Rodney Fox

List of Publications by Year
in descending order

231 papers	10,819 citations	34105 52 h-index	43889 91 g-index
236 all docs	236 docs citations	236 times ranked	4353 citing authors

#	Article	IF	Citations
1	An effectiveness factor model for slurry phase olefin polymerizations. Chemical Engineering Science, 2022, 251, 117429.	3.8	5
2	Hyperbolic Quadrature Method of Moments for the One-Dimensional Kinetic Equation. SIAM Journal on Applied Mathematics, 2022, 82, 750-771.	1.8	10
3	Solution of the first-order conditional moment closure for multiphase reacting flows using quadrature-based moment methods. Chemical Engineering Journal, 2021, 405, 127020.	12.7	2
4	Application of quadrature-based moment methods to the conditional moment closure. Proceedings of the Combustion Institute, 2021, 38, 2749-2757.	3.9	2
5	CFD simulations of stirred-tank reactors for gas-liquid and gas-liquid-solid systems using OpenFOAM^{Â®}. International Journal of Chemical Reactor Engineering, 2021, 19, 193-207.	1.1	12
6	Statistics of velocity fluctuations in a homogeneous liquid fluidized bed. Physical Review Fluids, 2021, 6, .	2.5	0
7	Sparse identification of multiphase turbulence closures for coupled fluidâ€“particle flows. Journal of Fluid Mechanics, 2021, 914, .	3.4	36
8	A Lagrangian probability-density-function model for turbulent particle-laden channel flow in the dense regime. Physics of Fluids, 2021, 33, 053308.	4.0	4
9	The closure issue related to liquidâ€“cell mass transfer and substrate uptake dynamics in biological systems. Biotechnology and Bioengineering, 2021, 118, 2435-2447.	3.3	1
10	Sparse identification of multiphase turbulence closures for coupled fluidâ€“particle flows â€“ CORRIGENDUM. Journal of Fluid Mechanics, 2021, 920, .	3.4	1
11	Coherent structure characteristics of the swirling flow during turbulent mixing in a multi-inlet vortex reactor. Physics of Fluids, 2021, 33, .	4.0	2
12	A quadrature-based moment method for the evolution of the joint size-velocity number density function of a particle population. Computer Physics Communications, 2021, 267, 108072.	7.5	3
13	Multiphase turbulence. , 2021, , 307-371.		3
14	A moment-based kinetic theory model for polydisperse gasâ€“particle flows. Powder Technology, 2020, 365, 92-105.	4.2	12
15	A volume-filtered description of compressible particle-laden flows. International Journal of Multiphase Flow, 2020, 122, 103138.	3.4	61
16	A second-order realizable scheme for moment advection on unstructured grids. Computer Physics Communications, 2020, 248, 106993.	7.5	11
17	QBMMlib: A library of quadrature-based moment methods. SoftwareX, 2020, 12, 100615.	2.6	6
18	Effect of the conditional scalar dissipation rate in the conditional moment closure. Physics of Fluids, 2020, 32, .	4.0	2

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19	A hyperbolic two-fluid model for compressible flows with arbitrary material-density ratios. Journal of Fluid Mechanics, 2020, 903, .	3.4	16
20	A quadrature-based conditional moment closure for mixing-sensitive reactions. Chemical Engineering Science, 2020, 226, 115831.	3.8	2
21	Computational study of buoyancy driven turbulence in statistically homogeneous bubbly flows. Chemical Engineering Science, 2020, 216, 115546.	3.8	14
22	Direct comparison of Eulerianâ€“Eulerian and Eulerianâ€“Lagrangian simulations for particleâ€laden vertical channel flow. AICHE Journal, 2020, 66, e16230.	3.6	12
23	Reynolds-stress modeling of cluster-induced turbulence in particle-laden vertical channel flow. Physical Review Fluids, 2020, 5, .	2.5	15
