

Kun Luo

List of Publications by Year in descending order

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259
papers

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citations

71102

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docs citations

261
times ranked

5638
citing authors

#	ARTICLE	IF	CITATIONS
1	Charge-compensation in 3d-transition-metal-oxide intercalation cathodes through the generation of localized electron holes on oxygen. <i>Nature Chemistry</i> , 2016, 8, 684-691.	13.6	898
2	Anion Redox Chemistry in the Cobalt Free 3d Transition Metal Oxide Intercalation Electrode $\text{Li}[\text{Li}_{0.2}\text{Ni}_{0.2}\text{Mn}_{0.6}]\text{O}_2$. <i>Journal of the American Chemical Society</i> , 2016, 138, 11211-11218.	13.7	271
3	Combined multi-direct forcing and immersed boundary method for simulating flows with moving particles. <i>International Journal of Multiphase Flow</i> , 2008, 34, 283-302.	3.4	221
4	Size-Dependent Kinetic Enhancement in Hydrogen Absorption and Desorption of the $\text{Li}^{\sim}\text{Mg}^{\sim}\text{Na}^{\sim}\text{H}$ System. <i>Journal of the American Chemical Society</i> , 2009, 131, 1862-1870.	13.7	193
5	CFD-DEM coupled with thermochemical sub-models for biomass gasification: Validation and sensitivity analysis. <i>Chemical Engineering Science</i> , 2020, 217, 115550.	3.8	123
6	Investigations of data-driven closure for subgrid-scale stress in large-eddy simulation. <i>Physics of Fluids</i> , 2018, 30, 125101.	4.0	122
7	CFD-DEM simulation of heat transfer in fluidized beds: Model verification, validation, and application. <i>Chemical Engineering Science</i> , 2019, 197, 280-295.	3.8	116
8	Impact of operating parameters on biomass gasification in a fluidized bed reactor: An Eulerian-Lagrangian approach. <i>Powder Technology</i> , 2018, 333, 304-316.	4.2	112
9	Full-scale solutions to particle-laden flows: Multidirect forcing and immersed boundary method. <i>Physical Review E</i> , 2007, 76, 066709.	2.1	108
10	A comprehensive study on estimating higher heating value of biomass from proximate and ultimate analysis with machine learning approaches. <i>Energy</i> , 2019, 188, 116077.	8.8	102
11	CFD-DEM modelling of hydraulic conveying of solid particles in a vertical pipe. <i>Powder Technology</i> , 2019, 354, 893-905.	4.2	97
12	CFD-DEM study of the effect of cyclone arrangements on the gas-solid flow dynamics in the full-loop circulating fluidized bed. <i>Chemical Engineering Science</i> , 2017, 172, 199-215.	3.8	96
13	Immersed boundary method for the simulation of flows with heat transfer. <i>International Journal of Heat and Mass Transfer</i> , 2009, 52, 4510-4518.	4.8	86
14	Parallel LES-DEM simulation of dense flows in fluidized beds. <i>Applied Thermal Engineering</i> , 2017, 111, 1523-1535.	6.0	79
15	Influences of operating parameters on the fluidized bed coal gasification process: A coarse-grained CFD-DEM study. <i>Chemical Engineering Science</i> , 2019, 195, 693-706.	3.8	76
16	Particle-resolved direct numerical simulation of gas-solid dynamics in experimental fluidized beds. <i>AIChE Journal</i> , 2016, 62, 1917-1932.	3.6	74
17	Parallel CFD-DEM modeling of the hydrodynamics in a lab-scale double slot-rectangular spouted bed with a partition plate. <i>Chemical Engineering Journal</i> , 2014, 236, 158-170.	12.7	73
18	DEM-LES study of 3-D bubbling fluidized bed with immersed tubes. <i>Chemical Engineering Science</i> , 2008, 63, 3654-3663.	3.8	72

