Jinghai Li

List of Publications by Year
in descending order

229 papers	9,708 citations	31902 53 h-index	48187 88 g-index
239 all docs	239 docs citations	239 times ranked	3011 citing authors

#	ARTICLE	IF	CITATIONS
1	CFD simulation of concurrent-up gasâ€“solid flow in circulating fluidized beds with structure-dependent drag coefficient. Chemical Engineering Journal, 2003, 96, 71-80.	6.6	496
2	Simulation of gasâ€“solid two-phase flow by a multi-scale CFD approachâ€”of the EMMS model to the sub-grid level. Chemical Engineering Science, 2007, 62, 208-231.	1.9	381
3	Exploring complex systems in chemical engineeringâ€”the multi-scale methodology. Chemical Engineering Science, 2003, 58, 521-535.	1.9	253
4	Eulerian simulation of heterogeneous gasâ€“solid flows in CFB risers: EMMS-based sub-grid scale model with a revised cluster description. Chemical Engineering Science, 2008, 63, 1553-1571.	1.9	249
5	Unravelling the complexity in achieving the 17 sustainable-development goals. National Science Review, 2019, 6, 386-388.	4.6	245
6	Searching for a mesh-independent sub-grid model for CFD simulation of gasâ€“solid riser flows. Chemical Engineering Science, 2009, 64, 3437-3447.	1.9	237
7	Simulation of Heterogeneous Structure in a Circulating Fluidized-Bed Riser by Combining the Two-Fluid Model with the EMMS Approach. Industrial & Engineering Chemistry Research, 2004, 43, 5548-5561.	1.8	228
8	A bubble-based EMMS model for gasâ€“solid bubbling fluidization. Chemical Engineering Science, 2011, 66, 5541-5555.	1.9	170
9	EMMS-based discrete particle method (EMMSâ€“DPM) for simulation of gasâ€“solid flows. Chemical Engineering Science, 2014, 120, 67-87.	1.9	169
10	3D CFD simulation of hydrodynamics of a 150MWe circulating fluidized bed boiler. Chemical Engineering Journal, 2010, 162, 821-828.	6.6	160
11	Multi-scale methodology for complex systems. Chemical Engineering Science, 2004, 59, 1687-1700.	1.9	159
12	Quasi-real-time simulation of rotating drum using discrete element method with parallel GPU computing. Particuology, 2011, 9, 446-450.	2.0	147
13	A review of multiscale CFD for gasâ€“solid CFB modeling. International Journal of Multiphase Flow, 2010, 36, 109-118.	1.6	143
14	Meso-scale oriented simulation towards virtual process engineering (VPE)â€”The EMMS Paradigm. Chemical Engineering Science, 2011, 66, 4426-4458.	1.9	130
15	The EMMS model â€” its application, development and updated concepts. Chemical Engineering Science, 1999, 54, 5409-5425.	1.9	127
16	Virtual experimentation through 3D full-loop simulation of a circulating fluidized bed. Particuology, 2008, 6, 529-539.	2.0	126
17	MP-PIC simulation of CFB riser with EMMS-based drag model. Chemical Engineering Science, 2012, 82, 104-113.	1.9	120
18	Large-scale DNS of gasâ€“solid flows on Mole-8.5. Chemical Engineering Science, 2012, 71, 422-430.	1.9	120

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19	Physical mapping of fluidization regimesâ€"the EMMS approach. Chemical Engineering Science, 2002, 57, 3993-4004.	1.9	118
20	Eulerian simulation of gasâ€"solid flows with particles of Geldart groups A, B and D using EMMS-based meso-scale model. Chemical Engineering Science, 2011, 66, 4624-4635.	1.9	117
21	Explorations on the multi-scale flow structure and stability condition in bubble columns. Chemical Engineering Science, 2007, 62, 6978-6991.	1.9	103
22	Multi-scale analysis of gasâ€"liquid interaction and CFD simulation of gasâ€"liquid flow in bubble columns. Chemical Engineering Science, 2011, 66, 3212-3222.	1.9	101
