J Ruud Van Ommen

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/1381517/publications.pdf

Version: 2024-02-01

202	6,390	76196	106150
papers	citations	40 h-index	65 g-index

211	211	211	5079
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Agglomeration in fluidized beds at high temperatures: Mechanisms, detection and prevention. Progress in Energy and Combustion Science, 2008, 34, 633-666.	15.8	314
2	Time-series analysis of pressure fluctuations in gasâ€“solid fluidized beds â€“ A review. International Journal of Multiphase Flow, 2011, 37, 403-428.	1.6	268
3	Fluidization of nanopowders: a review. Journal of Nanoparticle Research, 2012, 14, 737.	0.8	175
4	Atomic and molecular layer deposition: off the beaten track. Chemical Communications, 2017, 53, 45-71.	2.2	173
5	Scale-up of bubbling fluidized bed reactors â€” A review. Powder Technology, 2012, 217, 21-38.	2.1	162
6	Early warning of agglomeration in fluidized beds by attractor comparison. AICHE Journal, 2000, 46, 2183-2197.	1.8	160
7	Structured Packings for Multiphase Catalytic Reactors. Industrial & Engineering Chemistry Research, 2008, 47, 3720-3751.	1.8	160
8	Structuring catalyst and reactor â€“ an inviting avenue to process intensification. Catalysis Science and Technology, 2015, 5, 807-817.	2.1	117
9	Fischerâ€“Tropsch reactionâ€“diffusion in a cobalt catalyst particle: aspects of activity and selectivity for a variable chain growth probability. Catalysis Science and Technology, 2012, 2, 1221.	2.1	108
10	Understanding and Controlling the Aggregative Growth of Platinum Nanoparticles in Atomic Layer Deposition: An Avenue to Size Selection. Journal of Physical Chemistry Letters, 2017, 8, 975-983.	2.1	98
11	Response characteristics of probeâ€“transducer systems for pressure measurements in gasâ€“solid fluidized beds: how to prevent pitfalls in dynamic pressure measurements. Powder Technology, 1999, 106, 199-218.	2.1	85
12	Natureâ€“Inspired selfâ€“cleaning surfaces: Mechanisms, modelling, and manufacturing. Chemical Engineering Research and Design, 2020, 155, 48-65.	2.7	79
13	Atmospheric Pressure Process for Coating Particles Using Atomic Layer Deposition. Chemical Vapor Deposition, 2009, 15, 227-233.	1.4	77
14	Detecting regime transitions in slurry bubble columns using pressure time series. AICHE Journal, 2005, 51, 1951-1965.	1.8	76
15	Geopolymer Coating of Bacteria-containing Granules for Use in Self-healing Concrete. Procedia Engineering, 2015, 102, 475-484.	1.2	73
16	Structuring chaotic fluidized beds. Chemical Engineering Journal, 2003, 96, 117-124.	6.6	70
17	Similarity between chaos analysis and frequency analysis of pressure fluctuations in fluidized beds. Chemical Engineering Science, 2004, 59, 1829-1840.	1.9	70
18	The role of the hydrogen bond in dense nanoparticleâ€“gas suspensions. Physical Chemistry Chemical Physics, 2013, 15, 5788.	1.3	66

