

# Stefan Heinrich

## List of Publications by Year in descending order

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233  
papers

6,359  
citations

57758

44  
h-index

95266

68  
g-index

257  
all docs

257  
docs citations

257  
times ranked

3445  
citing authors

#	ARTICLE	IF	CITATIONS
1	Correlating Granule Surface Structure Morphology and Process Conditions in Fluidized Bed Layering Spray Granulation. KONA Powder and Particle Journal, 2022, 39, 230-239.	1.7	5
2	Minimizing gas leakages in a system of coupled fluidized bed reactors for chemical looping combustion. Chemical Engineering Science, 2022, 250, 117366.	3.8	11
3	Novel approach for measurement of restitution coefficient by magnetic particle tracking. Advanced Powder Technology, 2022, 33, 103362.	4.1	9
4	Micromechanical analysis of roller compaction process with DEM. Powder Technology, 2022, 398, 117146.	4.2	3
5	Comparison of Knudsen Diffusion and the Dusty Gas Approach for the Modeling of the Freeze-Drying Process of Bulk Food Products. Processes, 2022, 10, 548.	2.8	1
6	Modeling the devolatilization and fragmentation of biomass pellets with the bonded particle method for fluidized bed applications. Computational Particle Mechanics, 2022, 9, 1319-1335.	3.0	2
7	DEM-Based Approach for the Modeling of Gelation and Its Application to Alginate. Journal of Chemical Information and Modeling, 2022, 62, 49-70.	5.4	8
8	An efficient multiscale bi-directional PBM-DEM coupling framework to simulate one-dimensional aggregation mechanisms. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2022, 478, .	2.1	1
9	Investigation of the influence of impact velocity and liquid bridge volume on the maximum liquid bridge length. Advanced Powder Technology, 2022, 33, 103630.	4.1	4
10	CFD-aided population balance modeling of a spray drying process. Advanced Powder Technology, 2022, 33, 103636.	4.1	5
11	High Volatile Conversion in a Chemical Looping Combustion System with Three Different Biomasses. Energy & Fuels, 2022, 36, 9529-9537.	5.1	2
12	MP-PIC Simulation of Biomass Steam Gasification Using Ilmenite as an Oxygen Carrier. Atmosphere, 2022, 13, 1009.	2.3	3
13	Product-Property Guided Scale-Up of a Fluidized Bed Spray Granulation Process Using the CFD-DEM Method. Processes, 2022, 10, 1291.	2.8	5
14	Process Design of a Multistage Drying Process via Flowsheet Simulation. Chemie-Ingenieur-Technik, 2021, 93, 1287-1294.	0.8	1
15	Recent Advances in Fluidized Bed Hydrodynamics and Transport Phenomena“Progress and Understanding. Processes, 2021, 9, 639.	2.8	11
16	Influence of Freezing Parameters on the Formation of Internal Porous Structure and Its Impact on Freeze-Drying Kinetics. Processes, 2021, 9, 1273.	2.8	5
17	MP-PIC simulation of circulating fluidized beds using an EMMS based drag model for Geldart B particles. Particuology, 2021, 59, 76-90.	3.6	14
18	Spray coating of cellulose aerogel particles in a miniaturized spouted bed. Cellulose, 2021, 28, 7795-7812.	4.9	10

