

Status: March 2021

# List of Publications

Chair of Chemical and Process  
Engineering

TU Berlin



Status: March 2021

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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

### Journals

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

### Proceedings

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

## 1989

### Proceedings

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

## 1990

### Journals

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

## 1992

### Abstracts

6. **Kraume, M.; Zehner, P.** (1992): Maßstabsübertragung beim Suspendieren 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.

### Journals

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

9. **Kraume, M.** (1992): Mixing times in stirred suspensions. Chem. Eng. Technol. 15 313-318.

### **1995**

#### *Journals*

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

### **1997**

#### *Proceedings*

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**

#### *Journals*

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.

## 1999

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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.

### Journals

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.

### Proceedings

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 4<sup>th</sup> Specialised Conference on Small Wastewater Treatment Plants, 19.-21.04.1999, Stratford upon Avon, UK.
20. **Kozariszczuk, M.; Kraume, M.; Wenzel, W.; Szewzyk, U.** (1999): Zusammenarbeit von Mikrobiologie und Verfahrenstechnik in der anaeroben Abwasserreinigung. Vortrags- und Diskussionstagung "Wechselwirkung zwischen Biologie und Prozeßführung", 10.-11.05.1999, Erfurt, Germany.
21. **Mier, P.; Kraume, M.** (1999): Optimisation and Scale-up of Jet Loop Reactors using CFD. 2<sup>nd</sup> European Congress of Chemical Engineering, 05.-07.10.1999, Montpellier, France.
22. **Pollei, A.; Seewald, F.; Kraume, M.; Mittelbach, W.** (1999): Numerical Simulation of the Heat Transfer in an Adsorption Energy Storage. 4<sup>th</sup> 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. 14<sup>th</sup> 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. 2<sup>nd</sup> 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. 2<sup>nd</sup> 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).

## 2000

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30. **Kozariszczuk, M.; Wenzel, W.; Kraume, M.; Szewzyk, U.** (2000): Microbiology and chemical engineering - new possibilities for interdisciplinary cooperation in the development of small anaerobic wastewater treatment plants. *Water Sci. Technol.* 41 (1) 17-20.
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. *14<sup>th</sup> International Congress of Chemical and Process Engineering*, 27.-31.08.2000, Prague, Czech Republic.
38. **Pollei, A.; Borowski, T.; Kraume, M.** (2000): Simulation of Turbulent Mixing in Precipitation Reactors. *14<sup>th</sup> International Congress of Chemical and Process Engineering*, 27.-31.08.2000, Prague, Czech Republic.
39. **Rosenberger, S.; Kubin, K.; Kraume, M.** (2000): Vorteile und Grenzen des Betriebs von Membranbioreaktoren bei hohem TS-Gehalt. *3. Aachener Tagung Siedlungswasserwirtschaft und Verfahrenstechnik*, 08.-09.02.2000, Aachen, Germany.
40. **Schulze, K.; Ritter, J.; Kraume, M.** (2000): Investigations of local drop size distributions and scale-up in stirred liquid-liquid dispersions. In: *Proc. 10<sup>th</sup> European Conference on Mixing*, 2-4 July 2000, Delft, The Netherlands (ISBN: 978-0-444-50476-0), 181-188.

## 2001

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41. **Angst, R.; Mier, P.; Kraume, M.** (2001): Simulation and Experimental Investigation of the Two-Phase Flow Field in Jet Loop Reactors. Chem. Ing. Tech. 73 (6) 659.
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.
43. **Rosenberger, S.; Drews, A.; Kraume, M.** (2001): Comparison of Microfiltration Behaviour of Activated Sludge and Model Suspensions in a Novel Membrane Test Cell. Chem. Ing. Tech. 73 (6) 597.