#	Article	IF	Citations
19	A method for agglomeration detection and control in full-scale biomass fired fluidized beds. Chemical Engineering Science, 2007, 62, 644-654.	1.9	65
20	Atomic layer deposition of platinum clusters on titania nanoparticles at atmospheric pressure. Journal of Materials Chemistry A, 2013, 1, 4647.	5.2	65
21	Review Article: Recommended reading list of early publications on atomic layer depositionâ€"Outcome of the â€œVirtual Project on the History of ALDâ€. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2017, 35, .	0.9	65
22	Effects of pressure and fines content on bubble diameter in a fluidized bed studied using fast X-ray tomography. Chemical Engineering Journal, 2012, 207-208, 711-717.	6.6	60
23	Bubble size estimation in slurry bubble columns from pressure fluctuations. AICHE Journal, 2005, 51, 1924-1937.	1.8	59
24	Photocatalytic Reactor Design: Guidelines for Kinetic Investigation. Industrial & Engineering Chemistry Research, 2019, 58, 5349-5357.	1.8	59
25	Measuring the Gas-Solids Distribution in Fluidized Beds -- A Review. International Journal of Chemical Reactor Engineering, 2008, 6, .	0.6	54
26	Improved Drying in a Pulsation-Assisted Fluidized Bed. Industrial & Engineering Chemistry Research, 2009, 48, 302-309.	1.8	54
27	The fractal scaling of fluidized nanoparticle agglomerates. Chemical Engineering Science, 2014, 112, 79-86.	1.9	53
28	Rapid detection of defluidization using the standard deviation of pressure fluctuations. Chemical Engineering and Processing: Process Intensification, 2004, 43, 1329-1335.	1.8	52
29	Experimental and numerical comparison of structured packings with a randomly packed bed reactor for Fischerâ€"Tropsch synthesis. Catalysis Today, 2009, 147, S2-S9.	2.2	52
30	Enhanced Optical Performance of BaMgAl₁₀O₁₇:Eu²⁺ Phosphor by a Novel Method of Carbon Coating. Journal of Physical Chemistry C, 2016, 120, 2355-2361.	1.5	51
31	Bubble characterization in a fluidized bed by means of optical probes. International Journal of Multiphase Flow, 2012, 41, 56-67.	1.6	50
32	Diffusionâ€Mediated Growth and Sizeâ€Dependent Nanoparticle Reactivity during Ruthenium Atomic Layer Deposition on Dielectric Substrates. Advanced Materials Interfaces, 2018, 5, 1800870.	1.9	50
33	Scale-Up Study of a Multiphase Photocatalytic Reactorâ€"Degradation of Cyanide in Water over TiO₂. Environmental Science & Technology, 2014, 48, 1574-1581.	4.6	46
34	Influence of vertical internals on a bubbling fluidized bed characterized by X-ray tomography. International Journal of Multiphase Flow, 2015, 75, 237-249.	1.6	45
35	Modeling the precursor utilization in atomic layer deposition on nanostructured materials in fluidized bed reactors. Chemical Engineering Journal, 2015, 268, 384-398.	6.6	44
36	Nanoparticle sintering in atomic layer deposition of supported catalysts: Kinetic modeling of the size distribution. Catalysis Today, 2018, 316, 51-61.	2.2	44

#	Article	IF	Citations
37	Optimal placement of probes for dynamic pressure measurements in large-scale fluidized beds. Powder Technology, 2004, 139, 264-276.	2.1	42
38	An adhesive CFDâ€DEM model for simulating nanoparticle agglomerate fluidization. AICHE Journal, 2016, 62, 2259-2270.	1.8	42
39	Computational validation of the scaling rules for fluidized beds. Powder Technology, 2006, 163, 32-40.	2.1	41
40	Continuous production of nanostructured particles using spatial atomic layer deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2015, 33, .	0.9	41
41	Monitoring a lab-scale fluidized bed dryer: A comparison between pressure transducers, passive acoustic emissions and vibration measurements. Powder Technology, 2010, 197, 36-48.	2.1	40
42	Gas-Phase Deposition of Ultrathin Aluminium Oxide Films on Nanoparticles at Ambient Conditions. Materials, 2015, 8, 1249-1263.	1.3	39
43	Enhanced Particle Mixing in Pulsed Fluidized Beds and the Effect of Internals. Industrial & Engineering Chemistry Research, 2012, 51, 1713-1720.	1.8	38
44	Influence of Distributed Secondary Gas Injection on the Performance of a Bubbling Fluidized-Bed Reactor. Industrial & Engineering Chemistry Research, 2008, 47, 3601-3618.	1.8	37
45	Fast X-ray tomography for the quantification of the bubbling-, turbulent- and fast fluidization-flow regimes and void structures. Chemical Engineering Journal, 2013, 234, 437-447.	6.6	37
46	Use of stress fluctuations to monitor wet granulation of powders. Powder Technology, 2001, 117, 149-162.	2.1	36
47	Four Ways To Introduce Structure in Fluidized Bed Reactors. Industrial & Engineering Chemistry Research, 2007, 46, 4236-4244.	1.8	35
48	Photocatalytic-reactor efficiencies and simplified expressions to assess their relevance in kinetic experiments. Chemical Engineering Journal, 2012, 207-208, 607-615.	6.6	35
49	Comparison of bubble growth obtained from pressure fluctuation measurements to optical probing and literature correlations. Chemical Engineering Science, 2012, 74, 266-275.	1.9	35
50	Detection of agglomeration and gradual particle size changes in circulating fluidized beds. Powder Technology, 2010, 202, 24-38.	2.1	34
51	Selectivity of the Fischerâ€“Tropsch process: deviations from single alpha product distribution explained by gradients in process conditions. Catalysis Science and Technology, 2013, 3, 2210.	2.1	34
52	Room-temperature pulsed CVD-grown SiO₂ protective layer on TiO₂ particles for photocatalytic activity suppression. RSC Advances, 2017, 7, 4547-4554.	1.7	34
53	Tuning the photocatalytic activity of TiO2 nanoparticles by ultrathin SiO2 films grown by low-temperature atmospheric pressure atomic layer deposition. Applied Surface Science, 2020, 530, 147244.	3.1	34
54	Area-Selective Deposition of Ruthenium by Area-Dependent Surface Diffusion. Chemistry of Materials, 2020, 32, 9560-9572.	3.2	34

