

Carlos A Mendez

List of Publications by Year in descending order

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110
papers

3,365
citations

257101

24
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143772

57
g-index

114
all docs

114
docs citations

114
times ranked

1765
citing authors

#	ARTICLE	IF	CITATIONS
1	Optimization of resource flows across the whole supply chain. Application to a case study in the dairy industry. Computers and Chemical Engineering, 2022, 158, 107632.	2.0	4
2	A Simulation-Based Tool to Support Decision-Making in Logistics Design of a Can Packaging Line. International Journal of Food Engineering, 2020, 16, .	0.7	1
3	A two-stage procedure for efficiently solving the integrated problem of production, inventory, and distribution of industrial products. Computers and Chemical Engineering, 2020, 134, 106690.	2.0	8
4	A reactive-iterative optimization algorithm for scheduling of air separation units under uncertainty in electricity prices. Computers and Chemical Engineering, 2020, 142, 107050.	2.0	13
5	A stochastic approach for integrated production and distribution planning in dairy supply chains. Computers and Chemical Engineering, 2020, 140, 106966.	2.0	15
6	Scheduling of flexible manufacturing plants with redesign options: A MILP-based decomposition algorithm and case studies. Computers and Chemical Engineering, 2020, 136, 106777.	2.0	12
7	An efficient MILP-based decomposition strategy for solving large-scale scheduling problems in the shipbuilding industry. Optimization and Engineering, 2019, 20, 1085-1115.	1.3	10
8	An Efficient MILP-Based Decomposition Strategy for Solving Large-Scale Scheduling Problems in the Offshore Oil and Gas Industry. Computer Aided Chemical Engineering, 2019, , 943-948.	0.3	1
9	Mixed-integer linear programming approach for product design for life-cycle profit. Computers and Industrial Engineering, 2019, 137, 106079.	3.4	4
10	Discrete-Time MILP Formulation for the Optimal Scheduling of Maintenance Tasks on Oil and Gas Production Assets. Industrial & Engineering Chemistry Research, 2019, 58, 8231-8245.	1.8	7
11	A Discrete-time MILP Formulation for the Optimal Scheduling of Maintenance Tasks on Oil and Gas Wells and Surface Facilities. Computer Aided Chemical Engineering, 2019, , 727-732.	0.3	1
12	Integrating decisions of product and closed-loop supply chain design under uncertain return flows. Computers and Chemical Engineering, 2018, 112, 211-238.	2.0	34
13	Robust integrated production-maintenance scheduling for an evaporation network. Computers and Chemical Engineering, 2018, 110, 140-151.	2.0	17
14	Novel MILP Scheduling Model for Power-Intensive Processes under Time-Sensitive Electricity Prices. Industrial & Engineering Chemistry Research, 2018, 57, 1581-1592.	1.8	16
15	Optimizing the inventorying and distribution of chemical fluids: An innovative nested column generation approach. Computers and Chemical Engineering, 2018, 119, 55-69.	2.0	5
16	A decomposition framework for managing inventory and distribution of fluid products by an order-based-resupply methodology. Computers and Chemical Engineering, 2017, 106, 373-384.	2.0	3
17	Robust multi-objective scheduling in an evaporation network. , 2017, , .		0
18	A heuristic simulation-based framework to improve the scheduling of blocks assembly and the production process in shipbuilding. , 2017, , .		8

