Christos T Maravelias

List of Publications by Year
in descending order

253 papers	10,956 citations	39113 52 h-index	43601 95 g-index
266 all docs	266 docs citations	266 times ranked	10115 citing authors

#	Article	IF	Citations
1	Tightening methods based on nontrivial bounds on bilinear terms. Optimization and Engineering, 2022, 23, 1217-1254.	1.3	2
2	The inherent robustness of closed-loop scheduling. Computers and Chemical Engineering, 2022, 159, 107678.	2.0	5
3	A photo-assisted electrochemical-based demonstrator for green ammonia synthesis. Journal of Energy Chemistry, 2022, 68, 826-834.	7.1	7
4	Generalized optimization-based synthesis of membrane systems for multicomponent gas mixture separation. Chemical Engineering Science, 2022, 252, 117482.	1.9	8
5	A Generalized Framework for Reactor Network Synthesis: A Graph Theoretic Approach. Computers and Chemical Engineering, 2022, 160, 107722.	2.0	3
6	Integrated spatially explicit landscape and cellulosic biofuel supply chain optimization under biomass yield uncertainty. Computers and Chemical Engineering, 2022, 160, 107724.	2.0	12
7	Integrating lignin depolymerization with microbial funneling processes using agronomically relevant feedstocks. Green Chemistry, 2022, 24, 2795-2811.	4.6	20
8	Overview of Scheduling Methods for Pharmaceutical Production. Springer Optimization and Its Applications, 2022, , 355-371.	0.6	2
9	Variable Bound Tightening and Valid Constraints for Multiperiod Blending. INFORMS Journal on Computing, 2022, 34, 2073-2090.	1.0	2
10	Performance and Economic Analysis of Organosolv Softwood and Herbaceous Lignins to Activated Carbons as Electrode Materials in Supercapacitors. Frontiers in Energy Research, 2022, 10, .	1.2	4
11	Integrated production and distribution planning for industrial gases supply chains. Computers and Chemical Engineering, 2022, 161, 107778.	2.0	4
12	Toward Economical and Sustainable Production of Renewable Plastic: Integrative System‐Level Analyses. ChemSusChem, 2022, 15, .	3.6	10
13	Development of Co–Nb–CeO$_2$ Catalyst for Hydrogen Production from Waste-Derived Synthesis Gas Using Techno-Economic and Environmental Assessment. ACS Sustainable Chemistry and Engineering, 2022, 10, 6289-6303.	3.2	10
14	Rethinking of conventional Gas-to-Liquid via dimethyl ether intermediate incorporating renewable energy against Power-to-Liquid. Energy Conversion and Management, 2022, 261, 115643.	4.4	10
15	Co-production of 1,4-pentanediol and adipic acid from corn stover with biomass-derived co-solvent: Process synthesis and analysis. Journal of Cleaner Production, 2022, 359, 131920.	4.6	10
16	Analysis of alternative bioenergy with carbon capture strategies: present and future. Energy and Environmental Science, 2022, 15, 2679-2689.	15.6	11
17	Adaptive Conformer Sampling for Property Prediction Using the Conductor-like Screening Model for Real Solvents. Industrial & Engineering Chemistry Research, 2022, 61, 9025-9036.	1.8	5
18	CProS: A web-based application for chemical production scheduling. Computers and Chemical Engineering, 2022, 164, 107895.	2.0	4

#	ARTICLE	IF	CITATIONS
19	Technical lignin to hydrogels: An Eclectic review on suitability, synthesis, applications, challenges and future prospects. Journal of Cleaner Production, 2022, 363, 132585.	4.6	21
20	Predictive maintenance scheduling optimization of building heating, ventilation, and air conditioning systems. Energy and Buildings, 2021, 231, 110487.	3.1	18
21	System-level analyses for the production of 1,6-hexanediol from cellulose. Energy, 2021, 214, 118974.	4.5	15
22	Improving revenue from lignocellulosic biofuels: An integrated strategy for coproducing liquid transportation fuels and high value-added chemicals. Fuel, 2021, 287, 119369.	3.4	21
23	Integrated Spatially Explicit Landscape and Biofuel Supply Chain Network Design. Computer Aided Chemical Engineering, 2021, , 1821-1826.	0.3	0
24	Material Screening for Thermochemical Energy Storage in Solar Power Systems. Computer Aided Chemical Engineering, 2021, , 179-184.	0.3	3
25	Sustainable production of 5-hydroxymethyl furfural from glucose for process integration with high fructose corn syrup infrastructure. Green Chemistry, 2021, 23, 3277-3288.	4.6	30
26	Towards integrated landscape design and biofuel supply chain optimization. Current Opinion in Chemical Engineering, 2021, 31, 100666.	3.8	10
27	State estimation in online batch production scheduling: concepts, definitions, algorithms and optimization models. Computers and Chemical Engineering, 2021, 146, 107209.	2.0	5
28	Process Systems Engineering Perspective on the Design of Materials and Molecules. Industrial & Engineering Chemistry Research, 2021, 60, 5194-5206.	1.8	22
29	Network Environment: Extensions. , 2021, , 193-215.		0
30	Single-Stage Environment. , 2021, , 98-127.		0
31	Multipurpose Environment. , 2021, , 147-156.		0
32	Single-Unit Environment. , 2021, , 67-97.		0
33	Network Environment: Basics. , 2021, , 157-190.		0
34	Solution Methods: Network Environments. , 2021, , 318-360.		0
35	Periodic Scheduling. , 2021, , 233-260.		0
36	Solution Methods: Sequential Environments. , 2021, , 289-317.		0

