

Paul I Barton

List of Publications by Year in descending order

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245
papers

8,025
citations

44069

48
h-index

66911

78
g-index

250
all docs

250
docs citations

250
times ranked

4382
citing authors

#	ARTICLE	IF	CITATIONS
1	Global optimization of a hybrid waste tire and natural gas feedstock polygeneration system. Energy, 2022, 250, 123722.	8.8	8
2	Nonsmooth Modeling for Simulation and Optimization of Continuous Pharmaceutical Manufacturing Processes. Springer Optimization and Its Applications, 2022, , 231-252.	0.9	1
3	Nonsmooth Hessenberg differential-algebraic equations. Journal of Mathematical Analysis and Applications, 2021, 495, 124721.	1.0	3
4	Production of biofuels from sunlight and lignocellulosic sugars using microbial consortia. Chemical Engineering Science, 2021, 239, 116615.	3.8	11
5	<i>110th Anniversary</i>: A Generalized Nonsmooth Operator for Process Integration. Industrial & Engineering Chemistry Research, 2020, 59, 253-264.	3.7	2
6	A Nonsmooth Approach to Multicontaminant Mass and Water Integration. Computer Aided Chemical Engineering, 2020, , 253-258.	0.5	0
7	Optimal Design and Operation of Flexible Polygeneration Systems using Decomposition Algorithms. Computer Aided Chemical Engineering, 2020, 48, 919-924.	0.5	2
8	Generalized derivatives of computer programs. Optimization Methods and Software, 2020, , 1-23.	2.4	0
9	Multiple Steady States and Nonsmooth Bifurcations in Dry and Vaporless Distillation Columns. Industrial & Engineering Chemistry Research, 2020, 59, 18000-18018.	3.7	4
10	Optimization of a dual mixed refrigerant process using a nonsmooth approach. Energy, 2020, 196, 116999.	8.8	19
11	Convergence-order analysis for differential-inequalities-based bounds and relaxations of the solutions of ODEs. Journal of Global Optimization, 2019, 73, 113-151.	1.8	8
12	Integrating Genome-Scale and Superstructure Optimization Models in Techno-Economic Studies of Biorefineries. Processes, 2019, 7, 286.	2.8	1
13	Nonsmooth Formulation for Handling Unclassified Process Streams in the Optimization of Work and Heat Exchange Networks. Industrial & Engineering Chemistry Research, 2019, 58, 9526-9539.	3.7	7
14	Optimal Dynamic Continuous Manufacturing of Pharmaceuticals with Recycle. Industrial & Engineering Chemistry Research, 2019, 58, 13423-13436.	3.7	14
15	Nonsmooth Analysis In Process Modeling, Design And Optimization. Computer Aided Chemical Engineering, 2019, 47, 7-16.	0.5	0
16	A Generalized, Nonsmooth Operator for Process Integration. Computer Aided Chemical Engineering, 2019, 46, 385-390.	0.5	1
17	Generalized sensitivity analysis of nonlinear programs using a sequence of quadratic programs. Optimization, 2019, 68, 485-508.	1.7	4
18	Bounds on stochastic chemical kinetic systems at steady state. Journal of Chemical Physics, 2018, 148, 084106.	3.0	17