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19	Unresolved CFD-DEM simulation of spherical and ellipsoidal particles in conical and prismatic spouted beds. Powder Technology, 2021, 389, 493-506.	4.2	17
20	Mechanical strength evolution of biomass pellet during chemical looping gasification in fluidized bed. Fuel Processing Technology, 2021, 221, 106951.	7.2	6
21	Production of magnetite-polyvinyl butyral composites using a Nano Spray Dryer. Powder Technology, 2021, 394, 394-402.	4.2	1
22	Modeling and Flowsheet Simulation of Vibrated Fluidized Bed Dryers. Processes, 2021, 9, 52.	2.8	4
23	Flowsheet simulation of solids processes: Current status and future trends. Advanced Powder Technology, 2020, 31, 947-953.	4.1	18
24	Particle formulation of hydroalcoholic rosemary ( <i>Rosmarinus officinalis</i> L.) extracts using a spouted bed. Particuology, 2020, 51, 26-34.	3.6	3
25	Bubble Properties in Bubbling and Turbulent Fluidized Beds for Particles of Geldart's Group B. Processes, 2020, 8, 1098.	2.8	9
26	Dyssol – An open-source flowsheet simulation framework for particulate materials. SoftwareX, 2020, 12, 100572.	2.6	14
27	Material specific drying kinetics in fluidized bed drying under mechanical vibration using the reaction engineering approach. Advanced Powder Technology, 2020, 31, 4699-4713.	4.1	8
28	Influences on the transition from bubbling to turbulent fluidization for Geldart's group B particles. Powder Technology, 2020, 375, 81-88.	4.2	9
29	Pulsed Multiphase Flows – Numerical Investigation of Particle Dynamics in Pulsating Gas – Solid Flows at Elevated Temperatures. Processes, 2020, 8, 815.	2.8	7
30	CFD-DEM Simulation of a Coating Process in a Fluidized Bed Rotor Granulator. Processes, 2020, 8, 1090.	2.8	22
31	A flowsheet simulation tool for science and education in the area of solids process engineering. Chemie-Ingenieur-Technik, 2020, 92, 1196-1196.	0.8	0
32	Data-driven multiscale modeling of self-assembly and hierarchical structural formation in biological macromolecular systems. Chemie-Ingenieur-Technik, 2020, 92, 1249-1249.	0.8	0
33	Modeling of vibrated fluidized bed dryers. Chemie-Ingenieur-Technik, 2020, 92, 1161-1161.	0.8	0
34	Increasing the efficiency of chemical looping combustion of biomass by a dual-stage fuel reactor design to reduce carbon capture costs. Mitigation and Adaptation Strategies for Global Change, 2020, 25, 969-986.	2.1	7
35	On the Approximate Solution and Modeling of the Kernel of Nonlinear Breakage Population Balance Equation. SIAM Journal of Scientific Computing, 2020, 42, B1570-B1598.	2.8	12
36	Fabrication of Highly Filled Composites with an Innovative Miniaturized Spouted Bed. Processes, 2020, 8, 521.	2.8	3

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37	Contact Behavior of Microcrystalline Cellulose Pellets Depending on their Water Content. Chemical Engineering and Technology, 2020, 43, 887-895.	1.5	10
38	Possibilities and Limits of Computational Fluid Dynamicsâ€“Discrete Element Method Simulations in Process Engineering: A Review of Recent Advancements and Future Trends. Annual Review of Chemical and Biomolecular Engineering, 2020, 11, 397-422.	6.8	55
39	Influence of pores arrangement on stability of photonic structures during sintering. Journal of the European Ceramic Society, 2020, 40, 4562-4571.	5.7	7
40	Measurement of Residence Time Distributions in a Continuously Operated Spouted Bed. Chemical Engineering and Technology, 2020, 43, 804-812.	1.5	6
41	Syngas, tar and char behavior in chemical looping gasification of sawdust pellet in fluidized bed. Fuel, 2020, 270, 117464.	6.4	45
42	A Framework for Dynamic Simulation of Interconnected Solids Processes. , 2020, , 581-628.		3
43	Dynamic Modelling of Reactive Fluidized Bed Systems Using the Example of the Chemical Looping Combustion Process for Solid Fuels. , 2020, , 37-65.		1
44	Continuous Fluidized Bed Drying: Advanced Modeling and Experimental Investigations. AAPS Advances in the Pharmaceutical Sciences Series, 2020, , 301-359.	0.6	0
45	Dynamics of Spray Granulation inâ€“Continuously Operated Horizontal Fluidized Beds. , 2020, , 67-107.		0
46	A novel method of quantifying the coating progress in a three-dimensional prismatic spouted bed. Particuology, 2019, 42, 137-145.	3.6	4
47	Simulation of spray coating in a spouted bed using recurrence CFD. Particuology, 2019, 42, 92-103.	3.6	37
48	Production of composites with high relative permittivity using the spouted bed technique. Particuology, 2019, 42, 184-189.	3.6	0
49	Novel technique for measurement of coating layer thickness of fine and porous particles using focused ion beam. Particuology, 2019, 42, 190-198.	3.6	12
50	Application of Transformation Matrices to the Solution of Population Balance Equations. Processes, 2019, 7, 535.	2.8	8
51	Contact Models and DEM Simulation of Micrometer-Sized Particles and Agglomerates at Static Loading Based on Experimental Characterization. , 2019, , 115-163.		2
52	Measurement of granule layer thickness in a spouted bed coating process via optical coherence tomography. Powder Technology, 2019, 356, 139-147.	4.2	23
53	Collision dynamics of wet particles: Comparison of literature models to new experiments. Advanced Powder Technology, 2019, 30, 3241-3252.	4.1	20
54	Characterization of waxes as possible coating material for organic aerogels. Powder Technology, 2019, 357, 223-231.	4.2	21