#	Article	IF	Citations
37	Multistage Environment. , 2021, , 128-146.		0
38	Real-Time Scheduling. , 2021, , 361-400.		0
39	Integration of Production Planning and Scheduling. , 2021, , 401-434.		0
40	Scenario-Based Techno-Economic Analysis of Steam Methane Reforming Process for Hydrogen Production. Applied Sciences (Switzerland), 2021, 11, 6021.	1.3	17
41	A general framework and optimization models for the scheduling of continuous chemical processes. AIChE Journal, 2021, 67, e17344.	1.8	5
42	Simultaneous production of 1,6-hexanediol, furfural, and high-purity lignin from white birch: Process integration and techno-economic evaluation. Bioresource Technology, 2021, 331, 125009.	4.8	19
43	Integrated strategy for coproducing bioethanol and adipic acid from lignocellulosic biomass. Journal of Cleaner Production, 2021, 311, 127849.	4.6	16
44	Solid-gas thermochemical energy storage strategies for concentrating solar power: Optimization and system analysis. Energy Conversion and Management, 2021, 245, 114636.	4.4	12
45	Economic, energetic, and environmental analysis of lignocellulosic biorefineries with carbon capture. Applied Energy, 2021, 302, 117539.	5.1	21
46	Terminal inventory level constraints for online production scheduling. European Journal of Operational Research, 2021, 295, 102-117.	3.5	10
47	A generalized distillation network synthesis model. Chemical Engineering Science, 2021, 244, 116766.	1.9	7
48	Coproduction of butene oligomers and adipic acid from lignocellulosic biomass: Process design and evaluation. Energy, 2021, 235, 121278.	4.5	14
49	Advanced fuels from ethanol â€" a superstructure optimization approach. Energy and Environmental Science, 2021, 14, 493-506.	15.6	20
50	Greenhouse Gas Emission Mitigation Potential of Chemicals Produced from Biomass. ACS Sustainable Chemistry and Engineering, 2021, 9, 14480-14487.	3.2	27
51	Process Development and Analysis of Diorefinery for the Coproduction of 1,3-Butadiene and Butene Oligomer. Transactions of the Korean Hydrogen and New Energy Society, 2021, 32, 618-635.	0.1	0
52	Mixed-integer optimization methods for online scheduling in large-scale HVAC systems. Optimization Letters, 2020, 14, 889-924.	0.9	11
53	Generalized shortâ€cut distillation column modeling for superstructureâ€based process synthesis. AIChE Journal, 2020, 66, e16809.	1.8	6
54	Synthesis and Analysis of Nonoxidative Methane Aromatization Strategies. Energy Technology, 2020, 8, 1900650.	1.8	3

#	Article	IF	Citations
55	Catalytic Production of Glucose–Galactose Syrup from Greek Yogurt Acid Whey in a Continuous‐Flow Reactor. ChemSusChem, 2020, 13, 791-802.	3.6	6
56	A General Model for Periodic Chemical Production Scheduling. Industrial & Engineering Chemistry Research, 2020, 59, 2505-2515.	1.8	11
57	System-Level Analysis of Lignin Valorization in Lignocellulosic Biorefineries. IScience, 2020, 23, 100751.	1.9	34
58	Expanding the scope of distillation network synthesis using superstructure-based methods. Computers and Chemical Engineering, 2020, 133, 106650.	2.0	25
59	Framework for studying online production scheduling under endogenous uncertainty. Computers and Chemical Engineering, 2020, 135, 106670.	2.0	14
60	Fluorine-containing polyimide/polysilsesquioxane carbon molecular sieve membranes and techno-economic evaluation thereof for C3H6/C3H8 separation. Journal of Membrane Science, 2020, 598, 117660.	4.1	34
61	A generalized superstructure-based framework for process synthesis. Computers and Chemical Engineering, 2020, 133, 106653.	2.0	29
62	On the Role of State Estimation in Real-time Scheduling. Computer Aided Chemical Engineering, 2020, 48, 1135-1140.	0.3	0
63	Computationally efficient optimization models for preliminary distillation column design and separation energy targeting. Computers and Chemical Engineering, 2020, 143, 107072.	2.0	14
64	Economical process for the co-production of renewable polymers and value-added chemicals from lignocellulosic biomass. Journal of Cleaner Production, 2020, 276, 124237.	4.6	21
65	Integration of graphical approaches into optimization-based design of multistage liquid extraction. Computers and Chemical Engineering, 2020, 143, 107126.	2.0	9
66	Process synthesis and analysis of green plastic monomer production from cellulose. Journal of Cleaner Production, 2020, 277, 124072.	4.6	15
67	Carbon-Negative Biofuel Production. Environmental Science & Technology, 2020, 54, 10797-10807.	4.6	26
68	Process integration and optimization for economical production of commodity chemicals from lignocellulosic biomass. Renewable Energy, 2020, 162, 242-248.	4.3	26
69	Efficient generalized shortcut distillation model with improved accuracy for superstructure‐based process synthesis. AIChE Journal, 2020, 66, e16994.	1.8	6
70	Sustainable Production of Bioplastics from Lignocellulosic Biomass: Technoeconomic Analysis and Life-Cycle Assessment. ACS Sustainable Chemistry and Engineering, 2020, 8, 12419-12429.	3.2	64
71	Production of a sustainable and renewable biomass-derived monomer: conceptual process design and techno-economic analysis. Green Chemistry, 2020, 22, 7070-7079.	4.6	32
72	On the Derivation of Continuous Piecewise Linear Approximating Functions. INFORMS Journal on Computing, 2020, 32, 531-546.	1.0	21

