Erik von Harbou

List of Publications by Year
in descending order

62	672	567281 15	713466 21
papers	citations	h-index	g-index

64	64	64	608
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	CFD modeling of singleâ€phase flow in a packed bed with MRI validation. AICHE Journal, 2012, 58, 3904-3915.	3.6	43
2	Thermostatted micro-reactor NMR probe head for monitoring fast reactions. Journal of Magnetic Resonance, 2014, 242, 155-161.	2.1	31
3	Liquid-liquid equilibrium in binary and ternary mixtures containing formaldehyde, water, methanol, methylal, and poly(oxymethylene) dimethyl ethers. Fluid Phase Equilibria, 2016, 425, 127-135.	2.5	31
4	INES â€“ An Interface Between Experiments and Simulation to Support the Development of Robust Process Designs. Chemie-Ingenieur-Technik, 2015, 87, 1810-1825.	0.8	26
5	Reaction Monitoring by Benchtop NMR Spectroscopy Using a Novel Stationary Flow Reactor Setup. Industrial & Engineering Chemistry Research, 2019, 58, 18125-18133.	3.7	26
6	Efficient Approach for Calculating Pareto Boundaries under Uncertainties in Chemical Process Design. Industrial & Engineering Chemistry Research, 2017, 56, 12672-12681.	3.7	25
7	An experimental validation of a Bayesian model for quantification in NMR spectroscopy. Journal of Magnetic Resonance, 2017, 285, 86-100.	2.1	22
8	Deformation induced hardening when cryogenic turning,. CIRP Journal of Manufacturing Science and Technology, 2018, 23, 6-19.	4.5	22
9	Physico-chemical properties of solutions of lithium bis(fluorosulfonyl)imide (LiFSI) in dimethyl carbonate, ethylene carbonate, and propylene carbonate. Journal of Power Sources, 2018, 394, 148-159.	7.8	22
10	Online ¹H NMR Spectroscopic Study of the Reaction Kinetics in Mixtures of Acetaldehyde and Water Using a New Microreactor Probe Head. Industrial & Engineering Chemistry Research, 2014, 53, 17589-17596.	3.7	21
11	Application of a new micro-reactor 1 H NMR probe head for quantitative analysis of fast esterification reactions. Chemical Engineering Journal, 2016, 306, 413-421.	12.7	21
12	¹Hâ€and ¹³Câ€NMR spectroscopic study of chemical equilibria in the system acetaldehyde + water. AICHE Journal, 2015, 61, 177-187.	3.6	20
13	Monoalkylcarbonate Formation in Methyldiethanolamineâ€“H₂Oâ€“CO₂. Industrial & Engineering Chemistry Research, 2017, 56, 9006-9015.	3.7	19
14	Study of heterogeneously catalysed reactive distillation using the D+R trayâ€”A novel type of laboratory equipment. Chemical Engineering Research and Design, 2011, 89, 1271-1280.	5.6	16
15	Simulation and Multiâ€criteria Optimization under Uncertain Model Parameters of a Cumene Process. Chemie-Ingenieur-Technik, 2017, 89, 665-674.	0.8	16
16	Multi-objective optimization for an automated and simultaneous phase and baseline correction of NMR spectral data. Journal of Magnetic Resonance, 2018, 289, 132-141.	2.1	16
17	Bayesian approach for automated quantitative analysis of benchtop NMR data. Journal of Magnetic Resonance, 2020, 319, 106814.	2.1	15
18	A comparison of nonâ€uniform sampling and modelâ€based analysis of NMR spectra for reaction monitoring. Magnetic Resonance in Chemistry, 2021, 59, 221-236.	1.9	14

