Iftekhar Karimi

List of Publications by Year
in descending order

301 papers	9,507 citations	29994 54 h-index	60497 81 g-index
311 all docs	311 docs citations	311 times ranked	5592 citing authors

#	Article	IF	Citations
1	A Review of Clathrate Hydrate Based Desalination To Strengthen Energy–Water Nexus. ACS Sustainable Chemistry and Engineering, 2018, 6, 8093-8107.	3.2	275
2	LNG cold energy utilization: Prospects and challenges. Energy, 2019, 170, 557-568.	4.5	236
3	Design of computer experiments: A review. Computers and Chemical Engineering, 2017, 106, 71-95.	2.0	215
4	CO_2 capture from dry flue gas by vacuum swing adsorption: A pilot plant study. AICHE Journal, 2014, 60, 1830-1842.	1.8	201
5	Multiobjective Optimization of a Four-Step Adsorption Process for Postcombustion CO_2 Capture Via Finite Volume Simulation. Industrial & Engineering Chemistry Research, 2013, 52, 4249-4265.	1.8	192
6	Agent-based supply chain management—1: framework. Computers and Chemical Engineering, 2002, 26, 1755-1769.	2.0	182
7	A simpler better slot-based continuous-time formulation for short-term scheduling in multipurpose batch plants. Chemical Engineering Science, 2005, 60, 2679-2702.	1.9	170
8	Planning and Scheduling of Parallel Semicontinuous Processes. 1. Production Planning. Industrial & Engineering Chemistry Research, 1997, 36, 2691-2700.	1.8	150
9	Planning and Scheduling of Parallel Semicontinuous Processes. 2. Short-Term Scheduling. Industrial & Engineering Chemistry Research, 1997, 36, 2701-2714.	1.8	141
10	Review on the design and optimization of natural gas liquefaction processes for onshore and offshore applications. Chemical Engineering Research and Design, 2018, 132, 89-114.	2.7	138
11	A novel conceptual design of hydrate based desalination (HyDesal) process by utilizing LNG cold energy. Applied Energy, 2018, 222, 13-24.	5.1	131
12	Cycle synthesis and optimization of a VSA process for postcombustion CO_2 capture. AICHE Journal, 2013, 59, 4735-4748.	1.8	125
13	Piecewise MILP under‐and overestimators for global optimization of bilinear programs. AICHE Journal, 2008, 54, 991-1008.	1.8	122
14	A new continuous-time formulation for scheduling crude oil operations. Chemical Engineering Science, 2004, 59, 1325-1341.	1.9	120
15	An Improved MILP Formulation for Scheduling Multiproduct, Multistage Batch Plants. Industrial & Engineering Chemistry Research, 2003, 42, 2365-2380.	1.8	112
16	Agent-based supply chain management—2: a refinery application. Computers and Chemical Engineering, 2002, 26, 1771-1781.	2.0	111
17	Novel solution approach for optimizing crude oil operations. AICHE Journal, 2004, 50, 1177-1197.	1.8	111
18	Retrospective and future perspective of natural gas liquefaction and optimization technologies contributing to efficient LNG supply: A review. Journal of Natural Gas Science and Engineering, 2017, 45, 165-188.	2.1	104

#	ARTICLE	IF	CITATIONS
19	Evolution and optimization of the dual mixed refrigerant process of natural gas liquefaction. Applied Thermal Engineering, 2016, 96, 320-329.	3.0	98
20	Operational modeling of multistream heat exchangers with phase changes. AICHE Journal, 2009, 55, 150-171.	1.8	97
21	Integrated supply chain planning for multinational pharmaceutical enterprises. Computers and Chemical Engineering, 2012, 42, 168-177.	2.0	93
22	Evaluation of utilization alternatives for stranded natural gas. Energy, 2012, 40, 317-328.	4.5	90
23	Gas turbine performance prediction via machine learning. Energy, 2020, 192, 116627.	4.5	90
24	Long-term optimal energy mix planning towards high energy security and low GHG emission. Applied Energy, 2015, 154, 959-969.	5.1	87
25	Genome–scale modeling and in silico analysis of ethanologenic bacteria *Zymomonas mobilis*. Biotechnology and Bioengineering, 2011, 108, 655-665.	1.7	86
26	Economic evaluation of energy efficient hydrate based desalination utilizing cold energy from liquefied natural gas (LNG). Desalination, 2019, 463, 69-80.	4.0	86
27	Minimizing Boil-Off Losses in Liquefied Natural Gas Transportation. Industrial & Engineering Chemistry Research, 2009, 48, 9571-9580.	1.8	85
28	Heat exchanger network synthesis using a stagewise superstructure with non-isothermal mixing. Chemical Engineering Science, 2012, 73, 30-43.	1.9	85
29	Preliminary design of multiproduct noncontinuous plants using simulated annealing. Computers and Chemical Engineering, 1991, 15, 451-469.	2.0	82
30	Improving the robustness and efficiency of crude scheduling algorithms. AICHE Journal, 2007, 53, 2659-2680.	1.8	78
31	Cascade utilization of LNG cold energy by integrating cryogenic energy storage, organic Rankine cycle and direct cooling. Applied Energy, 2020, 277, 115570.	5.1	75
32	Scheduling in serial multiproduct batch processes with finite interstage storage: mixed integer linear program formulation. Industrial & Engineering Chemistry Research, 1988, 27, 1840-1848.	1.8	74
33	An evaluation of simulated annealing for batch process scheduling. Industrial & Engineering Chemistry Research, 1991, 30, 163-169.	1.8	74
34	Energy penalty estimates for CO2 capture: Comparison between fuel types and capture-combustion modes. Energy, 2016, 103, 709-714.	4.5	74
35	Simulating combined cycle gas turbine power plants in Aspen HYSYS. Energy Conversion and Management, 2018, 171, 1213-1225.	4.4	74
36	A CFD simulation study of boiling mechanism and BOG generation in a full-scale LNG storage tank. Computers and Chemical Engineering, 2018, 115, 112-120.	2.0	72