23	3â€Đ fullâ€loop simulation of an industrialâ€scale circulating fluidizedâ€bed boiler. AIChE Journal, 2013, 59, 1108-1117.	1.8	99
24	A structure-dependent multi-fluid model (SFM) for heterogeneous gasâ€"solid flow. Chemical Engineering Science, 2013, 99, 191-202.	1.9	96
25	Computer virtual experiment on fluidized beds using a coarse-grained discrete particle methodâ€"EMMS-DPM. Chemical Engineering Science, 2016, 155, 314-337.	1.9	93
26	Multiscale Nature of Complex Fluidâ^'Particle Systems. Industrial & Engineering Chemistry Research, 2001, 40, 4227-4237.	1.8	91
27	An EMMS-based multi-fluid model (EFM) for heterogeneous gasâ€"solid riser flows: Part I. Formulation of structure-dependent conservation equations. Chemical Engineering Science, 2012, 75, 376-389.	1.9	90
28	Analytical multi-scale method for multi-phase complex systems in process engineeringâ€"Bridging reductionism and holism. Chemical Engineering Science, 2007, 62, 3346-3377.	1.9	88
29	Ru/hierarchical HZSM-5 zeolite as efficient bi-functional adsorbent/catalyst for bulky aromatic VOCs elimination. Microporous and Mesoporous Materials, 2018, 258, 17-25.	2.2	85
30	Full-crystalline hierarchical monolithic ZSM-5 zeolites as superiorly active and long-lived practical catalysts in methanol-to-hydrocarbons reaction. Journal of Catalysis, 2016, 340, 166-176.	3.1	83
31	Wavelet analysis of dynamic behavior in fluidized beds. Chemical Engineering Science, 2001, 56, 981-988.	1.9	80
32	A multiscale mass transfer model for gasâ€"solid riser flows: Part IIâ€"Sub-grid simulation of ozone decomposition. Chemical Engineering Science, 2008, 63, 2811-2823.	1.9	80
33	Particle-motion-resolved discrete model for simulating gasâ€"solid fluidization. Chemical Engineering Science, 1999, 54, 2077-2083.	1.9	79
34	A multiscale mass transfer model for gasâ€"solid riser flows: Part 1 â€" Sub-grid model and simple tests. Chemical Engineering Science, 2008, 63, 2798-2810.	1.9	79
35	Macro-scale phenomena reproduced in microscopic systemsâ€"pseudo-particle modeling of fluidization. Chemical Engineering Science, 2003, 58, 1565-1585.	1.9	77
36	A conceptual model for analyzing the stability condition and regime transition in bubble columns. Chemical Engineering Science, 2010, 65, 517-526.	1.9	76

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37	Discrete simulation of granular and particle-fluid flows: from fundamental study to engineering application. Reviews in Chemical Engineering, 2017, 33, .	2.3	73
38	Direct numerical simulation of sub-grid structures in gasâ€“solid flowâ€"GPU implementation of macro-scale pseudo-particle modeling. Chemical Engineering Science, 2010, 65, 5356-5365.	1.9	70
39	Dissipative structure in concurrent-up gasâ€“solid flow. Chemical Engineering Science, 1998, 53, 3367-3379.	1.9	69
40	An experimental comparison of gas backmixing in fluidized beds across the regime spectrum. Chemical Engineering Science, 1989, 44, 1697-1705.	1.9	68
41	From Multiscale to Mesoscience: Addressing Mesoscales in Mesoregimes of Different Levels. Annual Review of Chemical and Biomolecular Engineering, 2018, 9, 41-60.	3.3	68
42	Discrete simulations of heterogeneous structure and dynamic behavior in gasâ€“solid fluidization. Chemical Engineering Science, 1999, 54, 5427-5440.	1.9	63
43	Compromise and resolution â€" Exploring the multi-scale nature of gasâ€“solid fluidization. Powder Technology, 2000, 111, 50-59.	2.1	63