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55	Influence of binary and ternary particle systems on the spouting stability in a three-dimensional prismatic spouted bed. Powder Technology, 2019, 357, 305-312.	4.2	10
56	Optimization of aqueous microgrinding processes for fibrous plant materials. Advanced Powder Technology, 2019, 30, 2823-2831.	4.1	2
57	Dynamics and long-time behavior of gas-solid flows on recurrent-transient backgrounds. Chemical Engineering Journal, 2019, 364, 562-577.	12.7	17
58	Particle dynamics in a multi-staged fluidized bed: Particle transport behavior on micro-scale by discrete particle modelling. Advanced Powder Technology, 2019, 30, 2014-2031.	4.1	19
59	On the dynamics and control of continuous fluidized bed layering granulation with screen-mill-cycle. Powder Technology, 2019, 354, 765-778.	4.2	21
60	Investigation of an FFT-based solver applied to dynamic flowsheet simulation of agglomeration processes. Advanced Powder Technology, 2019, 30, 555-564.	4.1	11
61	Dynamic wetting of multicomponent particle systems. Powder Technology, 2019, 357, 74-82.	4.2	0
62	Fluidization characteristics of cohesive powders in vibrated fluidized bed drying at low vibration frequencies. Powder Technology, 2019, 357, 54-63.	4.2	48
63	Toward Multiscale Modeling of Proteins and Bioagglomerates: An Orientation-Sensitive Diffusion Model for the Integration of Molecular Dynamics and the Discrete Element Method. Journal of Chemical Information and Modeling, 2019, 59, 386-398.	5.4	8
64	Gasification kinetics of lignite char in a fluidized bed of reactive oxygen carrier particles. Fuel, 2019, 236, 166-178.	6.4	13
65	Chemical looping combustion of high sodium lignite in the fluidized bed: Combustion performance and sodium transfer. International Journal of Greenhouse Gas Control, 2018, 70, 22-31.	4.6	23
66	Influence of gas inflow modelling on CFD-DEM simulations of three-dimensional prismatic spouted beds. Powder Technology, 2018, 329, 167-180.	4.2	18
67	Numerical investigation of collision dynamics of wet particles via force balance. Chemical Engineering Research and Design, 2018, 132, 1143-1159.	5.6	32
68	Impact of hydrophobic surfaces on capillary wetting. Powder Technology, 2018, 328, 367-374.	4.2	13
69	CFD-DEM modelling of circulation frequencies and residence times in a prismatic spouted bed. Chemical Engineering Research and Design, 2018, 132, 1105-1116.	5.6	27
70	On the approximate solutions of fragmentation equations. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2018, 474, 20170541.	2.1	6
71	Dynamic flowsheet simulation for chemical looping combustion of methane. International Journal of Greenhouse Gas Control, 2018, 72, 26-37.	4.6	18
72	Influence of process conditions on the product properties in a continuous fluidized bed spray granulation process. Chemical Engineering Research and Design, 2018, 139, 104-115.	5.6	34

