

Jorg Thming

List of Publications by Year in Descending Order

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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.

128
papers

4,407
citations

31
h-index

63
g-index

129
ext. papers

4,950
ext. citations

7
avg, IF

5.58
L-index

#	Paper	IF	Citations
128	The flow topology transition of liquid-liquid Taylor flows in square microchannels. <i>Experiments in Fluids</i> , 2022 , 63, 1	2.5	0
127	Spatially resolved direct gas-phase thermometry in chemical reactors using NMR. <i>Chemical Engineering Journal</i> , 2021 , 433, 133583	14.7	0
126	Full-Field Comparison of MRV and CFD of Gas Flow through Regular Catalytic Monolithic Structures. <i>Processes</i> , 2021 , 9, 566	2.9	0
125	Heat Transport in Open-Cell Foams: CFD Analysis of Artificial Heat Sources vs Fully Resolved Exothermal Reactions. <i>Industrial & Engineering Chemistry Research</i> , 2021 , 60, 4542-4551	3.9	2
124	A large fixed bed reactor for MRI operando experiments at elevated temperature and pressure. <i>Review of Scientific Instruments</i> , 2021 , 92, 043711	1.7	2
123	Magnetic Resonance Imaging for Non-invasive Study of Hydrodynamics Inside Gas-Liquid Taylor Flows. <i>Chemical Engineering and Technology</i> , 2021 , 44, 465-476	2	4
122	Structure-heat transport analysis of periodic open-cell foams to be used as catalyst carriers. <i>Chemical Engineering Research and Design</i> , 2021 , 166, 209-219	5.5	11
121	Separating microparticles by material and size using dielectrophoretic chromatography with frequency modulation. <i>Scientific Reports</i> , 2021 , 11, 16861	4.9	2
120	Potential of the Red Alga for the Production of Additives for Lubricants. <i>Plants</i> , 2021 , 10,	4.5	1
119	Toward the Proactive Design of Sustainable Chemicals: Ionic Liquids as a Prime Example. <i>Chemical Reviews</i> , 2021 , 121, 13132-13173	68.1	7
118	Full-field analysis of gas flow within open-cell foams: comparison of micro-computed tomography-based CFD simulations with experimental magnetic resonance flow mapping data. <i>Experiments in Fluids</i> , 2020 , 61, 1	2.5	11
117	Effect of Heat Treatment of Martensitic Stainless Steel on Passive Layer Growth Kinetics Studied by Electrochemical Impedance Spectroscopy in Conjunction with the Point Defect Model. <i>Corrosion and Materials Degradation</i> , 2020 , 1, 77-91	2.6	3
116	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
115	Refractive index matching (RIM) using double-binary liquid-liquid mixtures. <i>Experiments in Fluids</i> , 2020 , 61, 1	2.5	5
114	Aerosol classification by dielectrophoresis: a theoretical study on spherical particles. <i>Scientific Reports</i> , 2020 , 10, 10617	4.9	1
113	Pore-scale analysis of axial and radial dispersion coefficients of gas flow in macroporous foam monoliths using NMR-based displacement measurements. <i>Chemical Engineering Journal</i> , 2020 , 388, 124234	14.7	5
112	High-throughput dielectrophoretic filtration of sub-micron and micro particles in macroscopic porous materials. <i>Analytical and Bioanalytical Chemistry</i> , 2020 , 412, 3903-3914	4.4	12

