Ignacio E Grossmann

List of Publications by Year in Descending Order

571 papers	32,255 citations	96 h-index	155 g-index
590 ext. papers	35,364 ext. citations	3.4 avg, IF	7.83 L-index

#	Paper	IF	Citations
571	Simultaneous Synthesis and Optimization of Refrigeration Cycles and Heat Exchangers Networks. *Applied Thermal Engineering*, **2022**, 206, 118052	5.8	0
570	Mathematical modeling for renewable process design **2022**, 35-100		
569	A Review on the Performance of Linear and Mixed Integer Two-Stage Stochastic Programming Software. *Algorithms*, **2022**, 15, 103	1.8	0
568	Applications of the RTN scheduling model in the chemical industry **2022**, 365-400		
567	Synthesis of Heat-Integrated Water Networks Using a Modified Heat Exchanger Network Superstructure. *Energies*, **2022**, 15, 3158	3.1	0
566	On representative day selection for capacity expansion planning of power systems under extreme operating conditions. *International Journal of Electrical Power and Energy Systems*, **2021**, 107697	5.1	2
565	Integrating stochastic programming and reliability in the optimal synthesis of chemical processes. *Computers and Chemical Engineering*, **2021**, 157, 107616	4	1
564	A biographical review of the research and impacts of Marco Duran. *Optimization and Engineering*, **2021**, 22, 1233-1244	2.1	
563	State of the art methods for combined water and energy systems optimisation in Kraft pulp mills. *Optimization and Engineering*, **2021**, 22, 1831	2.1	3
562	Multi-period design and planning model of shale gas field development. *AICHE Journal*, **2021**, 67, e17195	3.6	2
561	Integrated Renewable Production of Sorbitol and Xylitol from Switchgrass. *Industrial & Engineering Chemistry Research*, **2021**, 60, 5558-5573	3.9	2
560	Optimal design of ethylene and propylene coproduction plants with generalized disjunctive programming and state equipment network models. *Computers and Chemical Engineering*, **2021**, 149, 107295	4	4
559	Novel flexibility index formulations for the selection of the operating range within a design space. *Computers and Chemical Engineering*, **2021**, 149, 107284	4	5
558	Multiperiod optimization of heat exchanger networks with integrated thermodynamic cycles and thermal storages. *Computers and Chemical Engineering*, **2021**, 149, 107293	4	8
557	Mixed-integer Linear Programming Models and Algorithms for Generation and Transmission Expansion Planning of Power Systems. *European Journal of Operational Research*, **2021**,	5.6	9
556	Hierarchical decompositions for MPC of resource constrained control systems: applications to building energy management. *Optimization and Engineering*, **2021**, 22, 187-215	2.1	6
555	A MILP-based clustering strategy for integrating the operational management of crude oil supply. *Computers and Chemical Engineering*, **2021**, 145, 107161	4	0

554	Optimal design of water pipeline networks for the development of shale gas resources. *AICHE Journal*, **2021**, 67,	3.6	3
553	Process and product design for the simultaneous synthesis of xylitol and sorbitol from biomass. *Computer Aided Chemical Engineering*, **2021**, 159-165	0.6	
552	Algorithmic Approaches to Inventory Management Optimization. *Processes*, **2021**, 9, 102	2.9	9
551	Integrating Reliability and Uncertainty in Process Synthesis. *Computer Aided Chemical Engineering*, **2021**, 107-113	0.6	0
550	Multi-objective optimization for the incorporation of safety and reliability considerations in process design. *Computer Aided Chemical Engineering*, **2021**, 50, 101-106	0.6	2
549	A Digital Twin Framework for Business Transactional Processes in Supply Chains. *Computer Aided Chemical Engineering*, **2021**, 50, 1755-1760	0.6	2
548	Flexibility index of black-box models with parameter uncertainty through derivative-free optimization. *AICHE Journal*, **2021**, 67, e17189	3.6	2
