Rahmat Sotudeh-Gharebagh

List of Publications by Citations

99 papers	1,457 citations	20 h-index	32 g-index
103 ext. papers	1,735 ext. citations	3.8 avg, IF	4.89 L-index

#	Paper	IF	Citations
99	Production of Nanocellulose and Its Applications in Drug Delivery: A Critical Review. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 15800-15827	8.3	85
98	Migration of Aluminum and Silicon from PET/Clay Nanocomposite Bottles into Acidic Food Simulant. *Packaging Technology and Science*, **2014**, 27, 161-168	2.3	59
97	Two-phase modeling of a gas phase polyethylene fluidized bed reactor. *Chemical Engineering Science*, **2006**, 61, 3997-4006	4.4	56
96	**2016**,		56
95	Grape Drying: A Review. *Food Reviews International*, **2007**, 23, 257-280	5.5	50
94	Review and implementation of CFD-DEM applied to chemical process systems. *Chemical Engineering Science*, **2020**, 221, 115646	4.4	48
93	Modeling of dispersion near roadways based on the vehicle-induced turbulence concept. *Atmospheric Environment*, **2007**, 41, 92-102	5.3	46
92	Measurement Techniques to Monitor and Control Fluidization Quality in Fluidized Bed Dryers: A Review. *Drying Technology*, **2014**, 32, 1005-1051	2.6	42
91	Characterization of fluidized beds hydrodynamics by recurrence quantification analysis and wavelet transform. *International Journal of Multiphase Flow*, **2015**, 69, 31-41	3.6	41
90	Dynamics of two-phase flow in vertical pipes. *Journal of Fluids and Structures*, **2019**, 87, 150-173	3.1	40
89	Heterogeneous photocatalytic oxidation of methyl ethyl ketone under UV-A light in an LED-fluidized bed reactor. *Catalysis Today*, **2014**, 230, 79-84	5.3	40
88	Nonlinear Characterization of Pressure Fluctuations in Fluidized Beds. *Industrial & Engineering Chemistry Research*, **2008**, 47, 9497-9507	3.9	39
87	Characterization of gas□solid fluidized bed hydrodynamics by vibration signature analysis. *International Journal of Multiphase Flow*, **2011**, 37, 788-793	3.6	34
86	Investigating the hydrodynamics of gas□solid bubbling fluidization using recurrence plot. *Advanced Powder Technology*, **2012**, 23, 380-386	4.6	33
85	Modeling of the photocatalytic degradation of methyl ethyl ketone in a fluidized bed reactor of nano-TiO2/□Al2O3 particles. *Chemical Engineering Journal*, **2013**, 226, 59-67	14.7	28
84	Modeling the acceleration zone in the riser of circulating fluidized beds. *Powder Technology*, **2004**, 142, 129-135	5.2	26
83	Thermo-mechanical stability of axially graded Rayleigh pipes. *Mechanics Based Design of Structures and Machines*,1-30	1.7	26

82	Clusters identification and characterization in a gas–solid fluidized bed by the wavelet analysis. *Canadian Journal of Chemical Engineering*, **2009**, 87, 375-385	2.3	25
81	Cluster size distribution in the freeboard of a gas–solid fluidized bed. *Powder Technology*, **2013**, 246, 1-6	5.2	21
80	Experimental investigation of cluster properties in dense gas–solid fluidized beds of different diameters. *Particuology*, **2014**, 16, 69-74	2.8	20
79	Monitoring of fluidized beds hydrodynamics using recurrence quantification analysis. *AICHE Journal* , **2013**, 59, 399-406	3.6	19
78	Sequential-Based Process Modeling of Natural Gas Combustion in a Fluidized Bed Reactor. *Energy & Fuels*, **2012**, 26, 2058-2067	4.1	19
77	Influence of dipping on thin-layer drying characteristics of seedless grapes. *Biosystems Engineering*, **2007**, 98, 411-421	4.8	19
76	Performance of the wide-ranging models for fluidized bed reactors. *Advanced Powder Technology*, **2004**, 15, 533-548	4.6	19
75	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	2.3	18
74	Principles of viscous sintering in amorphous powders: A critical review. *Chemical Engineering Research and Design*, **2017**, 125, 328-347	5.5	18
73	Investigating agglomeration phenomena in an air-polyethylene fluidized bed using DEM–CFD approach. *Chemical Engineering Research and Design*, **2014**, 92, 102-118	5.5	18
72	Sequential modeling of fluidized bed paddy dryer. *Journal of Food Engineering*, **2010**, 101, 303-308	6	18
71	Hydrodynamic characteristics of gas–solid fluidization at high temperature. *Canadian Journal of Chemical Engineering*, **2010**, 88, 1-11	2.3	18
70	Non-intrusive characterization of particle size changes in fluidized beds using recurrence plots. *AICHE Journal*, **2016**, 62, 3547-3561	3.6	17
69	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	2.4	16
68	Frequency-based characterization of liquid–solid fluidized bed hydrodynamics using the analysis of vibration signature and pressure fluctuations. *Powder Technology*, **2013**, 235, 787-796	5.2	16
67	Experimental investigation of particle contact time at the wall of gas fluidized beds. *Chemical Engineering Science*, **2005**, 60, 4349-4357	4.4	16
66	Modeling the Hydrodynamics of Downers by Cluster-Based Approach. *Industrial & Engineering Chemistry Research*, **2006**, 45, 7204-7209	3.9	15
65	Effect of spherical and platelet-like nanoparticles on physical and mechanical properties of polyethylene terephthalate. *Journal of Thermoplastic Composite Materials*, **2014**, 27, 1127-1138	1.9	14