#	ARTICLE	IF	CITATIONS
19	Optimal campaigns in end-to-end continuous pharmaceuticals manufacturing. Part 2: Dynamic optimization. <i>Chemical Engineering and Processing: Process Intensification</i> , 2018, 125, 124-132.	3.6	21
20	Optimal campaigns in end-to-end continuous pharmaceuticals manufacturing. Part 1: Nonsmooth dynamic modeling. <i>Chemical Engineering and Processing: Process Intensification</i> , 2018, 125, 298-310.	3.6	11
21	Generalized Sensitivity Analysis of Nonlinear Programs. <i>SIAM Journal on Optimization</i> , 2018, 28, 272-301.	2.0	14
22	Versatile Simulation Method for Complex Single Mixed Refrigerant Natural Gas Liquefaction Processes. <i>Industrial & Engineering Chemistry Research</i> , 2018, 57, 5881-5894.	3.7	14
23	Optimization of single mixed-refrigerant natural gas liquefaction processes described by nondifferentiable models. <i>Energy</i> , 2018, 150, 860-876.	8.8	35
24	Computationally relevant generalized derivatives: theory, evaluation and applications. <i>Optimization Methods and Software</i> , 2018, 33, 1030-1072.	2.4	34
25	Dynamic Flux Balance Analysis Using DFBAlab. <i>Methods in Molecular Biology</i> , 2018, 1716, 353-370.	0.9	8
26	Nonsmooth differential-algebraic equations in chemical engineering. <i>Computers and Chemical Engineering</i> , 2018, 114, 52-68.	3.8	21
27	Convergence-order analysis of branch-and-bound algorithms for constrained problems. <i>Journal of Global Optimization</i> , 2018, 71, 753-813.	1.8	6
28	Affine relaxations for the solutions of constrained parametric ordinary differential equations. <i>Optimal Control Applications and Methods</i> , 2018, 39, 427-448.	2.1	6
29	Nonsmooth DAEs with Applications in Modeling Phase Changes. <i>Differential-algebraic Equations Forum</i> , 2018, , 243-275.	0.6	2
30	Decision-dependent probabilities in stochastic programs with recourse. <i>Computational Management Science</i> , 2018, 15, 369-395.	1.3	56
31	Simulation of Dual Mixed Refrigerant Natural Gas Liquefaction Processes Using a Nonsmooth Framework. <i>Processes</i> , 2018, 6, 193.	2.8	10
32	Dynamic bounds on stochastic chemical kinetic systems using semidefinite programming. <i>Journal of Chemical Physics</i> , 2018, 149, 074103.	3.0	10
33	Generalized Derivatives of Lexicographic Linear Programs. <i>Journal of Optimization Theory and Applications</i> , 2018, 178, 477-501.	1.5	6
34	Simulation of a Dual Mixed Refrigerant LNG Process using a Nonsmooth Framework. <i>Computer Aided Chemical Engineering</i> , 2018, , 391-396.	0.5	5
35	An Improved Multi-parametric Programming Algorithm for Flux Balance Analysis of Metabolic Networks. <i>Journal of Optimization Theory and Applications</i> , 2018, 178, 502-537.	1.5	14
36	Potential Canals for Control of Nonlinear Stochastic Systems in the Absence of State Measurements. <i>IEEE Transactions on Control Systems Technology</i> , 2017, 25, 161-174.	5.2	10

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37	Differentiable McCormick relaxations. <i>Journal of Global Optimization</i> , 2017, 67, 687-729.	1.8	27
38	Dependence of solutions of nonsmooth differential-algebraic equations on parameters. <i>Journal of Differential Equations</i> , 2017, 262, 2254-2285.	2.2	22
39	Generalized Derivatives for Hybrid Systems. <i>IEEE Transactions on Automatic Control</i> , 2017, 62, 3193-3208.	5.7	17
40	Reliable Flash Calculations: Part 1. Nonsmooth Inside-Out Algorithms. <i>Industrial & Engineering Chemistry Research</i> , 2017, 56, 960-973.	3.7	22
41	Interval enclosures for reachable sets of chemical kinetic flow systems. Part 1: Sparse transformation. <i>Chemical Engineering Science</i> , 2017, 166, 334-344.	3.8	5
42	How to solve a design centering problem. <i>Mathematical Methods of Operations Research</i> , 2017, 86, 215-254.	1.0	12
43	Using semidefinite programming to calculate bounds on particle size distributions. <i>Chemical Engineering Science</i> , 2017, 171, 599-613.	3.8	2
44	Interval enclosures for reachable sets of chemical kinetic flow systems. Part 3: Indirect-bounding method. <i>Chemical Engineering Science</i> , 2017, 166, 358-372.	3.8	5
45	Interval enclosures for reachable sets of chemical kinetic flow systems. Part 2: Direct-bounding method. <i>Chemical Engineering Science</i> , 2017, 166, 345-357.	3.8	6
46	Optimal shale oil and gas investments in the United States. <i>Energy</i> , 2017, 141, 398-422.	8.8	30
47	Chance-Constrained Optimization for Refinery Blend Planning under Uncertainty. <i>Industrial & Engineering Chemistry Research</i> , 2017, 56, 12139-12150.	3.7	28
48	Reliable Flash Calculations: Part 2. Process Flowsheeting with Nonsmooth Models and Generalized Derivatives. <i>Industrial & Engineering Chemistry Research</i> , 2017, 56, 14848-14864.	3.7	15
49	Reliable Flash Calculations: Part 3. A Nonsmooth Approach to Density Extrapolation and Pseudoproperty Evaluation. <i>Industrial & Engineering Chemistry Research</i> , 2017, 56, 14832-14847.	3.7	11
50	The cluster problem in constrained global optimization. <i>Journal of Global Optimization</i> , 2017, 69, 629-676.	1.8	10
51	Modeling phase changes in multistream heat exchangers. <i>International Journal of Heat and Mass Transfer</i> , 2017, 105, 207-219.	4.8	26
52	Natural gas production network infrastructure development under uncertainty. <i>Optimization and Engineering</i> , 2017, 18, 35-62.	2.4	6
53	Robust Flash Calculations through Nonsmooth Inside-Out Algorithms. <i>Computer Aided Chemical Engineering</i> , 2017, , 235-240.	0.5	0
54	Efficient Control Discretization Based on Turnpike Theory for Dynamic Optimization. <i>Processes</i> , 2017, 5, 85.	2.8	7