111	Influence of Pressure, Velocity and Fluid Material on Heat Transport in Structured Open-Cell Foam Reactors Investigated Using CFD Simulations. <i>ChemEngineering</i> , 2020 , 4, 61	2.6	2
110	CFD Simulations of Radiative Heat Transport in Open-Cell Foam Catalytic Reactors. <i>Catalysts</i> , 2020 , 10, 716	4	11
109	Surface Functionalization of Mesoporous Membranes: Impact on Pore Structure and Gas Flow Mechanisms. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 39388-39396	9.5	1
108	Modeling the Excess Velocity of Low-Viscous Taylor Droplets in Square Microchannels. <i>Fluids</i> , 2019 , 4, 162	1.6	7
107	Hazard assessment of quinaldine-, alkylcarbazole-, benzene- and toluene-based liquid organic hydrogen carrier (LOHCs) systems. <i>Energy and Environmental Science</i> , 2019 , 12, 366-383	35.4	11
106	Coupled conjugate heat transfer and heat production in open-cell ceramic foams investigated using CFD. <i>International Journal of Heat and Mass Transfer</i> , 2019 , 139, 600-612	4.9	19
105	Multiscale modeling of monolithic sponges as catalyst carrier for the methanation of carbon dioxide. <i>Chemical Engineering Science: X</i> , 2019 , 2, 100016	1.1	9
104	Polarizability-Dependent Sorting of Microparticles Using Continuous-Flow Dielectrophoretic Chromatography with a Frequency Modulation Method. <i>Micromachines</i> , 2019 , 11,	3.3	2
103	Diffusion weighted magnetic resonance imaging for temperature measurements in catalyst supports with an axial gas flow. <i>Reaction Chemistry and Engineering</i> , 2019 , 4, 1844-1853	4.9	1
102	Influence of heat treatment on the microstructure and corrosion resistance of martensitic stainless steel. <i>AIP Advances</i> , 2019 , 9, 065317	1.5	13
101	Insulator-based dielectrophoresis for fouling suppression in submerged membranes bioreactors: Impact of insulators shape and dimensions. <i>Separation and Purification Technology</i> , 2019 , 213, 507-514	8.3	2
100	Pareto-optimal design and assessment of monolithic sponges as catalyst carriers for exothermic reactions. <i>Chemical Engineering Journal</i> , 2019 , 359, 496-504	14.7	16
99	Impact of Pulsed Dielectrophoretic Supply on the Function of Microorganisms in Membrane Bioreactors. <i>Journal of Environmental Engineering, ASCE</i> , 2018 , 144, 04018017	2	2
98	Fouling suppression in submerged membrane bioreactors by obstacle dielectrophoresis. <i>Journal of Membrane Science</i> , 2018 , 549, 466-473	9.6	13
97	3D characterization of gas phase reactors with regularly and irregularly structured monolithic catalysts by NMR imaging and modeling. <i>Catalysis Today</i> , 2018 , 310, 176-186	5.3	14
96	Electrochemical Behavior of Single CuO Nanoparticles: Implications for the Assessment of their Environmental Fate. <i>Small</i> , 2018 , 14, e1801765	11	23
95	Bridging the scales in high-throughput dielectrophoretic (bio-)particle separation in porous media. <i>Scientific Reports</i> , 2018 , 8, 10480	4.9	15
94	Numerical study on the effect of insulator size and shape on fouling suppression by electrodeless dielectrophoresis in submerged membrane bioreactors 2018 ,		1

