

# Hao Zhang

## List of Publications by Year in descending order

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Version: 2024-02-01

39  
papers

1,454  
citations

471509

17  
h-index

330143

37  
g-index

39  
all docs

39  
docs citations

39  
times ranked

939  
citing authors

#	ARTICLE	IF	CITATIONS
1	DEM/CFD-DEM Modelling of Non-spherical Particulate Systems: Theoretical Developments and Applications. Powder Technology, 2016, 302, 108-152.	4.2	437
2	CFD simulation of dense particulate reaction system: Approaches, recent advances and applications. Chemical Engineering Science, 2016, 140, 16-43.	3.8	245
3	Numerical investigation of the location of maximum erosive wear damage in elbow: Effect of slurry velocity, bend orientation and angle of elbow. Powder Technology, 2012, 217, 467-476.	4.2	106
4	Numerical investigation on the role of discrete element method in combined LBM-IBM-DEM modeling. Computers and Fluids, 2014, 94, 37-48.	2.5	76
5	CFD-DEM study on heat transfer characteristics and microstructure of the blast furnace raceway with ellipsoidal particles. Powder Technology, 2019, 346, 350-362.	4.2	50
6	Prediction on drag force and heat transfer of spheroids in supercritical water: A PR-DNS study. Powder Technology, 2019, 342, 99-107.	4.2	46
7	Numerical investigation on the effect of the incident angle on momentum and heat transfer of spheroids in supercritical water. Computers and Fluids, 2019, 179, 533-542.	2.5	45
8	On the drag coefficient and averaged Nusselt number of an ellipsoidal particle in a fluid. Powder Technology, 2018, 325, 134-144.	4.2	39
9	A combined TLBM-IBM-DEM scheme for simulating isothermal particulate flow in fluid. International Journal of Heat and Mass Transfer, 2015, 91, 178-189.	4.8	37
10	PIBM: Particulate immersed boundary method for fluid-particle interaction problems. Powder Technology, 2015, 272, 1-13.	4.2	34
11	Influence of particle shape on microstructure and heat transfer characteristics in blast furnace raceway with CFD-DEM approach. Powder Technology, 2020, 361, 283-296.	4.2	32
12	Numerical prediction on the drag force and heat transfer of non-spherical particles in supercritical water. Powder Technology, 2020, 361, 414-423.	4.2	27
13	Numerical prediction on the minimum fluidization velocity of a supercritical water fluidized bed reactor: Effect of particle size distributions. Powder Technology, 2021, 389, 119-130.	4.2	25
14	MPFEM simulation of compaction densification behavior of Fe-Al composite powders with different size ratios. Journal of Alloys and Compounds, 2018, 741, 473-481.	5.5	24
15	Drag coefficient and averaged Nusselt number of a scalene prolate ellipsoid. Applied Mathematical Modelling, 2018, 64, 556-571.	4.2	23
16	Numerical investigation on the mutual interaction between heat transfer and non-spherical particle dynamics in the blast furnace raceway. International Journal of Heat and Mass Transfer, 2020, 153, 119577.	4.8	23
17	Particulate Immersed Boundary Method for complex fluid-particle interaction problems with heat transfer. Computers and Mathematics With Applications, 2016, 71, 391-407.	2.7	18
18	Process simulation on atomization and evaporation of desulfurization wastewater and its application. Powder Technology, 2021, 389, 178-188.	4.2	17

#	ARTICLE	IF	CITATIONS
19	CFD-DEM modeling on air impact densification of equal spheres: Structure evolution, dynamics, and mechanism. Powder Technology, 2017, 322, 177-184.	4.2	15
20	A GPU-based discrete element modeling code and its application in die filling. Computers and Fluids, 2015, 110, 235-244.	2.5	13
21	Multi-particle FEM modelling on hot pressing of TiC-316L composite powders. Powder Technology, 2020, 361, 389-399.	4.2	13
22	PR-DNS on the momentum and heat transfer of a rotating ellipsoidal particle in a fluid. Powder Technology, 2020, 373, 152-163.	4.2	13
23	Numerical prediction on minimum fluidization velocity of a supercritical water fluidized bed reactor: Effect of particle shape. Powder Technology, 2022, 403, 117397.	4.2	12
24	Boundary effects on the drag coefficient and average Nusselt number of a sphere in SCW: A comparative study. Engineering Analysis With Boundary Elements, 2019, 102, 1-10.	3.7	11
25	Macro- and microscopic analyses of piles formed by Platonic solids. Chemical Engineering Science, 2019, 205, 391-400.	3.8	10
26	Numerical study on the erosion process of the low temperature economizer using computational fluid dynamics-discrete particle method. Wear, 2020, 450-451, 203269.	3.1	10
27	Particle scale study on the crystallization of mono-sized cylindrical particles subject to vibration. Powder Technology, 2019, 352, 470-477.	4.2	8
28	Numerical investigation on cold flow dynamics of supercritical water fluidized bed reactor with inclined distributor: Design and scale up. Particuology, 2022, 67, 90-102.	3.6	7
29	CFD-DEM study on fluidization characteristics of gas-solid fluidized bed reactor containing ternary mixture. Powder Technology, 2022, 401, 117354.	4.2	7
30	Numerical investigation on fluidization characteristics of binary particles in supercritical water fluidized bed reactor under pulsed conditions. Powder Technology, 2022, 405, 117536.	4.2	7
31	Effect of particle shape on raceway size and pressure drop in a blast furnace: Experimental, numerical and theoretical analyses. Advanced Powder Technology, 2022, 33, 103455.	4.1	6
32	Numerical simulation on flow and evaporation characteristics of desulfurization wastewater in a bypass flue. Engineering Applications of Computational Fluid Mechanics, 2020, 14, 411-421.	3.1	4
33	Numerical study on the momentum and heat transfer of porous spheroids under laminar flow. Powder Technology, 2022, 395, 14-25.	4.2	4
34	Air impact induced densest amorphous granular materials: Formation, dynamics, and mechanisms. Physical Review B, 2022, 105, .	3.2	4
35	Numerical investigation on the scale-up rules of a supercritical water fluidized bed reactor using the two-fluid model. Engineering Applications of Computational Fluid Mechanics, 2021, 15, 1830-1842.	3.1	2
36	Microstructure evolution and densification behavior of TiC/316L composite powders during cold/warm die compaction and solid-state sintering: 3D particulate scale numerical modelling and experimental validation. Advanced Powder Technology, 2022, 33, 103667.	4.1	2

#	ARTICLE	IF	CITATIONS
37	Process simulation and optimization of flow field in wet electrostatic precipitator. Journal of Central South University, 2020, 27, 132-143.	3.0	1
38	CFD-DEM numerical study on air impacted packing densification of equiaxed cylindrical particles. Advanced Powder Technology, 2022, 33, 103641.	4.1	1
39	Multiscale and Multiphase Computational Particle Technology. Mathematical Problems in Engineering, 2020, 2020, 1-1.	1.1	0