UV spectro photometric method development & validation of duloxetine hydrochloride in bulk and solid dosage forms

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Duloxetine Hydrochloride: Duloxetine is a serotonin-nor epinephrine reuptake inhibitor. Effective for major depressive disorder and in generalized anxiety disorder. Drug analysis plays an important role in the estimation of the purity and quality of drugs, which are used in pharmaceutical formulations. In order to reduce the load and confusion to the patients, the disease is managed with several drugs in individual doses. Standard analytical procedures for these drugs or formulations may not be available, or the original methods are cumbersome, time consuming. Hence, it is important to develop methods such that they are widely available and in common use in control laboratories.

Linearity: The linearity study was carried out for DLX in zero order spectrum at the above said wavelength. The calibration curves were obtained by plotting absorbance versus concentration of the standard solution.

Accuracy: Accuracy of the method was established by recovery studies by external standard addition method. The known amount of standard was added at three different levels to the preanalysed sample solution, each determination was performed in replicate. The amount recovered and the percentage recovered was calculated.