

Electrochemical reduction of nicergoline and its analytical determination in dosage forms

Sturm, J. C.

Nunez-Vergara, Luis J.

Squella, J. A.

Electrochemical reduction of nicergoline was studied at different pH and concentrations using differential pulse polarography and linear sweep voltammetry. Both techniques reveal that the reduction process occurs with strong adsorption of the product. Nicergoline is an excellent model for the previously developed theory related to the effects of strong adsorption of electroactive species in voltammetry. At concentrations below 0.1 mM, the adsorption prepeak is linearly dependent on nicergoline concentration. This peak was used to develop a new differential pulse polarographic method for the determination of the drug in pharmaceutical dosage forms. The method is simple and not time-consuming because nitrogen purging of samples and previous separation of the excipients were not needed. A comparative UV spectrophotometric assay was applied. Recovery data and composite and uniformity content studies for both methods are reported. © 1992.