547	Optimization of extended business processes in digital supply chains using mathematical programming. *Computers and Chemical Engineering*, **2021**, 152, 107323	4	2
546	Pyosyn: A new framework for conceptual design modeling and optimization. *Computers and Chemical Engineering*, **2021**, 153, 107414	4	5
545	Simultaneous optimisation of large-scale problems of heat-integrated water networks. *Energy*, **2021**, 235, 121354	7.9	8
544	Hybrid model generation for superstructure optimization with Generalized Disjunctive Programming. *Computers and Chemical Engineering*, **2021**, 154, 107473	4	1
543	Recent Advances in Computational Models for the Discrete and Continuous Optimization of Industrial Process Systems. *SxI Springer Per L'Innovazione*, **2021**, 1-31	0	
542	A Review of Stochastic Programming Methods for Optimization of Process Systems Under Uncertainty. *Frontiers in Chemical Engineering*, **2021**, 2,	1	13
541	Sample average approximation for stochastic nonconvex mixed integer nonlinear programming via outer-approximation. *Optimization and Engineering*, **2020**, 22, 1245	2.1	5
540	Large-scale selective maintenance optimization using bathtub-shaped failure rates. *Computers and Chemical Engineering*, **2020**, 139, 106876	4	7
539	A review on superstructure optimization approaches in process system engineering. *Computers and Chemical Engineering*, **2020**, 136, 106808	4	67
538	A computationally useful algebraic representation of nonlinear disjunctive convex sets using the perspective function. *Computational Optimization and Applications*, **2020**, 76, 589-614	1.4	1
537	Optimal scheduling of copper concentrate operations under uncertainty. *Computers and Chemical Engineering*, **2020**, 140, 106919	4	1

536	Industrial Demand Side Management of a Steel Plant Considering Alternative Power Modes and Electrode Replacement. *Industrial & Engineering Chemistry Research*, **2020**, 59, 13642-13656	3.9	8
535	Surrogate-model based MILP for the optimal design of ethylene production from shale gas. *Computers and Chemical Engineering*, **2020**, 141, 107015	4	6
534	Environmental and Economic Water Management in Shale Gas Extraction. *Sustainability*, **2020**, 12, 1686	3.6	7
533	Integrated Redundancy and Storage Design Optimization for Reliable Air Separation Units Based on Markov Chain Game Theoretic Solution. *Industrial & Engineering Chemistry Research*, **2020**, 59, 2491-2504	3.9	1
532	Integration of crude-oil scheduling and refinery planning by Lagrangean Decomposition. *Computers and Chemical Engineering*, **2020**, 138, 106812	4	8
531	Shale gas pad development planning under price uncertainty. *AICHE Journal*, **2020**, 66, e16933	3.6	6
530	Improving the performance of DICOPT in convex MINLP problems using a feasibility pump. *Optimization Methods and Software*, **2020**, 35, 171-190	1.3	7
529	Modeling Framework for Joint Product and Process Synthesis with Material Recovery Opportunities. *Computer Aided Chemical Engineering*, **2020**, 48, 823-828	0.6	
528	Coproduction of Ethylene and Propylene based on Ethane and Propane Feedstocks. *Computer Aided Chemical Engineering*, **2020**, 907-912	0.6	3
527	MINLP Model for Reliability Optimization of System Design and Maintenance Based on Markov Chain Representation. *Computer Aided Chemical Engineering*, **2020**, 48, 1057-1062	0.6	1
526	Optimization of Business Transactional Processes in a Digital Supply Chain. *Computer Aided Chemical Engineering*, **2020**, 48, 1159-1164	0.6	2
525	Cutpoint Temperature Surrogate Modeling for Distillation Yields and Properties. *Industrial & Engineering Chemistry Research*, **2020**, 59, 18616-18628	3.9	9
524	Novel MINLP formulations for flexibility analysis for measured and unmeasured uncertain parameters. *Computers and Chemical Engineering*, **2020**, 135, 106727	4	7
523	Integrated optimization of design, storage sizing, and maintenance policy as a Markov decision process considering varying failure rates. *Computers and Chemical Engineering*, **2020**, 142, 107052	4	4