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19	Optimal scheduling for power-intensive processes under time-sensitive electricity prices. <i>Computer Aided Chemical Engineering</i> , 2017, , 1423-1428.	0.3	1
20	CLSC design with simultaneous consideration of product design for manufacturing and remanufacturing. <i>Computer Aided Chemical Engineering</i> , 2017, 40, 1453-1458.	0.3	4
21	Optimization of a Distributed Wastewater Treatment Network Considering Lumped Parameters Interrelations. <i>Computer Aided Chemical Engineering</i> , 2017, , 2701-2706.	0.3	0
22	A decomposition framework for distribution of fluid products by a vendor-managed-inventory methodology. <i>Computer Aided Chemical Engineering</i> , 2017, , 1387-1392.	0.3	0
23	An Efficient Way to Tackle Uncertainty in the Scheduling of a Continuous Evaporation System. <i>Computer Aided Chemical Engineering</i> , 2017, , 1411-1416.	0.3	0
24	Managing Risk in the Design of Product and Closed-Loop Supply Chain Structure. <i>Computer Aided Chemical Engineering</i> , 2016, , 443-474.	0.3	2
25	Hybrid MILP/Simulation/Heuristic Algorithms to Complex Hoist Scheduling Problems. <i>Computer Aided Chemical Engineering</i> , 2016, 38, 1929-1934.	0.3	5
26	Electric Vehicles in Logistics and Transportation: A Survey on Emerging Environmental, Strategic, and Operational Challenges. <i>Energies</i> , 2016, 9, 86.	1.6	125
27	Design and Planning of Closed-Loop Supply Chains: A Risk-Averse Multistage Stochastic Approach. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 6236-6249.	1.8	23
28	Operational planning of forward and reverse logistic activities on multi-echelon supply-chain networks. <i>Computers and Chemical Engineering</i> , 2016, 88, 170-184.	2.0	13
29	Risk measures in a multi-stage stochastic supply chain approach. , 2015, , .		0
30	An iterative MILP-based approach for the maritime logistics and transportation of multi-parcel chemical tankers. <i>Computers and Industrial Engineering</i> , 2015, 89, 88-107.	3.4	9
31	Improved time representation model for the simultaneous energy supply and demand management in microgrids. <i>Energy</i> , 2015, 87, 615-627.	4.5	25
32	A branch-and-price approach to evaluate the role of cross-docking operations in consolidated supply chains. <i>Computers and Chemical Engineering</i> , 2015, 80, 15-29.	2.0	12
33	Optimization model for the detailed scheduling of multi-source pipelines. <i>Computers and Industrial Engineering</i> , 2015, 88, 395-409.	3.4	39
34	MINLP model for the detailed scheduling of refined products pipelines with flow rate dependent pumping costs. <i>Computers and Chemical Engineering</i> , 2015, 72, 210-221.	2.0	62
35	A MILP-based column generation strategy for managing large-scale maritime distribution problems. <i>Computers and Chemical Engineering</i> , 2015, 72, 350-362.	2.0	8
36	Solving Large Distribution Problems in Supply Chain Networks by a Column Generation Approach. <i>International Journal of Operations Research and Information Systems</i> , 2014, 5, 50-80.	1.0	4

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37	Managing daily surgery schedules in a teaching hospital: a mixed-integer optimization approach. BMC Health Services Research, 2014, 14, 464.	0.9	24
38	Multi-period design and planning of closed-loop supply chains with uncertain supply and demand. Computers and Chemical Engineering, 2014, 66, 151-164.	2.0	152
39	A Branch-and-Price Approach To Manage Cargo Consolidation and Distribution in Supply Chains. Industrial & Engineering Chemistry Research, 2014, 53, 17226-17239.	1.8	4
40	Enhancing the General Precedence Approach for Industrial Scheduling Problems with Sequence-Dependent Issues. Industrial & Engineering Chemistry Research, 2014, 53, 17092-17097.	1.8	4
41	Jaime Cerdı Festschrift Preface: In Honor of Professor Jaime Cerdı. Industrial & Engineering Chemistry Research, 2014, 53, 16895-16898.	1.8	1
42	A hybrid scheduling approach for automated flowshops with material handling and time constraints. International Journal of Production Research, 2014, 52, 2788-2806.	4.9	5
43	Scope for industrial applications of production scheduling models and solution methods. Computers and Chemical Engineering, 2014, 62, 161-193.	2.0	411
44	Optimizing the design and operation of a beer packaging line through an advanced simio-based DES tool. , 2014, , .		2
45	Toward integrated production and distribution management in multi-echelon supply chains. Computers and Chemical Engineering, 2013, 57, 78-94.	2.0	19
46	Mathematical programming and game theory optimization-based tool for supply chain planning in cooperative/competitive environments. Chemical Engineering Research and Design, 2013, 91, 1588-1600.	2.7	32
47	Multi-stage stochastic optimization of the design and planning of a Closed-Loop Supply Chain. Computer Aided Chemical Engineering, 2013, 32, 691-696.	0.3	4
48	Hybrid time representation for the scheduling of energy supply and demand in smart grids. Computer Aided Chemical Engineering, 2013, 32, 553-558.	0.3	8
49	Integrated production and distribution management with cross docking in supply chains. Computer Aided Chemical Engineering, 2012, 31, 1050-1054.	0.3	4
50	An iterative MILP-based approach to automated multi-product multi-stage manufacturing systems. Computer Aided Chemical Engineering, 2012, 31, 1085-1089.	0.3	2
51	An optimization-based framework for the scheduling of Automated Manufacturing Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 780-785.	0.4	0
52	Implementing optimal hydrogen networks management. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 114-119.	0.4	0
53	Integration of Mathematical Programming and Game Theory for Supply Chain Planning Optimization in Multi-objective competitive scenarios. Computer Aided Chemical Engineering, 2012, 30, 402-406.	0.3	9
54	Simultaneous Lot Sizing and Scheduling of Multistage Batch Processes Handling Multiple Orders per Product. Industrial & Engineering Chemistry Research, 2012, 51, 5762-5780.	1.8	14

