

# Reaction engineering: Status and future challenges

Chemical Engineering Science

65, 3-11

DOI: [10.1016/j.ces.2009.09.018](https://doi.org/10.1016/j.ces.2009.09.018)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Reactor simulation of benzene ethylation and ethane dehydrogenation catalyzed by ZSM-5: A multiscale approach. <i>Chemical Engineering Science</i> , 2010, 65, 2472-2480.	1.9	33
2	CFD simulation of solids suspension in stirred tanks: Review. <i>Hemijaska Industrija</i> , 2010, 64, 365-374.	0.3	22
3	Miniaturization in Biotechnology: Speeding up the Development of Bioprocesses. <i>Recent Patents on Biotechnology</i> , 2011, 5, 160-173.	0.4	24
4	New method for simultaneous measurement of hydrodynamics and reaction rates in a mini-channel with Taylor flow. <i>Chemical Engineering Journal</i> , 2011, 176-177, 65-74.	6.6	31
5	Rational Design of Microporous and Mesoporous Solids for Catalysis: From the Molecule to the Reactor. <i>ChemCatChem</i> , 2011, 3, 1263-1272.	1.8	34
6	Carbon Nanotube Mass Production: Principles and Processes. <i>ChemSusChem</i> , 2011, 4, 864-889.	3.6	329
7	Effects of heat and mass transfer on the kinetics of CO oxidation over RuO <sub>2</sub> (110) catalyst. <i>Catalysis Today</i> , 2011, 165, 56-63.	2.2	18
8	CFD models of jet mixing and their validation by tracer experiments. <i>Chemical Engineering and Processing: Process Intensification</i> , 2011, 50, 300-304.	1.8	22
9	Scaling laws for gas-solid riser flow through two-fluid model simulation. <i>Particuology</i> , 2011, 9, 121-129.	2.0	7
10	Joint Transformation of Methanol and n-Butane into Olefins on an HZSM-5 Zeolite Catalyst in Reaction-Regeneration Cycles. <i>Industrial &amp; Engineering Chemistry Research</i> , 2012, 51, 13073-13084.	1.8	7
11	Modeling for the catalytic coupling reaction of carbon monoxide to diethyl oxalate in fixed-bed reactors: Reactor model and its applications. <i>Chemical Engineering Research and Design</i> , 2012, 90, 1361-1371.	2.7	12
12	Direct synthesis of H <sub>2</sub> O <sub>2</sub> on model Pd surfaces. <i>Chemical Engineering Journal</i> , 2012, 207-208, 845-850.	6.6	13
13	Computer-aided scale-up of a packed-bed tubular reactor. <i>Computers and Chemical Engineering</i> , 2012, 39, 96-104.	2.0	4
14	BMBF-Projekt "Multi-Phase"; <i>Chemie-Ingenieur-Technik</i> , 2013, 85, 989-991.	0.4	2
16	Kinetic study of biphasic aldol condensation of n-butyraldehyde using stirred cell. <i>Chemical Engineering Science</i> , 2013, 104, 619-629.	1.9	12
17	An overview of thermal biomass conversion technologies. , 2013, , 43-46.		3
18	Challenges in Reaction Engineering Practice of Heterogeneous Catalytic Systems. <i>Advances in Chemical Engineering</i> , 2014, , 1-40.	0.5	4
19	Scaleup of Batch Reactors Using Phenomenological-Based Models. <i>Industrial &amp; Engineering Chemistry Research</i> , 2014, 53, 9439-9453.	1.8	12

