

IMPROVEMENT OF COAGULATION PROCESS FOR THE PRUT RIVER WATER TREATMENT USING ALUMINUM SULPHATE

Larisa Postolachi^{*}, Vasile Rusu, Tudor Lupascu, Alexei Maftuleac

Institute of Chemistry of Academy of Sciences of Moldova, 3 Academiei str., Chisinau MD-2028, Republic of Moldova
**e-mail: larisa.postolachi@gmail.com; phone: (+373 22) 73 97 31; fax: (+373 22) 73 99 54*

Abstract. The aim of presented research was to optimize the treatment process of the Prut River water. In order to realize the proposed goal, there were studied the following factors which can improve the process of coagulation: (i) the influence of stirring speed during coagulation and (ii) the influence of the concentration of the coagulant solution added in the process of coagulation. The optimal conditions of coagulation were established using the *Jar-test* method. Application of the recommended procedure contribute to the reduction of the coagulant dose, the contact time, the aluminum concentration in water and the expenses for water treatment.

Keywords: coagulation, aluminum sulphate, *Jar-test* method.

Received: February 2015/ Revised final: April 2015/ Accepted: April 2015