Qiang Xu

List of Publications by Citations

102 papers	1,174 citations	19 h-index	27 g-index
105 ext. papers	1,354 ext. citations	4.2 avg, IF	4.96 L-index

#	Paper	IF	Citations
102	Optimal design and operation of a C3MR refrigeration system for natural gas liquefaction. *Computers and Chemical Engineering*, **2012**, 39, 84-95	4	89
101	Thermodynamic-Analysis-Based Energy Consumption Minimization for Natural Gas Liquefaction. *Industrial & Engineering Chemistry Research*, **2011**, 50, 12630-12640	3.9	70
100	Chemical Plant Flare Minimization via Plantwide Dynamic Simulation. *Industrial & Engineering Chemistry Research*, **2009**, 48, 3505-3512	3.9	57
99	Simulation study on boil-off gas minimization and recovery strategies at LNG exporting terminals. *Applied Energy*, **2015**, 156, 628-641	10.7	34
98	Thermodynamic-Analysis-Based Design and Operation for Boil-Off Gas Flare Minimization at LNG Receiving Terminals. *Industrial & Engineering Chemistry Research*, **2010**, 49, 7412-7420	3.9	34
97	Cyclic Scheduling for Ethylene Cracking Furnace System with Consideration of Secondary Ethane Cracking. *Industrial & Engineering Chemistry Research*, **2010**, 49, 5765-5774	3.9	30
96	Dynamic simulation of LNG loading, BOG generation, and BOG recovery at LNG exporting terminals. *Computers and Chemical Engineering*, **2017**, 97, 47-58	4	28
95	Cyclic scheduling for best profitability of industrial cracking furnace system. *Computers and Chemical Engineering*, **2010**, 34, 544-554	4	28
94	Cascade refrigeration system synthesis based on exergy analysis. *Computers and Chemical Engineering*, **2011**, 35, 1901-1914	4	24
93	Optimal design and operation for simultaneous shale gas NGL recovery and LNG re-gasification under uncertainties. *Chemical Engineering Science*, **2014**, 112, 130-142	4.4	23
92	Dynamic Scheduling for Ethylene Cracking Furnace System. *Industrial & Engineering Chemistry Research*, **2011**, 50, 12026-12040	3.9	23
91	Simultaneous study on energy consumption and emission generation for an ethylene plant under different start-up strategies. *Computers and Chemical Engineering*, **2013**, 56, 68-79	4	22
90	Pressure-Driven Dynamic Simulation for Improving the Performance of a Multistage Compression System during Plant Startup. *Industrial & Engineering Chemistry Research*, **2009**, 48, 9195-9203	3.9	22
89	A novel conceptual design by integrating NGL recovery and LNG regasification processes for maximum energy savings. *AICHE Journal*, **2013**, 59, 4673-4685	3.6	21
88	Emission Source Characterization for Proactive Flare Minimization during Ethylene Plant Start-ups. *Industrial & Engineering Chemistry Research*, **2010**, 49, 5734-5741	3.9	21
87	ACSB-based dynamic optimization for curing of polymeric coating. *AICHE Journal*, **2006**, 52, 1410-1422	3.6	21
86	ENVIRONMENTALLY CONSCIOUS HOIST SCHEDULING FOR ELECTROPLATING FACILITIES. *Chemical Engineering Communications*, **2006**, 193, 273-292	2.2	21

