

Summary

In order to keep the WWTP performance under control and to make decisions of minimizing the potential influence of wastewater components on the stable and proper WWTP operation, the devices for on-line control of oxygen uptake rate were designed and manufactured. The devices were used for three aims:

- controlling the presence of harmful substances for microorganisms in raw wastewater (Toximeter),
- assessment of the real physiological condition of activated sludge in the aeration chamber (Activmeter),
- determining of the effects of activated sludge settling properties deterioration and its influence on the secondary clarifiers operation as well as microorganisms presence in treated wastewater (Sedimeter).

The results confirmed that the devices are helpful for the WWTP operators as an early warning system and enable optimal decisions making.