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19	Experiments and fully transient coupled CFD-PBM 3D flow simulations of disperse liquid-liquid flow in a baffled stirred tank. Chemical Engineering Science, 2022, 253, 117518.	3.8	14
20	Studying Fast Reaction Kinetics with Online NMR Spectroscopy. Chemie-Ingenieur-Technik, 2017, 89, 369-378.	0.8	13
21	Monoalkylcarbonate formation in the system monoethanolamineâ€“waterâ€“carbon dioxide. Fluid Phase Equilibria, 2019, 486, 98-105.	2.5	13
22	Online process monitoring of a batch distillation by medium field NMR spectroscopy. Chemical Engineering Science, 2020, 219, 115561.	3.8	13
23	A novel type of equipment for reactive distillation: Model development, simulation, sensitivity and error analysis. AICHE Journal, 2013, 59, 1533-1543.	3.6	12
24	Reaction Kinetics for Reactive Distillation Using Different Laboratory Reactors. Industrial & Engineering Chemistry Research, 2013, 52, 624-637.	3.7	12
25	Optimal Design of Laboratory and Pilotâ€Plant Experiments Using Multiobjective Optimization. Chemie-Ingenieur-Technik, 2017, 89, 645-654.	0.8	11
26	New Equipment for Laboratory Studies of Heterogeneously Catalyzed Reactive Distillation. Chemical Engineering and Technology, 2009, 32, 1313-1317.	1.5	9
27	Predicting supersaturation by rate-based simulations of reactive absorption. Chemical Engineering Science, 2014, 118, 41-49.	3.8	9
28	Molecular simulation study of the CO 2 -N 2 O analogy. Fluid Phase Equilibria, 2017, 442, 44-52.	2.5	9
29	Selfâ€Diffusion Coefficients in Solutions of Lithium Bis(fluorosulfonyl)imide with Dimethyl Carbonate and Ethylene Carbonate. Chemie-Ingenieur-Technik, 2019, 91, 1633-1639.	0.8	9
30	Morphological analysis for the development of reliable models for heterogeneously catalysed reactive distillation. Chemical Engineering Science, 2013, 91, 134-145.	3.8	8
31	NMR Spectroscopic Study of the Aldoxane Formation in Aqueous Acetaldehyde Solutions. Industrial & Engineering Chemistry Research, 2014, 53, 8395-8403.	3.7	8
32	Quantitative mapping of chemical compositions with MRI using compressed sensing. Journal of Magnetic Resonance, 2015, 261, 27-37.	2.1	8
33	In situ measurement of liquid-liquid equilibria by medium field nuclear magnetic resonance. Fluid Phase Equilibria, 2017, 438, 44-52.	2.5	8
34	Application of quantitative inline NMR spectroscopy for investigation of a fixed-bed chromatographic reactor process. Chemical Engineering Journal, 2018, 336, 518-530.	12.7	8
35	Electrical conductivity of solutions of lithium bis(fluorosulfonyl)imide in mixed organic solvents and multi-objective solvent optimization for lithium-ion batteries. Journal of Power Sources, 2018, 398, 215-223.	7.8	8
36	Prediction of flow effects in quantitative NMR measurements. Journal of Magnetic Resonance, 2020, 312, 106683.	2.1	8

