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STUDY OF PRECIPITATES GROWTH IN COAGULATION – FLOCCULATION BASED ON INORGANIC COMMERCIAL COAGULANTS

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Abstract

The process of flocs formation in coagulation – flocculation based on inorganic coagulants on kaolin synthetic suspension has been investigated. Investigation was performed by simulating coagulation according to Jar-test method. During experiments, two inorganic commercial coagulants have been used. A preliminary study, to establish the optimum coagulants doses have been performed, and precipitates growth has been studied for optimum coagulants doses. Results have been obtained by discrete monitoring of flocs size and distribution, by image processing measurements. It has been observed that iron based coagulant, PIX 113, presents a couple of advantages, being usable in a large dosage range. It also forms in time greater precipitates than aluminum based coagulant, PAX 18.

Key words: coagulation-flocculation, flocs growth, microscopy, water treatment

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