

Curriculum Vitae



PERSONAL DETAILS

Univ.-Prof. Dr.-Ing. Jörg Krampe
TU Wien
Institute for Water Quality and Resource Management
Karlsplatz 13/2261
1040 Vienna
Austria

EDUCATION

07/2001	PhD at the Faculty of Civil and Environmental Engineering of Stuttgart University, Germany, with the PhD-thesis: "The sequencing batch membrane bioreactor process"
05/1997	Degree (Dipl.-Ing.) in Civil Engineering with focus on Environmental Engineering at the University of Hannover, Germany

EMPLOYMENT HISTORY

since 03/2017	Adjunct Professor, Division of Health Sciences, University of South Australia
since 08/2013	Professor for Water Quality at the TU Wien, Austria
08/2009 – 09/2018	Adjunct Associate Professor, School of Civil, Environmental and Mining Engineering, University of Adelaide
11/2008 – 07/2013	Principal Wastewater Treatment Engineer, SA Water Corporation, Australia
04/2004	Head of the Department for Wastewater Technology at the Institute for Sanitary Engineering (ISWA) of the University of Stuttgart, Germany
04/2000	Deputy Head of the Department for Wastewater Technology at the ISWA
11/1997	Researcher at the ISWA / Department for Wastewater Technology

FURTHER ACTIVITIES

- Dean of studies for Environmental Engineering
- Member of the IWA Austrian National Committee board of directors (Vorstand)
- Member of the Study Commission of the Faculty of Civil Engineering, TU Wien
- Deputy Chairman of the German Experts Association for Environmental Technology and Infrastructure, DEX
- Member of the EVN Advisory board for Environment and Social Responsibility
- Member of the ÖWAV board of directors (Vorstand)
- Member of the ÖWAV steering committee wastewater technology and water quality (Leitungsausschuss Abwassertechnik und Gewässerschutz)
- Supervisor of the ÖWAV Group for large WWTPs (Groß-KAN)

¹⁾ ÖWAV: Abbreviation for "Austrian Association for Water and Waste"

RESEARCH SPECIALTIES

Advanced wastewater treatment for disinfection and elimination of organic trace compounds with focus on micro- and ultrafiltration at membrane bioreactors or tertiary treatment for disinfection; biological wastewater treatment in activated sludge plants and trickling filters; control strategies and energy optimisation of WWTPs; energy production at WWTPs; aeration technologies; nutrient recovery from wastewater

RESEARCH PUBLICATIONS IN JOURNALS (SINCE 2013)

