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	Multilevel Mesoscale Complexities in Mesoregimes: Challenges in Chemical and Biochemical Engineering. Annual Review of Chemical and Biomolecular Engineering, 2022, 13, 431-455.	3.3	3
2	Science for This Age: Paradigm Shifts and Global Challenges. Engineering, 2022, 19, 22-23.	3.2	0
3	Exploration on the stability conditions in bubble columns by noncooperative game theory. Chinese Journal of Chemical Engineering, 2022, 50, 75-84.	1.7	3
4	Possible roadmap to advancing the knowledge system and tackling challenges from complexity. Chemical Engineering Science, 2021, 237, 116548.	1.9	3
5	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
6	Investigation of a GL-EMMS gradual drag model by comparative simulations of bubble columns. Chemical Engineering Research and Design, 2021, 173, 27-41.	2.7	2
7	CFD simulation of bubble column hydrodynamics with a novel drag model based on EMMS approach. Chemical Engineering Science, 2021, 243, 116758.	1.9	16
8	Optimizing the Roadmap to Carbon Neutralization with a New Paradigm. Engineering, 2021, 7, 1678-1678.	3.2	4
9	Game-theoretical explorations of the mesoscale flow structure and regime transitions in bubble columns. Particuology, 2020, 48, 100-108.	2.0	2
10	A conceptual model for analyzing particle effects on gas-liquid flows in slurry bubble columns. Powder Technology, 2020, 365, 28-38.	2.1	7
11	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
12	Modeling the effects of solid particles in CFD-PBM simulation of slurry bubble columns. Chemical Engineering Science, 2020, 223, 115743.	1.9	33
13	Towards a new paradigm of chemical engineering. Reviews in Chemical Engineering, 2019, 35, 877-878.	2.3	1
14	Paradigm shift in science with tackling global challenges. National Science Review, 2019, 6, 1091-1093.	4.6	7
15	Complexity at Mesoscales: A Common Challenge in Developing Artificial Intelligence. Engineering, 2019, 5, 924-929.	3.2	18
16	<i>110th Anniversary</i>: Mesoscale Complexityâ€"To Dodge or To Confront?. Industrial & Engineering Chemistry Research, 2019, 58, 12478-12484.	1.8	8
17	Unravelling the complexity in achieving the 17 sustainable-development goals. National Science Review, 2019, 6, 386-388.	4.6	245
18	Mesoscience-based virtual process engineering. Computers and Chemical Engineering, 2019, 126, 68-82.	2.0	23

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19	Molecular dynamics simulations of surfactant adsorption at oil/water interface under shear flow. Particuology, 2019, 44, 36-43.	2.0	19
20	Energy-minimization multiscale based mesoscale modeling and applications in gas-fluidized catalytic reactors. Reviews in Chemical Engineering, 2019, 35, 879-915.	2.3	23
21	Retrospect and prospect: 30 years of Formula conferences!. Particuology, 2019, 44, 3-6.	2.0	1
22	Mesoscale modeling of emulsification in rotor-stator devices. Chemical Engineering Science, 2019, 193, 156-170.	1.9	14
23	Mesoscale modeling of emulsification in rotor-stator devices. Chemical Engineering Science, 2019, 193, 171-183.	1.9	18
24	Determination of choking in the EMMS model. Chemical Engineering Journal, 2019, 357, 508-517.	6.6	3
25	Mesoscale distribution of adsorbates in ZSM-5 zeolite. Chemical Engineering Science, 2019, 198, 253-259.	1.9	8
26	Modeling of complex liquid-solid flow of particle swelling in slurry loop reactors. Chemical Engineering Science, 2018, 176, 476-490.	1.9	12
27	A sub-grid EMMS drag for multiphase particle-in-cell simulation of fluidization. Powder Technology, 2018, 327, 420-429.	2.1	17
28	Parametric study for MP-PIC simulation of bubbling fluidized beds with Geldart A particles. Powder Technology, 2018, 328, 215-226.	2.1	35
29	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
30	Mesoscience: exploring the common principle at mesoscales. National Science Review, 2018, 5, 321-326.	4.6	31
31	Mesoscience based on the EMMS principle of compromise in competition. Chemical Engineering Journal, 2018, 333, 327-335.	6.6	40
32	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
33	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
34	Multilevel and multiscale PSE: Challenges and opportunities at mesoscales. Computer Aided Chemical Engineering, 2018, 44, 11-19.	0.3	3
35	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
36	Discrete simulation of granular and particle-fluid flows: from fundamental study to engineering application. Reviews in Chemical Engineering, 2017, 33, .	2.3	73