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19	Predictive single-step kinetic model of biomass devolatilization for CFD applications: A comparison study of empirical correlations (EC), artificial neural networks (ANN) and random forest (RF). <i>Renewable Energy</i> , 2019, 136, 104-114.	8.9	72
20	Charging Mechanism of Li_2MnO_3 . <i>Chemistry of Materials</i> , 2020, 32, 3733-3740.	6.7	68
21	High-fidelity simulation of the 3-D full-loop gas-solid flow characteristics in the circulating fluidized bed. <i>Chemical Engineering Science</i> , 2015, 123, 22-38.	3.8	67
22	Particle-scale investigation of the solid dispersion and residence properties in a 3D spouted fluid bed. <i>AIChE Journal</i> , 2014, 60, 2788-2804.	3.6	65
23	A mass conserving level set method for detailed numerical simulation of liquid atomization. <i>Journal of Computational Physics</i> , 2015, 298, 495-519.	3.8	60
24	Computational Fluid Dynamics-Discrete Element Method Investigation of Solid Mixing Characteristics in an Internally Circulating Fluidized Bed. <i>Industrial & Engineering Chemistry Research</i> , 2013, 52, 7556-7568.	3.7	57
25	LES of pulverized coal combustion with a multi-regime flamelet model. <i>Fuel</i> , 2017, 188, 661-671.	6.4	57
26	Impacts of compound extreme weather events on ozone in the present and future. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 9861-9877.	4.9	55
27	CFD-DEM study of mixing and dispersion behaviors of solid phase in a bubbling fluidized bed. <i>Powder Technology</i> , 2015, 274, 482-493.	4.2	54
28	A ghost-cell immersed boundary method for simulations of heat transfer in compressible flows under different boundary conditions. <i>International Journal of Heat and Mass Transfer</i> , 2016, 92, 708-717.	4.8	54
29	Direct Numerical Simulation of Pulverized Coal Combustion in a Hot Vitiated Co-flow. <i>Energy & Fuels</i> , 2012, 26, 6128-6136.	5.1	53
30	Large eddy simulation of a semi-industrial scale coal furnace using non-adiabatic three-stream flamelet/progress variable model. <i>Applied Energy</i> , 2016, 183, 1086-1097.	10.1	49
31	Experimental study of extracting alumina from coal fly ash using fluidized beds at high temperature. <i>Fuel</i> , 2017, 199, 22-27.	6.4	49
32	Modeling and analysis of flow regimes in hydraulic conveying of coarse particles. <i>Powder Technology</i> , 2020, 373, 543-554.	4.2	48
33	LES-DEM investigation of an internally circulating fluidized bed: Effects of gas and solid properties. <i>Chemical Engineering Journal</i> , 2013, 228, 583-595.	12.7	47
34	Discrete element simulation of the hydrodynamics in a 3D spouted bed: Influence of tube configuration. <i>Powder Technology</i> , 2013, 243, 85-95.	4.2	46
35	Direct numerical simulation of a particle-laden flow in a flat plate boundary layer. <i>International Journal of Multiphase Flow</i> , 2016, 79, 124-143.	3.4	46
36	Formation Reactions and the Thermodynamics and Kinetics of Dehydrogenation Reaction of Mixed Alanate $\text{Na}_2\text{LiAlH}_6$. <i>Journal of Physical Chemistry C</i> , 2009, 113, 7978-7984.	3.1	45