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44. **Drews, A.; Vanieul, D.; Schwecke, T.; von Döhren, H.; Kraume, M.** (2001): Produktion von Siderophoren mit *Ustilago maydis*. BIOforum 24 (9) 572 – 573.
45. **Kraume, M.; Zehner, P.** (2001): Experience with experimental standards for measurements of various parameters in stirred tanks: A comparative test. Chem. Eng. Res. Des. 79 (8) 811-818.
46. **Paschedag, A.; Piarah, W.H.; Kraume, M.** (2001): Grenz betrachtungen zum Stofftransport am Einzeltropfen – Validierung numerischer Ergebnisse. Chem. Ing. Tech. 73 (11) 1431-1435.
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.
50. **Angst, R.; Mier, P.; Kraume, M.** (2001): Application of LDA and PIV to solid/liquid flow in jet loop reactors with high dispersed phase volume fraction. Experimental Heat Transfer, Fluid Mechanics and Thermodynamics 2001, Pisa, Italy (ISBN: 88-467-0459-2).
51. **Angst, R.; Mier, P.; Kraume, M.** (2001): Simulations of the solid/liquid two-phase flow field in jet loop reactors, Computational Fluid and Solid Mechanics. First MIT Conference on Computational Fluid and Solid Mechanics, Cambridge, USA.



52. **Drews, A.; Schwecke, T.; von Döhren, H.; Kraume, M.** (2001): Produktion von Siderophoren mit *Ustilago maydis*. 19. DECHEMA-Jahrestagung der Biotechnologen, 13.-15.03.2001, Leipzig, Germany.
53. **Drews, A.; Klahm, T.; Saygily, M.; Müller, H.; Kraume, M.** (2001): Nanofiltration model for cleaning of cip waters from x-ray contrast media production. FILTECH 2001, Düsseldorf, Germany.
54. **Drews, A.; Klahm, T.; Saygily, M.; Müller, H.; Kraume, M.** (2001): A two-stage NF process for cleaning of CIP waters from x-ray contrast media production. IWA 2001 Berlin World Water Congress, Berlin, Germany.
55. **Kraume, M.; Zehner, P.** (2001): Cooperative test. Experimental standards for measurements of various parameters in stirred tanks. Proceedings International Symposium on Mixing in Industrial Processes –ISMIP 4, 14.-16.05.2001, Toulouse, France.
56. **Kubin, K.; Rosenberger, S.; Kraume, M.** (2001): Bedeutung der Betriebsweise für die Auslegung von Membranbelebungsanlagen. 4. Aachener Tagung Siedlungswasserwirtschaft und Verfahrenstechnik, 11.-12.09.2001, Aachen, Germany (ISBN: 3-921955-25-4).
57. **Kubin, K.; Rosenberger, S.; Kraume, M.** (2001): Substratabbau in Membranbioreaktoren mit mehrstufiger Nitrifikation. Aachener Tagung Siedlungswasserwirtschaft und Verfahrenstechnik, 11.-12.09.2001, Aachen, Germany (ISBN: 3-921955-25-4).
58. **Kubin, K.; Kraume, M.; Dorau, W.** (2001): Investigation of Nitrogen Removal in a Cascaded Membrane Bioreactor. IWA 2001 Berlin World Water Congress, Berlin, Germany.
59. **Paschedag, A.; Piarah, W.H.; Schulze, K.; Kraume, M.** (2001): Unsteady mass transfer in single drop systems with interfacial mobility. In: Proc. 6<sup>th</sup> International Conference on the Computational Modelling of Free and Moving Boundary Problems, Southampton, UK (ISBN: 1-85312-864-3).
60. **Punal, A.; Kozariszczuk, M.; Wenzel, W.; Szewzyk, U.; Kraume, M.; Lema, J. M.** (2001): Influence of the addition of an easily degradable cosubstrate and/or a buffer in the start-up of upflow anaerobic filter reactors. Anaerobic Digestion 2001, 02.-06.09.2001, Antwerp, Belgium (ISBN: 90-76019-16-9).
61. **Rosenberger, S.; Schreiner, A.; Wiesmann, U.; Kraume, M.** (2001): Impact of different sludge ages on the performance of membrane bioreactors. IWA 2001 Berlin World Water Congress, Berlin, Germany.
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).