#	Article	IF	Citations
55	Detecting and Counteracting Agglomeration in Fluidized Bed Biomass Combustion. Energy & Fuels, 2009, 23, 157-169.	2.5	33
56	Monte Carlo simulation of the bubble size distribution in a fluidized bed with intrusive probes. International Journal of Multiphase Flow, 2012, 44, 1-14.	1.6	33
57	Process intensification of tubular reactors: Considerations on catalyst hold-up of structured packings. Catalysis Today, 2013, 216, 111-116.	2.2	33
58	Correlating bubble size and velocity distribution in bubbling fluidized bed based on X-ray tomography. Chemical Engineering Journal, 2016, 298, 17-25.	6.6	33
59	The influence of the particle size distribution on fluidized bed hydrodynamics using highâ€throughput experimentation. AIChE Journal, 2009, 55, 2013-2023.	1.8	32
60	Multidimensional Nature of Fluidized Nanoparticle Agglomerates. Langmuir, 2014, 30, 12696-12702.	1.6	32
61	X-ray measurements of bubble hold-up in fluidized beds with and without vertical internals. International Journal of Multiphase Flow, 2015, 74, 118-124.	1.6	32
62	Protecting the MoSi2 healing particles for thermal barrier coatings using a sol-gel produced Al2O3 coating. Journal of the European Ceramic Society, 2018, 38, 2728-2734.	2.8	32
63	Spatial, temporal and quantitative assessment of catalyst leaching in continuous flow. Catalysis Today, 2018, 308, 64-70.	2.2	32
64	Comparison of three different methodologies of pressure signal processing to monitor fluidized-bed dryers/granulators. Chemical Engineering Journal, 2011, 172, 487-499.	6.6	31
65	A model to estimate the size of nanoparticle agglomerates in gasâ˜solid fluidized beds. Journal of Nanoparticle Research, 2013, 15, 1.	0.8	31
66	Intriguing luminescence properties of (Ba, Sr)3Si6O9N4: Eu2+ phosphors via modifying synthesis method and cation substitution. Journal of Alloys and Compounds, 2016, 682, 481-488.	2.8	31
67	Advances in scalable gas-phase manufacturing and processing of nanostructured solids: A review. Particuology, 2017, 30, 15-39.	2.0	31
68	Residence times in fluidized beds with secondary gas injection. Powder Technology, 2008, 180, 321-331.	2.1	30
69	Discrete particle simulations of an electric-field enhanced fluidized bed. Powder Technology, 2008, 183, 196-206.	2.1	30
70	Functionalization of lactose as a biological carrier for bovine serum albumin by electrospraying. International Journal of Pharmaceutics, 2011, 414, 1-5.	2.6	30
71	Bubble Characterization in a Fluidized Bed with Vertical Tubes. Industrial & Engineering Chemistry Research, 2012, 51, 4748-4758.	1.8	30
72	Design, characterization and model validation of a LED-based photocatalytic reactor for gas phase applications. Chemical Engineering Journal, 2018, 333, 456-466.	6.6	30

