

J Ruud Van Ommen

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

204
papers

5,023
citations

35
h-index

59
g-index

211
ext. papers

5,684
ext. citations

5.8
avg, IF

5.9
L-index

#	Paper	IF	Citations
204	Agglomeration in fluidized beds at high temperatures: Mechanisms, detection and prevention. <i>Progress in Energy and Combustion Science</i> , 2008 , 34, 633-666	33.6	262
203	Time-series analysis of pressure fluctuations in gas-solid fluidized beds – A review. <i>International Journal of Multiphase Flow</i> , 2011 , 37, 403-428	3.6	228
202	Structured Packings for Multiphase Catalytic Reactors. <i>Industrial & Engineering Chemistry Research</i> , 2008 , 47, 3720-3751	3.9	145
201	Early warning of agglomeration in fluidized beds by attractor comparison. <i>AIChE Journal</i> , 2000 , 46, 2183-2197	3.2	144
200	Fluidization of nanopowders: a review. <i>Journal of Nanoparticle Research</i> , 2012 , 14, 737	2.3	135
199	Scale-up of bubbling fluidized bed reactors – A review. <i>Powder Technology</i> , 2012 , 217, 21-38	5.2	129
198	Atomic and molecular layer deposition: off the beaten track. <i>Chemical Communications</i> , 2016 , 53, 45-71	5.8	128
197	Structuring catalyst and reactor – An inviting avenue to process intensification. <i>Catalysis Science and Technology</i> , 2015 , 5, 807-817	5.5	94
196	Fischer-Tropsch reaction – Diffusion in a cobalt catalyst particle: aspects of activity and selectivity for a variable chain growth probability. <i>Catalysis Science and Technology</i> , 2012 , 2, 1221	5.5	88
195	Response characteristics of probe-transducer systems for pressure measurements in gas-solid fluidized beds: how to prevent pitfalls in dynamic pressure measurements. <i>Powder Technology</i> , 1999 , 106, 199-218	5.2	78
194	Understanding and Controlling the Aggregative Growth of Platinum Nanoparticles in Atomic Layer Deposition: An Avenue to Size Selection. <i>Journal of Physical Chemistry Letters</i> , 2017 , 8, 975-983	6.4	75
193	Detecting regime transitions in slurry bubble columns using pressure time series. <i>AIChE Journal</i> , 2005 , 51, 1951-1965	3.6	69
192	Atmospheric Pressure Process for Coating Particles Using Atomic Layer Deposition. <i>Chemical Vapor Deposition</i> , 2009 , 15, 227-233		65
191	Similarity between chaos analysis and frequency analysis of pressure fluctuations in fluidized beds. <i>Chemical Engineering Science</i> , 2004 , 59, 1829-1840	4.4	62
190	Atomic layer deposition of platinum clusters on titania nanoparticles at atmospheric pressure. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 4647	13	60
189	Structuring chaotic fluidized beds. <i>Chemical Engineering Journal</i> , 2003 , 96, 117-124	14.7	60
188	Review Article: Recommended reading list of early publications on atomic layer deposition – Outcome of the Virtual Project on the History of ALD – <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2017 , 35, 010801	2.9	55

