Christodoulos A Floudas

List of Publications by Year in Descending Order

158 papers	8,869 citations	55 h-index	90 g-index
168 ext. papers	9,831 ext. citations	3.4 avg, IF	6.64 L-index

#	Paper	IF	Citations
158	A framework to predict the price of energy for the end-users with applications to monetary and energy policies. *Nature Communications*, **2021**, 12, 18	17.4	11
157	An integrated data-driven modeling & global optimization approach for multi-period nonlinear production planning problems. *Computers and Chemical Engineering*, **2020**, 141, 107007	4	2
156	Optimal Design of Energy Systems Using Constrained Grey-Box Multi-Objective Optimization. *Computers and Chemical Engineering*, **2018**, 116, 488-502	4	50
155	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	4	53
154	Global optimization of grey-box computational systems using surrogate functions and application to highly constrained oil-field operations. *Computers and Chemical Engineering*, **2018**, 114, 99-110	4	48
153	Multi-level energy integration between units, plants and sites for natural gas industrial parks. *Renewable and Sustainable Energy Reviews*, **2018**, 88, 1-15	16.2	8
152	Generalized robust counterparts for constraints with bounded and unbounded uncertain parameters. *Computers and Chemical Engineering*, **2018**, 116, 451-467	4	5
151	Natural Gas to Liquid Transportation Fuels under Uncertainty Using Robust Optimization. *Industrial & Engineering Chemistry Research*, **2018**, 57, 11112-11129	3.9	6
150	Optimization of black-box problems using Smolyak grids and polynomial approximations. *Journal of Global Optimization*, **2018**, 71, 845-869	1.5	15
149	Municipal solid waste to liquid transportation fuels Part III: An optimization-based nationwide supply chain management framework. *Computers and Chemical Engineering*, **2018**, 116, 468-487	4	10
148	Global optimization of general constrained grey-box models: new method and its application to constrained PDEs for pressure swing adsorption. *Journal of Global Optimization*, **2017**, 67, 3-42	1.5	65
147	ARGONAUT: AlgoRithms for Global Optimization of coNstrAined grey-box compUTational problems. *Optimization Letters*, **2017**, 11, 895-913	1.1	74
146	Dimensionality reduction for production optimization using polynomial approximations. *Computational Geosciences*, **2017**, 21, 247-266	2.7	25
145	Princeton_TIGRESS 2.0: High refinement consistency and net gains through support vector machines and molecular dynamics in double-blind predictions during the CASP11 experiment. *Proteins: Structure, Function and Bioinformatics*, **2017**, 85, 1078-1098	4.2	12
144	New a priori and a posteriori probabilistic bounds for robust counterpart optimization: III. Exact and near-exact a posteriori expressions for known probability distributions. *Computers and Chemical Engineering*, **2017**, 103, 116-143	4	9
143	Discovery of novel zeolites and multi-zeolite processes for p-xylene separation using simulated moving bed (SMB) chromatography. *Chemical Engineering Science*, **2017**, 159, 3-17	4.4	21
142	Municipal solid waste to liquid transportation fuels, olefins, and aromatics: Process synthesis and deterministic global optimization. *Computers and Chemical Engineering*, **2017**, 102, 169-187	4	17

141	New a priori and a posteriori probabilistic bounds for robust counterpart optimization: II. A priori bounds for known symmetric and asymmetric probability distributions. *Computers and Chemical Engineering*, **2017**, 101, 279-311	4	14
140	Operational strategy and planning for raw natural gas refining complexes: Process modeling and global optimization. *AICHE Journal*, **2017**, 63, 652-668	3.6	6
139	Designing networks: A mixed-integer linear optimization approach. *Networks*, **2016**, 68, 283-301	1.6	4
138	COMSAT: Residue contact prediction of transmembrane proteins based on support vector machines and mixed integer linear programming. *Proteins: Structure, Function and Bioinformatics*, **2016**, 84, 332-48	4.2	18