#	Article	IF	Citations
73	Suppressing the Photocatalytic Activity of TiO2 Nanoparticles by Extremely Thin Al2O3 Films Grown by Gas-Phase Deposition at Ambient Conditions. Nanomaterials, 2018, 8, 61.	1.9	30
74	Assessing the Role of Pt Clusters on TiO₂ (P25) on the Photocatalytic Degradation of Acid Blue 9 and Rhodamine B. Journal of Physical Chemistry C, 2020, 124, 8269-8278.	1.5	30
75	The influence of vessel geometry on fluidized bed dryer hydrodynamics. Powder Technology, 2009, 194, 115-125.	2.1	29
76	Intensifying the Fischerâ€“Tropsch Synthesis by reactor structuring â€“ A model study. Chemical Engineering Journal, 2012, 207-208, 865-870.	6.6	29
77	Deposition Mechanism of Aluminum Oxide on Quantum Dot Films at Atmospheric Pressure and Room Temperature. Journal of Physical Chemistry C, 2016, 120, 4266-4275.	1.5	29
78	Imposing dynamic structures on fluidised beds. Catalysis Today, 2005, 105, 560-568.	2.2	27
79	Heat transport in structured packings with two-phase co-current downflow. Chemical Engineering Journal, 2012, 185-186, 250-266.	6.6	27
80	Performance improvement by alumina coatings on Y₃Al₅O₁₂:Ce³⁺ phosphor powder deposited using atomic layer deposition in a fluidized bed reactor. RSC Advances, 2016, 6, 76454-76462.	1.7	27
81	Dependence of the photoluminescence properties of Eu²⁺ doped Mâ€“Siâ€“N (M = alkali,) Tj ETQq1 1 0.784314 rgBT /O Materials Chemistry C, 2018, 6, 5671-5683.	2.7	27
82	Effects of Surface Modification on Optical Properties and Thermal Stability of K₂SiF₆:Mn⁴⁺ Red Phosphors by Deposition of an Ultrathin Al₂O₃ÂLayer Using Gas-Phase Deposition in a Fluidized Bed Reactor. ECS Journal of Solid State Science and Technology, 2019, 8, R88-R96.	0.9	27
83	Heat transport in structured packings with co-current downflow of gas and liquid. Chemical Engineering Science, 2010, 65, 420-426.	1.9	26
84	Scalable Production of Nanostructured Particles using Atomic Layer Deposition. KONA Powder and Particle Journal, 2014, 31, 234-246.	0.9	26
85	Contact mechanics of highly porous oxide nanoparticle agglomerates. Journal of Nanoparticle Research, 2016, 18, 200.	0.8	26
86	Enhanced thermal degradation stability of the Sr₂Si₅N₈:Eu²⁺ phosphor by ultra-thin Al₂O₃ coating through the atomic layer deposition technique in a fluidized bed reactor. Journal of Materials Chemistry C, 2019, 7, 5772-5781.	2.7	26
87	Fluidization dynamics of cohesive Geldart B particles. Part I: X-ray tomography analysis. Chemical Engineering Journal, 2019, 359, 1024-1034.	6.6	26
88	Bubble size reduction in electric-field-enhanced fluidized beds. Journal of Electrostatics, 2005, 63, 943-948.	1.0	25
89	Insights in distributed secondary gas injection in a bubbling fluidized bed via discrete particle simulations. Powder Technology, 2008, 183, 454-466.	2.1	25
90	Numerical optimization of a structured tubular reactor for Fischerâ€“Tropsch synthesis. Chemical Engineering Journal, 2016, 283, 1465-1483.	6.6	25

#	Article	IF	Citations
91	Controlled Pulmonary Delivery of Carrier-Free Budesonide Dry Powder by Atomic Layer Deposition. ACS Nano, 2021, 15, 6684-6698.	7.3	25
92	Power-law distribution of pressure fluctuations in multiphase flow. Physical Review E, 2003, 67, 041305.	0.8	24
93	Characterization of the void size distribution in fluidized beds using statistics of pressure fluctuations. Powder Technology, 2005, 160, 81-92.	2.1	24
94	Intensification of co-current gasâ€“liquid reactors using structured catalytic packings: A multiscale approach. Catalysis Today, 2009, 147, S138-S143.	2.2	24
95	Scalable gas-phase processes to create nanostructured particles. Particuology, 2010, 8, 572-577.	2.0	23
96	Dynamics of Single Rising Bubbles in Neutrally Buoyant Liquid-Solid Suspensions. Physical Review Letters, 2013, 110, 244501.	2.9	23
97	Effective coating of titania nanoparticles with alumina via atomic layer deposition. Applied Surface Science, 2017, 426, 480-496.	3.1	23
98	Atomic scale surface engineering of micro- to nano-sized pharmaceutical particles for drug delivery applications. Nanoscale, 2017, 9, 11410-11417.	2.8	23
99	Atomic Layer Deposition of ZnO on InP Quantum Dot Films for Charge Separation, Stabilization, and Solar Cell Formation. Advanced Materials Interfaces, 2020, 7, 1901600.	1.9	23
100	Fluidization dynamics of cohesive Geldart B particles. Part II: Pressure fluctuation analysis. Chemical Engineering Journal, 2019, 368, 627-638.	6.6	22
101	Improved thermal energy storage of nanoencapsulated phase change materials by atomic layer deposition. Solar Energy Materials and Solar Cells, 2020, 206, 110322.	3.0	22
102	Measurement of charge distribution around a rising bubble in a 2-D fluidized bed. AICHE Journal, 2006, 52, 174-184.	1.8	21
103	Case studies for selective agglomeration detection in fluidized beds: Application of a new screening methodology. Powder Technology, 2010, 203, 148-166.	2.1	21
104	Scale-up of fluidized beds with vertical internals: Studying the sectoral approach by means of optical probes. Chemical Engineering Journal, 2014, 252, 131-140.	6.6	21
105	Quantification of powder wetting by drop penetration time. Powder Technology, 2015, 274, 62-66.	2.1	21
106	Influence of composition and structure on the thermal quenching of the 5dâ€“4f emission of Eu²⁺ doped Mâ€“Siâ€“N (M = alkali, alkaline earth, rare earth) nitridosilicates. Journal of Materials Chemistry C, 2019, 7, 6289-6300.	2.7	21
107	Universal stability curve for pattern formation in pulsed gas-solid fluidized beds of sandlike particles. Physical Review Fluids, 2018, 3, .	1.0	21
108	Local and global hydrodynamics in a two-phase internal loop airlift. Chemical Engineering Science, 2007, 62, 7068-7077.	1.9	20