- 2021** Kittlaus, S., Clara, M., Gabriel, O., Hochedlinger, G., Humer, M., Humer, F., Kulcsar, S., Scheffknecht, C., Trautvetter, H., Zoboli, O., Krampe, J., Zessner, M., "Österreichweite Modellierung von Spurenstoffemissionen auf Ebene von Flusseinzugsgebieten", *Korrespondenz Abwasser*, Nr. 3, (2021), doi.org/10.3242/kae2021.03.003
- 2021** Tauber, J., Flesch, B., Parravicini, V., Svoldal, K., Krampe, J., "Influence of road salt thawing peaks on the inflow composition and activated sludge properties in municipal wastewater treatment", *Water Science and Technology*, (2021), doi.org/10.2166/wst.2021.045
- 2021** Wallmann, L., Krampe, J., Lahnsteiner, J., Radu, E., van Rensburg, P., Slipko, K., Wögerbauer, M., Kreuzinger, N., "Fate and persistence of antibiotic-resistant bacteria and genes through a multi-barrier treatment facility for direct potable reuse", *Journal of Water Reuse and Desalination*, (2021), doi.org/10.2166/wrd.2021.097
- 2020** Radu, E., Woegerbauer, M., Rab, G., Oismüller, M., Strauss, P., Hufnagl, P., Gottsberger, R., Krampe, J., Weyermaier, K., Kreuzinger, N., "Resilience of agricultural soils to antibiotic resistance genes introduced by agricultural management practices", *Science of The Total Environment*, (2020), Vol. 756, doi.org/10.1016/j.scitotenv.2020.143699
- 2020** Valkova, T., Parravicini, V., Saracevic, E., Tauber, J., Svoldal, K., Krampe, J., "A method to estimate the direct nitrous oxide emissions of municipal wastewater treatment plants based on the degree of nitrogen removal", *Journal of Environmental Management*, (2020), Vol. 279, doi.org/10.1016/j.jenvman.2020.111563
- 2020** Slipko, K., Marano, R., Cytryn, E., Merkus, V., Wögerbauer, M., Krampe, J., Jurkevitch, E., Kreuzinger, N., "Effects of subinhibitory quinolone concentrations on functionality, microbial community composition, and abundance of antibiotic resistant bacteria and qnrS in activated sludge", *Journal of Environmental Chemical Engineering* (2020), Vol. 9, Issue 1, doi.org.10.1016/j.jece.2020.104783
- 2020** Zoboli, O., Hepp, G., Krampe, J., Zessner, M., "BaHSYM: Parsimonious Bayesian hierarchical model to predict river sediment yields", *Environmental Modelling & Software*, (2020), doi.org/10.1016/j.envsoft.2020.104738
- 2020** Clos, I., Krampe, J., Alvarez-Gaitan, J.P., Saint, C.P., Short, M.D., "Energy Benchmarking as a Tool for Energy-Efficient Wastewater Treatment: Reviewing International Applications", *Water Conservation Science and Engineering*, (2020), doi.org/10.1007/s41101-020-00086-6
- 2020** Jahn, J., Baumgartner, T., Krampe, J., Svoldal, K., "Effect of NH₃ and organic loading on the inhibition of mesophilic high-solid digestion", *Journal of Chemical Technology and Biotechnology*, 95 (2020), 3; S. 702 – 709, doi.org/10.1002/jctb.6252
- 2019** Jahn, L., Saracevic, E., Svoldal, K., Krampe, J., "Anaerobic biodegradation and dewaterability of aerobic granular sludge", *Journal of Chemical Technology and Biotechnology*, 94 (2019), 9; S. 2908 – 2916, doi.org/10.1002/jctb.6094

- 2019** Slipko, K., Reif, D., Wögerbauer, M., Hufnagl, P., Krampe, J., Kreuzinger, N., "Removal of extracellular free DNA and antibiotic resistance genes from water and wastewater by membranes ranging from microfiltration to reverse osmosis", *Water Research*, 164 (2019), paper # 114916, doi.org/10.1016/j.watres.2019.114916
- 2019** Tauber, J., Parravicini, V., Svoldal, K., Krampe, J., "Quantifying methane emissions from anaerobic digesters", *Water Science and Technology*, 80 (2019), 9; S. 1654 – 1661, doi.org/10.2166/wst.2019.415
- 2019** Zessner, M., Zoboli, O., Reif, D., Amann, A. Sigmund, E., Kum, G., Saracevic, Z., Saracevic, E., Kittlaus, S., Krampe, J., Wolfram, G., "Belastung des Neusiedler Sees mit anthropogenen Spurenstoffen: Überlegungen zu Herkunft und Verhalten", *Österreichische Wasser- und Abfallwirtschaft*, 71 (2019), 11-12; S. 522 – 536, doi.org/10.1007/s00506-019-00623-1
- 2019** Jahn, L., Svoldal, K., Krampe, J., "Nitrous oxide emissions from aerobic granular sludge", *Water Science and Technology*, 80 (2019), 7; S. 1304 – 1314, doi.org/10.2166/wst.2019.378
- 2019** Jahn, L., Svoldal, K., Krampe, J., "Accidental aerobic granules - data evaluation of a full-scale SBR plant", *Desalination and Water Treatment*, 164 (2019), S. 11 – 17, doi.org/10.5004/dwt.2019.24366
- 2019** Pointl, M., Winkelbauer, A., Krampe, J., Fuchs-Hanusch, D., "Aspekte der IKT-Sicherheit in der österreichischen Siedlungswasserwirtschaft", *Österreichische Wasser- und Abfallwirtschaft*, 71(2019), S. 374- 384, doi.org/10.1007/s00506-019-0584-y
- 2019** Ganora, D., Hospido, A., Husemann, J., Krampe, J., Loderer, C., Longo, S., Moragas Bouyat, L., Obermaier, N., Piraccini, E., Stanev, S., Váci, L., Pistocchi, A., "Opportunities to improve energy use in urban wastewater treatment: a European scale analysis", *Environmental Research Letters*, Apr 2019, Vol. 14, Nummer 4, doi.org/10.1088/1748-9326/ab0b54
- 2019** Stadler, P., Blöschl, G., Nemeth, L., Oismüller, M., Kumpan, M., Krampe, J., Farnleitner, A.H., Zessner, M., "Event-transport of beta-d-glucuronidase in an agricultural headwater stream: Assessment of seasonal patterns by on-line enzymatic activity measurements and environmental isotopes", *Science of the Total Environment*, Apr 2019, Vol. 662, pp. 236-245, doi.org/10.1016/j.scitotenv.2019.01.143