44	A mesoscale approach for population balance modeling of bubble size distribution in bubble column reactors. Chemical Engineering Science, 2017, 170, 241-250.	1.9	63
45	Numerical simulation of scale-up effects of methanol-to-olefins fluidized bed reactors. Chemical Engineering Science, 2017, 171, 244-255.	1.9	61
46	From Homogeneous Dispersion to MicellesA Molecular Dynamics Simulation on the Compromise of the Hydrophilic and Hydrophobic Effects of Sodium Dodecyl Sulfate in Aqueous Solution. Langmuir, 2005, 21, 5223-5229.	1.6	60
47	Choking and flow regime transitions: Simulation by a multi-scale CFD approach. Chemical Engineering Science, 2007, 62, 814-819.	1.9	60
48	High-resolution simulation of gasâ€“solid suspension using macro-scale particle methods. Chemical Engineering Science, 2006, 61, 7096-7106.	1.9	59
49	From Multiscale Modeling to Meso-Science. , 2013, , .		59
50	Stability-constrained multi-fluid CFD models for gasâ€“liquid flow in bubble columns. Chemical Engineering Science, 2013, 100, 279-292.	1.9	59
51	Discrete particle simulation of gasâ€“solid two-phase flows with multi-scale CPUâ€“GPU hybrid computation. Chemical Engineering Journal, 2012, 207-208, 746-757.	6.6	58
52	CFD simulation of solids residence time distribution in a CFB riser. Chemical Engineering Science, 2014, 117, 264-282.	1.9	58
53	Multi-scale CFD simulation of gasâ€“solid flow in MIP reactors with a structure-dependent drag model. Chemical Engineering Science, 2007, 62, 5487-5494.	1.9	57
54	Focusing on mesoscales: from the energy-minimization multiscale model to mesoscience. Current Opinion in Chemical Engineering, 2016, 13, 10-23.	3.8	57

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55	Multi-scale HPC system for multi-scale discrete simulationâ€"Development and application of a supercomputer with 1 Petaflops peak performance in single precision. Particuology, 2009, 7, 332-335.	2.0	54
56	Fine-grid two-fluid modeling of fluidization of Geldart A particles. Powder Technology, 2016, 296, 2-16.	2.1	54
57	A discrete particle model for particleâ€"fluid flow with considerations of sub-grid structures. Chemical Engineering Science, 2007, 62, 2302-2308.	1.9	53
58	METHOD OF ENERGY MINIMIZATION IN MULTI-SCALE MODELING OF PARTICLE-FLUID TWO-PHASE FLOW. , 1988, , 89-103.		52
59	Application of the Discrete Approach to the Simulation of Size Segregation in Granular Chute Flow. Industrial & Engineering Chemistry Research, 2004, 43, 5521-5528.	1.8	52
60	Dominant Role of Compromise between Diffusion and Reaction in the Formation of Snow-Shaped Vaterite. Crystal Growth and Design, 2013, 13, 1820-1825.	1.4	52
61	Experimental study of the reduction mechanisms of NO emission in decoupling combustion of coal. Fuel Processing Technology, 2006, 87, 803-810.	3.7	51
62	Analytical solution of the energy-minimization multi-scale model for gasâ€"solid two-phase flow. Chemical Engineering Science, 1998, 53, 1349-1366.	1.9	50
63	Particulate and aggregative fluidization â€" 50 years in retrospect. Powder Technology, 2000, 111, 3-18.	2.1	50
64	Choosing structure-dependent drag coefficient in modeling gas-solid two-phase flow. Particuology: Science and Technology of Particles, 2003, 1, 38-41.	0.4	50
65	Hydrodynamic Modeling of Gasâ€"Solid Bubbling Fluidization Based on Energy-Minimization Multiscale (EMMS) Theory. Industrial & Engineering Chemistry Research, 2014, 53, 2800-2810.	1.8	48
