

# 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	DEM modelling of particle fragmentation during compaction of particles. Powder Technology, 2022, 398, 117073.	2.1	12
2	Prediction of ball milling performance by a convolutional neural network model and transfer learning. Powder Technology, 2022, 403, 117409.	2.1	4
3	CFD-DEM numerical study on air impacted packing densification of equiaxed cylindrical particles. Advanced Powder Technology, 2022, 33, 103641.	2.0	1
4	DEM modelling of breakage behaviour of semi-brittle agglomerates subject to compaction and impaction. Powder Technology, 2022, 408, 117710.	2.1	2
5	Numerical investigation of deposition mechanism in three mouth-throat models. Powder Technology, 2021, 378, 724-735.	2.1	21
6	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
7	Acoustic signals of rotating drums generated based on DEM simulations. EPJ Web of Conferences, 2021, 249, 14019.	0.1	1
8	A combined data-driven and discrete modelling approach to predict particle flow in rotating drums. Chemical Engineering Science, 2021, 231, 116251.	1.9	13
9	On the relationships between structural properties and packing density of uniform spheres. Powder Technology, 2021, 388, 139-148.	2.1	6
10	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
11	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
12	CFD-DEM simulations of densification of tetrahedron particles under air impact. Powder Technology, 2020, 361, 220-225.	2.1	7
13	Numerical study on mixed charging process and gas-solid flow in COREX melter gasifier. Powder Technology, 2020, 361, 274-282.	2.1	13
14	The effects of upper airway tissue motion on airflow dynamics. Journal of Biomechanics, 2020, 99, 109506.	0.9	13
15	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
16	Potential effects of lingual fats on airway flow dynamics and particle deposition. Aerosol Science and Technology, 2020, 54, 321-331.	1.5	14
17	Structural signature of binary sphere mixtures under air impact. Powder Technology, 2019, 357, 313-321.	2.1	2
18	Macro- and microscopic analyses of piles formed by Platonic solids. Chemical Engineering Science, 2019, 205, 391-400.	1.9	10

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19	Finite element analysis of briquetting of iron ore fines. Powder Technology, 2019, 353, 398-408.	2.1	2
20	Effects of particle characteristics and consolidation pressure on the compaction of non-spherical particles. Minerals Engineering, 2019, 137, 241-249.	1.8	9
21	CFD modelling of air and particle flows in different airway models. Journal of Aerosol Science, 2019, 134, 14-28.	1.8	33
22	Investigating the effect of particle shape on the charging process in melter gasifiers in COREX. Powder Technology, 2019, 351, 305-313.	2.1	13
23	Discrete modelling of the compaction of non-spherical particles using a multi-sphere approach. Minerals Engineering, 2018, 117, 108-116.	1.8	49
24	A GPU-based DEM for modelling large scale powder compaction with wide size distributions. Powder Technology, 2018, 333, 219-228.	2.1	52
25	Dynamic characteristics of binary sphere mixtures under air impact. Powder Technology, 2018, 332, 224-233.	2.1	7
26	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
27	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
28	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
29	DEM investigation of the role of friction in mechanical response of powder compact. Powder Technology, 2017, 319, 183-190.	2.1	22
30	CFD-DEM study of the aerosolisation mechanism of carrier-based formulations with high drug loadings. Powder Technology, 2017, 314, 620-626.	2.1	18
31	DEM investigation of heat transfer in a drum mixer with lifters. Powder Technology, 2017, 314, 175-181.	2.1	38
32	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
33	CFD-DEM investigation of the effect of agglomerate-agglomerate collision on dry powder aerosolisation. Journal of Aerosol Science, 2016, 92, 109-121.	1.8	36
34	Computational fluid dynamics (CFD) investigation of the gas-solid flow and performance of Andersen cascade impactor. Powder Technology, 2015, 285, 128-137.	2.1	8
35	Multi-Scale Modelling of Powder Dispersion in a Carrier-Based Inhalation System. Pharmaceutical Research, 2015, 32, 2086-2096.	1.7	38
36	Numerical Modelling of Die and Unconfined Compactions of Wet Particles. Procedia Engineering, 2015, 102, 1390-1398.	1.2	10