- 2019** Fuiko, R., Saracevic, E., Koenka, I.J., Hauser, P.C., Krampe, J., “Capillary electrophoresis for continuous nitrogen quantification in wastewater treatment processes”, *Talanta*, Apr 2019, Vol. 195, pp. 366-371, doi.org/10.1016/j.talanta.2018.11.056
- 2019** Zoboli, O., Clara, M., Gabriel, O., Scheffknecht, C., Humer, M., Brielmann, H., Kulcsar, S., Trautvetter, H., Kittlaus, S., Amann, A., Saracevic, E., Krampe, J., Zessner, M., “Occurrence and levels of micropollutants across environmental and engineered compartments in Austria”, *Journal of Environmental Management*, Feb 2019, Vol. 232, pp. 636-653, doi.org/10.1016/j.jenvman.2018.10.074
- 2019** Jahn, L., Svardal, K., Krampe, J., “Comparison of aerobic granulation in SBR and continuous-flow plants”, *Journal of Environmental Management*, Feb 2019, Vol. 231, pp. 953-961, doi.org/10.1016/j.jenvman.2018.10.101
- 2018** Phattarapattamawong, S., Kaiser, A.M., Saracevic, E., Schaar, H.P., Krampe, J., “Optimization of ozonation and peroxone process for simultaneous control of micropollutants and bromate in wastewater”, *Wat. Sci. Tech.*, May 2018, Vol. 2017 (Bonus issue 2), pp. 404-411, doi: 10.2166/wst.2018.170
- 2018** Füreder, K., Svardal, K., Krampe, J., Kroiss, H., “Rheology and friction loss of raw and digested sewage sludge with high TSS concentrations: a case study”, *Wat. Sci. Tech.*, April 2018, Vol. 77 (7), pp. 276-286, doi: 10.2166/wst.2018.111
- 2018** Füreder, K., Svardal, K., Frey, W., Kroiss, H., Krampe, J., “Energy consumption of agitators in activated sludge tanks – actual state and optimization potential”, *Wat. Sci. Tech.*, Feb 2018, Vol. 77 (3), pp. 800-808, doi: 10.2166/wst.2017.596
- 2017** Amann, A., Zoboli, O., Krampe, J., Rechberger, H., Zessner, M., Egle, L., “Environmental impacts of phosphorus recovery from municipal wastewater”, *Resources, Conservation and Recycling*, March 2017, Vol. 130, pp. 127-139, doi: org/10.1016/j.resconrec.2017.11.002
- 2017** Jahn, L., Haslinger, J., Krampe, J., Walder, C., Prösl, A., Lahnsteiner, J., “Mikrosiebung als innovative Technologie für die energetische Nutzung des Abwassers”, *Österr. Wasser- und Abfallwirtschaft*, September 2017, Vol. 69, pp. 369-377 doi: 10.1007/s00506-017-0408-x
- 2017** Jia, G., Zhang, H., Krampe, J., Muster, T., Gao, B., Zhu, N., Jin, B., “Applying a chemical equilibrium model for optimizing struvite precipitation for ammonium recovery from anaerobic digester effluent”, *Journal of Cleaner Production*, Vol. 147, pp. 297-305, doi: 10.1016/j.jclepro.2017.01.116
- 2016** Egle, L., Rechberger, H., Krampe, J., Zessner, M., “Phosphorus recovery from municipal wastewater: An integrated comparative technological, environmental and economic assessment of P recovery technologies”, *Science of the Total Environment*, 571, pp 522 – 542, doi: 10.1016/j.scitotenv.2016.07.019
- 2016** Haslinger, J., Lindtner, S., Krampe, J., “Operating costs and energy demand of wastewater treatment plants in Austria: benchmarking results of the last 10 years”, *Wat. Sci. Tech.*, Vol. 74, No 11, pp. 2620-2626, doi: 10.2166/wst.2016.390
- 2016** Parravicini, V., Svardal, K., Krampe, J., “Greenhouse Gas Emissions from Wastewater Treatment Plants”, *Energy Procedia*, Vol. 74, pp. 246-253, doi: 10.1016/j.egypro.2016.10.067
- 2016** Jahn, L., Baumgartner, T., Svardal, K., Krampe, J., “The influence of temperature and SRT on high-solid digestion of municipal sewage sludge”, *Wat. Sci. Tech.*, Vol. 74, No 6, pp 836 – 843, doi: 10.2166/wst.2016.264
- 2016** Reeve, P.J., Mouilleron, I., Chuang, H.P., Thwaites, B., Hyde, K., Dinesh, N., Krampe, J., Lin, T.F., van den Akker, B., “Effect of feed starvation on side-stream anammox activity and key microbial populations”, *Journal of Environmental Management*, Vol. 171, pp 121-127, doi: 10.1016/j.jenvman.2016.01.035

