

Behavior of particulate matter from real wastewater in aerobic and anaerobic processes

Background: Biological treatment processes are widely used for domestic and industrial wastewaters. One of the major challenges in wastewater treatment plants is the understanding on how particulate components are degraded. Normally, particulate matter degradation highly depends on the hydrolysis step, which is crucial and limiting in the treatment process. Therefore, it is necessary to understand how particles from raw wastewater are affected by the hydrolysis step. The study on the particles fractionation of wastewater leads to a better understanding of the process and so, to a better treatment.

Objectives of the work:

- Investigate the influence of different particle size fractions of the raw wastewater on the hydrolysis process, performing batch experiments under aerobic/anaerobic conditions.
- Obtain a detailed knowledge on when the different fractions of contaminants (organic carbon) within aerobic and anaerobic processes are degraded or formed, using the LC-OCD method.
- Determine kinetic coefficients.

Further details: <http://wasserchemie.ebi.kit.edu>

Type: Bachelor or Master Thesis

Time: Immediately, by appointment

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