Christos T Maravelias

List of Publications by Year
in descending order

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253 papers	10,956 citations	34100 52 h-index	38392 95 g-index
266 all docs	266 docs citations	266 times ranked	8799 citing authors

#	Article	IF	Citations
1	Nonenzymatic Sugar Production from Biomass Using Biomass-Derived Î³-Valerolactone. Science, 2014, 343, 277-280.	12.6	607
2	Greening Ammonia toward the Solar Ammonia Refinery. Joule, 2018, 2, 1055-1074.	24.0	603
3	Scope for industrial applications of production scheduling models and solution methods. Computers and Chemical Engineering, 2014, 62, 161-193.	3.8	411
4	Increasing the revenue from lignocellulosic biomass: Maximizing feedstock utilization. Science Advances, 2017, 3, e1603301.	10.3	352
5	Production of renewable jet fuel range alkanes and commodity chemicals from integrated catalytic processing of biomass. Energy and Environmental Science, 2014, 7, 1500-1523.	30.8	342
6	A general framework for the assessment of solar fuel technologies. Energy and Environmental Science, 2015, 8, 126-157.	30.8	293
7	Integration of production planning and scheduling: Overview, challenges and opportunities. Computers and Chemical Engineering, 2009, 33, 1919-1930.	3.8	291
8	Production of liquid hydrocarbon fuels by catalytic conversion of biomass-derived levulinic acid. Green Chemistry, 2011, 13, 1755.	9.0	289
9	Toward biomass-derived renewable plastics: Production of 2,5-furandicarboxylic acid from fructose. Science Advances, 2018, 4, eaap9722.	10.3	276
10	New General Continuous-Time Stateâ^'Task Network Formulation for Short-Term Scheduling of Multipurpose Batch Plants. Industrial & Engineering Chemistry Research, 2003, 42, 3056-3074.	3.7	250
11	Methanol production from CO2 using solar-thermal energy: process development and techno-economic analysis. Energy and Environmental Science, 2011, 4, 3122.	30.8	214
12	Surrogateâ€based superstructure optimization framework. AICHE Journal, 2011, 57, 1216-1232.	3.6	178
13	Fuel production from CO2 using solar-thermal energy: system level analysis. Energy and Environmental Science, 2012, 5, 8417.	30.8	177
14	General framework and modeling approach classification for chemical production scheduling. AICHE Journal, 2012, 58, 1812-1828.	3.6	149
15	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.	30.8	135
16	A hybrid MILP/CP decomposition approach for the continuous time scheduling of multipurpose batch plants. Computers and Chemical Engineering, 2004, 28, 1921-1949.	3.8	127
17	A strategy for the simultaneous catalytic conversion of hemicellulose and cellulose from lignocellulosic biomass to liquid transportation fuels. Green Chemistry, 2014, 16, 653-661.	9.0	124
18	Design and operation of renewable energy sources based hydrogen supply system: Technology integration and optimization. Renewable Energy, 2017, 103, 226-238.	8.9	121