24	Computational Study of the Effect of Homogeneous and Heterogeneous Bubbly Flows on Bulk Gasâ€“Liquid Heat Transfer. Journal of Fluids Engineering, Transactions of the ASME, 2020, 142, 101402.	1.5	0
25	A delayed detached eddy simulation model with low Reynolds number correction for transitional swirling flow in a multi-inlet vortex nanoprecipitation reactor. Chemical Engineering Science, 2019, 193, 66-75.	3.8	11
26	A kinetic-based hyperbolic two-fluid model for binary hard-sphere mixtures. Journal of Fluid Mechanics, 2019, 877, 282-329.	3.4	23
27	Implementation of pseudo-turbulence closures in an Eulerianâ€“Eulerian two-fluid model for non-isothermal gasâ€“solid flow. Chemical Engineering Science, 2019, 207, 663-671.	3.8	19
28	A quadrature-based moment method for polydisperse bubbly flows. Computer Physics Communications, 2019, 244, 187-204.	7.5	19
29	A Lagrangian probability-density-function model for collisional turbulent fluidâ€“particle flows. Journal of Fluid Mechanics, 2019, 862, 449-489.	3.4	14
30	Experimental characterization of turbulent mixing performance using simultaneous stereoscopic particle image velocimetry and planar laser-induced fluorescence. Experiments in Fluids, 2019, 60, 1.	2.4	12
31	A critical analysis of Powellâ€™s results on the interdivision time distribution. Scientific Reports, 2019, 9, 8165.	3.3	2
32	Three-dimensional conditional hyperbolic quadrature method of moments. Journal of Computational Physics: X, 2019, 1, 100006.	0.7	12
33	Eulerian conditional statistics of turbulent flow in a macroscale multi-inlet vortex chemical reactor. Physics of Fluids, 2019, 31, 115106.	4.0	0
34	Effect of density ratio on velocity fluctuations in dispersed multiphase flow from simulations of finite-size particles. Acta Mechanica, 2019, 230, 469-484.	2.1	20
35	Fluctuations in inertial dense homogeneous suspensions. Physical Review Fluids, 2019, 4, .	2.5	5
36	A two-dimensional population balance model for cell growth including multiple uptake systems. Chemical Engineering Research and Design, 2018, 132, 966-981.	5.6	16

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37	On the hyperbolicity of the two-fluid model for gasâ€“liquid bubbly flows. Applied Mathematical Modelling, 2018, 57, 432-447.	4.2	25
38	On the transition between turbulence regimes in particle-laden channel flows. Journal of Fluid Mechanics, 2018, 845, 499-519.	3.4	55
39	Conditional hyperbolic quadrature method of moments for kinetic equations. Journal of Computational Physics, 2018, 365, 269-293.	3.8	32
40	An open-source quadrature-based population balance solver for OpenFOAM. Chemical Engineering Science, 2018, 176, 306-318.	3.8	37
41	Quadrature-Based Moment Methods for Multiphase Chemically Reacting Flows. Advances in Chemical Engineering, 2018, 52, 1-50.	0.9	8
42	Eulerâ€“euler anisotropic gaussian mesoscale simulation of homogeneous clusterâ€induced gasâ€“particle turbulence. AICHE Journal, 2017, 63, 2630-2643.	3.6	40
43	A solution algorithm for fluidâ€“particle flows across all flow regimes. Journal of Computational Physics, 2017, 344, 575-594.	3.8	24
44	Verification of Eulerianâ€“Eulerian and Eulerianâ€“Lagrangian simulations for turbulent fluidâ€“particle flows. AICHE Journal, 2017, 63, 5396-5412.	3.6	39
45	Application of the Fokker-Planck molecular mixing model to turbulent scalar mixing using moment methods. Physics of Fluids, 2017, 29, 065109.	4.0	14
46	Turbulent mixing in the confined swirling flow of a multiâ€inlet vortex reactor. AICHE Journal, 2017, 63, 2409-2419.	3.6	19