187	A method for agglomeration detection and control in full-scale biomass fired fluidized beds. <i>Chemical Engineering Science</i> , 2007 , 62, 644-654	4.4	52
186	Effects of pressure and fines content on bubble diameter in a fluidized bed studied using fast X-ray tomography. <i>Chemical Engineering Journal</i> , 2012 , 207-208, 711-717	14.7	51
185	Geopolymer Coating of Bacteria-containing Granules for Use in Self-healing Concrete. <i>Procedia Engineering</i> , 2015 , 102, 475-484		50
184	The role of the hydrogen bond in dense nanoparticle-gas suspensions. <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 5788-93	3.6	49
183	Bubble size estimation in slurry bubble columns from pressure fluctuations. <i>AIChE Journal</i> , 2005 , 51, 1924-1937	3.6	49
182	Bubble characterization in a fluidized bed by means of optical probes. <i>International Journal of Multiphase Flow</i> , 2012 , 41, 56-67	3.6	48
181	Experimental and numerical comparison of structured packings with a randomly packed bed reactor for Fischer-Tropsch synthesis. <i>Catalysis Today</i> , 2009 , 147, S2-S9	5.3	48
180	Enhanced Optical Performance of BaMgAl10O17:Eu ²⁺ Phosphor by a Novel Method of Carbon Coating. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 2355-2361	3.8	47
179	The fractal scaling of fluidized nanoparticle agglomerates. <i>Chemical Engineering Science</i> , 2014 , 112, 79-86	4.4	47
178	Improved Drying in a Pulsation-Assisted Fluidized Bed. <i>Industrial & Engineering Chemistry Research</i> , 2009 , 48, 302-309	3.9	44
177	Rapid detection of defluidization using the standard deviation of pressure fluctuations. <i>Chemical Engineering and Processing: Process Intensification</i> , 2004 , 43, 1329-1335	3.7	44
176	Measuring the Gas-Solids Distribution in Fluidized Beds -- A Review. <i>International Journal of Chemical Reactor Engineering</i> , 2008 , 6,	1.2	43
175	Monitoring a lab-scale fluidized bed dryer: A comparison between pressure transducers, passive acoustic emissions and vibration measurements. <i>Powder Technology</i> , 2010 , 197, 36-48	5.2	38
174	Scale-up study of a multiphase photocatalytic reactor--degradation of cyanide in water over TiO ₂ . <i>Environmental Science & Technology</i> , 2014 , 48, 1574-81	10.3	37
173	Modeling the precursor utilization in atomic layer deposition on nanostructured materials in fluidized bed reactors. <i>Chemical Engineering Journal</i> , 2015 , 268, 384-398	14.7	37
172	Computational validation of the scaling rules for fluidized beds. <i>Powder Technology</i> , 2006 , 163, 32-40	5.2	37
171	Diffusion-Mediated Growth and Size-Dependent Nanoparticle Reactivity during Ruthenium Atomic Layer Deposition on Dielectric Substrates. <i>Advanced Materials Interfaces</i> , 2018 , 5, 1800870	4.6	37
170	Optimal placement of probes for dynamic pressure measurements in large-scale fluidized beds. <i>Powder Technology</i> , 2004 , 139, 264-276	5.2	36

169	Continuous production of nanostructured particles using spatial atomic layer deposition. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2015 , 33, 021513	2.9	34
168	Nanoparticle sintering in atomic layer deposition of supported catalysts: Kinetic modeling of the size distribution. <i>Catalysis Today</i> , 2018 , 316, 51-61	5.3	34
167	Gas-Phase Deposition of Ultrathin Aluminium Oxide Films on Nanoparticles at Ambient Conditions. <i>Materials</i> , 2015 , 8, 1249-1263	3.5	33
166	Influence of vertical internals on a bubbling fluidized bed characterized by X-ray tomography. <i>International Journal of Multiphase Flow</i> , 2015 , 75, 237-249	3.6	33
165	Photocatalytic-reactor efficiencies and simplified expressions to assess their relevance in kinetic experiments. <i>Chemical Engineering Journal</i> , 2012 , 207-208, 607-615	14.7	33
164	Influence of Distributed Secondary Gas Injection on the Performance of a Bubbling Fluidized-Bed Reactor. <i>Industrial & Engineering Chemistry Research</i> , 2008 , 47, 3601-3618	3.9	32
163	NatureInspired selfcleaning surfaces: Mechanisms, modelling, and manufacturing. <i>Chemical Engineering Research and Design</i> , 2020 , 155, 48-65	5.5	32
162	Enhanced Particle Mixing in Pulsed Fluidized Beds and the Effect of Internals. <i>Industrial & Engineering Chemistry Research</i> , 2012 , 51, 1713-1720	3.9	31
161	Four Ways To Introduce Structure in Fluidized Bed Reactors. <i>Industrial & Engineering Chemistry Research</i> , 2007 , 46, 4236-4244	3.9	31
160	Use of stress fluctuations to monitor wet granulation of powders. <i>Powder Technology</i> , 2001 , 117, 149-163	3.2	31
159	Multidimensional nature of fluidized nanoparticle agglomerates. <i>Langmuir</i> , 2014 , 30, 12696-702	4	30
158	Fast X-ray tomography for the quantification of the bubbling-, turbulent- and fast fluidization-flow regimes and void structures. <i>Chemical Engineering Journal</i> , 2013 , 234, 437-447	14.7	30
157	Comparison of bubble growth obtained from pressure fluctuation measurements to optical probing and literature correlations. <i>Chemical Engineering Science</i> , 2012 , 74, 266-275	4.4	30
156	Comparison of three different methodologies of pressure signal processing to monitor fluidized-bed dryers/granulators. <i>Chemical Engineering Journal</i> , 2011 , 172, 487-499	14.7	30
155	Photocatalytic Reactor Design: Guidelines for Kinetic Investigation. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 5349-5357	3.9	29
154	X-ray measurements of bubble hold-up in fluidized beds with and without vertical internals. <i>International Journal of Multiphase Flow</i> , 2015 , 74, 118-124	3.6	29
153	An adhesive CFD-DEM model for simulating nanoparticle agglomerate fluidization. <i>AIChE Journal</i> , 2016 , 62, 2259-2270	3.6	29
152	Discrete particle simulations of an electric-field enhanced fluidized bed. <i>Powder Technology</i> , 2008 , 183, 196-206	5.2	29

