LITERATURE REVIEW

Chitturi SR., et al.¹, (2011) was reported a simple and selective RP-HPLC method for the determination of process impurities and degradation products of Atazanavir sulphate drug substance. The flow rate was 1.0ml/min. a photo diode array detector at 250nm.

Ravindra reddy Y., et al.⁵, (2011), was reported a simple, precise, accurate and rapid HPC method has been developed and validated for the determination of Atazanavir and Ritonavir simultaneously in combined tablet dosage form the mobile phase used was mixer of phosphate buffer pH and acetonitrile (43:57 v/v).

Katarzyna Michalik., et al⁶.,(2007) were reported DSC curves of Nelfinavir mesylate and Atazanavir sulphate were shows exothermic transition. This observed process resulted in two steps. Obtained apparent activation energy pointed at low stability of studied protease inhibitors in water solution.

Janaki pathi .P.,et al.⁷, (2011) were reported two simple accurate rapid and sensitive methods have been developed for the estimation of Atazanavir in the pharmaceutical dosage forms. The method A based on reaction of Atazanavir with moderant black III to form an ion association colored complex at pH 2.4.

Estelle Cateau., et al⁸.,(2005) were reported Atazanavir is a new HIV-1 protease inhibitor. A simple HPLC method using UV detection was developed and validated for the analysis of Atazanavir in human plasma. The effluent of the column was monitored at a wave length of 210nm.

Colombo S., et al⁹.,(2004) were reported an HPLC method previously described for the simultaneous assay of amprenvir, ritonavir, indinavir,squinavir,nelfinavir and efavirenz is proposed here for the simultaneous analysis of the new HIV protease inhibitor.

Jieling et al¹⁰., (2006) were reported metabolism and excretion of erlotinib, an orally active inhibitor of epidermal growth factor receptor tyrosine kinase were studied in healthy male volunteers after a single oral dose of 100 mg, free base equivalent~ 91µci/ subject/. The mass balance was achieved with equivalent ~ 91% of the administered dose recovered in urine and feces.

Rajesh Valluru.,et al¹¹.,(2011) were reported a simple , specific and precise high performance thin layer chromatographic methods was developed and validated for the
estimation of Erlotinib hydrochloride as bulk drug. The chromatography development was carried out on pre coated silica gel 60F 254 aluminum plates.

**Erin Lepper R., et al**\(^{12}\), (2003), were reported a HPLC assay with UV detection has been developed for the quantitative determination of erlotinib in human plasma. The column effluent was monitored with dual UV detection at wave length of 348 nm (erlotinib and 383 nm).

**Pujeri S.S., et al**\(^{13}\), (2009), were reported a simple stability indicating high performance liquid-chromatographic method for the assay of Erlotinib in the presence of its degradation products was developed on C18 column using a mobile phase of 0.01M ammonium formate-acetonitrile containing formic acid with a flow rate of 1.0ml/min.

**Rajesh V. et. al**\(^{14}\), (2011) were reported a simple and sensitive spectrofluorimetric method has been developed for the estimation of Erlotinib hydrochloride in pure and pharmaceutical dosage form. Erlotinib hydrochloride exhibits maximum fluorescence intensity in methanol and Beer’s law was obeyed in the range of 1-5 µg/ml.

**Chan Bouni., et al**\(^{15}\), (2009), were reported a quantitative liquid chromatography (LC-MS) method in human plasma was developed and validated for the tyrosine kinase inhibitors erlotinib, gefitinib and imatinib in human plasma, pre treatment of the sample was achieved by using liquid-liquid extraction using D-8 imatinib as internal standard.

**Padmalatha M.,et al**\(^{16}\), (2011) were reported three visible spectrophotometric methods have been developed for the determination of Erlotinib either in pure form in their pharmaceutical formulations. The developed methods are based on the reaction of erlotinib with phenol red, bromocresol green and eryochrome black T.

**Mukhopadhyay. S., et al**\(^{17}\), (2011), were reported an accurate, sensitive, precise, rapid, RP-HPLC methods for the determination of related substances of prulifloxacin in tablet dosage form has been developed and validated the flow rate was 1.0ml/min UV determination was performed at 275nm.

**Deepak Pokharkar., et al**\(^{18}\), (2010), were reported method development and validation of prulifloxacin by UV spectrophoto meter in acetonitrile: water(5:5) medium and intensity of UV absorption and stability the maximum absorption peak at 279nm.

**Junwen., et al**\(^{19}\), (2007), were reported a cheap, simple and rapid sample preparation method has been developed for quantification of Ulifloxacin the active metabolite of prulifloxacin in
human plasma, by HPLC with fluorescence detection using lemeifloxacin as the internal standard the compounds were monitored at 280nm and 425nm.

**Rao J.v.et al**\(^20\), (2011), were reported A validated RP-HPLC method for the estimation of atazanavir in capsule dosage form on YMC ODS 150X4.6mm 5µ, column using mobile phase composition of ammonium di hydrogen phosphate buffer with acetonitrile(55:45v/v). Flow rate was maintained at 1.5ml/min with 228nm UV detection.

**Suddha S.D.et al**\(^21\), (2010), were reported A validated RP-HPLC method for the estimation of atazanavir in capsule dosage form on YMC ODS 150X4.6mm 5µ, column using mobile phase composition of ammonium di hydrogen phosphate buffer with acetonitrile(55:45v/v). Flow rate was maintained at 1.5ml/min with 228nm UV detection.

**A vijaya laxmi.et al**\(^22\), (2010), were reported A simple reverse phase liquid chromatographic method was developed and validated as per the ICH guidelines for the quantitative determination of prulifloxacin in pharmaceutical dosage forms. The mobile phase consists of pH 3:2 phosphate buffer, methanol and acetonitrile(3:1)v/v.

