Chrysanthos E Gounaris

List of Publications by Year
in descending order

60 papers	1,978 citations	331538 21 h-index	243529 44 g-index
63 all docs	63 docs citations	63 times ranked	1985 citing authors

#	Article	IF	Citations
1	A review of recent advances in global optimization. Journal of Global Optimization, 2009, 45, 3-38.	1.1	382
2	Computational characterization of zeolite porous networks: an automated approach. Physical Chemistry Chemical Physics, 2011, 13, 17339.	1.3	179
3	Computational Comparison of Piecewiseâ^'Linear Relaxations for Pooling Problems. Industrial & Engineering Chemistry Research, 2009, 48, 5742-5766.	1.8	176
4	The Robust Capacitated Vehicle Routing Problem Under Demand Uncertainty. Operations Research, 2013, 61, 677-693.	1.2	142
5	Multiâ€stage adjustable robust optimization for process scheduling under uncertainty. AIChE Journal, 2016, 62, 1646-1667.	1.8	108
6	Adsorption of fermentation inhibitors from lignocellulosic biomass hydrolyzates for improved ethanol yield and value-added product recovery. Microporous and Mesoporous Materials, 2009, 122, 143-148.	2.2	92
7	Modelling of the performance of industrial HDS reactors using a hybrid neural network approach. Chemical Engineering and Processing: Process Intensification, 2005, 44, 505-515.	1.8	49
8	Catalyst Design Based on Morphology- and Environment-Dependent Adsorption on Metal Nanoparticles. ACS Catalysis, 2015, 5, 6296-6301.	5.5	49
9	Global Optimization of Gas Lifting Operations: A Comparative Study of Piecewise Linear Formulations. Industrial & Engineering Chemistry Research, 2009, 48, 6098-6104.	1.8	48
10	An Adaptive Memory Programming Framework for the Robust Capacitated Vehicle Routing Problem. Transportation Science, 2016, 50, 1239-1260.	2.6	48
11	Predictive Framework for Shape-Selective Separations in Three-Dimensional Zeolites and Metalâ€“Organic Frameworks. Langmuir, 2013, 29, 5599-5608.	1.6	47
12	Rational design of shape selective separation and catalysisâ€”I: Concepts and analysis. Chemical Engineering Science, 2006, 61, 7933-7948.	1.9	45
13	Mathematical modeling and global optimization of large-scale extended pooling problems with the (EPA) complex emissions constraints. Computers and Chemical Engineering, 2010, 34, 1432-1456.	2.0	45
14	Robust optimization for decision-making under endogenous uncertainty. Computers and Chemical Engineering, 2018, 111, 252-266.	2.0	44
15	Tight convex underestimators for $${mathcal{C}^2}$$ -continuous problems: II. multivariate functions. Journal of Global Optimization, 2008, 42, 69-89.	1.1	35
16	Stereochemically Consistent Reaction Mapping and Identification of Multiple Reaction Mechanisms through Integer Linear Optimization. Journal of Chemical Information and Modeling, 2012, 52, 84-92.	2.5	33
17	Rational design of shape selective separation and catalysisâ€”II: Mathematical model and computational studies. Chemical Engineering Science, 2006, 61, 7949-7962.	1.9	29
18	A scenario decomposition algorithm for strategic time window assignment vehicle routing problems. Transportation Research Part B: Methodological, 2018, 117, 296-317.	2.8	29

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19	A branch-and-cut framework for the consistent traveling salesman problem. European Journal of Operational Research, 2016, 248, 384-395.	3.5	27
20	Designing networks with resiliency to edge failures using two-stage robust optimization. European Journal of Operational Research, 2019, 279, 704-720.	3.5	25
21	K-adaptability in two-stage mixed-integer robust optimization. Mathematical Programming Computation, 2020, 12, 193-224.	3.2	24
22	Tight convex underestimators for $${{mathcal C}^2}$$ -continuous problems: I. univariate functions. Journal of Global Optimization, 2008, 42, 51-67.	1.1	23
23	Robust Optimization of a Broad Class of Heterogeneous Vehicle Routing Problems Under Demand Uncertainty. INFORMS Journal on Computing, 2020, 32, 661-681.	1.0	21
24	A Decomposition Algorithm for the Consistent Traveling Salesman Problem with Vehicle Idling. Transportation Science, 2018, 52, 386-401.	2.6	20
25	A framework for optimizing oxygen vacancy formation in doped perovskites. Computers and Chemical Engineering, 2019, 126, 168-177.	2.0	20
26	Convex relaxation for solving posynomial programs. Journal of Global Optimization, 2010, 46, 147-154.	1.1	18
27	Convexity of Products of Univariate Functions andÂConvexification Transformations for Geometric Programming. Journal of Optimization Theory and Applications, 2008, 138, 407-427.	0.8	17
28	A mathematical optimization framework for the design of nanopatterned surfaces. AIChE Journal, 2016, 62, 3250-3263.	1.8	16
29	Next Generation Multi-Scale Process Systems Engineering Framework. Computer Aided Chemical Engineering, 2018, , 2209-2214.	0.3	16
30	Robust Multiperiod Vehicle Routing Under Customer Order Uncertainty. Operations Research, 2021, 69, 30-60.	1.2	15
31	Search Engines for Shape Selectivity. Catalysis Letters, 2009, 133, 234-241.	1.4	13
32	Explicit model predictive controller under uncertainty: An adjustable robust optimization approach. Journal of Process Control, 2019, 84, 115-132.	1.7	13
33	Search methods for inorganic materials crystal structure prediction. Current Opinion in Chemical Engineering, 2022, 35, 100726.	3.8	11
34	Generation of networks with prescribed degree-dependent clustering. Optimization Letters, 2011, 5, 435-451.	0.9	10
35	Theoretical and computational comparison of continuousâ€time process scheduling models for adjustable robust optimization. AIChE Journal, 2018, 64, 3055-3070.	1.8	10
36	A customized branch-and-bound approach for irregular shape nesting. Journal of Global Optimization, 2018, 71, 935-955.	1.1	10