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37	Decision support for integrated refinery supply chains. Computers and Chemical Engineering, 2008, 32, 2767-2786.	2.0	70
38	Genome-scale modeling and in silico analysis of mouse cell metabolic network. Molecular BioSystems, 2009, 6, 152-161.	2.9	70
39	A novel conceptual design of parallel nitrogen expansion liquefaction process for small-scale LNG (liquefied natural gas) plant in skid-mount packages. Energy, 2014, 75, 349-359.	4.5	69
40	Fast biodegradation of long chain n-alkanes and crude oil at high concentrations with Rhodococcus sp. Moj-3449. Enzyme and Microbial Technology, 2009, 45, 195-202.	1.6	68
41	Modeling and Experimental Validation of Electrochemical Reduction of CO_2 to CO in a Microfluidic Cell. Journal of the Electrochemical Society, 2015, 162, F23-F32.	1.3	68
42	Improving the logistics of multi-compartment chemical tankers. Computers and Chemical Engineering, 2004, 28, 1267-1283.	2.0	67
43	A novel approach to scheduling multipurpose batch plants using unitâ€slots. AICHE Journal, 2010, 56, 1859-1879.	1.8	67
44	Energy and cost estimates for capturing CO2 from a dry flue gas using pressure/vacuum swing adsorption. Chemical Engineering Research and Design, 2015, 102, 354-367.	2.7	67
45	Scheduling multistage, multiproduct batch plants with nonidentical parallel units and unlimited intermediate storage. Chemical Engineering Science, 2007, 62, 1549-1566.	1.9	64
46	Piecewise linear relaxation of bilinear programs using bivariate partitioning. AICHE Journal, 2010, 56, 1880-1893.	1.8	64
47	Smart Sampling Algorithm for Surrogate Model Development. Computers and Chemical Engineering, 2017, 96, 103-114.	2.0	63
48	A model-based rescheduling framework for managing abnormal supply chain events. Computers and Chemical Engineering, 2007, 31, 496-518.	2.0	62
49	Scheduling multistage batch plants with parallel units and no interstage storage. Computers and Chemical Engineering, 2008, 32, 671-693.	2.0	62
50	New operating strategy for a combined cycle gas turbine power plant. Energy Conversion and Management, 2018, 171, 1675-1684.	4.4	62
51	Simultaneous synthesis approaches for cost-effective heat exchanger networks. Chemical Engineering Science, 2013, 98, 231-245.	1.9	61
52	Preliminary synthesis of work exchange networks. Computers and Chemical Engineering, 2012, 37, 262-277.	2.0	59
53	Process Synthesis and Optimization of Propylene/Propane Separation Using Vapor Recompression and Self-Heat Recuperation. Industrial & Engineering Chemistry Research, 2017, 56, 14557-14564.	1.8	59
54	Design of multiproduct batch processes with finite intermediate storage. Computers and Chemical Engineering, 1989, 13, 127-139.	2.0	56

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55	Metabolic processes of Methanococcus maripaludis and potential applications. Microbial Cell Factories, 2016, 15, 107.	1.9	55
56	Regulatory Factors and Capacity-Expansion Planning in Global Chemical Supply Chains. Industrial & Engineering Chemistry Research, 2004, 43, 3364-3380.	1.8	53
57	Optimal producer well placement and production planning in an oil reservoir. Computers and Chemical Engineering, 2013, 55, 109-125.	2.0	53
58	Characterizing <i>Escherichia coli</i> DH5Î± growth and metabolism in a complex medium using genomeâ€scale flux analysis. Biotechnology and Bioengineering, 2009, 102, 923-934.	1.7	51
59	Scheduling Gasoline Blending Operations from Recipe Determination to Shipping Using Unit Slots. Industrial & Engineering Chemistry Research, 2011, 50, 9156-9174.	1.8	51
60	Scheduling Parallel Production Lines with Resource Constraints. 1. Model Formulation. Industrial & Engineering Chemistry Research, 2002, 41, 779-789.	1.8	49
61	Heuristic rescheduling of crude oil operations to manage abnormal supply chain events. AICHE Journal, 2007, 53, 397-422.	1.8	48
62	Supply chain risk identification using a HAZOPâ€based approach. AICHE Journal, 2009, 55, 1447-1463.	1.8	48
63	A novel inlet air cooling system based on liquefied natural gas cold energy utilization for improving power plant performance. Energy Conversion and Management, 2019, 187, 41-52.	4.4	48
64	Decision support for integrated refinery supply chains. Computers and Chemical Engineering, 2008, 32, 2787-2800.	2.0	47
65	A genome-scale metabolic model of Methanococcus maripaludis S2 for CO_2 capture and conversion to methane. Molecular BioSystems, 2014, 10, 1043-1054.	2.9	47
66	In silico modeling and evaluation of Gordonia alkanivorans for biodesulfurization. Molecular BioSystems, 2013, 9, 2530.	2.9	45
67	Efficient algorithm for simultaneous synthesis of heat exchanger networks. Chemical Engineering Science, 2014, 105, 53-68.	1.9	45
68	Effects of cooling and heating sources properties and working fluid selection on cryogenic organic Rankine cycle for LNG cold energy utilization. Energy Conversion and Management, 2021, 247, 114706.	4.4	45
69	CO2 capture in cation-exchanged metalâ€"organic frameworks: Holistic modeling from molecular simulation to process optimization. Chemical Engineering Science, 2015, 124, 70-78.	1.9	44
70	Dual-effect single-mixed refrigeration cycle: An innovative alternative process for energy-efficient and cost-effective natural gas liquefaction. Applied Energy, 2020, 268, 115022.	5.1	44
71	Assessing the potential of CO 2 utilization with an integrated framework for producing power and chemicals. Journal of CO2 Utilization, 2017, 19, 49-57.	3.3	43
72	Resource-Constrained Scheduling of Parallel Production Lines Using Asynchronous Slots. Industrial & Engineering Chemistry Research, 2003, 42, 6832-6842.	1.8	42

