Short Communication

Electrochemical Sensor Based on Molecularly Imprinted Polymer for Determination of Nonylphenol

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Molecularly imprinted polymers were prepared on the surface of acrylamide-functionalized multi-walled carbon nanotubes by thermal polymerization, which using nonylphenol as template molecule, methacrylic acid as functional monomer and ethyleneglycol dimethacrylate as crosslinking agent. The molecularly imprinted polymers were modified on the surface of glassy carbon electrode to prepare electrochemical sensor. The proposed sensor showed a linear range of 0.1 to 30 μM with a detection limit of 0.02 μM . The sensor exhibited good stability, selectivity and high sensitivity to nonylphenol detection. It was successfully applied to detect nonylphenol in water samples.

Keywords: Molecularly imprinted polymers, Electrochemical sensor, Nonylphenol

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