

Muthanna H Al-Dahhan

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/6501561/muthanna-h-al-dahhan-publications-by-year.pdf>

Version: 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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

226
papers

6,746
citations

43
h-index

72
g-index

234
ext. papers

7,294
ext. citations

4
avg, IF

6.22
L-index

#	Paper	IF	Citations
226	Random trilobe packing using rigid body approach and local Gas-Liquid hydrodynamics simulation through CFD with experimental validation. <i>Chemical Engineering Journal</i> , 2022 , 435, 134481	14.7	1
225	Studying dispersed phase holdup in a pilot plant agitated liquid-liquid mixer by developing online expanded laser beam based technique. <i>Chemical Engineering Science</i> , 2022 , 251, 117461	4.4	1
224	A Detailed Hydrodynamic Study of the Split-Plate Airlift Reactor by Using Non-Invasive Gamma-Ray Techniques. <i>ChemEngineering</i> , 2022 , 6, 18	2.6	2
223	Tracking the heavy metal contaminants entrained with the flow into a Trickle bed hydrotreating Reactor packed with different catalyst shapes using newly developed noninvasive Dynamic radioactive particle Tracking. <i>Chemical Engineering Journal</i> , 2022 , 429, 132277	14.7	0
222	Feasibility study of implementing gamma-ray computed tomography on measuring aggregate distribution and radiation shielding properties of concrete samples. <i>Construction and Building Materials</i> , 2022 , 327, 127034	6.7	0
221	Study of Gas Holdup Distribution in Cylindrical Split Airlift Reactor by Using Gamma-Ray Densitometry (GRD). <i>Processes</i> , 2022 , 10, 910	2.9	0
220	Comparison of the radial profiles of particles velocity between invasive and non-invasive measurement techniques. <i>Flow Measurement and Instrumentation</i> , 2022 , 85, 102169	2.2	
219	Pairing Experimental and Mathematical Modeling Studies on Fluidized Beds for Enhancement of Models Predictive Quality: A Current Status Overview. <i>Processes</i> , 2021 , 9, 1863	2.9	1
218	Gas-liquid mass transfer using advanced optical probe in a mimicked FT slurry bubble column. <i>International Journal of Chemical Reactor Engineering</i> , 2021 , 19, 31-42	1.2	2
217	Local hydrodynamics investigation of industrial scaled-down upflow moving-bed hydrotreater reactor using a two-tip optical probe. <i>Canadian Journal of Chemical Engineering</i> , 2021 , 99, 1558-1569	2.3	2
216	A Review on the Hydrodynamics of the Liquid-liquid Two-Phase Flow in the Microchannels. <i>Industrial & Engineering Chemistry Research</i> , 2021 , 60, 5049-5075	3.9	4
215	Split internal-loop photobioreactor for <i>Scenedesmus</i> sp. microalgae: Culturing and hydrodynamics. <i>Chinese Journal of Chemical Engineering</i> , 2021 , 33, 236-248	3.2	4
214	Effect of catalyst shape on pressure drop and liquid holdup in a pilot plant trickle bed reactor. <i>Fuel</i> , 2021 , 284, 118860	7.1	4
213	Development of a hybrid pressure drop and liquid holdup phenomenological model for trickle bed reactors based on two-phase volume averaged equations. <i>Canadian Journal of Chemical Engineering</i> , 2021 , 99, 1811-1823	2.3	3
212	Comparison between pseudohomogeneous and resolved-particle models for liquid hydrodynamics in packed-bed reactors. <i>Chemical Engineering Research and Design</i> , 2021 , 166, 158-171	5.5	2
211	Validation of the new mechanistic scale-up of gas-solid fluidized beds using advanced non-invasive measurement techniques. <i>Canadian Journal of Chemical Engineering</i> , 2021 , 99, 1984	2.3	3
210	Phase distribution in Fischer-Tropsch mimicked slurry bubble column via computed tomography. <i>Chemical Engineering Science</i> , 2021 , 231, 116278	4.4	6