47	Modeling soot oxidation with the Extended Quadrature Method of Moments. Proceedings of the Combustion Institute, 2017, 36, 789-797.	3.9	28
48	Multivariate Gaussian Extended Quadrature Method of Moments for Turbulent Disperse Multiphase Flow. Multiscale Modeling and Simulation, 2017, 15, 1553-1583.	1.6	22
49	Reacting Flows and the Interaction between Turbulence and Chemistry. , 2016, , .		0
50	Dynamic delayed detached eddy simulation of a multiâ€inlet vortex reactor. AICHE Journal, 2016, 62, 2570-2578.	3.6	27
51	Strongly coupled fluid-particle flows in vertical channels. II. Turbulence modeling. Physics of Fluids, 2016, 28, .	4.0	27
52	Strongly coupled fluid-particle flows in vertical channels. I. Reynolds-averaged two-phase turbulence statistics. Physics of Fluids, 2016, 28, .	4.0	31
53	Solution of population balance equations in applications with fine particles: Mathematical modeling and numerical schemes. Journal of Computational Physics, 2016, 325, 129-156.	3.8	75
54	Effect of Domain Size on Fluidâ€“Particle Statistics in Homogeneous, Gravity-Driven, Cluster-Induced Turbulence. Journal of Fluids Engineering, Transactions of the ASME, 2016, 138, .	1.5	23

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55	Modeling of Fine-Particle Formation in Turbulent Flames. Annual Review of Fluid Mechanics, 2016, 48, 159-190.	25.0	82
56	Turbulence in Multiphase Flows. , 2016, , 1-63.		0
57	On fluidâ€“particle dynamics in fully developed cluster-induced turbulence. Journal of Fluid Mechanics, 2015, 780, 578-635.	3.4	128
58	Filtration model for polydisperse aerosols in gasâ€solid flow using granuleâ€resolved direct numerical simulation. AICHE Journal, 2015, 61, 3594-3606.	3.6	7
59	A Batchelor Vortex Model for Mean Velocity of Turbulent Swirling Flow in a Macroscale Multi-Inlet Vortex Reactor. Journal of Fluids Engineering, Transactions of the ASME, 2015, 137, .	1.5	16
60	Flow Characteristics in a Scaled-up Multi-inlet Vortex Nanoprecipitation Reactor. Industrial & Engineering Chemistry Research, 2015, 54, 4512-4525.	3.7	32
61	Reduced Chemical Kinetics for the Modeling of TiO2 Nanoparticle Synthesis in Flame Reactors. Industrial & Engineering Chemistry Research, 2015, 54, 5407-5415.	3.7	9
62	Large eddy simulation of passive scalar transport in a high Schmidt number turbulent incompressible wake with experimental validation. Chemical Engineering Science, 2015, 137, 862-874.	3.8	5
63	Application of quadrature-based uncertainty quantification to the NETL small-scale challenge problem SSCP-I. Powder Technology, 2015, 272, 100-112.	4.2	10
64	Computational Modeling of Biomass Thermochemical Conversion in Fluidized Beds: Particle Density Variation and Size Distribution. Industrial & Engineering Chemistry Research, 2015, 54, 4084-4094.	3.7	34
65	EULERIAN MOMENT METHODS FOR AUTOMOTIVE SPRAYS. Atomization and Sprays, 2015, 25, 189-254.	0.8	13
66	Investigation of Turbulent Mixing in a Macro-Scale Multi-Inlet Vortex Nanoprecipitation Reactor by Stereoscopic-PIV. , 2014, , .		2
67	Towards Eulerian Modeling of a Polydisperse Evaporating Spray Under Realistic Internal-Combustion-Engine Conditions. Flow, Turbulence and Combustion, 2014, 93, 689-722.	2.6	9
68	Micromixing visualization and quantification in a microscale multi-inlet vortex nanoprecipitation reactor using confocal-based reactive micro laser-induced fluorescence. Biomicrofluidics, 2014, 8, 044102.	2.4	6
69	Numerical study of collisional particle dynamics in cluster-induced turbulence. Journal of Fluid Mechanics, 2014, 747, .	3.4	75