#	Article	IF	Citations
109	Effect of Distributor Design on the Bottom Zone Hydrodynamics in a Fluidized Bed Dryer Using 1-D X-ray Densitometry Imaging. Industrial & Engineering Chemistry Research, 2009, 48, 7004-7015.	1.8	20
110	Radial Bubble Distribution in a Fluidized Bed with Vertical Tubes. Industrial & Engineering Chemistry Research, 2012, 51, 13815-13824.	1.8	20
111	Drug powders with tunable wettability by atomic and molecular layer deposition: From highly hydrophilic to superhydrophobic. Applied Materials Today, 2021, 22, 100945.	2.3	20
112	Effect of particle lyophobicity in slurry bubble columns at elevated pressures. Chemical Engineering Science, 2007, 62, 5533-5537.	1.9	19
113	Methodology for the Screening of Signal Analysis Methods for Selective Detection of Hydrodynamic Changes in Fluidized Bed Systems. Industrial & Engineering Chemistry Research, 2009, 48, 3158-3166.	1.8	19
114	Gas Fraction and Bubble Dynamics in Structured Slurry Bubble Columns. Industrial & Engineering Chemistry Research, 2010, 49, 10689-10697.	1.8	19
115	Low-temperature atomic layer deposition delivers more active and stable Pt-based catalysts. Nanoscale, 2017, 9, 10802-10810.	2.8	19
116	Comparison of genetic algorithm and algebraic reconstruction for X-ray tomography in bubbling fluidized beds. Powder Technology, 2014, 253, 626-637.	2.1	18
117	Flowability characterization of nanopowders. Powder Technology, 2015, 286, 156-163.	2.1	18
118	Characterization of fluidized nanoparticle agglomerates by using adhesive CFD-DEM simulation. Powder Technology, 2016, 304, 198-207.	2.1	18
119	Tuning roughness and gloss of powder coating paint by encapsulating the coating particles with thin Al 2 O 3 films. Powder Technology, 2017, 318, 401-410.	2.1	18
120	Nanoengineering of Crystal and Amorphous Surfaces of Pharmaceutical Particles for Biomedical Applications. ACS Applied Bio Materials, 2019, 2, 1518-1530.	2.3	17
121	Thermal atomic layer deposition of gold nanoparticles: controlled growth and size selection for photocatalysis. Nanoscale, 2020, 12, 9005-9013.	2.8	17
122	Fluorocarbon Coatings Deposited on Micronâ€Sized Particles by Atmospheric PECVD. Plasma Processes and Polymers, 2012, 9, 217-224.	1.6	16
123	Controlled Growth of Palladium Nanoparticles on Graphene Nanoplatelets via Scalable Atmospheric Pressure Atomic Layer Deposition. Journal of Physical Chemistry C, 2016, 120, 8832-8840.	1.5	16
124	Improving heat transfer of stabilised thermal oil-based tin nanofluids using biosurfactant and molecular layer deposition. Applied Thermal Engineering, 2020, 178, 115559.	3.0	16
125	A settling tube to determine the terminal velocity and size distribution of fluidized nanoparticle agglomerates. Journal of Nanoparticle Research, 2014, 16, 1.	0.8	15
126	Synthesis of a nanosilica supported CO2 sorbent in a fluidized bed reactor. Applied Surface Science, 2015, 328, 548-553.	3.1	15