137	Data-driven mathematical modeling and global optimization framework for entire petrochemical planning operations. *AICHE Journal*, **2016**, 62, 3020-3040	3.6	35
136	Biomass-Based Production of Benzene, Toluene, and Xylenes via Methanol: Process Synthesis and Deterministic Global Optimization. *Energy & Fuels*, **2016**, 30, 4970-4998	4.1	63
135	Multi-scale systems engineering for energy and the environment: Challenges and opportunities. *AICHE Journal*, **2016**, 62, 602-623	3.6	65
134	Performance of convex underestimators in a branch-and-bound framework. *Optimization Letters*, **2016**, 10, 283-308	1.1	4
133	An Adaptive Memory Programming Framework for the Robust Capacitated Vehicle Routing Problem. *Transportation Science*, **2016**, 50, 1239-1260	4.4	39
132	Global optimization advances in Mixed-Integer Nonlinear Programming, MINLP, and Constrained Derivative-Free Optimization, CDFO. *European Journal of Operational Research*, **2016**, 252, 701-727	5.6	126
131	Biomass to Liquid Transportation Fuels via Biological and Thermochemical Conversion: Process Synthesis and Global Optimization Strategies. *Industrial & Engineering Chemistry Research*, **2016**, 55, 3203-3225	3.9	22
130	Balancing mixed-model assembly lines with sequence-dependent tasks via hybrid genetic algorithm. *Journal of Global Optimization*, **2016**, 65, 83-107	1.5	11
129	New a priori and a posteriori probabilistic bounds for robust counterpart optimization: I. Unknown probability distributions. *Computers and Chemical Engineering*, **2016**, 84, 568-598	4	32
128	Highly Accurate Structure-Based Prediction of HIV-1 Coreceptor Usage Suggests Intermolecular Interactions Driving Tropism. *PLoS ONE*, **2016**, 11, e0148974	3.7	21
127	Production of Benzene, Toluene, and the Xylenes from Natural Gas via Methanol. *Computer Aided Chemical Engineering*, **2016**, 38, 2349-2354	0.6	3
126	Production of benzene, toluene, and xylenes from natural gas via methanol: Process synthesis and global optimization. *AICHE Journal*, **2016**, 62, 1531-1556	3.6	90
125	Integrated gasoline blending and order delivery operations: Part I. short-term scheduling and global optimization for single and multi-period operations. *AICHE Journal*, **2016**, 62, 2043-2070	3.6	11
124	Discovery of functionally selective C5aR2 ligands: novel modulators of C5a signalling. *Immunology and Cell Biology*, **2016**, 94, 787-95	5	47

123	Data-driven modeling and global optimization of industrial-scale petrochemical planning operations **2016**,		3
122	A multi-scale framework for CO2 capture, utilization, and sequestration: CCUS and CCU. *Computers and Chemical Engineering*, **2015**, 81, 2-21	4	139
121	Dynamically generated cutting planes for mixed-integer quadratically constrained quadratic programs and their incorporation into GloMIQO 2. *Optimization Methods and Software*, **2015**, 30, 215-249	1.3	32
120	Coproduction of liquid transportation fuels and C6_C8 aromatics from biomass and natural gas. *AICHE Journal*, **2015**, 61, 831-856	3.6	29
119	Elucidating a key anti-HIV-1 and cancer-associated axis: the structure of CCL5 (Rantes) in complex with CCR5. *Scientific Reports*, **2014**, 4, 5447	4.9	32
118	A Framework for Globally Optimizing Mixed-Integer Signomial Programs. *Journal of Optimization Theory and Applications*, **2014**, 161, 905-932	1.6	19
117	Discovery of novel zeolites for natural gas purification through combined material screening and process optimization. *AICHE Journal*, **2014**, 60, 1767-1785	3.6	78
116	Municipal solid waste to liquid transportation fuels ⅡPart I: Mathematical modeling of a municipal solid waste gasifier. *Computers and Chemical Engineering*, **2014**, 71, 636-647	4	50
115	Protein folding and de novo protein design for biotechnological applications. *Trends in Biotechnology*, **2014**, 32, 99-109	15.1	104
