Summary

An extensive work has been carried out taking different types of drugs in developing better analytical methods. The drug sitagliptin phosphate was estimated by a UV spectroscopic method using hitherto not employed derivative spectroscopy. The results were encouraging and the method could be used in any quality control and R&D laboratory. Further, it was explored through HPLC & LCMS methods, gave encouraging and consistent results.

An antibacterial drug cefuroxime axetil using HPTLC was studied by using mobile phase chloroform, methanol and toluene. The obtained results showed desired accuracy.

To cope up with the recent advances on polymorphisms cefadroxil monohydrate and cefuroxime axetil were taken up for research work using DSC, TGA, IR, NMR, SEM, XRD as analytical techniques. Comparative results could clearly indicate the priority for the technique to be employed and scope for further work in future.

A single crystallographic study on bromhexine which is a new salt could be assessed for the shape and purity.