



Extractive Spectrophotometric determination of Ranitidine by ion pair complex formation with Indigocarmine

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Abstract : This study describes a simple, sensitive, selective and reproducible extraction-spectrophotometric method for the determination of trace amounts of Ranitidine. In this work, determination of trace amounts of Ranitidine was investigated by the formation of ion-pair with anionic dye (Indigocarmine) followed by extraction with dichloroethane as an organic solvent, and its absorbance is measured at 500 nm in room temperature. The effect of different variables such as pH, Indigocarmine concentration and volume of extracting solvent is investigated and an optimum condition for quantitative extraction of Ranitidine is obtained. Calibration graph is linear in the concentration range of between (5-125) mg L⁻¹. The relative standard deviation (RSD) of 7 mg L⁻¹ of Ranitidine is 1.85 % and detection limit (LOD) of 7 mg L⁻¹ has obtained. Finally, the method is used for quantity determination of Ranitidine in actual sample examined by mean of extraction-spectrophotometric and good result is obtained.

Key words: Ranitidine, Indigocarmine, Ion-pair, spectrophotometric method.

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