93	Spatially Resolved Characterization of the Gas Propagator in Monolithic Structured Catalysts Using NMR Diffusiometry. <i>Chemical Engineering and Technology</i> , 2018 , 41, 1871-1880	2	2
92	Influence of geometry and material of insulating posts on particle trapping using positive dielectrophoresis. <i>Journal of Chromatography A</i> , 2017 , 1483, 127-137	4.5	16
91	Experimental Assessment of an Innovative Device to Mimic Bubble Swarm Turbulence. <i>Chemical Engineering and Technology</i> , 2017 , 40, 1466-1474	2	3
90	Predictability of silver nanoparticle speciation and toxicity in ecotoxicological media. <i>Environmental Science: Nano</i> , 2017 , 4, 1470-1483	7.1	38
89	Membrane partitioning of ionic liquid cations, anions and ion pairs - Estimating the bioconcentration potential of organic ions. <i>Environmental Pollution</i> , 2017 , 228, 378-389	9.3	26
88	Emulation of Bubble-Induced Turbulence Using Randomly Moving Particles in a 'Grid' Structure. <i>Chemical Engineering and Technology</i> , 2017 , 40, 1502-1511	2	5
87	Safe-by-Design CuO Nanoparticles via Fe-Doping, Cu-O Bond Length Variation, and Biological Assessment in Cells and Zebrafish Embryos. <i>ACS Nano</i> , 2017 , 11, 501-515	16.7	74
86	The influence of the functional group density on gas flow and selectivity: Nanoscale interactions in alkyl-functionalized mesoporous membranes. <i>Microporous and Mesoporous Materials</i> , 2017 , 237, 38-48	5.3	5
85	A physical explanation of the gas flow diode effect. <i>Microfluidics and Nanofluidics</i> , 2016 , 20, 1	2.8	6
84	Applying Alkyl-Chain Surface Functionalizations in Mesoporous Inorganic Structures: Their Impact on Gas Flow and Selectivity Depending on Temperature. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 26938-26947	9.5	6
83	Electrodeless dielectrophoresis: Impact of geometry and material on obstacle polarization. <i>Electrophoresis</i> , 2016 , 37, 291-301	3.6	19
82	Delayed binary and multicomponent gas diffusion in conical tubes. <i>Chemical Engineering Science</i> , 2016 , 148, 93-107	4.4	0
81	In situ analysis of gas phase reaction processes within monolithic catalyst supports by applying NMR imaging methods. <i>Catalysis Today</i> , 2016 , 273, 91-98	5.3	12
80	Coatings of active and heat-resistant cobalt-aluminium xerogel catalysts. <i>Journal of Colloid and Interface Science</i> , 2016 , 477, 64-73	9.3	4
79	Microparticle trajectories in a high-throughput channel for contact-free fractionation by dielectrophoresis. <i>Chemical Engineering Science</i> , 2016 , 153, 34-44	4.4	16
78	Influences of use activities and waste management on environmental releases of engineered nanomaterials. <i>Science of the Total Environment</i> , 2015 , 535, 160-71	10.2	58
77	Multicomponent gas diffusion in nonuniform tubes. <i>AIChE Journal</i> , 2015 , 61, 1404-1412	3.6	6
76	NMR imaging of gas phase hydrogenation in a packed bed flow reactor. <i>Applied Catalysis A: General</i> , 2015 , 502, 340-349	5.1	19

75	Analysis of the diodic effect of flows of rarefied gases in tapered rectangular channels. <i>Vacuum</i> , 2015 , 120, 147-154	3.7	7
74	Catalytically active perrhenate based ionic liquids: a preliminary ecotoxicity and biodegradability assessment. <i>New Journal of Chemistry</i> , 2015 , 39, 5431-5436	3.6	10
73	Predicting and eliminating Joule heating constraints in large dielectrophoretic IDE separators. <i>Chemical Engineering Science</i> , 2015 , 137, 235-242	4.4	8
72	Environmental and health impact assessment of Liquid Organic Hydrogen Carrier (LOHC) systems □ challenges and preliminary results. <i>Energy and Environmental Science</i> , 2015 , 8, 1035-1045	35.4	134
71	Predicting optimal temperature profiles in single-stage fixed-bed reactors for CO ₂ -methanation. <i>Chemical Engineering Science</i> , 2015 , 132, 59-71	4.4	87
70	Evaluation of different heat extraction strategies for shallow vertical ground-source heat pump systems. <i>Applied Energy</i> , 2015 , 149, 259-271	10.7	21
69	In silico prediction of linear free energy relationship descriptors of neutral and ionic compounds. <i>RSC Advances</i> , 2015 , 5, 80634-80642	3.7	19
68	The gas flow diode effect: theoretical and experimental analysis of moderately rarefied gas flows through a microchannel with varying cross section. <i>Microfluidics and Nanofluidics</i> , 2015 , 18, 391-402	2.8	18
67	A comparative experimental study on the deviation of the ideal selectivity in HDTMS-functionalized and untreated ceramic structures with pores in the upper mesoporous range. <i>Microporous and Mesoporous Materials</i> , 2015 , 217, 253-261	5.3	10
66	A fouling suppression system in submerged membrane bioreactors using dielectrophoretic forces. <i>Journal of Environmental Sciences</i> , 2015 , 29, 139-45	6.4	26
65	Biodegradability of 27 pyrrolidinium, morpholinium, piperidinium, imidazolium and pyridinium ionic liquid cations under aerobic conditions. <i>Green Chemistry</i> , 2014 , 16, 2174-2184	10	95
64	Thermoeconomic optimization of vertical ground-source heat pump systems through nonlinear integer programming. <i>Applied Energy</i> , 2014 , 114, 492-503	10.7	44
63	Quantitative analysis of molecular interaction potentials of ionic liquid anions using multi-functionalized stationary phases in HPLC. <i>ChemPhysChem</i> , 2014 , 15, 2351-8	3.2	8
62	Molecular dynamics simulations on scattering of single Ar, N ₂ , and CO ₂ molecules on realistic surfaces. <i>Computers and Fluids</i> , 2014 , 97, 31-39	2.8	18
61	Recovery of submicron particles using high-throughput dielectrophoretically switchable filtration. <i>Separation and Purification Technology</i> , 2014 , 132, 728-735	8.3	12
60	Dielectrophoresis in aqueous suspension: impact of electrode configuration. <i>Microfluidics and Nanofluidics</i> , 2014 , 17, 499-507	2.8	11
59	Biodegradation potential of cyano-based ionic liquid anions in a culture of <i>Cupriavidus</i> spp. and their in vitro enzymatic hydrolysis by nitrile hydratase. <i>Environmental Science and Pollution Research</i> , 2014 , 21, 9495-505	5.1	10
58	Changes in zeta potential of imidazolium ionic liquids modified minerals--Implications for determining mechanism of adsorption. <i>Chemosphere</i> , 2013 , 90, 706-12	8.4	59

