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Novel Method for the Spectrophotometric Determination of Isoniazid and Ritodrine Hydrochloride

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Scientific Journals Home Page Abstract: A simple, rapid and sensitive spectrophotometric method for the determination of isoniazid (INH) and ritodrine hydrochloride (RTH) in pure form as well as dosage forms is described. The method is based on the diazotisation of 4,4'-sulphonyldianiline (dapsone, DAP) followed by a coupling reaction with either INH or RTH in sodium hydroxide medium. Beer's law is obeyed in the concentration range of 0.5- $20~\mu$ g ml $^{-1}$ for INH at 440 nm and 0.5-18 μ g ml $^{-1}$ for RTH at 460 nm. The method is successfully employed for the determination of INH/RTH in pharmaceutical preparations and the results agree favourably with the official and reported methods. Common excipients used as additives in pharmaceuticals do not interfere in the proposed method. The method offers the advantages of simplicity, rapidity and sensitivity without the need for extraction or heating. Limit of detection (LOD) and limit of quantification (LOQ) are reported.

Key Words: Isoniazid, Ritodrine, Dapsone, Diazotisation, Spectrophotometry

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