

Ng Deen

List of Publications by Year in descending order

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56
papers

4,712
citations

147801

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149698

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57
docs citations

57
times ranked

2588
citing authors

#	ARTICLE	IF	CITATIONS
1	Review of discrete particle modeling of fluidized beds. <i>Chemical Engineering Science</i> , 2007, 62, 28-44.	3.8	796
2	Numerical Simulation of Dense Gas-Solid Fluidized Beds: A Multiscale Modeling Strategy. <i>Annual Review of Fluid Mechanics</i> , 2008, 40, 47-70.	25.0	517
3	Numerical simulation of gas bubbles behaviour using a three-dimensional volume of fluid method. <i>Chemical Engineering Science</i> , 2005, 60, 2999-3011.	3.8	313
4	Large eddy simulation of the Gas-Liquid flow in a square cross-sectioned bubble column. <i>Chemical Engineering Science</i> , 2001, 56, 6341-6349.	3.8	296
5	Flow regimes in a spout-fluid bed: A combined experimental and simulation study. <i>Chemical Engineering Science</i> , 2005, 60, 3425-3442.	3.8	270
6	Numerical simulation of the dynamic flow behavior in a bubble column: A study of closures for turbulence and interface forces. <i>Chemical Engineering Science</i> , 2006, 61, 7593-7608.	3.8	228
7	Development of an image measurement technique for size distribution in dense bubbly flows. <i>Chemical Engineering Science</i> , 2013, 94, 20-29.	3.8	148
8	Multi-scale modeling of dispersed gas-liquid two-phase flow. <i>Chemical Engineering Science</i> , 2004, 59, 1853-1861.	3.8	145
9	On the drag force of bubbles in bubble swarms at intermediate and high Reynolds numbers. <i>Chemical Engineering Science</i> , 2011, 66, 3204-3211.	3.8	132
10	Detailed modeling of hydrodynamics, mass transfer and chemical reactions in a bubble column using a discrete bubble model. <i>Chemical Engineering Science</i> , 2005, 60, 3383-3404.	3.8	130
11	Detailed modeling of hydrodynamics, mass transfer and chemical reactions in a bubble column using a discrete bubble model: Chemisorption of CO_2 on ZnO . <i>Chemical Engineering Science</i> , 2005, 60, 3383-3404. http://www.w3.org/2001/XMLSchema http://www.w3.org/2001/XMLSchema-instance http://www.elsevier.com/xml/ja/dtd http://www.elsevier.com/xml/ja/dtd http://www.w3.org/1998/Math/MathML	3.8	112
12	Parallelization of an Euler-Lagrange model using mixed domain decomposition and a mirror domain technique: Application to dispersed gas-liquid two-phase flow. <i>Journal of Computational Physics</i> , 2006, 220, 216-248.	3.8	105
13	A study of heat transfer in fluidized beds using an integrated DIA/PIV/IR technique. <i>Chemical Engineering Journal</i> , 2015, 259, 90-106.	12.7	78
14	Discrete element study of granulation in a spout-fluidized bed. <i>Chemical Engineering Science</i> , 2007, 62, 195-207.	3.8	77
15	Experimental study of the bubble size distribution in a pseudo-2D bubble column. <i>Chemical Engineering Science</i> , 2013, 98, 203-211.	3.8	74
16	Numerical simulation of gas-liquid-solid flows using a combined front tracking and discrete particle method. <i>Chemical Engineering Science</i> , 2005, 60, 6188-6198.	3.8	73
17	One-equation sub-grid scale (SGS) modelling for Euler-Euler large eddy simulation (EELES) of dispersed bubbly flow. <i>Chemical Engineering Science</i> , 2008, 63, 3923-3931.	3.8	66
18	Numerical study of bubble break-up in bubbly flows using a deterministic Euler-Lagrange framework. <i>Chemical Engineering Science</i> , 2014, 108, 9-22.	3.8	60

