and injected for GCMS including achiral stationary phase. In the derivatization procedure, Both racemates were silylated and formed diastereomeric cerivatives.
As a result, It was possible to simultaneous enantioseparate both racemates by GCMS even with achiral capillary column. Compared with that of chiral HPLC, This method was found to give a better resolution and sensitivity. Furthermore, The GCMS system allows us to determinate the trace amount of it by using a SIM (single ion monitoring) mode.

[PD4-11] [ 04/19/2002 (Fri) 10:00 - 13:00 / Hall E ]

## Rapid analysis of tizanidine in human plasma by gas chromatography/mass spectrometry

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An efficient gas chromatography-mass spectrometry (GC-MS) method has been developed and validated for the quantitative determination of tizanidine in human plasma. Plasma samples were simply extracted with ethyl acetate at basic pH and the extracts were converted into trimethylsilyl (TMS) derivatives for the direct separation by GC-MS with the selected ion monitoring (SIM) mode. Reaction of tizanidine with N-methyl-N-(trimethylsilyl)trifluoroacetamide (MSTFA) caused di-trimethylsilylation in imidazoline moiety and this silylation significantly improved the chromatographic properties of the compound. The determination of tizanidine was accurate and reproducible, with a limit of quantitation of 0.5 ng/ml in plasma. The standard calibration curve for tizanidine was linear (r2 = 0.999) over the concentration range 0.5-10.0 ng/ml in human plasma. The intra- and inter-day precision over the concentration range of tizanidine was well within the 6.9% (relative standard deviation, RSD) and accuracy was between 99.2 and 110.5%.

[PD4-12] [ 04/19/2002 (Fri) 10:00 - 13:00 / Hall E ]

## Determination of some Acidic Drugs with Ion-Selective Membrane Electrode

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A sensitive poly(vinyl chloride) membrane electrode for determining the acidic drugs is described. The sensing membrane of the electrode consists of acidic drug-metal ion( II )-di-2-pyridyl ketone ternary complex as an ion-exchanger and o-nitrophenyl ether group as a plasticizer.
It shows a linear response towards mefenamate ion and ibuprofen anion over the concentration range 1× 10-2 ~ 5×10-5 mol L-1 with an anion slope of -56.3 and 54.2 ㎷ decade-1 in pH 8.9 buffer and pH 5 buffer solution respectively.
The behavior of the electrode is considerably influenced by the plasticizer employed and the optimum response appears to result when benzyl-2-nitrophenyl ether is present.
The electrode was applied to the determination of mefenamic acid and ibuprofen in pure form and in pharmaceutical preparations.

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

## Postmortem Blood Concentration of Levomepromazine, Chlorpromazine, Flurazepam, Tramadol, Benztropine and Caroverine in a Case

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This paper presents a case related to levomepromazine, chlorpromazine, flurazepam, tramadol, benztropine