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19	Production of levoglucosenone and 5-hydroxymethylfurfural from cellulose in polar aprotic solventâ€“water mixtures. Green Chemistry, 2017, 19, 3642-3653.	9.0	121
20	Catalytic conversion of lignocellulosic biomass to fuels: Process development and technoeconomic evaluation. Chemical Engineering Science, 2012, 67, 57-67.	3.8	113
21	A state-space model for chemical production scheduling. Computers and Chemical Engineering, 2012, 47, 97-110.	3.8	106
22	Conversion of Furfural to 1,5-Pentanediol: Process Synthesis and Analysis. ACS Sustainable Chemistry and Engineering, 2017, 5, 4699-4706.	6.7	104
23	A stochastic programming approach for clinical trial planning in new drug development. Computers and Chemical Engineering, 2008, 32, 2626-2642.	3.8	100
24	Chemicals from Biomass: Combining Ringâ€Opening Tautomerization and Hydrogenation Reactions to Produce 1,5â€Pentanediol from Furfural. ChemSusChem, 2017, 10, 1351-1355.	6.8	100
25	An optimization-based assessment framework for biomass-to-fuel conversion strategies. Energy and Environmental Science, 2013, 6, 1093.	30.8	94
26	A lignocellulosic ethanol strategy via nonenzymatic sugar production: Process synthesis and analysis. Bioresource Technology, 2015, 182, 258-266.	9.6	91
27	A decomposition framework for the scheduling of single- and multi-stage processes. Computers and Chemical Engineering, 2006, 30, 407-420.	3.8	88
28	Simultaneous Planning for New Product Development and Batch Manufacturing Facilities. Industrial & Engineering Chemistry Research, 2001, 40, 6147-6164.	3.7	86
29	A General Framework for the Evaluation of Direct Nonoxidative Methane Conversion Strategies. Joule, 2018, 2, 349-365.	24.0	86
30	Integration of control theory and scheduling methods for supply chain management. Computers and Chemical Engineering, 2013, 51, 4-20.	3.8	84
31	Computational Study of Network-Based Mixed-Integer Programming Approaches for Chemical Production Scheduling. Industrial & Engineering Chemistry Research, 2011, 50, 5023-5040.	3.7	83
32	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.	5.7	82
33	From rescheduling to online scheduling. Chemical Engineering Research and Design, 2016, 116, 83-97.	5.6	82
34	Economic MPC and real-time decision making with application to large-scale HVAC energy systems. Computers and Chemical Engineering, 2018, 114, 89-98.	3.8	81
35	Large-Scale Bi-Level Strain Design Approaches and Mixed-Integer Programming Solution Techniques. PLoS ONE, 2011, 6, e24162.	2.5	77
36	Oxygenated commodity chemicals from chemoâ€catalytic conversion of biomass derived heterocycles. AICHE Journal, 2018, 64, 1910-1922.	3.6	73

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37	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.	30.8	72
38	Production Planning and Scheduling of Parallel Continuous Processes with Product Families. Industrial & Engineering Chemistry Research, 2011, 50, 1369-1378.	3.7	65
39	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.	6.7	65
40	An attainable region approach for production planning of multiproduct processes. AICHE Journal, 2007, 53, 1298-1315.	3.6	64
41	Sustainable Production of Bioplastics from Lignocellulosic Biomass: Technoeconomic Analysis and Life-Cycle Assessment. ACS Sustainable Chemistry and Engineering, 2020, 8, 12419-12429.	6.7	64
42	Batch selection, assignment and sequencing in multi-stage multi-product processes. Computers and Chemical Engineering, 2008, 32, 1106-1119.	3.8	63
43	Conversion of biomass to sugars via ionic liquid hydrolysis: process synthesis and economic evaluation. Biofuels, Bioproducts and Biorefining, 2012, 6, 444-452.	3.7	63
44	Towards Solar Methanol: Past, Present, and Future. Advanced Science, 2019, 6, 1801903.	11.2	63
45	New catalytic strategies for Î±,Ï‰-diols production from lignocellulosic biomass. Faraday Discussions, 2017, 202, 247-267.	3.2	61
46	Economic model predictive control for inventory management in supply chains. Computers and Chemical Engineering, 2014, 64, 71-80.	3.8	60
47	On deterministic online scheduling: Major considerations, paradoxes and remedies. Computers and Chemical Engineering, 2016, 94, 312-330.	3.8	60
48	Improving economics of lignocellulosic biofuels: An integrated strategy for coproducing 1,5-pentanediol and ethanol. Applied Energy, 2018, 213, 585-594.	10.1	60
49	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.	9.0	59
50	Mixed-Time Representation for State-Task Network Models. Industrial & Engineering Chemistry Research, 2005, 44, 9129-9145.	3.7	57
51	Simultaneous Batching and Scheduling in Multistage Multiproduct Processes. Industrial & Engineering Chemistry Research, 2008, 47, 1546-1555.	3.7	57
52	An engineered solvent system for sugar production from lignocellulosic biomass using biomass derived Î³-valerolactone. Green Chemistry, 2016, 18, 5756-5763.	9.0	55
53	Design of biofuel supply chains with variable regional depot and biorefinery locations. Renewable Energy, 2017, 100, 90-102.	8.9	54
54	Assessing the Viability of Recovery of Hydroxycinnamic Acids from Lignocellulosic Biorefinery Alkaline Pretreatment Waste Streams. ChemSusChem, 2020, 13, 2012-2024.	6.8	54