209	Removal of hydrocarbons of 4-Nitrophenol by emulsion liquid membrane (ELM) using magnetic Fe ₂ O ₃ nanoparticles and ionic liquid. <i>Journal of Water Process Engineering</i> , 2021 , 39, 101729	6.7	9
208	Development and validation of a mathematical model to predict the thermal behaviour of nanofluids. <i>Heat and Mass Transfer</i> , 2021 , 57, 93-110	2.2	0
207	Toward a Better Air-Assisted Flare Design for Purge Flow Conditions: Experimental and Computational Investigation of Radial Slot Flow into a Crossflow Environment. <i>Industrial & Engineering Chemistry Research</i> , 2021 , 60, 2634-2641	3.9	0
206	Study of the detailed catalyst hydrodynamics using radioactive particle tracking technique in a mimicked Fischer-Tropsch slurry bubble column. <i>Chemical Engineering Science</i> , 2021 , 241, 116659	4.4	2
205	Modelling and validation of TBR Hydrodynamics: Local comparison between CFD and experiments. <i>Fuel</i> , 2020 , 277, 118244	7.1	5
204	Mathematical Modeling and Pointwise Validation of a Spouted Bed Using an Enhanced Bed Elasticity Approach. <i>Energies</i> , 2020 , 13, 4738	3.1	3
203	Maldistribution and dynamic liquid holdup quantification of quadrilobe catalyst in a trickle bed reactor using gamma-ray computed tomography: Pseudo-3D modelling and empirical modelling using deep neural network. <i>Chemical Engineering Research and Design</i> , 2020 , 164, 195-208	5.5	6
202	Analysis of the effect of hydrodynamics over the activity and selectivity of the oxidative dehydrogenation of propane process in a packed bed reactor through CFD techniques. <i>Fuel</i> , 2020 , 280, 118510	7.1	5
201	Analyzing the impact of implementing different approaches of the approximation of the catalyst effectiveness factor on the prediction of the performance of trickle bed reactors. <i>Catalysis Today</i> , 2020 , 353, 134-145	5.3	2
200	Effect of phase maldistribution on performance of two-phase catalytic monolith reactor and its comparison with trickle bed reactor. <i>Canadian Journal of Chemical Engineering</i> , 2020 , 98, 294-307	2.3	
199	Integration of phase distribution from gamma-ray tomography technique with monolith reactor scale modeling. <i>Chemical Engineering Science</i> , 2019 , 200, 27-37	4.4	5
198	Evaluating the new mechanistic scale-up methodology of gas-solid spouted beds using gamma ray computed tomography (CT). <i>Experimental Thermal and Fluid Science</i> , 2019 , 104, 186-198	3	5
197	The effects of internals and low aspect ratio on the fully developed flow region and bubble properties in a pilot-plant bubble column. <i>Experimental Thermal and Fluid Science</i> , 2019 , 104, 284-301	3	5
196	Investigation of hydrodynamics of binary solids mixture spouted beds using radioactive particle tracking (RPT) technique. <i>Chemical Engineering Research and Design</i> , 2019 , 148, 21-44	5.5	11
195	Investigating the cross-sectional gas holdup distribution in a split internal-loop photobioreactor during microalgae culturing using a sophisticated computed tomography (CT) technique. <i>Chemical Engineering Research and Design</i> , 2019 , 149, 13-33	5.5	7
194	Temperature and velocity instrumentation and measurements within a separate-effects facility representing modular reactor core. <i>International Journal of Thermal Sciences</i> , 2019 , 136, 148-158	4.1	4
193	Gas Phase Back-Mixing in a Mimicked Fischer-Tropsch Slurry Bubble Column Using an Advanced Gaseous Tracer Technique. <i>International Journal of Chemical Reactor Engineering</i> , 2019 , 17,	1.2	4
192	Investigation of the effect of vertical immersed tube diameter on heat transfer in a gas-solid fluidized bed. <i>International Journal of Thermal Sciences</i> , 2019 , 135, 546-558	4.1	7

191	A new contact time model for the mechanistic assessment of local heat transfer coefficients in bubble column using both the four-optical fiber probe and the fast heat transfer probe-simultaneously. <i>Chemical Engineering Journal</i> , 2019 , 361, 67-79	14.7	4
190	Impact of heat exchanging internals configurations on the gas holdup and bubble properties in a bubble column. <i>International Journal of Multiphase Flow</i> , 2019 , 112, 63-82	3.6	7
189	Gas phase dispersion/mixing investigation in a representative geometry of gas-liquid upflow Moving Bed Hydrotreater Reactor (MBR) using developed gas tracer technique and method based on convolution/regression. <i>Chemical Engineering Science</i> , 2019 , 195, 671-682	4.4	4
188	Influence of heat-exchanging tubes diameter on the gas holdup and bubble dynamics in a bubble column. <i>Fuel</i> , 2019 , 236, 1191-1203	7.1	7
187	Heat transfer and hydrodynamics in a gas-solid fluidized bed with vertical immersed internals. <i>International Journal of Heat and Mass Transfer</i> , 2018 , 122, 229-251	4.9	25
186	Buoyancy-driven air flow within plenum-to-plenum facility down-comer channel. <i>Experimental Thermal and Fluid Science</i> , 2018 , 94, 205-214	3	6
185	Experimental investigation of the helium natural circulation heat transfer in two channels facility using varying riser channel heat fluxes. <i>Experimental Thermal and Fluid Science</i> , 2018 , 93, 195-209	3	9
184	Impact of heat-exchanging tube configurations on the gas holdup distribution in bubble columns using gamma-ray computed tomography. <i>International Journal of Multiphase Flow</i> , 2018 , 106, 202-219	3.6	19
183	Natural convection inside heated channel of a facility representing prismatic modular reactor core. <i>AIChE Journal</i> , 2018 , 64, 3467-3478	3.6	5
182	Influence of the size of heat exchanging internals on the gas holdup distribution in a bubble column using gamma-ray computed tomography. <i>Chemical Engineering Science</i> , 2018 , 186, 1-25	4.4	18
181	Pebble bed nuclear reactor structure study: A comparison of the experimental and calculated void fraction distribution. <i>Progress in Nuclear Energy</i> , 2018 , 106, 153-161	2.3	9
180	Local gas holdup and bubble dynamics investigation during microalgae culturing in a split airlift photobioreactor. <i>Chemical Engineering Science</i> , 2018 , 175, 185-198	4.4	19
179	Advance optical fiber probe for simultaneous measurements of solids holdup and particles velocity using simple calibration methods for gas-solid fluidization systems. <i>Flow Measurement and Instrumentation</i> , 2018 , 63, 18-32	2.2	10
178	Effect of vertical internals on the pressure drop in a gas-solid fluidized bed. <i>Canadian Journal of Chemical Engineering</i> , 2018 , 96, 2185-2205	2.3	3
177	The impact of vertical internals array on the key hydrodynamic parameters in a gas-solid fluidized bed using an advance optical fiber probe. <i>Advanced Powder Technology</i> , 2018 , 29, 2548-2567	4.6	12
176	Flow regimes in gas-solid fluidized bed with vertical internals. <i>Chemical Engineering Research and Design</i> , 2018 , 138, 87-104	5.5	10
175	Mapping of microalgae culturing via radioactive particle tracking. <i>Chemical Engineering Science</i> , 2018 , 192, 739-758	4.4	12
174	Comparison between the new mechanistic and the chaos scale-up methods for gas-solid fluidized beds. <i>Chinese Journal of Chemical Engineering</i> , 2018 , 26, 1401-1411	3.2	7

