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Selective electrochemical determination of desipramine using a lipid modified carbon paste electrode

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Carbon paste electrodes have been modified with some lipids for the sensitive and selective detection of the antidepressant (Desipramine). Voltammetric experimental conditions were optimized taking into account the importance of quantifying desipramine in the complex media and in the pharmaceutical formulations. The sensor(Lauric acid modified carbon paste electrode) responds to desipramine giving a cathodic current (at +0.88 V vs. Ag/AgCl electrode and pH 9). The response was characterized with respect to preconcentration potential, accumulation time, paste composition, possible interferences and other variables. A linear relationship between peak response and desipramine concentration over the range from 1 $x10^{-7}$ to 1 $x10^{-6}$ M. with standard deviation of 5.5 %.A detection limit of 3.3 $x10^{-10}$M was obtained under the optimum conditions The method has been applied to the determination of desipramine in serum and urine samples.

Biography:

Mahmoud Khodari Maeila Hamed is a Prof. of Analytical chemistry in South Valley University, Qena, Egypt. His education is B.SC. (general chemistry) at May 1980 Assiut University, Egypt, M.Sc. (Analytical chemistry) 1985, Assiut University and Ph.D at (Analytical Chemistry) 1990, ULB, Belgium- Assiut University, Egypt. His Publications are 54 in the field of analytical chemistry, drug analysis. He attended 21 conferences and meetings.