63. **Rosenberger, S.; Drews, A.; Kraume, M.** (2001): Vergleich der Filtrierbarkeit von Belebtschlamm aus einem Membranbelebungsreaktor und einer Modellsuspension. 4. Aachener Tagung Siedlungswasserwirtschaft und Verfahrenstechnik, 11.-12.09.2001, Aachen, Germany (ISBN: 3-921955-25-4).
64. **Rosenberger, S.; Drews, A.; Kraume, M.** (2001): Comparison of Microfiltration Behaviour of Activated Sludge and Model Suspensions in a Novel Membrane Test Cell. 3rd European Congress of Chemical Engineering, 26.-28.6.2001, Nuremberg, Germany

### Reports

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.*

## 2002

### Journals

67. **Adam, C.; Gnirss, R.; Lesjean, B.; Buisson, H.; Kraume, M.** (2002): Enhanced biological phosphorus removal in membrane bioreactors. *Water Sci. Technol.* 46 (4-5) 281-286.
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.
69. **Drews, A.; Kraume, M.** (2002): Influence of continuous membrane bioreactor operation on ferrichrome production using *Ustilago maydis*. *Desalination* 149 (1-3) 261-266.
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.
72. **Paschedag, A.; Piarah, W.H.; Kraume, M.** (2002): Treatment of limits for mass transfer at single droplets - Validation of numerical results. *Chem. Eng. Technol.* 25 (10) 953-956.
73. **Rosenberger, S.; Kubin, K.; Kraume, M.** (2002): Rheology of Activated Sludge in Membrane Bioreactors. *Eng. Life Sci.* 2 (9) 269-274.
74. **Rosenberger, S.; Kubin, K.; Kraume, M.** (2002): Rheologie von Belebtschlamm in Membranbelebungsreaktoren. *Chem. Ing. Tech.* 74 (4) 487-494.
75. **Rosenberger, S.; Kruger, U.; Witzig, R.; Manz, W.; Szewzyk, U.; Kraume, M.** (2002): Performance of a bioreactor with submerged membranes for aerobic treatment of municipal waste water. *Water Res.* 36 (2) 413-420.
76. **Rosenberger, S.; Kraume M.** (2002): Filterability of activated sludge in membrane bioreactors. *Desalination* 146 (1-3) 373-379.
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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78. **Gnirss, R.; Lesjean, B.; Adam, C.; Buisson, H.** (2002): Cost Effective and Advanced Phosphorus Removal in Membrane Bioreactors for a Decentralised Wastewater Technology. IWA 3<sup>rd</sup> World Water Congress, 07.-12.04.2002, Melbourne, Australia.

79. **Lesjean, B.; Gnirss, R.; Adam, C.; Kraume, M.; Luck, F.** (2002): Enhanced Biological Phosphorus Removal Process Implemented in Membrane Bioreactors to Improve Phosphorus Recovery and Recycling. AQUATECH, Int. Conference "From Nutrient Removal to Recovery", 2.-4.10.2002, Amsterdam, The Netherlands
80. **Paschedag, A.; Tornatora, M.; Ausner, L.; Signorino, M.** (2002): Modelling of agglomeration for BaSO<sub>4</sub> precipitation. In: Proc. 15<sup>th</sup> International Symposium on Industrial Crystallization, 15.-18.09.2002, Sorrento, Italy (ISBN: 88-900775-0-0).
81. **Schulze, K.; Kraume, M.** (2002): Influence of mass transfer on drop rise velocity. In: Schindler, F.-P. (Ed.), 1<sup>st</sup> 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. 8<sup>th</sup> International conference on Multiphase Flow in Industrial plants, 18.-20.09.2002, Alba, Italy (ISBN: 88-88198-03-02).

## 2003

### 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.
86. **Kraume, M.** (2003): Suspendieren, Mischen und Rühren: Grundlagen und moderne Verfahren 221-239, Wiley-VCH Weinheim.