114	A Comparative Theoretical and Computational Study on Robust Counterpart Optimization: III. Improving the Quality of Robust Solutions. *Industrial & Engineering Chemistry Research*, **2014**, 53, 13112-13124	3.9	37
113	ANTIGONE: Algorithms for coNTinuous / Integer Global Optimization of Nonlinear Equations. *Journal of Global Optimization*, **2014**, 59, 503-526	1.5	343
112	Optimal scenario reduction framework based on distance of uncertainty distribution and output performance: I. Single reduction via mixed integer linear optimization. *Computers and Chemical Engineering*, **2014**, 70, 50-66	4	44
111	Short-Term Scheduling of Batch and Continuous Processes **2014**, 173-217		
110	De novo peptide design and experimental validation of histone methyltransferase inhibitors. *PLoS ONE*, **2014**, 9, e90095	3.7	20
109	De novo design and experimental characterization of ultrashort self-associating peptides. *PLoS Computational Biology*, **2014**, 10, e1003718	5	29
108	Derivation of ligands for the complement C3a receptor from the C-terminus of C5a. *European Journal of Pharmacology*, **2014**, 745, 176-81	5.3	12
107	Molecular recognition of CCR5 by an HIV-1 gp120 V3 loop. *PLoS ONE*, **2014**, 9, e95767	3.7	44
106	Nationwide, Regional, and Statewide Energy Supply Chain Optimization for Natural Gas to Liquid Transportation Fuel (GTL) Systems. *Industrial & Engineering Chemistry Research*, **2014**, 53, 5366-5397	2.9	29

105	Robust optimization and stochastic programming approaches for medium-term production scheduling of a large-scale steelmaking continuous casting process under demand uncertainty. *Computers and Chemical Engineering*, **2014**, 66, 165-185	4	38
104	GloMIQO: Global mixed-integer quadratic optimizer. *Journal of Global Optimization*, **2013**, 57, 3-50	1.5	147
103	Novel Natural Gas to Liquids Processes: Process Synthesis and Global Optimization Strategies. *AICHE Journal*, **2013**, 59, 505-531	3.6	60
102	The Robust Capacitated Vehicle Routing Problem Under Demand Uncertainty. *Operations Research*, **2013**, 61, 677-693	2.3	113
101	Estimation of diffusion anisotropy in microporous crystalline materials and optimization of crystal orientation in membranes. *Journal of Chemical Physics*, **2013**, 139, 124703	3.9	4
100	Medium-Term Production Scheduling of a Large-Scale Steelmaking Continuous Casting Process under Demand Uncertainty. *Computer Aided Chemical Engineering*, **2013**, 32, 571-576	0.6	1
99	Continuous-time modeling and global optimization approach for scheduling of crude oil operations. *AICHE Journal*, **2012**, 58, 205-226	3.6	59
98	Global optimization of mixed-integer quadratically-constrained quadratic programs (MIQCQP) through piecewise-linear and edge-concave relaxations. *Mathematical Programming*, **2012**, 136, 155-182	2.1	71
97	Operational Planning of Large-Scale Continuous Processes: Deterministic Planning Model and Robust Optimization for Demand Amount and Due Date Uncertainty. *Industrial & Engineering Chemistry Research*, **2012**, 51, 4347-4362	3.9	5
96	Production Scheduling of a Large-Scale Steelmaking Continuous Casting Process via Unit-Specific Event-Based Continuous-Time Models: Short-Term and Medium-Term Scheduling. *Industrial & Engineering Chemistry Research*, **2012**, 51, 7300-7319	3.9	41
95	Modeling, Simulation, and Optimization of Postcombustion CO_2 Capture for Variable Feed Concentration and Flow Rate. 2. Pressure Swing Adsorption and Vacuum Swing Adsorption Processes. *Industrial & Engineering Chemistry Research*, **2012**, 51, 15665-15682	3.9	131
94	A Comparative Theoretical and Computational Study on Robust Counterpart Optimization: II. Probabilistic Guarantees on Constraint Satisfaction. *Industrial & Engineering Chemistry Research*, **2012**, 51, 6769-6788	3.9	66