66	Speeding up CFD simulation of fluidized bed reactor for MTO by coupling CRE model. Chemical Engineering Science, 2016, 143, 341-350.	1.9	48
67	CFD simulation of gas-liquid-solid flow in slurry bubble columns with EMMS drag model. Powder Technology, 2017, 314, 466-479.	2.1	48
68	A simple variational criterion for turbulent flow in pipe. Chemical Engineering Science, 1999, 54, 1151-1154.	1.9	47
69	Focusing on the meso-scales of multi-scale phenomenaâ€"In search for a new paradigm in chemical engineering. Particuology, 2010, 8, 634-639.	2.0	47
70	Application of the energy-minimization multi-scale method to gasâ€"liquidâ€"solid fluidized beds. Chemical Engineering Science, 2001, 56, 6805-6812.	1.9	45
71	Modeling of Regime Transition in Bubble Columns with Stability Condition. Industrial & Engineering Chemistry Research, 2009, 48, 290-301.	1.8	45
72	Approaching virtual process engineering with exploring mesoscience. Chemical Engineering Journal, 2015, 278, 541-555.	6.6	45

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73	Characterizing particle clustering behavior by PDPA measurement for dilute gasâ€“solid flow. Chemical Engineering Journal, 2005, 108, 193-202.	6.6	44
74	Simulation of heterogeneous structures and analysis of energy consumption in particleâ€“fluid systems with pseudo-particle modeling. Chemical Engineering Science, 2005, 60, 3091-3099.	1.9	44
75	Lattice Boltzmann based discrete simulation for gasâ€“solid fluidization. Chemical Engineering Science, 2013, 101, 228-239.	1.9	44
76	An EMMS-based multi-fluid model (EFM) for heterogeneous gasâ€“solid riser flows: Part II. An alternative formulation from dominant mechanisms. Chemical Engineering Science, 2012, 75, 349-358.	1.9	43
77	CFD-PBM simulation of droplets size distribution in rotor-stator mixing devices. Chemical Engineering Science, 2016, 155, 16-26.	1.9	43
78	Macro-scale pseudo-particle modeling for particle-fluid systems. Science Bulletin, 2001, 46, 1503-1507.	1.7	41
79	Exploring the Logic and Landscape of the Knowledge System: Multilevel Structures, Each Multiscaled with Complexity at the Mesoscale. Engineering, 2016, 2, 276-285.	3.2	40
80	Mesoscience based on the EMMS principle of compromise in competition. Chemical Engineering Journal, 2018, 333, 327-335.	6.6	40
81	Three-dimensional simulation of dense suspension upflow regime in high-density CFB risers with EMMS-based two-fluid model. Chemical Engineering Science, 2014, 107, 206-217.	1.9	38
82	Manipulating silver dendritic structures via diffusion and reaction. Chemical Engineering Science, 2015, 138, 457-464.	1.9	38
83	Quantifying cluster dynamics to improve EMMS drag law and radial heterogeneity description in coupling with gas-solid two-fluid method. Chemical Engineering Journal, 2017, 307, 326-338.	6.6	38
84	Multiâ€scale CFD simulation of operating diagram for gasâ€“solid risers. Canadian Journal of Chemical Engineering, 2008, 86, 448-457.	0.9	37
85	Axial Voidage Profiles of Fast Fluidized Beds in Different Operating Regions. , 1988, , 193-203.		35
86	Parametric study for MP-PIC simulation of bubbling fluidized beds with Geldart A particles. Powder Technology, 2018, 328, 215-226.	2.1	35
87	Coarse grid simulation of heterogeneous gasâ€“solid flow in a CFB riser with polydisperse particles. Chemical Engineering Journal, 2013, 234, 173-183.	6.6	34
88	CFD study of exit effect of high-density CFB risers with EMMS-based two-fluid model. Chemical Engineering Science, 2015, 134, 477-488.	1.9	33