#	Article	IF	Citations
127	X-ray measurements on the influence of optical probes on gasâ€“solid fluidized beds. International Journal of Multiphase Flow, 2015, 74, 143-147.	1.6	15
128	Influence of vertical heat exchanger tubes, their arrangement and the column diameter on the hydrodynamics in a gasâ€“solid bubbling fluidized bed. International Journal of Multiphase Flow, 2017, 97, 46-59.	1.6	15
129	Minimum pickup velocity (U pu) of nanoparticles in gasâ€“solid pneumatic conveying. Journal of Nanoparticle Research, 2015, 17, 1.	0.8	14
130	Controlled release from protein particles encapsulated by molecular layer deposition. Chemical Communications, 2015, 51, 12540-12543.	2.2	14
131	Accelerating Natural CO₂ Mineralization in a Fluidized Bed. Industrial & Engineering Chemistry Research, 2016, 55, 2946-2951.	1.8	14
132	Contact Forces between Single Metal Oxide Nanoparticles in Gas-Phase Applications and Processes. Langmuir, 2017, 33, 2477-2484.	1.6	14
133	Bubble Size Reduction in a Fluidized Bed by Electric Fields. International Journal of Chemical Reactor Engineering, 2003, 1, .	0.6	13
134	Evaluation of a sectoral scaling approach for bubbling fluidized beds with vertical internals. Chemical Engineering Journal, 2012, 197, 435-439.	6.6	13
135	Enhanced Barrier Performance of Engineered Paper by Atomic Layer Deposited Al₂O₃ Thin Films. ACS Applied Materials & Interfaces, 2016, 8, 13590-13600.	4.0	13
136	Modeling the size distribution in a fluidized bed of nanopowder. Powder Technology, 2017, 312, 347-353.	2.1	13
137	Long-term fluidization of titania nanoparticle agglomerates. Powder Technology, 2017, 316, 441-445.	2.1	13
138	Fluidization of spherical versus elongated particles - experimental investigation using X-ray tomography. Chemical Engineering Journal, 2020, 397, 125203.	6.6	13
139	Gas Phase Modification of Silica Nanoparticles in a Fluidized Bed: Tailored Deposition of Aminopropylsiloxane. Langmuir, 2021, 37, 4481-4492.	1.6	13
140	Monitoring Fluidization by Dynamic Pressure Analysis. Chemical Engineering and Technology, 1999, 22, 773.	0.9	12
141	Prevention of flooding in a countercurrent trickle-bed reactor using additional void space. Chemical Engineering Journal, 2008, 138, 333-340.	6.6	12
142	Analysis of pressure fluctuations in fluidized beds. I. Similarities with turbulent flow. Chemical Engineering Science, 2011, 66, 2627-2636.	1.9	12
143	Bubbles scatter light, yet that does not hurt the performance of bubbly slurry photocatalytic reactors. Chemical Engineering Science, 2013, 100, 506-514.	1.9	12
144	Improved Blueâ€Emitting AlN:Eu²⁺ Phosphors by Alloying with GaN. Journal of the American Ceramic Society, 2015, 98, 3897-3904.	1.9	12