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55	Dynamic Optimization of Continuous Manufacturing of Pharmaceuticals. Computer Aided Chemical Engineering, 2017, 40, 2803-2808.	0.5	2
56	Using Semidefinite Programming to Calculate Bounds on Stochastic Chemical Kinetic Systems at Steady State. Computer Aided Chemical Engineering, 2017, , 2239-2244.	0.5	8
57	Mathematical Modeling of a Raceway Pond System for Biofuels Production. Computer Aided Chemical Engineering, 2016, , 2355-2360.	0.5	3
58	Modeling and simulation of phase change and non-ideality in multistream heat exchangers. Computer Aided Chemical Engineering, 2016, 38, 505-510.	0.5	1
59	Nonsmooth model for dynamic simulation of phase changes. AIChE Journal, 2016, 62, 3334-3351.	3.6	37
60	Generalized derivatives of optimal control problems with nonsmooth differential-algebraic equations embedded. , 2016, , .		4
61	Spatiotemporal modeling of microbial metabolism. BMC Systems Biology, 2016, 10, 21.	3.0	55
62	Efficient polyhedral enclosures for the reachable set of nonlinear control systems. Mathematics of Control, Signals, and Systems, 2016, 28, 1.	2.3	20
63	Reachability-based fault detection method for uncertain chemical flow reactors. IFAC-PapersOnLine, 2016, 49, 1-6.	0.9	13
64	Simulation and Design Methods for Multiphase Multistream Heat Exchangers**The authors are grateful to Statoil for providing financial support for this research.. IFAC-PapersOnLine, 2016, 49, 839-844.	0.9	8
65	Dynamic flux balance modeling to increase the production of high-value compounds in green microalgae. Biotechnology for Biofuels, 2016, 9, 165.	6.2	34
66	Generalized Derivatives of Differentialâ€“Algebraic Equations. Journal of Optimization Theory and Applications, 2016, 171, 1-26.	1.5	25
67	PERKS: Software for Parameter Estimation in Reaction Kinetic Systems. Computer Aided Chemical Engineering, 2016, 38, 25-30.	0.5	2
68	Integrated crude selection and refinery optimization under uncertainty. AIChE Journal, 2016, 62, 1038-1053.	3.6	23
69	Bounds on reachable sets using ordinary differential equations with linear programs embedded. IMA Journal of Mathematical Control and Information, 2016, 33, 519-541.	1.7	12
70	Generalized derivatives of dynamic systems with a linear program embedded. Automatica, 2016, 63, 198-208.	5.0	18
71	Optimal dynamic allocation of mobile plants to monetize associated or stranded natural gas, part II: Dealing with uncertainty. Energy, 2016, 96, 461-467.	8.8	25
72	Lower level duality and the global solution of generalized semi-infinite programs. Optimization, 2016, 65, 1129-1149.	1.7	6