522	Strengthening discrete-time scheduling formulations by introducing the concept of campaigns. *Computers and Chemical Engineering*, **2020**, 143, 107101	4	1
521	Using regularization and second order information in outer approximation for convex MINLP. *Mathematical Programming*, **2020**, 180, 285-310	2.1	11
520	Electric power infrastructure planning under uncertainty: stochastic dual dynamic integer programming (SDDiP) and parallelization scheme. *Optimization and Engineering*, **2020**, 21, 1243-1281	2.1	5
519	Batch scheduling with quality-based changeovers. *Computers and Chemical Engineering*, **2020**, 132, 106617	4	14

518	Optimal Integrated Facility for Oxymethylene Ethers Production from Methanol. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 6496-6504	8.3	2
517	Implementation of RTO in a large hydrogen network considering uncertainty. *Optimization and Engineering*, **2019**, 20, 1161-1190	2.1	3
516	Novel Approaches for the Integration of Planning and Scheduling. *Industrial & Engineering Chemistry Research*, **2019**, 58, 19973-19984	3.9	5
515	Novel Formulation for Optimal Schedule with Demand Side Management in Multiproduct Air Separation Processes. *Industrial & Engineering Chemistry Research*, **2019**, 58, 3104-3117	3.9	13
514	An overview of process intensification methods. *Current Opinion in Chemical Engineering*, **2019**, 25, 87-94	5.4	39
513	A bilevel decomposition method for the simultaneous heat integration and synthesis of steam/organic Rankine cycles. *Computers and Chemical Engineering*, **2019**, 128, 228-245	4	23
512	Global optimization algorithm for multi-period design and planning of centralized and distributed manufacturing networks. *Computers and Chemical Engineering*, **2019**, 127, 295-310	4	10
511	Multi-system shale gas supply chain planning with development and resource arrangements. *Computers and Chemical Engineering*, **2019**, 127, 49-70	4	5
510	Multi-operational planning of shale gas pad development. *Computers and Chemical Engineering*, **2019**, 126, 83-101	4	16
509	Discrete and continuous-time formulations for dealing with break periods: Preemptive and non-preemptive scheduling. *European Journal of Operational Research*, **2019**, 278, 563-577	5.6	16
508	Process Systems Engineering: Academic and industrial perspectives. *Computers and Chemical Engineering*, **2019**, 126, 474-484	4	29
507	Effective Generalized Disjunctive Programming Models for Modular Process Synthesis. *Industrial & Engineering Chemistry Research*, **2019**, 58, 5873-5886	3.9	9
506	Kaibel column: Modeling, optimization, and conceptual design of multi-product dividing wall columns. *Computers and Chemical Engineering*, **2019**, 125, 31-39	4	12
505	Integrated Renewable Production of ETBE from Switchgrass. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 8943-8953	8.3	7
504	Modeling for reliability optimization of system design and maintenance based on Markov chain theory. *Computers and Chemical Engineering*, **2019**, 124, 381-404	4	24
503	Integrated design and operation of renewables-based fuels and power production networks. *Computers and Chemical Engineering*, **2019**, 122, 80-92	4	25
502	Flexibility Analysis For Design Space Definition. *Computer Aided Chemical Engineering*, **2019**, 323-328	0.6	3
501	A finite (epsilon)-convergence algorithm for two-stage stochastic convex nonlinear programs with mixed-binary first and second-stage variables. *Journal of Global Optimization*, **2019**, 75, 921-947	1.5	6

500	Multiperiod optimization model for oilfield production planning: bicriterion optimization and two-stage stochastic programming model. *Optimization and Engineering*, **2019**, 20, 1227-1248	2.1	6
499	Economic and environmental strategic water management in the shale gas industry: Application of cooperative game theory. *AICHE Journal*, **2019**, 65, e16725	3.6	5
