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APPLICATION OF ORGANIC FLOCCULANTS FOR THE TREATMENT OF SLUDGE FROM MUNICIPAL WASTEWATER TREATMENT PLANTS

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Abstract

After any treatment process of wastewater results residual sludge that is characterized depending on the type of the wastewater or by the sludge treatment type. The sludge treatment process can be divided in three important stages: the preliminary stage (with the sludge thickening), the stabilization stage, and the dewatering stage. The paper shows the results of the research for the identification of the most efficient organic cationic flocculants, which might be used within the process of thickening or dewatering of the sludge, resulting from the municipal wastewater treatment. Considering this, the study aimed to identify the most efficient flocculants, from Zetag category, used for municipal sludge treatment in the thickening and dewatering process. The main parameters studied during the laboratory tests were: size of the flocs, the filtrate and the sludge cake consistency. Also, the experimental results had industrial applications with a real testing of the studied flocculants in a municipal wastewater treatment plant.

Key words: organic flocculants, residual sludge, sludge treatment

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