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
of

Chemistry

The Use of Chloranilic Acid for the Spectrophotometric Determination of Three Antihistamines

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Abstract: Cyproheptadine hydrochloride (CPH), methdilazine hydrochloride (MDH) and promethazine theoclate (PMT) were determined in their pure state and in pharmaceutical formulations by a simple spectrophotometric method. The determination was based on the formation of a charge-transfer complex between chloranilic acid as a π -acceptor and the studied drugs as n-donors in an acetonitrile-chloroform mixture. The spectra, various experimental parameters, the stoichiometry and the stability of the complexes formed were investigated. The complexes formed were found to absorb at 520 nm. Beer's law is obeyed in the concentration ranges 25-125, 20-100 and 25-150 μ g ml⁻¹, for CPH, MDH and PMT respectively. The corresponding values of molar absorptivity and Sandell sensitivity are 1.48×10^3 , 1.56×10^3 and 1.75×10^3 l mol⁻¹ cm⁻¹ and 217.39, 212.44 and 284.63 ng cm⁻², respectively. The applicability of the method was demonstrated by the determination of the studied drugs in

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