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73	An ontology framework towards decentralized information management for eco-industrial parks. Computers and Chemical Engineering, 2018, 118, 49-63.	2.0	42
74	Recipe determination and scheduling of gasoline blending operations. AICHE Journal, 2010, 56, 441-465.	1.8	41
75	Roles of sulfite oxidoreductase and sulfite reductase in improving desulfurization by Rhodococcus erythropolis. Molecular BioSystems, 2012, 8, 2724.	2.9	41
76	Propylene/Propane Separation Using SiCHA. Industrial & Engineering Chemistry Research, 2013, 52, 3877-3892.	1.8	41
77	A linear diversity constraint â€" Application to scheduling in microgrids. Energy, 2011, 36, 4235-4243.	4.5	40
78	Process systems engineering perspective on the planning and development of oil fields. AICHE Journal, 2016, 62, 2586-2604.	1.8	40
79	Dynamic modelling and optimization of an LNG storage tank in a regasification terminal with semi-analytical solutions for N2-free LNG. Computers and Chemical Engineering, 2017, 99, 40-50.	2.0	40
80	Simulation and optimization of a combined cycle gas turbine power plant for part-load operation. Chemical Engineering Research and Design, 2018, 131, 29-40.	2.7	40
81	Completion time algorithms for serial multiproduct batch processes with shared storage. Computers and Chemical Engineering, 1990, 14, 49-69.	2.0	39
82	Work-heat exchanger network synthesis (WHENS). Energy, 2016, 113, 1006-1017.	4.5	39
83	Impact of mixed refrigerant selection on energy and exergy performance of natural gas liquefaction processes. Energy, 2020, 199, 117378.	4.5	38
84	Completion times in serial mixed-storage multiproduct processes with transfer and set-up times. Computers and Chemical Engineering, 1989, 13, 175-186.	2.0	36
85	Planning in Pharmaceutical Supply Chains with Outsourcing and New Product Introductions. Industrial & Engineering Chemistry Research, 2004, 43, 8293-8306.	1.8	36
86	Global multiproduct production-Distribution planning with duty drawbacks. AICHE Journal, 2006, 52, 595-610.	1.8	36
87	Intermediate storage in noncontinuous processes involving stages of parallel units. AICHE Journal, 1985, 31, 44-52.	1.8	35
88	Economic Feasibility of Power Generation by Recovering Cold Energy during LNG (Liquefied Natural) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	3.2	35
89	Scheduling in serial multiproduct batch processes with due-date penalties. Industrial & Engineering Chemistry Research, 1990, 29, 580-590.	1.8	34
90	Binary and Ternary Adsorption Kinetics of Gases in Carbon Molecular Sieves. Langmuir, 2003, 19, 5722-5734.	1.6	34

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91	An MILP Approach to Automated Wet-Etch Station Scheduling. Industrial & Engineering Chemistry Research, 2003, 42, 1391-1399.	1.8	34
92	Sequential coordinate random search for optimal operation of LNG (liquefied natural gas) plant. Energy, 2015, 89, 757-767.	4.5	34
93	Techno-enviro-economic analyses of hydrogen supply chains with an ASEAN case study. International Journal of Hydrogen Energy, 2021, 46, 32914-32928.	3.8	34
94	Supply chain redesign and new process introduction in multipurpose plants. Chemical Engineering Science, 2010, 65, 2596-2607.	1.9	33
95	Selection of Liquefied Natural Gas (LNG) Contracts for Minimizing Procurement Cost. Industrial & Engineering Chemistry Research, 2011, 50, 10298-10312.	1.8	33
96	Scheduling a Two-Stage Multiproduct Process with Limited Product Shelf Life in Intermediate Storage. Industrial & Engineering Chemistry Research, 2003, 42, 490-508.	1.8	32
97	Supply chain redesign through optimal asset management and capital budgeting. Computers and Chemical Engineering, 2008, 32, 3153-3169.	2.0	32
98	Reconstruction of a genome-scale metabolic network of Rhodococcus erythropolis for desulfurization studies. Molecular BioSystems, 2011, 7, 3122.	2.9	32
99	Identification of Transport Mechanism in Adsorbent Micropores from Column Dynamics. Industrial & Engineering Chemistry Research, 2002, 41, 1098-1106.	1.8	31
100	An Analysis of Some Unit-Specific Event-Based Models for the Short-Term Scheduling of Noncontinuous Processes. Industrial & Engineering Chemistry Research, 2010, 49, 633-647.	1.8	31
101	Towards an ontological infrastructure for chemical process simulation and optimization in the context of eco-industrial parks. Applied Energy, 2017, 204, 1284-1298.	5.1	31
102	A critical review on measures to suppress flow boiling instabilities in microchannels. Heat and Mass Transfer, 2021, 57, 889-910.	1.2	31
103	Heuristic algorithms for scheduling an automated wet-etch station. Computers and Chemical Engineering, 2004, 28, 363-379.	2.0	30
104	Minimizing Power Consumption Related to BOG Reliquefaction in an LNG Regasification Terminal. Industrial & Engineering Chemistry Research, 2016, 55, 7431-7445.	1.8	29
105	Scheduling Parallel Production Lines with Resource Constraints. 2. Decomposition Algorithm. Industrial & Engineering Chemistry Research, 2002, 41, 790-800.	1.8	28
106	Synthesis of heat exchanger networks with nonisothermal phase changes. AICHE Journal, 2010, 56, 930-945.	1.8	28
107	Combined data preprocessing and multivariate statistical analysis characterizes fed-batch culture of mouse hybridoma cells for rational medium design. Journal of Biotechnology, 2010, 150, 94-100.	1.9	28
108	Framework for workâ€heat exchange network synthesis (WHENS). AICHE Journal, 2018, 64, 2472-2485.	1.8	28