#	Article	IF	Citations
145	Modelâ€Based Optimization of a Photocatalytic Reactor with Lightâ€Emitting Diodes. Chemical Engineering and Technology, 2016, 39, 1946-1954.	0.9	12
146	Sub-nanoscale Surface Engineering of TiO₂ Nanoparticles by Molecular Layer Deposition of Poly(ethylene terephthalate) for Suppressing Photoactivity and Enhancing Dispersibility. ACS Applied Nano Materials, 2020, 3, 6737-6748.	2.4	12
147	Safe-by-Design in Engineering: An Overview and Comparative Analysis of Engineering Disciplines. International Journal of Environmental Research and Public Health, 2021, 18, 6329.	1.2	12
148	Mechanistic insight into the improved photocatalytic degradation of dyes for an ultrathin coating of SiO2 on TiO2 (P25) nanoparticles. Chemical Engineering Journal Advances, 2022, 10, 100288.	2.4	12
149	Early detection of foam formation in bubble columns by attractor comparison. AICHE Journal, 2003, 49, 2442-2444.	1.8	11
150	A hybrid tomographic reconstruction algorithm for high speed X-ray tomography. Computer Physics Communications, 2015, 196, 27-35.	3.0	11
151	Characterization of the Stratified Morphology of Nanoparticle Agglomerates. Journal of Physical Chemistry C, 2016, 120, 20446-20453.	1.5	11
152	Dynamic analysis of the scale-up of fluidized beds. Advanced Powder Technology, 2017, 28, 2621-2629.	2.0	11
153	Generation and evaluation of an artificial optical signal based on X-ray measurements for bubble characterization in fluidized beds with vertical internals. International Journal of Multiphase Flow, 2018, 107, 16-32.	1.6	11
154	The Multiresonant Hamiltonian Model and Polyad Quantum Numbers for Highly Excited Vibrational States. ACS Symposium Series, 1997, , 51-68.	0.5	10
155	Early Agglomeration Recognition System (EARS). , 2003, , 571.		10
156	A fast reconstruction algorithm for time-resolved X-ray tomography in bubbling fluidized beds. Powder Technology, 2016, 290, 33-44.	2.1	10
157	Characterization of TiO 2 nanoparticles fluidization using X-ray imaging and pressure signals. Powder Technology, 2017, 316, 446-454.	2.1	10
158	On the hydrodynamics of membrane assisted fluidized bed reactors using X-ray analysis. Chemical Engineering and Processing: Process Intensification, 2017, 122, 508-522.	1.8	10
159	Transition of Emission Colours as a Consequence of Heat-Treatment of Carbon Coated Ce3+-Doped YAG Phosphors. Materials, 2017, 10, 1180.	1.3	10
160	Oriented Attachment and Nanorod Formation in Atomic Layer Deposition of TiO₂ on Graphene Nanoplatelets. Journal of Physical Chemistry C, 2018, 122, 19981-19991.	1.5	10
161	Towards monitoring electrostatics in gasâ€“solid fluidized beds. Canadian Journal of Chemical Engineering, 2008, 86, 493-505.	0.9	9
162	Optimizing off-lattice Diffusion-Limited Aggregation. Computer Physics Communications, 2014, 185, 841-846.	3.0	9

#	Article	IF	Citations
163	Enhancing the activation of silicon carbide tracer particles for PEPT applications using gas-phase deposition of alumina at room temperature and atmospheric pressure. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 807, 108-113.	0.7	9
164	The application of automated feedback and feedforward control to a LED-based photocatalytic reactor. Chemical Engineering Journal, 2019, 362, 375-382.	6.6	9
165	Atomic Layer Deposition of Al₂O₃ Using Aluminum Triisopropoxide (ATIP): A Combined Experimental and Theoretical Study. Journal of Physical Chemistry C, 2019, 123, 485-494.	1.5	9
166	Controlled growth of ultrasmall Cu₂O clusters on TiO₂ nanoparticles by atmospheric-pressure atomic layer deposition for enhanced photocatalytic activity. Nanotechnology, 2021, 32, 425601.	1.3	9
167	Selectivity Enhancement for Ruthenium Atomic Layer Deposition in Subâ€50Ânm Nanopatterns by Diffusion and Sizeâ€Dependent Reactivity. Advanced Materials Interfaces, 2021, 8, 2100846.	1.9	9
168	Estimation of the overall mass flux in inclined standpipes by means of pressure fluctuation measurements. Chemical Engineering Journal, 2012, 204-206, 125-130.	6.6	8
169	Time-resolved characterization of a flat-base spouted bed with a high speed X-ray system. Chemical Engineering Journal, 2014, 254, 143-152.	6.6	8
170	Gas distribution of a downward micro-nozzle assisted fluidized bed of fine powder. Chemical Engineering Journal, 2015, 264, 945-953.	6.6	8
171	Aluminum tri-isopropoxide as an alternative precursor for atomic layer deposition of aluminum oxide thin films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2019, 37, .	0.9	8
172	Dual promotional effect of Cu_xO clusters grown with atomic layer deposition on TiO₂ for photocatalytic hydrogen production. Catalysis Science and Technology, 2022, 12, 4511-4523.	2.1	8
173	Monitoring slurry-loop reactors for early detection of hydrodynamic instabilities. Chemical Engineering and Processing: Process Intensification, 2005, 44, 959-968.	1.8	7
174	A convection-based single-parameter model for heat transport in multiphase tubular reactors packed with closed cross flow structures. Chemical Engineering Journal, 2013, 233, 265-273.	6.6	7
175	Minimum pickup velocity: The transition between nanoâ€scale and microâ€scale. AICHE Journal, 2017, 63, 1512-1519.	1.8	7
176	The application of atomic layer deposition in the production of sorbents for 99Mo/99mTc generator. Applied Radiation and Isotopes, 2020, 164, 109266.	0.7	7
177	Monitoring Fluidization Dynamics for Detection of Changes in Fluidized Bed Composition and Operating Conditions. Journal of Fluids Engineering, Transactions of the ASME, 1999, 121, 887-894.	0.8	6
178	Intensified operation of slurry bubble columns using structured gas injection. Canadian Journal of Chemical Engineering, 2010, 88, 533-542.	0.9	6
179	Simulation of atomic layer deposition on nanoparticle agglomerates. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2017, 35, .	0.9	6
180	Multitarget Evaluation of the Photocatalytic Activity of P25-SiO2 Prepared by Atomic Layer Deposition. Catalysts, 2020, 10, 450.	1.6	6

