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Novel First Order Derivative UV- Spectrophotometric Peak Detect Method for the Determination of Nitrofurantoin

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Abstract: A simple, precise and economical procedure has been developed for estimation of Nitrofurantoin in bulk drug and pharmaceutical dosage form, Using UV- spectrophotometer. As there are no reported the UV methods for Quantitative evaluation of first order peak detect method for Nitrofurantoin in bulk as well as tablet dosage form, there was a need to expand novel methods to analyze the drugs using Acetone as a solvent. For the evaluation of Nitrofurantoin in bulk as well as tablet dosage form, first order peak detect method was developed, which is based on absorption at maximum wavelength 333nm using acetone as a solvent. This drug follows the Beer's law in the concentration range of 5-25 μ g/ml. The recovery studies ascertained the accuracy of the proposed method in addition validated as per ICH guidelines. This process was useful for the assessment of Nitrofurantoin in pure drug form as well as in tablet dosage form.

Keywords: Nitrofurantoin, First order derivative method, peak determination.

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