#	Article	IF	Citations
73	Catalytic strategy for conversion of fructose to organic dyes, polymers, and liquid fuels. Green Chemistry, 2020, 22, 5285-5295.	4.6	21
74	Preprocessing algorithm and tightening constraints for multiperiod blend scheduling: cost minimization. Journal of Global Optimization, 2020, 77, 603-625.	1.1	10
75	Reaction Mechanism of Vapor-Phase Formic Acid Decomposition over Platinum Catalysts: DFT, Reaction Kinetics Experiments, and Microkinetic Modeling. ACS Catalysis, 2020, 10, 4112-4126.	5.5	51
76	Design and analysis of concentrating solar power plants with fixed-bed reactors for thermochemical energy storage. Applied Energy, 2020, 262, 114543.	5.1	38
77	Rescheduling Penalties for Economic Model Predictive Control and Closed-Loop Scheduling. Industrial & Engineering Chemistry Research, 2020, 59, 2214-2228.	1.8	11
78	Systematic generation of alternative production schedules. AICHE Journal, 2020, 66, e16926.	1.8	7
79	Assessing the Viability of Recovery of Hydroxycinnamic Acids from Lignocellulosic Biorefinery Alkaline Pretreatment Waste Streams. ChemSusChem, 2020, 13, 2012-2024.	3.6	54
80	Assessing the Viability of Recovery of Hydroxycinnamic Acids from Lignocellulosic Biorefinery Alkaline Pretreatment Waste Streams. ChemSusChem, 2020, 13, 1922-1922.	3.6	0
81	Combining the advantages of discrete- and continuous-time scheduling models: Part 3. General algorithm. Computers and Chemical Engineering, 2020, 139, 106848.	2.0	12
82	Process synthesis and economic analysis of cyanobacteria biorefineries: A superstructure-based approach. Applied Energy, 2019, 253, 113625.	5.1	16
83	Unification of closed-loop scheduling and control: State-space formulations, terminal constraints, and nominal theoretical properties. Computers and Chemical Engineering, 2019, 129, 106496.	2.0	26
84	On the design of online production scheduling algorithms. Computers and Chemical Engineering, 2019, 129, 106517.	2.0	19
85	From graphical to model€based distillation column design: A McCabe€Thiele€inspired mathematical programming approach. AICHE Journal, 2019, 65, e16731.	1.8	17
86	A Three-Stage Solution Algorithm for Chemical Production Scheduling. IFAC-PapersOnLine, 2019, 52, 838-843.	0.5	1
87	Online Scheduling: Understanding the Impact of Uncertainty. IFAC-PapersOnLine, 2019, 52, 727-732.	0.5	2
88	Incorporating automation logic in online chemical production scheduling. Computers and Chemical Engineering, 2019, 128, 201-215.	2.0	7
89	The economical production of functionalized Ashe juniper derived-biochar with high hazardous dye removal efficiency. Industrial Crops and Products, 2019, 137, 672-680.	2.5	29
90	Networked column compartment model for a tilted packed column with structured packing. Korean Journal of Chemical Engineering, 2019, 36, 789-799.	1.2	0