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37	Evaluation of flamelet/progress variable model for laminar pulverized coal combustion. <i>Physics of Fluids</i> , 2017, 29, .	4.0	45
38	Numerical prediction of wear in SAG mills based on DEM simulations. <i>Powder Technology</i> , 2018, 329, 353-363.	4.2	45
39	Particle Dispersion and Circulation Patterns in a 3D Spouted Bed with or without Draft Tube. <i>Industrial & Engineering Chemistry Research</i> , 2013, 52, 9620-9631.	3.7	44
40	Large eddy simulation of piloted pulverised coal combustion using extended flamelet/progress variable model. <i>Combustion Theory and Modelling</i> , 2017, 21, 925-953.	1.9	44
41	Large Eddy Simulation of piloted pulverized coal combustion using the velocity-scalar joint filtered density function model. <i>Fuel</i> , 2015, 158, 494-502.	6.4	42
42	One-Pot Synthesis of Lithium-Rich Cathode Material with Hierarchical Morphology. <i>Nano Letters</i> , 2016, 16, 7503-7508.	9.1	42
43	Analysis of pulverized coal flame stabilized in a 3D laminar counterflow. <i>Combustion and Flame</i> , 2018, 189, 106-125.	5.2	42
44	A modified immersed boundary method for simulations of fluid-particle interactions. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2007, 197, 36-46.	6.6	41
45	An augmented coarse-grained CFD-DEM approach for simulation of fluidized beds. <i>Advanced Powder Technology</i> , 2020, 31, 4420-4427.	4.1	41
46	Reaction Pathways Determined by Mechanical Milling Process for Dehydrogenation/Hydrogenation of the $\text{LiNH}_2/\text{MgH}_2$ System. <i>Chemistry - A European Journal</i> , 2010, 16, 693-702.	3.3	40
47	A ghost-cell based high-order immersed boundary method for inter-phase heat transfer simulation. <i>International Journal of Heat and Mass Transfer</i> , 2014, 75, 302-312.	4.8	40
48	Predicting kinetic parameters for coal devolatilization by means of Artificial Neural Networks. <i>Proceedings of the Combustion Institute</i> , 2019, 37, 2943-2950.	3.9	40
49	Numerical simulation of temperature effect on particles behavior via electrostatic precipitators. <i>Applied Thermal Engineering</i> , 2015, 88, 127-139.	6.0	39
50	Numerical study of a lab-scale double slot-rectangular spouted bed with the parallel CFD-DEM coupling approach. <i>Powder Technology</i> , 2015, 272, 85-99.	4.2	39
51	Modulation of turbulence by dispersed solid particles in a spatially developing flat-plate boundary layer. <i>Journal of Fluid Mechanics</i> , 2016, 802, 359-394.	3.4	39
52	Effect of superficial gas velocity on solid behaviors in a full-loop CFB. <i>Powder Technology</i> , 2018, 333, 91-105.	4.2	39
53	Direct numerical simulation of droplet breakup in homogeneous isotropic turbulence: The effect of the Weber number. <i>International Journal of Multiphase Flow</i> , 2018, 107, 263-274.	3.4	39
54	Detailed numerical simulation of swirling primary atomization using a mass conservative level set method. <i>International Journal of Multiphase Flow</i> , 2017, 89, 57-68.	3.4	38

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55	Assessment of winter air pollution episodes using long-range transport modeling in Hangzhou, China, during World Internet Conference, 2015. <i>Environmental Pollution</i> , 2018, 236, 550-561.	7.5	38
56	LES-DEM investigation of gas-solid flow dynamics in an internally circulating fluidized bed. <i>Chemical Engineering Science</i> , 2013, 101, 213-227.	3.8	37
57	Direct numerical simulation of particle dispersion in a turbulent jet considering inter-particle collisions. <i>International Journal of Multiphase Flow</i> , 2008, 34, 723-733.	3.4	36
58	CFD-DEM study of the effect of ring baffles on system performance of a full-loop circulating fluidized bed. <i>Chemical Engineering Science</i> , 2019, 196, 130-144.	3.8	36
59	DNS analysis of a three-dimensional supersonic turbulent lifted jet flame. <i>Fuel</i> , 2013, 108, 691-698.	6.4	35
60	A three mixture fraction flamelet model for multi-stream laminar pulverized coal combustion. <i>Proceedings of the Combustion Institute</i> , 2019, 37, 2901-2910.	3.9	35
61	LES-DEM investigation of the time-related solid phase properties and improvements of flow uniformity in a dual-side refeed CFB. <i>Chemical Engineering Journal</i> , 2017, 313, 858-872.	12.7	35
62	High-fidelity resolution of the characteristic structures of a supersonic hydrogen jet flame with heated co-flow air. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 3528-3539.	7.1	34
63	Direct numerical simulation of a particle-laden low Reynolds number turbulent round jet. <i>International Journal of Multiphase Flow</i> , 2011, 37, 539-554.	3.4	33
64	Heat transfer and erosion mechanisms of an immersed tube in a bubbling fluidized bed: A LES-DEM approach. <i>International Journal of Thermal Sciences</i> , 2016, 100, 357-371.	4.9	33
65	Micrositing of roof mounting wind turbine in urban environment: CFD simulations and lidar measurements. <i>Renewable Energy</i> , 2018, 115, 1118-1133.	8.9	33
66	DNS investigation on flame structure and scalar dissipation of a supersonic lifted hydrogen jet flame in heated coflow. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 9886-9896.	7.1	32
67	Computational Fluid Dynamics-Discrete Element Method Investigation of Pressure Signals and Solid Back-Mixing in a Full-Loop Circulating Fluidized Bed. <i>Industrial & Engineering Chemistry Research</i> , 2017, 56, 799-813.	3.7	32
68	Direct numerical simulation of a near-field particle-laden plane turbulent jet. <i>Physical Review E</i> , 2004, 70, 026303.	2.1	31
69	Large-eddy simulation and wind-tunnel measurement of aerodynamics and aeroacoustics of a horizontal-axis wind turbine. <i>Renewable Energy</i> , 2015, 77, 351-362.	8.9	30
70	Detailed numerical simulation of unsteady drag coefficient of deformable droplet. <i>Chemical Engineering Journal</i> , 2017, 308, 619-631.	12.7	30
71	The effects of collisional parameters on the hydrodynamics and heat transfer in spouted bed: A CFD-DEM study. <i>Powder Technology</i> , 2019, 353, 132-144.	4.2	30
72	Mesoscale simulations of a real onshore wind power base in complex terrain: Wind farm wake behavior and power production. <i>Energy</i> , 2022, 241, 122873.	8.8	30

