

**Pruss, A., Pruss, P. Organic Pollutant Removal from Low Alkalinity Surface Water. *Ochrona Srodowiska* 2013, Vol. 35, No. 4, pp. 47–50.**

**Abstract:** Technological field tests were performed from November 2011 until May 2012 in order to determine treatment technology for river water with low alkalinity, high temperature variability and high organic content resulting from plankton blooms. Flow tests with capacity of 0.1 to 1.5 m<sup>3</sup>/h were performed simultaneously in 3 types of technical installations differing by coagulation modules. It has been demonstrated that coagulation performed in the system with flash mixing, flocculation and sedimentation chamber and final rapid filtration of suspended solids was the decisive water treatment process. Coagulation with aluminum sulfate at doses of 3 to 6 gAl/m<sup>3</sup> which lowered water pH to 6.5÷7.0, ensured TOC removal by 44÷64%. This corresponded to its water content following filtration of up to 4 gC/m<sup>3</sup>. It was stated that if further efficacy improvement of TOC removal from water was necessary, powdered active carbon dosing at 20 g/m<sup>3</sup> prior to rapid filter application would be required. The study results formed the basis for development of pilot study variants at technical scale with capacity of 10÷45 m<sup>3</sup>/h.

**Keywords:** River water, organic matter, water treatment, coagulation, filtration.