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19	Comparison of fibre optical measurements and discrete element simulations for the study of granulation in a spout fluidized bed. Powder Technology, 2009, 189, 202-217.	4.2	59
20	A critical comparison of surface tension models for the volume of fluid method. Chemical Engineering Science, 2014, 109, 65-74.	3.8	53
21	Direct numerical simulations and experiments of a pseudo-2D gas-fluidized bed. Chemical Engineering Science, 2016, 143, 166-180.	3.8	52
22	Development and validation of a novel Digital Image Analysis method for fluidized bed Particle Image Velocimetry. Powder Technology, 2012, 230, 193-202.	4.2	48
23	Characterization of the pneumatic behavior of a novel spouted bed apparatus with two adjustable gas inlets. Chemical Engineering Science, 2008, 63, 791-814.	3.8	46
24	Simulation of particle mixing and segregation in bidisperse gas fluidized beds. Chemical Engineering Science, 2014, 108, 258-269.	3.8	45
25	Experimental and simulation study of heat transfer in fluidized beds with heat production. Chemical Engineering Journal, 2017, 317, 242-257.	12.7	45
26	Use of Particle Imaging Velocimetry to measure liquid velocity profiles in liquid and liquid/gas flows through spacer filled channels. Journal of Membrane Science, 2010, 362, 143-153.	8.2	41
27	Numerical investigation of closures for interface forces acting on single air-bubbles in water using Volume of Fluid and Front Tracking models. Chemical Engineering Science, 2005, 60, 6169-6175.	3.8	40
28	Numerical and experimental study on spout elevation in spout fluidized beds. AIChE Journal, 2012, 58, 2524-2535.	3.6	40
29	Scale-Adaptive Simulation of a square cross-sectional bubble column. Chemical Engineering Science, 2015, 131, 101-108.	3.8	40
30	Direct Numerical Simulation (DNS) of mass, momentum and heat transfer in dense fluid-particle systems. Current Opinion in Chemical Engineering, 2014, 5, 84-89.	7.8	35
31	Bubbles in spacers: Direct observation of bubble behavior in spacer filled membrane channels. Journal of Membrane Science, 2009, 333, 38-44.	8.2	34
32	Improved digital image analysis technique for the evaluation of segregation in pseudo-2D beds. Powder Technology, 2013, 244, 61-74.	4.2	33
33	Segregation dynamics in dense polydisperse gas-fluidized beds. Powder Technology, 2013, 246, 695-706.	4.2	31
34	CFD modeling of multiphase flow in an alkaline water electrolyzer. Chemical Engineering Science, 2020, 227, 115926.	3.8	31
35	On the relationship between operating pressure and granular temperature: A discrete particle simulation study. Powder Technology, 2008, 182, 250-256.	4.2	30
36	Effect of superficial gas velocity on the particle temperature distribution in a fluidized bed with heat production. Chemical Engineering Science, 2016, 140, 279-290.	3.8	30

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37	Experimental and numerical study of wall-induced granular convection. Powder Technology, 2008, 184, 166-176.	4.2	29
38	Numerical investigation of the drag closure for bubbles in bubble swarms. Chemical Engineering Science, 2011, 66, 3309-3316.	3.8	29
39	Detailed computational and experimental fluid dynamics of fluidized beds. Applied Mathematical Modelling, 2006, 30, 1459-1471.	4.2	27
40	Experimental study on orientation and de-mixing phenomena of elongated particles in gas-fluidized beds. Powder Technology, 2018, 329, 332-344.	4.2	27
41	Direct numerical simulation of effective drag in dense gas-liquid-solid three-phase flows. Chemical Engineering Science, 2017, 158, 561-568.	3.8	26
42	Direct Numerical Simulations of gas-liquid-solid three phase flows. Chemical Engineering Science, 2013, 100, 293-299.	3.8	25
43	Numerical study of homogeneous bubbly flow: Influence of the inlet conditions to the hydrodynamic behavior. International Journal of Multiphase Flow, 2009, 35, 1077-1099.	3.4	24
44	Lagrangian modelling of dilute granular flow- modified stochastic DSMC versus deterministic DPM. Chemical Engineering Science, 2014, 105, 132-142.	3.8	23
45	Experimental study of monodisperse granular flow through an inclined rotating chute. Powder Technology, 2013, 246, 235-246.	4.2	22
46	On an efficient hybrid soft and hard sphere collision integration scheme for DEM. Chemical Engineering Science, 2016, 153, 363-373.	3.8	20
47	Effect of operating pressure on particle temperature distribution in a fluidized bed with heat production. Chemical Engineering Science, 2017, 169, 299-309.	3.8	16
48	Cutting bubbles with a single wire. Chemical Engineering Science, 2017, 157, 138-146.	3.8	16
49	A numerical study of cutting bubbles with a wire mesh. Chemical Engineering Science, 2017, 165, 25-32.	3.8	16
50	A combined experimental and simulation study of fluid-particle heat transfer in dense arrays of stationary particles. Chemical Engineering Science, 2017, 169, 310-320.	3.8	10
51	Scaling method of CFD-DEM simulations for gas-solid flows in risers. Chemical Engineering Science: X, 2020, 6, 100054.	1.5	7
52	CFD-DEM simulations of riser geometry effect and cluster phenomena. Advanced Powder Technology, 2021, 32, 3234-3247.	4.1	7
53	CFD modeling of droplet permeability in fluidized beds. International Journal of Multiphase Flow, 2022, 152, 104069.	3.4	5
54	Trajectory integrated smoothing of exchange fields for discrete phase simulations. Computers and Fluids, 2019, 186, 15-23.	2.5	4

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55	DNS of droplet impact on a solid particle: Effect of wettability on solid conjugate heat transfer. International Journal of Heat and Mass Transfer, 2020, 158, 119859.	4.8	4
56	Chapter 23 Multi-level computational fluid dynamics models for the description of particle mixing and granulation in fluidized beds. Handbook of Powder Technology, 2007, 11, 1071-1107.	0.1	3