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73	Effects of turbulent intensity and droplet diameter on spray combustion using direct numerical simulation. <i>Fuel</i> , 2014, 121, 311-318.	6.4	29
74	A ghost-cell immersed boundary method for the simulations of heat transfer in compressible flows under different boundary conditions Part-II: Complex geometries. <i>International Journal of Heat and Mass Transfer</i> , 2017, 104, 98-111.	4.8	29
75	Multiscale investigation of tube erosion in fluidized bed based on CFD-DEM simulation. <i>Chemical Engineering Science</i> , 2018, 183, 60-74.	3.8	29
76	Computational Fluid Dynamics/Discrete Element Method Investigation on the Biomass Fast Pyrolysis: The Influences of Shrinkage Patterns and Operating Parameters. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 1404-1416.	3.7	29
77	Transient, three-dimensional simulation of particle dispersion in flows around a circular cylinder	6.4	28
78	Direct numerical simulation and analysis of a hydrogen/air swirling premixed flame in a micro combustor. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 13838-13849.	7.1	28
79	Influences of operating parameters on the hydrodynamics of a 3-D spoutâ€fluid bed based on DEM modeling approach. <i>Chemical Engineering Journal</i> , 2014, 247, 161-173.	12.7	28
80	Influence of particle shape on liner wear in tumbling mills: A DEM study. <i>Powder Technology</i> , 2019, 350, 26-35.	4.2	28
81	DEM investigation of the axial dispersion behavior of a binary mixture in the rotating drum. <i>Powder Technology</i> , 2018, 330, 93-104.	4.2	27
82	Analysis and development of novel data-driven drag models based on direct numerical simulations of fluidized beds. <i>Chemical Engineering Science</i> , 2021, 231, 116245.	3.8	27
83	Direct numerical simulation of heat transfer in a spatially developing turbulent boundary layer. <i>Physics of Fluids</i> , 2016, 28, .	4.0	26
84	Numerical investigation of two-phase flame structures in a simplified coal jet flame. <i>Fuel</i> , 2016, 182, 944-957.	6.4	26
85	Direct numerical simulation of turbulence modulation by particles in compressible isotropic turbulence. <i>Journal of Fluid Mechanics</i> , 2017, 832, 438-482.	3.4	26
86	Particle-Scale Investigation of Heat Transfer and Erosion Characteristics in a Three-Dimensional Circulating Fluidized Bed. <i>Industrial & Engineering Chemistry Research</i> , 2018, 57, 6774-6789.	3.7	26
87	Three-dimensional full-loop numerical simulation of co-combustion of coal and refuse derived fuel in a pilot-scale circulating fluidized bed boiler. <i>Chemical Engineering Science</i> , 2020, 220, 115612.	3.8	25
88	A comprehensive numerical investigation on the hydrodynamics and erosion characteristics in a pressurized fluidized bed with dense immersed tube bundles. <i>Chemical Engineering Science</i> , 2016, 153, 129-145.	3.8	24
89	Ignition dynamics of DME/methane-air reactive mixing layer under reactivity controlled compression ignition conditions: Effects of cool flames. <i>Applied Energy</i> , 2019, 249, 343-354.	10.1	24
90	Direct numerical simulation on auto-ignition characteristics of turbulent supercritical hydrothermal flames. <i>Combustion and Flame</i> , 2019, 200, 354-364.	5.2	24