173	Biodegradation of phenolic components in wastewater by micro algae: a review. <i>MATEC Web of Conferences</i> , 2018 , 162, 05009	0.3	6
172	Axial dispersion and mixing of coolant gas within a separate-effect prismatic modular reactor. <i>Nuclear Energy and Technology</i> , 2018 , 4, 167-178	0.4	2
171	Investigation of local gas holdup and bubble dynamics using four-point optical probe technique in a split-cylinder airlift reactor. <i>International Journal of Multiphase Flow</i> , 2018 , 102, 1-15	3.6	14
170	Effect of helium pressure on natural convection heat transfer in a prismatic dual-channel circulation loop. <i>International Journal of Thermal Sciences</i> , 2018 , 124, 162-173	4.1	10
169	Overcoming the gamma-ray computed tomography data processing pitfalls for bubble column equipped with vertical internal tubes. <i>Canadian Journal of Chemical Engineering</i> , 2018 , 96, 2206-2226	2.3	11
168	Investigating the influence of the configuration of the bundle of heat exchanging tubes and column size on the gas holdup distributions in bubble columns via gamma-ray computed tomography. <i>Experimental Thermal and Fluid Science</i> , 2018 , 98, 68-85	3	17
167	Plenum-to-plenum natural convection heat transfer within a scaled-down prismatic modular reactor facility. <i>Thermal Science and Engineering Progress</i> , 2018 , 7, 288-301	3.6	4
166	Bed diameter effect on the hydrodynamics of gas-solid fluidized beds via radioactive particle tracking (RPT) technique. <i>Canadian Journal of Chemical Engineering</i> , 2017 , 95, 744-756	2.3	10
165	Flow regime identification in spouted beds using gamma-ray densitometry. <i>Flow Measurement and Instrumentation</i> , 2017 , 55, 67-72	2.2	0
164	An advanced evaluation of the mechanistic scale-up methodology of gas-solid spouted beds using radioactive particle tracking. <i>Particuology</i> , 2017 , 34, 48-60	2.8	13
163	Identification of flow regime in a cocurrent gas-liquid upflow moving packed bed reactor using gamma ray densitometry. <i>Chemical Engineering Science</i> , 2017 , 168, 380-390	4.4	13
162	Experimental investigation of gas-liquid flow in monolith channels using monofiber optical probes. <i>AIChE Journal</i> , 2017 , 63, 327-336	3.6	3
161	Evaluation of the dimensionless groups based scale-up of gas-solid spouted beds. <i>International Journal of Multiphase Flow</i> , 2017 , 94, 209-218	3.6	9
160	Investigation of cross-sectional gas-solid distributions in spouted beds using advanced non-invasive gamma-ray computed tomography (CT). <i>Experimental Thermal and Fluid Science</i> , 2017 , 86, 37-53	3	23
159	Hybrid dynamic radioactive particle tracking (RPT) calibration technique for multiphase flow systems. <i>Measurement Science and Technology</i> , 2017 , 28, 055904	2	3
158	Pressure Drop and Fluid Flow Characteristics in a Packed Pebble Bed Reactor. <i>Nuclear Technology</i> , 2017 , 198, 17-25	1.4	9
157	Assessment of performing experimental investigation on a pebble bed modular reactor (PBMR) as a static packed bed approximation. <i>Annals of Nuclear Energy</i> , 2017 , 101, 339-346	1.7	6
156	Study the effect of dense internals on the liquid velocity field and turbulent parameters in bubble column for Fischer-Tropsch (FT) synthesis by using Radioactive Particle Tracking (RPT) technique. <i>Chemical Engineering Science</i> , 2017 , 161, 228-248	4.4	27