- 2015** Spindler, A., Krampe, J., "Quality control of wastewater treatment operational data by continuous mass balancing: dealing with missing measurements and delayed outputs", *Water Quality Research Journal of Canada*, Vol. 50, No 3, pp 228 – 239, doi: 10.2166/wqrjc.2015.056
- 2015** van den Akker, B., Reid, K., Middlemiss, K., Krampe, J., "Evaluation of granular sludge for secondary treatment of saline municipal sewage", *Journal of Environmental Management*, Vol. 157, pp 139 – 145, doi: 10.1016/j.jenvman.2015.04.027
- 2014** Winkelbauer, A., Fuiko, R., Krampe J. and Winkler S., "Crucial elements and technical implementation of intelligent monitoring networks"; *Wat. Sci. Tech.*, Vol. 70, No 12, pp 1926 - 1932, doi:10.2166/wst.2014.415
- 2014** van den Akker, B., Reid, K., Keegan, A., Rinck-Pfeiffer, S., Krampe, J., "Increasing SBR capacity using granular sludge", *Water*, May 2014, pp 74 - 77
- 2014** Mouilleron, I., Hyde, K., Reid, K., Keegan, A., Rinck-Pfeiffer, S., Krampe, J., van den Akker, B., "Start-up of a demonstration-scale de-ammonification reactor at Bolivar WWTP", *Water*, April 2014, pp 119 - 123
- 2013** Krampe, J., Rau, W., Qiu, T., Wootton, P., Lawson, T., "Diffuser selection for foul air treatment in an activated sludge plant", *Water*, August 2013, pp 108 – 112
- 2013** Krampe, J. "Cycle time determination and process control of Sequencing Batch Membrane Bioreactors", *Wat. Sci. Tech.*, Vol. 67, No 9, pp 2083 - 2090, doi: 10.2166/wst.2013.096
- 2013** Krampe, J. "Energy benchmarking of South Australian WWTPs", *Wat. Sci. Tech.*, Vol. 67, No 9, pp 2059 - 2066, doi: 10.2166/wst.2013.090
- 2013** Steele, R., Dinesh, N., Krampe, J., "Process level energy benchmarking as a tool to improve the energy efficiency of WWTPs", *Water*, April 2013, pp 129 – 134