TEMPORAL VARIABILITY OF DISINFECTION BY-PRODUCTS CONCENTRATION IN URBAN PUBLIC WATER SYSTEM

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Abstract

The occurrence of trihalomethanes (THMs) was studied in the drinking water samples from urban water supply network of Karachi city that served more than 18 million people. Drinking water samples were collected from 58 locations in summer (May-August) and winter (November-February) seasons. The major constituent of THMs detected was chloroform in winter (92.34%) and summer (93.07%), while the other THMs determined at lower concentrations. Summer and winter concentrations of total THMs at places exceed the levels regulated by UEPA (80 mu g l-1) and WHO (100 mu g l-1). GIS linked temporal variability in two seasons showed significantly higher median concentration (2.5%-23.06%) of THMs compared to winter.

Keywords

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