70	Effect of inlet conditions on the accuracy of large eddy simulations of a turbulent rectangular wake. Chemical Engineering Journal, 2014, 250, 175-189.	12.7	9
71	Reprint of: Multi-fluid CFD modeling of biomass gasification in polydisperse fluidized-bed gasifiers. Powder Technology, 2014, 265, 23-34.	4.2	14
72	Largeâ€eddy simulation modeling of turbulent flame synthesis of titania nanoparticles using a bivariate particle description. AICHE Journal, 2014, 60, 459-472.	3.6	18

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73	Multi-fluid CFD modeling of biomass gasification in polydisperse fluidized-bed gasifiers. Powder Technology, 2014, 254, 187-198.	4.2	57
74	An extended quadratureâ€based massâ€velocity moment model for polydisperse bubbly flows. Canadian Journal of Chemical Engineering, 2014, 92, 2053-2066.	1.7	19
75	Characterization of sheared colloidal aggregation using Langevin dynamics simulation. Physical Review E, 2014, 89, 062312.	2.1	17
76	On multiphase turbulence models for collisional fluidâ€“particle flows. Journal of Fluid Mechanics, 2014, 742, 368-424.	3.4	162
77	Quadrature-Based Moment Methods for Polydisperse Multiphase Flows. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2014, , 87-136.	0.6	3
78	Numerical study of mixing and segregation in a biomass fluidized bed. Powder Technology, 2013, 237, 355-366.	4.2	38
79	Multivariate Quadrature-Based Moments Methods for turbulent polydisperse gasâ€liquid systems. International Journal of Multiphase Flow, 2013, 50, 41-57.	3.4	78
80	Realizable high-order finite-volume schemes for quadrature-based moment methods applied to diffusion population balance equations. Journal of Computational Physics, 2013, 249, 162-179.	3.8	27
81	Computational and experimental study of electrostatics in gasâ€solid polymerization fluidized beds. Chemical Engineering Science, 2013, 92, 146-156.	3.8	43
82	Radiation transport modeling using extended quadrature method of moments. Journal of Computational Physics, 2013, 246, 221-241.	3.8	25
83	Quantifying mixing in 3D binary particulate systems. Chemical Engineering Science, 2013, 93, 412-422.	3.8	4
84	On the role of gas-phase and surface chemistry in the production of titania nanoparticles in turbulent flames. Chemical Engineering Science, 2013, 104, 1003-1018.	3.8	23
85	Equilibrium-Eulerian LES Model for Turbulent Poly-dispersed Particle-laden Flow. International Journal of Nonlinear Sciences and Numerical Simulation, 2013, 14, 139-158.	1.0	3
86	Measurements of turbulence in a microscale multi-inlet vortex nanoprecipitation reactor. Journal of Micromechanics and Microengineering, 2013, 23, 075005.	2.6	23
87	Coarse-Graining Approach to Infer Mesoscale Interaction Potentials from Atomistic Interactions for Aggregating Systems. Industrial & Engineering Chemistry Research, 2012, 51, 16116-16134.	3.7	7
88	An extended quadrature method of moments for population balance equations. Journal of Aerosol Science, 2012, 51, 1-23.	3.8	174
89	Large-Eddy-Simulation Tools for Multiphase Flows. Annual Review of Fluid Mechanics, 2012, 44, 47-76.	25.0	185
90	Quadrature-based moment closures for non-equilibrium flows: Hard-sphere collisions and approach to equilibrium. Journal of Computational Physics, 2012, 231, 7431-7449.	3.8	9

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91	Turbulence measurements in a rectangular mesoscale confined impinging jets reactor. Experiments in Fluids, 2012, 53, 1929-1941.	2.4	5