#	Article	IF	Citations
91	Bringing new technologies and approaches to the operation and control of chemical process systems. AICHE Journal, 2019, 65, e16615.	1.8	19
92	5th Anniversary Article: Towards Solar Methanol: Past, Present, and Future (Adv. Sci. 8/2019). Advanced Science, 2019, 6, 1970048.	5.6	0
93	Economic Analysis and Environmental Impact Assessment of Heat Pump-Assisted Distillation in a Gas Fractionation Unit. Energies, 2019, 12, 852.	1.6	14
94	Identifying the Characteristics of Promising Renewable Replacement Chemicals. IScience, 2019, 15, 136-146.	1.9	5
95	Utilizing stillage in the biorefinery: Economic, technological and energetic analysis. Applied Energy, 2019, 241, 491-503.	5.1	19
96	Techno-economic optimization of the integration of an organic Rankine cycle into a molten carbonate fuel cell power plant. Korean Journal of Chemical Engineering, 2019, 36, 345-355.	1.2	11
97	Solvent system for effective near-term production of hydroxymethylfurfural (HMF) with potential for long-term process improvement. Energy and Environmental Science, 2019, 12, 2212-2222.	15.6	135
98	Development and Optimization of the Biological Conversion of Ethane to Ethanol Using Whole-Cell Methanotrophs Possessing Methane Monooxygenase. Molecules, 2019, 24, 591.	1.7	9
99	Towards Solar Methanol: Past, Present, and Future. Advanced Science, 2019, 6, 1801903.	5.6	63
100	Synthesis and analysis of separation processes for extracellular chemicals generated from microbial conversions. BMC Chemical Engineering, 2019, 1, .	3.4	5
101	Combining the Advantages of Discrete- and Continuous-time MIP Scheduling Models. Computer Aided Chemical Engineering, 2019, 46, 1171-1176.	0.3	0
102	An integrated strategy for the production of hydrocarbon fuels from lignocellulosic biomass. , 2019, , .		0
103	Simultaneous Process and Heat Exchanger Network Synthesis Using a Discrete Temperature Grid. Industrial & Engineering Chemistry Research, 2019, 58, 6002-6016.	1.8	9
104	Combining the advantages of discrete- and continuous-time scheduling models: Part 2. systematic methods for determining model parameters. Computers and Chemical Engineering, 2019, 128, 557-573.	2.0	16
105	Optimization–based process synthesis under seasonal and daily variability: Application to concentrating solar power. AICHE Journal, 2019, 65, e16458.	1.8	22
106	Integrated framework for designing spatially explicit biofuel supply chains. Applied Energy, 2018, 216, 116-131.	5.1	47
107	Reoptimization framework and policy analysis for maritime inventory routing under uncertainty. Optimization and Engineering, 2018, 19, 937-976.	1.3	16
108	Oxygenated commodity chemicals from chemo–catalytic conversion of biomass derived heterocycles. AICHE Journal, 2018, 64, 1910-1922.	1.8	73

#	Article	IF	Citations
109	An Optimization-Based Approach for Simultaneous Chemical Process and Heat Exchanger Network Synthesis. Industrial & Engineering Chemistry Research, 2018, 57, 6330-6343.	1.8	15
110	A General Framework for the Evaluation of Direct Nonoxidative Methane Conversion Strategies. Joule, 2018, 2, 349-365.	11.7	86
111	Toward biomass-derived renewable plastics: Production of 2,5-furandicarboxylic acid from fructose. Science Advances, 2018, 4, eaap9722.	4.7	276
112	Simulated moving bed adsorption process based on a polyethylenimine-silica sorbent for CO_2 capture with sensible heat recovery. Energy, 2018, 150, 950-964.	4.5	39
113	Risk based 3-dimensional and multifloor plant layout optimization for liquefied natural gas (LNG) liquefaction process. Korean Journal of Chemical Engineering, 2018, 35, 1053-1064.	1.2	10
114	An optimization€based web application for synthesis and analysis of biomass€to€fuel strategies. Biofuels, Bioproducts and Biorefining, 2018, 12, 170-176.	1.9	6
115	Combining the advantages of discrete- and continuous-time scheduling models: Part 1. Framework and mathematical formulations. Computers and Chemical Engineering, 2018, 116, 176-190.	2.0	41
116	Economic MPC and real-time decision making with application to large-scale HVAC energy systems. Computers and Chemical Engineering, 2018, 114, 89-98.	2.0	81
117	Performance Guarantees and Optimal Purification Decisions for Engineered Proteins. Operations Research, 2018, 66, 18-41.	1.2	19
118	Improving economics of lignocellulosic biofuels: An integrated strategy for coproducing 1,5-pentanediol and ethanol. Applied Energy, 2018, 213, 585-594.	5.1	60
119	Chemical Production Scheduling. , 2018, , .		1
120	Cover Image, Volume 115, Number 9, September 2018. Biotechnology and Bioengineering, 2018, 115, i.	1.7	0
121	Advanced Biofuels of the Future: Atom-Economical or Energy-Economical?. Joule, 2018, 2, 1915-1919.	11.7	10
122	Synthesis and techno-economic assessment of microbial-based processes for terpenes production. Biotechnology for Biofuels, 2018, 11, 294.	6.2	39
123	Process Synthesis under Seasonal and Daily Variability: Application on Concentrating Solar Power. Computer Aided Chemical Engineering, 2018, 44, 415-420.	0.3	0
124	A General Mixed-Integer Programming State-Space Model for Online Scheduling. Computer Aided Chemical Engineering, 2018, 44, 1321-1326.	0.3	0
125	Greening Ammonia toward the Solar Ammonia Refinery. Joule, 2018, 2, 1055-1074.	11.7	603
126	Editorial of FOCAPO/CPC 2017. Computers and Chemical Engineering, 2018, 114, 1-2.	2.0	0

