SCCWRP #0267

Determination of C_6-C_{10} aromatic hydrocarbons in water by purge-and-trap capillary gas chromatography

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ABSTRACT

A method is described for the determination of the C_6—C_{10} aromatic hydrocarbons in water based on purge-and-trap capillary gas chromatography with flame ionization and mass spectrometric detection. Retention time data and 70 eV mass spectra were obtained for benzene and all 35 C_7—C_{10} aromatic hydrocarbons. With optimized chromatography conditions and mass spectrometric detection, benzene and 33 of 35 alkylbenzenes can be identified and measured in a 45-min run. Use a flame ionization detector permits the simultaneous determination of benzene and 26 alkylbenzenes.