Electrochemical Determination of Catalpol in *Rehmannia Glutinosa* Based on Polyaniline-Graphene Modified Glassy Carbon Electrode

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In this work, we prepared an electrochemical sensor to quantify the catalpol, where the glassy carbon electrode (GCE) was modified by the polyaniline graphene. Compared with the bare GCE, we found that the GCE modified with polyaniline graphene exhibited a well-defined oxidation of the catalpol. Moreover, a significant enhancement in the current response was observed during the process. Especially, the current response of the oxidation peak of the catalpol exhibited a linear relationship with the concentration of the catalpol in the range of 0.005 to 50 μM , where the limit of the detection was 0.002 μM . The electrochemical sensor was succeeded to be applied in the determination of the catalpol in the root of *Rehmannia glutinosa* due to the improved voltametric performance.

Keywords: *Rehmannia glutinosa*; Catalpol; Polyaniline; Sensing; Electrode

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