64	Selection of minimal length of line in recurrence quantification analysis. *Physica A: Statistical Mechanics and Its Applications*, **2014**, 395, 112-120	3.3	14
63	Vibration time series analysis of bubbling and turbulent fluidization. *Particuology*, **2012**, 10, 292-297	2.8	14
62	CFD-DEM Study of Temperature and Concentration Distribution in a Polyethylene Fluidized Bed Reactor. *Particulate Science and Technology*, **2011**, 29, 163-178	2	14
61	Understanding bubble hydrodynamics in bubble columns. *Experimental Thermal and Fluid Science*, **2013**, 45, 63-74	3	13
60	Experimental investigation on the hydrodynamics of a gas–liquid–solid fluidized bed using vibration signature and pressure fluctuation analyses. *International Journal of Heat and Fluid Flow*, **2013**, 42, 190-199	2.4	13
59	Hydrodynamic characterisation of liquid–solid two-phase fluidised beds: Vibration signature and pressure fluctuations analyses. *Canadian Journal of Chemical Engineering*, **2012**, 90, 1646-1653	2.3	13
58	Monitoring of liquid sprayed conical spouted beds by recurrence plots. *Powder Technology*, **2017**, 316, 148-156	5.2	12
57	Sequential Modeling of Coal Volatile Combustion in Fluidized Bed Reactors. *Energy & Fuels*, **2012**, 26, 5199-5209	4.1	12
56	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	2.8	11
55	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	5.5	11
54	Sequence-based Process Modeling of Fluidized Bed Biomass Gasification. *ACS Sustainable Chemistry and Engineering*, **2015**, 3, 2640-2651	8.3	11
53	Characterization of Regime Transition in Fluidized Beds at High Velocities by Analysis of Vibration Signals. *Industrial & Engineering Chemistry Research*, **2012**, 51, 2855-2863	3.9	11
52	Early Detection of Agglomeration in Conical Spouted Beds Using Recurrence Plots. *Industrial & Engineering Chemistry Research*, **2016**, 55, 7179-7190	3.9	10
51	Sequential modular simulation of ethanol production in a three-phase fluidized bed bioreactor. *Biochemical Engineering Journal*, **2012**, 63, 95-103	4.2	10
50	Predicting Transition Velocities from Bubbling to Turbulent Fluidization by S-Statistics on Vibration Signals. *Particulate Science and Technology*, **2013**, 31, 10-15	2	10
49	Two-Phase Sequential Simulation of a Fluidized Bed Reformer. *Chemical Engineering and Technology*, **2008**, 31, 984-989	2	10
48	Simulation of a catalytic turbulent fluidized bed reactor using the sequential modular approach. *Fuel Processing Technology*, **2004**, 85, 189-200	7.2	10
47	A mechanistic study of agglomeration in fluidised beds at elevated pressures. *Canadian Journal of Chemical Engineering*, **2013**, 91, 560-569	2.3	9