92	Predictive capability of Large Eddy Simulation for point-wise and spatial turbulence statistics in a confined rectangular jet. Chemical Engineering Science, 2012, 69, 240-256.	3.8	8
93	Experimental validation and CFD modeling study of biomass fast pyrolysis in fluidized-bed reactors. Fuel, 2012, 97, 757-769.	6.4	143
94	Confocal imaging of laminar and turbulent mixing in a microscale multi-inlet vortex nanoprecipitation reactor. Applied Physics Letters, 2011, 99, 204103.	3.3	17
95	A Quadrature-Based Kinetic Model for Dilute Non-Isothermal Granular Flows. Communications in Computational Physics, 2011, 10, 216-252.	1.7	30
96	Conditional quadrature method of moments for kinetic equations. Journal of Computational Physics, 2011, 230, 8216-8246.	3.8	186
97	Implementation of an iterative solution procedure for multi-fluid gasâ€“particle flow models on unstructured grids. Powder Technology, 2011, 213, 174-187.	4.2	78
98	On the apparent particle dispersion in granular media. Advanced Powder Technology, 2011, 22, 728-734.	4.1	3
99	Large-eddy-simulation-based multiscale modeling of TiO2 nanoparticle synthesis in a turbulent flame reactor using detailed nucleation chemistry. Chemical Engineering Science, 2011, 66, 4370-4381.	3.8	39
100	Population, characteristics and kinematics of vortices in a confined rectangular jet with a co-flow. Experiments in Fluids, 2011, 50, 1473-1493.	2.4	8
101	Realizable high-order finite-volume schemes for quadrature-based moment methods. Journal of Computational Physics, 2011, 230, 5328-5352.	3.8	88
102	Validation of LES predictions for turbulent flow in a Confined Impinging Jets Reactor. Applied Mathematical Modelling, 2011, 35, 1591-1602.	4.2	37
103	Advanced continuum modelling of gas-particle flows beyond the hydrodynamic limit. Applied Mathematical Modelling, 2011, 35, 1616-1627.	4.2	36
104	Investigation of the flow field in a three-dimensional Confined Impinging Jets Reactor by means of microPIV and DNS. Chemical Engineering Journal, 2011, 166, 294-305.	12.7	62
105	Modeling of bubble-column flows with quadrature-based moment methods. Chemical Engineering Science, 2011, 66, 3058-3070.	3.8	23
106	A CFD model for biomass fast pyrolysis in fluidized-bed reactors. Chemical Engineering Science, 2011, 66, 2440-2452.	3.8	175
107	A level set approach for dilute non-collisional fluid-particle flows. Journal of Computational Physics, 2011, 230, 920-936.	3.8	5
108	Visualization of turbulent reactive mixing in a planar microscale confined impinging-jet reactor. Journal of Micromechanics and Microengineering, 2011, 21, 115006.	2.6	8

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109	CFD Modeling of Electrostatic Forces in Gas-Solid Fluidized Beds. Journal of Computational Multiphase Flows, 2010, 2, 189-205.	0.8	14
110	Investigation of passive scalar mixing in a confined rectangular wake using simultaneous PIV and PLIF. Chemical Engineering Science, 2010, 65, 3372-3383.	3.8	13
111	Direct numerical simulation of gasâ€“solid suspensions at moderate Reynolds number: Quantifying the coupling between hydrodynamic forces and particle velocity fluctuations. Powder Technology, 2010, 203, 57-69.	4.2	74
112	Computational fluid dynamics and electrostatic modeling of polymerization fluidized-bed reactors. Powder Technology, 2010, 203, 109-124.	4.2	103
113	Eulerian Quadrature-Based Moment Models for Dilute Polydisperse Evaporating Sprays. Flow, Turbulence and Combustion, 2010, 85, 649-676.	2.6	36
114	Experimental validation of CFD simulations of a labâ€scale fluidizedâ€bed reactor with and without sideâ€gas injection. AICHE Journal, 2010, 56, 1434-1446.	3.6	63
