ABSTRACT

In the presented study four basic coagulants ($Al_2(SO_4)_3$* $18H_2O$, $FeCl_3$* $6H_2O$, PAX-18, PAS-3) were used for treating a raw water from Vltava river (Prague-Podolí) and their efficiency was evaluated. Coagulation-flocculation-sedimentation experiments were performed by jar tests using equipment of laboratory of Institute for Environmental Studies, Charles University. For the water purification the less efficient appeared to be alum, which optimal dose was the higher.

There is a significant amount of residual aluminum when using synthetic polycoagulants, which leads to a problem with excessing a standard. Because of it, influence of aid coagulants Magnafloc and starch was examinated. Usage of Magnafloc caused lower optimal dose of three basic coagulants. The volume of residual aluminum didn't significantly change.

When using starch as aid coagulant together with synthetic polycoagulants, the volume of residual aluminum notably dropped to about 57% of the amount compared to using polycoagulant alone.