

Qiang Shi

List of Publications by Year in descending order

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Version: 2024-02-01

76
papers

1,087
citations

361045

20
h-index

500791

28
g-index

76
all docs

76
docs citations

76
times ranked

647
citing authors

#	ARTICLE	IF	CITATIONS
1	Molecular reconstruction: Recent progress toward composition modeling of petroleum fractions. <i>Chemical Engineering Journal</i> , 2019, 357, 761-775.	6.6	51
2	Modelling and simulation of two-bed PSA process for separating H ₂ from methane steam reforming. <i>Chinese Journal of Chemical Engineering</i> , 2019, 27, 1870-1878.	1.7	51
3	CFD-DEM investigation of particle elutriation with electrostatic effects in gas-solid fluidized beds. <i>Powder Technology</i> , 2017, 308, 422-433.	2.1	44
4	Bubble breakup in a swirl-venturi microbubble generator. <i>Chemical Engineering Journal</i> , 2021, 403, 126397.	6.6	44
5	Experimental investigation of electrostatic effect on bubble behaviors in gas-solid fluidized bed. <i>AIChE Journal</i> , 2015, 61, 1160-1171.	1.8	39
6	Facile high-temperature synthesis of weakly entangled polyethylene using a highly activated Ziegler-Natta catalyst. <i>Journal of Catalysis</i> , 2018, 360, 145-151.	3.1	39
7	Methanol to Propylene Process in a Moving Bed Reactor with Byproducts Recycling: Kinetic Study and Reactor Simulation. <i>Industrial & Engineering Chemistry Research</i> , 2014, 53, 4623-4632.	1.8	35
8	Realization and control of multiple temperature zones in liquid-containing gas-solid fluidized bed reactor. <i>AIChE Journal</i> , 2016, 62, 1454-1466.	1.8	34
9	Energy and Water Management for Industrial Large-Scale Water Networks: A Systematic Simultaneous Optimization Approach. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 2269-2282.	3.2	33
10	A novel two-step method to design inter-plant hydrogen network. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 5686-5695.	3.8	32
11	Entanglement Formation Mechanism in the POSS Modified Heterogeneous Ziegler-Natta Catalysts. <i>Macromolecules</i> , 2019, 52, 7593-7602.	2.2	31
12	Leveraging 3D Printing for the Design of High-Performance Venturi Microbubble Generators. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 8447-8455.	1.8	31
13	Performance comparison of swirl-venturi bubble generator and conventional venturi bubble generator. <i>Chemical Engineering and Processing: Process Intensification</i> , 2020, 154, 108022.	1.8	31
14	Characterization of the bubble swarm trajectory in a jet bubbling reactor. <i>AIChE Journal</i> , 2019, 65, e16565.	1.8	29
15	Experimental investigation of electrostatic effect on particle motions in gas-solid fluidized beds. <i>AIChE Journal</i> , 2015, 61, 3628-3638.	1.8	24
16	Heat Transfer Blocks Diagram: A Novel Tool for Targeting and Design of Heat Exchanger Networks Inside Heat Integrated Water Allocation Networks. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 2704-2715.	3.2	24
17	Simultaneous Design of Hydrogen Allocation Networks and PSA Inside Refineries. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 4712-4720.	1.8	24
18	Balancing between risk and profit in refinery hydrogen networks: A Worst-Case Conditional Value-at-Risk approach. <i>Chemical Engineering Research and Design</i> , 2019, 146, 201-210.	2.7	23

