Rahmat Sotudeh-Gharebagh

List of Publications by Year
in descending order

91 papers	2,015 citations	304368 22 h-index	329751 37 g-index
103 all docs	103 docs citations	103 times ranked	1632 citing authors

#	Article	IF	Citations
1	Production of Nanocellulose and Its Applications in Drug Delivery: A Critical Review. ACS Sustainable Chemistry and Engineering, 2019, 7, 15800-15827.	3.2	167
2	Review and implementation of CFD-DEM applied to chemical process systems. Chemical Engineering Science, 2020, 221, 115646.	1.9	133
3	Migration of Aluminum and Silicon from PET/Clay Nanocomposite Bottles into Acidic Food Simulant. Packaging Technology and Science, 2014, 27, 161-168.	1.3	72
4	Grape Drying: A Review. Food Reviews International, 2007, 23, 257-280.	4.3	66
5	Dynamics of two-phase flow in vertical pipes. Journal of Fluids and Structures, 2019, 87, 150-173.	1.5	66
6	Two-phase modeling of a gas phase polyethylene fluidized bed reactor. Chemical Engineering Science, 2006, 61, 3997-4006.	1.9	61
7	Modeling of dispersion near roadways based on the vehicle-induced turbulence concept. Atmospheric Environment, 2007, 41, 92-102.	1.9	51
8	Measurement Techniques to Monitor and Control Fluidization Quality in Fluidized Bed Dryers: A Review. Drying Technology, 2014, 32, 1005-1051.	1.7	49
9	Characterization of fluidized beds hydrodynamics by recurrence quantification analysis and wavelet transform. International Journal of Multiphase Flow, 2015, 69, 31-41.	1.6	44
10	Heterogeneous photocatalytic oxidation of methyl ethyl ketone under UV-A light in an LED-fluidized bed reactor. Catalysis Today, 2014, 230, 79-84.	2.2	43
11	Nonlinear Characterization of Pressure Fluctuations in Fluidized Beds. Industrial & Engineering Chemistry Research, 2008, 47, 9497-9507.	1.8	41
12	Thermo-mechanical stability of axially graded Rayleigh pipes. Mechanics Based Design of Structures and Machines, 2022, 50, 412-441.	3.4	38
13	Characterization of gasâ€"solid fluidized bed hydrodynamics by vibration signature analysis. International Journal of Multiphase Flow, 2011, 37, 788-793.	1.6	35
14	Investigating the hydrodynamics of gasâ€"solid bubbling fluidization using recurrence plot. Advanced Powder Technology, 2012, 23, 380-386.	2.0	35
15	Modeling of the photocatalytic degradation of methyl ethyl ketone in a fluidized bed reactor of nano-TiO2/Î³-Al2O3 particles. Chemical Engineering Journal, 2013, 226, 59-67.	6.6	30
16	Vibrational analysis of pipes based on the drift-flux two-phase flow model. Ocean Engineering, 2022, 249, 110917.	1.9	29
17	Modeling the acceleration zone in the riser of circulating fluidized beds. Powder Technology, 2004, 142, 129-135.	2.1	28
18	Principles of viscous sintering in amorphous powders: A critical review. Chemical Engineering Research and Design, 2017, 125, 328-347.	2.7	28

