SBSE – TDU – GC/MS 16

[1], [2], [1], [1], [1], [1*]
(1. , 213014; 2. , 215600)

: , (SBSE) – – / 16 。 2 ~ 50 ng/L , 10 mL , 1 h , 16 0.5 ~ 1.1 ng/L。 2 , 89.2% ~ 102% 。

: ; SBSE ; / ;
:X832; O657.6; O657.7 :B :1674 – 6732(2015)05 – 0037 – 05

Simultaneous Determination of 16 PBBs in Drinking Source Water by Stir Bar Sorptive Extraction-Thermal Desorption-Gas Chromatography/Mass Spectrometry

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(1 , , 213001, ; 2 , , 215600,)

Abstract: A total of 16 polybrominated biphenyls (PBBs) in drinking source water were determined by GC/MS with stir bar sorptive extraction (SBSE) and thermal desorption technique. By optimizing the process of extraction and desorption, the results showed good linearity ranging from 2 to 50 ng/L. With the sampling volume of 10 mL and SBSE of 1 h, the detection limits of 16 PBBs were between 0.5 and 1.1 ng/L. The recovery test was carried out by standard addition of two concentrations into actual water samples, and the average recovery rates were in the range of 89.2% ~ 102%.

Key words: Polybrominated biphenyls; Stir bar sorptive extraction; GC/MS; Drinking source water

(polybrominated biphenyls, PBBs) , 、 [1] 。 PBBs 、 ; 、 、 , (SPME) , [2] 。 PBBs 、 、 、 、 。 [3-7] 。 SPME , Baltussen —— (SBSE), 、 、 PBBs , 10 mm (PMDS) [8] 。 。 , PBBs ng/g, PMDS , (TDU) ng/L[9] 。 PBBs , PBBs , , 、 。 [10] 、 [11] 、 [12] 。 ,

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