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73	Chemical Looping Gasification of a Biomass Pellet with a Manganese Ore as an Oxygen Carrier in the Fluidized Bed. <i>Energy &amp; Fuels</i> , 2018, 32, 11674-11682.	5.1	25
74	Multiscale modeling to investigate catalytically active enzymatic aggregates for cascade bioreactions. <i>Chemie-Ingenieur-Technik</i> , 2018, 90, 1338-1338.	0.8	0
75	Penetration rates into heterogeneous model systems and soluble food material. <i>Powder Technology</i> , 2018, 339, 765-774.	4.2	3
76	Photonic glass for high contrast structural color. <i>Scientific Reports</i> , 2018, 8, 7804.	3.3	46
77	Dynamics of wet particle-wall collisions: Influence of wetting condition. <i>Chemical Engineering Research and Design</i> , 2018, 135, 21-29.	5.6	22
78	Novel production method of tracer particles for residence time measurements in gas-solid processes. <i>Powder Technology</i> , 2018, 338, 1-6.	4.2	6
79	Application of micro computed tomography for adjustment of model parameters for discrete element method. <i>Chemical Engineering Research and Design</i> , 2018, 135, 121-128.	5.6	13
80	Influence of particle shape and size on mechanical properties in copper-polymer composites. <i>Powder Technology</i> , 2018, 339, 39-45.	4.2	20
81	CFD-DEM modeling of a three-dimensional prismatic spouted bed. <i>Powder Technology</i> , 2017, 316, 245-255.	4.2	40
82	Dynamic flowsheet simulation of gas and solids flows in a system of coupled fluidized bed reactors for chemical looping combustion. <i>Powder Technology</i> , 2017, 316, 628-640.	4.2	10
83	Collision dynamics of wet solids: Rebound and rotation. <i>Powder Technology</i> , 2017, 316, 218-224.	4.2	35
84	Copula-based approximation of particle breakage as link between DEM and PBM. <i>Computers and Chemical Engineering</i> , 2017, 99, 158-170.	3.8	6
85	A weighted finite volume scheme for multivariate aggregation population balance equation. <i>Computers and Chemical Engineering</i> , 2017, 101, 1-10.	3.8	15
86	Development of a multi-compartment population balance model for high-shear wet granulation with discrete element method. <i>Computers and Chemical Engineering</i> , 2017, 99, 171-184.	3.8	24
87	Novel system for dynamic flowsheet simulation of solids processes. <i>Powder Technology</i> , 2017, 314, 665-679.	4.2	46
88	Improvement of mechanical properties by a polydopamine interface in highly filled hierarchical composites of titanium dioxide particles and poly(vinyl butyral). <i>Composites Science and Technology</i> , 2017, 146, 73-82.	7.8	29
89	Compartmental residence time estimation in batch granulators using a colourimetric image analysis algorithm and Discrete Element Modelling. <i>Advanced Powder Technology</i> , 2017, 28, 2239-2255.	4.1	10
90	Simulation-based investigation of core-shell agglomerates: Influence of spatial heterogeneity in particle sizes on breakage characteristics. <i>Computational Materials Science</i> , 2017, 137, 100-106.	3.0	8

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91	Using dilute spouting for fabrication of highly filled metal-polymer composite materials. Powder Technology, 2017, 316, 426-433.	4.2	19
92	Interface-resolved simulations of normal collisions of spheres on a wet surface. AIChE Journal, 2017, 63, 4774-4787.	3.6	14
93	Dependencies between internal structure and mechanical properties of spray dried granules – Experimental study and DEM simulation. Advanced Powder Technology, 2017, 28, 185-196.	4.1	11
94	A dynamic two-zone model of continuous fluidized bed layering granulation with internal product classification. Particuology, 2017, 31, 8-14.	3.6	19
95	A volume-consistent discrete formulation of particle breakage equation. Computers and Chemical Engineering, 2017, 97, 147-160.	3.8	5
96	Fabrication of composites via spouted bed granulation process and simulation of their micromechanical properties. EPJ Web of Conferences, 2017, 140, 13005.	0.3	0
97	Approximation of mechanical properties of sintered materials with discrete element method. EPJ Web of Conferences, 2017, 140, 15022.	0.3	2
98	Influence of mill characteristics on stability of continuous layering granulation with external product classification. Computer Aided Chemical Engineering, 2016, 38, 1275-1280.	0.5	6
99	Alginate-based hybrid aerogel microparticles for mucosal drug delivery. European Journal of Pharmaceutics and Biopharmaceutics, 2016, 107, 160-170.	4.3	109
100	Numerical and experimental analysis of influence of granule microstructure on its compression breakage. Powder Technology, 2016, 299, 87-97.	4.2	56
101	Influence of operation parameters on process stability in continuous fluidised bed layering with external product classification. Powder Technology, 2016, 300, 37-45.	4.2	21
102	Bonded-particle extraction and stochastic modeling of internal agglomerate structures. Advanced Powder Technology, 2016, 27, 1761-1774.	4.1	18
103	Analysis of a Two-Stage Fuel Reactor System for the Chemical Looping Combustion of Lignite and Bituminous Coal. Energy Technology, 2016, 4, 1263-1273.	3.8	25
104	Synchrotron x-ray microtomography of the interior microstructure of chocolate. Proceedings of SPIE, 2016, , .	0.8	0
105	Capillary Rise into Heterogeneous Pores: Impact of Surface Hydrophobicity. Chemie-Ingenieur-Technik, 2016, 88, 1301-1302.	0.8	1
106	Lipid Migration through Semi-Solid Fat Suspensions. Chemie-Ingenieur-Technik, 2016, 88, 1369-1369.	0.8	0
107	Coating of Protein-Based Aerogels Using Spouted-Bed Technology. Chemie-Ingenieur-Technik, 2016, 88, 1370-1370.	0.8	0
108	Investigation of Rebound Behavior of Wet Solid Materials. Chemie-Ingenieur-Technik, 2016, 88, 1351-1352.	0.8	0

