	4	3
18	Duality of sensor network design models for parameter estimation. <i>AIChE Journal</i> , 1999 , 45, 661-664	3.6	25
17	Targeting procedures for energy savings by heat integration across plants. <i>AIChE Journal</i> , 1999 , 45, 1721-1742	3.6	29
16	Design and upgrade of nonredundant and redundant linear sensor networks. <i>AIChE Journal</i> , 1999 , 45, 1927-1938	3.6	35
15	On a Strategy of Serial Identification with Collective Compensation for Multiple Gross Error Estimation in Linear Steady-State Reconciliation. <i>Industrial & Engineering Chemistry Research</i> , 1999 , 38, 2119-2128	3.9	12
14	On the Performance of Principal Component Analysis in Multiple Gross Error Identification. <i>Industrial & Engineering Chemistry Research</i> , 1999 , 38, 2005-2012	3.9	11

13	On the state space approach to mass/heat exchanger network design**First presented in the 1990 Annual AIChE Meeting in Chicago, paper #22d.. <i>Chemical Engineering Science</i> , 1998 , 53, 2595-2621	4.4	67
12	Gross error modeling and detection in plant linear dynamic reconciliation. <i>Computers and Chemical Engineering</i> , 1998 , 22, 1789-1809	4	54
11	Energy savings horizons for the retrofit of chemical processes. Application to crude fractionation units. <i>Computers and Chemical Engineering</i> , 1998 , 23, 1-9	4	10
10	ON THE DESIGN FLEXIBILITY OF ATMOSPHERIC CRUDE FRACTIONATION UNITS* Presented at the AIChE Spring Meeting, Houston, March 1997. Paper 105a. Area 10-(a). <i>Chemical Engineering Communications</i> , 1998 , 166, 111-136	2.2	11
9	Design and retrofit of sensor networks in process plants. <i>AIChE Journal</i> , 1997 , 43, 2300-2306	3.6	102
8	Integral approach to plant linear dynamic reconciliation. <i>AIChE Journal</i> , 1997 , 43, 2546-2558	3.6	42
7	On the probability distribution and reconciliation of process plant data. <i>Computers and Chemical Engineering</i> , 1996 , 20, 813-819	4	8
6	Mass/heat-exchange network representation of distillation networks. <i>AIChE Journal</i> , 1992 , 38, 1769-1806	3.6	105
5	Hydrogen sulfide removal by supported vanadium oxide. <i>Environmental Science & Technology</i> , 1988 , 22, 467-470	10.3	15
4	Process Plant Instrumentation		31
3	Financial Risk Management in Refinery Operations Planning631-645		
2	Design Optimization of Double-Pipe Heat Exchangers Using a Discretized Model. <i>Industrial & Engineering Chemistry Research</i> ,	3.9	1
1	Design of double pipe heat exchanger structures using linear models and smart enumeration. <i>Brazilian Journal of Chemical Engineering</i> ,1	1.7	