

Polarographic determination of loratadine in pharmaceutical preparations

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Loratadine, a potent antihistamine drug, is not directly electroreducible at a dropping mercury electrode; however, by means of a nitration procedure it is possible to obtain a nitro-loratadine derivative which has been identified as 4(8-chloro-7-nitro-5,6-dihydro-11H-benzo-[5,6]-cyclohepta-[1,2-b]-pyridin-11-ylidene)-1-piperidine carboxylic acid ethyl ester. The electrochemical reduction of this derivative at different pHs and concentrations using polarography and cyclic voltammetry was studied. The derivative exhibits a differential pulse polarographic peak due to the reduction of the nitro group. This peak was used in order to develop an analytical procedure for determining loratadine in pharmaceutical dosage forms. The recovery study shows adequate accuracy and precision for the developed assay and the excipients do not interfere in the determination.