57	Intrinsically green iron oxide nanoparticles? From synthesis via (eco-)toxicology to scenario modelling. <i>Nanoscale</i> , 2013 , 5, 1034-46	7.7	24
56	Intensification of cross-flow membrane filtration using dielectrophoresis with a novel electrode configuration. <i>Journal of Membrane Science</i> , 2013 , 448, 256-261	9.6	26
55	Improving the quality of nanoparticle production by using a new biphasic synthesis in a slug flow microreactor. <i>Chemical Engineering Journal</i> , 2013 , 228, 1083-1091	14.7	10
54	Porous ceramic monoliths assembled from microbeads with high specific surface area for effective biocatalysis. <i>RSC Advances</i> , 2013 , 3, 13381	3.7	10
53	In silico modelling for predicting the cationic hydrophobicity and cytotoxicity of ionic liquids towards the Leukemia rat cell line, <i>Vibrio fischeri</i> and <i>Scenedesmus vacuolatus</i> based on molecular interaction potentials of ions. <i>SAR and QSAR in Environmental Research</i> , 2013 , 24, 863-82	3.5	45
52	Determination of LFER descriptors of 30 cations of ionic liquids--progress in understanding their molecular interaction potentials. <i>ChemPhysChem</i> , 2012 , 13, 780-7	3.2	11
51	An analytically predictive model for moderately rarefied gas flow. <i>Journal of Fluid Mechanics</i> , 2012 , 698, 406-422	3.7	59
50	Ionic liquids as lubricants or lubrication additives: an ecotoxicity and biodegradability assessment. <i>Chemosphere</i> , 2012 , 89, 1135-41	8.4	103
49	Biodegradability of fluoroorganic and cyano-based ionic liquid anions under aerobic and anaerobic conditions. <i>Green Chemistry</i> , 2012 , 14, 410-418	10	36
48	Electrochemical oxidation of imidazolium-based ionic liquids: The influence of anions. <i>Chemical Engineering Journal</i> , 2012 , 198-199, 338-345	14.7	39
47	Advanced oxidation process for the removal of ionic liquids from water: The influence of functionalized side chains on the electrochemical degradability of imidazolium cations. <i>Separation and Purification Technology</i> , 2012 , 101, 26-33	8.3	43
46	(Eco)toxicity of fluoro-organic and cyano-based ionic liquid anions. <i>Chemical Communications</i> , 2012 , 48, 9382-4	5.8	53
45	Detection of bioactive exometabolites produced by the filamentous marine cyanobacterium <i>Geitlerinema</i> sp. <i>Marine Biotechnology</i> , 2012 , 14, 436-45	3.4	12
44	The contribution of diffusion to gas microflow: An experimental study. <i>Physics of Fluids</i> , 2012 , 24, 082004	4.4	15
43	Biomedical Activity of Chitin/Chitosan Based Materials Influence of Physicochemical Properties Apart from Molecular Weight and Degree of N-Acetylation. <i>Polymers</i> , 2011 , 3, 1875-1901	4.5	168
42	An approach to improve the separation of solid-liquid suspensions in inclined plate settlers: CFD simulation and experimental validation. <i>Water Research</i> , 2011 , 45, 3541-9	12.5	15
41	Thinking in Terms of Structure-Activity-Relationships (T-SAR): A Tool to Better Understand Nanofiltration Membranes. <i>Membranes</i> , 2011 , 1, 162-83	3.8	10
40	Green nanoparticle production using micro reactor technology. <i>Journal of Physics: Conference Series</i> , 2011 , 304, 012074	0.3	8