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19	Clusters identification and characterization in a gas–solid fluidized bed by the wavelet analysis. Canadian Journal of Chemical Engineering, 2009, 87, 375-385.	0.9	27
20	Cluster size distribution in the freeboard of a gas–solid fluidized bed. Powder Technology, 2013, 246, 1-6.	2.1	25
21	Sequential modeling of fluidized bed paddy dryer. Journal of Food Engineering, 2010, 101, 303-308.	2.7	24
22	Performance of the wide-ranging models for fluidized bed reactors. Advanced Powder Technology, 2004, 15, 533-548.	2.0	23
23	Influence of dipping on thin-layer drying characteristics of seedless grapes. Biosystems Engineering, 2007, 98, 411-421.	1.9	23
24	Sequential-Based Process Modeling of Natural Gas Combustion in a Fluidized Bed Reactor. Energy & Fuels, 2012, 26, 2058-2067.	2.5	23
25	Experimental investigation of cluster properties in dense gas–solid fluidized beds of different diameters. Particuology, 2014, 16, 69-74.	2.0	23
26	Investigating agglomeration phenomena in an air-polyethylene fluidized bed using DEM–CFD approach. Chemical Engineering Research and Design, 2014, 92, 102-118.	2.7	23
27	Non–intrusive characterization of particle size changes in fluidized beds using recurrence plots. AICHE Journal, 2016, 62, 3547-3561.	1.8	22
28	Migration Kinetics of Ethylene Glycol Monomer from Pet Bottles into Acidic Food Simulant: Effects of Nanoparticle Presence and Matrix Morphology. Journal of Food Process Engineering, 2017, 40, e12383.	1.5	22
29	Study of transition velocity from bubbling to turbulent fluidisation by recurrence plots analysis on pressure fluctuations. Canadian Journal of Chemical Engineering, 2013, 91, 368-375.	0.9	21
30	Monitoring of fluidized beds hydrodynamics using recurrence quantification analysis. AICHE Journal, 2013, 59, 399-406.	1.8	21
31	<scp>CFD–DEM</scp> analysis of the spouted fluidized bed with non–spherical particles. Canadian Journal of Chemical Engineering, 2021, 99, 2303-2319.	0.9	20
32	Hydrodynamic characteristics of gas–solid fluidization at high temperature. Canadian Journal of Chemical Engineering, 2010, 88, 1-11.	0.9	19
33	Effect of spherical and platelet-like nanoparticles on physical and mechanical properties of polyethylene terephthalate. Journal of Thermoplastic Composite Materials, 2014, 27, 1127-1138.	2.6	19
34	Experimental investigation of particle contact time at the wall of gas fluidized beds. Chemical Engineering Science, 2005, 60, 4349-4357.	1.9	18
35	Selection of minimal length of line in recurrence quantification analysis. Physica A: Statistical Mechanics and Its Applications, 2014, 395, 112-120.	1.2	18
36	Frequency-based characterization of liquid–solid fluidized bed hydrodynamics using the analysis of vibration signature and pressure fluctuations. Powder Technology, 2013, 235, 787-796.	2.1	17

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37	Early Detection of Agglomeration in Conical Spouted Beds Using Recurrence Plots. Industrial & Engineering Chemistry Research, 2016, 55, 7179-7190.	1.8	17
38	CFD-DEM modelling of particles attrition in jet-in-fluidized beds. Chemical Engineering Research and Design, 2019, 148, 336-348.	2.7	17
39	Modeling the Hydrodynamics of Downers by Cluster-Based Approach. Industrial & Engineering Chemistry Research, 2006, 45, 7204-7209.	1.8	16
40	Monitoring of liquid sprayed conical spouted beds by recurrence plots. Powder Technology, 2017, 316, 148-156.	2.1	16
41	Simulation of a catalytic turbulent fluidized bed reactor using the sequential modular approach. Fuel Processing Technology, 2004, 85, 189-200.	3.7	15
42	CFD-DEM Study of Temperature and Concentration Distribution in a Polyethylene Fluidized Bed Reactor. Particulate Science and Technology, 2011, 29, 163-178.	1.1	15
43	Sequential Modeling of Coal Volatile Combustion in Fluidized Bed Reactors. Energy & Fuels, 2012, 26, 5199-5209.	2.5	15
44	Vibration time series analysis of bubbling and turbulent fluidization. Particuology, 2012, 10, 292-297.	2.0	15
45	Early detection of agglomeration in a polyethylene fluidized bed at high temperature and pressure by vibration signature analysis. Chemical Engineering Research and Design, 2015, 104, 156-163.	2.7	15
46	Detecting stability of conical spouted beds based on information entropy theory. Powder Technology, 2019, 343, 185-193.	2.1	15
47	Hydrodynamic characterisation of liquidâ€"solid twoâ€"phase fluidised beds: Vibration signature and pressure fluctuations analyses. Canadian Journal of Chemical Engineering, 2012, 90, 1646-1653.	0.9	14
48	Understanding bubble hydrodynamics in bubble columns. Experimental Thermal and Fluid Science, 2013, 45, 63-74.	1.5	14
49	Modeling of Stagewise Feeding in Fluidized Bed Reactor of Oxidative Coupling of Methane. Energy & Fuels, 2009, 23, 3745-3752.	2.5	13
50	Sequential modular simulation of ethanol production in a three-phase fluidized bed bioreactor. Biochemical Engineering Journal, 2012, 63, 95-103.	1.8	13
51	Experimental investigation on the hydrodynamics of a gasâ€"liquidâ€"solid fluidized bed using vibration signature and pressure fluctuation analyses. International Journal of Heat and Fluid Flow, 2013, 42, 190-199.	1.1	13
52	Sequence-based Process Modeling of Fluidized Bed Biomass Gasification. ACS Sustainable Chemistry and Engineering, 2015, 3, 2640-2651.	3.2	13
53	Modeling of the Seedless Grape Drying Process using the Generalized Differential Quadrature Method. Chemical Engineering and Technology, 2007, 30, 168-175.	0.9	12
54	Influence of operating parameters on gas phase photocatalytic oxidation of methyl-ethyl-ketone in a light emitting diode (LED)-fluidized bed reactor. Korean Journal of Chemical Engineering, 2015, 32, 636-642.	1.2	12