89	Structure-dependent multi-fluid model for mass transfer and reactions in gasâ€“solid fluidized beds. Chemical Engineering Science, 2015, 122, 114-129.	1.9	33
90	A simplified two-fluid model coupled with EMMS drag for gas-solid flows. Powder Technology, 2017, 314, 299-314.	2.1	33

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91	Modeling the effects of solid particles in CFD-PBM simulation of slurry bubble columns. Chemical Engineering Science, 2020, 223, 115743.	1.9	33
92	Direct numerical simulation of particle clustering in gasâ€"solid flow with a macro-scale particle method. Chemical Engineering Science, 2009, 64, 43-51.	1.9	31
93	Mesoscience: exploring the common principle at mesoscales. National Science Review, 2018, 5, 321-326.	4.6	31
94	Computational Fluid Dynamics Simulation of Regime Transition in Bubble Columns Incorporating the Dual-Bubble-Size Model. Industrial & Engineering Chemistry Research, 2009, 48, 8172-8179.	1.8	30
95	NO Reduction in Decoupling Combustion of Biomass and Biomassâ^'Coal Blend. Energy & Fuels, 2009, 23, 224-228.	2.5	30
96	CFD simulation of internal-loop airlift reactor using EMMS drag model. Particuology, 2015, 19, 124-132.	2.0	30
97	Simulation of the multiphase flow in bubble columns with stability-constrained multi-fluid CFD models. Chemical Engineering Journal, 2017, 329, 88-99.	6.6	30
98	Multiscale analysis and modeling of multiphase chemical reactors. Advanced Powder Technology, 2004, 15, 607-627.	2.0	29
99	Numerical investigation of granular flow similarity in rotating drums. Particuology, 2015, 22, 119-127.	2.0	29
100	Simulation of particleâ€"fluid systems with macro-scale pseudo-particle modeling. Powder Technology, 2003, 137, 99-108.	2.1	28
101	GPU-based discrete element simulation on a tote blender for performance improvement. Powder Technology, 2013, 239, 348-357.	2.1	27
102	Enhanced accessibility and utilization efficiency of acid sites in hierarchical MFI zeolite catalyst for effective diffusivity improvement. RSC Advances, 2014, 4, 43752-43755.	1.7	27
103	Energy Transport and Regime Transition in Particle-Fluid Two-Phase Flow. , 1988, , 75-87.		26
104	Acceleration of CFD simulation of gasâ€"solid flow by coupling macro-/meso-scale EMMS model. Powder Technology, 2011, 212, 289-295.	2.1	26
105	Extending EMMS-based models to CFB boiler applications. Particuology, 2012, 10, 663-671.	2.0	26
106	Multiscale Discrete Supercomputing â€" A Game Changer for Process Simulation?. Chemical Engineering and Technology, 2015, 38, 575-584.	0.9	26
107	Toward a mesoscaleâ€structureâ€based kinetic theory for heterogeneous gasâ€solid flow: Particle velocity distribution function. AICHE Journal, 2016, 62, 2649-2657.	1.8	25
108	A two-fluid smoothed particle hydrodynamics (TF-SPH) method for gasâ€"solid fluidization. Chemical Engineering Science, 2013, 99, 89-101.	1.9	24

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109	Granular flow in a rotating drum with gaps in the side wall. Powder Technology, 2008, 182, 241-249.	2.1	23
110	A revised surface tension model for macro-scale particle methods. Powder Technology, 2008, 183, 21-26.	2.1	23
111	Unification of EMMS and TFM: structure-dependent analysis of mass, momentum and energy conservation. Chemical Engineering Science, 2014, 120, 112-116.	1.9	23
112	Turbulence originating from the compromise-in-competition between viscosity and inertia. Chemical Engineering Journal, 2016, 300, 83-97.	6.6	23
113	Mesoscience-based virtual process engineering. Computers and Chemical Engineering, 2019, 126, 68-82.	2.0	23