#	Article	IF	Citations
181	Elutriation and agglomerate size distribution in a silica nanoparticle vibro-fluidized bed. Chemical Engineering Journal, 2022, 434, 134654.	6.6	6
182	Continuous process to deposit nanoparticles onto microparticles. Chemical Engineering Journal, 2012, 181-182, 798-805.	6.6	5
183	Numerical Validation of a Simplified Engineering Approach for Heat Transfer in a Closed-Cross-Flow Structured Tubular Reactor. Industrial & Engineering Chemistry Research, 2014, 53, 16579-16585.	1.8	5
184	Transformation of local bubble rise velocity measurements to global results: Shown by a Monte Carlo simulation of a fluidized bed. International Journal of Multiphase Flow, 2015, 70, 89-95.	1.6	5
185	Static and Dynamic Stickiness Tests to Measure Particle Stickiness. KONA Powder and Particle Journal, 2021, 38, 26-41.	0.9	5
186	Safe-and-Sustainable-by-Design Framework Based on a Prospective Life Cycle Assessment: Lessons Learned from a Nano-Titanium Dioxide Case Study. International Journal of Environmental Research and Public Health, 2022, 19, 4241.	1.2	5
187	Early Agglomeration Recognition System (EARS). Journal of Energy Resources Technology, Transactions of the ASME, 2006, 128, 143.	1.4	4
188	Diffusion limitations in stagnant photocatalytic reactors. Chemical Engineering Journal, 2014, 247, 314-319.	6.6	4
189	Modeling the size distribution in a fluidized bed of nanopowder. Environmental Science: Nano, 2017, 4, 670-678.	2.2	4
190	Scalable manufacturing of nanostructured materials by atomic layer deposition in fluidized bed reactors. Computer Aided Chemical Engineering, 2019, , 403-408.	0.3	4
191	Impacts of a novel controlled-release TiO2-coated (nano-) formulation of carbendazim and its constituents on freshwater macroinvertebrate communities. Science of the Total Environment, 2022, 838, 156554.	3.9	4
192	Multidimensionality in fluidized nanopowder agglomerates. AIP Conference Proceedings, 2013, , .	0.3	3
193	Moving reaction fronts in fractal nanoparticle agglomerates. Chemical Engineering Science, 2019, 206, 180-186.	1.9	3
194	Synthesis of a Rationally Designed Multi-Component Photocatalyst Pt:SiO2:TiO2(P25) with Improved Activity for Dye Degradation by Atomic Layer Deposition. Nanomaterials, 2020, 10, 1496.	1.9	3
195	Lutetium coating of nanoparticles by atomic layer deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, 022414.	0.9	3
196	Fluidization of fine lactose for dry powder inhalation: A comparison of assisting methods. Canadian Journal of Chemical Engineering, 2021, 99, 1696-1705.	0.9	2
197	X-ray tomography analysis of bubbles and slugs in a fluidized bed with inter-particle force. International Journal of Multiphase Flow, 2021, 145, 103835.	1.6	2
198	Direct simulation Monte Carlo calculation of rarefied gas drag using an immersed boundary method. AIP Conference Proceedings, 2016, , .	0.3	1

#	Article	IF	Citations
199	64Cu enrichment using the Szilard-Chalmers effect â€“ The influence of Î³-dose. Applied Radiation and Isotopes, 2020, 160, 109135.	0.7	1
200	Structured millichannel multiphase reactors. Computer Aided Chemical Engineering, 2019, 46, 1789-1794.	0.3	1
201	Reactors. , 2014, , 159-183.		0
202	Numerical Modeling of the Mechanical Reliability of Multicoated Nanoencapsulated Phaseâ€€Change Materials with Improved Thermal Performance. Solar Rrl, 0, , 2100724.	3.1	0