39	Ionic liquids: predictions of physicochemical properties with experimental and/or DFT-calculated LFER parameters to understand molecular interactions in solution. <i>Journal of Physical Chemistry B</i> , 2011 , 115, 6040-50	3.4	49
38	Bioproduction of antimicrobial compounds by using marine filamentous cyanobacterium cultivation. <i>Journal of Applied Phycology</i> , 2011 , 23, 811-818	3.2	11
37	Influence of the Hofmeister anions on self-organization of 1-decyl-3-methylimidazolium chloride in aqueous solutions. <i>Journal of Colloid and Interface Science</i> , 2011 , 362, 415-22	9.3	40
36	Biologische Abbaubarkeit von ionischen Flüssigkeiten – Testverfahren und strukturelles Design. <i>Chemie-Ingenieur-Technik</i> , 2011 , 83, 1454-1467	0.8	10
35	On conformational analysis of chitosan. <i>Carbohydrate Polymers</i> , 2011 , 84, 1237-1243	10.3	19
34	Efecto del catión, del anión y del co-ión sobre la agregación de líquidos iónicos en solución acuosa. <i>Quimica Nova</i> , 2010 , 33, 1703-1708	1.6	5
33	Application of spectroscopic methods for structural analysis of chitin and chitosan. <i>Marine Drugs</i> , 2010 , 8, 1567-636	6	637
32	Anaerobic biodegradability of ionic liquid cations under denitrifying conditions. <i>Green Chemistry</i> , 2010 , 12, 620	10	42
31	Oxygen feed membranes in autothermal steam-reformers – A robust temperature control. <i>Fuel</i> , 2010 , 89, 1257-1264	7.1	17
30	On the Effect of Enhanced Mass Transfer on Side Reactions in Capillary Microreactors during High-Temperature Synthesis of an Ionic Liquid. <i>Chemical Engineering and Technology</i> , 2009 , 32, 1717-1723	2	25
29	Predicting the critical micelle concentrations of aqueous solutions of ionic liquids and other ionic surfactants. <i>Chemistry - A European Journal</i> , 2009 , 15, 8880-5	4.8	37
28	Dielectrophoretically intensified cross-flow membrane filtration. <i>Journal of Membrane Science</i> , 2009 , 336, 71-78	9.6	33
27	Thermodynamics of micellization of imidazolium ionic liquids in aqueous solutions. <i>Journal of Colloid and Interface Science</i> , 2009 , 336, 111-6	9.3	155
26	Determination of the pattern of acetylation of low-molecular-weight chitosan used in biomedical applications. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2009 , 50, 587-90	3.5	17
25	Studies on acetylation patterns of different chitosan preparations. <i>Carbohydrate Polymers</i> , 2009 , 78, 678-684	10.3	55
24	Determination of the pattern of acetylation of chitosan samples: Comparison of evaluation methods and some validation parameters. <i>International Journal of Biological Macromolecules</i> , 2009 , 45, 56-60	7.9	18
23	Strategy to improve the characterization of chitosan for sustainable biomedical applications: SAR guided multi-dimensional analysis. <i>Green Chemistry</i> , 2009 , 11, 498	10	55
22	Primary biodegradation of ionic liquid cations, identification of degradation products of 1-methyl-3-octylimidazolium chloride and electrochemical wastewater treatment of poorly biodegradable compounds. <i>Green Chemistry</i> , 2008 , 10, 214-224	10	206