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109	LEAPS2: Learning based Evolutionary Assistive Paradigm for Surrogate Selection. Computers and Chemical Engineering, 2018, 119, 352-370.	2.0	28
110	Planning production on a single processor with sequence-dependent setups part 1: determination of campaigns. Computers and Chemical Engineering, 2001, 25, 1021-1030.	2.0	27
111	Strain Improvement and Process Development for Biobutanol Production. Recent Patents on Biotechnology, 2009, 3, 202-210.	0.4	27
112	Optimization of helium extraction processes integrated with nitrogen removal units: A comparative study. Computers and Chemical Engineering, 2019, 121, 354-366.	2.0	27
113	Optimal selection of intermediate storage tank capacity in a periodic batch/semicontinuous process. AIChE Journal, 1983, 29, 588-596.	1.8	26
114	Novel continuous-time formulations for scheduling multi-stage batch plants with identical parallel units. Computers and Chemical Engineering, 2007, 31, 1671-1693.	2.0	26
115	Efficient bulk maritime logistics for the supply and delivery of multiple chemicals. Computers and Chemical Engineering, 2010, 34, 2118-2128.	2.0	26
116	Shared and practical approach to conserve utilities in eco-industrial parks. Computers and Chemical Engineering, 2016, 93, 221-233.	2.0	26
117	Flux-based analysis of sulfur metabolism in desulfurizing strains of Rhodococcus erythropolis. FEMS Microbiology Letters, 2011, 315, 115-121.	0.7	25
118	NADPH-dependent pgi-gene knockout Escherichia coli metabolism producing shikimate on different carbon sources. FEMS Microbiology Letters, 2011, 324, 10-16.	0.7	25
119	Comparing SiCHA and 4A Zeolite for Propylene/Propane Separation using a Surrogate-Based Simulation/Optimization Approach. Industrial & Engineering Chemistry Research, 2014, 53, 16973-16983.	1.8	25
120	Heating Value Reduction of LNG (Liquefied Natural Gas) by Recovering Heavy Hydrocarbons: Technoeconomic Analyses Using Simulation-Based Optimization. Industrial & Engineering Chemistry Research, 2018, 57, 5924-5932.	1.8	25
121	Prediction of binary gas diffusion in carbon molecular sieves at high pressure. AIChE Journal, 2004, 50, 351-367.	1.8	24
122	An online decision support framework for managing abnormal supply chain events. Computer Aided Chemical Engineering, 2005, , 985-990.	0.3	24
123	Optimal Contract Selection for the Global Supply and Distribution of Raw Materials. Industrial & Engineering Chemistry Research, 2007, 46, 6522-6539.	1.8	24
124	Efficient heuristics for inventory placement in acyclic networks. Computers and Operations Research, 2009, 36, 2899-2904.	2.4	24
125	Well Placement, Infrastructure Design, Facility Allocation, and Production Planning in Multireservoir Oil Fields with Surface Facility Networks. Industrial & Engineering Chemistry Research, 2014, 53, 11033-11049.	1.8	24
126	Parameterisation of a biodiesel plant process flow sheet model. Computers and Chemical Engineering, 2016, 95, 108-122.	2.0	24

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127	Integrated Oil-Field Management: From Well Placement and Planning to Production Scheduling. Industrial & Engineering Chemistry Research, 2016, 55, 978-994.	1.8	24
128	Techno–Economic Evaluation of Cyclopentane Hydrate–Based Desalination with Liquefied Natural Gas Cold Energy Utilization. Energy Technology, 2020, 8, 1900212.	1.8	24
129	Exergoeconomic analysis and optimization of a Gas Turbine-Modular Helium Reactor with new organic Rankine cycle for efficient design and operation. Energy Conversion and Management, 2020, 204, 112311.	4.4	24
130	Scheduling tank container movements for chemical logistics. AICHE Journal, 2005, 51, 178-197.	1.8	23
131	Elucidation of metabolism in hybridoma cells grown in fed–batch culture by genome–scale modeling. Biotechnology and Bioengineering, 2009, 102, 1494-1504.	1.7	23
132	Preliminary Synthesis of Fuel Gas Networks to Conserve Energy and Preserve the Environment. Industrial & Engineering Chemistry Research, 2011, 50, 7414-7427.	1.8	23
133	Improved Synthesis of Hydrogen Networks for Refineries. Industrial & Engineering Chemistry Research, 2014, 53, 16948-16963.	1.8	23
134	Improving design and operation at LNG regasification terminals through a corrected storage tank model. Applied Thermal Engineering, 2019, 149, 344-353.	3.0	23
135	Teaching-learning self-study approach for optimal retrofitting of dual mixed refrigerant LNG process: Energy and exergy perspective. Applied Energy, 2021, 298, 117187.	5.1	23
136	Scheduling algorithms for serial multiproduct batch processes with tardiness penalties. Computers and Chemical Engineering, 1991, 15, 283-286.	2.0	22
137	Nonisothermal Pore Diffusion Model for a Kinetically Controlled Pressure Swing Adsorption Process. Industrial & Engineering Chemistry Research, 2012, 51, 10659-10670.	1.8	22
138	Optimal cryogenic processes for nitrogen rejection from natural gas. Computers and Chemical Engineering, 2018, 112, 101-111.	2.0	22
139	Optimal design of boil-off gas reliquefaction process in LNG regasification terminals. Computers and Chemical Engineering, 2018, 117, 171-190.	2.0	22
140	Optimal design of batch plants with single production routes. Industrial & Engineering Chemistry Research, 1989, 28, 1191-1202.	1.8	21
141	Web-based applications for building, managing and analysing kinetic models of biological systems. Briefings in Bioinformatics, 2008, 10, 65-74.	3.2	21
142	Minimize Flaring through Integration with Fuel Gas Networks. Industrial & Engineering Chemistry Research, 2012, 51, 12630-12641.	1.8	21
143	A superstructure–based model for multistream heat exchanger design within flow sheet optimization. AICHE Journal, 2017, 63, 3764-3777.	1.8	21
144	Retrofit Design of Hydrogen Network in Refineries: Mathematical Model and Global Optimization. Industrial & Engineering Chemistry Research, 2018, 57, 4996-5023.	1.8	21