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55	Minimization of the Makespan with a Discrete-Time Stateâ^'Task Network Formulation. Industrial & Engineering Chemistry Research, 2003, 42, 6252-6257.	3.7	51
56	Modeling of Storage in Batching and Scheduling of Multistage Processes. Industrial & Engineering Chemistry Research, 2008, 47, 6648-6660.	3.7	51
57	Scheduling of testing tasks and resource planning in new product development using stochastic programming. Computers and Chemical Engineering, 2009, 33, 964-976.	3.8	51
58	Multiple and nonuniform time grids in discrete-time MIP models for chemical production scheduling. Computers and Chemical Engineering, 2013, 53, 70-85.	3.8	51
59	Reaction Mechanism of Vapor-Phase Formic Acid Decomposition over Platinum Catalysts: DFT, Reaction Kinetics Experiments, and Microkinetic Modeling. ACS Catalysis, 2020, 10, 4112-4126.	11.2	51
60	R&D pipeline management: Task interdependencies and risk management. European Journal of Operational Research, 2011, 215, 616-628.	5.7	50
61	A general framework for process scheduling. AICHE Journal, 2011, 57, 695-710.	3.6	48
62	Integrated framework for designing spatially explicit biofuel supply chains. Applied Energy, 2018, 216, 116-131.	10.1	47
63	Process systems engineering studies for the synthesis of catalytic biomass-to-fuels strategies. Computers and Chemical Engineering, 2015, 81, 57-69.	3.8	45
64	Storing solar energy with chemistry: the role of thermochemical storage in concentrating solar power. Green Chemistry, 2017, 19, 2427-2438.	9.0	45
65	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.	3.8	43
66	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.	11.7	43
67	Sequential-Optimization-Based Framework for Robust Modeling and Design of Heterogeneous Catalytic Systems. Journal of Physical Chemistry C, 2017, 121, 25847-25863.	3.1	42
68	A mixed-integer programming formulation for the general capacitated lot-sizing problem. Computers and Chemical Engineering, 2008, 32, 244-259.	3.8	41
69	Thermal fractionation and catalytic upgrading of lignocellulosic biomass to biofuels: Process synthesis and analysis. Renewable Energy, 2017, 114, 357-366.	8.9	41
70	Combining the advantages of discrete- and continuous-time scheduling models: Part 1. Framework and mathematical formulations. Computers and Chemical Engineering, 2018, 116, 176-190.	3.8	41
71	Valid Inequalities Based on Demand Propagation for Chemical Production Scheduling MIP Models. AICHE Journal, 2013, 59, 872-887.	3.6	40
72	A superstructure representation, generation, and modeling framework for chemical process synthesis. AICHE Journal, 2016, 62, 3199-3214.	3.6	40