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73	Efficient solution of ordinary differential equations with a parametric lexicographic linear program embedded. <i>Numerische Mathematik</i> , 2016, 133, 623-653.	1.9	25
74	From sugars to biodiesel using microalgae and yeast. <i>Green Chemistry</i> , 2016, 18, 461-475.	9.0	40
75	Refinery Optimization Integrated with a Nonlinear Crude Distillation Unit Model. <i>IFAC-PapersOnLine</i> , 2015, 48, 205-210.	0.9	9
76	Multistream heat exchanger modeling and design. <i>AIChE Journal</i> , 2015, 61, 3390-3403.	3.6	49
77	Metabolic modeling of synthesis gas fermentation in bubble column reactors. <i>Biotechnology for Biofuels</i> , 2015, 8, 89.	6.2	47
78	Optimal Campaign Continuous Manufacturing. <i>Industrial & Engineering Chemistry Research</i> , 2015, 54, 11344-11359.	3.7	31
79	Controlled Formation of Nanostructures with Desired Geometries: Part 3. Dynamic Modeling and Simulation of Directed Self-Assembly of Nanoparticles through Adaptive Finite State Projection. <i>Industrial & Engineering Chemistry Research</i> , 2015, 54, 4371-4384.	3.7	9
80	Semi-Infinite Optimization with Implicit Functions. <i>Industrial & Engineering Chemistry Research</i> , 2015, 54, 307-317.	3.7	12
81	Optimal design and operation of energy systems under uncertainty. <i>Journal of Process Control</i> , 2015, 30, 1-9.	3.3	22
82	Reverse propagation of McCormick relaxations. <i>Journal of Global Optimization</i> , 2015, 63, 1-36.	1.8	20
83	A vector forward mode of automatic differentiation for generalized derivative evaluation. <i>Optimization Methods and Software</i> , 2015, 30, 1185-1212.	2.4	65
84	Controlled Formation of Nanostructures with Desired Geometries. Part 4. Multiresolution Optimal Control in Dynamically Directed Self-Assembly of Nanoparticles. <i>Industrial & Engineering Chemistry Research</i> , 2015, 54, 8520-8532.	3.7	4
85	Switching behavior of solutions of ordinary differential equations with abs-factorable right-hand sides. <i>Systems and Control Letters</i> , 2015, 84, 27-34.	2.3	6
86	Optimal dynamic allocation of mobile plants to monetize associated or stranded natural gas, part I: Bakken shale play case study. <i>Energy</i> , 2015, 93, 1581-1594.	8.8	43
87	Convex and concave relaxations of implicit functions. <i>Optimization Methods and Software</i> , 2015, 30, 424-460.	2.4	36
88	The Application of an Automated Control Strategy for an Integrated Continuous Pharmaceutical Pilot Plant. <i>Organic Process Research and Development</i> , 2015, 19, 1088-1100.	2.7	75
89	Reachability Analysis and Deterministic Global Optimization of DAE Models. <i>Differential-algebraic Equations Forum</i> , 2015, , 61-116.	0.6	7
90	Design of Microbial Consortia for Industrial Biotechnology. <i>Computer Aided Chemical Engineering</i> , 2014, , 65-74.	0.5	23

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91	DFBAlab: a fast and reliable MATLAB code for dynamic flux balance analysis. BMC Bioinformatics, 2014, 15, 409.	2.6	111
92	Design, Execution, and Analysis of Time-Varying Experiments for Model Discrimination and Parameter Estimation in Microreactors. Organic Process Research and Development, 2014, 18, 1461-1467.	2.7	22
93	Generalized gradient elements for nonsmooth optimal control problems. , 2014, , .		6
94	Global optimization of bounded factorable functions with discontinuities. Journal of Global Optimization, 2014, 58, 1-30.	1.8	11
95	The cluster problem revisited. Journal of Global Optimization, 2014, 58, 429-438.	1.8	27
96	Worst-case design of subsea production facilities using semi-infinite programming. AIChE Journal, 2014, 60, 2513-2524.	3.6	6
97	Generalized Derivatives for Solutions of Parametric Ordinary Differential Equations with Non-differentiable Right-Hand Sides. Journal of Optimization Theory and Applications, 2014, 163, 355-386.	1.5	41
98	Application of Continuous Crystallization in an Integrated Continuous Pharmaceutical Pilot Plant. Crystal Growth and Design, 2014, 14, 2148-2157.	3.0	64
99	Nonconvex Generalized Benders Decomposition. , 2014, , 307-331.		4
100	Nonlinear convex and concave relaxations for the solutions of parametric ODEs. Optimal Control Applications and Methods, 2013, 34, 145-163.	2.1	33
101	Improved relaxations for the parametric solutions of ODEs using differential inequalities. Journal of Global Optimization, 2013, 57, 143-176.	1.8	39
102	Convex and Concave Relaxations for the Parametric Solutions of Semi-explicit Index-One Differential-Algebraic Equations. Journal of Optimization Theory and Applications, 2013, 156, 617-649.	1.5	22
103	Interval bounds on the solutions of semi-explicit index-one DAEs. Part 1: analysis. Numerische Mathematik, 2013, 125, 1-25.	1.9	14
104	Interval bounds on the solutions of semi-explicit index-one DAEs. Part 2: computation. Numerische Mathematik, 2013, 125, 27-60.	1.9	9
105	An outer-approximation approach for information-maximizing sensor selection. Optimization Letters, 2013, 7, 745-764.	1.6	13
106	Energy Conversion with Solid Oxide Fuel Cell Systems: A Review of Concepts and Outlooks for the Short- and Long-Term. Industrial & Engineering Chemistry Research, 2013, 52, 3089-3111.	3.7	129
107	End-to-End Continuous Manufacturing of Pharmaceuticals: Integrated Synthesis, Purification, and Final Dosage Formation. Angewandte Chemie - International Edition, 2013, 52, 12359-12363.	13.8	505
108	Mathematical modeling and design of layer crystallization in a concentric annulus with and without recirculation. AIChE Journal, 2013, 59, 1308-1321.	3.6	24