85	Energy network dispatch optimization under emergency of local energy shortage. *Energy*, **2012**, 42, 132-145	7.15	20
84	Real-time dynamic hoist scheduling for multistage material handling process under uncertainties. *AICHE Journal*, **2013**, 59, 465-482	3.6	20
83	Integration of electroplating process design and operation for simultaneous productivity maximization, energy saving, and freshwater minimization. *Chemical Engineering Science*, **2012**, 68, 202-214	4.4	17
82	Simulation and economic evaluation of a coupled thermal vapor compression desalination process for produced water management. *Journal of Natural Gas Science and Engineering*, **2016**, 36, 442-453	4.6	14
81	Impacts of flare emissions from an ethylene plant shutdown to regional air quality. *Atmospheric Environment*, **2016**, 138, 22-41	5.3	14
80	Flare Minimization during Start-Ups of an Integrated Cryogenic Separation System via Dynamic Simulation. *Industrial & Engineering Chemistry Research*, **2014**, 53, 1553-1562	3.9	14
79	Scheduling of multiple chemical plant start-ups to minimize regional air quality impacts. *Computers and Chemical Engineering*, **2013**, 54, 68-78	4	14
78	Simultaneous scheduling of front-end crude transfer and refinery processing. *Computers and Chemical Engineering*, **2017**, 96, 212-236	4	14
77	Multiobjective Optimization for Design and Operation of the Chilling Train System in Ethylene Plants. *Industrial & Engineering Chemistry Research*, **2010**, 49, 5786-5799	3.9	14
76	Dynamic Simulation and Optimization for the Start-up Operation of An Ethylene Oxide Plant. *Industrial & Engineering Chemistry Research*, **2010**, 49, 4360-4371	3.9	14
75	Flare Minimization Strategy for Ethylene Plants. *Chemical Engineering and Technology*, **2010**, 33, 1059-1065		14
74	Reactive Scheduling of Short-Term Crude Oil Operations under Uncertainties. *Industrial & Engineering Chemistry Research*, **2014**, 53, 12502-12518	3.9	13
73	Generic Approach of Using Dynamic Simulation for Industrial Emission Reduction under Abnormal Operations: Scenario Study of an Ethylene Plant Start-up. *Industrial & Engineering Chemistry Research*, **2014**, 53, 15089-15100	3.9	13
72	Refinery continuous-time crude scheduling with consideration of long-distance pipeline transportation. *Computers and Chemical Engineering*, **2015**, 75, 74-94	4	13
71	Emission Source Characterization during an Ethylene Plant Shutdown. *Chemical Engineering and Technology*, **2014**, 37, 1170-1180	2	13
70	Simultaneous Optimization of Crude Oil Blending and Purchase Planning with Delivery Uncertainty Consideration. *Industrial & Engineering Chemistry Research*, **2012**, 51, 8453-8464	3.9	13
69	Simultaneous mixed-integer dynamic optimization for environmentally benign electroplating. *Computers and Chemical Engineering*, **2011**, 35, 2411-2425	4	13
68	Process and Carbon Footprint Analyses of the Allam Cycle Power Plant Integrated with an Air Separation Unit. *Clean Technologies*, **2019**, 1, 325-340	3.4	12

67	Shutdown Strategy for Flare Minimization at an Olefin Plant. *Chemical Engineering and Technology*, **2014**, 37, 605-610	2	12
66	Process synthesis for cascade refrigeration system based on exergy analysis. *AICHE Journal*, **2015**, 61, 2471-2488	3.6	12
65	Graph-Assisted Cyclic Hoist Scheduling for Environmentally Benign Electroplating. *Industrial & Engineering Chemistry Research*, **2004**, 43, 8307-8316	3.9	12
64	Air-Quality Considered Study for Multiple Olefin Plant Startups. *Industrial & Engineering Chemistry Research*, **2016**, 55, 9698-9710	3.9	12
63	Emission Constrained Dynamic Scheduling for Ethylene Cracking Furnace System. *Industrial & Engineering Chemistry Research*, **2017**, 56, 1327-1340	3.9	11
62	Impact of chemical plant start-up emissions on ambient ozone concentration. *Atmospheric Environment*, **2017**, 164, 20-30	5.3	11
61	Study on regional air quality impact from a chemical plant emergency shutdown. *Chemosphere*, **2018**, 201, 655-666	8.4	11
60	A New Proactive Scheduling Methodology for Front-End Crude Oil and Refinery Operations under Uncertainty of Shipping Delay. *Industrial & Engineering Chemistry Research*, **2017**, 56, 8041-8053	3.9	11
59	Dynamic simulation and optimization targeting emission source reduction during an ethylene plant start-up operations. *Journal of Cleaner Production*, **2016**, 135, 771-783	10.3	11
58	Ozone impact minimization through coordinated scheduling of turnaround operations from multiple olefin plants in an ozone nonattainment area. *Atmospheric Environment*, **2018**, 176, 47-53	5.3	10
57	A novel MINLP model of front-end crude scheduling for refinery with consideration of inherent upset minimization. *Computers and Chemical Engineering*, **2018**, 117, 42-62	4	10
56	New insight of ozone pollution impact from flare emissions of chemical plant start-up operations. *Environmental Pollution*, **2019**, 245, 873-882	9.3	10
55	Multiobjective Optimization for Air-Quality Monitoring Network Design. *Industrial & Engineering Chemistry Research*, **2015**, 54, 7743-7750	3.9	9
54	Dynamic Routing Optimization for Chemical Hazardous Material Transportation under Uncertainties. *Industrial & Engineering Chemistry Research*, **2018**, 57, 10500-10517	3.9	9
53	Comprehensive study on boil-off gas generation from LNG road tankers under simultaneous impacts of heat leakage and transportation vibration. *Fuel*, **2020**, 275, 117876	7.1	9
52	A new method of cyclic hoist scheduling for multi-recipe and multi-stage material handling processes. *Computers and Chemical Engineering*, **2016**, 90, 171-187	4	9
51	Dynamic simulation for flare minimization in chemical process industry under abnormal operations. *Current Opinion in Chemical Engineering*, **2016**, 14, 26-34	5.4	8
50	Process Synthesis of Mixed Refrigerant System for Ethylene Plants. *Industrial & Engineering Chemistry Research*, **2017**, 56, 7984-7999	3.9	8

