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TECHNOLOGICAL ASPECTS OF WASTEWATER TREATMENT WITH ACTIVATED SLUDGE SPECIFIC TO HIGH ORGANIC LOADING

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Abstract

The paper titled "Technological Aspects of Wastewater Treatment with Activated Sludge specific to High Organic Loading" points out the advantages of biological treatment with a biological selector and a compact mixing (CM) reactor compared with conventional methods (technological treatment scheme). This application is appropriate for the treatment of wastewater high in organic loading and biodegradable pollutants based on the two distinct processes: biosorption and biodegradation.

For biosorption processes, the use of a biological selector is important for minimizing excess growth of filamentous microorganisms in the CM reactor. The excess growth of such organisms produce sludge bulking and floatation in the secondary clarifier.

The technological scheme described present economical and energy efficient wastewater treatment methods for small to medium waste generators such as communities and food industries.

Keywords: biological treatment, biosorption, biodegradation, biological selector, compact mixing reactor

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