### Journals

87. **Adam, C.; Kraume, M.; Gnirss, R.; Lesjean, B.** (2003): Membranbelebungsverfahren mit vermehrter biologischer Phosphorelimination (EBPR). Chem. Ing. Tech. 75 (5) 628-632.
88. **Drews, A.; Klahm, T.; Renk, B.; Saygili, M.; Baumgarten, G.; Kraume, M.** (2003): Nanofiltration of CIP waters from iodine X-ray contrast media production: process design and modelling. Desalination 159 (2) 119-129.
89. **Drews, A.; Klahm, T.; Renk, B.; Saygili, M.; Baumgarten, G.; Kraume, M.** (2003): Reinigung jodhaltiger Spülwässer aus der Röntgenkontrastmittelproduktion mittels Nanofiltration: Prozessgestaltung und Modellierung. Chem. Ing. Tech. 75 (4) 441-447.
90. **Drews, A.; Klahm, T.; Renk, B.; Saygili, M.; Baumgarten, G.; Kraume, M.** (2003): Cleaning of iodine CIP waters from X-ray contrast media production using nanofiltration: Process design and modeling. Chem. Eng. Technol. 26 (11) 1137-1142.
91. **Drews, A.; Kraume, M.** (2003): Einfluss einer kontinuierlichen Prozessführung im Membranbioreaktor auf die Ferrichromproduktion von *Ustilago maydis*. Chem. Ing. Tech. 75 (5) 623-628.
92. **Kraume, M.** (2003): Mischprozesse - ein lebendiges Arbeitsgebiet. Chem. Ing. Tech. 75 (10) 1456-1459.
93. **Lesjean, B.; Gnirss, R.; Adam, C.; Kraume, M.; Luck, F.** (2003): Enhanced biological phosphorus removal process implemented in membrane bioreactors to improve phosphorus recovery and recycling. Water Sci. Technol. 48 (1) 87-94.
94. **Mier, P.; Angst, R.; Kraume, M.** (2003): Anwendung der Euler-Euler-Methode zur Simulation der Flüssigkeits-Feststoff-Strömung im Strahlschlaufenapparat. Chem. Ing. Tech. 75 (4) 367-370.

95. **Paschedag, A.** (2003): Kopplung zwischen Populationsbilanzen und CFD am Beispiel von Fällungsprozessen. Chem. Ing. Tech. 75 (12) 1835-1840.
96. **Paschedag, A.; Kraume, M.** (2003): Letters to the Editor - Reply. AIChE J. 49 (6) 1611-1612.
97. **Rosenberger, S.; Kraume, M.** (2003): Filterability of activated sludge in membrane bioreactors. Desalination 151 (2) 195-200.
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.
101. **Adam, C.; Kraume, M.; Gnirss, R.; Lesjean, B.** (2003): Die Kombination der biologischen P-Elimination mit der Simultanfällung im Membranbelebungsverfahren. 5. Aachener Tagung Siedlungswasserwirtschaft und Verfahrenstechnik, Aachen, Germany (ISBN: 3-921955-28-9).
102. **Angst, R.; Kraume, M.** (2003): Grid and model dependency of the solid/liquid two phase flow CFD simulations of stirred vessels. 11<sup>th</sup> European Conference on Mixing, 14.-17.10.2003, Bamberg, Germany (ISBN: 3-931384-45-4).
103. **Belz, C.; Rosenberger, S.; Kraume, M.** (2003): In-building membrane bioreactors for wastewater treatment. AWWA Membrane Technology, 02.-05.03.2003, Atlanta, USA.
104. **Drews, A.; Kraume, M.** (2003): Prozessanalyse der kontinuierlichen Ferrichromproduktion mit *Ustilago maydis* auf Basis der CO<sub>2</sub>-Bildungsrate. 21. DECHEMA-Jahrestagung der Biotechnologen, 02.-04.04.2003, Munich, Germany.
105. **Drews, A.; Kraume, M.** (2003): Einfluss der Substratkonzentrationen bei der kontinuierlichen Ferrichromproduktion mit *Ustilago maydis* im Membranbioreaktor. GVC Bioverfahrenstechnik, 26.-28.05.2003, Bad Dürkheim, Germany.
106. **Kraume, M.; Bracklow, U.** (2003): Das Membranbelebungsverfahren in der kommunalen Abwasserbehandlung – Betriebserfahrungen und Bemessungsansätze in Deutschland. In: Proc. 5. Aachener Tagung Siedlungswasserwirtschaft und Verfahrenstechnik, 30.09.-01.10.2003, Aachen, Germany (ISBN: 3-921955-28-9).

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