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20	Fluidic effects on kinetic parameter estimation in lab-scale catalysis testing – A critical evaluation based on computational fluid dynamics. <i>Chemical Engineering Science</i> , 2014, 111, 220-230.	1.9	22
21	A Computational Method to Optimize the Distribution of a Catalytically Active Material Inside a Nano-scale Pore. <i>Energy Procedia</i> , 2015, 75, 2038-2043.	1.8	0
22	Numerical investigation of flow and heat transfer in a novel configuration multi-tubular fixed bed reactor for propylene to acrolein process. <i>Heat and Mass Transfer</i> , 2015, 51, 67-84.	1.2	14
23	Applications of tomography in bubble column and trickle bed reactors. , 2015, , 477-507.		0
24	Scale-up and multiphase reaction engineering. <i>Current Opinion in Chemical Engineering</i> , 2015, 9, 49-58.	3.8	23
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26	Use of modeling in scale-up of steam reforming technology. <i>Catalysis Today</i> , 2016, 272, 14-18.	2.2	8
27	Novel multi-tubular fixed-bed reactors – shell structural analysis based on numerical simulation method. <i>Journal of Engineering Thermophysics</i> , 2016, 25, 464-473.	0.6	0
28	Efficient production of uniform nanometer-sized polymer vesicles in stirred tank reactors. <i>Journal of Applied Polymer Science</i> , 2016, 133, .	1.3	24
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31	Simultaneous local determination of mass transfer and residence time distributions in organic multiphase systems. <i>Chemical Engineering Journal</i> , 2017, 321, 635-641.	6.6	0
32	Atomic force phase imaging for dynamic detection of adsorbed hydrogen on a catalytic palladium surface under liquid. <i>Ultramicroscopy</i> , 2017, 181, 42-49.	0.8	0
33	An equation-oriented approach to modeling heterogeneous catalytic reactors. <i>Chemical Engineering Journal</i> , 2017, 329, 15-24.	6.6	7
34	Operando determination of the liquid-solid mass transfer coefficient during 1-octene hydrogenation. <i>Chemical Engineering Science</i> , 2017, 171, 614-624.	1.9	13
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37	Incorporating Sustainability into Engineering and Chemical Education Using E-Learning. <i>Education Sciences</i> , 2018, 8, 39.	1.4	20

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38	Evaluation of various turbulence models for numerical simulation of a multiphase system in a rotating packed bed. Computers and Fluids, 2019, 194, 104296.	1.3	27
39	Compartmental Modelling in chemical engineering: A critical review. Chemical Engineering Science, 2019, 210, 115196.	1.9	47
41	Electrochemical Conversion of CO <sub>2</sub> to CO into a Microchannel Reactor System in the Case of Aqueous Electrolyte. Industrial & Engineering Chemistry Research, 2020, 59, 5664-5674.	1.8	16
42	Process Intensification in Pneumatically Agitated Slurry Reactors. Engineering, 2021, 7, 304-325.	3.2	26
43	Integration of microfluidic systems with external fields for multiphase process intensification. Chemical Engineering Science, 2021, 234, 116450.	1.9	14
44	Small-Scale Phenomena in Reactive Bubbly Flows: Experiments, Numerical Modeling, and Applications. Annual Review of Chemical and Biomolecular Engineering, 2021, 12, 625-643.	3.3	9
45	Model-Assisted Optimization of RAFT Polymerization in Micro-Scale Reactors: A Fast Screening Approach. Macromolecular Reaction Engineering, 2021, 15, 2000058.	0.9	10
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47	Future Development of Chemical Reaction Engineering. Hans Journal of Chemical Engineering and Technology, 2011, 01, 1-3.	0.0	0
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49	Process Intensification of Immobilized Enzyme Reactors. RSC Green Chemistry, 2018, , 249-267.	0.0	1
50	Process Intensification in Chemical Reaction Engineering. Processes, 2022, 10, 99.	1.3	18
52	Applications of tomography in bubble column and fixed bed reactors. , 2022, , 729-771.		0
53	Continuum multiscale modeling of absorption processes in micro- and nanocatalysts. Archive of Applied Mechanics, 2022, 92, 2207-2223.	1.2	1
54	Role of Process Intensification in Enzymatic Transformation of Biomass into High-Value Chemicals. , 2022, , 439-453.		0