49	A New Reactive Scheduling Approach for Short-Term Crude Oil Operations under Tank Malfunction. *Industrial & Engineering Chemistry Research*, **2015**, 54, 12438-12454	3.9	8
48	Integrated Proactive and Reactive Scheduling for Refinery Front-End Crude Movement with Consideration of Unit Maintenance. *Industrial & Engineering Chemistry Research*, **2019**, 58, 12192-12206	3.9	7
47	Simultaneous scheduling of multi-product pipeline distribution and depot inventory management for petroleum refineries. *Chemical Engineering Science*, **2020**, 220, 115618	4.4	7
46	Production-ratio oriented optimization for multi-recipe material handling via simultaneous hoist scheduling and production line arrangement. *Computers and Chemical Engineering*, **2013**, 50, 28-38	4	7
45	Coupling multiple water-reuse network designs for agile manufacturing. *Computers and Chemical Engineering*, **2012**, 45, 62-71	4	7
44	Integrated Electroplating System Modeling and Simulation for Near Zero Discharge of Chemicals and Metals. *Industrial & Engineering Chemistry Research*, **2005**, 44, 2156-2164	3.9	7
43	Effect of industrial flare DREs derived by CFD and WERF on ozone pollution through CAMx simulation. *Atmospheric Environment*, **2020**, 238, 117723	5.3	7
42	Flare minimization for an olefin plant shutdown via plant-wide dynamic simulation. *Journal of Cleaner Production*, **2020**, 254, 120129	10.3	6
41	Proactive Abnormal Emission Identification by Air-Quality-Monitoring Network. *Industrial & Engineering Chemistry Research*, **2013**, 52, 9189-9202	3.9	6
40	Dynamic Simulations of the Allam Cycle Power Plant Integrated with an Air Separation Unit. *International Journal of Chemical Engineering*, **2019**, 2019, 1-10	2.2	6
39	Characterization and sensitivity analysis on ozone pollution over the Beaumont-Port Arthur Area in Texas of USA through source apportionment technologies. *Atmospheric Research*, **2021**, 247, 105249	5.4	6
38	Novel Design for Simultaneous Production of Biodiesel and Glycerol Carbonate from Soybean Oil. *Industrial & Engineering Chemistry Research*, **2018**, 57, 16809-16816	3.9	6
37	Simultaneous 2D hoist scheduling and production line design for multi-recipe and multi-stage material handling processes. *Chemical Engineering Science*, **2017**, 167, 251-264	4.4	5
36	Monte Carlo optimization for site selection of new chemical plants. *Journal of Environmental Management*, **2015**, 163, 28-38	7.9	5
35	Sloshing Impact on Gas Pretreatment for LNG Plants Located in a Stranded Offshore Location. *Industrial & Engineering Chemistry Research*, **2018**, 57, 5764-5775	3.9	5
34	Dynamic Simulation Study for Boil-off Gas Minimization at Liquefied Natural Gas Exporting Terminals. *Industrial & Engineering Chemistry Research*, **2018**, 57, 5903-5913	3.9	5
33	Upset-conscious scheduling for continuous parallel-process and performance decaying unit system. *Chemical Engineering Science*, **2019**, 195, 828-840	4.4	5
32	Integrated Ejector-Based Flare Gas Recovery and On-Site Desalination of Produced Water in Shale Gas Production. *Chemical Engineering and Technology*, **2020**, 43, 200-210	2	5