115	A competitive aggregation model for Flash NanoPrecipitation. Journal of Colloid and Interface Science, 2010, 351, 330-342.	9.4	53
116	Coarse-grained computation for particle coagulation and sintering processes by linking Quadrature Method of Moments with Monte-Carlo. Journal of Computational Physics, 2010, 229, 5299-5314.	3.8	10
117	A fully coupled quadrature-based moment method for dilute to moderately dilute fluidâ€“particle flows. Chemical Engineering Science, 2010, 65, 2267-2283.	3.8	65
118	Turbulent precipitation in micromixers: CFD simulation and flow field validation. Chemical Engineering Research and Design, 2010, 88, 1182-1193.	5.6	39
119	Quadrature-Based Moment Model for Moderately Dense Polydisperse Gasâ^'Particle Flows. Industrial & Engineering Chemistry Research, 2010, 49, 5174-5187.	3.7	44
120	Theoretical Study of the Pyrolysis of Methyltrichlorosilane in the Gas Phase. 3. Reaction Rate Constant Calculations. Journal of Physical Chemistry A, 2010, 114, 2384-2392.	2.5	60
121	Kinetic Modeling of Nanoprecipitation using CFD Coupled with a Population Balance. Industrial & Engineering Chemistry Research, 2010, 49, 10651-10662.	3.7	57
122	Multiscale Modeling of TiO₂ Nanoparticle Production in Flame Reactors: Effect of Chemical Mechanism. Industrial & Engineering Chemistry Research, 2010, 49, 10663-10673.	3.7	30
123	Development of High-Order Realizable Finite-Volume Schemes for Quadrature-Based Moment Method. , 2010, , .		6
124	Higher-order quadrature-based moment methods for kinetic equations. Journal of Computational Physics, 2009, 228, 7771-7791.	3.8	66
125	Eulerian models for turbulent spray combustion with polydispersity and droplet crossing. Comptes Rendus - Mecanique, 2009, 337, 438-448.	2.1	38
126	Optimal Moment Sets for Multivariate Direct Quadrature Method of Moments. Industrial & Engineering Chemistry Research, 2009, 48, 9686-9696.	3.7	48

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127	A microscale multi-inlet vortex nanoprecipitation reactor: Turbulence measurement and simulation. Applied Physics Letters, 2009, 94, 204104.	3.3	51
128	Validation of Two-Fluid Simulations of a Pseudo-Two-Dimensional Bubble Column with Uniform and Nonuniform Aeration. Industrial & Engineering Chemistry Research, 2009, 48, 8134-8147.	3.7	9
129	Turbulence in a microscale planar confined impinging-jets reactor. Lab on A Chip, 2009, 9, 1110.	6.0	45
130	Segregation in polydisperse fluidized beds: Validation of a multi-fluid model. Chemical Engineering Science, 2008, 63, 272-285.	3.8	125
131	A quadrature-based third-order moment method for dilute gas-particle flows. Journal of Computational Physics, 2008, 227, 6313-6350.	3.8	118
132	Large eddy simulations of incompressible turbulent flows using parallel computing techniques. International Journal for Numerical Methods in Fluids, 2008, 56, 1819-1843.	1.6	8
133	A quadrature-based moment method for dilute fluid-particle flows. Journal of Computational Physics, 2008, 227, 2514-2539.	3.8	140
134	Numerical simulation of spray coalescence in an Eulerian framework: Direct quadrature method of moments and multi-fluid method. Journal of Computational Physics, 2008, 227, 3058-3088.	3.8	116
135	Mixing in a multi-inlet vortex mixer (MIVM) for flash nano-precipitation. Chemical Engineering Science, 2008, 63, 2829-2842.	3.8	319
136	On Brownian Dynamics Simulation of Nanoparticle Aggregation. Industrial & Engineering Chemistry Research, 2008, 47, 3338-3345.	3.7	19