114	Energy-minimization multiscale based mesoscale modeling and applications in gas-fluidized catalytic reactors. Reviews in Chemical Engineering, 2019, 35, 879-915.	2.3	23
115	Multiscale modeling of rapid granular flow with a hybrid discrete-continuum method. Powder Technology, 2016, 304, 177-185.	2.1	22
116	Fluidization regimes. Powder Technology, 1996, 87, 193-202.	2.1	21
117	Modeling of power characteristics for multistage rotorâ€"stator mixers of shear-thinning fluids. Chemical Engineering Science, 2014, 117, 173-182.	1.9	21
118	Mesoscales: The path to transdisciplinarity. Chemical Engineering Journal, 2015, 277, 112-115.	6.6	21
119	Simulation of coupled folding and binding of an intrinsically disordered protein in explicit solvent with metadynamics. Journal of Molecular Graphics and Modelling, 2016, 68, 114-127.	1.3	21
120	Mesoscale model for heterogeneous catalysis based on the principle of compromise in competition. Chemical Engineering Science, 2016, 147, 83-90.	1.9	21
121	Smoothed particles as a non-Newtonian fluid: A case study in Couette flow. Chemical Engineering Science, 2010, 65, 2258-2262.	1.9	20
122	Molecular dynamics simulations of surfactant adsorption at oil/water interface under shear flow. Particuology, 2019, 44, 36-43.	2.0	19
123	MULTI-SCALE MASS TRANSFER MODEL FOR GAS-SOLID TWO-PHASE FLOW. Chemical Engineering Communications, 2005, 192, 1636-1654.	1.5	18
124	Petascale molecular dynamics simulation of crystalline silicon on Tianhe-1A. International Journal of High Performance Computing Applications, 2013, 27, 307-317.	2.4	18
125	Engineering molecular dynamics simulation in chemical engineering. Chemical Engineering Science, 2015, 121, 200-216.	1.9	18
126	Complexity at Mesoscales: A Common Challenge in Developing Artificial Intelligence. Engineering, 2019, 5, 924-929.	3.2	18

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127	Mesoscale modeling of emulsification in rotor-stator devices. Chemical Engineering Science, 2019, 193, 171-183.	1.9	18
128	SPH simulation of oil displacement in cavity-fracture structures. Chemical Engineering Science, 2010, 65, 3363-3371.	1.9	17
129	Evaluation of drag models for cocurrent and countercurrent gasâ€"solid flows. Chemical Engineering Science, 2013, 92, 89-104.	1.9	17
130	Steady-state modeling of axial heterogeneity in CFB risers based on one-dimensional EMMS model. Chemical Engineering Science, 2013, 96, 165-173.	1.9	17
131	Extension and application of energy-minimization multi-scale (EMMS) theory for full-loop hydrodynamic modeling of complex gasâ€"solid reactors. Chemical Engineering Journal, 2015, 278, 492-503.	6.6	17
132	A sub-grid EMMS drag for multiphase particle-in-cell simulation of fluidization. Powder Technology, 2018, 327, 420-429.	2.1	17
133	Gas-solid fluidization: a typical dissipative structure. Chemical Engineering Science, 1996, 51, 667-669.	1.9	16
134	Two distinctive variational regions of radial particle concentration profiles in circulating fluidized bed risers. Powder Technology, 1999, 101, 91-100.	2.1	16
135	Effect of particle acceleration/deceleration on particle clustering behavior in dilute gasâ€"solid flow. Chemical Engineering Science, 2006, 61, 7087-7095.	1.9	16
136	A new wall boundary condition in particle methods. Computer Physics Communications, 2006, 174, 386-390.	3.0	16
137	Molecular dynamics simulation of macromolecules using graphics processing unit. Molecular Simulation, 2010, 36, 1131-1140.	0.9	16
