

Spectroscopic Determination of Aspirin and Omeprazole by Absorbance Ratio and Multicomponent Mode Method

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ABSTRACT

Here we describe a simple, rapid and accurate method for simultaneous assay of aspirin and omeprazole. The first method was Absorbance ratio method (Method 1) and second method was multi component mode method of analysis (Method 2). Methanol: water (8:2) was used as solvent for both methods, using 293 nm as isobestic point for absorbance ratio method. The wavelength ranges 275.80 nm for aspirin and 302.20 nm for omeprazole for method 2, which represents the absorbance maxima of both drugs respectively. Beer's law was applied in the

concentration ranges of 2-14 μ g/mL and 2-18 μ g/mL for aspirin and omeprazole, respectively, in absorbance ratio methods. The percentage assay was found to be in the range 99.74 to 100 % for aspirin and 99.69 to 99.9 % for omeprazole for both the methods. Recovery was found in the range of 99.74 –100.14 % for aspirin and omeprazole for both methods. The analysis data has been validated statistically and recovery studies confirmed the accuracy and reproducibility of the proposed methods, which were carried out according to the ICH guidelines.

KEYWORDS: Aspirin; Omeprazole; Absorbance ratio; Multicomponent; stability.