93	An Efficient Unit-Specific Event-Based Continuous-Time MILP Formulation for Short-Term Scheduling of Multistage and Multiproduct Batch Plants. *Computer Aided Chemical Engineering*, **2012**, 30, 772-776	0.6	1
92	Scheduling of crude oil operations under demand uncertainty: A robust optimization framework coupled with global optimization. *AICHE Journal*, **2012**, 58, 2373-2396	3.6	33
91	Nationwide energy supply chain analysis for hybrid feedstock processes with significant CO_2 emissions reduction. *AICHE Journal*, **2012**, 58, 2142-2154	3.6	48
90	Optimization framework for process scheduling of operation-dependent automobile assembly lines. *Optimization Letters*, **2012**, 6, 797-824	1.1	6
89	A Comparative Theoretical and Computational Study on Robust Counterpart Optimization: I. Robust Linear Optimization and Robust Mixed Integer Linear Optimization. *Industrial & Engineering Chemistry Research*, **2011**, 50, 10567-10603	3.9	159
88	Multisite Planning under Demand and Transportation Time Uncertainty: Robust Optimization and Conditional Value-at-Risk Frameworks. *Industrial & Engineering Chemistry Research*, **2011**, 50, 4959-4982	3.9	24

87	Generation of networks with prescribed degree-dependent clustering. *Optimization Letters*, **2011**, 5, 435-451	1.1	8
86	APOGEE: Global optimization of standard, generalized, and extended pooling problems via linear and logarithmic partitioning schemes. *Computers and Chemical Engineering*, **2011**, 35, 876-892	4	86
85	Planning and Scheduling under Uncertainty: A Review Across Multiple Sectors. *Industrial & Engineering Chemistry Research*, **2010**, 49, 3993-4017	3.9	156
84	An Analysis of Some Unit-Specific Event-Based Models for the Short-Term Scheduling of Noncontinuous Processes. *Industrial & Engineering Chemistry Research*, **2010**, 49, 633-647	3.9	28
83	Global Optimization of Large-Scale Generalized Pooling Problems: Quadratically Constrained MINLP Models. *Industrial & Engineering Chemistry Research*, **2010**, 49, 5424-5438	3.9	82
82	Optimal Event Point Determination for Short-Term Scheduling of Multipurpose Batch Plants via Unit-Specific Event-Based Continuous-Time Approaches. *Industrial & Engineering Chemistry Research*, **2010**, 49, 7446-7469	3.9	35
81	Operational Planning of Large-Scale Industrial Batch Plants under Demand Due Date and Amount Uncertainty: II. Conditional Value-at-Risk Framework. *Industrial & Engineering Chemistry Research*, **2010**, 49, 260-275	3.9	39
80	Integration of Operational Planning and Medium-Term Scheduling for Large-Scale Industrial Batch Plants under Demand and Processing Time Uncertainty. *Industrial & Engineering Chemistry Research*, **2010**, 49, 4948-4965	3.9	18
79	Toward Novel Hybrid Biomass, Coal, and Natural Gas Processes for Satisfying Current Transportation Fuel Demands, 2: Simultaneous Heat and Power Integration. *Industrial & Engineering Chemistry Research*, **2010**, 49, 7371-7388	3.9	88
78	Toward Novel Hybrid Biomass, Coal, and Natural Gas Processes for Satisfying Current Transportation Fuel Demands, 1: Process Alternatives, Gasification Modeling, Process Simulation, and Economic Analysis. *Industrial & Engineering Chemistry Research*, **2010**, 49, 7343-7370	3.9	120
77	A network flow model for biclustering via optimal re-ordering of data matrices. *Journal of Global Optimization*, **2010**, 47, 343-354	1.5	10
76	Convex relaxation for solving posynomial programs. *Journal of Global Optimization*, **2010**, 46, 147-154	1.5	17
75	Rational design of shape selective separations and catalysis: Lattice relaxation and effective aperture size. *AICHE Journal*, **2009**, 56, NA-NA	3.6	3
74	Search Engines for Shape Selectivity. *Catalysis Letters*, **2009**, 133, 234-241	2.8	13
73	Mathematical modeling and efficient optimization methods for the distance-dependent rearrangement clustering problem. *Journal of Global Optimization*, **2009**, 45, 111	1.5	4