31	Modeling and Simulation of the 1,3-Butadiene Extraction Process at Turndown Capacity. *Chemical Engineering and Technology*, **2019**, 42, 2649-2657	2	4
30	Parallel Optimization Scheme for Industrial Steam Cracking Process.. *Journal of Chemical Engineering of Japan*, **2003**, 36, 14-19	0.8	4
29	A win-win strategy for simultaneous air-quality benign and profitable emission reduction during chemical plant shutdown operations. *Chemical Engineering Research and Design*, **2021**, 147, 1185-1192	5.5	4
28	Optimal Retrofit Design of Crude Distillation Units for Processing Shale Gas/Natural Gas Condensate Oil. *Chemical Engineering and Technology*, **2016**, 39, 1099-1110	2	4
27	A thermo-stable poly(propylene carbonate)-based composite separator for lithium-sulfur batteries under elevated temperatures. *International Journal of Energy Research*, **2020**, 44, 10295-10306	4.5	3
26	Optimal Design of Gas-Expanded Liquid Ethylene Oxide Production with Zero Carbon Dioxide Byproduct. *Industrial & Engineering Chemistry Research*, **2018**, 57, 5351-5358	3.9	3
25	Glycol Loss Minimization for a Natural Gas Dehydration Plant under Upset Conditions. *Industrial & Engineering Chemistry Research*, **2019**, 58, 1994-2008	3.9	3
24	Ozone pollution control strategies examined by Empirical Kinetics Modeling Approach over the Beaumont-Port Arthur region in Texas of USA. *Atmospheric Pollution Research*, **2021**, 12, 403-413	4.5	3
23	Optimal scheduling for olefin plant furnace system with consideration of inherent process upset reduction. *Computers and Chemical Engineering*, **2019**, 126, 157-167	4	2
22	Advanced Process Control for Cost-Effective Glycol Loss Minimization in a Natural Gas Dehydration Plant under Upset Conditions. *Industrial & Engineering Chemistry Research*, **2020**, 59, 7680-7692	3.9	2
21	Plant-Wide Scheduling for Profitable Emission Reduction in Petroleum Refineries. *Industrial & Engineering Chemistry Research*, **2018**, 57, 9471-9488	3.9	2
20	Modelling and Simulation for Regional Ozone Impact by Flaring Destruction and Removal Efficiency of Oil & Gas Industries. *Computer Aided Chemical Engineering*, **2018**, 44, 2185-2190	0.6	2
19	Emission-Considered Diesel Blending Optimization. *Chemical Engineering and Technology*, **2014**, 37, 293-300		2
18	Coupling Refrigeration System Synthesis and Heat Exchanger Network Design. *Computer Aided Chemical Engineering*, **2014**, 34, 297-302	0.6	2
17	Study on Near-Zero Flaring for Chemical Plant Turnaround Operation **2009**, 603-611		2
16	Effect of dynamic low DREs from flare combustion on regional ozone pollution during a chemical plant shutdown. *Atmospheric Environment*, **2021**, 254, 118399	5.3	2
15	Production of 1,3-Butadiene and Associated Coproducts Ethylene and Propylene from Lignin. *Industrial & Engineering Chemistry Research*, **2019**, 58, 16182-16189	3.9	1
14	Debottleneck of Multistage Material-Handling Processes via Simultaneous Hoist Scheduling and Production Line Retrofit. *Industrial & Engineering Chemistry Research*, **2012**, 120425123023004	3.9	1

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13	Air Quality Considered Site Selection for New Chemical Plants. *Computer Aided Chemical Engineering*, **2014**, 34, 273-278	0.6	1
12	Optimal Front-end Crude Schedule for Refineries under Consideration of Inherent Upset Reduction. *Computer Aided Chemical Engineering*, **2018**, 44, 1315-1320	0.6	1
11	An integrated flare minimization methodology for simultaneous turnaround operations of two chemical plants. *Journal of Cleaner Production*, **2020**, 277, 123181	10.3	1
10	Source apportionment simulations of ground-level ozone in Southeast Texas employing OSAT/APCA in CAMx. *Atmospheric Environment*, **2021**, 253, 118370	5.3	1
9	CAMx simulations of the control of anthropogenic emissions on the reduction of ozone formation in Southeast Texas of USA. *Atmospheric Pollution Research*, **2021**, 12, 101114	4.5	1
8	Emission Conscious Scheduling of Crude Unloading, Transferring, and Processing for Petroleum Refineries. *Computer Aided Chemical Engineering*, **2018**, 44, 1219-1224	0.6	1
7	Optimal Scheduling for Simultaneous Refinery Manufacturing and Multi Oil-product Pipeline Distribution. *Computers and Chemical Engineering*, **2021**, 107613	4	0
6	Comprehensive Study on Sloshing Impacts for an Offshore 3D Vessel via the Integration of Computational Fluid Dynamics Simulation, Experimental Unit, and Artificial Neural Network Prediction. *Industrial & Engineering Chemistry Research*, **2020**, 59, 22187-22204	3.9	0
5	Iterative algorithms for the input and state recovery from the approximate inverse of strictly proper multivariable systems. *Mechanical Systems and Signal Processing*, **2018**, 101, 320-337	7.8	
4	Simultaneous Production and Maintenance Scheduling for Refinery Front-End Process with Considerations of Risk Management and Resource Availability. *Industrial & Engineering Chemistry Research*, **2022**, 61, 2152-2166	3.9	
3	Modeling and Optimization for a Comprehensive Gas Processing Plant with Sensitivity Analysis and Economic Evaluation. *Chemical Engineering and Technology*, **2020**, 43, 2198-2207	2	
2	New flare minimization strategies with consideration of multi-plant material exchange. *Journal of Cleaner Production*, **2021**, 282, 124508	10.3	
1	Study for the Optimal Operation of Natural Gas Liquid Recovery and Natural Gas Production **2018**, 235-257		