498	A generalized Benders decomposition-based branch and cut algorithm for two-stage stochastic programs with nonconvex constraints and mixed-binary first and second stage variables. *Journal of Global Optimization*, **2019**, 75, 247-272	1.5	12
497	New MINLP Formulations for Flexibility Analysis for Measured and Unmeasured Uncertain Parameters. *Computer Aided Chemical Engineering*, **2019**, 46, 121-126	0.6	
496	Modern Modeling Paradigms Using Generalized Disjunctive Programming. *Processes*, **2019**, 7, 839	2.9	13
495	Process Optimization for the Hydrothermal Production of Algae Fuels. *Industrial & Engineering Chemistry Research*, **2019**, 58, 23276-23283	3.9	2
494	Process systems engineering thinking and tools applied to sustainability problems: current landscape and future opportunities. *Current Opinion in Chemical Engineering*, **2019**, 26, 170-179	5.4	21
493	Integrated Power-to-Gas and Gas-to-Power with Air and Natural-Gas Storage. *Industrial & Engineering Chemistry Research*, **2019**, 58, 1322-1340	3.9	1
492	A review and comparison of solvers for convex MINLP. *Optimization and Engineering*, **2019**, 20, 397-455	2.1	94
491	An MINLP formulation for integrating the operational management of crude oil supply. *Computers and Chemical Engineering*, **2019**, 123, 110-125	4	5
490	Inventory policies and safety stock optimization for supply chain planning. *AICHE Journal*, **2019**, 65, 99-112	3.6	14
489	An improved L-shaped method for two-stage convex 0□1 mixed integer nonlinear stochastic programs. *Computers and Chemical Engineering*, **2018**, 112, 165-179	4	16
488	Global optimization algorithm for capacitated multi-facility continuous location-allocation problems. *Journal of Global Optimization*, **2018**, 71, 871-889	1.5	11
487	Expanding scope and computational challenges in process scheduling. *Computers and Chemical Engineering*, **2018**, 114, 14-42	4	56
486	Long-Term Electricity Procurement for Large Industrial Consumers under Uncertainty. *Industrial & Engineering Chemistry Research*, **2018**, 57, 3333-3347	3.9	17
485	Continuous-time formulations for the optimal planning of multiple refracture treatments in a shale gas well. *AICHE Journal*, **2018**, 64, 1511-1516	3.6	12
484	Integrated scheduling of rolling sector in steel production with consideration of energy consumption under time-of-use electricity prices. *Computers and Chemical Engineering*, **2018**, 111, 55-65	4	22
483	Novel MILP Scheduling Model for Power-Intensive Processes under Time-Sensitive Electricity Prices. *Industrial & Engineering Chemistry Research*, **2018**, 57, 1581-1592	3.9	12

482	New algorithm for the flexibility index problem of quadratic systems. *AICHE Journal*, **2018**, 64, 2486-2499	3.6	8
481	Efficient formulations for dynamic warehouse location under discrete transportation costs. *Computers and Chemical Engineering*, **2018**, 111, 311-323	4	11
480	Improved quadratic cuts for convex mixed-integer nonlinear programs. *Computers and Chemical Engineering*, **2018**, 109, 77-95	4	13
479	Time for global action: an optimised cooperative approach towards effective climate change mitigation. *Energy and Environmental Science*, **2018**, 11, 572-581	35.4	40
478	Disjunctive model for the simultaneous optimization and heat integration with unclassified streams and area estimation. *Computers and Chemical Engineering*, **2018**, 108, 217-231	4	18
477	Mixed-integer nonlinear programming models for optimal design of reliable chemical plants. *Computers and Chemical Engineering*, **2018**, 116, 3-16	4	22
476	A comparative study between GDP and NLP formulations for conceptual design of distillation columns. *Computer Aided Chemical Engineering*, **2018**, 44, 865-870	0.6	3
475	Multi-System Development Planning for Optimizing Shale Gas Production. *Computer Aided Chemical Engineering*, **2018**, 1303-1308	0.6	
