



Electrochemical Determination of Duloxetine Hydrochloride at Gold Electrode

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Abstract: Duloxetine hydrochloride (DUL), a naphthyl ether amine, inhibits the uptake of serotonin and norepinephrine. The electrochemical behavior of DUL was determined by cyclic voltammetry (CV) in phosphate buffer solution at gold electrode by varying pH and scan rate. The electroanalytical application was studied with the aid of differential pulse voltammetry (DPV) in sodium bicarbonate solution. A linear response ranged from 5×10^{-7} M to 10^{-5} M. The validation of the DPV method was carried out by determine of the limit of detection (LOD) and limit of quantitation (LOQ) and the calculate values were 4.6×10^{-7} and 2×10^{-6} M, respectively. The proposed DPV method has been successfully applied to assessment DUL as standard and in Taita® tablets and standard spiked with human serum.