Runyu Yang

List of Publications by Year in descending order

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74 papers	5,627 citations	172207 29 h-index	82410 72 g-index
74 all docs	74 docs citations	74 times ranked	2931 citing authors

#	Article	IF	Citations
1	Discrete particle simulation of particulate systems: Theoretical developments. Chemical Engineering Science, 2007, 62, 3378-3396.	1.9	1,516
2	Discrete particle simulation of particulate systems: A review of major applications and findings. Chemical Engineering Science, 2008, 63, 5728-5770.	1.9	1,172
3	Rolling friction in the dynamic simulation of sandpile formation. Physica A: Statistical Mechanics and Its Applications, 1999, 269, 536-553.	1.2	582
4	Numerical simulation of particle dynamics in different flow regimes in a rotating drum. Powder Technology, 2008, 188, 170-177.	2.1	178
5	Microdynamic analysis of particle flow in a horizontal rotating drum. Powder Technology, 2003, 130, 138-146.	2.1	158
6	DEM study of the transverse mixing of wet particles in rotating drums. Chemical Engineering Science, 2013, 86, 99-107.	1.9	157
7	CFD-DEM investigation of the dispersion mechanisms in commercial dry powder inhalers. Powder Technology, 2013, 240, 19-24.	2.1	97
8	DEM investigation of energy distribution and particle breakage in tumbling ball mills. Powder Technology, 2012, 223, 83-91.	2.1	91
9	Effect of vibration condition and inter-particle frictions on the packing of uniform spheres. Powder Technology, 2008, 188, 102-109.	2.1	83
10	Numerical modelling of the breakage of loose agglomerates of fine particles. Powder Technology, 2009, 196, 213-221.	2.1	82
11	Numerical study of the effects of particle size and polydispersity on the agglomerate dispersion in a cyclonic flow. Chemical Engineering Journal, 2010, 164, 432-441.	6.6	77
12	Experimental study of the packing of mono-sized spheres subjected to one-dimensional vibration. Powder Technology, 2009, 196, 50-55.	2.1	76
13	DEM simulation of the flow of grinding media in IsaMill. Minerals Engineering, 2006, 19, 984-994.	1.8	71
14	Discrete particle simulation of particle flow in IsaMillâ€"Effect of grinding medium properties. Chemical Engineering Journal, 2008, 135, 103-112.	6.6	69
15	Agglomeration of fine particles subjected to centripetal compaction. Powder Technology, 2008, 184, 122-129.	2.1	62
16	CFDâ€"DEM modelling of particle flow in IsaMills â€" Comparison between simulations and PEPT measurements. Minerals Engineering, 2011, 24, 181-187.	1.8	62
17	A GPU-based DEM for modelling large scale powder compaction with wide size distributions. Powder Technology, 2018, 333, 219-228.	2.1	52
18	Effect of the size of media on grinding performance in stirred mills. Minerals Engineering, 2012, 33, 66-71.	1.8	51

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19	Pore structure of the packing of fine particles. Journal of Colloid and Interface Science, 2006, 299, 719-725.	5.0	49
20	Effects of disc rotation speed and media loading on particle flow and grinding performance in a horizontal stirred mill. International Journal of Mineral Processing, 2010, 96, 27-35.	2.6	49
21	Discrete modelling of the compaction of non-spherical particles using a multi-sphere approach. Minerals Engineering, 2018, 117, 108-116.	1.8	49
22	The effect of liquids on radial segregation of granular mixtures in rotating drums. Granular Matter, 2013, 15, 427-436.	1.1	46
23	Role of CFD based in silico modelling in establishing an in vitro-in vivo correlation of aerosol deposition in the respiratory tract. Advanced Drug Delivery Reviews, 2021, 170, 369-385.	6.6	45
24	Simulation of the packing of cohesive particles. Computer Physics Communications, 2007, 177, 206-209.	3.0	39
25	Multi-Scale Modelling of Powder Dispersion in a Carrier-Based Inhalation System. Pharmaceutical Research, 2015, 32, 2086-2096.	1.7	38
26	DEM investigation of heat transfer in a drum mixer with lifters. Powder Technology, 2017, 314, 175-181.	2.1	38
27	CFDâ€“DEM investigation of the effect of agglomerateâ€“agglomerate collision on dry powder aerosolisation. Journal of Aerosol Science, 2016, 92, 109-121.	1.8	36
28	Effect of slurry properties on particle motion in IsaMills. Minerals Engineering, 2009, 22, 886-892.	1.8	35
29	CFD modelling of air and particle flows in different airway models. Journal of Aerosol Science, 2019, 134, 14-28.	1.8	33
30	Effects of mechanical impaction on aerosol performance of particles with different surface roughness. Powder Technology, 2013, 236, 164-170.	2.1	31
31	Numerical investigation of the de-agglomeration mechanisms of fine powders on mechanical impaction. Journal of Aerosol Science, 2011, 42, 811-819.	1.8	30
32	De-agglomeration Effect of the US Pharmacopeia and Alberta Throats on Carrier-Based Powders in Commercial Inhalation Products. AAPS Journal, 2015, 17, 1407-1416.	2.2	30
33	DEM study of the mechanical strength of iron ore compacts. International Journal of Mineral Processing, 2015, 142, 73-81.	2.6	28
34	A soft-sensor approach to flow regime detection for milling processes. Powder Technology, 2009, 188, 234-241.	2.1	25
35	Discrete Modelling of Powder Dispersion in Dry Powder Inhalers - A Brief Review. Current Pharmaceutical Design, 2015, 21, 3966-3973.	0.9	25
36	Does the United States Pharmacopeia Throat Introduce De-agglomeration of Carrier-Free Powder from Inhalers?. Pharmaceutical Research, 2012, 29, 1797-1807.	1.7	22

