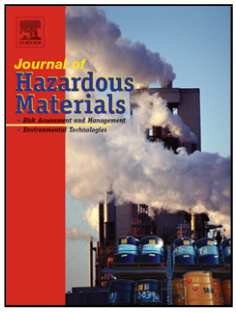

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Trihalomethanes (THMs) precursor fractions removal by coagulation and adsorption for bio-treated municipal wastewater: molecular weight, hydrophobicity/hydrophily and fluorescence

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Highlights

1. THMs precursor in wastewater was removed by coagulation and adsorption.
2. Coagulation decreased THMs concentration in HoA fraction.
3. Adsorption decreased THMs concentration in HiS fraction.
4. Most of specific THMFP in adsorbed water was higher than that in coagulated water.
5. Br-DBPs in adsorbed water turned to the major THMs species.

Abstract

Due to concerns over health risk of disinfection byproducts (DBPs), removal of trihalomethanes (THMs) precursor from bio-treated wastewater by coagulation and adsorption was investigated in this study. Ultrafiltration (UF) membranes and nonionic resins were applied to fractionate THMs precursor into various molecular weight (MW) fractions and hydrophobic/hydrophilic fractions. Characteristics of

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