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19	Experimental and Modeling Investigation of Liquid-Induced Agglomeration in a Gas-Solid Fluidized Bed with Liquid Spray. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 11810-11822.	1.8	22
20	Investigating Agglomeration Behaviors in High Temperature Gas-Solid Fluidized Beds with Liquid Injection. <i>Industrial & Engineering Chemistry Research</i> , 2018, 57, 5482-5494.	1.8	21
21	Novel graphical tool for the design of the heat integrated water allocation networks. <i>AIChE Journal</i> , 2016, 62, 670-686.	1.8	20
22	New transshipment type MINLP model for heat exchanger network synthesis. <i>Chemical Engineering Science</i> , 2017, 173, 537-559.	1.9	18
23	Automatic Design of Multi-Impurity Refinery Hydrogen Networks Using Mixing Potential Concept. <i>Industrial & Engineering Chemistry Research</i> , 2017, 56, 6703-6710.	1.8	17
24	Methanol to Propylene over Foam SiC-Supported ZSM-5 Catalyst: Performance of Multiple Reaction-Regeneration Cycles. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 27-33.	1.8	17
25	Simultaneous Optimization of a Heat Exchanger Network and Operating Conditions of Organic Rankine Cycle. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 11596-11609.	1.8	17
26	Contribution of the Initially Entangled State and Particle Size to the Sintering Kinetics of UHMWPE. <i>Macromolecules</i> , 2022, 55, 1310-1320.	2.2	17
27	Stability Analysis of Ethylene Polymerization in a Liquid-Containing Gas-Solid Fluidized Bed Reactor. <i>Industrial & Engineering Chemistry Research</i> , 2018, 57, 5616-5629.	1.8	16
28	Effects of DC electric fields on meso-scale structures in electrostatic gas-solid fluidized beds. <i>Chemical Engineering Journal</i> , 2018, 332, 293-302.	6.6	16
29	Hydrodynamics in a jet bubbling reactor: Experimental research and mathematical modeling. <i>AIChE Journal</i> , 2018, 64, 1814-1827.	1.8	16
30	Systematic Design and Optimization of a Membrane-Cryogenic Hybrid System for CO ₂ Capture. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 17186-17197.	3.2	14
31	Thermal-Stability Analysis of Ethylene-Polymerization Fluidized-Bed Reactors under Condensed-Mode Operation through a TPM-PBM Integrated Model. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 9486-9499.	1.8	13
32	Classification and identification of gas-liquid dispersion states in a jet bubbling reactor. <i>AIChE Journal</i> , 2020, 66, e16778.	1.8	13
33	Bubble Size Distribution and Rise Velocity in a Jet Bubbling Reactor. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 19271-19279.	1.8	12
34	A volatile spray zone model and experimentation in a gas-solid fluidized bed with liquid injection. <i>Chemical Engineering Science</i> , 2021, 231, 116306.	1.9	12
35	Energy configuration and operation optimization of refinery fuel gas networks. <i>Applied Energy</i> , 2015, 139, 365-375.	5.1	11
36	Revealing the Dynamic Behaviors of Tetrahydrofuran for Tailoring the Active Species of Ziegler-Natta Catalysts. <i>ACS Catalysis</i> , 2021, 11, 4411-4421.	5.5	11

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37	Performance Evaluation and Scale-Up Behavior of an Engineered In-Line Mixer for 3D Printing. <i>Industrial & Engineering Chemistry Research</i> , 2021, 60, 11568-11578.	1.8	11
38	Synthesis of Weakly Entangled Ultra-High-Molecular-Weight Polyethylene with a Fine Particle Size. <i>Industrial & Engineering Chemistry Research</i> , 2021, 60, 3354-3362.	1.8	11
39	Experimental characterization of liquid film behavior during dropletsâ€™ polyethylene particle collision. <i>AIChE Journal</i> , 2020, 66, e16909.	1.8	10
40	Optimal process design for recovering effluent gas at subambient temperature. <i>Journal of Cleaner Production</i> , 2017, 144, 130-141.	4.6	9
41	Kinetic and regenerator modeling of the coke combustion in the moving bed MTP process. <i>Chemical Engineering Research and Design</i> , 2017, 122, 52-62.	2.7	9
42	Optimal design of hybrid cryogenic flash and membrane system. <i>Chemical Engineering Science</i> , 2018, 179, 13-31.	1.9	9
43	Targeting and Design of Work and Heat Exchange Networks. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 12471-12486.	1.8	9
44	New Insights into <i>T-H</i> Diagrams for Synthesis of Heat Exchanger Networks inside Heat Integrated Water Allocation Networks. <i>Industrial & Engineering Chemistry Research</i> , 2018, 57, 9323-9328.	1.8	8
45	The Intermittent Dormancy of Ethylene Polymerization with the Assistance of Nitrogen Microbubbles. <i>Macromolecules</i> , 2021, 54, 9418-9426.	2.2	7
46	Simulation-Based Multiobjective Optimization of the Product Separation Process within an MTP Plant. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 12166-12178.	1.8	6
47	Simultaneous Optimization for Organic Rankine Cycle Design and Heat Integration. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 20455-20471.	1.8	6
48	Evolution and fluidization behaviors of wet agglomerates based on formation-fragmentation competition mechanism. <i>Chemical Engineering Science</i> , 2022, 247, 116933.	1.9	6
49	Kinetic Perspective on Methanol to Propylene Process via HZSM-5 Catalyst: Balancing between Reaction and Diffusion. <i>Industrial & Engineering Chemistry Research</i> , 2022, 61, 2055-2067.	1.8	6
50	Strategy of effluent recovery technology selection in polyolefin plants. <i>Chemical Engineering Research and Design</i> , 2016, 103, 405-412.	2.7	5
51	Efficient Synthesis of Low-Polydispersity UHMWPE by Elevating Active Sites on Anchored POSS Molecules. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 19964-19971.	1.8	5
52	Electrostatic effects on hydrodynamics in the riser of the circulating fluidized bed for polypropylene. <i>AIChE Journal</i> , 2020, 66, e16916.	1.8	5
53	Efficient Strategy for the Synthesis of Work and Heat Exchange Networks. <i>Industrial & Engineering Chemistry Research</i> , 2021, 60, 1756-1773.	1.8	5
54	A 3D-printed continuous flow platform for the synthesis of methylaluminoxane. <i>Green Chemistry</i> , 2021, 23, 4087-4094.	4.6	5