138	Multiscale simulations of protein folding: application to formation of secondary structures. Journal of Biomolecular Structure and Dynamics, 2013, 31, 779-787.	2.0	16
139	A switch from classic crystallization to non-classic crystallization by controlling the diffusion of chemicals. CrystEngComm, 2014, 16, 7633-7637.	1.3	16
140	Simulations of flow induced structural transition of the Î²-switch region of glycoprotein IbÎ±. Biophysical Chemistry, 2016, 209, 9-20.	1.5	16
141	CFD simulation of bubble column hydrodynamics with a novel drag model based on EMMS approach. Chemical Engineering Science, 2021, 243, 116758.	1.9	16
142	Multi-scale interfacial stresses in heterogeneous particleâ€"fluid systems. Chemical Engineering Science, 1998, 53, 3335-3339.	1.9	15
143	Dynamic behaviors of heterogeneous flow structure in gasâ€"solid fluidization. Powder Technology, 2000, 112, 7-23.	2.1	15
144	VOC Adsorption in Circulating Gas Fluidized Bed. Adsorption, 2005, 11, 853-858.	1.4	15

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145	Molecular dynamics simulation of complex multiphase flow on a computer cluster with GPUs. Science in China Series B: Chemistry, 2009, 52, 372-380.	0.8	15
146	Meso-Scale Modelingâ€"The Key to Multi-Scale CFD Simulation. Advances in Chemical Engineering, 2011, , 1-58.	0.5	15
147	In-Depth Exploration of the Dual-Bubble-Size Model for Bubble Columns. Industrial & Engineering Chemistry Research, 2012, 51, 2077-2083.	1.8	15
148	A stability condition for turbulence model: From EMMS model to EMMS-based turbulence model. Particuology, 2014, 16, 142-154.	2.0	15
149	æŽ¢ç´¢ä»‹å°ºåº¦ç§'å¦: ä»Žæ–°è§'åº¦å®¡è§†è€é—®é¢˜. Scientia Sinica Chimica, 2014, 44, 277-281.	0.2	15
150	Towards Mesoscience. SpringerBriefs in Applied Sciences and Technology, 2014, , .	0.2	14
151	3D CFD simulation of a circulating fluidized bed with on-line adjustment of mechanical valve. Chemical Engineering Science, 2015, 137, 646-655.	1.9	14
152	Mesoscale modeling of emulsification in rotor-stator devices. Chemical Engineering Science, 2019, 193, 156-170.	1.9	14
153	Parallelizing of macro-scale pseudo-particle modeling for particle-fluid systems. Science in China Series B: Chemistry, 2004, 47, 434-442.	0.8	13
154	Parallel implementation of macro-scale pseudo-particle simulation for particleâ€"fluid systems. Computers and Chemical Engineering, 2005, 29, 1543-1553.	2.0	13
155	Modeling of complex liquid-solid flow of particle swelling in slurry loop reactors. Chemical Engineering Science, 2018, 176, 476-490.	1.9	12
156	Effect of dynamic change of flow structure on mass transfer between gas and particles. Chemical Engineering Science, 2003, 58, 5373-5377.	1.9	11
157	Process engineering research in China: A multiscale, market-driven approach. AIChE Journal, 2005, 51, 2620-2627.	1.8	11
158	Unified stability condition for particulate and aggregative fluidizationâ€"Exploring energy dissipation with direct numerical simulation. Particuology, 2013, 11, 232-241.	2.0	11
159	SPH simulation of selective withdrawal from microcavity. Microfluidics and Nanofluidics, 2013, 15, 481-490.	1.0	11
160	Hard-sphere/pseudo-particle modelling (HS-PPM) for efficient and scalable molecular simulation of dilute gaseous flow and transport. Molecular Simulation, 2016, 42, 1171-1182.	0.9	11
161	A direct solution to multi-objective optimization: Validation in solving the EMMS model for gas-solid fluidization. Chemical Engineering Science, 2018, 192, 499-506.	1.9	11
