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Present and perspectives of anaerobic treatment of domestic sewage

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ABSTRACT

The paper is a general overview of anaerobic processes applied to domestic sewage treatment. After comparing decanter-digester (septic tank) and anaerobic technologies, the organic matter flows in aerobic and aerobic systems are presented. For UASB technology the influence of key operational parameters as temperature, sludge age and hydraulic retention time is discussed and quantified. After discussing some sustainability parameters, technical characteristics of the new plant of Ciudad Sandino (Nicaragua) are presented. The future of anaerobic treatment is related to the new decentralized sanitation and reuse concepts.

Keywords: Anaerobic digestion; Domestic sewage; Sanitation; Reuse

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