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37	Identification of optimally stable nanocluster geometries via mathematical optimization and density-functional theory. Molecular Systems Design and Engineering, 2020, 5, 232-244.	1.7	10
38	Adjustable Robust Optimization for multi-tasking scheduling with reprocessing due to imperfect tasks. Optimization and Engineering, 2019, 20, 1117-1159.	1.3	8
39	Optimization-Based Design of Active and Stable Nanostructured Surfaces. Journal of Physical Chemistry C, 2019, 123, 29209-29218.	1.5	8
40	Vehicle routing with endogenous learning: Application to offshore plug and abandonment campaign planning. European Journal of Operational Research, 2021, 289, 93-106.	3.5	7
41	Multi-mode Resource Constrained Project Scheduling with Alternative Prerequisites: New Models and Computational Studies. Industrial & Engineering Chemistry Research, 2019, 58, 18253-18266.	1.8	6
42	Designing stable bimetallic nanoclusters via an iterative two-step optimization approach. Molecular Systems Design and Engineering, 2021, 6, 545-557.	1.7	6
43	A generalized <scp>cuttingâ€set</scp> approach for nonlinear robust optimization in process systems engineering. AICHE Journal, 2021, 67, e17175.	1.8	6
44	Rational design of shape selective separations and catalysis: Lattice relaxation and effective aperture size. AICHE Journal, 2010, 56, 611-632.	1.8	5
45	Estimation of diffusion anisotropy in microporous crystalline materials and optimization of crystal orientation in membranes. Journal of Chemical Physics, 2013, 139, 124703.	1.2	5
46	Designing networks: A mixedâ€integer linear optimization approach. Networks, 2016, 68, 283-301.	1.6	4
47	Robust vehicle routing under uncertainty via branch-price-and-cut. Optimization and Engineering, 2022, 23, 1895-1948.	1.3	4
48	Comparison of Continuous-Time Models for Adjustable Robust Optimization in Process Scheduling under Uncertainty. Computer Aided Chemical Engineering, 2016, 38, 391-396.	0.3	3
49	Generalized Hose uncertainty in single-commodity robust network design. Optimization Letters, 2020, 14, 925-944.	0.9	3
50	Design of Doped Perovskite Oxygen Carriers Using Mathematical Optimization. Computer Aided Chemical Engineering, 2018, 44, 2461-2466.	0.3	2
51	A preface to the special issue on enterprise-wide optimization. Optimization and Engineering, 2019, 20, 965-968.	1.3	2
52	Mixed-integer linear optimization for full truckload pickup and delivery. Optimization Letters, 2021, 15, 1847-1863.	0.9	2
53	Portfolio-Wide Optimization of Pharmaceutical R&D Activities Using Mathematical Programming. Interfaces, 2021, 51, 262-279.	1.6	2
54	MatOpt: A Python Package for Nanomaterials Design Using Discrete Optimization. Journal of Chemical Information and Modeling, 2022, 62, 295-308.	2.5	2

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55	Special issue on vehicle routing and scheduling: recent trends and advances. Optimization Letters, 2013, 7, 1399-1403.	0.9	1
56	An Ontology to Describe Small Molecule Pharmaceutical Product Development and Methodology for Optimal Activity Scheduling. Journal of Pharmaceutical Innovation, 2020, , 1.	1.1	1
57	On tackling reverse convex constraints for non-overlapping of unequal circles. Journal of Global Optimization, 2021, 80, 357-385.	1.1	1
58	Global Optimization and Parametric Analysis of Large-Scale Extended Pooling Problems. Computer Aided Chemical Engineering, 2010, 28, 847-852.	0.3	0
59	A preface to the special issue in memory of Professor Christodoulos A. Floudas. Optimization Letters, 2020, 14, 797-800.	0.9	0
60	Multidimensional Piecewise-Affine Approximations for Gas Lifting and Pooling Applications. , 2009, , 887-896.		0