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91	Direct Numerical Simulation Study of an Experimental Lifted H_2/N_2 Flame. Part 1: Validation and Flame Structure. <i>Energy & Fuels</i> , 2012, 26, 6118-6127.	5.1	23
92	Characteristics and sources of PM _{2.5} with focus on two severe pollution events in a coastal city of Qingdao, China. <i>Chemosphere</i> , 2020, 247, 125861.	8.2	23
93	Diffusion controlled hydrogen desorption reaction for the $LiBH_4/2LiNH_2$ system. <i>Journal of Alloys and Compounds</i> , 2009, 481, 473-479.	5.5	22
94	Universal Devolatilization Process Model for Numerical Simulations of Coal Combustion. <i>Energy & Fuels</i> , 2017, 31, 6525-6540.	5.1	22
95	Coupled wind farm parameterization with a mesoscale model for simulations of an onshore wind farm. <i>Applied Energy</i> , 2017, 206, 113-125.	10.1	22
96	Fully resolved simulations of turbulence modulation by high-inertia particles in an isotropic turbulent flow. <i>Physics of Fluids</i> , 2017, 29, 113301.	4.0	22
97	Prediction of product distributions in coal devolatilization by an artificial neural network model. <i>Combustion and Flame</i> , 2018, 193, 283-294.	5.2	22
98	Impact of substantial wind farms on the local and regional atmospheric boundary layer: Case study of Zhangbei wind power base in China. <i>Energy</i> , 2019, 183, 1136-1149.	8.8	22
99	A priori assessment of convolutional neural network and algebraic models for flame surface density of high Karlovitz premixed flames. <i>Physics of Fluids</i> , 2021, 33, .	4.0	22
100	Effects of tip clearance size on vortical structures and turbulence statistics in tip-leakage flows: A direct numerical simulation study. <i>Physics of Fluids</i> , 2021, 33, .	4.0	22
101	Modulation on coherent vortex structures by dispersed solid particles in a three-dimensional mixing layer. <i>Physical Review E</i> , 2003, 68, 036309.	2.1	21
102	LES-DEM investigation of the solid transportation mechanism in a 3-D bubbling fluidized bed. Part II: Solid dispersion and circulation properties. <i>Powder Technology</i> , 2014, 256, 395-403.	4.2	21
103	Simulating heat transfer from moving rigid bodies using high-order ghost-cell based immersed-boundary method. <i>International Journal of Heat and Mass Transfer</i> , 2015, 89, 856-865.	4.8	21
104	Simulations of Cellular Detonation Interaction with Turbulent Flows. <i>AIAA Journal</i> , 2016, 54, 419-433.	2.6	21
105	An efficient level set remedy approach for simulations of two-phase flow based on sigmoid function. <i>Chemical Engineering Science</i> , 2017, 172, 335-352.	3.8	21
106	Numerical investigation of the effects of volatile matter composition and chemical reaction mechanism on pulverized coal combustion characteristics. <i>Fuel</i> , 2017, 210, 695-704.	6.4	21
107	Sheet, ligament and droplet formation in swirling primary atomization. <i>AIP Advances</i> , 2018, 8, .	1.3	21
108	A generalized flamelet tabulation method for partially premixed combustion. <i>Combustion and Flame</i> , 2018, 198, 54-68.	5.2	21