151	Intriguing luminescence properties of (Ba, Sr) ₃ Si ₆ O ₉ N ₄ : Eu ²⁺ phosphors via modifying synthesis method and cation substitution. <i>Journal of Alloys and Compounds</i> , 2016 , 682, 481-488	5.7	28
150	Monte Carlo simulation of the bubble size distribution in a fluidized bed with intrusive probes. <i>International Journal of Multiphase Flow</i> , 2012 , 44, 1-14	3.6	28
149	Selectivity of the Fischer-Tropsch process: deviations from single alpha product distribution explained by gradients in process conditions. <i>Catalysis Science and Technology</i> , 2013 , 3, 2210	5.5	27
148	Bubble Characterization in a Fluidized Bed with Vertical Tubes. <i>Industrial & Engineering Chemistry Research</i> , 2012 , 51, 4748-4758	3.9	27
147	Detecting and Counteracting Agglomeration in Fluidized Bed Biomass Combustion. <i>Energy & Fuels</i> , 2009 , 23, 157-169	4.1	27
146	A model to estimate the size of nanoparticle agglomerates in gas-solid fluidized beds. <i>Journal of Nanoparticle Research</i> , 2013 , 15, 1	2.3	26
145	Functionalization of lactose as a biological carrier for bovine serum albumin by electrospraying. <i>International Journal of Pharmaceutics</i> , 2011 , 414, 1-5	6.5	26
144	The influence of the particle size distribution on fluidized bed hydrodynamics using high-throughput experimentation. <i>AIChE Journal</i> , 2009 , 55, 2013-2023	3.6	26
143	Residence times in fluidized beds with secondary gas injection. <i>Powder Technology</i> , 2008 , 180, 321-331	5.2	26
142	Deposition Mechanism of Aluminum Oxide on Quantum Dot Films at Atmospheric Pressure and Room Temperature. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 4266-4275	3.8	26
141	Process intensification of tubular reactors: Considerations on catalyst hold-up of structured packings. <i>Catalysis Today</i> , 2013 , 216, 111-116	5.3	25
140	Heat transport in structured packings with two-phase co-current downflow. <i>Chemical Engineering Journal</i> , 2012 , 185-186, 250-266	14.7	25
139	Detection of agglomeration and gradual particle size changes in circulating fluidized beds. <i>Powder Technology</i> , 2010 , 202, 24-38	5.2	25
138	Heat transport in structured packings with co-current downflow of gas and liquid. <i>Chemical Engineering Science</i> , 2010 , 65, 420-426	4.4	25
137	Intensifying the Fischer-Tropsch Synthesis by reactor structuring – A model study. <i>Chemical Engineering Journal</i> , 2012 , 207-208, 865-870	14.7	24
136	Imposing dynamic structures on fluidised beds. <i>Catalysis Today</i> , 2005 , 105, 560-568	5.3	24
135	Correlating bubble size and velocity distribution in bubbling fluidized bed based on X-ray tomography. <i>Chemical Engineering Journal</i> , 2016 , 298, 17-25	14.7	24
134	Room-temperature pulsed CVD-grown SiO ₂ protective layer on TiO ₂ particles for photocatalytic activity suppression. <i>RSC Advances</i> , 2017 , 7, 4547-4554	3.7	23