155	Discrete Element MethodBased Investigations of Granular Flow in a Pebble Bed Reactor. <i>Nuclear Technology</i> , 2017 , 199, 47-66	1.4	1
154	Prediction of spout diameter in gas-solid spouted beds using factorial design of experiments approach with the aid of advanced optical fibre probe. <i>Canadian Journal of Chemical Engineering</i> , 2017 , 95, 1463-1470	2.3	4
153	Investigation of natural convection heat transfer in a unique scaled-down dual-channel facility. <i>AIChE Journal</i> , 2017 , 63, 387-396	3.6	13
152	An advanced evaluation of spouted beds scale-up for coating TRISO nuclear fuel particles using Radioactive Particle Tracking (RPT). <i>Experimental Thermal and Fluid Science</i> , 2017 , 80, 90-104	3	28
151	Assessment of scale-up dimensionless groups methodology of gas-solid fluidized beds using advanced non-invasive measurement techniques (CT and RPT). <i>Canadian Journal of Chemical Engineering</i> , 2017 , 95, 656-669	2.3	11
150	Assessment of RPT calibration need during microalgae culturing and other biochemical processes 2017 ,		4
149	Demonstrating the non-similarity in local holdups of spouted beds obtained by CT with scale-up methodology based on dimensionless groups. <i>Chemical Engineering Research and Design</i> , 2016 , 114, 129-141	5.5	17
148	Experimental investigation of the overall residence time of pebbles in a pebble bed reactor (PBR) using radioactive pebble. <i>Progress in Nuclear Energy</i> , 2016 , 93, 267-276	2.3	4
147	Experimental investigation of the pebble bed structure by using gamma ray tomography. <i>Nuclear Engineering and Design</i> , 2016 , 310, 231-246	1.8	16
146	A new mechanistic scale-up methodology for gas-solid spouted beds. <i>Chemical Engineering and Processing: Process Intensification</i> , 2016 , 110, 146-159	3.7	10
145	Impacts of dense heat exchanging internals on gas holdup cross-sectional distributions and profiles of bubble column using gamma ray Computed Tomography (CT) for FT synthesis. <i>Chemical Engineering Journal</i> , 2016 , 300, 317-333	14.7	45
144	Trends in Minimizing and Treating Industrial Wastes for Sustainable Environment. <i>Procedia Engineering</i> , 2016 , 138, 347-368		8
143	Axial dispersion and mixing phenomena of the gas phase in a packed pebble-bed reactor. <i>Annals of Nuclear Energy</i> , 2016 , 88, 100-111	1.7	12
142	Hydrodynamics investigation of laboratory-scale Internal Gas-lift loop anaerobic digester using non-invasive CAPRT technique. <i>Biomass and Bioenergy</i> , 2016 , 84, 98-106	5.3	13
141	Experimental investigation of pebble flow dynamics using radioactive particle tracking technique in a scaled-down Pebble Bed Modular Reactor (PBMR). <i>Nuclear Engineering and Design</i> , 2016 , 302, 1-11	1.8	20
140	Effect of L/D Ratio on Phase Holdup and Bubble Dynamics in Slurry Bubble Column using Optical Fiber Probe Measurements. <i>International Journal of Chemical Reactor Engineering</i> , 2016 , 14, 653-664	1.2	6
139	Study of Local Gas Holdup and Specific Interfacial Area in a Split-Column Airlift Bioreactor Using Sophisticated 4-Point Optical Probe for Culturing Microalgae/Cyanobacteria. <i>Chemical Engineering Communications</i> , 2015 , 202, 892-898	2.2	8
138	Assessing the Feasibility of Optical Probe in Phase Holdup Measurements and Flow Regime Identification. <i>International Journal of Chemical Reactor Engineering</i> , 2015 , 13, 369-379	1.2	4

137	Effect of Scale on Hydrodynamics of Internal Gas-Lift Loop Reactor-Type Anaerobic Digester Using CFD. <i>Chemical Product and Process Modeling</i> , 2015 , 10, 179-192	1.1	2
136	BUBBLE DYNAMICS IN 2D BUBBLE COLUMN: COMPARISON BETWEEN HIGH-SPEED CAMERA IMAGING ANALYSIS AND 4-POINT OPTICAL PROBE. <i>Chemical Engineering Communications</i> , 2015 , 202, 85-95	2.2	5
135	Local time-averaged gas holdup in fluidized bed reactor using gamma ray computed tomography technique (CT). <i>International Journal of Industrial Chemistry</i> , 2015 , 6, 143-152	3.1	14
134	Impact of Internals Size and Configuration on Bubble Dynamics in Bubble Columns for Alternative Clean Fuels Production. <i>Industrial & Engineering Chemistry Research</i> , 2015 , 54, 1359-1372	3.9	38
133	Studying local liquid velocity in liquid-solid packed bed using the newly developed X-ray DIR technique. <i>Flow Measurement and Instrumentation</i> , 2015 , 42, 1-5	2.2	2
132	Characteristics of convective heat transport in a packed pebble-bed reactor. <i>Nuclear Engineering and Design</i> , 2015 , 284, 143-152	1.8	30
131	Multiphase hydrodynamics and distribution characteristics in a monolith bed measured by optical fiber probe. <i>AIChE Journal</i> , 2014 , 60, 740-748	3.6	7
130	A new approach for scale-up of bubble column reactors. <i>Chemical Engineering Research and Design</i> , 2014 , 92, 1637-1646	5.5	15
129	Local liquid velocity measurement in trickle bed reactors (TBRs) using the x-ray digital industrial radiography (DIR) technique. <i>Measurement Science and Technology</i> , 2014 , 25, 075401	2	4
128	Scale-up and On-line Monitoring of Gas-solid Systems Using Advanced and Non-invasive Measurement Techniques. <i>Procedia Engineering</i> , 2014 , 83, 469-476		13
127	Scale-up of Bubble Column Reactors: A Review of Current State-of-the-Art. <i>Industrial & Engineering Chemistry Research</i> , 2013 , 52, 8091-8108	3.9	75
126	A new method for online flow regime monitoring in bubble column reactors via nuclear gauge densitometry. <i>Chemical Engineering Science</i> , 2013 , 89, 120-132	4.4	25
125	Hydrodynamics of Pilot-Scale Bubble Columns: Effect of Internals. <i>Industrial & Engineering Chemistry Research</i> , 2013 , 52, 43-55	3.9	34
124	Bubble Columns with Internals: A Review. <i>International Journal of Chemical Reactor Engineering</i> , 2013 , 11, 169-223	1.2	33
123	Airlift column photobioreactors for <i>Porphyridium</i> sp. culturing: part I. effects of hydrodynamics and reactor geometry. <i>Biotechnology and Bioengineering</i> , 2012 , 109, 932-41	4.9	36
122	Airlift column photobioreactors for <i>Porphyridium</i> sp. culturing: Part II. verification of dynamic growth rate model for reactor performance evaluation. <i>Biotechnology and Bioengineering</i> , 2012 , 109, 942-9	4.9	28
121	Effect of Distributor Design on Gas-Liquid Distribution in Monolithic Bed at High Gas/Liquid Ratios. <i>Chinese Journal of Chemical Engineering</i> , 2012 , 20, 693-700	3.2	19
120	Impact of Internals on the Heat-Transfer Coefficient in a Bubble Column. <i>Industrial & Engineering Chemistry Research</i> , 2012 , 51, 2874-2881	3.9	16