#	Article	IF	Citations
127	A framework for the identification of promising bio€based chemicals. Biotechnology and Bioengineering, 2018, 115, 2328-2340.	1.7	22
128	A superstructure optimization approach for process synthesis under complex reaction networks. Chemical Engineering Research and Design, 2018, 137, 589-608.	2.7	18
129	Real-Time Mixed-Integer Optimization for Improved Economic Performance in HVAC Systems. Computer Aided Chemical Engineering, 2018, 44, 33-42.	0.3	2
130	Closed-loop Economic Model Predictive Control for Scheduling and Control Problems. Computer Aided Chemical Engineering, 2018, 44, 697-702.	0.3	2
131	Incorporating Automation Logic in the Online Scheduling of Batch Chemical Plants. Computer Aided Chemical Engineering, 2018, , 2053-2058.	0.3	3
132	Design of biofuel supply chains with variable regional depot and biorefinery locations. Renewable Energy, 2017, 100, 90-102.	4.3	54
133	A Systems€Level Roadmap for Biomass Thermal Fractionation and Catalytic Upgrading Strategies. Energy Technology, 2017, 5, 130-150.	1.8	23
134	Changeover formulations for discrete-time mixed-integer programming scheduling models. European Journal of Operational Research, 2017, 260, 949-963.	3.5	21
135	Chemicals from Biomass: Combining Ring€Opening Tautomerization and Hydrogenation Reactions to Produce 1,5€Pentanediol from Furfural. ChemSusChem, 2017, 10, 1351-1355.	3.6	100
136	Simultaneous chemical process synthesis and heat integration with unclassified hot/cold process streams. Computers and Chemical Engineering, 2017, 101, 210-225.	2.0	19
137	Solution methods for vehicle-based inventory routing problems. Computers and Chemical Engineering, 2017, 101, 259-278.	2.0	19
138	A mixed-integer linear programming model for real-time cost optimization of building heating, ventilation, and air conditioning equipment. Energy and Buildings, 2017, 142, 220-235.	3.1	65
139	Integration of carbon capture and sequestration and renewable resource technologies for sustainable energy supply in the transportation sector. Energy Conversion and Management, 2017, 143, 227-240.	4.4	17
140	Conversion of Furfural to 1,5-Pentanediol: Process Synthesis and Analysis. ACS Sustainable Chemistry and Engineering, 2017, 5, 4699-4706.	3.2	104
141	Storing solar energy with chemistry: the role of thermochemical storage in concentrating solar power. Green Chemistry, 2017, 19, 2427-2438.	4.6	45
142	Design and operation of renewable energy sources based hydrogen supply system: Technology integration and optimization. Renewable Energy, 2017, 103, 226-238.	4.3	121
143	Increasing the revenue from lignocellulosic biomass: Maximizing feedstock utilization. Science Advances, 2017, 3, e1603301.	4.7	352
144	Production of levoglucosenone and 5-hydroxymethylfurfural from cellulose in polar aprotic solvent€"water mixtures. Green Chemistry, 2017, 19, 3642-3653.	4.6	121

#	Article	IF	Citations
145	A co-solvent hydrolysis strategy for the production of biofuels: process synthesis and technoeconomic analysis. Reaction Chemistry and Engineering, 2017, 2, 397-405.	1.9	38
146	New catalytic strategies for α,ω-diols production from lignocellulosic biomass. Faraday Discussions, 2017, 202, 247-267.	1.6	61
147	A general model for techno-economic analysis of CSP plants with thermochemical energy storage systems. AIP Conference Proceedings, 2017, , .	0.3	0
148	Mixed-integer programming models for simultaneous batching and scheduling in multipurpose batch plants. Computers and Chemical Engineering, 2017, 106, 621-644.	2.0	23
149	Simultaneous Utility and Heat Exchanger Area Targeting for Integrated Process Synthesis and Heat Integration. Industrial & Engineering Chemistry Research, 2017, 56, 11847-11859.	1.8	17
150	Sequential-Optimization-Based Framework for Robust Modeling and Design of Heterogeneous Catalytic Systems. Journal of Physical Chemistry C, 2017, 121, 25847-25863.	1.5	42
151	Thermal fractionation and catalytic upgrading of lignocellulosic biomass to biofuels: Process synthesis and analysis. Renewable Energy, 2017, 114, 357-366.	4.3	41
152	Discrete-time mixed-integer programming models for short-term scheduling in multipurpose environments. Computers and Chemical Engineering, 2017, 107, 171-183.	2.0	26
153	Synthesis and analysis of separation networks for the recovery of intracellular chemicals generated from microbial-based conversions. Biotechnology for Biofuels, 2017, 10, 119.	6.2	17
154	A superstructure-based framework for bio-separation network synthesis. Computers and Chemical Engineering, 2017, 96, 1-17.	2.0	23
155	A General State-Space Formulation for Online Scheduling. Processes, 2017, 5, 69.	1.3	26
156	Economic and energetic analysis of biofuel supply chains. Applied Energy, 2017, 205, 1571-1582.	5.1	40
157	Optimization Methods for Catalyst Design. Computer Aided Chemical Engineering, 2016, 38, 295-300.	0.3	3
158	A superstructure representation, generation, and modeling framework for chemical process synthesis. AICHE Journal, 2016, 62, 3199-3214.	1.8	40
159	Assessment of Solar‐to‐Fuels Strategies: Photocatalysis and Electrocatalytic Reduction. Energy Technology, 2016, 4, 1369-1391.	1.8	26
160	An engineered solvent system for sugar production from lignocellulosic biomass using biomass derived γ-valerolactone. Green Chemistry, 2016, 18, 5756-5763.	4.6	55
161	On deterministic online scheduling: Major considerations, paradoxes and remedies. Computers and Chemical Engineering, 2016, 94, 312-330.	2.0	60
162	From rescheduling to online scheduling. Chemical Engineering Research and Design, 2016, 116, 83-97.	2.7	82