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37	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
38	Numerical simulation of scale-up effects of methanol-to-olefins fluidized bed reactors. Chemical Engineering Science, 2017, 171, 244-255.	1.9	61
39	Toward Greener and Smarter Process Industries. Engineering, 2017, 3, 152-153.	3.2	3
40	Mesoscale Structures in the Adlayer of A-B₂ Heterogeneous Catalysis. Langmuir, 2017, 33, 11582-11589.	1.6	10
41	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
42	CFD simulation of gas-liquid-solid flow in slurry bubble columns with EMMS drag model. Powder Technology, 2017, 314, 466-479.	2.1	48
43	A simplified two-fluid model coupled with EMMS drag for gas-solid flows. Powder Technology, 2017, 314, 299-314.	2.1	33
44	Mesoscale spatiotemporal structures: opportunities from challenges. National Science Review, 2017, 4, 787-787.	4.6	8
45	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
46	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
47	Mesoscale model for heterogeneous catalysis based on the principle of compromise in competition. Chemical Engineering Science, 2016, 147, 83-90.	1.9	21
48	Turbulence originating from the compromise-in-competition between viscosity and inertia. Chemical Engineering Journal, 2016, 300, 83-97.	6.6	23
49	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
50	Compromise between minimization and maximization of entropy production in reversible Grayâ€“Scott model. Chemical Engineering Science, 2016, 155, 233-238.	1.9	4
51	Multiscale modeling of rapid granular flow with a hybrid discrete-continuum method. Powder Technology, 2016, 304, 177-185.	2.1	22
52	Focusing on mesoscales: from the energy-minimization multiscale model to mesoscience. Current Opinion in Chemical Engineering, 2016, 13, 10-23.	3.8	57
53	Structural characteristics of adlayer in heterogeneous catalysis. Chemical Engineering Science, 2016, 153, 87-92.	1.9	7
54	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

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55	CFD-PBM simulation of droplets size distribution in rotor-stator mixing devices. Chemical Engineering Science, 2016, 155, 16-26.	1.9	43
56	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
57	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
58	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
59	Gas penetrating flow through dynamic particle clusters. Powder Technology, 2016, 297, 409-414.	2.1	5
60	Speeding up CFD simulation of fluidized bed reactor for MTO by coupling CRE model. Chemical Engineering Science, 2016, 143, 341-350.	1.9	48
61	Simulations of flow induced structural transition of the Î²-switch region of glycoprotein IbÎ±. Biophysical Chemistry, 2016, 209, 9-20.	1.5	16
62	Fine-grid two-fluid modeling of fluidization of Geldart A particles. Powder Technology, 2016, 296, 2-16.	2.1	54
63	Multiscale Discrete Supercomputing â€“ A Game Changer for Process Simulation?. Chemical Engineering and Technology, 2015, 38, 575-584.	0.9	26
64	Mesoscale Transport Phenomena and Mechanisms in Gasâ€“Liquid Reaction Systems. Advances in Chemical Engineering, 2015, , 245-280.	0.5	6
65	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
66	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
67	The principle of compromise in competition: exploring stability condition of protein folding. Science Bulletin, 2015, 60, 76-85.	4.3	8
68	Numerical investigation of granular flow similarity in rotating drums. Particuology, 2015, 22, 119-127.	2.0	29
69	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
70	Mesoscales: The path to transdisciplinarity. Chemical Engineering Journal, 2015, 277, 112-115.	6.6	21
71	Manipulating silver dendritic structures via diffusion and reaction. Chemical Engineering Science, 2015, 138, 457-464.	1.9	38
72	Engineering molecular dynamics simulation in chemical engineering. Chemical Engineering Science, 2015, 121, 200-216.	1.9	18

