Environment-Friendly Determination of Low Concentration Azobenzene β-Cyclodextrin-Modified Electrode[1]

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Objective To study environment-friendly determination of azobenzene in trace amounts using β-cyclodextrin (β-CD)-modified Au electrode. **Methods** β-CD-modified Au electrode was fabricated with a two-step approach, and then a gold electrode modified with β-CD was used to detect azobenzene by employing Osteryoung square wave voltammetry. **Results** The modified electrode could detect azobenzene, showing a good linearity between the electrochemical current and concentration. **Conclusion** Although the electrochemical current is related with concentration, the detection limit is around 1.0×10^{-10} mol/L. This study may provide a new environment-friendly approach for monitoring water quality.

Key words: β-cyclodextrin; Au electrode; Azobenzene.

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(*Received October* 17, 2007 *Accepted July* 19, 2008)

[1]This work was supported by the National Natural Science Foundation of China (Project No. 60471005) and Program for Changjiang Scholars and Innovative Research Team in University.

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0895-3988/2008
CN 11-2816/Q