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55	Characterization of Regime Transition in Fluidized Beds at High Velocities by Analysis of Vibration Signals. Industrial & Engineering Chemistry Research, 2012, 51, 2855-2863.	1.8	11
56	Twoâ€Phase Sequential Simulation of a Fluidized Bed Reformer. Chemical Engineering and Technology, 2008, 31, 984-989.	0.9	10
57	Evaluating the Probabilities of Fluidization Regimes. Industrial & Engineering Chemistry Research, 2011, 50, 4245-4251.	1.8	10
58	Predicting Transition Velocities from Bubbling to Turbulent Fluidization by S-Statistics on Vibration Signals. Particulate Science and Technology, 2013, 31, 10-15.	1.1	10
59	Enhancing the fluidization quality of nanoparticles using external fields. Advanced Powder Technology, 2018, 29, 3145-3154.	2.0	10
60	Prediction of the Maximum Heat Transfer Coefficient Between a Horizontal Tube and Gasâ€"Solid Fluidized Beds. Heat Transfer Engineering, 2010, 31, 870-879.	1.2	9
61	Conditional monitoring of moisture content in a fluidized bed dryer by the acoustic emission signature. Korean Journal of Chemical Engineering, 2012, 29, 595-600.	1.2	9
62	A mechanistic study of agglomeration in fluidised beds at elevated pressures. Canadian Journal of Chemical Engineering, 2013, 91, 560-569.	0.9	9
63	Effect of changes in particle size on the hydrodynamics of gas-solid fluidized beds through wall vibration. Powder Technology, 2017, 307, 129-136.	2.1	9
64	Effects of the number of particles and coordination number on viscous-flow agglomerate sintering. Particuology, 2019, 43, 76-83.	2.0	9
65	Experimental analysis of the effects of liquid phase surface tension on the hydrodynamics and mass transfer in a square bubble column. International Journal of Heat and Mass Transfer, 2021, 170, 121009.	2.5	9
66	The Heterogeneous and Homogeneous Combustion of Methane Over Inert Particles. Canadian Journal of Chemical Engineering, 2003, 81, 1182-1191.	0.9	8
67	Modelling and optimisation of continuous catalytic regeneration process using bee colony algorithm. Canadian Journal of Chemical Engineering, 2013, 91, 1256-1269.	0.9	8
68	On the flow direction effect in sequential modular simulations: A case study on fluidized bed biomass gasifiers. International Journal of Hydrogen Energy, 2015, 40, 2552-2567.	3.8	8
69	Characterization of flow properties of pharmaceutical pellets in draft tube conical spout-fluid beds. Journal of Industrial and Engineering Chemistry, 2018, 68, 274-281.	2.9	8
70	Uncertainty in chemical process systems engineering: a critical review. Reviews in Chemical Engineering, 2021, 37, 687-714.	2.3	8
71	Probabilistic Approach to Particle-Wall Contact Time in Fluidized Beds. Journal of Heat Transfer, 2009, 131, .	1.2	7
72	Sequentialâ€based process modelling of VOCs photodegradation in fluidized beds. Canadian Journal of Chemical Engineering, 2014, 92, 1865-1874.	0.9	7