119	Heat Transfer Coefficients in Mimicked Fischer-Tropsch Slurry Bubble Columns. <i>Industrial & Engineering Chemistry Research</i> , 2012 , 51, 1543-1548	3.9	4
118	Flow Regime Identification in Three Multiphase Reactors Based on Kolmogorov Entropies Derived from Gauge Pressure Fluctuations. <i>Journal of Chemical Engineering of Japan</i> , 2012 , 45, 757-764	0.8	11
117	A New Method for Flow Regime Identification in a Fluidized Bed Based on Gamma-Ray Densitometry and Information Entropy. <i>Journal of Chemical Engineering of Japan</i> , 2012 , 45, 197-205	0.8	11
116	Influence of solid-phase wall boundary condition on CFD simulation of spouted beds. <i>Chemical Engineering Science</i> , 2012 , 69, 419-430	4.4	82
115	Verification and validation of CFD simulations for local flow dynamics in a draft tube airlift bioreactor. <i>Chemical Engineering Science</i> , 2011 , 66, 907-923	4.4	80
114	ECT measurement and CFD simulation of cross section gas holdup distribution in a gas-liquid stirred standard Rushton tank. <i>Chemical Engineering Science</i> , 2011 , 66, 3721-3731	4.4	13
113	Heat transfer study in a pilot-plant scale bubble column. <i>Chemical Engineering Research and Design</i> , 2011 , 89, 78-84	5.5	18
112	Flow Regime Identification in a Bubble Column via Nuclear Gauge Densitometry and Chaos Analysis. <i>Chemical Engineering and Technology</i> , 2011 , 34, 225-233	2	24
111	A new methodology for hydrodynamic similarity in bubble columns. <i>Canadian Journal of Chemical Engineering</i> , 2010 , 88, 503-517	2.3	20
110	Local gas holdup in a draft tube airlift bioreactor. <i>Chemical Engineering Science</i> , 2010 , 65, 4503-4510	4.4	35
109	Computed Tomographic Investigation of the Influence of Gas Sparger Design on Gas Holdup Distribution in a Bubble Column. <i>Industrial & Engineering Chemistry Research</i> , 2009 , 48, 58-68	3.9	37
108	Impact of Internals on the Gas Holdup and Bubble Properties of a Bubble Column. <i>Industrial & Engineering Chemistry Research</i> , 2009 , 48, 8007-8013	3.9	53
107	Effect of Operating Pressure on the Extent of Hysteresis in a Trickle Bed Reactor. <i>Industrial & Engineering Chemistry Research</i> , 2008 , 47, 7593-7599	3.9	6
106	Enhancing Water Removal from Whole Stillage by Enzyme Addition During Fermentation. <i>Cereal Chemistry</i> , 2008 , 85, 685-688	2.4	1
105	Local characteristics of hydrodynamics in draft tube airlift bioreactor. <i>Chemical Engineering Science</i> , 2008 , 63, 3057-3068	4.4	67
104	Digestion of sand-laden manure slurry in an upflow anaerobic solids removal (UASR) digester. <i>Biodegradation</i> , 2008 , 19, 21-6	4.1	6
103	Bubble Dynamics Measurements Using Four-Point Optical Probe. <i>Canadian Journal of Chemical Engineering</i> , 2008 , 81, 375-381	2.3	33
102	Phase Distribution in a High Pressure Slurry Bubble Column via a Single Source Computed Tomography. <i>Canadian Journal of Chemical Engineering</i> , 2008 , 83, 104-112	2.3	10

101	Effect of shear on performance and microbial ecology of continuously stirred anaerobic digesters treating animal manure. <i>Biotechnology and Bioengineering</i> , 2008 , 100, 38-48	4.9	130
100	Effect of hydrodynamic multiplicity on trickle bed reactor performance. <i>AIChE Journal</i> , 2008 , 54, 249-257	3.6	9
99	Bubble velocity, size, and interfacial area measurements in a bubble column by four-point optical probe. <i>AIChE Journal</i> , 2008 , 54, 350-363	3.6	62
98	Bubble dynamics investigation in a slurry bubble column. <i>AIChE Journal</i> , 2008 , 54, 1203-1212	3.6	30
97	Four-point optical probe for measurement of bubble dynamics: Validation of the technique. <i>Flow Measurement and Instrumentation</i> , 2008 , 19, 293-300	2.2	42
96	Modeling of trickle-bed reactors with exothermic reactions using cell network approach. <i>Chemical Engineering Science</i> , 2008 , 63, 751-764	4.4	17
95	Macro-mixing in a draft-tube airlift bioreactor. <i>Chemical Engineering Science</i> , 2008 , 63, 1572-1585	4.4	36
94	Using a Fiber-Optic Probe for the Measurement of Volumetric Expansion of Liquids. <i>Industrial & Engineering Chemistry Research</i> , 2007 , 46, 4330-4334	3.9	12
93	Numerical Simulation of Gas-Solid Dynamics in a Circulating Fluidized-Bed Riser with Geldart Group B Particles. <i>Industrial & Engineering Chemistry Research</i> , 2007 , 46, 8620-8628	3.9	13
92	Effect of sparger design on hydrodynamics of a gas recirculation anaerobic bioreactor. <i>Biotechnology and Bioengineering</i> , 2007 , 98, 1146-60	4.9	18
91	A chemical engineering laboratory over distributed control and measurement systems. <i>Computer Applications in Engineering Education</i> , 2007 , 15, 174-184	1.6	7
90	Gas-Liquid mass transfer in a high pressure bubble column reactor with different sparger designs. <i>Chemical Engineering Science</i> , 2007 , 62, 131-139	4.4	75
89	Heat transfer coefficients in a high-pressure bubble column. <i>Chemical Engineering Science</i> , 2007 , 62, 140-147	4.4	24
88	Dynamical features of the solid motion in gas-solid risers. <i>International Journal of Multiphase Flow</i> , 2007 , 33, 164-181	3.6	18
87	Mesophilic digestion kinetics of manure slurry. <i>Applied Biochemistry and Biotechnology</i> , 2007 , 142, 231-43	3.2	22
86	A Review on Flow Regime Transition in Bubble Columns. <i>International Journal of Chemical Reactor Engineering</i> , 2007 , 5,	1.2	59
85	Gas-lift digester configuration effects on mixing effectiveness. <i>Water Research</i> , 2007 , 41, 3051-60	12.5	33
84	Phase distribution in an upflow monolith reactor using computed tomography. <i>AIChE Journal</i> , 2006 , 52, 745-753	3.6	13

