

Status: August 2022

List of Publications

Chair of Chemical and Process
Engineering

TU Berlin



Status: August 2022

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1985

Abstracts

1. **Kraume, M.; Steiff, A.; Weinspach, P.M.** (1985): Direkter Wärmeübergang bei der Kondensation eines Blasenschwarms in Wasser. Chem. Ing. Tech. 57 (6) 535.

1988

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2. **Kraume, M.; Zehner, P.** (1988): Suspensieren im Rührbehälter - Vergleich unterschiedlicher Berechnungsgleichungen. Chem. Ing. Tech. 60 (11) 822-829.

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3. **Kraume, M.; Zehner, P.** (1988): Modelling of the hydrodynamics in bubble columns. German Japanese Symposium Bubble Columns, Schwerte, Germany.

1989

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4. **Kraume, M.; Zehner, P.** (1989): Modellierung der Fluidodynamik in Blasensäulen. Chem. Ing. Tech. 61 (4) 332-333.

1990

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5. **Kraume, M.; Zehner, P.** (1990): Homogenisieren in gerührten Fest/Flüssig-Systemen. Chem. Ing. Tech. 62 (4) 306-311.

1992

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6. **Kraume, M.; Zehner, P.** (1992): Maßstabsübertragung beim Suspensieren im Rührbehälter. Chem. Ing. Tech. 64 (9) 832.

Booksection

7. **Zehner, P.; Kraume, M.** (1992): Bubble Columns, Ullmann's Encyclopedia of Industrial Chemistry B 4, 275-307, VHC Verlag Weinheim.

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8. **Kraume, M.; Zehner, P.** (1992): Konzept zur Maßstabsübertragung beim Suspensieren im Rührbehälter. Chem. Ing. Tech. 64 (3) 275-278.

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1995

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10. **Kraume, M.; Zehner, P.** (1995): Konzept zur Maßstabsübertragung beim Suspendieren im Rührbehälter. Chem. Ing. Tech. 67 (3) 280-288.

1997

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11. **Mier, P.; Kraume, M.** (1997): Numerical simulation and experimental (LDA) verification of velocity fields in single phase jet loop reactors. The First European Congress of Chemical Engineering, Florence, Italy

1998

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12. **Kraume, M.** (1998): Suspendieren, Mischen und Rühren 249-272, VDI, Gesellschaft Verfahrenstechnik und Chemieingenieurwesen Düsseldorf.
13. **Kraume, M.** (1998): Homogenisieren in Rührbehältern, Mischen und Rühren 25-53, VDI, Gesellschaft Verfahrenstechnik und Chemieingenieurwesen Düsseldorf.

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14. **Ritter, J.; Kraume, M.** (1999): Dispergierung und Phasentrennung gerührter Flüssig/Flüssig-Systeme bei technisch relevanten Phasenanteilen. Chem. Ing. Tech. 71 (9) 1038-1039.

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15. **Mier, P.; Kraume, M.** (1999): Einfluß einer festen, dispersen Phase auf die Umwälzung und die Turbulenz in Strahlschlaufenapparaten. Chem. Tech. 51 271-275.
16. **Ritter, J.; Kraume, M.** (1999): Inline-Meßtechnik zur Tropfengrößenbestimmung in flüssigen Zweiphasensystemen bei hohen Dispersphasenanteilen. Chem. Ing. Tech. 71 (7) 717-720.
17. **Schulze, K.; Ritter, J.; Kraume, M.** (1999): Optische Verfahren zur Visualisierung von Tropfen in gerührten flüssigen Zweiphasensystemen. Chem. Tech. 51 241-245.
18. **Wenzel, W.; Szewzyk, U.; Kozariszczuk, M.; Kraume, M.** (1999): Entwicklung einer optimierten Behandlungsstrategie für die anaerobe Abwasserreinigung, Verfahrenstechnik der Abwasser- und Schlammbehandlung 2, 473-477, Fuck Verlag Koblenz.

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19. **Kozariszczuk, M.; Wenzel, W.; Kraume, M.; Szewzyk, U.** (1999): Microbiology and chemical engineering - new possibilities for interdisciplinary cooperation in the development of small wastewater treatment plants. IAWQ 4th Specialised Conference on Small Wastewater Treatment Plants, 19.-21.04.1999, Stratford upon Avon, UK.
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22. **Pollei, A.; Seewald, F.; Kraume, M.; Mittelbach, W.** (1999): Numerical Simulation of the Heat Transfer in an Adsorption Energy Storage. 4th Italian Conference on Chemical and Process Engineering, Florence, Italy.
23. **Pollei, A.; Kraume, M.** (1999): Modelling of the influence of mixing on the crystal size distribution. 14th International Symposium on Industrial Crystallization, Rugby, UK (ISBN: 0-85295-424-7).