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73	Economic and energetic analysis of biofuel supply chains. Applied Energy, 2017, 205, 1571-1582.	10.1	40
74	Scheduling of Multistage Batch Processes under Utility Constraints. Industrial & Engineering Chemistry Research, 2009, 48, 6050-6058.	3.7	39
75	Reformulations and Branching Methods for Mixed-Integer Programming Chemical Production Scheduling Models. Industrial & Engineering Chemistry Research, 2013, 52, 3832-3841.	3.7	39
76	Simulated moving bed adsorption process based on a polyethylenimine-silica sorbent for CO2 capture with sensible heat recovery. Energy, 2018, 150, 950-964.	8.8	39
77	Synthesis and techno-economic assessment of microbial-based processes for terpenes production. Biotechnology for Biofuels, 2018, 11, 294.	6.2	39
78	Comparative analysis of environmental impact of S2P (Sunshine to Petrol) system for transportation fuel production. Applied Energy, 2013, 111, 1089-1098.	10.1	38
79	A co-solvent hydrolysis strategy for the production of biofuels: process synthesis and technoeconomic analysis. Reaction Chemistry and Engineering, 2017, 2, 397-405.	3.7	38
80	Design and analysis of concentrating solar power plants with fixed-bed reactors for thermochemical energy storage. Applied Energy, 2020, 262, 114543.	10.1	38
81	Mixed-Integer Programming Model and Tightening Methods for Scheduling in General Chemical Production Environments. Industrial & Engineering Chemistry Research, 2013, 52, 3407-3423.	3.7	36
82	Simultaneous Batching and Scheduling Using Dynamic Decomposition on a Grid. INFORMS Journal on Computing, 2009, 21, 398-410.	1.7	35
83	System-Level Analysis of Lignin Valorization in Lignocellulosic Biorefineries. IScience, 2020, 23, 100751.	4.1	34
84	Fluorine-containing polyimide/polysilsesquioxane carbon molecular sieve membranes and techno-economic evaluation thereof for C3H6/C3H8 separation. Journal of Membrane Science, 2020, 598, 117660.	8.2	34
85	A projectionâ€based method for production planning of multiproduct facilities. AIChE Journal, 2009, 55, 2614-2630.	3.6	32
86	Advances in Mixed-Integer Programming Methods for Chemical Production Scheduling. Annual Review of Chemical and Biomolecular Engineering, 2014, 5, 97-121.	6.8	32
87	Discrete-time mixed-integer programming models and solution methods for production scheduling in multistage facilities. Computers and Chemical Engineering, 2016, 94, 387-410.	3.8	32
88	Production of a sustainable and renewable biomass-derived monomer: conceptual process design and techno-economic analysis. Green Chemistry, 2020, 22, 7070-7079.	9.0	32
89	A superstructure-based framework for simultaneous process synthesis, heat integration, and utility plant design. Computers and Chemical Engineering, 2016, 91, 68-84.	3.8	30
90	Sustainable production of 5-hydroxymethyl furfural from glucose for process integration with high fructose corn syrup infrastructure. Green Chemistry, 2021, 23, 3277-3288.	9.0	30

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91	The economical production of functionalized Ashe juniper derived-biochar with high hazardous dye removal efficiency. Industrial Crops and Products, 2019, 137, 672-680.	5.2	29
92	A generalized superstructure-based framework for process synthesis. Computers and Chemical Engineering, 2020, 133, 106653.	3.8	29
93	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.	3.8	28
94	Preprocessing and tightening methods for time-indexed MIP chemical production scheduling models. Computers and Chemical Engineering, 2016, 84, 516-535.	3.8	28
95	A novel network-based continuous-time representation for process scheduling: Part II. General framework. Computers and Chemical Engineering, 2009, 33, 1644-1660.	3.8	27
96	Simulated Moving Bed Chromatography: Separation and Recovery of Sugars and Ionic Liquid from Biomass Hydrolysates. ChemSusChem, 2013, 6, 2083-2089.	6.8	27
97	Greenhouse Gas Emission Mitigation Potential of Chemicals Produced from Biomass. ACS Sustainable Chemistry and Engineering, 2021, 9, 14480-14487.	6.7	27
98	Assessment of Solarâ€toâ€Fuels Strategies: Photocatalysis and Electrocatalytic Reduction. Energy Technology, 2016, 4, 1369-1391.	3.8	26
99	Design of Cellulosic Ethanol Supply Chains with Regional Depots. Industrial & Engineering Chemistry Research, 2016, 55, 3420-3432.	3.7	26
100	Discrete-time mixed-integer programming models for short-term scheduling in multipurpose environments. Computers and Chemical Engineering, 2017, 107, 171-183.	3.8	26
101	A General State-Space Formulation for Online Scheduling. Processes, 2017, 5, 69.	2.8	26
102	Unification of closed-loop scheduling and control: State-space formulations, terminal constraints, and nominal theoretical properties. Computers and Chemical Engineering, 2019, 129, 106496.	3.8	26
103	Carbon-Negative Biofuel Production. Environmental Science & Technology, 2020, 54, 10797-10807.	10.0	26
104	Process integration and optimization for economical production of commodity chemicals from lignocellulosic biomass. Renewable Energy, 2020, 162, 242-248.	8.9	26
105	Optimal resource investment and scheduling of tests for new product development. Computers and Chemical Engineering, 2004, 28, 1021-1038.	3.8	25
106	Expanding the scope of distillation network synthesis using superstructure-based methods. Computers and Chemical Engineering, 2020, 133, 106650.	3.8	25
107	A Systemsâ€Level Roadmap for Biomass Thermal Fractionation and Catalytic Upgrading Strategies. Energy Technology, 2017, 5, 130-150.	3.8	23
108	Mixed-integer programming models for simultaneous batching and scheduling in multipurpose batch plants. Computers and Chemical Engineering, 2017, 106, 621-644.	3.8	23