474	Next Generation Multi-Scale Process Systems Engineering Framework. *Computer Aided Chemical Engineering*, **2018**, 2209-2214	0.6	13
473	Successive LP Approximation for Nonconvex Blending in MILP Scheduling Optimization Using Factors for Qualities in the Process Industry. *Industrial & Engineering Chemistry Research*, **2018**, 57, 11076-11093	3.9	8
472	Optimal synthesis of rotating packed bed and packed bed: a case illustrating the integration of PI and PSE. *Computer Aided Chemical Engineering*, **2018**, 44, 2377-2382	0.6	6
471	Scheduling and Feed Quality Optimization of Concentrate Raw Materials in the Copper Refining Industry. *Industrial & Engineering Chemistry Research*, **2018**, 57, 11686-11701	3.9	3
470	Deterministic electric power infrastructure planning: Mixed-integer programming model and nested decomposition algorithm. *European Journal of Operational Research*, **2018**, 271, 1037-1054	5.6	55
469	Impact of model resolution on scenario outcomes for electricity sector system expansion. *Energy*, **2018**, 163, 1231-1244	7.9	27
468	Mixed-Integer Nonlinear Decomposition Toolbox for Pyomo (MindtPy). *Computer Aided Chemical Engineering*, **2018**, 44, 895-900	0.6	7
467	Simultaneous optimisation and heat integration of evaporation systems including mechanical vapour recompression and background process. *Energy*, **2018**, 158, 1160-1191	7.9	12
466	Product decomposition strategy for optimization of supply chain planning. *Frontiers of Engineering Management*, **2018**, 5, 466	2.7	1
465	Search for reaction pathways with P-graphs and reaction blocks: methanation of carbon dioxide with hydrogen. *Journal of Mathematical Chemistry*, **2018**, 56, 1011-1102	2.1	5

464	Optimal integration of renewable based processes for fuels and power production: Spain case study. *Applied Energy*, **2018**, 213, 595-610	10.7	45
463	Expanding the Scope of Electric Power Infrastructure Planning. *Computer Aided Chemical Engineering*, **2018**, 44, 1309-1314	0.6	3
462	An Improved L-shaped Method for Two-stage Convex 0-1 Mixed Integer Nonlinear Stochastic Programs. *Computer Aided Chemical Engineering*, **2018**, 1501-1506	0.6	
461	Optimal Production Scheduling of Industrial Gases under Uncertainty with Flexibility Constraints. *Computer Aided Chemical Engineering*, **2018**, 44, 1513-1518	0.6	2
460	Integrated scheduling of on-line blending and distribution of oil products in refinery operation. *Computer Aided Chemical Engineering*, **2018**, 44, 1213-1218	0.6	
459	Pyomo.GDP: Disjunctive Models in Python. *Computer Aided Chemical Engineering*, **2018**, 44, 889-894	0.6	12
458	Sustainable Optimal Strategic Planning for Shale Water Management. *Computer Aided Chemical Engineering*, **2018**, 657-662	0.6	1
457	Markov Chain MINLP Model for Reliability Optimization of System Design and Maintenance. *Computer Aided Chemical Engineering*, **2018**, 44, 1483-1488	0.6	7
456	Preface of the Special JOGO issue in Memory of Professor Christodoulos A. Floudas (1959–2016). *Journal of Global Optimization*, **2018**, 71, 1013-1013	1.5	0
455	Logistics optimization for dispositions and depooling of distillates in oil-refineries: closing the production scheduling and distribution gap. *Computer Aided Chemical Engineering*, **2018**, 43, 1135-1140	0.6	6
454	Holistic Planning Model for Sustainable Water Management in the Shale Gas Industry. *Industrial & Engineering Chemistry Research*, **2018**, 57, 13131-13143	3.9	14
453	Global optimization of non-convex generalized disjunctive programs: a review on reformulations and relaxation techniques. *Journal of Global Optimization*, **2017**, 67, 43-58	1.5	18
452	Symmetry breaking for generalized disjunctive programming formulation of the strip packing problem. *Annals of Operations Research*, **2017**, 258, 747-759	3.2	3
