

Method Development and Validation of UV Spectrometry for Quercetin Extracted From Dried Onion Peel

Mr. Pratik P. Bandar¹, Mr. Adinath V. Lamture², Mr. Mohit L. Bhimani³,
Mr. Ajinkya Anil Patil⁴, Miss. Maithili A. Patil⁵, Mr. Vikrama S. Reddy⁶

UG Students Department of Chemistry¹⁻⁵

Assistant Professor Department of Chemistry⁶

Sarojini College of Pharmacy, Kolhapur, Maharashtra

adinathlamture@gmail.com

Abstract: *The purpose of this research is to create a simple, accurate, precise, and affordable UV spectroscopic method for determining Quercetin. For the simultaneous determination of Quercetin, a modern UV spectrophotometric approach that is quick, easy to use, and accurate has been established. According to ICH Q2B criteria, many analytical performance parameters, including linearity, precision, accuracy, specificity, the limit of detection (LOD), and the limit of quantification (LOQ), were determined. The method is reliable and selective for the estimation of Quercetin, according to statistical analysis of the data. The developed method was effectively used for the determination of Quercetin in herbal plants and in commercial formulations.*

Keywords: UV Spectroscopy, Quercetin, ICH, LOD, LOQ

