

Effectiveness of “Enhanced Coagulation” in Low Mineralization Water Treatment – Jolanta Gumińska

Summary

During the process of „enhanced coagulation” except for colloids and suspensions removal, the removal of associated organic compounds including DPD (Disinfection By-Products) precursors is crucial. It is often necessary to decrease color and turbidity of treated water to values which are significantly lower than accepted for drinking water. On the basis of presented results of the research it was found out that under strict technological conditions coagulation of low mineralization waters ensures effective treatment, including significant THMs precursors removal, even when water is of low temperature. However, it is necessary to apply two different methods of coagulation (volumetric coagulation and direct filtration) dependently of water temperature with the usage of the same equipment (flocculation chamber, a vertical sedimentation tank and a pressure rapid filter) including the same point of a coagulant dosing. During the periods of „high temperature” the treatment should be based on volumetric coagulation and during the periods of „low temperature” of water direct filtration should be applied.