133	Protecting the MoSi ₂ healing particles for thermal barrier coatings using a sol-gel produced Al ₂ O ₃ coating. <i>Journal of the European Ceramic Society</i> , 2018 , 38, 2728-2734	6	23
132	Spatial, temporal and quantitative assessment of catalyst leaching in continuous flow. <i>Catalysis Today</i> , 2018 , 308, 64-70	5.3	23
131	Suppressing the Photocatalytic Activity of TiO ₂ Nanoparticles by Extremely Thin Al ₂ O ₃ Films Grown by Gas-Phase Deposition at Ambient Conditions. <i>Nanomaterials</i> , 2018 , 8,	5.4	23
130	Advances in scalable gas-phase manufacturing and processing of nanostructured solids: A review. <i>Particuology</i> , 2017 , 30, 15-39	2.8	23
129	Intensification of co-current gas-liquid reactors using structured catalytic packings: A multiscale approach. <i>Catalysis Today</i> , 2009 , 147, S138-S143	5.3	23
128	Insights in distributed secondary gas injection in a bubbling fluidized bed via discrete particle simulations. <i>Powder Technology</i> , 2008 , 183, 454-466	5.2	23
127	Bubble size reduction in electric-field-enhanced fluidized beds. <i>Journal of Electrostatics</i> , 2005 , 63, 943-948	4.7	23
126	Performance improvement by alumina coatings on Y ₃ Al ₅ O ₁₂ :Ce ³⁺ phosphor powder deposited using atomic layer deposition in a fluidized bed reactor. <i>RSC Advances</i> , 2016 , 6, 76454-76462	3.7	23
125	Scalable Production of Nanostructured Particles using Atomic Layer Deposition. <i>KONA Powder and Particle Journal</i> , 2014 , 31, 234-246	3.4	22
124	Scalable gas-phase processes to create nanostructured particles. <i>Particuology</i> , 2010 , 8, 572-577	2.8	22
123	Numerical optimization of a structured tubular reactor for Fischer-Tropsch synthesis. <i>Chemical Engineering Journal</i> , 2016 , 283, 1465-1483	14.7	21
122	The influence of vessel geometry on fluidized bed dryer hydrodynamics. <i>Powder Technology</i> , 2009 , 194, 115-125	5.2	21
121	Measurement of charge distribution around a rising bubble in a 2-D fluidized bed. <i>AIChE Journal</i> , 2006 , 52, 174-184	3.6	21
120	Contact mechanics of highly porous oxide nanoparticle agglomerates. <i>Journal of Nanoparticle Research</i> , 2016 , 18, 200	2.3	20
119	Case studies for selective agglomeration detection in fluidized beds: Application of a new screening methodology. <i>Powder Technology</i> , 2010 , 203, 148-166	5.2	20
118	Power-law distribution of pressure fluctuations in multiphase flow. <i>Physical Review E</i> , 2003 , 67, 041305	2.4	20
117	Dependence of the photoluminescence properties of Eu ²⁺ doped M ₂ Si ₂ N ₂ (M = alkali, alkaline earth or rare earth metal) nitridosilicates on their structure and composition. <i>Journal of Materials Chemistry C</i> , 2018 , 6, 5671-5683	7.1	19
116	Characterization of the void size distribution in fluidized beds using statistics of pressure fluctuations. <i>Powder Technology</i> , 2005 , 160, 81-92	5.2	19