83	Gas Holdup in Trayed Bubble Column Reactors. <i>Industrial & Engineering Chemistry Research</i> , 2006 , 45, 3320-3326	3.9	12
82	Activity and stability of iron-containing pillared clay catalysts for wet air oxidation of phenol. <i>Applied Catalysis A: General</i> , 2006 , 299, 175-184	5.1	49
81	Liquid phase mixing in trayed bubble column reactors. <i>Chemical Engineering Science</i> , 2006 , 61, 1819-1835	4.4	29
80	Liquid-phase tracer responses in a cold-flow counter-current trayed bubble column from conductivity probe measurements. <i>Chemical Engineering and Processing: Process Intensification</i> , 2006 , 45, 945-953	3.7	3
79	Solids flow mapping in a gas-solid riser: Mean holdup and velocity fields. <i>Powder Technology</i> , 2006 , 163, 98-123	5.2	83
78	Methane production in a 100-L upflow bioreactor by anaerobic digestion of farm waste. <i>Applied Biochemistry and Biotechnology</i> , 2006 , 131, 887-96	3.2	15
77	Experimental investigation of the hydrodynamics in a liquid-solid riser. <i>AIChE Journal</i> , 2005 , 51, 802-835	3.6	76
76	Experimental Study of the Solids Velocity Field in Gas-Solid Risers. <i>Industrial & Engineering Chemistry Research</i> , 2005 , 44, 9739-9749	3.9	27
75	Multiphase Flow Packed-Bed Reactor Modeling: Combining CFD and Cell Network Model. <i>Industrial & Engineering Chemistry Research</i> , 2005 , 44, 4940-4948	3.9	11
74	Dynamic Modeling of Slurry Bubble Column Reactors. <i>Industrial & Engineering Chemistry Research</i> , 2005 , 44, 6086-6094	3.9	24
73	Anaerobic digestion of animal waste: effect of mode of mixing. <i>Water Research</i> , 2005 , 39, 3597-606	12.5	178
72	Multicomponent Flow-Transport-Reaction Modeling of Trickle Bed Reactors: Application to Unsteady State Liquid Flow Modulation. <i>Industrial & Engineering Chemistry Research</i> , 2005 , 44, 6354-6370	3.9	21
71	Modeling Catalytic Trickle-Bed and Upflow Packed-Bed Reactors for Wet Air Oxidation of Phenol with Phase Change. <i>Industrial & Engineering Chemistry Research</i> , 2005 , 44, 6634-6642	3.9	8
70	Characterization of the hydrodynamic flow regime in bubble columns via computed tomography. <i>Flow Measurement and Instrumentation</i> , 2005 , 16, 91-98	2.2	55
69	Flow distribution characteristics of a gas-liquid monolith reactor. <i>Catalysis Today</i> , 2005 , 105, 396-400	5.3	37
68	Countercurrent flow distribution in structured packing via computed tomography. <i>Chemical Engineering and Processing: Process Intensification</i> , 2005 , 44, 59-69	3.7	35
67	Catalytic wet air oxidation of phenol in concurrent downflow and upflow packed-bed reactors over pillared clay catalyst. <i>Chemical Engineering Science</i> , 2005 , 60, 735-746	4.4	59
66	Liquid saturation and gas-liquid distribution in multiphase monolithic reactors. <i>Chemical Engineering Science</i> , 2005 , 60, 3101-3106	4.4	29