#	Article	IF	Citations
163	Optimal Purification Decisions for Engineer‐to‐Order Proteins at Aldevron. Production and Operations Management, 2016, 25, 2003-2005.	2.1	1
164	A roadmap for the synthesis of separation networks for the recovery of bio-based chemicals: Matching biological and process feasibility. Biotechnology Advances, 2016, 34, 1362-1383.	6.0	43
165	Discrete-time mixed-integer programming models and solution methods for production scheduling in multistage facilities. Computers and Chemical Engineering, 2016, 94, 387-410.	2.0	32
166	Optimal condition-based harvesting policies for biomanufacturing operations with failure risks. IIE Transactions, 2016, 48, 440-461.	2.1	20
167	Design of Cellulosic Ethanol Supply Chains with Regional Depots. Industrial & Engineering Chemistry Research, 2016, 55, 3420-3432.	1.8	26
168	A superstructure-based framework for simultaneous process synthesis, heat integration, and utility plant design. Computers and Chemical Engineering, 2016, 91, 68-84.	2.0	30
169	Preprocessing and tightening methods for time-indexed MIP chemical production scheduling models. Computers and Chemical Engineering, 2016, 84, 516-535.	2.0	28
170	Discrete-Time MIP Methods for Production Scheduling in Multistage Facilities. Computer Aided Chemical Engineering, 2016, , 362-367.	0.3	2
171	A Superstructure-Based Framework for Simultaneous Process Synthesis, Heat Integration, and Utility Plant Design. Computer Aided Chemical Engineering, 2015, 37, 1391-1396.	0.3	0
172	A lignocellulosic ethanol strategy via nonenzymatic sugar production: Process synthesis and analysis. Bioresource Technology, 2015, 182, 258-266.	4.8	91
173	On the solution of large-scale mixed integer programming scheduling models. Chemical Engineering Science, 2015, 136, 139-157.	1.9	21
174	Process systems engineering studies for the synthesis of catalytic biomass-to-fuels strategies. Computers and Chemical Engineering, 2015, 81, 57-69.	2.0	45
175	Cost optimization of combined building heating/cooling equipment via mixed-integer linear programming. , 2015, , .		13
176	Theoretical framework for formulating MIP scheduling models with multiple and non-uniform discrete-time grids. Computers and Chemical Engineering, 2015, 72, 233-254.	2.0	22
177	A general framework for the assessment of solar fuel technologies. Energy and Environmental Science, 2015, 8, 126-157.	15.6	293
178	Pharmaceutical R&D Pipeline Planning. , 2015, , 1267-1287.		1
179	Synthesis of catalytic biomass-to-fuels strategies. Computer Aided Chemical Engineering, 2014, 34, 615-620.	0.3	1
180	Advances in Mixed-Integer Programming Methods for Chemical Production Scheduling. Annual Review of Chemical and Biomolecular Engineering, 2014, 5, 97-121.	3.3	32

#	Article	IF	Citations
181	Advanced solution methods for microkinetic models of catalytic reactions: A methanol synthesis case study. AICHE Journal, 2014, 60, 1336-1346.	1.8	19
182	A strategy for the simultaneous catalytic conversion of hemicellulose and cellulose from lignocellulosic biomass to liquid transportation fuels. Green Chemistry, 2014, 16, 653-661.	4.6	124
183	Nonenzymatic Sugar Production from Biomass Using Biomass-Derived Î³-Valerolactone. Science, 2014, 343, 277-280.	6.0	607
184	MIP Model for Inventory Routing in Industrial Gases Supply Chain. Industrial & Engineering Chemistry Research, 2014, 53, 17214-17225.	1.8	19
185	Reformulations of Mixed-Integer Programming Continuous-Time Models for Chemical Production Scheduling. Industrial & Engineering Chemistry Research, 2014, 53, 10155-10165.	1.8	15
186	Production of renewable jet fuel range alkanes and commodity chemicals from integrated catalytic processing of biomass. Energy and Environmental Science, 2014, 7, 1500-1523.	15.6	342
187	Economic model predictive control for inventory management in supply chains. Computers and Chemical Engineering, 2014, 64, 71-80.	2.0	60
188	Scope for industrial applications of production scheduling models and solution methods. Computers and Chemical Engineering, 2014, 62, 161-193.	2.0	411
189	International Programming Committee. Computer Aided Chemical Engineering, 2014, 34, xvi-xvii.	0.3	0
190	Simulated Moving Bed Chromatography: Separation and Recovery of Sugars and Ionic Liquid from Biomass Hydrolysates. ChemSusChem, 2013, 6, 2083-2089.	3.6	27
191	Comparative analysis of environmental impact of S2P (Sunshine to Petrol) system for transportation fuel production. Applied Energy, 2013, 111, 1089-1098.	5.1	38
192	A branch-and-bound algorithm for the solution of chemical production scheduling MIP models using parallel computing. Computers and Chemical Engineering, 2013, 55, 28-39.	2.0	28
193	Integration of control theory and scheduling methods for supply chain management. Computers and Chemical Engineering, 2013, 51, 4-20.	2.0	84
194	Valid Inequalities Based on Demand Propagation for Chemical Production Scheduling MIP Models. AICHE Journal, 2013, 59, 872-887.	1.8	40
195	Tightening methods for continuousâ€time mixedâ€integer programming models for chemical production scheduling. AICHE Journal, 2013, 59, 4461-4467.	1.8	18
196	An optimization-based assessment framework for biomass-to-fuel conversion strategies. Energy and Environmental Science, 2013, 6, 1093.	15.6	94
197	Multiple and nonuniform time grids in discrete-time MIP models for chemical production scheduling. Computers and Chemical Engineering, 2013, 53, 70-85.	2.0	51
198	Reformulations and Branching Methods for Mixed-Integer Programming Chemical Production Scheduling Models. Industrial & Engineering Chemistry Research, 2013, 52, 3832-3841.	1.8	39