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145	An improved formulation for scheduling an automated wet-etch station. Computers and Chemical Engineering, 2004, 29, 217-224.	2.0	20
146	Flux measurements and maintenance energy for carbon dioxide utilization by Methanococcus maripaludis. Microbial Cell Factories, 2015, 14, 146.	1.9	20
147	Sustainability Assessment of Thermocatalytic Conversion of CO_2 to Transportation Fuels, Methanol, and 1-Propanol. ACS Sustainable Chemistry and Engineering, 2021, 9, 10591-10600.	3.2	20
148	Optimal Cycle Times in Multistage Serial Systems with Set-Up and Inventory Costs. Management Science, 1992, 38, 1467-1481.	2.4	19
149	Investment portfolios under uncertainty for utilizing natural gas resources. Computers and Chemical Engineering, 2011, 35, 1827-1837.	2.0	19
150	Parametric optimization with uncertainty on the left hand side of linear programs. Computers and Chemical Engineering, 2014, 60, 31-40.	2.0	19
151	Unified Heat Exchanger Network Synthesis via a Stageless Superstructure. Industrial & Engineering Chemistry Research, 2019, 58, 5984-6001.	1.8	19
152	Towards energy-efficient LNG terminals: Modeling and simulation of reciprocating compressors. Computers and Chemical Engineering, 2019, 128, 312-321.	2.0	19
153	Simulation-based approach for integrating work within heat exchange networks for sub-ambient processes. Energy Conversion and Management, 2020, 203, 112276.	4.4	19
154	Single-Solution-Based Vortex Search Strategy for Optimal Design of Offshore and Onshore Natural Gas Liquefaction Processes. Energies, 2020, 13, 1732.	1.6	19
155	System perspective on cleaner technologies for renewable methane production and utilisation towards carbon neutrality: Principles, techno-economics, and carbon footprints. Fuel, 2022, 327, 125130.	3.4	19
156	A Slot-Based Formulation for Single-Stage Multiproduct Batch Plants with Multiple Orders per Product. Industrial & Engineering Chemistry Research, 2003, 42, 1914-1924.	1.8	18
157	Technoeconomic Perspective on Natural Gas Liquids and Methanol as Potential Feedstocks for Producing Olefins. Industrial & Engineering Chemistry Research, 2019, 58, 963-972.	1.8	18
158	Organic Rankine cycle integrated with hydrate-based desalination for a sustainable energyâ€"water nexus system. Applied Energy, 2021, 291, 116839.	5.1	18
159	Modeling and Monte Carlo simulation of TCDD transport in a river. Water Research, 2001, 35, 1263-1279.	5.3	17
160	Modeling and simulation of main cryogenic heat exchanger in a base-load liquefied natural gas plant. Computer Aided Chemical Engineering, 2007, 24, 219-224.	0.3	17
161	Genome-scale metabolic network reconstruction and in silico flux analysis of the thermophilic bacterium Thermus thermophilus HB27. Microbial Cell Factories, 2014, 13, 61.	1.9	17
162	Simulation of a combined cycle gas turbine power plant in Aspen HYSYS. Energy Procedia, 2019, 158, 3620-3625.	1.8	17

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163	A Parallel World Framework for scenario analysis in knowledge graphs. Data-Centric Engineering, 2020, 1, .	1.2	17
164	Deterministic variability analysis for intermediate storage in noncontinuous processes. Part I: Allowability conditions. AICHE Journal, 1985, 31, 1516-1527.	1.8	16
165	Scheduling Trans-shipment Operations in Maritime Chemical Transportation. Industrial & Engineering Chemistry Research, 2006, 45, 1955-1973.	1.8	16
166	Optimizing Compressor Operations in an LNG Plant. , 2009, , 179-184.		16
167	From PSE to PSE2â€"Decision support for resilient enterprises. Computers and Chemical Engineering, 2009, 33, 1939-1949.	2.0	16
168	Integrated campaign planning and resource allocation in batch plants. Computers and Chemical Engineering, 2011, 35, 2990-3001.	2.0	16
169	Optimization of Compressor Networks in LNG Operations. Computer Aided Chemical Engineering, 2009, 27, 1767-1772.	0.3	15
170	Design of biomass and natural gas based IGFC using multi-objective optimization. Energy, 2014, 73, 635-652.	4.5	15
171	Optimization of One- and Two-Staged Kinetically Controlled CO_2 Capture Processes from Postcombustion Flue Gas on a Carbon Molecular Sieve. Industrial & Engineering Chemistry Research, 2014, 53, 9186-9198.	1.8	15
172	Evaluating smart sampling for constructing multidimensional surrogate models. Computers and Chemical Engineering, 2018, 108, 276-288.	2.0	15
173	CFD Analysis of Stratification and Rollover Phenomena in an Industrial-Scale LNG Storage Tank. Industrial & Engineering Chemistry Research, 2020, 59, 14126-14144.	1.8	15
174	Modeling support resistance in zeolite membranes. Journal of Membrane Science, 2001, 186, 109-121.	4.1	14
175	A novel cost-effective silica membrane-based process for helium extraction from natural gas. Computers and Chemical Engineering, 2019, 121, 633-638.	2.0	14
176	Study on Boil-off Gas (BOG) Minimization and Recovery Strategies from Actual Baseload LNG Export Terminal: Towards Sustainable LNG Chains. Energies, 2021, 14, 3478.	1.6	14
177	Effect of sorbateâ€"sorbate interaction on micropore diffusion in steady-state adsorption processes. Chemical Engineering Science, 2000, 55, 3529-3541.	1.9	13
178	Locating exchangers in an EIP-wide heat integration network. Computers and Chemical Engineering, 2018, 108, 57-73.	2.0	13
179	Shuffled Complex Evolution-Based Performance Enhancement and Analysis of Cascade Liquefaction Process for Large-Scale LNG Production. Energies, 2020, 13, 2511.	1.6	13
180	Supply Chain Redesignâ€"Multimodal Optimization Using a Hybrid Evolutionary Algorithm. Industrial & Engineering Chemistry Research, 2009, 48, 11094-11107.	1.8	12