**Chaple D.R et al**\(^23\), (2010), were reported A stability indicating RP-HPLC method was developed for the quantitative determination of prulifloxacin as a bulk drug. The chromatography was performed on a C\(_{18}\) column. Eluents were monitored by UV detection at 273nm. Using mobile phase acetonitrile, water, tri ethylamine(40:60:0.3%v/v). pH 3.3.

**Huai quing zhao.et al**\(^24\), (2006), were reported A simple, accurate precise and cost effective UV-visible spectrophotometric method for the estimation of Atazanavir, An anti HIV drug in bulk and pharmaceutical dosage form. The solvent used was methanol, The absorption maxima of the drug was found to be 250nm.

**A vijaya laxmi.et al**\(^25\), (2010), were reported A simple reverse phase liquid chromatographic method was developed and validated as per the ICH guidelines for the quantitative determination of prulifloxacin in pharmaceutical dosage forms. The mobile phase consists of pH 3:2 phosphate buffer, methanol and acetonitrile(3:1)v/v.

**Chaple D.R et al**\(^23\), (2010), were reported A stability indicating RP-HPLC method was developed for the quantitative determination of prulifloxacin as a bulk drug. The chromatography was performed on a C\(_{18}\) column. Eluents were monitored by UV detection at 273nm. Using mobile phase acetonitrile, water, tri ethylamine(40:60:0.3%v/v). pH 3.3.

**Huai quing zhao.et al**\(^24\), (2006), were reported A simple, accurate precise and cost effective UV-visible spectrophotometric method for the estimation of Atazanavir, An anti HIV drug in bulk and pharmaceutical dosage form. The solvent used was methanol, The absorption maxima of the drug was found to be 250nm.

**Dr joel schlatter.et al**\(^25\), (2007 ), were reported An isocratic HPLC Method with detection at 348nm was developed, optimized and validated for the determination of Erlotinib in human plasma. Quinine used as Internal standard. The mobile phase composed of potassium dihydrogen phosphate & acetonitrile 60:40v/v with final pH 4.8.
Chakravarthy V.K., Gowri sankar D. et al\textsuperscript{26}, (2011), were reported RP-HPLC method has been developed separation was achieved with kromasil 150mmX4.6mm, 5µ. Potassium dihydrogen phosphate buffer pH 2.4, acetonitrile, methanol (65:21:14) at a flow rate 1.5ml/min. UV detection was performed at 250nm.

Dhanya B. et al\textsuperscript{27}, (2011), were reported a simple precise and rapid RPHPLC method was developed for the determination of doxazosin mesylate in pharmaceutical formulations. The method was carried out by using a mixture of potassium phosphate buffer and methanol (40:60 v/v) the detection was done at 251nm the retention time was 3.8 min.

Aydogmus. et al\textsuperscript{28}, (2009), were reported two accurate easy spectro photo metric methods for the determination of Doxazosin mesylate were described. The first method was based on the formation of ion-pair complexes with the acidic sulfophthalein dyes bromocresol purple (BCB) and bromophenol blue (BPB) in pH 3.3 and 4.5 citrate-phosphate buffer.

Qutab S.S. et al\textsuperscript{29}, (2007) Were reported a simple sensitive and inexpensive HPLC method has been developed for simultaneous determination of hydro chlorthiazide and candesartan cilexetil in pharmaceutical formulations.

Subba rao.D.V. et al\textsuperscript{30}, (2007), were reported an isocratic RPHPLC method has been developed for quantitative determination of candesartan cilexetil, used to treat hyper tension, in the bulk drug and pharmaceutical dosage forms.

Claudius. et al\textsuperscript{31}, (1998), were reported the pharmacodynamnic properties of the angiotensin II antagonist candesartan in humans were assessed from the right ward shifts of angiotension II dose effect curves.

Balamurali Krishna K. et al\textsuperscript{32}, (2010), were reported a simple, sensitive and reproducible RPHPLC method has been developed for simultaneous estimation of candesartan cilexetil and hydro chloro thiazide in combined tablet dosage form.

Patel jignesh. et al\textsuperscript{33}, (2010), were reported a method for simultaneous estimation of candesartan cilexetil and hydro chloro thiazide in tablet dosage form has been described it involves the formation of Q-absorbance equation at 258nm and 271nm.

Patil basavaraj .S et al\textsuperscript{34},(2011), were reported simple spectro photometric method was developed for the determination of candesartan cilexetil in pharamaceutical dosage form it exhibits absorbance at 225nm in methanol.
Detroja. et al\textsuperscript{35}.,(2011), were reported the objective of the present investigation was to enhance oral bioavailability of practically insoluble candesartan cilexetil by preparing nano suspension.

Sopan Wadhe P. et al\textsuperscript{36}.,(2011), were reported a simple, specific, accurate and precise RPHPLC method was developed for the simultaneous estimation of drotaverine hydrochloride and paracetamol in tablet dosage form.

Dahivelkar P. et al\textsuperscript{37}.,(2007), were reported two new simple, accurate and economical spectro photometric methods have been developed for simultaneous estimation of drotaverine hydrochloride and mefenamic acid in two-component tablet formulation.

Garg G. et al\textsuperscript{38}.,(2007), were reported the simple spectrophotometric methods for the determination of mefenamic and ethamsylate in pharmaceutical formulations have been developed. The Beer Lamber’s law is obeyed for mefenamic acid in the concentration range 4-28 $\mu$g/ml and for ethamsylate is 10-60 $\mu$g/ml and absorption maximum of mefenamic acid (336nm and ethamsylate 305nm).