Electrochemical Determination of Apigenin as An Anti-Gastric Cancer Drug in *Lobelia chinensis* Using Modified Screen-Printed Electrode

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We exploited a simple electrochemical method to activate bare screen printed carbon electrode and a novel amperometric apigenin sensor with high sensitivity was developed. Nickel nanoparticles (NiNPs) were doped on the activated screen printed carbon electrode (ACE), and then employed to investigate electrochemical behavior of apigenin in a 0.1 M B-R buffer solutions (50% ethanol, pH=3.0) by cyclic voltammetry (CV). Result shows a linear relationship of peak currents as a function of apigenin concentration in the range from 0.9 to 200 μ M. Using proposed method, the apigenin in a herbal drug (*Lobelia chinensis*) can be easily determined in the absence of pre-separation. This simple and convenient method is of great potential application prospect for anti-gastric cancer drug analysis.

Keywords: *Lobelia chinensis*; Screen-printed electrode; Sensor; Ni nanoparticles; Anti-gastric cancer

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