115	Quantification of powder wetting by drop penetration time. <i>Powder Technology</i> , 2015 , 274, 62-66	5.2	18
114	Design, characterization and model validation of a LED-based photocatalytic reactor for gas phase applications. <i>Chemical Engineering Journal</i> , 2018 , 333, 456-466	14.7	18
113	Scale-up of fluidized beds with vertical internals: Studying the sectoral approach by means of optical probes. <i>Chemical Engineering Journal</i> , 2014 , 252, 131-140	14.7	18
112	Atomic scale surface engineering of micro- to nano-sized pharmaceutical particles for drug delivery applications. <i>Nanoscale</i> , 2017 , 9, 11410-11417	7.7	18
111	Radial Bubble Distribution in a Fluidized Bed with Vertical Tubes. <i>Industrial & Engineering Chemistry Research</i> , 2012 , 51, 13815-13824	3.9	18
110	Dynamics of single rising bubbles in neutrally buoyant liquid-solid suspensions. <i>Physical Review Letters</i> , 2013 , 110, 244501	7.4	18
109	Effective coating of titania nanoparticles with alumina via atomic layer deposition. <i>Applied Surface Science</i> , 2017 , 426, 480-496	6.7	17
108	Local and global hydrodynamics in a two-phase internal loop airlift. <i>Chemical Engineering Science</i> , 2007 , 62, 7068-7077	4.4	17
107	Tuning roughness and gloss of powder coating paint by encapsulating the coating particles with thin Al ₂ O ₃ films. <i>Powder Technology</i> , 2017 , 318, 401-410	5.2	16
106	Effects of Surface Modification on Optical Properties and Thermal Stability of K ₂ SiF ₆ :Mn ⁴⁺ Red Phosphors by Deposition of an Ultrathin Al ₂ O ₃ Layer Using Gas-Phase Deposition in a Fluidized Bed Reactor. <i>ECS Journal of Solid State Science and Technology</i> , 2019 , 8, R88-R96	2	16
105	Comparison of genetic algorithm and algebraic reconstruction for X-ray tomography in bubbling fluidized beds. <i>Powder Technology</i> , 2014 , 253, 626-637	5.2	16
104	Fluorocarbon Coatings Deposited on Micron-Sized Particles by Atmospheric PECVD. <i>Plasma Processes and Polymers</i> , 2012 , 9, 217-224	3.4	16
103	Gas Fraction and Bubble Dynamics in Structured Slurry Bubble Columns. <i>Industrial & Engineering Chemistry Research</i> , 2010 , 49, 10689-10697	3.9	16
102	Low-temperature atomic layer deposition delivers more active and stable Pt-based catalysts. <i>Nanoscale</i> , 2017 , 9, 10802-10810	7.7	15
101	Flowability characterization of nanopowders. <i>Powder Technology</i> , 2015 , 286, 156-163	5.2	15
100	Effect of particle lyophobicity in slurry bubble columns at elevated pressures. <i>Chemical Engineering Science</i> , 2007 , 62, 5533-5537	4.4	15
99	Controlled Growth of Palladium Nanoparticles on Graphene Nanoplatelets via Scalable Atmospheric Pressure Atomic Layer Deposition. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 8832-8840	3.8	15
98	Influence of composition and structure on the thermal quenching of the 5d ⁴ f emission of Eu ²⁺ doped MSiN (M = alkali, alkaline earth, rare earth) nitridosilicates. <i>Journal of Materials Chemistry C</i> , 2019 , 7, 6289-6300	7.1	14

