Letosteine is degraded in aqueous solution, its content is tested and calculated by non-aqueous titration. Analysis by HPLC is used popularly for the accuracy and precision. Especially, at low concentration, the analysis by HPLC is mor accurate than non-aqueous titration. So, we studied the analysis of Letosteine by HPLC. And the stability in test solution was carried out during 18hours.

The Letosteine was chromatographed by using C18 column, the mobile phase (sodium acetate anhydrous 2.72g, Acetic acid glacial 30ml and acetonitrile 100ml up to 1000ml with demineralized water) and UV detector (254nm) at a flow rate 0.6ml/min.

The calibration plot obtained using UV detector was linear over the range of 20 %- 120% with correlation coefficient of 0.999 (log-log scale). Reproducibility studies gave relative standard deviations of about 1 %. And Letosteine in test solution is stable within 18hours.

These results showed that analysis by HPLC is useful to assay the content of Letosteine.

[PD4-9] [04/19/2002 (Fri) 10:00 - 13:00 / Hall E]

Chiral purity test of (R)-(-)-salbutamol by capillary electrophoresis using sulfated-β-cyclodextrin as a chiral selector

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Chiral separation of salbutamol was investigated by capillary electrophoresis employing a sulfated-β-cyclodextrin (sulfated-β-CD). The effects of the concentration of sulfated-β-CD added to the background electrolyte and of the pH of the buffer on the effective mobility and resolution of the studied compounds were examined. Very good resolution was achieved.
Two methods for the optical purity testing of (R)-(-)-salbutamol were developed, namely capillary electrophoresis using sulfated-β-CD and high-performance liquid chromatography using chiral stationary phase. Validation data such as linearity, recovery, detection limit, and precision of the two methods are also presented. There was generally good agreement between the HPLC and CE results. These methods were found to be applicable as a practical quality control method for the enantiomeric purity determination of (R)-(-)-salbutamol.

[PD4-10] [04/19/2002 (Fri) 10:00 - 13:00 / Hall E]

Simultaneous enantioseparation of isoproterenol and etilefrine using derivatization by gas chromatography-mass spectrometry (GCMS)

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Simultaneous enantioseparation of isoproterenol and etilefrine using derivatization by gas chromatography-mass spectrometry (GCMS)

The art of enantioseparation has seen a most dramatic development and progress over the last two decades, maturing from a speciality field of a few experts to an area of major scientific and economic interest. In some cases of chiral drugs, One of the enantiomers has side effects and even toxic effects biologically. Mostly, Chiral HPLC has been used for isoproterenol and etilefrine to enantioseparate and determinate.
In this experiment, for simultaneous enantoseparation of isoproterenol and etilefrine, Derivatization with Trimethylchlorosilane (TMCS) and S-(-)-Trifluoroacetyl-prolyl chloride (TPC) were carried out subsequently