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109	On-line modeling of NOx formation in a coal boiler. Computer Aided Chemical Engineering, 2013, 32, 319-324.	0.5	0
110	Bounds on the reachable sets of nonlinear control systems. Automatica, 2013, 49, 93-100.	5.0	87
111	A reliable simulator for dynamic flux balance analysis. Biotechnology and Bioengineering, 2013, 110, 792-802.	3.3	109
112	Model-based design of a plant-wide control strategy for a continuous pharmaceutical plant. AIChE Journal, 2013, 59, 3671-3685.	3.6	86
113	Evaluating an element of the Clarke generalized Jacobian of a composite piecewise differentiable function. ACM Transactions on Mathematical Software, 2013, 39, 1-28.	2.9	20
114	Bounds on Reachable Sets Using Ordinary Differential Equations with Linear Programs Embedded. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 62-67.	0.4	1
115	Optimal Design and Operation of Energy Systems under Uncertainty. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 105-110.	0.4	0
116	Averaging Level Control to Reduce Off-Spec Material in a Continuous Pharmaceutical Pilot Plant. Processes, 2013, 1, 330-348.	2.8	17
117	A master-equation approach to simulate kinetic traps during directed self-assembly. Journal of Chemical Physics, 2012, 136, 184109.	3.0	16
118	An Efficient Solution Algorithm for Large-Scale Stochastic Mixed-Integer Linear Programs1. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 892-897.	0.4	0
119	A Plant-Wide Dynamic Model of a Continuous Pharmaceutical Process. Industrial & Engineering Chemistry Research, 2012, 51, 15393-15412.	3.7	102
120	Decomposition strategy for the stochastic pooling problem. Journal of Global Optimization, 2012, 54, 765-790.	1.8	28
121	Capacity Planning under Clinical Trials Uncertainty in Continuous Pharmaceutical Manufacturing, 2: Solution Method. Industrial & Engineering Chemistry Research, 2012, 51, 13703-13711.	3.7	20
122	Nonconvex Generalized Benders Decomposition with Piecewise Convex Relaxations for Global Optimization of Integrated Process Design and Operation Problems. Industrial & Engineering Chemistry Research, 2012, 51, 7287-7299.	3.7	50
123	Capacity Planning under Clinical Trials Uncertainty in Continuous Pharmaceutical Manufacturing, 1: Mathematical Framework. Industrial & Engineering Chemistry Research, 2012, 51, 13692-13702.	3.7	36
124	Capacity Planning for Continuous Pharmaceutical Manufacturing Facilities. Computer Aided Chemical Engineering, 2012, , 1135-1139.	0.5	2
125	Decomposition strategy for the global optimization of flexible energy polygeneration systems. AIChE Journal, 2012, 58, 3080-3095.	3.6	28
126	Evaluating an Element of the Clarke Generalized Jacobian of a Piecewise Differentiable Function. Lecture Notes in Computational Science and Engineering, 2012, , 115-125.	0.3	9