451	On the solution of nonconvex cardinality Boolean quadratic programming problems: a computational study. *Computational Optimization and Applications*, **2017**, 66, 1-37	1.4	7
450	Towards zero CO2 emissions in the production of methanol from switchgrass. CO2 to methanol. *Computers and Chemical Engineering*, **2017**, 105, 308-316	4	21
449	Optimal integration of a self sustained algae based facility with solar and/or wind energy. *Journal of Cleaner Production*, **2017**, 145, 336-347	10.3	26
448	Petroleum supply planning: reformulations and a novel decomposition algorithm. *Optimization and Engineering*, **2017**, 18, 215-240	2.1	7
447	Optimal synthesis of rotating packed bed reactor. *Computers and Chemical Engineering*, **2017**, 105, 152-160	4	21

446	Recent Developments and Challenges in Optimization-Based Process Synthesis. *Annual Review of Chemical and Biomolecular Engineering*, **2017**, 8, 249-283	8.9	105
445	Capacity planning with competitive decision-makers: Trilevel MILP formulation, degeneracy, and solution approaches. *European Journal of Operational Research*, **2017**, 262, 449-463	5.6	14
444	A piecewise McCormick relaxation-based strategy for scheduling operations in a crude oil terminal. *Computers and Chemical Engineering*, **2017**, 106, 309-321	4	12
443	Stochastic programming models for optimal shale well development and refracturing planning under uncertainty. *AICHE Journal*, **2017**, 63, 4799-4813	3.6	19
442	Models and computational strategies for multistage stochastic programming under endogenous and exogenous uncertainties. *Computers and Chemical Engineering*, **2017**, 103, 233-274	4	59
441	Enterprise-Wide Optimization for Operations of Crude-Oil Refineries: Closing the Procurement and Scheduling Gap. *Computer Aided Chemical Engineering*, **2017**, 40, 1249-1254	0.6	5
440	Decision Automation for Oil and Gas Well Startup Scheduling Using MILP. *Computer Aided Chemical Engineering*, **2017**, 1399-1404	0.6	2
439	Mixed-integer programming models for line pressure optimization in shale gas gathering systems. *Journal of Petroleum Science and Engineering*, **2017**, 157, 1021-1032	4.4	13
438	Optimal Synthesis and Operation of Wastewater Treatment Process with Dynamic Influent. *Industrial & Engineering Chemistry Research*, **2017**, 56, 8663-8676	3.9	8
437	Optimization models for impaired water management in active shale gas development areas. *Journal of Petroleum Science and Engineering*, **2017**, 156, 983-995	4.4	10
436	Optimal Demand Side Management for Cryogenic Air Separation Plants **2017**, 535-564		2
435	Multiscale production routing in multicommodity supply chains with complex production facilities. *Computers and Operations Research*, **2017**, 79, 207-222	4.6	35
434	Offshore oilfield development planning under uncertainty and fiscal considerations. *Optimization and Engineering*, **2017**, 18, 3-33	2.1	4
433	A novel disjunctive model for the simultaneous optimization and heat integration. *Computers and Chemical Engineering*, **2017**, 96, 149-168	4	21
432	Mathematical Programming Techniques for Optimization under Uncertainty and Their Application in Process Systems Engineering. *Theoretical Foundations of Chemical Engineering*, **2017**, 51, 893-909	0.9	21
431	Optimal scheduling for power-intensive processes under time-sensitive electricity prices. *Computer Aided Chemical Engineering*, **2017**, 1423-1428	0.6	1
430	A New Disjunctive Formulation for the Simultaneous Optimization and Heat Integration with Cold/Hot and Unclassified Streams. *Computer Aided Chemical Engineering*, **2017**, 40, 2167-2172	0.6	
429	Integrated Design, Planning, and Scheduling of Renewables-based Fuels and Power Production Networks. *Computer Aided Chemical Engineering*, **2017**, 40, 1879-1884	0.6	7

428	Perspectives in multilevel decision-making in the process industry. *Frontiers of Engineering Management*, **2017**, 4, 256	2.7	23