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109	Numerical investigation on methanation kinetic and flow behavior in full-loop fluidized bed reactor. Fuel, 2018, 231, 85-93.	6.4	21
110	High-fidelity numerical analysis of non-premixed hydrothermal flames: Flame structure and stabilization mechanism. Fuel, 2020, 259, 116162.	6.4	21
111	Influences of secondary gas injection pattern on fluidized bed combustion process: A CFD-DEM study. Fuel, 2020, 268, 117314.	6.4	21
112	Three-Dimensional Modeling of Gas-Solid Motion in a Slot-Rectangular Spouted Bed with the Parallel Framework of the Computational Fluid Dynamics-Discrete Element Method Coupling Approach. Industrial & Engineering Chemistry Research, 2013, 52, 13222-13231.	3.7	20
113	Particle-Scale Investigation of the Hydrodynamics and Tube Erosion Property in a Three-Dimensional (3-D) Bubbling Fluidized Bed with Immersed Tubes. Industrial & Engineering Chemistry Research, 2014, 53, 6896-6912.	3.7	20
114	LES-DEM investigation of the solid transportation mechanism in a 3-D bubbling fluidized bed. Part I: hydrodynamics. Powder Technology, 2014, 256, 385-394.	4.2	20
115	CFD simulation of high-temperature effect on EHD characteristics in a wire-plate electrostatic precipitator. Chinese Journal of Chemical Engineering, 2015, 23, 633-640.	3.5	20
116	Hydrogen storage in a Li-Al-N ternary system. International Journal of Hydrogen Energy, 2009, 34, 8101-8107.	7.1	19
117	Complex Cation Order in Anion-Deficient Ba _n YFe _{n-1} O _{2.5} Perovskite Phases. Inorganic Chemistry, 2012, 51, 12281-12287.	4.0	19
118	Direct Numerical Simulation Study of an Experimental Lifted H ₂ /N ₂ Flame. Part 2: Flame Stabilization. Energy & Fuels, 2012, 26, 4830-4839.	5.1	19
119	Fully-resolved DNS study of rotation behaviors of one and two particles settling near a vertical wall. Powder Technology, 2013, 245, 115-125.	4.2	19
120	Direct numerical simulation on supersonic turbulent reacting and non-reacting spray jet in heated coflow. Fuel, 2016, 164, 267-276.	6.4	19
121	Numerical investigation of coal flamelet characteristics in a laminar counterflow with detailed chemistry. Fuel, 2017, 195, 232-242.	6.4	19
122	Fully resolved simulations of single char particle combustion using a ghost-cell immersed boundary method. AIChE Journal, 2018, 64, 2851-2863.	3.6	19
123	Large-eddy simulation of multiphase combustion jet in cross-flow using flamelet model. International Journal of Multiphase Flow, 2018, 108, 211-225.	3.4	19
124	Influence of tube configuration on the gas-solid hydrodynamics of an internally circulating fluidized bed: A discrete element study. Chemical Engineering Journal, 2014, 239, 158-170.	12.7	18
125	An improved moving-least-squares reconstruction for immersed boundary method. International Journal for Numerical Methods in Engineering, 2015, 104, 789-804.	2.8	18
126	Three-dimensional axial dispersion dynamics of granular flow in the rolling-regime rotating drum. Powder Technology, 2018, 332, 131-138.	4.2	18