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127	Economic Analysis of Integrated Continuous and Batch Pharmaceutical Manufacturing: A Case Study. <i>Industrial & Engineering Chemistry Research</i> , 2011, 50, 10083-10092.	3.7	389
128	Convex relaxations for nonconvex optimal control problems. , 2011, , .		11
129	Sensitivity Analysis of Limit-Cycle Oscillating Hybrid Systems. <i>SIAM Journal of Scientific Computing</i> , 2011, 33, 1475-1504.	2.8	6
130	Robust simulation and design using semi-infinite programs with implicit functions. <i>International Journal of Reliability and Safety</i> , 2011, 5, 378.	0.2	16
131	Optimal Design and Operation of Flexible Energy Polygeneration Systems. <i>Industrial & Engineering Chemistry Research</i> , 2011, 50, 4553-4566.	3.7	99
132	Optimal Design and Operation of Static Energy Polygeneration Systems. <i>Industrial & Engineering Chemistry Research</i> , 2011, 50, 5099-5113.	3.7	78
133	Generalized McCormick relaxations. <i>Journal of Global Optimization</i> , 2011, 51, 569-606.	1.8	78
134	Nonconvex Generalized Benders Decomposition for Stochastic Separable Mixed-Integer Nonlinear Programs. <i>Journal of Optimization Theory and Applications</i> , 2011, 151, 425-454.	1.5	81
135	Synthesis of heat exchanger networks at subambient conditions with compression and expansion of process streams. <i>AIChE Journal</i> , 2011, 57, 2090-2108.	3.6	90
136	Stochastic pooling problem for natural gas production network design and operation under uncertainty. <i>AIChE Journal</i> , 2011, 57, 2120-2135.	3.6	91
137	Combining coal gasification and natural gas reforming for efficient polygeneration. <i>Fuel Processing Technology</i> , 2011, 92, 639-655.	7.2	136
138	Combining coal gasification, natural gas reforming, and solid oxide fuel cells for efficient polygeneration with CO2 capture and sequestration. <i>Fuel Processing Technology</i> , 2011, 92, 2105-2115.	7.2	53
139	High-efficiency power production from natural gas with carbon capture. <i>Journal of Power Sources</i> , 2010, 195, 1971-1983.	7.8	67
140	Re: "Support for the high efficiency, carbon separation and internal reforming capabilities of solid oxide fuel cell systems". <i>Journal of Power Sources</i> , 2010, 195, 5152-5153.	7.8	3
141	Nonsmooth exclusion test for finding all solutions of nonlinear equations. <i>BIT Numerical Mathematics</i> , 2010, 50, 885-917.	2.0	12
142	High-efficiency power production from coal with carbon capture. <i>AIChE Journal</i> , 2010, 56, 3120-3136.	3.6	74
143	Effective parameter estimation within a multi-dimensional population balance model framework. <i>Chemical Engineering Science</i> , 2010, 65, 4884-4893.	3.8	73
144	Tight, efficient bounds on the solutions of chemical kinetics models. <i>Computers and Chemical Engineering</i> , 2010, 34, 717-731.	3.8	33

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145	Controlled Formation of Nanostructures with Desired Geometries. 2. Robust Dynamic Paths. Industrial & Engineering Chemistry Research, 2010, 49, 7746-7757.	3.7	24
146	Decomposition strategy for natural gas production network design under uncertainty. , 2010, , .		5
147	Controlled Formation of Nanostructures with Desired Geometries. 1. Robust Static Structures. Industrial & Engineering Chemistry Research, 2010, 49, 7728-7745.	3.7	21
148	Long-term planning of natural gas production systems via a stochastic pooling problem. , 2010, , .		2
149	Clean Coal: A new power generation process with high efficiency, carbon capture and zero emissions. Computer Aided Chemical Engineering, 2010, 28, 991-996.	0.5	7
150	Convex enclosures for the reachable sets of nonlinear parametric ordinary differential equations. , 2010, , .		2
151	A Short-term Operational Planning Model for a LNG Production System. , 2009, , 143-153.		0
152	Bilevel optimization formulation for parameter estimation in liquid-liquid phase equilibrium problems. Chemical Engineering Science, 2009, 64, 548-559.	3.8	58
153	Towards global bilevel dynamic optimization. Journal of Global Optimization, 2009, 45, 63-93.	1.8	29
154	Parametric mixed-integer 0-1 linear programming: The general case for a single parameter. European Journal of Operational Research, 2009, 194, 663-686.	5.7	24
155	A dynamic two-dimensional heterogeneous model for water gas shift reactors. International Journal of Hydrogen Energy, 2009, 34, 8877-8891.	7.1	107
156	Bilevel optimization formulation for parameter estimation in vapor-liquid(=liquid) phase equilibrium problems. Chemical Engineering Science, 2009, 64, 1768-1783.	3.8	48
157	Model and Parameter Identification in Phase Equilibria. Computer Aided Chemical Engineering, 2009, 26, 597-601.	0.5	3
158	Sensitivity Analysis for Oscillating Dynamical Systems. SIAM Journal of Scientific Computing, 2009, 31, 2706-2732.	2.8	40
159	McCormick-Based Relaxations of Algorithms. SIAM Journal on Optimization, 2009, 20, 573-601.	2.0	161
160	Dynamic Simulation of Nuclear Hydrogen Production. Computer Aided Chemical Engineering, 2009, 27, 1779-1784.	0.5	0
161	Controlled Formation of Self-assembled Nanostructures with Desired Geometries: Robust Dynamic Paths to Robust Desired Structures. Computer Aided Chemical Engineering, 2009, 27, 1713-1718.	0.5	0
162	Global solution of bilevel programs with a nonconvex inner program. Journal of Global Optimization, 2008, 42, 475-513.	1.8	104