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109	A superstructure-based framework for bio-separation network synthesis. Computers and Chemical Engineering, 2017, 96, 1-17.	3.8	23
110	Surrogate-Based Process Synthesis. Computer Aided Chemical Engineering, 2010, 28, 1129-1134.	0.5	22
111	Theoretical framework for formulating MIP scheduling models with multiple and non-uniform discrete-time grids. Computers and Chemical Engineering, 2015, 72, 233-254.	3.8	22
112	A framework for the identification of promising bioâ€based chemicals. Biotechnology and Bioengineering, 2018, 115, 2328-2340.	3.3	22
113	Optimizationâ€based process synthesis under seasonal and daily variability: Application to concentrating solar power. AICHE Journal, 2019, 65, e16458.	3.6	22
114	Process Systems Engineering Perspective on the Design of Materials and Molecules. Industrial & Engineering Chemistry Research, 2021, 60, 5194-5206.	3.7	22
115	On the relation of continuous- and discrete-time state-task network formulations. AICHE Journal, 2006, 52, 843-849.	3.6	21
116	On the solution of large-scale mixed integer programming scheduling models. Chemical Engineering Science, 2015, 136, 139-157.	3.8	21
117	Changeover formulations for discrete-time mixed-integer programming scheduling models. European Journal of Operational Research, 2017, 260, 949-963.	5.7	21
118	Economical process for the co-production of renewable polymers and value-added chemicals from lignocellulosic biomass. Journal of Cleaner Production, 2020, 276, 124237.	9.3	21
119	On the Derivation of Continuous Piecewise Linear Approximating Functions. INFORMS Journal on Computing, 2020, 32, 531-546.	1.7	21
120	Catalytic strategy for conversion of fructose to organic dyes, polymers, and liquid fuels. Green Chemistry, 2020, 22, 5285-5295.	9.0	21
121	Improving revenue from lignocellulosic biofuels: An integrated strategy for coproducing liquid transportation fuels and high value-added chemicals. Fuel, 2021, 287, 119369.	6.4	21
122	Economic, energetic, and environmental analysis of lignocellulosic biorefineries with carbon capture. Applied Energy, 2021, 302, 117539.	10.1	21
123	Technical lignin to hydrogels: An Eclectic review on suitability, synthesis, applications, challenges and future prospects. Journal of Cleaner Production, 2022, 363, 132585.	9.3	21
124	Optimization of Aluminum Smelter Casthouse Operations. Industrial & Engineering Chemistry Research, 2006, 45, 7603-7617.	3.7	20
125	Polyhedral results for discrete-time production planning MIP formulations for continuous processes. Computers and Chemical Engineering, 2009, 33, 1890-1904.	3.8	20
126	Optimal condition-based harvesting policies for biomanufacturing operations with failure risks. IIE Transactions, 2016, 48, 440-461.	2.1	20

