

On the sustainable treatment systems for removal of pharmaceutical residues and other priority persistent substances

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Abstract: Pharmaceutical residues and other emerging substances commonly summarised as micropollutants pass through modern wastewater treatment plants (WWTPs) and end up in the receiving waters and sludge. This paper provides the results from the large Swedish project about sustainable treatment systems for removal of pharmaceutical residues and other priority persistent substances. The main results from their project are specific evaluation of all the relevant treatment technologies for their removal efficiencies concerning different types of micropollutants or disruptive effects but also their environmental and economic sustainability. The presented results will give a collected view on available knowledge within advanced treatment of wastewater for removal of micropollutants. Specific technology recommendations are provided for different plant types and sizes.

Keywords: GAC-biofilter, micropollutants, ozonation, ultra-filtration, wastewater treatment