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109	Microscale Simulations of Deformation and Breakage of Granules. <i>Chemie-Ingenieur-Technik</i> , 2016, 88, 1365-1365.	0.8	0
110	Experimental study of oblique impact of particles on wet surfaces. <i>Chemical Engineering Research and Design</i> , 2016, 110, 209-219.	5.6	40
111	Combined viscoelastic and elastic wave dissipation mechanism at low velocity impact. <i>Advanced Powder Technology</i> , 2016, 27, 1244-1250.	4.1	13
112	Synchrotron X-Ray microtomography reveals interior microstructure of multicomponent food materials such as chocolate. <i>Journal of Food Engineering</i> , 2016, 174, 37-46.	5.2	31
113	Coefficient of restitution for particles impacting on wet surfaces: An improved experimental approach. <i>Particuology</i> , 2016, 25, 1-9.	3.6	67
114	Discrete element simulation of metal ceramic composite materials with varying metal content. <i>Journal of the European Ceramic Society</i> , 2016, 36, 2245-2253.	5.7	18
115	Predicting the surface composition of a spray-dried particle by modelling component reorganization in a drying droplet. <i>Chemical Engineering Research and Design</i> , 2016, 110, 131-140.	5.6	22
116	CFD-DEM model for coupled heat and mass transfer in a spout fluidized bed with liquid injection. <i>Chemical Engineering Journal</i> , 2016, 288, 185-197.	12.7	100
117	Viscoelastic and dielectric properties of composites of poly(vinyl butyral) and alumina particles with a high filling degree. <i>Polymer</i> , 2016, 82, 337-348.	3.8	21
118	Changes in contact angle providing evidence for surface alteration in multi-component solid foods. <i>Journal Physics D: Applied Physics</i> , 2015, 48, 464001.	2.8	19
119	Sintering Simulation of Periodic Macro Porous Alumina. <i>Journal of the American Ceramic Society</i> , 2015, 98, 3496-3502.	3.8	11
120	Multiscale Analysis of a Coating Process in a Wurster Fluidized Bed Apparatus. <i>Advances in Chemical Engineering</i> , 2015, 46, 83-135.	0.9	29
121	DEM simulations of amorphous irregular shaped micrometer-sized titania agglomerates at compression. <i>Advanced Powder Technology</i> , 2015, 26, 767-777.	4.1	43
122	Development of egg white protein aerogels as new matrix material for microencapsulation in food. <i>Journal of Supercritical Fluids</i> , 2015, 106, 42-49.	3.2	82
123	A novel approach to determine wet restitution coefficients through a unified correlation and energy analysis. <i>AIChE Journal</i> , 2015, 61, 769-779.	3.6	44
124	Experimental study of hydrodynamics and thermal behavior of a pseudo-2D spout fluidized bed with liquid injection. <i>AIChE Journal</i> , 2015, 61, 1146-1159.	3.6	40
125	Investigations on the spouting stability in a prismatic spouted bed and apparatus optimization. <i>Advanced Powder Technology</i> , 2015, 26, 718-733.	4.1	42
126	Statistical investigation of agglomerate breakage based on combined stochastic microstructure modeling and DEM simulations. <i>Advanced Powder Technology</i> , 2015, 26, 1021-1030.	4.1	37