427	Systematic Design of Biorefinery Downstream Processes **2017**, 683-712		
426	A discrete-time scheduling model for continuous power-intensive process networks with various power contracts. *Computers and Chemical Engineering*, **2016**, 84, 382-393	4	68
425	Scheduling of cracking production process with feedstocks and energy constraints. *Computers and Chemical Engineering*, **2016**, 94, 92-103	4	13
424	A tribute to professor Roger Sargent: Intellectual leader of process systems engineering. *AICHE Journal*, **2016**, 62, 2951-2958	3.6	4
423	Enterprise-wide optimization for industrial demand side management: Fundamentals, advances, and perspectives. *Chemical Engineering Research and Design*, **2016**, 116, 114-131	5.5	73
422	Optimization models for planning shale gas well refracture treatments. *AICHE Journal*, **2016**, 62, 4297-4307	3.6	29
421	Data-driven construction of Convex Region Surrogate models. *Optimization and Engineering*, **2016**, 17, 289-332	2.1	36
420	Recent advances in mathematical programming techniques for the optimization of process systems under uncertainty. *Computers and Chemical Engineering*, **2016**, 91, 3-14	4	118
419	Cutting Plane Algorithm for Convex Generalized Disjunctive Programs. *INFORMS Journal on Computing*, **2016**, 28, 209-222	2.4	10
418	Process simulator-based optimization of biorefinery downstream processes under the Generalized Disjunctive Programming framework. *Computers and Chemical Engineering*, **2016**, 88, 73-85	4	22
417	Supplier selection in the processed food industry under uncertainty. *European Journal of Operational Research*, **2016**, 252, 801-814	5.6	78
416	An MILP-MINLP decomposition method for the global optimization of a source based model of the multiperiod blending problem. *Computers and Chemical Engineering*, **2016**, 87, 13-35	4	28
415	Rolling Horizon Approach for Production□Distribution Coordination of Industrial Gases Supply Chains. *Industrial & Engineering Chemistry Research*, **2016**, 55, 2646-2660	3.9	26
414	Risk-based integrated production scheduling and electricity procurement for continuous power-intensive processes. *Computers and Chemical Engineering*, **2016**, 86, 90-105	4	38
413	An adjustable robust optimization approach to scheduling of continuous industrial processes providing interruptible load. *Computers and Chemical Engineering*, **2016**, 86, 106-119	4	79
412	Mixed-integer bilevel optimization for capacity planning with rational markets. *Computers and Chemical Engineering*, **2016**, 86, 33-47	4	32
411	Optimal Production of Furfural and DMF from Algae and Switchgrass. *Industrial & Engineering Chemistry Research*, **2016**, 55, 3192-3202	3.9	20

410	A reactive optimization strategy for the simultaneous planning, scheduling and control of short-period continuous reactors. *Computers and Chemical Engineering*, **2016**, 84, 507-515	4	18
409	Solution of Chance-Constrained Mixed-Integer Nonlinear Programming Problems. *Computer Aided Chemical Engineering*, **2016**, 38, 91-96	0.6	3
408	Disjunctive Models for Strategic Midstream Delivery Agreements in Shale Gas Development. *Computer Aided Chemical Engineering*, **2016**, 38, 931-936	0.6	2
407	Global Optimization for a Continuous Location-Allocation Model for Centralized and Distributed Manufacturing. *Computer Aided Chemical Engineering*, **2016**, 1009-1014	0.6	5
406	Macro-economic multi-objective input□output model for minimizing CO2 emissions: Application to the U.S. economy. *AICHE Journal*, **2016**, 62, 3639-3656	3.6	16
405	Multi-period planning, design, and strategic models for long-term, quality-sensitive shale gas development. *AICHE Journal*, **2016**, 62, 2296-2323	3.6	41
404	Optimizing inventory policies in process networks under uncertainty. *Computers and Chemical Engineering*, **2016**, 92, 256-272	4	14
403	On the relation between flexibility analysis and robust optimization for linear systems. *AICHE Journal*, **2016**, 62, 3109-3123	3.6	45
