# Electrochemical characterization of tacrine, an antialzheimer's disease drug, and its determination in pharmaceuticals

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Tacrine, 9-amino-1,2,3,4-tetrahydroacridine, an antialzheimer's disease agent was electrochemically studied and a polarographic method for its quantitative determination in pharmaceuticals was developed. Tacrine was electrochemically reduced and oxidized in aqueous medium, but for analytical purposes the cathodic behavior was prefered. According to the linear relation between the peak current and the tacrine concentration a differential pulse polarographic metfiod was developed. Precision and accuracy of the developed method was checked by recovery studies. The proposed method was applied to the individual capsule assay (ICA) of the commercial capsules, showing that the uniformity content requirements were fulfilled. Alternatively a UV spectroscopic characterization was conducted, from the pH dependence of the absorbance bands an apparent pK(a) of 10.44 was obtained. For comparative purposes a spectrophotometric determination also was developed.