Ruiping Zou

List of Publications by Year
in descending order

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70 papers	3,971 citations	126708 33 h-index	118652 62 g-index
70 all docs	70 docs citations	70 times ranked	2229 citing authors

#	Article	IF	Citations
1	Computer simulation of the packing of fine particles. Physical Review E, 2000, 62, 3900-3908.	0.8	382
2	Evaluation of the packing characteristics of mono-sized non-spherical particles. Powder Technology, 1996, 88, 71-79.	2.1	279
3	Discrete particle simulation of gas fluidization of ellipsoidal particles. Chemical Engineering Science, 2011, 66, 6128-6145.	1.9	198
4	Modifying the Linear Packing Model for Predicting the Porosity of Nonspherical Particle Mixtures. Industrial & Engineering Chemistry Research, 1996, 35, 3730-3741.	1.8	189
5	Dynamic Simulation of the Packing of Ellipsoidal Particles. Industrial & Engineering Chemistry Research, 2011, 50, 9787-9798.	1.8	178
6	On the relationship between porosity and interparticle forces. Powder Technology, 2003, 130, 70-76.	2.1	161
7	Microdynamic analysis of particle flow in a horizontal rotating drum. Powder Technology, 2003, 130, 138-146.	2.1	158
8	The packing of spheres in a cylindrical container: the thickness effect. Chemical Engineering Science, 1995, 50, 1504-1507.	1.9	154
9	Flow characteristics and discharge rate of ellipsoidal particles in a flat bottom hopper. Powder Technology, 2014, 253, 70-79.	2.1	144
10	Dense random packings of spherocylinders. Soft Matter, 2012, 8, 1003-1009.	1.2	132
11	Role of Interparticle Forces in the Formation of Random Loose Packing. Physical Review Letters, 2006, 96, 145505.	2.9	128
12	Micromechanical Simulation and Analysis of One-Dimensional Vibratory Sphere Packing. Physical Review Letters, 2005, 95, 205502.	2.9	116
13	Self-Assembly of Particles for Densest Packing by Mechanical Vibration. Physical Review Letters, 2006, 97, 265501.	2.9	113
14	Coordination number of binary mixtures of spheres. Journal Physics D: Applied Physics, 1998, 31, 457-462.	1.3	99
15	Voronoi tessellation of the packing of fine uniform spheres. Physical Review E, 2002, 65, 041302.	0.8	93
16	Effect of material properties on the packing of fine particles. Journal of Applied Physics, 2003, 94, 3025-3034.	1.1	87
17	Effect of vibration condition and inter-particle frictions on the packing of uniform spheres. Powder Technology, 2008, 188, 102-109.	2.1	83
18	Application of periodic boundary conditions to CFD-DEM simulation of gasâ€“solid flow in pneumatic conveying. Chemical Engineering Science, 2013, 93, 214-228.	1.9	78

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19	Experimental study of the packing of mono-sized spheres subjected to one-dimensional vibration. Powder Technology, 2009, 196, 50-55.	2.1	76
20	Angle of repose and stress distribution of sandpiles formed with ellipsoidal particles. Granular Matter, 2014, 16, 695-709.	1.1	66
21	Coordination Number of the Packing of Ternary Mixtures of Spheres: DEM Simulations versus Measurements. Industrial & Engineering Chemistry Research, 2011, 50, 8773-8785.	1.8	63
22	Numerical study of the packing of wet coarse uniform spheres. AICHE Journal, 2003, 49, 1656-1666.	1.8	61
23	Packing of Ternary Mixtures of Nonspherical Particles. Journal of the American Ceramic Society, 1992, 75, 2765-2772.	1.9	59
24	Gasâ€“Solid Flow and Energy Dissipation in Inclined Pneumatic Conveying. Industrial & Engineering Chemistry Research, 2012, 51, 14289-14302.	1.8	53
25	Pore structure of the packing of fine particles. Journal of Colloid and Interface Science, 2006, 299, 719-725.	5.0	49
26	Critical states and phase diagram in the packing of uniform spheres. Europhysics Letters, 2009, 86, 46003.	0.7	49
27	Modeling and analysis of flow regimes in hydraulic conveying of coarse particles. Powder Technology, 2020, 373, 543-554.	2.1	48
28	Magnetoelectric soft composites with a self-powered tactile sensing capacity. Nano Energy, 2020, 69, 104391.	8.2	44
29	Compressible and Stretchable Magnetoelectric Sensors Based on Liquid Metals for Highly Sensitive, Self-Powered Respiratory Monitoring. ACS Applied Materials & Interfaces, 2021, 13, 15727-15737.	4.0	44
30	Characterization of interparticle forces in the packing of cohesive fine particles. Physical Review E, 2008, 78, 031302.	0.8	42
31	3D-Printed Superhydrophobic and Magnetic Device That Can Self-Powered Sense A Tiny Droplet Impact. Engineering, 2022, 15, 196-205.	3.2	42
32	Liquid Metal Based Stretchable Magnetoelectric Films and Their Capacity for Mechanoelectrical Conversion. Advanced Functional Materials, 2020, 30, 2003680.	7.8	40
33	Simulation study of the evolution mechanisms of clusters in a large-scale liquid Al system during rapid cooling processes. Journal of Physics Condensed Matter, 2003, 15, 743-753.	0.7	39
34	Settling of particles in liquids: Effects of material properties. AICHE Journal, 2012, 58, 1409-1421.	1.8	35
35	Computational simulation of air-side heat transfer and pressure drop performance in staggered mannered twisted oval tube bundle operating in crossflow. International Journal of Thermal Sciences, 2021, 161, 106748.	2.6	35
36	Binary cooperative flexible magnetoelectric materials working as self-powered tactile sensors. Journal of Materials Chemistry C, 2019, 7, 8527-8536.	2.7	31