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127	Advanced fuels from ethanol â€“ a superstructure optimization approach. Energy and Environmental Science, 2021, 14, 493-506.	30.8	20
128	Integrating lignin depolymerization with microbial funneling processes using agronomically relevant feedstocks. Green Chemistry, 2022, 24, 2795-2811.	9.0	20
129	Advanced solution methods for microkinetic models of catalytic reactions: A methanol synthesis case study. AICHE Journal, 2014, 60, 1336-1346.	3.6	19
130	MIP Model for Inventory Routing in Industrial Gases Supply Chain. Industrial & Engineering Chemistry Research, 2014, 53, 17214-17225.	3.7	19
131	Simultaneous chemical process synthesis and heat integration with unclassified hot/cold process streams. Computers and Chemical Engineering, 2017, 101, 210-225.	3.8	19
132	Solution methods for vehicle-based inventory routing problems. Computers and Chemical Engineering, 2017, 101, 259-278.	3.8	19
133	Performance Guarantees and Optimal Purification Decisions for Engineered Proteins. Operations Research, 2018, 66, 18-41.	1.9	19
134	On the design of online production scheduling algorithms. Computers and Chemical Engineering, 2019, 129, 106517.	3.8	19
135	Bringing new technologies and approaches to the operation and control of chemical process systems. AICHE Journal, 2019, 65, e16615.	3.6	19
136	Utilizing stillage in the biorefinery: Economic, technological and energetic analysis. Applied Energy, 2019, 241, 491-503.	10.1	19
137	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.	9.6	19
138	Tightening methods for continuousâ€time mixedâ€integer programming models for chemical production scheduling. AICHE Journal, 2013, 59, 4461-4467.	3.6	18
139	A superstructure optimization approach for process synthesis under complex reaction networks. Chemical Engineering Research and Design, 2018, 137, 589-608.	5.6	18
140	Predictive maintenance scheduling optimization of building heating, ventilation, and air conditioning systems. Energy and Buildings, 2021, 231, 110487.	6.7	18
141	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.	9.2	17
142	Simultaneous Utility and Heat Exchanger Area Targeting for Integrated Process Synthesis and Heat Integration. Industrial & Engineering Chemistry Research, 2017, 56, 11847-11859.	3.7	17
143	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
144	From graphical to modelâ€based distillation column design: A McCabeâ€Thieleâ€inspired mathematical programming approach. AICHE Journal, 2019, 65, e16731.	3.6	17

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145	Scenario-Based Techno-Economic Analysis of Steam Methane Reforming Process for Hydrogen Production. Applied Sciences (Switzerland), 2021, 11, 6021.	2.5	17
146	Reoptimization framework and policy analysis for maritime inventory routing under uncertainty. Optimization and Engineering, 2018, 19, 937-976.	2.4	16
147	Process synthesis and economic analysis of cyanobacteria biorefineries: A superstructure-based approach. Applied Energy, 2019, 253, 113625.	10.1	16
148	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.	3.8	16
149	Integrated strategy for coproducing bioethanol and adipic acid from lignocellulosic biomass. Journal of Cleaner Production, 2021, 311, 127849.	9.3	16
150	Reformulations of Mixed-Integer Programming Continuous-Time Models for Chemical Production Scheduling. Industrial & Engineering Chemistry Research, 2014, 53, 10155-10165.	3.7	15
151	An Optimization-Based Approach for Simultaneous Chemical Process and Heat Exchanger Network Synthesis. Industrial & Engineering Chemistry Research, 2018, 57, 6330-6343.	3.7	15
152	Process synthesis and analysis of green plastic monomer production from cellulose. Journal of Cleaner Production, 2020, 277, 124072.	9.3	15
153	System-level analyses for the production of 1,6-hexanediol from cellulose. Energy, 2021, 214, 118974.	8.8	15
154	On the combinatorial structure of discrete-time MIP formulations for chemical production scheduling. Computers and Chemical Engineering, 2012, 38, 204-212.	3.8	14
155	Economic Analysis and Environmental Impact Assessment of Heat Pump-Assisted Distillation in a Gas Fractionation Unit. Energies, 2019, 12, 852.	3.1	14
156	Framework for studying online production scheduling under endogenous uncertainty. Computers and Chemical Engineering, 2020, 135, 106670.	3.8	14
157	Computationally efficient optimization models for preliminary distillation column design and separation energy targeting. Computers and Chemical Engineering, 2020, 143, 107072.	3.8	14
158	Coproduction of butene oligomers and adipic acid from lignocellulosic biomass: Process design and evaluation. Energy, 2021, 235, 121278.	8.8	14
159	Cost optimization of combined building heating/cooling equipment via mixed-integer linear programming. , 2015, , .		13
160	Solid-gas thermochemical energy storage strategies for concentrating solar power: Optimization and system analysis. Energy Conversion and Management, 2021, 245, 114636.	9.2	12
161	Combining the advantages of discrete- and continuous-time scheduling models: Part 3. General algorithm. Computers and Chemical Engineering, 2020, 139, 106848.	3.8	12
162	Integrated spatially explicit landscape and cellulosic biofuel supply chain optimization under biomass yield uncertainty. Computers and Chemical Engineering, 2022, 160, 107724.	3.8	12