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37	Thermodynamic Study of a Complex System for Carbon Capture: Butyltriacetonediamine + Water + Carbon Dioxide. Journal of Chemical & Engineering Data, 2016, 61, 3814-3826.	1.9	7
38	Reactive Distillation in a Dividingâ€Wall Column: Model Development, Simulation, and Error Analysis. Chemie-Ingenieur-Technik, 2017, 89, 1315-1324.	0.8	7
39	Fully Automated Weighing of Liquid Substances with a Laboratory Robot. Chemical Engineering and Technology, 2014, 37, 168-172.	1.5	6
40	Decision Support by Multicriteria Optimization in Process Development: An Integrated Approach for Robust Planning and Design of Plant Experiments. Computer Aided Chemical Engineering, 2015, 37, 2063-2068.	0.5	6
41	Modeling, simulation and analysis of a process for the production of crotonaldehyde. Chemical Engineering and Processing: Process Intensification, 2016, 101, 101-111.	3.6	6
42	Short-cut method for assessing solvents for gas cleaning by reactive absorption. Chemical Engineering Research and Design, 2020, 153, 757-767.	5.6	5
43	Taking compact NMR to monitoring real reactions in largeâ€scale chemical industriesâ€”General considerations and learnings from a labâ€scale test case. Magnetic Resonance in Chemistry, 2020, 58, 1213-1221.	1.9	5
44	INES â€“ Interface between Experiments and Simulation. Computer Aided Chemical Engineering, 2014, , 1159-1164.	0.5	4
45	NMR spectroscopic method for studying homogenous liquid phase reaction kinetics in systems used in reactive gas absorption and application to monoethanolamineâ€“waterâ€“carbon dioxide. Chemical Engineering Journal, 2019, 374, 1127-1137.	12.7	4
46	NMR Spectroscopic Study of Chemical Reactions in Mixtures Containing Oleic Acid, Formic Acid, and Formoxystearic Acid. Industrial & Engineering Chemistry Research, 2019, 58, 5622-5630.	3.7	4
47	Physico-Chemical Properties of LiFSI Solutions I. LiFSI with Valeronitrile, Dichloromethane, 1,2-Dichloroethane, and 1,2-Dichlorobenzene. Journal of Chemical & Engineering Data, 2019, 64, 868-877.	1.9	4
48	Experimental Investigation and Modelling of the Droplet Size in a DN300 Stirred Vessel at High Disperse Phase Content Using a Telecentric Shadowgraphic Probe. Applied Sciences (Switzerland), 2022, 12, 4069.	2.5	4
49	Technische Chemie 2016. Nachrichten Aus Der Chemie, 2017, 65, 367-374.	0.0	3
50	Physicochemical Properties of the System N,N-Dimethyl-dipropylene-diamino-triacetonediamine (EvA34), Water, and Carbon Dioxide for Reactive Absorption. Journal of Chemical & Engineering Data, 2019, 64, 2368-2379.	1.9	3
51	Application of a new method for simultaneous phase and baseline correction of NMR signals (SINC). Magnetic Resonance in Chemistry, 2020, 58, 260-270.	1.9	3
52	Triacetoneamine-derivates (EvAs) for CO2-absorption from process gases. International Journal of Greenhouse Gas Control, 2020, 95, 102932.	4.6	3
53	The Influence of Cooling Nozzle Positions on the Transient Temperature Field during Cryogenic Turning of Metastable Austenitic Steel AISI 347. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800447.	0.2	2
54	Spectroscopic investigations of solutions of lithium bis(fluorosulfonyl) imide (LiFSI) in valeronitrile. Polyhedron, 2020, 183, 114458.	2.2	2

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55	Speciation in CO2-loaded aqueous solutions of sixteen triacetoneamine-derivates (EvAs) and elucidation of structure-property relationships. Chemical Engineering Science, 2021, 229, 115999.	3.8	2
56	Vollautomatisierte Einwaage flÃ¼ssiger Substanzen mittels Laborroboter. Chemie-Ingenieur-Technik, 2012, 84, 530-534.	0.8	1
57	Physicochemical Properties of LiFSI Solutions II: LiFSI with Water, MTBE, and Anisole. Journal of Chemical & Engineering Data, 2019, 64, 878-883.	1.9	1
58	Associating lattice cluster theory and application to modeling oleic acid + formic acid + formoxystearic acid. AICHE Journal, 2019, 65, 783-791.	3.6	1
59	A one-dimensional combined multifluid-population balance model for the simulation of batch bubble columns. Chemical Engineering Research and Design, 2021, 170, 270-289.	5.6	1
60	Model-based signal tracking in the quantitative analysis of time series of NMR spectra. Journal of Magnetic Resonance, 2022, 339, 107212.	2.1	1
61	NMR-spektroskopische Bestimmung der Konzentration von molekularem CO2in wÃssrigen AminlÃ¶sungen und Auswirkungen auf die Modellierung von Reaktivabsorptionsprozessen. Chemie-Ingenieur-Technik, 2016, 88, 1282-1283.	0.8	0
62	Model-Based Investigation of the Interaction of Gas-Consuming Reactions and Internal Circulation Flow within Jet Loop Reactors. Processes, 2022, 10, 1297.	2.8	0