65	Solids flow mapping in a high pressure slurry bubble column. <i>Chemical Engineering Science</i> , 2005 , 60, 6067-6072	4.4	36
64	Modelling and Simulation of the Monolithic Reactor for Gas-Liquid-Solid Reactions. <i>Chemical Engineering Research and Design</i> , 2005 , 83, 811-819	5.5	28
63	Flow pattern visualization in a mimic anaerobic digester using CFD. <i>Biotechnology and Bioengineering</i> , 2005 , 89, 719-32	4.9	105
62	Production of bioenergy and biochemicals from industrial and agricultural wastewater. <i>Trends in Biotechnology</i> , 2004 , 22, 477-85	15.1	744
61	Liquid holdup and pressure drop in the gas-liquid cocurrent downflow packed-bed reactor under elevated pressures. <i>Chemical Engineering Science</i> , 2004 , 59, 5387-5393	4.4	11
60	Analyzing and modeling of photobioreactors by combining first principles of physiology and hydrodynamics. <i>Biotechnology and Bioengineering</i> , 2004 , 85, 382-93	4.9	110
59	Monoliths as multiphase reactors: A review. <i>AIChE Journal</i> , 2004 , 50, 2918-2938	3.6	173
58	Measurement of overall solids mass flux in a gas-solid Circulating Fluidized Bed. <i>Powder Technology</i> , 2004 , 148, 158-171	5.2	22
57	A sequential approach to modeling catalytic reactions in packed-bed reactors. <i>Chemical Engineering Science</i> , 2004 , 59, 2023-2037	4.4	12
56	Quantification of solids flow in a gas-solid riser: single radioactive particle tracking. <i>Chemical Engineering Science</i> , 2004 , 59, 5381-5386	4.4	38
55	Flow pattern visualization of a simulated digester. <i>Water Research</i> , 2004 , 38, 3659-70	12.5	56
54	Analysis of photobioreactors for culturing high-value microalgae and cyanobacteria via an advanced diagnostic technique: CARPT. <i>Chemical Engineering Science</i> , 2003 , 58, 2519-2527	4.4	61
53	Computation of effectiveness factors for partially wetted catalyst pellets using the method of fundamental solution. <i>Computers and Chemical Engineering</i> , 2003 , 27, 1431-1444	4	8
52	Development of an artificial neural network correlation for prediction of overall gas holdup in bubble column reactors. <i>Chemical Engineering and Processing: Process Intensification</i> , 2003 , 42, 599-610	3.7	40
51	Modeling of the Fischer-Tropsch synthesis in slurry bubble column reactors. <i>Catalysis Today</i> , 2003 , 79-80, 211-218	5.3	54
50	Kinetics of Wet Air Oxidation of Phenol over a Novel Catalyst. <i>Industrial & Engineering Chemistry Research</i> , 2003 , 42, 5473-5481	3.9	34
49	Catalytic Wet Oxidation of Phenol by Hydrogen Peroxide over Pillared Clay Catalyst. <i>Industrial & Engineering Chemistry Research</i> , 2003 , 42, 2450-2460	3.9	153
48	CFD of multiphase flow in packed-bed reactors: I. k-Fluid modeling issues. <i>AIChE Journal</i> , 2002 , 48, 701-716	3.6	93

47	CFD of multiphase flow in packed-bed reactors: II. Results and applications. <i>AIChE Journal</i> , 2002 , 48, 7163-7180	6.8	68
46	Optimal design of radioactive particle tracking experiments for flow mapping in opaque multiphase reactors. <i>Applied Radiation and Isotopes</i> , 2002 , 56, 485-503	1.7	62
45	Experimental validation of computational fluid dynamic codes (CFD) for liquid-solid risers in clean alkylation processes. <i>Hemijaska Industrija</i> , 2002 , 56, 497-505	0.6	1
44	Gas holdup in bubble columns at elevated pressure via computed tomography. <i>International Journal of Multiphase Flow</i> , 2001 , 27, 929-946	3.6	72
43	Particle motion in packed/ebullated beds by CT and CARPT. <i>AIChE Journal</i> , 2001 , 47, 994-1004	3.6	34
42	Gas holdup in a trayed cold-flow bubble column. <i>Chemical Engineering Science</i> , 2001 , 56, 1197-1205	4.4	23
41	Predictions of radial gas holdup profiles in bubble column reactors. <i>Chemical Engineering Science</i> , 2001 , 56, 1207-1210	4.4	44
40	Statistical characterization of macroscale multiphase flow textures in trickle beds. <i>Chemical Engineering Science</i> , 2001 , 56, 1647-1656	4.4	12
39	A Lagrangian description of flows in stirred tanks via computer-automated radioactive particle tracking (CARPT). <i>Chemical Engineering Science</i> , 2001 , 56, 2629-2639	4.4	54
38	Inferring liquid chaotic dynamics in bubble columns using CARPT. <i>Chemical Engineering Science</i> , 2001 , 56, 6125-6134	4.4	31
37	Liquid-Solid Mass Transfer Coefficient in High Pressure Trickle Bed Reactors. <i>Chemical Engineering Research and Design</i> , 2001 , 79, 631-640	5.5	14
36	Characterization of Single Phase Flows in Stirred Tanks via Computer Automated Radioactive Particle Tracking (CARPT). <i>Chemical Engineering Research and Design</i> , 2001 , 79, 831-844	5.5	24
35	Hydrodynamics of churn turbulent bubble columns: gas-liquid recirculation and mechanistic modeling. <i>Catalysis Today</i> , 2001 , 64, 253-269	5.3	41
34	CFD modeling of multiphase flow distribution in catalytic packed bed reactors: scale down issues. <i>Catalysis Today</i> , 2001 , 66, 209-218	5.3	33
33	Comparison of single- and two-bubble class gas-liquid recirculation models [Application to pilot-plant radioactive tracer studies during methanol synthesis. <i>Chemical Engineering Science</i> , 2001 , 56, 1117-1125	4.4	33
32	Prediction of axial liquid velocity profile in bubble columns. <i>Chemical Engineering Science</i> , 2001 , 56, 1127-1130	4.4	38
31	A method for estimating the solids circulation rate in a closed-loop circulating fluidized bed. <i>Powder Technology</i> , 2001 , 121, 213-222	5.2	38
30	Resolution and sensitivity in computer-automated radioactive particle tracking (CARPT) 2001 , 4188, 122		2