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163	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.	2.7	11
164	Mixed-integer optimization methods for online scheduling in large-scale HVAC systems. Optimization Letters, 2020, 14, 889-924.	1.6	11
165	A General Model for Periodic Chemical Production Scheduling. Industrial & Engineering Chemistry Research, 2020, 59, 2505-2515.	3.7	11
166	Rescheduling Penalties for Economic Model Predictive Control and Closed-Loop Scheduling. Industrial & Engineering Chemistry Research, 2020, 59, 2214-2228.	3.7	11
167	Analysis of alternative bioenergy with carbon capture strategies: present and future. Energy and Environmental Science, 2022, 15, 2679-2689.	30.8	11
168	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.	2.7	10
169	Advanced Biofuels of the Future: Atom-Economical or Energy-Economical?. Joule, 2018, 2, 1915-1919.	24.0	10
170	Preprocessing algorithm and tightening constraints for multiperiod blend scheduling: cost minimization. Journal of Global Optimization, 2020, 77, 603-625.	1.8	10
171	Towards integrated landscape design and biofuel supply chain optimization. Current Opinion in Chemical Engineering, 2021, 31, 100666.	7.8	10
172	Terminal inventory level constraints for online production scheduling. European Journal of Operational Research, 2021, 295, 102-117.	5.7	10
173	Toward Economical and Sustainable Production of Renewable Plastic: Integrative Systemâ€Level Analyses. ChemSusChem, 2022, 15, .	6.8	10
174	Development of Coâ€“Nbâ€“CeO₂ Catalyst for Hydrogen Production from Waste-Derived Synthesis Gas Using Techno-Economic and Environmental Assessment. ACS Sustainable Chemistry and Engineering, 2022, 10, 6289-6303.	6.7	10
175	Rethinking of conventional Gas-to-Liquid via dimethyl ether intermediate incorporating renewable energy against Power-to-Liquid. Energy Conversion and Management, 2022, 261, 115643.	9.2	10
176	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.	9.3	10
177	Development and Optimization of the Biological Conversion of Ethane to Ethanol Using Whole-Cell Methanotrophs Possessing Methane Monooxygenase. Molecules, 2019, 24, 591.	3.8	9
178	Simultaneous Process and Heat Exchanger Network Synthesis Using a Discrete Temperature Grid. Industrial & Engineering Chemistry Research, 2019, 58, 6002-6016.	3.7	9
179	Integration of graphical approaches into optimization-based design of multistage liquid extraction. Computers and Chemical Engineering, 2020, 143, 107126.	3.8	9
180	Generalized optimization-based synthesis of membrane systems for multicomponent gas mixture separation. Chemical Engineering Science, 2022, 252, 117482.	3.8	8

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181	Conversion of Glycerol to Liquid Fuels. Computer Aided Chemical Engineering, 2009, , 1719-1724.	0.5	7
182	Incorporating automation logic in online chemical production scheduling. Computers and Chemical Engineering, 2019, 128, 201-215.	3.8	7
183	Systematic generation of alternative production schedules. AICHE Journal, 2020, 66, e16926.	3.6	7
184	A generalized distillation network synthesis model. Chemical Engineering Science, 2021, 244, 116766.	3.8	7
185	A photo-assisted electrochemical-based demonstrator for green ammonia synthesis. Journal of Energy Chemistry, 2022, 68, 826-834.	12.9	7
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