162	General approach for discrete simulation of complex systems. Science Bulletin, 2002, 47, 1172-1175.	1.7	10

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163	A lattice Boltzmann method for particle-fluid two-phase flow. Chemical Engineering Science, 2013, 102, 442-450.	1.9	10
164	Molecular dynamics simulation overcoming the finite size effects of thermal conductivity of bulk silicon and silicon nanowires. Modelling and Simulation in Materials Science and Engineering, 2016, 24, 045005.	0.8	10
165	Mesoscale Structures in the Adlayer of A-B₂ Heterogeneous Catalysis. Langmuir, 2017, 33, 11582-11589.	1.6	10
166	Characteristics of Pressure with Respect to Heterogeneous Flow Structure in Fluidized Beds.. Journal of Chemical Engineering of Japan, 1998, 31, 236-243.	0.3	9
167	Pseudo-particle simulation of multi-scale heterogeneity in fluidization. Science Bulletin, 2003, 48, 634-636.	4.3	9
168	Synthesis and Characterization of the First Organically Templated Layered Cerium Phosphate Fluoride: [(CH2)2(NH3)2]0.5[CeIVF3(HPO4)]. Chemistry Letters, 2004, 33, 458-459.	0.7	9
169	Numerical study on gasâ€“liquid nano-flows with pseudo-particle modeling and soft-particle molecular dynamics simulation. Microfluidics and Nanofluidics, 2008, 5, 639-653.	1.0	9
170	Application of the Mole-8.5 supercomputer: Probing the whole influenza virion at the atomic level. Science Bulletin, 2011, 56, 2114-2118.	1.7	9
171	Stability-driven Structure Evolution: Exploring the Intrinsic Similarity Between Gas-Solid and Gas-Liquid Systems. Chinese Journal of Chemical Engineering, 2012, 20, 167-177.	1.7	9
172	â€œGeneralized Fluidizationâ€•Revisited. Industrial & Engineering Chemistry Research, 2013, 52, 11319-11332.	1.8	9
173	Prediction of Droplet Size Distribution for High Pressure Homogenizers with Heterogeneous Turbulent Dissipation Rate. Industrial & Engineering Chemistry Research, 2020, 59, 4020-4032.	1.8	9
174	Regime mapping of multiple breakup of droplets in shear flow by phase-field lattice Boltzmann simulation. Chemical Engineering Science, 2021, 240, 116673.	1.9	9
175	Key factors in chaperonin-assisted protein folding. Particuology, 2012, 10, 105-116.	2.0	8
176	A multi-scale architecture for multi-scale simulation and its application to gasâ€“solid flows. Particuology, 2014, 15, 160-169.	2.0	8
177	The principle of compromise in competition: exploring stability condition of protein folding. Science Bulletin, 2015, 60, 76-85.	4.3	8
178	Mesoscale spatiotemporal structures: opportunities from challenges. National Science Review, 2017, 4, 787-787.	4.6	8
179	<i>110th Anniversary</i>: Mesoscale Complexityâ€"To Dodge or To Confront?. Industrial & Engineering Chemistry Research, 2019, 58, 12478-12484.	1.8	8
180	Mesoscale distribution of adsorbates in ZSM-5 zeolite. Chemical Engineering Science, 2019, 198, 253-259.	1.9	8

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181	Complex systems and multi-scale methodology. Chemical Engineering Science, 2004, 59, 1611-1612.	1.9	7
182	Structural characteristics of adlayer in heterogeneous catalysis. Chemical Engineering Science, 2016, 153, 87-92.	1.9	7
183	Paradigm shift in science with tackling global challenges. National Science Review, 2019, 6, 1091-1093.	4.6	7
184	A conceptual model for analyzing particle effects on gas-liquid flows in slurry bubble columns. Powder Technology, 2020, 365, 28-38.	2.1	7
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