402	Simultaneous optimal design of multi-stage organic Rankine cycles and working fluid mixtures for low-temperature heat sources. *Computers and Chemical Engineering*, **2016**, 89, 106-126	4	13
401	Biomass as Source for Chemicals, Power, and Fuels **2016**, 207-233		
400	Lagrangean relaxation of the hull-reformulation of linear generalized disjunctive programs and its use in disjunctive branch and bound. *European Journal of Operational Research*, **2016**, 253, 314-327	5.6	4
399	Planning and Scheduling for Industrial Demand Side Management: Advances and Challenges **2016**, 383-414		23
398	A cross-decomposition scheme with integrated primal□dual multi-cuts for two-stage stochastic programming investment planning problems. *Mathematical Programming*, **2016**, 157, 95-119	2.1	12
397	Cutting planes for improved global logic-based outer-approximation for the synthesis of process networks. *Computers and Chemical Engineering*, **2016**, 90, 201-221	4	4
396	Optimal Integration of Algae□Switchgrass Facility for the Production of Methanol and Biodiesel. *ACS Sustainable Chemistry and Engineering*, **2016**, 4, 5651-5658	8.3	11
395	Optimal planning and feedstock-mix selection for multiproduct polymer production. *Computers and Chemical Engineering*, **2016**, 95, 182-201	4	1
394	Improved Big-M reformulation for generalized disjunctive programs. *Computers and Chemical Engineering*, **2015**, 76, 98-103	4	35
393	Treatment of High-Strength Wastewater from the Sugar-Sweetened Beverage Industry by an Alcoholic Fermentation Process. *Industrial & Engineering Chemistry Research*, **2015**, 54, 7687-7693	3.9	9

392	Data-Driven Simulation and Optimization Approaches To Incorporate Production Variability in Sales and Operations Planning. *Industrial & Engineering Chemistry Research*, **2015**, 54, 7261-7272	3.9	7
391	Optimal production of Furfural and DMF from algae and switchgrass. *Computer Aided Chemical Engineering*, **2015**, 37, 1043-1048	0.6	1
390	Water and energy integration: A comprehensive literature review of non-isothermal water network synthesis. *Computers and Chemical Engineering*, **2015**, 82, 144-171	4	78
389	Optimal Scheduling of Air Separation with Cryogenic Energy Storage. *Computer Aided Chemical Engineering*, **2015**, 37, 2267-2272	0.6	2
388	Recent Advances in Mathematical Programming Techniques for the Optimization of Process Systems under Uncertainty. *Computer Aided Chemical Engineering*, **2015**, 37, 1-14	0.6	12
387	Generalized capital investment planning of oil-refineries using MILP and sequence-dependent setups. *Computers and Chemical Engineering*, **2015**, 80, 140-154	4	10
386	Computational strategies for large-scale MILP transshipment models for heat exchanger network synthesis. *Computers and Chemical Engineering*, **2015**, 82, 68-83	4	25
385	Data-driven individual and joint chance-constrained optimization via kernel smoothing. *Computers and Chemical Engineering*, **2015**, 78, 51-69	4	43
384	Simultaneous process optimization and heat integration based on rigorous process simulations. *Computers and Chemical Engineering*, **2015**, 81, 180-199	4	24
383	Water–energy nexus in biofuels production and renewable based power. *Sustainable Production and Consumption*, **2015**, 2, 96-108	8.2	14
382	Optimal procurement contract selection with price optimization under uncertainty for process networks. *Computers and Chemical Engineering*, **2015**, 82, 330-343	4	18
381	Integrated Operational and Financial Hedging for Risk Management in Crude Oil Procurement. *Industrial & Engineering Chemistry Research*, **2015**, 54, 9191-9201	3.9	10
380	Algorithmic Approach for Improved Mixed-Integer Reformulations of Convex Generalized Disjunctive Programs. *INFORMS Journal on Computing*, **2015**, 27, 59-74	2.4	9
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