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181	Deterministic variability analysis for intermediate storage in noncontinuous processes: Part II: Storage sizing for serial systems. AICHE Journal, 1985, 31, 1528-1537.	1.8	11
182	Operation Planning of Multiparcel Tankers under Fuel Price Uncertainty. Industrial & Engineering Chemistry Research, 2010, 49, 6104-6114.	1.8	11
183	Surrogate-based VSA Process Optimization for Post-Combustion CO_2 Capture. Computer Aided Chemical Engineering, 2011, 29, 402-406.	0.3	11
184	Surrogate-based black-box optimisation via domain exploration and smart placement. Computers and Chemical Engineering, 2019, 130, 106567.	2.0	11
185	Optimal Cycle Times in a Two-Stage Serial System With Set-Up and Inventory Costs. IIE Transactions, 1989, 21, 324-332.	2.1	10
186	Progress and prospect of hydrate-based desalination technology. Frontiers in Energy, 2022, 16, 445-459.	1.2	10
187	Sizing of intermediate storage for variabilities in noncontinuous processes with parallel units. Computers and Chemical Engineering, 1988, 12, 561-572.	2.0	9
188	Discrete Equilibrium Data from Dynamic Column Breakthrough Experiments. Industrial & Engineering Chemistry Research, 2012, 51, 14834-14844.	1.8	9
189	Genome-Scale In Silico Analysis for Enhanced Production of Succinic Acid in Zymomonas mobilis. Processes, 2018, 6, 30.	1.3	9
190	A Surrogate-Assisted Approach for the Optimal Synthesis of Refinery Hydrogen Networks. Industrial & Engineering Chemistry Research, 2019, 58, 16798-16812.	1.8	9
191	Operational Optimization of Processes with Multistream Heat Exchangers Using Data-Driven Predictive Modeling. Industrial & Engineering Chemistry Research, 2019, 58, 5838-5850.	1.8	9
192	Planning production on a single processor with sequence-dependent setups. Part 2: campaign sequencing and scheduling. Computers and Chemical Engineering, 2001, 25, 1031-1043.	2.0	8
193	A novel CDU model for refinery planning. Asia-Pacific Journal of Chemical Engineering, 2007, 2, 282-293.	0.8	8
194	J-Park Simulator, an intelligent system for information management of eco-industrial parks. Energy Procedia, 2017, 142, 2953-2958.	1.8	8
195	Prospective of Upfront Nitrogen (N2) Removal in LNG Plants: Technical Communication. Energies, 2021, 14, 3616.	1.6	8
196	Revised learning based evolutionary assistive paradigm for surrogate selection (LEAPS2v2). Computers and Chemical Engineering, 2021, 152, 107385.	2.0	8
197	Estimating NOx emissions of useful two-fuel blends from literature data. Fuel, 2022, 316, 123213.	3.4	8
198	An interactive approach to the design of noncontinuous plants. Computers and Chemical Engineering, 1993, 17, 71-93.	2.0	7

#	Article	IF	Citations
199	Spinning wave motion in frontal polymerization. Chemical Engineering Science, 2007, 62, 1448-1455.	1.9	7
200	A taxonomy and review of the multiple criteria decision-making literature in chemical engineering. International Journal of Multicriteria Decision Making, 2011, 1, 407.	0.1	7
201	Perspectives on the Design and Planning of Oil Field Infrastructure. Computer Aided Chemical Engineering, 2014, , 163-172.	0.3	7
202	Technoeconomic perspectives on sustainable CO2 capture and utilization. Environmental Science and Pollution Research, 2016, 23, 22223-22225.	2.7	7
203	Integrated production planning and inventory management in a multinational pharmaceutical supply chain. Computer Aided Chemical Engineering, 2018, 41, 551-567.	0.3	7
204	Wall superheat at the incipient nucleate boiling condition for natural and forced convection: A CFD approach. Computers and Chemical Engineering, 2020, 134, 106718.	2.0	7
205	A general stochastic model for intermediate storage in noncontinuous processes. Chemical Engineering Science, 1990, 45, 3533-3549.	1.9	6
206	Selection of Third-Party Service Contracts for Chemical Logistics. Industrial & Engineering Chemistry Research, 2008, 47, 8301-8316.	1.8	6
207	Supply chain risk management through HAZOP and dynamic simulation. Computer Aided Chemical Engineering, 2008, , 37-42.	0.3	6
208	Evaluation of LNG, CNG, GTL and NGH for Monetization of Stranded Associated Gas with the Incentive of Carbon Credit. , 2009, , .		6
209	Special Issue on PSE Advances in Natural Gas Value Chain: Editorial. Industrial & Engineering Chemistry Research, 2018, 57, 5733-5735.	1.8	6
210	Optimal Drilling Planning by Considering the Subsurface Dynamicsâ€"Combing the Flexibilities of Modeling and a Reservoir Simulator. Industrial & Engineering Chemistry Research, 2018, 57, 16367-16378.	1.8	6
211	Dynamic Simulation of a LNG Regasification Terminal and Management of Boil-off Gas. Computer Aided Chemical Engineering, 2018, , 685-690.	0.3	6
212	Hydrogen Economy Assessment & Resource Tool (HEART): A python-based tool for ASEAN H2 roadmap study. International Journal of Hydrogen Energy, 2022, 47, 21897-21907.	3.8	6
213	A modified heuristic for an initial sequence in flowshop scheduling. Industrial & Engineering Chemistry Research, 1988, 27, 1654-1658.	1.8	5
214	Agent-based Refinery Supply Chain Management. Computer Aided Chemical Engineering, 2002, , 895-900.	0.3	5
215	Dispersed plug flow model for steady-state laminar flow in a tube with a first order sink at the wall. Chemical Engineering Science, 2003, 58, 71-80.	1.9	5
216	Scheduling Tanker-Lightering Operations in Crude Oil Transportation. Industrial & Engineering Chemistry Research, 2006, 45, 8063-8082.	1.8	5