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73	Approaching virtual process engineering with exploring mesoscience. Chemical Engineering Journal, 2015, 278, 541-555.	6.6	45
74	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
75	CFD simulation of internal-loop airlift reactor using EMMS drag model. Particuology, 2015, 19, 124-132.	2.0	30
76	A multi-scale architecture for multi-scale simulation and its application to gasâ€“solid flows. Particuology, 2014, 15, 160-169.	2.0	8
77	Towards Mesoscience. SpringerBriefs in Applied Sciences and Technology, 2014, , .	0.2	14
78	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
79	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
80	Modeling of power characteristics for multistage rotorâ€“stator mixers of shear-thinning fluids. Chemical Engineering Science, 2014, 117, 173-182.	1.9	21
81	A switch from classic crystallization to non-classic crystallization by controlling the diffusion of chemicals. CrystEngComm, 2014, 16, 7633-7637.	1.3	16
82	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
83	EMMS-based discrete particle method (EMMSâ€“DPM) for simulation of gasâ€“solid flows. Chemical Engineering Science, 2014, 120, 67-87.	1.9	169
84	Unification of EMMS and TFM: structure-dependent analysis of mass, momentum and energy conservation. Chemical Engineering Science, 2014, 120, 112-116.	1.9	23
85	A stability condition for turbulence model: From EMMS model to EMMS-based turbulence model. Particuology, 2014, 16, 142-154.	2.0	15
86	CFD simulation of solids residence time distribution in a CFB riser. Chemical Engineering Science, 2014, 117, 264-282.	1.9	58
87	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
88	A two-fluid smoothed particle hydrodynamics (TF-SPH) method for gasâ€“solid fluidization. Chemical Engineering Science, 2013, 99, 89-101.	1.9	24
89	Lattice Boltzmann based discrete simulation for gasâ€“solid fluidization. Chemical Engineering Science, 2013, 101, 228-239.	1.9	44
90	â€œGeneralized Fluidizationâ€•Revisited. Industrial & Engineering Chemistry Research, 2013, 52, 11319-11332.	1.8	9

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91	Theoretical analysis on the applicability of traditional SPH method. Science Bulletin, 2013, 58, 2970-2978.	1.7	3
92	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
93	Unified stability condition for particulate and aggregative fluidizationâ€"Exploring energy dissipation with direct numerical simulation. Particuology, 2013, 11, 232-241.	2.0	11
94	A structure-dependent multi-fluid model (SFM) for heterogeneous gasâ€"solid flow. Chemical Engineering Science, 2013, 99, 191-202.	1.9	96
95	From Multiscale Modeling to Meso-Science. , 2013, , .		59
96	SPH simulation of selective withdrawal from microcavity. Microfluidics and Nanofluidics, 2013, 15, 481-490.	1.0	11
97	Multi-scale simulation of discrete systems with multi-scale supercomputer. , 2013, , .		0
98	A lattice Boltzmann method for particle-fluid two-phase flow. Chemical Engineering Science, 2013, 102, 442-450.	1.9	10
99	Multiscale simulations of protein folding: application to formation of secondary structures. Journal of Biomolecular Structure and Dynamics, 2013, 31, 779-787.	2.0	16
100	Petascale molecular dynamics simulation of crystalline silicon on Tianhe-1A. International Journal of High Performance Computing Applications, 2013, 27, 307-317.	2.4	18
101	Evaluation of drag models for cocurrent and countercurrent gasâ€"solid flows. Chemical Engineering Science, 2013, 92, 89-104.	1.9	17
102	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
103	GPU-based discrete element simulation on a tote blender for performance improvement. Powder Technology, 2013, 239, 348-357.	2.1	27
104	Stability-constrained multi-fluid CFD models for gasâ€"liquid flow in bubble columns. Chemical Engineering Science, 2013, 100, 279-292.	1.9	59
105	3â€Ð fullâ€loop simulation of an industrialâ€scale circulating fluidizedâ€bed boiler. AIChE Journal, 2013, 59, 1108-1117.	1.8	99
106	Multi-scale Continuum-Particle Simulation on CPUâ€"GPU Hybrid Supercomputer. Lecture Notes in Earth System Sciences, 2013, , 143-161.	0.5	3
107	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
108	Preface to Multiscale Structures and Systems in Process Engineering Special Issue. Industrial & Engineering Chemistry Research, 2013, 52, 11225-11227.	1.8	2