21	Dielectrophoretic Gold Particle Separation. <i>Separation Science and Technology</i> , 2008 , 43, 3842-3855	2.5	19
20	Interactions between reaction kinetics in ATR-reactors and transport mechanisms in functional ceramic membranes: A simulation approach. <i>Chemical Engineering Journal</i> , 2008 , 142, 225-238	14.7	12
19	Nanofiltration of bivalent nickel cations [model parameter determination and process simulation. <i>Desalination</i> , 2008 , 224, 12-17	10.3	17
18	Recovery of ionic liquids from wastewater: Aggregation control for intensified membrane filtration. <i>Desalination</i> , 2008 , 224, 52-56	10.3	30
17	Self-organization of imidazolium ionic liquids in aqueous solution. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2008 , 329, 125-133	5.1	307
16	On hydrodynamic optimisation of multi-channel counter-flow lamella settlers and separation efficiency of cohesive particles. <i>Chemical Engineering and Processing: Process Intensification</i> , 2008 , 47, 90-100	3.7	8
15	Micelle formation of imidazolium ionic liquids in aqueous solution. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2008 , 316, 278-284	5.1	297
14	Synthesis of ionic liquids in micro-reactors [process intensification study. <i>Green Chemistry</i> , 2007 , 9, 1084	10	73
13	Dynamic simulation of rinsing and regeneration networks based on high pressure RO. <i>Desalination</i> , 2007 , 207, 45-58	10.3	4
12	Insulator-based dielectrophoresis in viscous media [simulation of particle and droplet velocity. <i>Journal of Electrostatics</i> , 2007 , 65, 452-458	1.7	23
11	Simulation of a membrane bioreactor for regeneration of degreasing systems. <i>Journal of Chemical Technology and Biotechnology</i> , 2006 , 81, 841-850	3.5	
10	ECO-optimization of pre-treatment processes in metal finishing. <i>Computers and Chemical Engineering</i> , 2006 , 30, 587-598	4	8
9	Progress in evaluation of risk potential of ionic liquids [basis for an eco-design of sustainable products. <i>Green Chemistry</i> , 2005 , 7, 362	10	199
8	ECO-design of reuse and recycling networks by multi-objective optimization. <i>Journal of Cleaner Production</i> , 2005 , 13, 1492-1503	10.3	33
7	TBT-contaminated Sediments: Treatment in a Pilot Scale (9 pp). <i>Journal of Soils and Sediments</i> , 2005 , 5, 21-29	3.4	18
6	Reduction of Tributyltin (TBT) and Other Organic Pollutants of Concern in Contaminated Sediments by means of an Electrochemical Oxidation. <i>Clean - Soil, Air, Water</i> , 2002 , 30, 87-93		13
5	Optimal design of zero-water discharge rinsing systems. <i>Environmental Science & Technology</i> , 2002 , 36, 1107-12	10.3	10
4	Simplification of a Sequential Extraction Scheme To Determine the Mobilisable Heavy Metal Pool in Soils. <i>Clean - Soil, Air, Water</i> , 2001 , 29, 197		8

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| 3 | Detoxification of tributyltin contaminated sediments by an electrochemical process. <i>Science of the Total Environment</i> , 2001 , 266, 265-71 | 10.2 | 14 |
| 2 | Electrochemically enhanced oxidation reactions in sandy soil polluted with mercury. <i>Science of the Total Environment</i> , 2000 , 261, 137-47 | 10.2 | 31 |
| 1 | Applicability of Single and Sequential Extractions for Assessing the Potential Mobility of Heavy Metals in Contaminated Soils. <i>Clean - Soil, Air, Water</i> , 1998 , 26, 338-343 | | 12 |