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37	DEM investigation of the role of friction in mechanical response of powder compact. Powder Technology, 2017, 319, 183-190.	2.1	22
38	A combined experimental and DEM approach to determine the breakage of particles in an impact mill. Powder Technology, 2017, 318, 543-548.	2.1	21
39	Numerical investigation of deposition mechanism in three mouthâ€“throat models. Powder Technology, 2021, 378, 724-735.	2.1	21
40	Impact angles as an alternative way to improve aerosolisation of powders for inhalation?. European Journal of Pharmaceutical Sciences, 2010, 41, 320-327.	1.9	19
41	CFD-DEM study of the aerosolisation mechanism of carrier-based formulations with high drug loadings. Powder Technology, 2017, 314, 620-626.	2.1	18
42	Soft-sensors for prediction of impact energy in horizontal rotating drums. Powder Technology, 2009, 195, 177-183.	2.1	15
43	Understanding the Different Effects of Inhaler Design on the Aerosol Performance of Drug-Only and Carrier-Based DPI Formulations. Part 1: Grid Structure. AAPS Journal, 2016, 18, 1159-1167.	2.2	14
44	Potential effects of lingual fats on airway flow dynamics and particle deposition. Aerosol Science and Technology, 2020, 54, 321-331.	1.5	14
45	Investigating the effect of particle shape on the charging process in melter gasifiers in COREX. Powder Technology, 2019, 351, 305-313.	2.1	13
46	Numerical study on mixed charging process and gas-solid flow in COREX melter gasifier. Powder Technology, 2020, 361, 274-282.	2.1	13
47	The effects of upper airway tissue motion on airflow dynamics. Journal of Biomechanics, 2020, 99, 109506.	0.9	13
48	A combined data-driven and discrete modelling approach to predict particle flow in rotating drums. Chemical Engineering Science, 2021, 231, 116251.	1.9	13
49	DEM modelling of particle fragmentation during compaction of particles. Powder Technology, 2022, 398, 117073.	2.1	12
50	Modeling collective dynamics of particulate systems under time-varying operating conditions based on Markov chains. Advanced Powder Technology, 2013, 24, 451-458.	2.0	11
51	Investigation the iron ore fine granulation effects and particle adhesion behavior in a horizontal high-shear granulator. Powder Technology, 2021, 394, 162-170.	2.1	11
52	A soft-sensor approach to impact intensity prediction in stirred mills guided by DEM models. Powder Technology, 2012, 219, 151-157.	2.1	10
53	Numerical Modelling of Die and Unconfined Compactions of Wet Particles. Procedia Engineering, 2015, 102, 1390-1398.	1.2	10
54	Macro- and microscopic analyses of piles formed by Platonic solids. Chemical Engineering Science, 2019, 205, 391-400.	1.9	10

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55	Effects of particle characteristics and consolidation pressure on the compaction of non-spherical particles. Minerals Engineering, 2019, 137, 241-249.	1.8	9
56	Computational fluid dynamics (CFD) investigation of the gasâ€“solid flow and performance of Andersen cascade impactor. Powder Technology, 2015, 285, 128-137.	2.1	8
57	Predicting the composition and size distribution of dry particles for aerosols and sprays of suspension: A Monte Carlo approach. International Journal of Pharmaceutics, 2020, 582, 119311.	2.6	8
58	Collective dynamics modeling of polydisperse particulate systems via Markov chains. Chemical Engineering Research and Design, 2013, 91, 1646-1659.	2.7	7
59	Dynamic characteristics of binary sphere mixtures under air impact. Powder Technology, 2018, 332, 224-233.	2.1	7
60	CFD-DEM simulations of densification of tetrahedron particles under air impact. Powder Technology, 2020, 361, 220-225.	2.1	7
61	On the relationships between structural properties and packing density of uniform spheres. Powder Technology, 2021, 388, 139-148.	2.1	6
62	Effects of the shape and inclination angle of DRI-flaps on DRI distribution in COREX melter gasifiers. Powder Technology, 2018, 339, 854-862.	2.1	5
63	ANN prediction of particle flow characteristics in a drum based on synthetic acoustic signals from DEM simulations. Chemical Engineering Science, 2021, 246, 117012.	1.9	5
64	Analysis of collective dynamics of particulate systems modeled by Markov chains. Powder Technology, 2013, 235, 228-237.	2.1	4
65	Experimental Study of the Effects of Operation Conditions on Burden Distribution in the COREX Melter Gasifier. ISIJ International, 2018, 58, 267-273.	0.6	4
66	Prediction of ball milling performance by a convolutional neural network model and transfer learning. Powder Technology, 2022, 403, 117409.	2.1	4
67	Structural signature of binary sphere mixtures under air impact. Powder Technology, 2019, 357, 313-321.	2.1	2
68	Finite element analysis of briquetting of iron ore fines. Powder Technology, 2019, 353, 398-408.	2.1	2
69	DEM modelling of breakage behaviour of semi-brittle agglomerates subject to compaction and impaction. Powder Technology, 2022, 408, 117710.	2.1	2
70	Studies of Particulate System Dynamics in Rotating Drums using Markov Chains. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 487-492.	0.4	1
71	Acoustic signals of rotating drums generated based on DEM simulations. EPJ Web of Conferences, 2021, 249, 14019.	0.1	1
72	CFD-DEM numerical study on air impacted packing densification of equiaxed cylindrical particles. Advanced Powder Technology, 2022, 33, 103641.	2.0	1

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73	Modeling of time-dependent distributions of impact and kinetic energies of particulate systems. , 2013, , .		0
74	Application of DEM modelling to grinding processes. , 2014, , .		0