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127	Influence of Feed Composition and Drying Parameters on the Surface Composition of a Spray-Dried Multicomponent Particle. <i>Drying Technology</i> , 2015, 33, 1911-1919.	3.1	9
128	Influence of zone formation on stability of continuous fluidized bed layering granulation with external product classification. <i>Particuology</i> , 2015, 23, 1-7.	3.6	23
129	Influence of coating and wetting on the mechanical behaviour of highly porous cylindrical aerogel particles. <i>Powder Technology</i> , 2015, 285, 34-43.	4.2	43
130	Tracking Structural Changes in Lipid-based Multicomponent Food Materials due to Oil Migration by Microfocus Small-Angle X-ray Scattering. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 9929-9936.	8.0	29
131	Characterisation of lactose powder and granules for multivariate wet granulation modelling. <i>Chemical Engineering Science</i> , 2015, 123, 395-405.	3.8	11
132	Experimental and numerical investigations of a pseudo-2D spout fluidized bed with draft plates. <i>Powder Technology</i> , 2015, 270, 537-547.	4.2	34
133	Characterization and CFD-DEM modelling of a prismatic spouted bed. <i>Powder Technology</i> , 2015, 270, 622-636.	4.2	90
134	Fluid paths inside a spiral-shaped microchannel: a CFD study with discussion about possible Chinese hamster ovary cell trajectories. <i>Microfluidics and Nanofluidics</i> , 2015, 18, 685-694.	2.2	1
135	Fluidized-Bed Reactors – Status and Some Development Perspectives. <i>Chemie-Ingenieur-Technik</i> , 2014, 86, 2022-2038.	0.8	16
136	Parameter Estimation for the Flowsheet Simulation of Solids Processes. <i>Chemie-Ingenieur-Technik</i> , 2014, 86, 1073-1079.	0.8	13
137	Strahlschichtsprüßgranulation und Analyse vorstrukturierter Keramik-Polymer-Komposite zur Herstellung neuartiger hierarchischer Materialien. <i>Chemie-Ingenieur-Technik</i> , 2014, 86, 1565-1565.	0.8	0
138	Attritor-milling of poly(amide imide) suspensions. <i>Particuology</i> , 2014, 17, 92-96.	3.6	14
139	Contact models based on experimental characterization of irregular shaped, micrometer-sized particles. <i>Granular Matter</i> , 2014, 16, 313-326.	2.2	17
140	Product design based on discrete particle modeling of a fluidized bed granulator. <i>Particuology</i> , 2014, 12, 13-24.	3.6	13
141	Modification of the mechanical granule properties via internal structure. <i>Powder Technology</i> , 2014, 258, 252-264.	4.2	8
142	Operational experience with a system of coupled fluidized beds for chemical looping combustion of solid fuels using ilmenite as oxygen carrier. <i>Applied Energy</i> , 2014, 118, 309-317.	10.1	133
143	Modeling of aggregation kernels for fluidized beds using discrete particle model simulations. <i>Particuology</i> , 2014, 13, 134-144.	3.6	11
144	Novel, highly-filled ceramic-polymer composites synthesized by a spouted bed spray granulation process. <i>Composites Science and Technology</i> , 2014, 90, 154-159.	7.8	51