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55	Detailed Scheduling of Single-Source Pipelines with Simultaneous Deliveries to Multiple Offtake Stations. <i>Industrial & Engineering Chemistry Research</i> , 2012, 51, 6145-6165.	1.8	48
56	Improving supply chain planning in a competitive environment. <i>Computers and Chemical Engineering</i> , 2012, 42, 178-188.	2.0	31
57	An improvement-based MILP optimization approach to complex AWS scheduling. <i>Computers and Chemical Engineering</i> , 2012, 47, 217-226.	2.0	11
58	Managing Distribution in Refined Products Pipelines Using Discrete-Event Simulation. <i>International Journal of Information Systems and Supply Chain Management</i> , 2012, 5, 58-79.	0.6	6
59	MILP-based Approach for the Scheduling of Automated Manufacturing System with Sequence-Dependent transferring times. <i>Computer Aided Chemical Engineering</i> , 2012, 30, 477-481.	0.3	5
60	Hybrid time slots sequencing model for a class of scheduling problems. <i>AIChE Journal</i> , 2012, 58, 789-800.	1.8	20
61	Effective Coordination of Simultaneous Delivery Flows into Receipt Terminals of Multiproduct Pipelines. <i>Computer Aided Chemical Engineering</i> , 2012, 30, 252-256.	0.3	2
62	Towards Integrated Production and Distribution Management. <i>Computer Aided Chemical Engineering</i> , 2012, 30, 417-421.	0.3	2
63	Simulation-based framework to Automated Wet-etch station scheduling problems in the semiconductor industry. , 2011, , .		1
64	Detailed Scheduling of Operations in Single-Source Refined Products Pipelines. <i>Industrial & Engineering Chemistry Research</i> , 2011, 50, 6240-6259.	1.8	41
65	Integrated Constraint Programming Scheduling Approach for Automated Wet-Etch Stations in Semiconductor Manufacturing. <i>Industrial & Engineering Chemistry Research</i> , 2011, 50, 1705-1715.	1.8	24
66	A robust MILP-based approach to vehicle routing problems with uncertain demands. <i>Computer Aided Chemical Engineering</i> , 2011, 29, 633-637.	0.3	3
67	Hybrid Mathematical Programming Discrete-Event Simulation Approach for Large-Scale Scheduling Problems. <i>Industrial & Engineering Chemistry Research</i> , 2011, 50, 10665-10680.	1.8	29
68	Improving supply chain management in a competitive environment. <i>Computer Aided Chemical Engineering</i> , 2011, 29, 1000-1004.	0.3	3
69	A novel optimization method to automated wet-etch station scheduling in semiconductor manufacturing systems. <i>Computers and Chemical Engineering</i> , 2011, 35, 2960-2972.	2.0	21
70	The multi-echelon vehicle routing problem with cross docking in supply chain management. <i>Computers and Chemical Engineering</i> , 2011, 35, 3002-3024.	2.0	72
71	Using safety stocks and simulation to solve the vehicle routing problem with stochastic demands. <i>Transportation Research Part C: Emerging Technologies</i> , 2011, 19, 751-765.	3.9	85
72	New Tools for the Detailed Scheduling of Refined Products Pipelines. <i>Computer Aided Chemical Engineering</i> , 2011, , 985-989.	0.3	0

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73	A rigorous mathematical formulation to Automated Wet-Etch Station scheduling with multiple material-handling robots in Semiconductor Manufacturing Systems. Computer Aided Chemical Engineering, 2011, 29, 990-994.	0.3	0
74	New Scheduling Approach for Shared Resources and Mixed Storage Policies. Computer Aided Chemical Engineering, 2011, 29, 975-979.	0.3	0
75	A Novel Optimization Method to Automated Wet-Etch Station Scheduling in Semiconductor Manufacturing Systems. Computer Aided Chemical Engineering, 2010, , 883-888.	0.3	7
76	MIP-based decomposition strategies for large-scale scheduling problems in multiproduct multistage batch plants: A benchmark scheduling problem of the pharmaceutical industry. European Journal of Operational Research, 2010, 207, 644-655.	3.5	88
77	An Integrated CP-Based Approach for Scheduling of Processing and Transport Units in Pipeless Plants. Industrial & Engineering Chemistry Research, 2010, 49, 1799-1811.	1.8	7
78	Mixed-Integer Linear Programming Monolithic Formulations for Lot-Sizing and Scheduling of Single-Stage Batch Facilities. Industrial & Engineering Chemistry Research, 2010, 49, 6482-6498.	1.8	16
79	Oil-derivatives pipeline logistics using discrete-event simulation. , 2010, , .		12
80	An Effective Decomposition Approach for Solving Large Supply Chain Oriented Pick-up and Delivery Problems. Computer Aided Chemical Engineering, 2009, , 2043-2048.	0.3	0
81	Managing Distribution in Supply Chain Networks. Industrial & Engineering Chemistry Research, 2009, 48, 9961-9978.	1.8	21
82	The supply-chain pick-up and delivery problem with transshipments. Computer Aided Chemical Engineering, 2009, , 1009-1014.	0.3	1
83	Optimal management of logistic activities in multi-site environments. Computers and Chemical Engineering, 2008, 32, 2547-2569.	2.0	24
84	Applying a simulation-based tool to productivity management in an automotive-parts industry. , 2008, , .		3
85	Material Transfer Operations in Batch Scheduling. A Critical Modeling Issue. Industrial & Engineering Chemistry Research, 2008, 47, 7721-7732.	1.8	46
86	A precedence-based monolithic approach to lotsizing and scheduling of multiproduct batch plants. Computer Aided Chemical Engineering, 2007, 24, 679-684.	0.3	2
87	A novel continuous-time MILP approach for short-term scheduling of multipurpose pipeless batch plants. Computer Aided Chemical Engineering, 2007, 24, 595-600.	0.3	2
88	Optimal Reactive Scheduling of Manufacturing Plants with Flexible Batch Recipes. Industrial & Engineering Chemistry Research, 2007, 46, 6273-6283.	1.8	17
89	Enhancing dynamic data reconciliation performance through time delays identification. Chemical Engineering and Processing: Process Intensification, 2007, 46, 1251-1263.	1.8	6
90	A rigorous approach to coordinate production and transport scheduling in a multi-site system. Computer Aided Chemical Engineering, 2006, 21, 2171-2176.	0.3	7