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55	Flow Toolkit for Measuring Reaction Enthalpy and Application to Highly Exothermic Synthesis of Alkylaluminoxanes. <i>Organic Process Research and Development</i> , 2022, 26, 1506-1513.	1.3	5
56	Solvents Molecular Mobility in Coked Catalyst ZSM-5 Studied by NMR Relaxation and Pulsed Field Gradient Techniques. <i>Industrial & Engineering Chemistry Research</i> , 2018, 57, 6647-6653.	1.8	4
57	Indirect Heat Integration across Plants: Novel Representation of Intermediate Fluid Circles. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 7233-7246.	1.8	4
58	Selective distribution and contribution of nickel based pre-catalyst in the multisite catalyst for the synthesis of desirable bimodal polyethylene. <i>European Polymer Journal</i> , 2020, 135, 109878.	2.6	4
59	Evolution and Interaction Characteristics of Liquid Flow and Bubbles in a Jet Bubbling Column. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 21217-21230.	1.8	4
60	The screened waveguide for intrusive acoustic emission detection and its application in circulating fluidized bed. <i>AIChE Journal</i> , 2021, 67, e17118.	1.8	4
61	Modeling Agglomeration Behavior in High Temperature Gas-Solid Fluidized Beds via Monte Carlo Method. <i>Industrial & Engineering Chemistry Research</i> , 2017, 56, 1112-1121.	1.8	3
62	Critical comparison of electrostatic effects on hydrodynamics and heat transfer in a bubbling fluidized bed with a central jet. <i>Chemical Engineering Science</i> , 2018, 191, 156-168.	1.9	3
63	Electrostatic Distribution in the Riser of the Multizone Circulating Fluidized Bed for Polypropylene. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 12301-12311.	1.8	3
64	Optimal Design of a Subambient Membrane Separation System with Work and Heat Integration for CO ₂ Capture. <i>Industrial & Engineering Chemistry Research</i> , 2021, 60, 15194-15207.	1.8	3
65	Tailoring the Chain Entanglement by Nitrogen Bubble-Assisted Polymerization. <i>Industrial & Engineering Chemistry Research</i> , 2021, 60, 15951-15959.	1.8	3
66	Suppressing the Entanglements of Ultrahigh-Molecular-Weight Polyethylene via Controlling the Adhesion Effect in a POSS-Modified Support. <i>Industrial & Engineering Chemistry Research</i> , 2022, 61, 6367-6374.	1.8	3
67	Pore plugging effects on the performance of ZSM-5 catalyst in MTP reaction using a discrete model. <i>Chinese Journal of Chemical Engineering</i> , 2021, 32, 253-263.	1.7	2
68	Numerical Study of the Scaling Rules for Riser with Consideration of Cluster Effect. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 9533-9543.	1.8	1
69	Enhanced Reaction Performances for Light Olefin Production from Butene through Cofeeding Reaction with Methanol. <i>Energy & Fuels</i> , 2018, 32, 787-795.	2.5	1
70	Effect of the Scale-Up Process on the Reactor Performance within the Riser: Simulation Using Ozone Decomposition. <i>Industrial & Engineering Chemistry Research</i> , 2021, 60, 11479-11489.	1.8	1
71	Collision Characterization of Mixed Hydrocarbon Liquid Droplets with Polyethylene Particles. <i>Industrial & Engineering Chemistry Research</i> , 2021, 60, 16478-16489.	1.8	1
72	Modeling and Control of COVID-19 Transmission from a Perspective of Polymerization Reaction Dynamics. <i>Industrial & Engineering Chemistry Research</i> , 2021, 60, 17650-17662.	1.8	1

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73	é«~æ€\$èf1/2èšä1™çf~ä°\$ä“è°3/4è°j. Chinese Science Bulletin, 2022, , .	0.4	1
74	Structural Design and Performance of a Jet-Impinging Type Microbubble Generator. Industrial & Engineering Chemistry Research, 2022, 61, 4445-4459.	1.8	1
75	Design of Refinery Hydrogen Networks with Pressure Swing Adsorption Unit Configuration under Uncertainty: Economy and Flexibility Aspects. Industrial & Engineering Chemistry Research, 2022, 61, 7322-7334.	1.8	1
76	Dispersion Trajectory and Dynamics of Particles Injected from the Sidewall in the Gasâ€“Solid Fluidized Bed. Industrial & Engineering Chemistry Research, 2020, 59, 18705-18716.	1.8	0