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127	Dynamics of triple-flames in ignition of turbulent dual fuel mixture: A direct numerical simulation study. <i>Proceedings of the Combustion Institute</i> , 2019, 37, 4625-4633.	3.9	18
128	Eulerian-Lagrangian direct numerical simulation of preferential accumulation of inertial particles in a compressible turbulent boundary layer. <i>Journal of Fluid Mechanics</i> , 2020, 903, .	3.4	18
129	Fluid-structure interaction: Insights into biomechanical implications of endograft after thoracic endovascular aortic repair. <i>Computers in Biology and Medicine</i> , 2021, 138, 104882.	7.0	18
130	Effects on particle dispersion by turbulent transition in a jet. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2006, 357, 345-350.	2.1	17
131	Direct numerical simulation and CMC (conditional moment closure) sub-model validation of spray combustion. <i>Energy</i> , 2012, 46, 606-617.	8.8	17
132	Discrete Element Study of Solid Mixing Behavior with Temperature Difference in Three-Dimensional Bubbling Fluidized Bed. <i>Industrial & Engineering Chemistry Research</i> , 2014, 53, 7043-7055.	3.7	17
133	Direct numerical simulation of a three-dimensional spatially evolving compressible mixing layer laden with particles. II. Turbulence anisotropy and growth rate. <i>Physics of Fluids</i> , 2019, 31, 083303.	4.0	17
134	Ba ₂ YFeO _{5.5} : A Ferromagnetic Pyroelectric Phase Prepared by Topochemical Oxidation.. <i>Chemistry of Materials</i> , 2013, 25, 1800-1808.	6.7	16
135	New spray flamelet equations considering evaporation effects in the mixture fraction space. <i>Fuel</i> , 2013, 103, 1154-1157.	6.4	16
136	Production of synthetic natural gas by CO methanation over Ni/Al ₂ O ₃ catalyst in fluidized bed reactor. <i>Catalysis Communications</i> , 2018, 105, 37-42.	3.3	16
137	Numerical Investigation of Nickel-Copper Oxygen Carriers in Chemical-Looping Combustion Process with Zero Emission of CO and H ₂ . <i>Energy & Fuels</i> , 2019, 33, 12096-12105.	5.1	16
138	Predictive models for flame evolution using machine learning: <i>a priori</i> assessment in turbulent flames without and with mean shear. <i>Physics of Fluids</i> , 2021, 33, .	4.0	16
139	A DNS study of hydrogen/air swirling premixed flames with different equivalence ratios. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 5246-5256.	7.1	15
140	Synthesis and Selective Topochemical Fluorination of the Cation and Anion-Vacancy Ordered phases Ba ₂ YCoO ₅ and Ba ₃ YCo ₂ O _{7.5} . <i>Inorganic Chemistry</i> , 2013, 52, 13762-13769.	4.0	15
141	Direct numerical simulation of turbulent boundary layer with heat transfer. <i>International Journal of Heat and Mass Transfer</i> , 2016, 99, 10-19.	4.8	15
142	Direct numerical simulation of turbulent boundary layer with fully resolved particles at low volume fraction. <i>Physics of Fluids</i> , 2017, 29, 053301.	4.0	15
143	Direct numerical simulation of turbulent flow and heat transfer in a spatially developing turbulent boundary layer laden with particles. <i>Journal of Fluid Mechanics</i> , 2018, 845, 417-461.	3.4	15
144	A computational framework for interface-resolved DNS of simultaneous atomization, evaporation and combustion. <i>Journal of Computational Physics</i> , 2018, 371, 751-778.	3.8	15

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145	A priori study of an extended flamelet/progress variable model for NO prediction in pulverized coal flames. <i>Energy</i> , 2019, 175, 768-780.	8.8	15
146	Immersed boundary method for simulations of erosion on staggered tube bank by coal ash particles. <i>Powder Technology</i> , 2012, 225, 196-205.	4.2	14
147	Discrete element study of solid circulating and resident behaviors in an internally circulating fluidized bed. <i>Chemical Engineering Journal</i> , 2014, 248, 145-157.	12.7	14
148	Numerical investigation of the time-related properties of solid phase in a 3-D spout-fluid bed. <i>Chemical Engineering Journal</i> , 2015, 267, 207-220.	12.7	14
149	DEM study of the size-induced segregation dynamics of a ternary-size granular mixture in the rolling-regime rotating drum. <i>Physics of Fluids</i> , 2017, 29, .	4.0	14
150	Evaluation of different flamelet tabulation methods for laminar spray combustion. <i>Physics of Fluids</i> , 2018, 30, .	4.0	14
151	Direct Numerical Simulation and Conditional Statistics of Hydrogen/Air Turbulent Premixed Flames. <i>Energy & Fuels</i> , 2013, 27, 549-560.	5.1	13
152	On turbulence modulation by finite-size particles in dilute gas-solid internal flows. <i>Powder Technology</i> , 2016, 301, 1259-1263.	4.2	13
153	Numerical Simulation of CO Methanation for the Production of Synthetic Natural Gas in a Fluidized Bed Reactor. <i>Energy & Fuels</i> , 2017, 31, 10267-10273.	5.1	13
154	Interaction of a planar reacting shock wave with an isotropic turbulent vorticity field. <i>Physical Review E</i> , 2017, 96, 053104.	2.1	13
155	A lower-dimensional approximation model of turbulent flame stretch and its related quantities with machine learning approaches. <i>Physics of Fluids</i> , 2020, 32, .	4.0	13
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