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91	An optimization framework to computer-aided design of reliable measurement systems. Computer Aided Chemical Engineering, 2006, , 1293-1298.	0.3	0
92	Rigorous scheduling resolution of complex multipurpose batch plants: S-Graph vs. MILP. Computer Aided Chemical Engineering, 2006, 21, 2033-2038.	0.3	0
93	A simultaneous optimization approach for off-line blending and scheduling of oil-refinery operations. Computers and Chemical Engineering, 2006, 30, 614-634.	2.0	159
94	State-of-the-art review of optimization methods for short-term scheduling of batch processes. Computers and Chemical Engineering, 2006, 30, 913-946.	2.0	675
95	A novel combined approach for supply chain modeling and analysis. Computer Aided Chemical Engineering, 2006, , 2207-2212.	0.3	0
96	Efficient MILP-based solution strategies for large-scale industrial batch scheduling problems. Computer Aided Chemical Engineering, 2006, , 2231-2236.	0.3	5
97	A mathematical programming approach including flexible recipes to batch operation rescheduling. Computer Aided Chemical Engineering, 2006, 21, 1377-1382.	0.3	2
98	MINLP model for synthesis of paraxylene separation processes based on crystallization technology. Computer Aided Chemical Engineering, 2005, , 829-834.	0.3	1
99	An MILP framework for batch reactive scheduling with limited discrete resources. Computers and Chemical Engineering, 2004, 28, 1059-1068.	2.0	69
100	Dynamic scheduling in multiproduct batch plants. Computers and Chemical Engineering, 2003, 27, 1247-1259.	2.0	109
101	Short-term scheduling of multistage batch processes subject to limited finite resources. Computer Aided Chemical Engineering, 2003, , 984-989.	0.3	14
102	An MILP framework for Short-Term Scheduling of Single-Stage Batch Plants with Limited Discrete Resources. Computer Aided Chemical Engineering, 2002, , 721-726.	0.3	16
103	An MILP-based approach to the short-term scheduling of make-and-pack continuous production plants. OR Spectrum, 2002, 24, 403-429.	2.1	46
104	An efficient MILP continuous-time formulation for short-term scheduling of multiproduct continuous facilities. Computers and Chemical Engineering, 2002, 26, 687-695.	2.0	66
105	An efficient MILP continuous-time formulation for the optimal operation of general multipurpose facilities. Computer Aided Chemical Engineering, 2001, 9, 693-698.	0.3	1
106	An MILP continuous-time approach to short-term scheduling of resource-constrained multistage flowshop batch facilities. Computers and Chemical Engineering, 2001, 25, 701-711.	2.0	183
107	Optimal scheduling of a resource-constrained multiproduct batch plant supplying intermediates to nearby end-product facilities. Computers and Chemical Engineering, 2000, 24, 369-376.	2.0	53
108	Optimal scheduling of batch plants satisfying multiple product orders with different due-dates. Computers and Chemical Engineering, 2000, 24, 2223-2245.	2.0	108

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109	A continuous-time approach to short-term scheduling of resource-constrained multistage batch facilities. <i>Computer Aided Chemical Engineering</i> , 2000, 8, 1045-1050.	0.3	4
110	MILP Optimization Models for Short-term Scheduling of Batch Processes. , 0, , 163-184.		4