137	Conditional statistics of passive-scalar mixing in a confined wake flow. Physics of Fluids, 2008, 20, 077105.	4.0	3
138	A term-by-term direct numerical simulation validation study of the multi-environment conditional probability-density-function model for turbulent reacting flows. Physics of Fluids, 2007, 19, 085102.	4.0	7
139	Conditional statistics for passive-scalar mixing in a confined rectangular turbulent jet. Physics of Fluids, 2007, 19, 055104.	4.0	7
140	Theoretical Study of the Pyrolysis of Methyltrichlorosilane in the Gas Phase. 2. Reaction Paths and Transition States. Journal of Physical Chemistry A, 2007, 111, 1475-1486.	2.5	46
141	Introduction and Fundamentals of Modeling Approaches for Polydisperse Multiphase Flows. , 2007, , 1-40.		11
142	Theoretical Study of the Pyrolysis of Methyltrichlorosilane in the Gas Phase. 1. Thermodynamics. Journal of Physical Chemistry A, 2007, 111, 1462-1474.	2.5	43
143	Effect of model formulation on flow-regime predictions for bubble columns. AICHE Journal, 2007, 53, 9-18.	3.6	19
144	Numerical study on the turbulent reacting flow in the vicinity of the injector of an LDPE tubular reactor. Chemical Engineering Science, 2007, 62, 2435-2444.	3.8	9

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145	A quadrature closure for the reaction-source term in conditional-moment closure. Proceedings of the Combustion Institute, 2007, 31, 1675-1682.	3.9	8
146	Population balance modeling of aggregation and breakage in turbulent Taylorâ€“Couette flow. Journal of Colloid and Interface Science, 2007, 307, 433-446.	9.4	44
147	Multi-environment probability density function method for modelling turbulent combustion using realistic chemical kinetics. Combustion Theory and Modelling, 2007, 11, 889-907.	1.9	49
148	Simultaneous velocity and concentration field measurements of passive-scalar mixing in a confined rectangular jet. Experiments in Fluids, 2007, 42, 847-862.	2.4	35
149	Linear stability analysis of a two-fluid model for airâ€“water bubble columns. Chemical Engineering Science, 2007, 62, 3159-3177.	3.8	51
150	CFD Models for Analysis and Design of Chemical Reactors. Advances in Chemical Engineering, 2006, 31, 231-305.	0.9	32
151	Bivariate direct quadrature method of moments for coagulation and sintering of particle populations. Journal of Aerosol Science, 2006, 37, 1562-1580.	3.8	51
152	Momentum Transfer Between Polydisperse Particles in Dense Granular Flow. Journal of Fluids Engineering, Transactions of the ASME, 2006, 128, 62-68.	1.5	9
153	Implementation of the population balance equation in CFD codes for modelling soot formation in turbulent flames. Chemical Engineering Science, 2006, 61, 87-95.	3.8	107
154	Turbulent mixing in a confined rectangular wake. Chemical Engineering Science, 2006, 61, 6946-6962.	3.8	27
155	Simulations of mixing for a confined co-flowing planar jet. Computers and Fluids, 2006, 35, 1228-1238.	2.5	4
156	Destructive aggregation: Aggregation with collision-induced breakage. Journal of Colloid and Interface Science, 2006, 302, 149-158.	9.4	25
157	CFD predictions for chemical processing in a confined impinging-jets reactor. AICHE Journal, 2006, 52, 731-744.	3.6	177
158	Eulerian transported probability density function sub-filter model for large-eddy simulations of turbulent combustion. Combustion Theory and Modelling, 2006, 10, 439-458.	1.9	65
159	Wavelet-based Spatiotemporal Multiscaling in Diffusion Problems with Chemically Reactive Boundary. International Journal for Multiscale Computational Engineering, 2006, 4, 755-770.	1.2	13