29	THE EFFECT OF PARTICLE DILUTION ON WETTING EFFICIENCY AND LIQUID FILM THICKNESS IN SMALL TRICKLE BEDS. <i>Chemical Engineering Communications</i> , 2001 , 185, 67-77	2.2	12
28	Double-slit model for partially wetted trickle flow hydrodynamics. <i>AIChE Journal</i> , 2000 , 46, 597-609	3.6	74
27	A novel signal filtering methodology for obtaining liquid phase tracer responses from conductivity probes. <i>Flow Measurement and Instrumentation</i> , 2000 , 11, 123-131	2.2	12
26	Single phase flow modeling in packed beds: discrete cell approach revisited. <i>Chemical Engineering Science</i> , 2000 , 55, 1829-1844	4.4	35
25	Multiple-Zone Model for Partially Wetted Trickle Flow Hydrodynamics. <i>Chemical Engineering Research and Design</i> , 2000 , 78, 982-990	5.5	10
24	Drawbacks of the Dissolution Method for Measurement of the Liquid-Solid Mass-Transfer Coefficients in Two-Phase Flow Packed-Bed Reactors Operated at Low and High Pressures. <i>Industrial & Engineering Chemistry Research</i> , 2000 , 39, 3102-3107	3.9	11
23	Two-phase flow distribution in 2D trickle-bed reactors. <i>Chemical Engineering Science</i> , 1999 , 54, 2409-2419	4.4	36
22	Comparative hydrodynamics study in a bubble column using computer-automated radioactive particle tracking (CARPT)/computed tomography (CT) and particle image velocimetry (PIV). <i>Chemical Engineering Science</i> , 1999 , 54, 2199-2207	4.4	60
21	Parametric study of unsteady-state flow modulation in trickle-bed reactors. <i>Chemical Engineering Science</i> , 1999 , 54, 2585-2595	4.4	63
20	Fluid dynamic parameters in bubble columns with internals. <i>Chemical Engineering Science</i> , 1999 , 54, 2187-2197	4.4	81
19	Liquid holdup measurement techniques in laboratory high pressure trickle Bed Reactors. <i>Canadian Journal of Chemical Engineering</i> , 1999 , 77, 759-765	2.3	21
18	Investigation of a complex reaction network: I. Experiments in a high-pressure trickle-bed reactor. <i>AIChE Journal</i> , 1998 , 44, 912-920	3.6	7
17	Investigation of a complex reaction network: II. Kinetics, mechanism and parameter estimation. <i>AIChE Journal</i> , 1998 , 44, 921-926	3.6	4
16	Gas holdup distributions in large-diameter bubble columns measured by computed tomography. <i>Flow Measurement and Instrumentation</i> , 1998 , 9, 91-101	2.2	48
15	Prediction of Pressure Drop and Liquid Holdup in High-Pressure Trickle-Bed Reactors. <i>Industrial & Engineering Chemistry Research</i> , 1998 , 37, 793-798	3.9	55
14	Tomographic and Particle Tracking Studies in a Liquid-Solid Riser. <i>Industrial & Engineering Chemistry Research</i> , 1997 , 36, 4666-4669	3.9	35
13	High-Pressure Trickle-Bed Reactors: A Review. <i>Industrial & Engineering Chemistry Research</i> , 1997 , 36, 3292-3314	3.9	273
12	Modified Contactor for Experimental Studies of Mass Transfer and Chemical Reaction across a Liquid-Liquid Interface. <i>Industrial & Engineering Chemistry Research</i> , 1996 , 35, 3812-3816	3.9	7

11	Comparison of Upflow and Downflow Two-Phase Flow Packed-Bed Reactors with and without Fines: Experimental Observations. <i>Industrial & Engineering Chemistry Research</i> , 1996 , 35, 397-405	3.9	53
10	INFLUENCE OF MIXING INTENSITY ON THE MASS TRANSFER COEFFICIENT ACROSS LIQUID-LIQUID INTERFACES. <i>Chemical Engineering Communications</i> , 1996 , 145, 213-227	2.2	3
9	Comparison of trickle-bed and upflow reactor performance at high pressure: Model predictions and experimental observations. <i>Chemical Engineering Science</i> , 1996 , 51, 2139-2148	4.4	74
8	Catalyst bed dilution for improving catalyst wetting in laboratory trickle-bed reactors. <i>AIChE Journal</i> , 1996 , 42, 2594-2606	3.6	78
7	Evaluation of trickle bed reactor models for a liquid limited reaction. <i>Chemical Engineering Science</i> , 1996 , 51, 2721-2725	4.4	16
6	Reproducible Technique for Packing Laboratory-Scale Trickle-Bed Reactors with a Mixture of Catalyst and Fines. <i>Industrial & Engineering Chemistry Research</i> , 1995 , 34, 741-747	3.9	55
5	Catalyst wetting efficiency in trickle-bed reactors at high pressure. <i>Chemical Engineering Science</i> , 1995 , 50, 2377-2389	4.4	126
4	Pressure drop and liquid holdup in high pressure trickle-bed reactors. <i>Chemical Engineering Science</i> , 1994 , 49, 5681-5698	4.4	107
3	Experimentation and correlation development of mass transfer in a mimicked Fischer-Tropsch slurry bubble column reactor. <i>Heat and Mass Transfer</i> , 1	2.2	0
2	Removal of benzoic acid from wastewater by pickering emulsion liquid membrane stabilized by magnetic Fe ₂ O ₃ nanoparticles ⁶⁸ , 114-121		2
1	Modelling and validation of a gas-solid fluidized bed using advanced measurement techniques. <i>Canadian Journal of Chemical Engineering</i> ,	2.3	3