97	Enhanced thermal degradation stability of the Sr ₂ Si ₅ N ₈ :Eu ²⁺ phosphor by ultra-thin Al ₂ O ₃ coating through the atomic layer deposition technique in a fluidized bed reactor. <i>Journal of Materials Chemistry C</i> , 2019 , 7, 5772-5781	7.1	14
96	X-ray measurements on the influence of optical probes on gas-solid fluidized beds. <i>International Journal of Multiphase Flow</i> , 2015 , 74, 143-147	3.6	14
95	Atomic Layer Deposition of ZnO on InP Quantum Dot Films for Charge Separation, Stabilization, and Solar Cell Formation. <i>Advanced Materials Interfaces</i> , 2020 , 7, 1901600	4.6	14
94	Effect of Distributor Design on the Bottom Zone Hydrodynamics in a Fluidized Bed Dryer Using 1-D X-ray Densitometry Imaging. <i>Industrial & Engineering Chemistry Research</i> , 2009 , 48, 7004-7015	3.9	14
93	Universal stability curve for pattern formation in pulsed gas-solid fluidized beds of sandlike particles. <i>Physical Review Fluids</i> , 2018 , 3,	2.8	14
92	Tuning the photocatalytic activity of TiO ₂ nanoparticles by ultrathin SiO ₂ films grown by low-temperature atmospheric pressure atomic layer deposition. <i>Applied Surface Science</i> , 2020 , 530, 147244	6.7	14
91	Area-Selective Deposition of Ruthenium by Area-Dependent Surface Diffusion. <i>Chemistry of Materials</i> , 2020 , 32, 9560-9572	9.6	14
90	Assessing the Role of Pt Clusters on TiO ₂ (P25) on the Photocatalytic Degradation of Acid Blue 9 and Rhodamine B. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 8269-8278	3.8	13
89	A settling tube to determine the terminal velocity and size distribution of fluidized nanoparticle agglomerates. <i>Journal of Nanoparticle Research</i> , 2014 , 16, 1	2.3	13
88	Methodology for the Screening of Signal Analysis Methods for Selective Detection of Hydrodynamic Changes in Fluidized Bed Systems. <i>Industrial & Engineering Chemistry Research</i> , 2009 , 48, 3158-3166	3.9	13
87	Synthesis of a nanosilica supported CO ₂ sorbent in a fluidized bed reactor. <i>Applied Surface Science</i> , 2015 , 328, 548-553	6.7	12
86	Analysis of pressure fluctuations in fluidized beds. I. Similarities with turbulent flow. <i>Chemical Engineering Science</i> , 2011 , 66, 2627-2636	4.4	12
85	Enhanced Barrier Performance of Engineered Paper by Atomic Layer Deposited Al ₂ O ₃ Thin Films. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 13590-600	9.5	12
84	Fluidization dynamics of cohesive Geldart B particles. Part I: X-ray tomography analysis. <i>Chemical Engineering Journal</i> , 2019 , 359, 1024-1034	14.7	12
83	Nanoengineering of Crystal and Amorphous Surfaces of Pharmaceutical Particles for Biomedical Applications.. <i>ACS Applied Bio Materials</i> , 2019 , 2, 1518-1530	4.1	11
82	Controlled release from protein particles encapsulated by molecular layer deposition. <i>Chemical Communications</i> , 2015 , 51, 12540-3	5.8	11
81	Accelerating Natural CO ₂ Mineralization in a Fluidized Bed. <i>Industrial & Engineering Chemistry Research</i> , 2016 , 55, 2946-2951	3.9	11
80	Minimum pickup velocity (U _{pu}) of nanoparticles in gas-solid pneumatic conveying. <i>Journal of Nanoparticle Research</i> , 2015 , 17, 1	2.3	11

79	Improved Blue-Emitting AlN:Eu ²⁺ Phosphors by Alloying with GaN. <i>Journal of the American Ceramic Society</i> , 2015 , 98, 3897-3904	3.8	11
78	Monitoring Fluidization by Dynamic Pressure Analysis. <i>Chemical Engineering and Technology</i> , 1999 , 22, 773	2	11
77	Characterization of fluidized nanoparticle agglomerates by using adhesive CFD-DEM simulation. <i>Powder Technology</i> , 2016 , 304, 198-207	5.2	11
76	Contact Forces between Single Metal Oxide Nanoparticles in Gas-Phase Applications and Processes. <i>Langmuir</i> , 2017 , 33, 2477-2484	4	10
75	Oriented Attachment and Nanorod Formation in Atomic Layer Deposition of TiO on Graphene Nanoplatelets. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 19981-19991	3.8	10
74	Evaluation of a sectoral scaling approach for bubbling fluidized beds with vertical internals. <i>Chemical Engineering Journal</i> , 2012 , 197, 435-439	14.7	10
73	Bubbles scatter light, yet that does not hurt the performance of bubbly slurry photocatalytic reactors. <i>Chemical Engineering Science</i> , 2013 , 100, 506-514	4.4	10
72	The Multiresonant Hamiltonian Model and Polyad Quantum Numbers for Highly Excited Vibrational States. <i>ACS Symposium Series</i> , 1997 , 51-68	0.4	10
71	Prevention of flooding in a countercurrent trickle-bed reactor using additional void space. <i>Chemical Engineering Journal</i> , 2008 , 138, 333-340	14.7	10
70	Early detection of foam formation in bubble columns by attractor comparison. <i>AIChE Journal</i> , 2003 , 49, 2442-2444	3.6	10
69	Improved thermal energy storage of nanoencapsulated phase change materials by atomic layer deposition. <i>Solar Energy Materials and Solar Cells</i> , 2020 , 206, 110322	6.4	10
68	Fluidization dynamics of cohesive Geldart B particles. Part II: Pressure fluctuation analysis. <i>Chemical Engineering Journal</i> , 2019 , 368, 627-638	14.7	10
67	Generation and evaluation of an artificial optical signal based on X-ray measurements for bubble characterization in fluidized beds with vertical internals. <i>International Journal of Multiphase Flow</i> , 2018 , 107, 16-32	3.6	9
66	Characterization of the Stratified Morphology of Nanoparticle Agglomerates. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 20446-20453	3.8	9
65	Influence of vertical heat exchanger tubes, their arrangement and the column diameter on the hydrodynamics in a gas-solid bubbling fluidized bed. <i>International Journal of Multiphase Flow</i> , 2017 , 97, 46-59	3.6	9
64	Transition of Emission Colours as a Consequence of Heat-Treatment of Carbon Coated Ce-Doped YAG Phosphors. <i>Materials</i> , 2017 , 10,	3.5	9
63	Towards monitoring electrostatics in gas-solid fluidized beds. <i>Canadian Journal of Chemical Engineering</i> , 2008 , 86, 493-505	2.3	9
62	Bubble Size Reduction in a Fluidized Bed by Electric Fields. <i>International Journal of Chemical Reactor Engineering</i> , 2003 , 1,	1.2	9

