

Effect of Ozone Dosage for Removal of Model Compounds by Ozone/GAC Treatment

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摘要.

Abstract

This research employed batch ozonation and GAC (granular activated carbon) column to investigate the effect of preozonation dosage on the subsequent GAC adsorption, in terms of the adsorption capabilities for small and large molecules.

For large target compounds like humic acid, the adsorption efficiency was improved with higher ozone dosages, whereas the combined effect of ozonation coupling with GAC for small model compounds seems to be negative. In addition, there is a selective adsorption between the chlorinated disinfection by-product (DBP) precursors and other non-precursors, and most of the non-precursors are less adsorbable than the precursors.