72	Comments on: Optimization and data mining in biomedicine. *Top*, **2009**, 17, 237-238	1.3	
71	Production scheduling of a large-scale industrial continuous plant: Short-term and medium-term scheduling. *Computers and Chemical Engineering*, **2009**, 33, 670-686	4	48
70	Operational planning framework for multisite production and distribution networks. *Computers and Chemical Engineering*, **2009**, 33, 1036-1050	4	40

69	Novel Unified Modeling Approach for Short-Term Scheduling. *Industrial & Engineering Chemistry Research*, **2009**, 48, 2947-2964	3.9	74
68	Global Optimization of Gas Lifting Operations: A Comparative Study of Piecewise Linear Formulations. *Industrial & Engineering Chemistry Research*, **2009**, 48, 6098-6104	3.9	43
67	Selecting the Optimal Target Company Based on Synergy Calculation for the Vertical Merger in a Petrochemical Complex. *Industrial & Engineering Chemistry Research*, **2009**, 48, 1511-1521	3.9	9
66	Operational Planning of Large-Scale Industrial Batch Plants under Demand Due Date and Amount Uncertainty. I. Robust Optimization Framework. *Industrial & Engineering Chemistry Research*, **2009**, 48, 7214-7231	3.9	47
65	A Novel Clustering Approach: Global Optimum Search with Enhanced Positioning **2009**, 307-332		
64	Integrated Operational Planning and Medium-Term Scheduling for Large-Scale Industrial Batch Plants. *Industrial & Engineering Chemistry Research*, **2008**, 47, 4845-4860	3.9	42
63	Synergy in Mergers of Petrochemical Companies within a Complex Considering Purchasing and Selling Advantage with Process Integration. *Industrial & Engineering Chemistry Research*, **2008**, 47, 5556-5567	3.9	8
62	OPTIMAL METHODS FOR RE-ORDERING DATA MATRICES IN SYSTEMS BIOLOGY AND DRUG DISCOVERY APPLICATIONS. *Biophysical Reviews and Letters*, **2008**, 03, 19-42	1.2	1
61	Tight convex underestimators for ($\mathcal{C}^2$)-continuous problems: I. univariate functions. *Journal of Global Optimization*, **2008**, 42, 51-67	1.5	20
60	Tight convex underestimators for ($\mathcal{C}^2$) -continuous problems: II. multivariate functions. *Journal of Global Optimization*, **2008**, 42, 69-89	1.5	32
59	Convex underestimation for posynomial functions of positive variables. *Optimization Letters*, **2008**, 2, 333-340	1.1	18
58	Improving unit-specific event based continuous-time approaches for batch processes: Integrality gap and task splitting. *Computers and Chemical Engineering*, **2008**, 32, 913-955	4	66
57	Unit-specific event-based continuous-time approach for short-term scheduling of batch plants using RTN framework. *Computers and Chemical Engineering*, **2008**, 32, 260-274	4	80
56	Improved Unit-Specific Event-Based Continuous-Time Model for Short-Term Scheduling of Continuous Processes: Rigorous Treatment of Storage Requirements. *Industrial & Engineering Chemistry Research*, **2007**, 46, 1764-1779	3.9	59
55	A new robust optimization approach for scheduling under uncertainty: II. Uncertainty with known probability distribution. *Computers and Chemical Engineering*, **2007**, 31, 171-195	4	175
54	A novel clustering approach and prediction of optimal number of clusters: global optimum search with enhanced positioning. *Journal of Global Optimization*, **2007**, 39, 323-346	1.5	32
53	On the functional form of convex underestimators for twice continuously differentiable functions. *Optimization Letters*, **2007**, 1, 187-192	1.1	9
52	Production scheduling of a large-scale industrial continuous plant: Short-term and medium-term scheduling. *Computer Aided Chemical Engineering*, **2007**, 613-618	0.6	1

51	Global optimization of a combinatorially complex generalized pooling problem. *AICHE Journal*, **2006**, 52, 1027-1037	3.6	107
50	Production Scheduling of a Large-Scale Industrial Batch Plant. I. Short-Term and Medium-Term Scheduling. *Industrial & Engineering Chemistry Research*, **2006**, 45, 8234-8252	3.9	74