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109	From customized multiscale modeling to general mesoscience â€“ The principle of compromise. AIP Conference Proceedings, 2013, , .	0.3	2
110	Radial segregation driven by axial migration. , 2013, , .		0
111	Perspectives: Meso-Science and Virtual Process Engineering. , 2013, , 461-476.		2
112	Partial Realization of the EMMS Paradigm. , 2013, , 185-260.		1
113	Experimental Characterization of Meso-Scale Processes. , 2013, , 431-460.		0
114	Extension of the EMMS Model to Gas-Liquid Systems. , 2013, , 111-145.		0
115	Academic Applications of EMMS Drag. , 2013, , 359-375.		0
116	Footprint and Philosophy. , 2013, , 1-45.		1
117	Applications of EMMS Drag in Industry. , 2013, , 311-357.		1
118	Meso-Scale Modeling: The EMMS Model for Gas-Solid Systems. , 2013, , 47-89.		1
119	Complete Realization of the EMMS Paradigm. , 2013, , 261-309.		0
120	Verification of the EMMS Model with Pseudo-Particle Modeling. , 2013, , 91-110.		0
121	From EMMS Model to EMMS Paradigm. , 2013, , 147-183.		1
122	MP-PIC simulation of CFB riser with EMMS-based drag model. Chemical Engineering Science, 2012, 82, 104-113.	1.9	120
123	Key factors in chaperonin-assisted protein folding. Particuology, 2012, 10, 105-116.	2.0	8
124	Extending EMMS-based models to CFB boiler applications. Particuology, 2012, 10, 663-671.	2.0	26
125	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
126	In-Depth Exploration of the Dual-Bubble-Size Model for Bubble Columns. Industrial & Engineering Chemistry Research, 2012, 51, 2077-2083.	1.8	15

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127	Large-scale DNS of gasâ€“solid flows on Mole-8.5. Chemical Engineering Science, 2012, 71, 422-430.	1.9	120
128	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
129	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
130	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
131	Meso-Scale Modelingâ€"The Key to Multi-Scale CFD Simulation. Advances in Chemical Engineering, 2011, , 1-58.	0.5	15
132	Quasi-real-time simulation of rotating drum using discrete element method with parallel GPU computing. Particuology, 2011, 9, 446-450.	2.0	147
133	Meso-scale oriented simulation towards virtual process engineering (VPE)â€"The EMMS Paradigm. Chemical Engineering Science, 2011, 66, 4426-4458.	1.9	130
134	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
135	A bubble-based EMMS model for gasâ€“solid bubbling fluidization. Chemical Engineering Science, 2011, 66, 5541-5555.	1.9	170
136	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
137	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
138	Acceleration of CFD simulation of gasâ€“solid flow by coupling macro-/meso-scale EMMS model. Powder Technology, 2011, 212, 289-295.	2.1	26
139	A review of multiscale CFD for gasâ€“solid CFB modeling. International Journal of Multiphase Flow, 2010, 36, 109-118.	1.6	143
140	SPH simulation of oil displacement in cavity-fracture structures. Chemical Engineering Science, 2010, 65, 3363-3371.	1.9	17
141	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
142	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
143	3D CFD simulation of hydrodynamics of a 150MWe circulating fluidized bed boiler. Chemical Engineering Journal, 2010, 162, 821-828.	6.6	160
144	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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145	Smoothed particles as a non-Newtonian fluid: A case study in Couette flow. Chemical Engineering Science, 2010, 65, 2258-2262.	1.9	20
146	Molecular dynamics simulation of macromolecules using graphics processing unit. Molecular Simulation, 2010, 36, 1131-1140.	0.9	16
147	å•ç›¸æµåŠ¨æ•°å€¼æ¨¡æ‹Ÿçš„SIMPLEç®—æ³•åœ¨GPUä¸Šçš„å®žçŽ°. Chinese Science Bulletin, 2010, 55, 1979-1986.	0.4	6
148	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
149	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
150	Explicit solvent molecular dynamics simulations of chaperonin-assisted rhodanese folding. Particuology, 2009, 7, 220-224.	2.0	1
151	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
152	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
153	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
154	NO Reduction in Decoupling Combustion of Biomass and Biomassâˆ'Coal Blend. Energy & Fuels, 2009, 23, 224-228.	2.5	30
155	Modeling of Regime Transition in Bubble Columns with Stability Condition. Industrial & Engineering Chemistry Research, 2009, 48, 290-301.	1.8	45
156	Thermal Unfolding of a Double-Domain Protein: Molecular Dynamics Simulation of Rhodanese. Industrial & Engineering Chemistry Research, 2009, 48, 8865-8871.	1.8	6
157	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
158	Molecular dynamics simulation of a single polymer in hydrophilic nano-slits. Science Bulletin, 2008, 53, 2599-2606.	4.3	2
159	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
160	Multiâ€scale CFD simulation of operating diagram for gasâ€“solid risers. Canadian Journal of Chemical Engineering, 2008, 86, 448-457.	0.9	37
161	Granular flow in a rotating drum with gaps in the side wall. Powder Technology, 2008, 182, 241-249.	2.1	23
162	A revised surface tension model for macro-scale particle methods. Powder Technology, 2008, 183, 21-26.	2.1	23