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145	Modeling and flowsheet simulation of continuous fluidized bed dryers. Powder Technology, 2013, 238, 132-141.	4.2	17
146	Multiscale Simulation of Agglomerate Breakage in Fluidized Beds. Industrial & Engineering Chemistry Research, 2013, 52, 11275-11281.	3.7	57
147	Three-dimensional discrete element modeling of micromechanical bending tests of ceramic-polymer composite materials. Powder Technology, 2013, 248, 77-83.	4.2	17
148	3D modeling and Computational Fluid Dynamics simulations of surface-attached CHO-K1 cells going to detach from a microchannel wall. Powder Technology, 2013, 237, 529-536.	4.2	4
149	Collision dynamics in fluidised bed granulators: A DEM-CFD study. Chemical Engineering Science, 2013, 86, 108-123.	3.8	122
150	CFD-DEM study and direct measurement of the granular flow in a rotor granulator. Chemical Engineering Science, 2013, 86, 151-163.	3.8	68
151	Numerical investigations of a pseudo-2D spout fluidized bed with draft plates using a scaled discrete particle model. Chemical Engineering Science, 2013, 104, 790-807.	3.8	49
152	Adhesion mechanisms between water soluble particles. Powder Technology, 2013, 238, 35-49.	4.2	32
153	CPFD simulation of circulating fluidized bed risers. Powder Technology, 2013, 235, 238-247.	4.2	148
154	Experimental investigations of a pseudo-2D spout fluidized bed with draft plates. Chemical Engineering Science, 2013, 102, 524-543.	3.8	38
155	A novel method for a multi-level hierarchical composite with brick-and-mortar structure. Scientific Reports, 2013, 3, 2322.	3.3	45
156	Neue Entwicklungen in der Partikel- und Wirbelschichttechnik. Chemie-Ingenieur-Technik, 2013, 85, 215-215.	0.8	0
157	Modeling of the Spray Zone for Particle Wetting in a Fluidized Bed. Chemie-Ingenieur-Technik, 2013, 85, 280-289.	0.8	16
158	Numerical estimation of the restitution coefficient for dry and wet agglomerates. AIP Conference Proceedings, 2013, , .	0.4	3
159	Particle dynamics in the fluidized bed: Magnetic particle tracking and discrete particle modelling. AIP Conference Proceedings, 2013, , .	0.4	4
160	Identification of micro parameters for discrete element simulation of agglomerates. AIP Conference Proceedings, 2013, , .	0.4	3
161	Novel multiscale simulation environment for modeling of fluidized bed granulation. , 2013, , .		1
162	A novel process for coating of silica aerogel microspheres for controlled drug release applications. Microporous and Mesoporous Materials, 2012, 160, 167-173.	4.4	112

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163	Carbon Stripping – A Critical Process Step in Chemical Looping Combustion of Solid Fuels. <i>Chemical Engineering and Technology</i> , 2012, 35, 497-507.	1.5	48
164	Multiscale Simulation of the Fluidized Bed Granulation Process. <i>Chemical Engineering and Technology</i> , 2012, 35, 1373-1380.	1.5	28
165	Discrete Element Study of Aerogel Particle Dynamics in a Spouted Bed Apparatus. <i>Chemical Engineering and Technology</i> , 2012, 35, 1427-1434.	1.5	17
166	Using DPM on the Way to Tailored Prismatic Spouted Beds. <i>Chemie-Ingenieur-Technik</i> , 2012, 84, 388-394.	0.8	12
167	Direct numerical simulation of particle impact on thin liquid films using a combined volume of fluid and immersed boundary method. <i>Chemical Engineering Science</i> , 2012, 69, 530-540.	3.8	41
168	The ultimate goal of modeling – Simulation of system and plant performance. <i>Particuology</i> , 2011, 9, 320-329.	3.6	19
169	The Role of Attrition and Solids Recovery in a Chemical Looping Combustion Process. <i>Oil and Gas Science and Technology</i> , 2011, 66, 277-290.	1.4	25
170	Simulation of catalyst loss from an industrial fluidized bed reactor on the basis of lab-scale attrition tests. <i>Powder Technology</i> , 2011, 214, 21-30.	4.2	21
171	Novel ceramic-polymer composites synthesized by compaction of polymer-encapsulated TiO <sub>2</sub> -nanoparticles. <i>Composites Science and Technology</i> , 2011, 72, 65-71.	7.8	24
172	The normal and oblique impact of three types of wet granules. <i>Granular Matter</i> , 2011, 13, 455-463.	2.2	53
173	DEM – CFD modeling of a fluidized bed spray granulator. <i>Chemical Engineering Science</i> , 2011, 66, 2340-2355.	3.8	193
174	An experimental study of the effect of collision properties on spout fluidized bed dynamics. <i>Powder Technology</i> , 2011, 206, 139-148.	4.2	70
175	Moisture Distribution in Fluidized Beds with Liquid Injection. <i>Chemical Engineering and Technology</i> , 2011, 34, 1076-1084.	1.5	39
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