Molecularly imprinted electrochemical sensor for the detection of bisphenol A

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The imprinted electrochemical sensor was fabricated to determine bisphenol A by differential pulse voltammetry. Under the optimal condition, the proposed sensor exhibited a well linear relationship toward the bisphenol A concentrations in the range of 0.2 to 45 μM , with a detection limit of 0.03 μM and a correlation coefficient of 0.9965. The proposed sensor possessed high selectivity and sensitivity to bisphenol A detection, which was successfully applied to detect bisphenol A in real samples. The recoveries were in the range of 92.7–96%.

Keywords: Molecularly imprinted polymers, Electrochemical sensor, Bisphenol A

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