24. **Ritter, J.; Kraume, M.** (1999): Local drop size distributions in agitated liquid-liquid dispersions of various dispersed phase fractions. 2nd European Congress of Chemical Engineering, 05.-07.10.1999, Montpellier, France.
25. **Ritter, J.; Kraume, M.** (1999): Drop size distributions in stirred liquid-liquid dispersions. Two-Phase Flow Modelling and Experimentation, Pisa, Italy (ISBN: 88-467-0177-1).
26. **Rosenberger, S.; Kraume, M.; Szewzyk, U.** (1999): Sludge free management of membrane bioreactors. 2nd International Meeting on Membrane Bioreactors for Wastewater Treatment, Cranfield, UK.
27. **Rosenberger, S.; Kraume, M.; Szewzyk, U.** (1999): Operation of different membrane reactors: Experimental results and physiological state of microorganisms. International Specialized Conference on Membrane Technology in Environmental Management, 01.-04.11.1999, Tokyo, Japan.
28. **Rosenberger, S.; Kraume, M.; Witzig, R.; Szewzyk, U.** (1999): Abbauverhalten und Überschussschlammproduktion von Mischbiozönosen in Membranbioreaktoren, Verfahrenstechnik der Abwasser- und Schlammbehandlung 1, 216-226, Fuck Verlag Koblenz, Germany.
29. **Zehner, P.; Kraume, M.** (1999): Surface aeration in stirred vessels. Two-Phase Flow Modelling and Experimentation, Pisa, Italy (ISBN: 88-467-0177-1).

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31. **Mier, P.; Kraume, M.** (2000): Betriebsverhalten und Maßstabsübertragung von einphasig betriebenen Strahlschlaufenapparaten. *Chem. Ing. Tech.* 72 (5) 463-467.
32. **Mier, P.; Kraume, M.** (2000): Betriebsverhalten und Maßstabsübertragung von ein- und zweiphasig betriebenen Strahlschlaufenapparaten (CFD-Simulationen und Experimente). *Chem. Ing. Tech.* 72 (9) 1067-1068.
33. **Rosenberger, S.; Witzig, R.; Manz, W.; Szewzyk, U.; Kraume, M.** (2000): Operation of different membrane bioreactors: experimental results and physiological state of the microorganisms. *Water Sci. Technol.* 41 (10-11) 269-277.
34. **Rosenberger, S.; Kubin, K.; Kraume, M.** (2000): Operation of membrane bioreactors without sludge withdrawal. *Tribune de l'eau* № 603-605 53 184-190.
35. **Ritter, J.; Kraume, M.** (2000): On-line measurement technique for drop size distributions in liquid/liquid systems at high dispersed phase fractions. *Chem. Eng. Technol.* 23 (7) 579-581.

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36. **Kassera, V.; Kraume, M.; Berger, T.** (2000): CFD Simulation of Liquid-Particle Flows in Mixing Vessels. *ASME Pressure Vessels and Piping Conference: International Emerging Technologies for Fluids, Structures and Fluid-Structure Interactions*, 23.-27.07.2000, Seattle, USA.
37. **Mier, P.; Kraume, M.** (2000): Simulation of the influence of a dispersed solid phase on the internal flow field in jet loop reactors. *14th International Congress of Chemical and Process Engineering*, 27.-31.08.2000, Prague, Czech Republic.
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42. **Kraume, M.; Paschedag, A.; Piarah, W.H.; Schulze, K.** (2001): Unsteady Conjugate Mass Transfer in Single Drop Systems. Chem. Ing. Tech. 73 (6) 752.
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47. **Piarah, W.H.; Paschedag, A.; Kraume, M.** (2001): Numerical simulation of mass transfer between a single drop and an ambient flow. AIChE J. 47 (7) 1701-1704.

