ABSTRACT:

A simple, specific, accurate and stability indicating reversed phase high performance liquid chromatographic method was developed for the simultaneous determination of and Metformin Hydrochloride, Rosiglitazone Maleate and Glimepiride in tablet dosage forms. Detector consists of photodiode array detector; the reversed phase column used was RP-C18 (2.27μm size, 250 mm´4.6 mm i.d.) at ambient temperature, in isocratic mode, with mobile phase containing

Methnol: Acetonitrile: Phosphate Buffer, pH 5.39 (20: 40: 40 % v/v/v) adjusted to pH 5.39 using ortho phosphoric acid was used. The flow rate was 1.0 ml/min and effluents were monitored at 238 nm. The retention times of Metformin Hydrochloride, Rosiglitazone Maleate and Glimepiride were 3.69 min, 8.18 min and 12.5 min respectively. The calibration curves were linear in the concentration range of 4-24 g/ml for Metformin Hydrochloride, Rosiglitazone Maleate and Glimepiride. The proposed method was validated and successfully applied to the estimation of Metformin Hydrochloride, Rosiglitazone Maleate and Glimepiride in combined tablet dosage forms. Linearity was obtained in the concentration range of 4 to 24 μg/ml of Metformin Hydrochloride, Rosiglitazone Maleate and Glimepiride with a correlation coefficient of 0.9963, 0.9992 and 0.9957 respectively. Detector consists of photodiode array detector; the reversed phase column used was RP-C18 (2.27μm size, 250 mm´4.6 mm i.d.) at ambient temperature. The developed method was validated according to ICH guidelines and values of accuracy, precision and other statistical analysis were found to be in good accordance with the prescribed values. Thus the proposed method was successfully applied for simultaneous determination of Metformin Hydrochloride, Rosiglitazone Maleate and Glimepiride in routine analysis.