Sensitive Artemisinin Electrochemical Sensor Based on Polymerized Molecularly Imprinted Membranes

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An electrochemical molecular imprinted sensor was successfully developed for ultra-sensitive detection of artemisinin (AN). The electrochemical sensor was fabricated on a poly(diallyldimethylammonium) chloride-reduced graphene oxide (PDDA-RGO) functionalized glassy carbon electrode (GCE) using acrylamide (AM) and ethylene glycol dimethacrylate (EGD) as monomer and cross-linking agent, respectively. The fabricated AN sensor was characterized by different techniques. After optimization of experimental parameters, the proposed AN sensor showed a wide detection linear range, low detection limit, excellent sensitivity and selectivity. The practical performance of the AN sensor showed an accurate determination of AN in *Artemisia annua* L extract.

Keywords: Molecularly imprint; Artemisinin; Graphene; Acrylamide; Electrochemical sensor

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