61	Model-Based Optimization of a Photocatalytic Reactor with Light-Emitting Diodes. <i>Chemical Engineering and Technology</i> , 2016 , 39, 1946-1954	2	9
60	Improving heat transfer of stabilised thermal oil-based tin nanofluids using biosurfactant and molecular layer deposition. <i>Applied Thermal Engineering</i> , 2020 , 178, 115559	5.8	8
59	Optimizing off-lattice Diffusion-Limited Aggregation. <i>Computer Physics Communications</i> , 2014 , 185, 841-846	4.6	8
58	Dynamic analysis of the scale-up of fluidized beds. <i>Advanced Powder Technology</i> , 2017 , 28, 2621-2629	4.6	8
57	Early Agglomeration Recognition System (EARS) 2003 , 571		8
56	The application of automated feedback and feedforward control to a LED-based photocatalytic reactor. <i>Chemical Engineering Journal</i> , 2019 , 362, 375-382	14.7	8
55	Modeling the size distribution in a fluidized bed of nanopowder. <i>Powder Technology</i> , 2017 , 312, 347-353	5.2	7
54	A hybrid tomographic reconstruction algorithm for high speed X-ray tomography. <i>Computer Physics Communications</i> , 2015 , 196, 27-35	4.2	7
53	Thermal atomic layer deposition of gold nanoparticles: controlled growth and size selection for photocatalysis. <i>Nanoscale</i> , 2020 , 12, 9005-9013	7.7	7
52	Enhancing the activation of silicon carbide tracer particles for PEPT applications using gas-phase deposition of alumina at room temperature and atmospheric pressure. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2016 , 807, 108-113	1.2	7
51	A fast reconstruction algorithm for time-resolved X-ray tomography in bubbling fluidized beds. <i>Powder Technology</i> , 2016 , 290, 33-44	5.2	7
50	Time-resolved characterization of a flat-base spouted bed with a high speed X-ray system. <i>Chemical Engineering Journal</i> , 2014 , 254, 143-152	14.7	7
49	A convection-based single-parameter model for heat transport in multiphase tubular reactors packed with closed cross flow structures. <i>Chemical Engineering Journal</i> , 2013 , 233, 265-273	14.7	7
48	On the hydrodynamics of membrane assisted fluidized bed reactors using X-ray analysis. <i>Chemical Engineering and Processing: Process Intensification</i> , 2017 , 122, 508-522	3.7	7
47	Estimation of the overall mass flux in inclined standpipes by means of pressure fluctuation measurements. <i>Chemical Engineering Journal</i> , 2012 , 204-206, 125-130	14.7	7
46	Characterization of TiO ₂ nanoparticles fluidization using X-ray imaging and pressure signals. <i>Powder Technology</i> , 2017 , 316, 446-454	5.2	6
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