49	Production Scheduling of a Large-Scale Industrial Batch Plant. II. Reactive Scheduling. *Industrial & Engineering Chemistry Research*, **2006**, 45, 8253-8269	3.9	97
48	Continuous-Time Models for Short-Term Scheduling of Multipurpose Batch Plants: A Comparative Study. *Industrial & Engineering Chemistry Research*, **2006**, 45, 6190-6209	3.9	91
47	Slot-based vs. global event-based vs. unit-specific event-based models in scheduling of batch plants. *Computer Aided Chemical Engineering*, **2006**, 21, 1923-1928	0.6	
46	Advances in robust optimization approaches for scheduling under uncertainty. *Computer Aided Chemical Engineering*, **2005**, 1051-1056	0.6	5
45	Comments on "New General Continuous-Time State-Task Network Formulation for Short-Term Scheduling of Multipurpose Batch Plants" by Christos T. Maravelias and Ignacio E. Grossmann and on "Enhanced Continuous-Time Unit-Specific Event-Based Formulation for Short-Term Scheduling of Multipurpose Batch Processes: Resource Constraints and Mixed Storage Policies" by Stacy L. Janak, Xiaoxia Lin, and Christodoulos A. Floudas. *Industrial & Engineering Chemistry Research*,	3.9	2
44	Research challenges, opportunities and synergism in systems engineering and computational biology. *AICHE Journal*, **2005**, 51, 1872-1884	3.6	27
43	Mixed Integer Linear Programming in Process Scheduling: Modeling, Algorithms, and Applications. *Annals of Operations Research*, **2005**, 139, 131-162	3.2	201
42	Convex envelopes for edge-concave functions. *Mathematical Programming*, **2005**, 103, 207-224	2.1	71
41	Convex Underestimation of Twice Continuously Differentiable Functions by Piecewise Quadratic Perturbation: Spline αBB Underestimators. *Journal of Global Optimization*, **2005**, 32, 221-258	1.5	26
40	Global Solution Approach for a Nonconvex MINLP Problem in Product Portfolio Optimization. *Journal of Global Optimization*, **2005**, 32, 417-431	1.5	12
39	Trilinear Monomials with Mixed Sign Domains: Facets of the Convex and Concave Envelopes. *Journal of Global Optimization*, **2004**, 29, 125-155	1.5	77
38	Computational Experience with a New Class of Convex Underestimators: Box-constrained NLP Problems. *Journal of Global Optimization*, **2004**, 29, 249-264	1.5	44
37	A New Class of Improved Convex Underestimators for Twice Continuously Differentiable Constrained NLPs. *Journal of Global Optimization*, **2004**, 30, 367-390	1.5	48
36	A new robust optimization approach for scheduling under uncertainty:. *Computers and Chemical Engineering*, **2004**, 28, 1069-1085	4	238
35	Continuous-time versus discrete-time approaches for scheduling of chemical processes: a review. *Computers and Chemical Engineering*, **2004**, 28, 2109-2129	4	469
34	Enhanced Continuous-Time Unit-Specific Event-Based Formulation for Short-Term Scheduling of Multipurpose Batch Processes: Resource Constraints and Mixed Storage Policies. *Industrial & Engineering Chemistry Research*, **2004**, 43, 2516-2533	3.9	130

33	A Novel Continuous-Time Modeling and Optimization Framework for Well Platform Planning Problems. *Optimization and Engineering*, **2003**, 4, 65-95	2.1	25
32	Scheduling of Tanker Lightering via a Novel Continuous-Time Optimization Framework. *Industrial & Engineering Chemistry Research*, **2003**, 42, 4441-4451	3.9	27
31	Optimization of polymer synthesis through distributed control of polymerization conditions. *Journal of Applied Polymer Science*, **2002**, 85, 2922-2928	2.9	2
30	Deterministic Global Optimization and Ab Initio Approaches for the Structure Prediction of Polypeptides, Dynamics of Protein Folding, and Protein-Protein Interactions. *Advances in Chemical Physics*, **2002**, 265-457		4
29	Global Optimization with Nonfactorable Constraints. *Industrial & Engineering Chemistry Research*, **2002**, 41, 6413-6424	3.9	23
28	Continuous-Time Optimization Approach for Medium-Range Production Scheduling of a Multiproduct Batch Plant. *Industrial & Engineering Chemistry Research*, **2002**, 41, 3884-3906	3.9	78
