**Klos, M. Technological Assumptions of Coagulation and Dissolved Air Flotation Control System in Water Treatment Process.** ***Ochrona Srodowiska*** **2013, Vol. 35, No. 3, pp. 39–43.**

**Abstract:** Based on technical and laboratory scale study results, design recommendations for coagulation and dissolved air flotation control system in water treatment train with high quality variability were presented. Hydrolyzing coagulants, when applied, were demonstrated to require fluent rotational stirrer speed regulation in flocculators. This allows maintenance of adequate floc size which determines bubble-floc agglomerate formation efficacy and their resistance to mechanical tension in the contact zone of flotation tank. In practice, real time rotation regulation in flocculators might be applied, depending on water turbidity or particle number in water fraction leaving flotation tank. Required recirculation factor might be estimated in real time, based on the clarified water quality. However, this solution is very difficult to implement due to many factors that affect efficiency of coagulation and dissolved air flotation processes. It was demonstrated that special attention should be paid to differentiation between the effect of inadequate coagulant dose and the improper recirculation factor. Use of information on the amount and type of suspensions in the intake water, obtained based on UV-absorbance and turbidity measurements, appears to be a better approach.

**Keywords:** Water treatment, turbidity, UV-absorbance, variable water quality, process control.