#	Article	IF	Citations
217	Robustness Measures for Operation Schedules Subject to Disruptions. Industrial & Engineering Chemistry Research, 2009, 48, 9204-9214.	1.8	5
218	Optimization of multi-refinery hydrogen networks. Computer Aided Chemical Engineering, 2012, 31, 1331-1335.	0.3	5
219	A Drilling Scheduling Toolbox for Oil and Gas Reservoirs. Computer Aided Chemical Engineering, 2015, , 2453-2458.	0.3	5
220	Smart Adaptive Sampling for Surrogate Modelling. Computer Aided Chemical Engineering, 2016, 38, 631-636.	0.3	5
221	Simulation and health monitoring of a pressure regulating station. Computers and Chemical Engineering, 2020, 139, 106824.	2.0	5
222	State transients in storage systems for energy fluids. Computers and Chemical Engineering, 2021, 144, 107128.	2.0	5
223	Optimal Procurement of Liquefied Natural Gas Cargos from Long-Term Contracts and Spot Market through Mathematical Programming. Industrial & Engineering Chemistry Research, 2021, 60, 3658-3669.	1.8	5
224	Roadmap toward energyâ€positive upfront nitrogen removal process in baseload LNG plant. International Journal of Energy Research, 2022, 46, 20556-20572.	2.2	5
225	Scheduling a Single-Product Reentrant Process with Uniform Processing Times. Industrial & Engineering Chemistry Research, 2000, 39, 4203-4214.	1.8	4
226	Application of Multi-objective Simulation-optimization Techniques to Inventory Management Problems. , 0, , .		4
227	Contract Selection and Tank Allocation in a Terminaling and Storage Facility. Industrial & Engineering Chemistry Research, 2005, 44, 7435-7450.	1.8	4
228	Routing and cargo allocation planning of a parcel tanker. Computer Aided Chemical Engineering, 2006, 21, 1985-1990.	0.3	4
229	Chemical Logistics â€" Going Beyond Intra-Plant Excellence. Computer Aided Chemical Engineering, 2009, , 29-34.	0.3	4
230	Optimizing the PSA process of propylene/propane using Neuro-Fuzzy modeling. Computer Aided Chemical Engineering, 2012, 31, 1336-1340.	0.3	4
231	Preface to the ICCDU-2015 Special Issue. Industrial & Engineering Chemistry Research, 2016, 55, 7839-7841.	1.8	4
232	Simulation and optimization of a combined cycle gas turbine power plant under part-load operation. Computer Aided Chemical Engineering, 2018, 44, 2401-2406.	0.3	4
233	Optimal Design of Boil-Off Gas Liquefaction in LNG Regasification Terminals. Computer Aided Chemical Engineering, 2018, 44, 2407-2412.	0.3	4
234	Practically Useful Models for Kinetics of Biodiesel Production. ACS Sustainable Chemistry and Engineering, 2019, 7, 4983-4992.	3.2	4

#	Article	IF	Citations
235	Reducing Power Use in the Cold Section of LNG Plants. ACS Sustainable Chemistry and Engineering, 2021, 9, 13056-13067.	3.2	4
236	A Multi-Agent Approach to Supply Chain Management in the Chemical Industry. Studies in Computational Intelligence, 2006, , 419-450.	0.7	4
237	Synthesis of Heat Exchanger Networks Involving Phase Changes. , 2009, , 185-192.		4
238	Two-parameter periodic solutions near a Hopf point in delay-differential equations. Journal of Physics A, 1999, 32, 4509-4519.	1.6	3
239	Analysis of a tubular zeolite membrane process. Chemical Engineering Science, 1999, 54, 4111-4121.	1.9	3
240	Short-term scheduling of refinery operations from unloading crudes to distillation. Computer Aided Chemical Engineering, 2003, 15, 304-309.	0.3	3
241	CAPACITY MANAGEMENT IN THE CHEMICAL SUPPLY CHAIN. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 253-258.	0.4	3
242	An integrated model for planning in global chemical supply chains. Computer Aided Chemical Engineering, 2006, , 2189-2194.	0.3	3
243	Modeling and Simulation of Gas Pipeline Network for Operational and Infrastructural Decisions. Computer Aided Chemical Engineering, 2009, 26, 453-458.	0.3	3
244	Contract selection under uncertainty. Computer Aided Chemical Engineering, 2012, 31, 1487-1491.	0.3	3
245	A Novel Multi-Grid Formulation for Scheduling Semi-Continuous Plants. Computer Aided Chemical Engineering, 2012, 31, 1075-1079.	0.3	3
246	Heat Exchanger Network Synthesis Using a Hyperstructure of Stagewise Stream Superstructures. Computer Aided Chemical Engineering, 2012, , 1552-1556.	0.3	3
247	Modeling and Simulating Electrochemical Reduction of CO2 in a Microfluidic Cell. Computer Aided Chemical Engineering, 2014, , 639-644.	0.3	3
248	Technoenergetic and Economic Analysis of CO2 Conversion. , 2019, , 413-430.		3
249	First Observation of an Acetate Switch in a Methanogenic Autotroph (Methanococcus maripaludis) Tj ETQq1 1 0.784314 rgBT /Overlock	0.9	3
250	Application of reductive perturbation method to branching of stationary solutions. Chemical Engineering Science, 2001, 56, 3915-3922.	1.9	2
251	Branching and stability of stationary solutions in multi-equation systems. Chemical Engineering Science, 2002, 57, 1251-1267.	1.9	2
252	Business decision making in the chemical industry: PSE opportunities. Computer Aided Chemical Engineering, 2006, 21, 107-117.	0.3	2

#	Article	IF	Citations
253	Novel MILP Models for Scheduling Permutation Flowshops. Chemical Product and Process Modeling, 2008, 3, .	0.5	2
254	Multi-Period Continuous-Time Formulation for Integrated Scheduling, Blending, and Distribution of Refinery Products. Computer Aided Chemical Engineering, 2009, 27, 1563-1568.	0.3	2
255	TOPS: Advanced Decision Support System for Port and Maritime Chemical Logistics. Asian Journal of Shipping and Logistics, 2011, 27, 143-156.	1.8	2
256	Microgrid Scheduling for Reliable, Cost-Effective, and Environmentally Friendly Energy Management. Industrial & Engineering Chemistry Research, 0, , 120614123154002.	1.8	2
257	Genome-scale metabolic network reconstruction and in silico analysis of Methanococcus maripaludis S2. Computer Aided Chemical Engineering, 2013, , 181-186.	0.3	2
258	Ethylene from natural gas via oxidative coupling of methane and cold energy of LNG. Computer Aided Chemical Engineering, 2017, 40, 1855-1860.	0.3	2
259	Adjusting the Heating Value of LNG using a Superstructure for Hydrocarbon Recovery. Computer Aided Chemical Engineering, 2018, 44, 1105-1110.	0.3	2
260	Exploiting the Synergy between Work and Heat for Holistic Energy Integration. Computer Aided Chemical Engineering, 2018, 44, 403-408.	0.3	2
261	Critical Assessment of Control Strategies for Industrial Systems with Input–Output Constraints. Industrial & Engineering Chemistry Research, 2022, 61, 11056-11070.	1.8	2
262	Intermediate storage for noncontinuous process variability and failures. Chemical Engineering Science, 1991, 46, 3269-3282.	1.9	1
263	PLANE WAVES IN SYSTEMS HAVING AN INTRINSIC TIME LAG. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2002, 12, 193-204.	0.7	1
264	A continuous-time formulation for scheduling multi-stage multi-product batch plants with non-identical parallel units. Computer Aided Chemical Engineering, 2005, 20, 1165-1170.	0.3	1
265	Refinery planning under correlated and truncated price and demand uncertainties. Computer Aided Chemical Engineering, 2006, 21, 2123-2128.	0.3	1
266	Optimal supply chain redesign using genetic algorithm. Computer Aided Chemical Engineering, 2007, 24, 703-708.	0.3	1
267	Crude Oil Transshipment Using Floating, Storage, and Offloading Platforms (FSOPs). Computer Aided Chemical Engineering, 2009, , 2085-2090.	0.3	1
268	Unit Slots Based Short-Term Scheduling for Multipurpose Batch Plants. Computer Aided Chemical Engineering, 2009, , 1989-1994.	0.3	1
269	Integrated Campaign Planning and Resource Allocation in Batch Plants. Computer Aided Chemical Engineering, 2010, , 1183-1188.	0.3	1
270	Integrated Supply Chain Planning for Multinational Pharmaceutical Enterprises. Computer Aided Chemical Engineering, 2011, 29, 1075-1079.	0.3	1

