



COMPARATIVE STUDY ON SURFACE WATER TREATMENT USING ALUMINIUM SULPHATE AND POLYALUMINIUM CHLORIDES AS COAGULANT REAGENTS

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Abstract

The paper presents the comparative study regarding the turbidity removal using aluminium sulphate $Al_2(SO_4)_3 \cdot 18H_2O$ and polyaluminum chlorides, $Al_n(OH)_mCl_{3n-m}$, commercial name, Sachtoklar 39, in water treatment plant from Covasna City. The parameters that influence the treatment process and the efficiency of turbidity removal were studied. The water characteristic parameters of Basca Mare and Covasna rivers - the two sources of water alimentation for Covasna water treatment plant were monitored along the year 2007. The turbidity varied from small values admitted by legislation during the winter months up to 753,8 NTU for Basca Mare river and up to 1076 NTU for Covasna river during June with abundant rain and flooding. The efficiency of turbidity removal was much better for polyaluminum chlorides comparatively to aluminium sulphate.

Key words: water treatment, coagulation reagents, aluminium sulphate, Sachtoklar 39

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