#	Article	IF	Citations
199	Mixed-Integer Programming Model and Tightening Methods for Scheduling in General Chemical Production Environments. Industrial & Engineering Chemistry Research, 2013, 52, 3407-3423.	1.8	36
200	Production of butene oligomers as transportation fuels using butene for esterification of levulinic acid from lignocellulosic biomass: process synthesis and technoeconomic evaluation. Green Chemistry, 2012, 14, 3289.	4.6	59
201	A sulfuric acid management strategy for the production of liquid hydrocarbon fuels via catalytic conversion of biomass-derived levulinic acid. Energy and Environmental Science, 2012, 5, 9690.	15.6	72
202	A state-space model for chemical production scheduling. Computers and Chemical Engineering, 2012, 47, 97-110.	2.0	106
203	Fuel production from CO2 using solar-thermal energy: system level analysis. Energy and Environmental Science, 2012, 5, 8417.	15.6	177
204	General framework and modeling approach classification for chemical production scheduling. AICHE Journal, 2012, 58, 1812-1828.	1.8	149
205	Conversion of biomass to sugars via ionic liquid hydrolysis: process synthesis and economic evaluation. Biofuels, Bioproducts and Biorefining, 2012, 6, 444-452.	1.9	63
206	Catalytic conversion of lignocellulosic biomass to fuels: Process development and technoeconomic evaluation. Chemical Engineering Science, 2012, 67, 57-67.	1.9	113
207	On the combinatorial structure of discrete-time MIP formulations for chemical production scheduling. Computers and Chemical Engineering, 2012, 38, 204-212.	2.0	14
208	Computational Study of Network-Based Mixed-Integer Programming Approaches for Chemical Production Scheduling. Industrial & Engineering Chemistry Research, 2011, 50, 5023-5040.	1.8	83
209	Production Planning and Scheduling of Parallel Continuous Processes with Product Families. Industrial & Engineering Chemistry Research, 2011, 50, 1369-1378.	1.8	65
210	Microbial Strain Design for Biochemical Production Using Mixed-integer Programming Techniques. Computer Aided Chemical Engineering, 2011, , 1306-1310.	0.3	0
211	R&D pipeline management: Task interdependencies and risk management. European Journal of Operational Research, 2011, 215, 616-628.	3.5	50
212	Production of liquid hydrocarbon fuels by catalytic conversion of biomass-derived levulinic acid. Green Chemistry, 2011, 13, 1755.	4.6	289
213	Methanol production from CO2 using solar-thermal energy: process development and techno-economic analysis. Energy and Environmental Science, 2011, 4, 3122.	15.6	214
214	A general framework for process scheduling. AICHE Journal, 2011, 57, 695-710.	1.8	48
215	Surrogateâ€based superstructure optimization framework. AICHE Journal, 2011, 57, 1216-1232.	1.8	178
216	A Novel Catalytic Strategy for the Production of Liquid Fuels from Ligno-cellulosic Biomass. Computer Aided Chemical Engineering, 2011, 29, 1723-1727.	0.3	2