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73	Analysis of Non‐Isothermal Viscous Flow Coalescence at Micro Scale. Canadian Journal of Chemical Engineering, 2019, 97, 2565-2572.	0.9	7
74	On the stability of WÃ¼rster fluid bed of pharmaceutical pellets. Particuology, 2019, 45, 81-90.	2.0	7
75	Monitoring of the bubble columns hydrodynamics by recurrence quantification data analysis. Chemical Engineering Research and Design, 2021, 171, 100-110.	2.7	7
76	Big data analytics opportunities for applications in process engineering. Reviews in Chemical Engineering, 2023, 39, 479-511.	2.3	7
77	Evaluating Performance of Honey Bee Mating Optimization. Journal of Optimization Theory and Applications, 2014, 160, 1020-1026.	0.8	5
78	Sequential Modeling of Heavy Liquid Fuel Combustion in a Fluidized Bed. Chemical Engineering and Technology, 2015, 38, 1853-1864.	0.9	5
79	Comparative simulation of a fluidised bed reformer using industrial process simulators. International Journal of Sustainable Energy, 2016, 35, 664-674.	1.3	5
80	Development of a PAT tool for monitoring the Wurster coater performance. International Journal of Pharmaceutics, 2019, 561, 171-186.	2.6	5
81	<scp>CFD‐DEM</scp> simulation of wall sheeting and particles charge in fluidized beds. Canadian Journal of Chemical Engineering, 2021, 99, 1582-1594.	0.9	5
82	Wall vibration for characterizing fluidization hydrodynamics. Canadian Journal of Chemical Engineering, 2014, 92, 1783-1790.	0.9	4
83	Computational modeling of the electrostatic charge build-up in fluidized beds. Journal of Electrostatics, 2019, 97, 108-120.	1.0	4
84	Detection of Agglomeration by Analysis of Vibration Signatures in a Pilot-Scale Fluidized Bed Reactor of Propylene Polymerization. International Journal of Chemical Reactor Engineering, 2019, 17, .	0.6	3
85	Special issue in honour of Professor Jamal Chaouki. Canadian Journal of Chemical Engineering, 2021, 99, 1443-1446.	0.9	3
86	Cluster-Based Modeling of Fluidized Catalytic Oxidation of n-Butane to Maleic Anhydride. International Journal of Chemical Reactor Engineering, 2006, 4, .	0.6	2
87	Modeling of the Fully Developed Zone in the Riser of Circulating Fluidized Beds. Industrial & Engineering Chemistry Research, 2008, 47, 5906-5912.	1.8	2
88	Effect of operation conditions on coating of pharmaceutical pellets with a film of HPMC/PEG in a Wurster coater. Powder Technology, 2019, 354, 804-814.	2.1	2
89	Sequential modular simulation of circulating fluidized bed reactors. Canadian Journal of Chemical Engineering, 2020, 98, 1003-1016.	0.9	2
90	Sequential-based process modelling of a circulating fluidized bed reactor. Computer Aided Chemical Engineering, 2017, 40, 109-114.	0.3	1

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91	Prediction of the characteristic time of powder caking in storage and test conditions: Experimental and modeling study. Chemical Engineering Research and Design, 2021, 172, 226-234.	2.7	1