Supporting information

Au nanoparticles decorated graphene oxide as a novel coating for solid-phase microextraction

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Optimization of desorption conditions

To reach the highest sensitivity, desorption conditions including temperature and time were evaluated to ensure the analytes were completely desorbed from SPME fiber. Firstly, desorption temperature was evaluated at 260, 280, 300 and 320 °C for 5 min. As shown in Fig. 1, the result indicated that 300 °C was sufficient for the complete desorption. Then, desorption time profiles ranging from 2 to 6 min were evaluated. As shown in Fig. 2, the result showed that desorption at 300 °C for 5 min was the optimum desorption conditions.

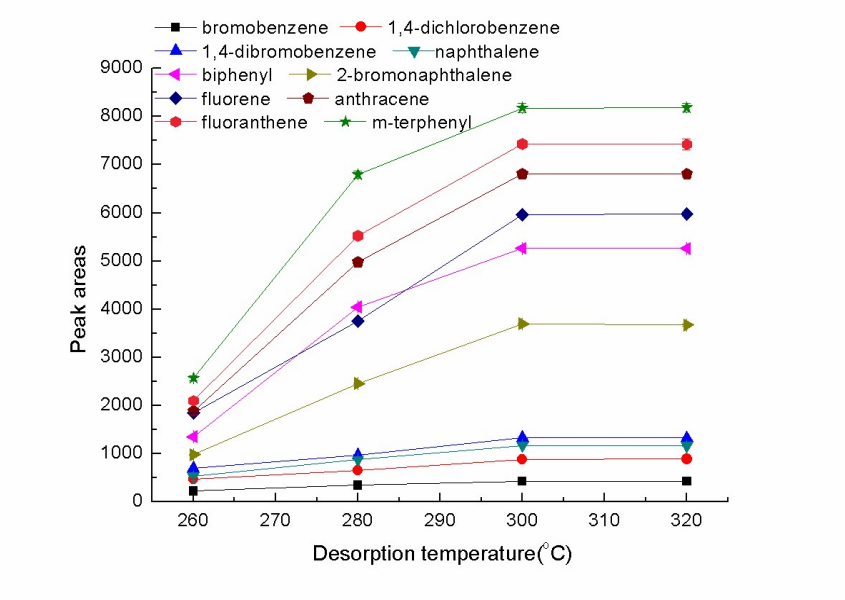

Fig. 1 Effect of desorption temperature on peak area of analytes. Conditions: extraction time, 40 min; extraction temperature, 40 °C; salt concentration, 30% NaCl; stirring rate, 800 rpm; desorption time, 5 min; aromatic HOCs concentration, 200 μg L^{-1}.

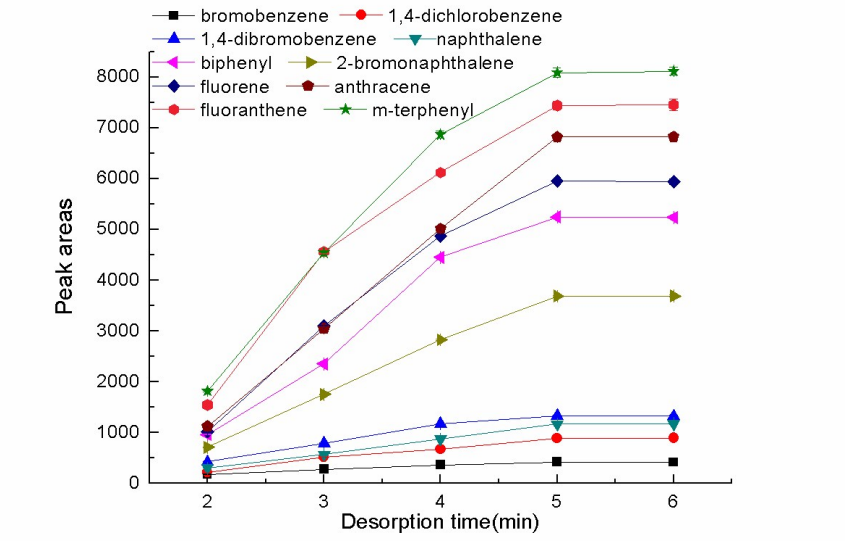

Fig. 2 Effect of desorption time on peak area of analytes. Conditions: extraction time, 40 min; extraction temperature, 40 °C; salt concentration, 30% NaCl; stirring rate, 800 rpm; desorption temperature, 300 °C; aromatic HOCs concentration, 200 μg L^{-1}.