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163	Non-equilibrium phase transitions in suspensions of oppositely driven inertial particles. Powder Technology, 2008, 184, 224-231.	2.1	6
164	Virtual experimentation through 3D full-loop simulation of a circulating fluidized bed. Particuology, 2008, 6, 529-539.	2.0	126
165	Pattern formation in particle systems driven by color field. Particuology, 2008, 6, 515-520.	2.0	3
166	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
167	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
168	Choking and flow regime transitions: Simulation by a multi-scale CFD approach. Chemical Engineering Science, 2007, 62, 814-819.	1.9	60
169	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
170	A discrete particle model for particleâ€"fluid flow with considerations of sub-grid structures. Chemical Engineering Science, 2007, 62, 2302-2308.	1.9	53
171	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
172	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
173	Explorations on the multi-scale flow structure and stability condition in bubble columns. Chemical Engineering Science, 2007, 62, 6978-6991.	1.9	103
174	Effect of particle acceleration/deceleration on particle clustering behavior in dilute gasâ€"solid flow. Chemical Engineering Science, 2006, 61, 7087-7095.	1.9	16
175	Experimental study of the reduction mechanisms of NO emission in decoupling combustion of coal. Fuel Processing Technology, 2006, 87, 803-810.	3.7	51
176	High-resolution simulation of gasâ€"solid suspension using macro-scale particle methods. Chemical Engineering Science, 2006, 61, 7096-7106.	1.9	59
177	A new wall boundary condition in particle methods. Computer Physics Communications, 2006, 174, 386-390.	3.0	16
178	Characterizing particle clustering behavior by PDPA measurement for dilute gasâ€"solid flow. Chemical Engineering Journal, 2005, 108, 193-202.	6.6	44
179	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
180	Parallel implementation of macro-scale pseudo-particle simulation for particleâ€"fluid systems. Computers and Chemical Engineering, 2005, 29, 1543-1553.	2.0	13

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181	Process engineering research in China: A multiscale, market-driven approach. AICHE Journal, 2005, 51, 2620-2627.	1.8	11
182	VOC Adsorption in Circulating Gas Fluidized Bed. Adsorption, 2005, 11, 853-858.	1.4	15
183	Remarks on sino-german workshop on chemical and physical interactions between particles and fluids. Particuology: Science and Technology of Particles, 2005, 3, 143-144.	0.4	1
184	Research collaboration group on multi-scale methodology and complex systems. Particuology: Science and Technology of Particles, 2005, 3, 290-295.	0.4	2
185	MULTI-SCALE MASS TRANSFER MODEL FOR GAS-SOLID TWO-PHASE FLOW. Chemical Engineering Communications, 2005, 192, 1636-1654.	1.5	18
186	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
187	Multiscale analysis and modeling of multiphase chemical reactors. Advanced Powder Technology, 2004, 15, 607-627.	2.0	29
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