#	Article	IF	Citations
217	Large-Scale Bi-Level Strain Design Approaches and Mixed-Integer Programming Solution Techniques. PLoS ONE, 2011, 6, e24162.	1.1	77
218	Polyhedral Results for Discrete-time Production Planning MIP Formulations. Computer Aided Chemical Engineering, 2010, , 343-348.	0.3	0
219	Modeling methods and a branch and cut algorithm for pharmaceutical clinical trial planning using stochastic programming. European Journal of Operational Research, 2010, 203, 205-215.	3.5	82
220	Surrogate-Based Process Synthesis. Computer Aided Chemical Engineering, 2010, 28, 1129-1134.	0.3	22
221	Integration of Production Planning and Scheduling. Computer Aided Chemical Engineering, 2009, 27, 117-118.	0.3	6
222	Conversion of Glycerol to Liquid Fuels. Computer Aided Chemical Engineering, 2009, , 1719-1724.	0.3	7
223	Simultaneous Batching and Scheduling Using Dynamic Decomposition on a Grid. INFORMS Journal on Computing, 2009, 21, 398-410.	1.0	35
224	A projection–based method for production planning of multiproduct facilities. AICHE Journal, 2009, 55, 2614-2630.	1.8	32
225	Scheduling of testing tasks and resource planning in new product development using stochastic programming. Computers and Chemical Engineering, 2009, 33, 964-976.	2.0	51
226	A novel network-based continuous-time representation for process scheduling: Part I. Main concepts and mathematical formulation. Computers and Chemical Engineering, 2009, 33, 1511-1528.	2.0	43
227	A novel network-based continuous-time representation for process scheduling: Part II. General framework. Computers and Chemical Engineering, 2009, 33, 1644-1660.	2.0	27
228	Polyhedral results for discrete-time production planning MIP formulations for continuous processes. Computers and Chemical Engineering, 2009, 33, 1890-1904.	2.0	20
229	Integration of production planning and scheduling: Overview, challenges and opportunities. Computers and Chemical Engineering, 2009, 33, 1919-1930.	2.0	291
230	Scheduling of Multistage Batch Processes under Utility Constraints. Industrial & Engineering Chemistry Research, 2009, 48, 6050-6058.	1.8	39
231	A Branch and Cut Framework for Multi-Stage Stochastic Programming Problems Under Endogenous Uncertainty. Computer Aided Chemical Engineering, 2009, , 255-260.	0.3	2
232	A mixed-integer programming formulation for the general capacitated lot-sizing problem. Computers and Chemical Engineering, 2008, 32, 244-259.	2.0	41
233	Batch selection, assignment and sequencing in multi-stage multi-product processes. Computers and Chemical Engineering, 2008, 32, 1106-1119.	2.0	63
234	A stochastic programming approach for clinical trial planning in new drug development. Computers and Chemical Engineering, 2008, 32, 2626-2642.	2.0	100

#	Article	IF	Citations
235	Using grid computing to solve hard planning and scheduling problems. Computer Aided Chemical Engineering, 2008, 25, 617-622.	0.3	2
236	Modeling of Storage in Batching and Scheduling of Multistage Processes. Industrial & Engineering Chemistry Research, 2008, 47, 6648-6660.	1.8	51
237	Simultaneous Batching and Scheduling in Multistage Multiproduct Processes. Industrial & Engineering Chemistry Research, 2008, 47, 1546-1555.	1.8	57
238	A novel network-based continuous-time formulation for process scheduling. Computer Aided Chemical Engineering, 2008, 25, 79-84.	0.3	0
239	An attainable region approach for production planning of multiproduct processes. AICHE Journal, 2007, 53, 1298-1315.	1.8	64
240	Optimization of Aluminum Smelter Casthouse Operations. Industrial & Engineering Chemistry Research, 2006, 45, 7603-7617.	1.8	20
241	A decomposition framework for the scheduling of single- and multi-stage processes. Computers and Chemical Engineering, 2006, 30, 407-420.	2.0	88
242	On the relation of continuous- and discrete-time state-task network formulations. AICHE Journal, 2006, 52, 843-849.	1.8	21
243	Logic Inference and a Decomposition Algorithm for the Resource-Constrained Scheduling of Testing Tasks in the Development of New Pharmaceutical and Agrochemical Products. , 2006, , 265-289.		2
244	On the state-task network: Time representations. Computer Aided Chemical Engineering, 2005, , 1039-1044.	0.3	0
245	Mixed-Time Representation for State-Task Network Models. Industrial & Engineering Chemistry Research, 2005, 44, 9129-9145.	1.8	57
246	Optimal resource investment and scheduling of tests for new product development. Computers and Chemical Engineering, 2004, 28, 1021-1038.	2.0	25
247	A hybrid MILP/CP decomposition approach for the continuous time scheduling of multipurpose batch plants. Computers and Chemical Engineering, 2004, 28, 1921-1949.	2.0	127
248	New General Continuous-Time Stateâˆ'Task Network Formulation for Short-Term Scheduling of Multipurpose Batch Plants. Industrial & Engineering Chemistry Research, 2003, 42, 3056-3074.	1.8	250
249	Minimization of the Makespan with a Discrete-Time Stateâˆ'Task Network Formulation. Industrial & Engineering Chemistry Research, 2003, 42, 6252-6257.	1.8	51
250	A general continuous state task network formulation for short term scheduling of multipurpose batch plants with due dates. Computer Aided Chemical Engineering, 2003, 15, 274-279.	0.3	4
251	A new continuous-time state task network formulation for short term scheduling of multipurpose batch plants. Computer Aided Chemical Engineering, 2003, 14, 215-220.	0.3	6
252	Simultaneous Planning for New Product Development and Batch Manufacturing Facilities. Industrial & Engineering Chemistry Research, 2001, 40, 6147-6164.	1.8	86

#	ARTICLE	IF	CITATIONS
253	On the Derivation of Graphically‐inspired Feasibility Constraints for Distillation Network Synthesis. AICHE Journal, 0, , .	1.8	0