

# Polypyrrole molecularly imprinted modified glassy carbon electrode for the recognition of gallic acid

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A molecularly imprinted polypyrrole polymer-based film and its properties regarding the recognition of gallic acid were investigated. The polypyrrole film was prepared by including a template molecule during the electropolymerisation of pyrrole. The electropolymerisation was performed using cyclic voltammetry in the presence of an aqueous solution of 0.1 M NaClO<sub>4</sub> and 0.05 M pyrrole, with and without a template molecule on a glassy carbon electrode. Some of the parameters important to controlling the performance of the polypyrrole were investigated and optimized, including the pyrrole monomer concentration and the electropolymerisation cycles. The modified electrodes were able to detect gallic acid and have been characterized by differential pulse voltammetry and scanning electron microscopy (SEM). © 2013 The Electrochemical Society.