#	Article	IF	Citations
271	A sharp cut algorithm for optimization. Computers and Chemical Engineering, 2011, 35, 2716-2728.	2.0	1
272	Simultaneous Optimal Placement of Injector and Producer Wells Using Mathematical Programming. Computer Aided Chemical Engineering, 2012, 31, 1482-1486.	0.3	1
273	In Silico Analysis to Explore the Effect of Various Carbon Sources on Ethanol Production in Zymomonas mobilis. Computer Aided Chemical Engineering, 2012, , 1382-1386.	0.3	1
274	PlanPerfect. Computer Aided Chemical Engineering, 2012, 30, 372-376.	0.3	1
275	Locating Heat Exchangers in an EIP-wide Heat Integration Network. Computer Aided Chemical Engineering, 2017, , 793-798.	0.3	1
276	An Ontology Based Cyber-infrastructure for the Development of Smart Eco Industrial Parks. Computer Aided Chemical Engineering, 2018, 44, 2047-2052.	0.3	1
277	Evaluating the Benefits of LNG Procurement through Spot Market Purchase. Computer Aided Chemical Engineering, 2019, , 1723-1728.	0.3	1
278	In silico Simulation for Enhancing Production of Organic Acids in Zymomonas mobilis. Computer Aided Chemical Engineering, 2012, 31, 900-904.	0.3	1
279	Intelligent Decision-Support Tools for Effective and Integrated Operational Planning in Pharmaceutical Plants. Computer Aided Chemical Engineering, 2012, 31, 1165-1169.	0.3	1
280	Optimal Well Placement Using Dynamic Mathematical Programming. , 2011, , .		1
281	Unsteady characteristics of sleeping thermal comfort during defrosting of a T-ASHP system. Indoor and Built Environment, 0, , 1420326X2210792.	1.5	1
282	Chapter 8 Chemical batch process scheduling. Data Handling in Science and Technology, 1995, 15, 181-203.	3.1	0
283	7 Applying the OSCAR algorithmâ€"A practical example. Data Handling in Science and Technology, 1996, , 141-168.	3.1	0
284	An improved MILP formulation for scheduling an automated wet-etch station. Computer Aided Chemical Engineering, 2003, 15, 1181-1186.	0.3	0
285	Asset Management in and Redesign of Chemical Supply Chains. , 2006, , .		0
286	Novel continuous-time formulations for scheduling multi-stage multi-product batch plants with identical parallel units. Computer Aided Chemical Engineering, 2006, , 1979-1984.	0.3	0
287	Evaluating Refinery Supply Chain Policies and Investment Decisions Through Simulation-Optimization. , 2006, , .		0
288	Identifying synergistically switching pathways for multi-product strain improvement using multiobjective flux balance analysis. Computer Aided Chemical Engineering, 2007, , 1007-1012.	0.3	0

#	Article	IF	Citations
289	Efficient Bulk Maritime Logistics for the Supply and Delivery of Multiple Chemicals. Computer Aided Chemical Engineering, 2009, 27, 1977-1982.	0.3	0
290	Synthesis Framework of Biorefinery Systems for Lignocellulosic Biorenewables. Computer Aided Chemical Engineering, 2012, , 245-249.	0.3	0
291	A Comparison Study of Adjoint-Based Gradient Search Technique and Mathematical Programming for Optimal Well-Placement. Computer Aided Chemical Engineering, 2012, 31, 665-669.	0.3	0
292	Preface to PSE-2012 Special Issue. Industrial & Engineering Chemistry Research, 2013, 52, 7045-7046.	1.8	0
293	Modelling Multi Stream Heat Exchangers Using Operational Data. Computer Aided Chemical Engineering, 2015, 37, 2369-2374.	0.3	0
294	Process and Heat Integrated Design of a Novel NGL Recovery Scheme. Computer Aided Chemical Engineering, 2016, 38, 1845-1850.	0.3	0
295	Exploiting meta-modeling approach to investigate the effect of oil characteristics on the optimal operating conditions and biodiesel properties. Computer Aided Chemical Engineering, 2018, 43, 157-162.	0.3	0
296	CFD simulation of a full scale LNG storage tank. Computer Aided Chemical Engineering, 2018, 44, 883-888.	0.3	0
297	Modeling Multistream Heat Exchangers (MHEXs) Using Operational Data. Computer Aided Chemical Engineering, 2018, 44, 2395-2400.	0.3	0
298	Improved Strains for Biological Treatment of Wastewater. Computer Aided Chemical Engineering, 2012, , 895-899.	0.3	0
299	Experimental Validation Of in silico Flux Predictions from A Genome-Scale Model (iMM518) For Carbon Dioxide Utilization by M. maripaludis. Computer Aided Chemical Engineering, 2015, 37, 2153-2158.	0.3	0
300	Supply Chain Management in the Chemical Industry: Trends, Issues, and Research Interests. , 2008, , 45-67.		0
301	Effect of Cyclopentane and Graphite on the Kinetics of CO2/C3H8 Formation for Hydrate-Based Desalination. Lecture Notes in Civil Engineering, 2022, , 400-408.	0.3	0