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163	A short-term operational planning model for natural gas production systems. <i>AIChE Journal</i> , 2008, 54, 495-515.	3.6	66
164	Designing man-portable power generation systems for varying power demand. <i>AIChE Journal</i> , 2008, 54, 1254-1269.	3.6	22
165	Relaxation-Based Bounds for Semi-Infinite Programs. <i>SIAM Journal on Optimization</i> , 2008, 19, 77-113.	2.0	44
166	Global optimization of linear hybrid systems with varying transition times. , 2008, , .		0
167	An outer-approximation algorithm for generalized maximum entropy sampling. , 2008, , .		3
168	The Per2 Negative Feedback Loop Sets the Period in the Mammalian Circadian Clock Mechanism. <i>PLoS Computational Biology</i> , 2007, 3, e242.	3.2	23
169	A production allocation framework for natural gas production systems. <i>Computer Aided Chemical Engineering</i> , 2007, 24, 539-544.	0.5	2
170	Methodology for the Design of Man-Portable Power Generation Devices. <i>Industrial & Engineering Chemistry Research</i> , 2007, 46, 7164-7176.	3.7	12
171	A dual extremum principle in thermodynamics. <i>AIChE Journal</i> , 2007, 53, 2131-2147.	3.6	32
172	What is the design objective for portable power generation: Efficiency or energy density?. <i>Journal of Power Sources</i> , 2007, 164, 678-687.	7.8	24
173	Biological network design strategies: discovery through dynamic optimization. <i>Molecular BioSystems</i> , 2006, 2, 650.	2.9	18
174	Bounding the Solutions of Parameter Dependent Nonlinear Ordinary Differential Equations. <i>SIAM Journal of Scientific Computing</i> , 2006, 27, 2167-2182.	2.8	70
175	Global Dynamic Optimization for Parameter Estimation in Chemical Kinetics. <i>Journal of Physical Chemistry A</i> , 2006, 110, 971-976.	2.5	79
176	Global Methods for Dynamic Optimization and Mixed-Integer Dynamic Optimization. <i>Industrial & Engineering Chemistry Research</i> , 2006, 45, 8373-8392.	3.7	93
177	Rigorous valid ranges for optimally reduced kinetic models. <i>Combustion and Flame</i> , 2006, 146, 348-365.	5.2	47
178	Optimization of hybrid systems. <i>Computers and Chemical Engineering</i> , 2006, 30, 1576-1589.	3.8	39
179	Global Optimization with Nonlinear Ordinary Differential Equations. <i>Journal of Global Optimization</i> , 2006, 34, 159-190.	1.8	96
180	Semismooth hybrid automata. , 2006, , .		0

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181	Global solution of mixed-integer dynamic optimization problems. Computer Aided Chemical Engineering, 2005, , 133-138.	0.5	1
182	Optimal design and steady-state operation of micro power generation employing fuel cells. Chemical Engineering Science, 2005, 60, 4535-4556.	3.8	38
183	Product engineering for man-portable power generation based on fuel cells. AIChE Journal, 2005, 51, 2199-2219.	3.6	11
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