46	Evaluating the Probabilities of Fluidization Regimes. *Industrial & Engineering Chemistry Research*, **2011**, 50, 4245-4251	3.9	9
45	Modeling of Stagewise Feeding in Fluidized Bed Reactor of Oxidative Coupling of Methane. *Energy & Fuels*, **2009**, 23, 3745-3752	4.1	9
44	Detecting stability of conical spouted beds based on information entropy theory. *Powder Technology*, **2019**, 343, 185-193	5.2	9
43	Effect of changes in particle size on the hydrodynamics of gas-solid fluidized beds through wall vibration. *Powder Technology*, **2017**, 307, 129-136	5.2	8
42	Conditional monitoring of moisture content in a fluidized bed dryer by the acoustic emission signature. *Korean Journal of Chemical Engineering*, **2012**, 29, 595-600	2.8	8
41	Prediction of the Maximum Heat Transfer Coefficient Between a Horizontal Tube and Gas–Solid Fluidized Beds. *Heat Transfer Engineering*, **2010**, 31, 870-879	1.7	8
40	The Heterogeneous and Homogeneous Combustion of Methane Over Inert Particles. *Canadian Journal of Chemical Engineering*, **2008**, 81, 1182-1191	2.3	8
39	CFD-DEM modelling of particles attrition in jet-in-fluidized beds. *Chemical Engineering Research and Design*, **2019**, 148, 336-348	5.5	7
38	Probabilistic Approach to Particle-Wall Contact Time in Fluidized Beds. *Journal of Heat Transfer*, **2009**, 131,	1.8	7
37	Enhancing the fluidization quality of nanoparticles using external fields. *Advanced Powder Technology*, **2018**, 29, 3145-3154	4.6	7
36	Analysis of Non-Isothermal Viscous Flow Coalescence at Micro Scale. *Canadian Journal of Chemical Engineering*, **2019**, 97, 2565-2572	2.3	6
35	Characterization of flow properties of pharmaceutical pellets in draft tube conical spout-fluid beds. *Journal of Industrial and Engineering Chemistry*, **2018**, 68, 274-281	6.3	6
34	Effects of the number of particles and coordination number on viscous-flow agglomerate sintering. *Particuology*, **2019**, 43, 76-83	2.8	6
33	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	6.7	6
32	Modeling of the Seedless Grape Drying Process using the Generalized Differential Quadrature Method. *Chemical Engineering and Technology*, **2007**, 30, 168-175	2	6
31	Evaluating Performance of Honey Bee Mating Optimization. *Journal of Optimization Theory and Applications*, **2014**, 160, 1020-1026	1.6	5
30	Modelling and optimisation of continuous catalytic regeneration process using bee colony algorithm. *Canadian Journal of Chemical Engineering*, **2013**, 91, 1256-1269	2.3	5
29	Uncertainty in chemical process systems engineering: a critical review. *Reviews in Chemical Engineering*, **2019**,	5	5

28	On the stability of Wster fluid bed of pharmaceutical pellets. *Particuology*, **2019**, 45, 81-90	2.8	5
27	Vibrational analysis of pipes based on the drift-flux two-phase flow model. *Ocean Engineering*, **2022**, 249, 110917	3.9	5
26	Comparative simulation of a fluidised bed reformer using industrial process simulators. *International Journal of Sustainable Energy*, **2016**, 35, 664-674	2.7	4
25	Wall vibration for characterizing fluidization hydrodynamics. *Canadian Journal of Chemical Engineering*, **2014**, 92, 1783-1790	2.3	4
24	Sequential-based process modelling of VOCs photodegradation in fluidized beds. *Canadian Journal of Chemical Engineering*, **2014**, 92, 1865-1874	2.3	4
23	CFD-DEM analysis of the spouted fluidized bed with non-spherical particles. *Canadian Journal of Chemical Engineering*, **2021**, 99, 2303	2.3	4
22	Development of a PAT tool for monitoring the Wurster coater performance. *International Journal of Pharmaceutics*, **2019**, 561, 171-186	6.5	3
21	Sequential Modeling of Heavy Liquid Fuel Combustion in a Fluidized Bed. *Chemical Engineering and Technology*, **2015**, 38, 1853-1864	2	2
20	Cluster-Based Modeling of Fluidized Catalytic Oxidation of n-Butane to Maleic Anhydride. *International Journal of Chemical Reactor Engineering*, **2006**, 4,	1.2	2
19	Sequential modular simulation of circulating fluidized bed reactors. *Canadian Journal of Chemical Engineering*, **2020**, 98, 1003-1016	2.3	2
18	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	4.9	2
17	CFD-DEM Formulation and Coupling **2016**, 257-340		2
16	Computational modeling of the electrostatic charge build-up in fluidized beds. *Journal of Electrostatics*, **2019**, 97, 108-120	1.7	2
15	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,	1.2	2
14	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	5.2	1
13	CFD-DEM Applications to Multiphase Flow **2016**, 341-371		1
12	Modeling of the Fully Developed Zone in the Riser of Circulating Fluidized Beds. *Industrial & Engineering Chemistry Research*, **2008**, 47, 5906-5912	3.9	1
11	CFD-DEM simulation of wall sheeting and particles charge in fluidized beds. *Canadian Journal of Chemical Engineering*, **2021**, 99, 1582-1594	2.3	1

10	Special issue in honour of Professor Jamal Chaouki. *Canadian Journal of Chemical Engineering*, **2021**, 99, 1443-1446	2.3	0
9	Monitoring of the bubble columns hydrodynamics by recurrence quantification data analysis. *Chemical Engineering Research and Design*, **2021**, 171, 100-110	5.5	0
8	Sequential-based process modelling of a circulating fluidized bed reactor. *Computer Aided Chemical Engineering*, **2017**, 40, 109-114	0.6	
7	Interparticle Forces and External Fields **2016**, 372-411		
6	DEM Implementation **2016**, 68-151		
5	Non-Spherical Particles **2016**, 152-188		
4	DEM Applications to Granular Flows **2016**, 189-256		
3	Fluidized Bed Combustion of Natural Gas and other Hydrocarbons **2010**, 209		
2	DEM Formulation **2016**, 15-67		
1	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	5.5	