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## MONITORING OF PHAMACEUTICALS, BIOCIDES, ENDOCRINE DISRUPTORS IN WASTEWATER PROCESSES

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### ABSTRACT

Organic micro-pollutants such as pharmaceuticals, biocides, endocrine disruptors and their transformation products are introduced in various ways into the wastewater. During wastewater treatment they can undergo sorption, biotransformation, chemical transformation, photo transformation etc. this presentation innovative monitoring strategies in respect to the relevant processes in wastewater treatment as a biorefinery will be discussed including experimental set up, sampling, determination and data evaluation. The use of enantioselective determination will be discussed based on selected compounds (Ibuprofen, Mecoprop) in advanced treatment systems to discriminate between biotransformations and other reactions. HPLC-MS and GC-MS based methods and extraction procedures will be assessed as well as the results on technology assessment considering waste and drinking-water technology. The determination and monitoring of these compounds is essential for the control and enforcement of surface water quality on one hand and for assessment of current and future treatment technology which is getting an ever more important issue worldwide as pure water is getting scarce not only in Denmark but even more in the rest of the world.



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