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48. **Adam, C.; Kraume, M.; Gnirss, R.; Lesjean, B.** (2001): Vermehrte biologische Phosphorelimination in Membranbioreaktoren. 4. Aachener Tagung Siedlungswasserwirtschaft und Verfahrenstechnik, 11.-12.09.2001, Aachen, Germany (ISBN: 3-921955-25-4).
49. **Adam, C.; Gnirss, R.; Lesjean, B.; Buisson, H.; Kraume, M.** (2001): Enhanced Biological Phosphorus Removal in Membrane Bioreactors. IWA 2001 Berlin World Water Congress, Berlin, Germany.
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62. **Rosenberger, S.; Kraume, M.** (2001): Dezentrale Abwasserreinigung in einer Hauskläranlage mit dem Membranbelebungsverfahren. 4. Aachener Tagung Siedlungswasserwirtschaft und Verfahrenstechnik, 11.-12.09.2001, Aachen, Germany (ISBN: 3-921955-25-4).

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65. **Kraume, M.; Kubin, K.; Rosenberger, S.** (2001): Klärschlammvermeidung in dezentralen Kleinkläranlagen, Verantwortungsbewusste Klärschlammverwertung 383-403, TK-Verlag Karl J. Thomé-Kozmiensky Neuruppin.
66. **Kraume, M.; Angst, R.; Mier, P.** (2001). Numerische Untersuchung der Flüssigkeits/Feststoff-Strömung in Strahlschlaufenapparaten einschließlich experimenteller Validierung. *Forschungsförderung 2000 – Anlage 1 zum Tätigkeitsbericht 2000.*

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68. **Burkhardt, T.; Verstraete J.; Galtier, P.; Kraume, M.** (2002): Residence time distributions with a radiotracer in a hydrotreating pilot plant: Upflow versus downflow operation. *Chem. Eng. Sci.* 57 (11) 1859-1866.
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70. **Kraume, M.; Zehner, P.** (2002): Concept for scale-up of solids suspension in stirred tanks. *Can. J. Chem. Eng.* 80 (4) 674-681.
71. **Kubin, K.; Kraume, M.; Dorau, W.** (2002): Investigation of nitrogen removal in a cascaded membrane bioreactor. *Water Sci. Technol.* 46 (4-5) 241-247.
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77. **Witzig, R.; Manz W.; Rosenberger S.; Krüger U.; Kraume M.; Szewzyk U.** (2002): Microbiological aspects of a bioreactor with submerged membranes for aerobic treatment of municipal wastewater. *Water Res.* 36 (2) 394-402.

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81. **Schulze, K.; Kraume, M.** (2002): Influence of mass transfer on drop rise velocity. In: Schindler, F.-P. (Ed.), 1st International Berlin Workshop - IBW 1 on Transport Phenomena with Moving Boundaries, 11-12.10.2001, Berlin, Germany (ISBN: 3-18-373 803-1).
82. **Signorino, M.; Baldi, G.; Barresi, A.A.; Cournil, M.; Derksen, J.J.; Gruy, F.; Hollander, E. D.; Kraume, M.; Marchisio, D.; Paschedag, A.; Vanni, M.; Van den Akker, H.E.A.; Varone, A.M.** (2002): Agglomeration in pratsolis project. In: Proc. 8th International conference on Multiphase Flow in Industrial plants, 18.-20.09.2002, Alba, Italy (ISBN: 88-88198-03-02).

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Books/Bookchapters

83. **Kraume, M.** (2003): Mischen und Rühren: Grundlagen und moderne Verfahren, Wiley-VCH Weinheim.
84. **Angst, R.; Wittig, A.; Kraume, M.** (2003): Standardmessmethoden, Mischen und Rühren: Grundlagen und moderne Verfahren 45-62, Wiley-VCH Weinheim.
85. **Kraume, M.** (2003): Homogenisieren in Rührbehältern, Mischen und Rühren: Grundlagen und moderne Verfahren 21-44, Wiley-VCH Weinheim.
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98. **Rosenberger, S.; Kraume, M.; Belz, C.** (2003): Dezentrale Abwasserreinigung in Hauskläranlagen mit dem Membranbelebungsverfahren. Korrespondenz Abwasser 50 45 - 51.

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99. **Adam, C.; Kraume, M.** (2003): Weitgehende biologische Phosphor- und Stickstoffelimination in Membranbelebungen. 5. GVC-Abwasser-Kongress "Prozessintegrierte und additive Verfahren der Abwasser- und Schlammbehandlung", 22.-24.09.2003, Bremen, Germany.
100. **Adam, C.; Kraume, M.; Gnirss, R.; Lesjean, B.** (2003): Membrane bioreactor configurations for enhanced biological phosphorus removal. In: Proc. Membranes in Drinking and Industrial Water Production III 237-244.
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