was calculated. Eventhough (S)-(-)-α-methylbenzylamine was most effective for the preferential recrystalization of (S)-(+)-ibuprofen, chemical shift differentiation ability was weak. (-)-Cinchonidine discriminated the methyl, methylene and benzyl protons of (S)-(+)-ibuprofen and (R)-(-)-ibuprofen effectively.

[PD4-34] [2003-10-10 14:00 - 17:30 / Grand Ballroom Pre-function]

High throughput automated 96-well solid-phase extraction and liquid chromatography-tandem mass spectrometric analysis of beraprost in human plasma

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A sensitive and selective liquid chromatographic method coupled with tandem mass spectrometry (LC-MS/MS) was developed for the determination of beraprost in human plasma. Plasma samples were transferred into 96-well OASIS HLB extraction plate using an automated sample handling system and the drugs were eluted with methanol. The eluents were then evaporated and reconstituted with water. All sample transfer and solid-phase extraction (SPE) was automated through the application of both the PerkinElmer MultiPROBE II HT and TOMTEC Quadra 96 workstation. The reconstituted samples were analyzed by a reversed-phase LC-MS/MS using an electrospray ionization (ESI) interface. The mobile phase was composed of 1 mM ammonium acetate and acetonitrile (50:50, pH 5.0), with a flow rate at 0.2 mL/min. The limit of quantification (LOQ) was 20 pg/mL, using a sample volume of 1.5 mL for the analysis. Beraprost produced a protonated precursor ion ($[M-H]^-$) at m/z 397, and a corresponding product ion at m/z 269. Internal standard produced a protonated precursor ion ($[M-H]^-$) at m/z 367 and a corresponding product ion at m/z 249. Based on a signal-to-noise level (S/N) of 10, the limit of quantification for beraprost was found to be 20 pg/mL. This simple, rapid and robust assay will enable the complete processing of large sample for pharmacokinetic studies of beraprost in human plasma.

[PD4-35] [2003-10-10 14:00 - 17:30 / Grand Ballroom Pre-function]

Liquid Chromatographic Resolution of Pyrethroic Acids and Their Esters on Chiral Stationary Phases

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Pyrethroic acids are essential chiral intermediates of the pyrethroids, which account for about 25% of the world insecticide market and are found to be some of the most effective commercially available pesticides. It was demonstrated that polysaccharide-derived chiral stationary phases (CSPs) are very efficient for the separation of the enantiomers of pyrethroid acids. It was observed that the enantioseparation of pyrethroic methyl ester and ethyl derivatives was well accomplished on brush-type WhelkO-1. The observed enantioselectivity is suitable for the determination of enantiomeric purity of pyrethroid acids and their ester derivatives on these CSPs.

[PE1-1] [2003-10-11 09:00 - 12:30 / Grand Ballroom Pre-function]

Skin penetration enhancement of prostaglandin E1 and its ethyl ester for topical formulations

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Purpose. To investigate the effect of different terpene enhancers on skin penetrations of prostaglandin E1 (PGE1) and its ethyl ester (PGE1-EE), a therapeutic agent for erectile dysfunction, external gel systems were formulated with the specific enhancers having different values in their lipophilicity (log P was ranged in 2.23-