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Spectrophotometric Determination of an Antimalarial Drug Mefloquine in Bulk and Pharmaceutical Formulations by Iron Phenanthroline Method

Ritika Manoj Makhijani and Mahalaxmi Murugan
Department of Chemistry
VES College of Arts, Science and Commerce, Chembur, Mumbai, India

Abstract: *A spectrophotometric method have been developed for determination of an antimalarial drug Mefloquine. The developed method is new, simple, sensitive, precise, accurate and reproducible. At 510 nm, absorbance of orange coloured chromogen is measured, which is produced by oxidation of drug with 1, 10-phenanthroline. Beer's Law is obeyed in the concentration range of*
4.0 – 28.0 µg/ml for the developed method. The molar absorptivity and sandell's sensivity are found to be 2269.87 L mol-1cm-1 and 0.166 µg/cm2 respectively. Various parameters affecting the stability and development of colour was thoroughly studied and optimized. The method has been successfully applied for determination of mefloquine in both pure and dosage forms. The result obtained by the developed method is found to be in good agreement when compared with the standard methods.

Keywords: Mefloquine hydrochloride, spectrophotometry, 1,10- phenanthroline

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