160	Conditional Statistics for Passive-Scalar Mixing in Confined Turbulent Shear Flows. , 2006, , .		0
161	CFD simulation of aggregation and breakage processes in laminar Taylorâ€“Couette flow. Journal of Colloid and Interface Science, 2005, 282, 380-396.	9.4	85
162	CFD simulation of shear-induced aggregation and breakage in turbulent Taylorâ€“Couette flow. Journal of Colloid and Interface Science, 2005, 285, 167-178.	9.4	49

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163	Hybrid large-eddy simulation/Lagrangian filtered-density-function approach for simulating turbulent combustion. Combustion and Flame, 2005, 143, 56-78.	5.2	163
164	PDF simulations of ethylene decomposition in tubular LDPE reactors. AICHE Journal, 2005, 51, 585-606.	3.6	32
165	CFD predictions for flow-regime transitions in bubble columns. AICHE Journal, 2005, 51, 1897-1923.	3.6	101
166	Investigation of turbulent mixing in a confined planar-jet reactor. AICHE Journal, 2005, 51, 2649-2664.	3.6	64
167	Objective decomposition of the stress tensor in granular flows. Physical Review E, 2005, 71, 021302.	2.1	19
168	Solution of population balance equations using the direct quadrature method of moments. Journal of Aerosol Science, 2005, 36, 43-73.	3.8	654
169	On the Comparison between Population Balance Models for CFD Simulation of Bubble Columns. Industrial & Engineering Chemistry Research, 2005, 44, 5063-5072.	3.7	120
170	A multienvironment conditional probability density function model for turbulent reacting flows. Physics of Fluids, 2004, 16, 4551-4565.	4.0	25
171	Application of the direct quadrature method of moments to polydisperse gasâ€“solid fluidized beds. Powder Technology, 2004, 139, 7-20.	4.2	245
172	Scale up of gas-phase chlorination reactors using CFD. Chemical Engineering Science, 2004, 59, 5167-5176.	3.8	5
173	Comparison of micromixing models for CFD simulation of nanoparticle formation. AICHE Journal, 2004, 50, 2217-2232.	3.6	69
174	Hybrid finite-volume/transported PDF simulations of a partially premixed methaneâ€“air flame. Combustion and Flame, 2004, 136, 327-350.	5.2	77
175	Simulations of multiphase reactive flows in fluidized beds usingin situadaptive tabulation. Combustion Theory and Modelling, 2004, 8, 195-209.	1.9	26
176	Dynamics of scalar dissipation in isotropic turbulence: a numerical and modelling study. Journal of Fluid Mechanics, 2004, 503, 377-377.	3.4	1
177	Treatment of Fast Chemistry in FDF/LES: In Situ Adaptive Tabulation. , 2004, , .		0
178	Momentum Transfer Between Polydisperse Particles in Granular Flow. , 2004, , .		0
179	Quadrature method of moments for population-balance equations. AICHE Journal, 2003, 49, 1266-1276.	3.6	355
180	Implementation of the quadrature method of moments in CFD codes for aggregationâ€“breakage problems. Chemical Engineering Science, 2003, 58, 3337-3351.	3.8	210

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181	Application of in situ adaptive tabulation to CFD simulation of nano-particle formation by reactive precipitation. Chemical Engineering Science, 2003, 58, 4387-4401.	3.8	34
182	Quadrature method of moments for aggregationâ€“breakage processes. Journal of Colloid and Interface Science, 2003, 258, 322-334.	9.4	441
183	Effect of Feed-Stream Configuration on Gas-Phase Chlorination Reactor Performance. Industrial & Engineering Chemistry Research, 2003, 42, 2544-2557.	3.7	14
184	Improved Lagrangian mixing models for passive scalars in isotropic turbulence. Physics of Fluids, 2003, 15, 961-985.	4.0	31
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