27	Optimization of Living Radical Polymerization Through Distributed Control of Energy. *Macromolecular Chemistry and Physics*, **2001**, 202, 2797-2801	2.6	
26	Global Optimization of Nonlinear Bilevel Programming Problems. *Journal of Global Optimization*, **2001**, 20, 1-31	1.5	108
25	Rebuttal to Comments on "Global Optimization for the Parameter Estimation of Differential-Algebraic Systems" *Industrial & Engineering Chemistry Research*, **2001**, 40, 490-491	3.9	4
24	Global Optimization in Design under Uncertainty: Feasibility Test and Flexibility Index Problems. *Industrial & Engineering Chemistry Research*, **2001**, 40, 4267-4282	3.9	115
23	Deterministic Global Optimization in Nonlinear Optimal Control Problems. *Journal of Global Optimization*, **2000**, 17, 97-126	1.5	110
22	Deterministic Global Optimization. *Nonconvex Optimization and Its Applications*, **2000**,		297
21	Locating All Heterogeneous and Reactive Azeotropes in Multicomponent Mixtures. *Industrial & Engineering Chemistry Research*, **2000**, 39, 1576-1595	3.9	20
20	Global Optimization for the Parameter Estimation of Differential-Algebraic Systems. *Industrial & Engineering Chemistry Research*, **2000**, 39, 1291-1310	3.9	153
19	Handbook of Test Problems in Local and Global Optimization. *Nonconvex Optimization and Its Applications*, **1999**,		277
18	Global Optimization in Parameter Estimation of Nonlinear Algebraic Models via the Error-in-Variables Approach. *Industrial & Engineering Chemistry Research*, **1998**, 37, 1841-1858	3.9	81
17	Global optimization in generalized geometric programming. *Computers and Chemical Engineering*, **1997**, 21, 351-369	4	159
16	GLOPEQ: A new computational tool for the phase and chemical equilibrium problem. *Computers and Chemical Engineering*, **1997**, 21, 1-23	4	129

15	Methane Conversion to Ethylene and Acetylene: Optimal Control with Chlorine, Oxygen, and Heat Flux. *Industrial & Engineering Chemistry Research*, **1996**, 35, 683-696	3.9	12
14	Analysis and design of metabolic reaction networks via mixed-integer linear optimization. *AICHE Journal*, **1996**, 42, 1277-1292	3.6	134
13	Optimization of regulatory architectures in metabolic reaction networks. *Biotechnology and Bioengineering*, **1996**, 52, 485-500	4.9	64
12	Rigorous convex underestimators for general twice-differentiable problems. *Journal of Global Optimization*, **1996**, 9, 23-40	1.5	109
11	Finding all solutions of nonlinearly constrained systems of equations. *Journal of Global Optimization* , **1995**, 7, 143-182	1.5	166
10	Robust stability analysis of systems with real parametric uncertainty: A global optimization approach. *International Journal of Robust and Nonlinear Control*, **1995**, 5, 699-717	3.6	13
9	Global optimization for the phase stability problem. *AICHE Journal*, **1995**, 41, 1798-1814	3.6	133
8	A deterministic global optimization approach for molecular structure determination. *Journal of Chemical Physics*, **1994**, 100, 1247-1261	3.9	85
7	Global optimization for molecular conformation problems. *Annals of Operations Research*, **1993**, 42, 85-117	1.2	30
6	A global optimization approach for Lennard-Jones microclusters. *Journal of Chemical Physics*, **1992**, 97, 7667-7678	3.9	117
5	A decomposition approach for global optimum search in QP, NLP and MINLP problems. *Annals of Operations Research*, **1990**, 25, 119-145	3.2	7
4	A Decomposition Strategy for Global Optimum Search in the Pooling Problem. *ORSA Journal on Computing*, **1990**, 2, 225-235		48
3	Structural properties of large scale systems. *International Journal of Control*, **1990**, 51, 169-187	1.5	6
2	Optimization model for generic rank determination of structural matrices. *International Journal of Control*, **1989**, 49, 1633-1644	1.5	9
1	Short-Term Scheduling of Batch and Continuous Processes173-217		