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37	DEM study of the mechanical strength of iron ore compacts. International Journal of Mineral Processing, 2015, 142, 73-81.	2.6	28
38	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
39	Discrete Modelling of Powder Dispersion in Dry Powder Inhalers - A Brief Review. Current Pharmaceutical Design, 2015, 21, 3966-3973.	0.9	25
40	Application of DEM modelling to grinding processes. , 2014, , .		0
41	The effect of liquids on radial segregation of granular mixtures in rotating drums. Granular Matter, 2013, 15, 427-436.	1.1	46
42	Effects of mechanical impaction on aerosol performance of particles with different surface roughness. Powder Technology, 2013, 236, 164-170.	2.1	31
43	Collective dynamics modeling of polydisperse particulate systems via Markov chains. Chemical Engineering Research and Design, 2013, 91, 1646-1659.	2.7	7
44	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
45	DEM study of the transverse mixing of wet particles in rotating drums. Chemical Engineering Science, 2013, 86, 99-107.	1.9	157
46	Analysis of collective dynamics of particulate systems modeled by Markov chains. Powder Technology, 2013, 235, 228-237.	2.1	4
47	CFD-DEM investigation of the dispersion mechanisms in commercial dry powder inhalers. Powder Technology, 2013, 240, 19-24.	2.1	97
48	Modeling of time-dependent distributions of impact and kinetic energies of particulate systems. , 2013, , .		0
49	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
50	Effect of the size of media on grinding performance in stirred mills. Minerals Engineering, 2012, 33, 66-71.	1.8	51
51	Does the United States Pharmacopeia Throat Introduce De-agglomeration of Carrier-Free Powder from Inhalers?. Pharmaceutical Research, 2012, 29, 1797-1807.	1.7	22
52	DEM investigation of energy distribution and particle breakage in tumbling ball mills. Powder Technology, 2012, 223, 83-91.	2.1	91
53	A soft-sensor approach to impact intensity prediction in stirred mills guided by DEM models. Powder Technology, 2012, 219, 151-157.	2.1	10
54	Numerical investigation of the de-agglomeration mechanisms of fine powders on mechanical impaction. Journal of Aerosol Science, 2011, 42, 811-819.	1.8	30

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55	CFD“DEM modelling of particle flow in IsaMills “ Comparison between simulations and PEPT measurements. Minerals Engineering, 2011, 24, 181-187.	1.8	62
56	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
57	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
58	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
59	Effect of slurry properties on particle motion in IsaMills. Minerals Engineering, 2009, 22, 886-892.	1.8	35
60	Soft-sensors for prediction of impact energy in horizontal rotating drums. Powder Technology, 2009, 195, 177-183.	2.1	15
61	A soft-sensor approach to flow regime detection for milling processes. Powder Technology, 2009, 188, 234-241.	2.1	25
62	Experimental study of the packing of mono-sized spheres subjected to one-dimensional vibration. Powder Technology, 2009, 196, 50-55.	2.1	76
63	Numerical modelling of the breakage of loose agglomerates of fine particles. Powder Technology, 2009, 196, 213-221.	2.1	82
64	Agglomeration of fine particles subjected to centripetal compaction. Powder Technology, 2008, 184, 122-129.	2.1	62
65	Effect of vibration condition and inter-particle frictions on the packing of uniform spheres. Powder Technology, 2008, 188, 102-109.	2.1	83
66	Numerical simulation of particle dynamics in different flow regimes in a rotating drum. Powder Technology, 2008, 188, 170-177.	2.1	178
67	Discrete particle simulation of particle flow in IsaMill“Effect of grinding medium properties. Chemical Engineering Journal, 2008, 135, 103-112.	6.6	69
68	Discrete particle simulation of particulate systems: A review of major applications and findings. Chemical Engineering Science, 2008, 63, 5728-5770.	1.9	1,172
69	Discrete particle simulation of particulate systems: Theoretical developments. Chemical Engineering Science, 2007, 62, 3378-3396.	1.9	1,516
70	Simulation of the packing of cohesive particles. Computer Physics Communications, 2007, 177, 206-209.	3.0	39
71	Pore structure of the packing of fine particles. Journal of Colloid and Interface Science, 2006, 299, 719-725.	5.0	49
72	DEM simulation of the flow of grinding media in IsaMill. Minerals Engineering, 2006, 19, 984-994.	1.8	71

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73	Microdynamic analysis of particle flow in a horizontal rotating drum. Powder Technology, 2003, 130, 138-146.	2.1	158
74	Rolling friction in the dynamic simulation of sandpile formation. Physica A: Statistical Mechanics and Its Applications, 1999, 269, 536-553.	1.2	582