

**Majewska-Nowak, K., Kawiecka-Skowron, J., Kabsch-Korbutowicz, M., Urbanowska, A. The Efficiency of Natural and Anthropogenic Colored Organic Substance Removal in Ultrafiltration by Ceramic Membranes. *Ochrona Srodowiska* 2010, Vol. 32, No. 4, pp. 11–14.**

**Abstract:** Seven aqueous solutions of anionic organic dyes (differing in molecular weight from 327 Da to 1060 Da) and six aqueous solutions of natural organic matter – NOM (varying in color between 22 gPt/m<sup>3</sup> and 125 gPt/m<sup>3</sup>) were subjected to an ultrafiltration process, which involved ceramic membranes of different cut-off values. The efficiency of the ultrafiltration process was evaluated in terms of the membrane's cut-off value, the linear velocity of the solution near the membrane surface, the molecular weights of the dyes, and the initial NOM concentrations in the solutions tested. The comparison between the separation effects obtained for the two types of colored organic substances has demonstrated that the anionic organic dyes were removed from the solution with a higher efficiency in spite of their lower molecular weights.

**Keywords:** Organic dye, natural organic matter, ultrafiltration, ceramic membrane.