SHORT COMMUNICATION

ANALYTICAL UV SPECTROSCOPY METHOD DEVELOPMENT AND VALIDATION STUDIES FOR SIMULTANEOUS ESTIMATION OF METFORMIN HCL AND QUERCETIN

ABSTRACT

In the current investigation, we have designed and assessed a simple and swift analytical approach employing UV spectroscopy for the simultaneous quantification of the analytes metformin and quercetin with excellent precision and accuracy. The wavelengths of interest are the wavelengths at which both the drugs show maximum absorbance: 233 nm for metformin and 256 nm for quercetin. Linearity study, conducted in methanol and phosphate buffer, yielded a correlation coefficient (r^2) of 0.99. The validation study for the developed method was conducted in accordance with ICH Q2 R1 guidelines. The percent recovery was 95% to 105%, and the percent relative standard deviation was <2, demonstrating the accuracy and precision of this method. This method can be applied to analysis of the two compounds in fixed dose formulations using simple UV spectroscopy.