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37	Numerical modeling and analysis of hydrogen blast furnace ironmaking process. Fuel, 2022, 323, 124368.	3.4	28
38	Packing of fine particles in an electrical field. Granular Matter, 2013, 15, 467-476.	1.1	24
39	Systematic study of the effect of particle density distribution on the flow and performance of a dense medium cyclone. Powder Technology, 2017, 314, 510-523.	2.1	24
40	Systematic study of effect of particle size distribution in a dense medium cyclone by Johnsonâ€™s SB function. Minerals Engineering, 2016, 91, 16-33.	1.8	20
41	Quasi-universality in the packing of uniform spheres under gravity. Granular Matter, 2016, 18, 1.	1.1	17
42	Characteristics of red mud slurry flow in carbonation reactor. Powder Technology, 2017, 311, 66-76.	2.1	17
43	Packing structure of cohesive spheres. Physical Review E, 2004, 69, 032301.	0.8	16
44	Analysis of the packing structure of wet spheres by Voronoiâ€“Delaunay tessellation. Granular Matter, 2007, 9, 455-463.	1.1	16
45	Promote cohesive solid flow in a screw feeder with new screw designs. Powder Technology, 2020, 361, 248-257.	2.1	15
46	Packing of different shaped tetrahedral particles: DEM simulation and experimental study. Powder Technology, 2020, 360, 21-32.	2.1	15
47	Radical tessellation of the packing of spheres with a log-normal size distribution. Physical Review E, 2015, 92, 032201.	0.8	14
48	Investigation of densification behavior of tungsten powders during hot isostatic pressing with a 3D multi-particle FEM approach. Powder Technology, 2020, 361, 297-305.	2.1	14
49	Equivalent packing size of spheroidal particles: A microscopic test. Powder Technology, 2018, 333, 286-292.	2.1	13
50	Prediction of the Porosity of Multicomponent Mixtures of Wet Coarse Spheres. Industrial & Engineering Chemistry Research, 2005, 44, 8401-8408.	1.8	11
51	Multi-particle FEM modeling on hot isostatic pressing of Ti6Al4V powders. International Journal of Mechanical Sciences, 2021, 196, 106288.	3.6	11
52	Three-dimensional MPFEM modelling on isostatic pressing and solid phase sintering of tungsten powders. Powder Technology, 2019, 354, 854-866.	2.1	10
53	Anti-stress ball energy harvester. Nano Energy, 2021, 90, 106493.	8.2	9
54	Segregation of binary mixtures of spheres and ellipsoids. AIP Conference Proceedings, 2013, , .	0.3	8

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55	DEM simulation of vibrated packing densification of mono-sized regular octahedral particles. Powder Technology, 2021, 384, 29-35.	2.1	8
56	Experimental study on 3D vibrated packing densification of mono-sized dodecahedral particles. Powder Technology, 2020, 367, 703-712.	2.1	6
57	Discrete modelling of the packing of ellipsoidal particles. , 2013, , .		4
58	Effect of cohesive force on the formation of a sandpile. AIP Conference Proceedings, 2013, , .	0.3	4
59	Air impact induced densest amorphous granular materials: Formation, dynamics, and mechanisms. Physical Review B, 2022, 105, .	1.1	4
60	Publisherâ€™s Note: Role of Interparticle Forces in the Formation of Random Loose Packing [Phys. Rev. Lett.96, 145505 (2006)]. Physical Review Letters, 2006, 96, .	2.9	3
61	Numerical study of the influence of particle friction on horizontal pneumatic conveying. , 2013, , .		2
62	Numerical study of vertical pneumatic conveying: Effect of friction coefficient. , 2013, , .		2
63	Molten salt synthesis, characterization and luminescence of Tb3â^'xCexAl5O12 (TAG:Ce) phosphors. Materials Letters, 2018, 221, 77-80.	1.3	2
64	Facile, scalable, and adaptive infrared reflection towards soft systems by blowing a Janus rubber film. IScience, 2021, 24, 102430.	1.9	2
65	Numerical Simulation of the Flow of Fine Particles in a Hopper. , 2009, , .		1
66	Discrete element modeling of gas fluidization of fine ellipsoidal particles. AIP Conference Proceedings, 2013, , .	0.3	1
67	Stress distribution in conical sandpiles formed with ellipsoidal particles. EPJ Web of Conferences, 2017, 140, 06023.	0.1	1
68	CFD-DEM numerical study on air impacted packing densification of equiaxed cylindrical particles. Advanced Powder Technology, 2022, 33, 103641.	2.0	1
69	Numerical Study of Wet Particle Flow in a Rotating Drum. , 2009, , .		0
70	Microscopic analysis of Hopper flow with ellipsoidal particles. , 2013, , .		0