

other morphologically similar medicinal materials is rationalized.

[PD3-16] [10/19/2000 (Thr) 15:00 – 16:00 / [Hall B]]

Hepatoprotective, Diuretic and Anti-inflammatory Activities of the Extract from *Portulaca oleracea* L.

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Hepatoprotective, diuretic and anti-inflammatory activities of the water extract of *Portulaca oleracea* were studied. The extract showed 59.4% in s-GPT and 55.8% in s-GOT compared with sylimarin against CCl₄ intoxication and 43.7% diuretic activity compared with furosemide in mice. It showed 61.8% anti-inflammatory activity compared with indomethacin against the carrageenan-induced inflammation in rats.

[PD4-1] [10/19/2000 (Thr) 15:00 – 16:00 / [Hall B]]

Impurity profiling analysis of methamphetamine seized in Korea (II)

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Impurity profiling analysis of methamphetamine seized was investigated for the evidential and intelligent purpose. A gas chromatographic procedure was activated to separate and quantify impurities in illicit methamphetamine using DB-1 wide-bore capillary column for profiling. About 100mg of seized methamphetamine was dissolved in 1mL of phosphate buffer and extracted with 200 uL of ethylacetate which contains two different internal standards of dioctylsebacate and diphenylamine. The melting points of samples were also evaluated in this procedure. A total of 172 methamphetamine samples were analyzed for impurity profiling. The peak area ratio and relative retention time of impurities were evaluated using in-house computer program. For the classification of samples, firstly, 20 impurity peaks were selected after inspection of every peak in 172 samples as the specific markers of impurities. By Ward method, samples were clustered into 6 different groups. There were 10 samples which were not grouped. The ions of illicit methamphetamine obtained from mass spectrometry will be added in-house program for classification of samples. The analysis of impurities in illicit methamphetamine has shown to be an effective means of characterizing and matching samples.

[PD4-2] [10/19/2000 (Thr) 15:00 – 16:00 / [Hall B]]

Hair-growth Effect of chrysin 7-0-cyclopropanecarboxylate

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The derivative of chrysin 7-0-cyclopropanecarboxylate was synthesized by condensing

cyclopropanecarboxylic acid with chrysin in organic solvent, and its structure was identified by NMR, MS, UV, IR etc. We also investigated the physico-chemical properties, anti-diabetic effect and set up the quantitative analytical method of this compound. The correlation coefficient of calibration curve on this compound was approximately 0.9999 by absorption spectrophotometry. And, this study was carried out to investigate the hair-growth effect of chrysin derivative to the black mouse (C57BL/6). When this derivative in ethanol solution was administered to the back of mouse by method of skin paste, this derivative promoted the hair growth of mouse.

[PD4-3] [10/19/2000 (Thr) 15:00 - 16:00 / [Hall B]]

Enantiomeric purity test of S-(+)-ketoprofen by ¹H-NMR using (-)-cinchonidine

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The enantiomeric purity of S-(+)-ketoprofen was determined in a simple and reliable manner by ¹H-NMR spectroscopy. The enantiomeric resonances of ketoprofen were effectively resolved in CDCl₃ solution by the addition of the chiral solvating agent, (-)-cinchonidine. By monitoring the spectral changes of the resonance signals for the enantiomeric α -methyl protons, the experimental condition in terms of chiral solvating agent to substrate molar ratio was optimized. From the integration of the area under the enantiomeric α -methyl proton resonances, the relative concentration of two enantiomers was determined. The analysis of synthetic enantiomeric mixtures of ketoprofen by the proposed NMR method resulted in assay values that agreed closely with the known quantities of each enantiomer in the mixture tested.

[PD4-4] [10/19/2000 (Thr) 15:00 - 16:00 / [Hall B]]

Screening of natural products for toxic aromatic amino acids by high performance capillary electrophoresis

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Many toxic nonprotein amino acids are found in various plants along with protein amino acids in their free forms. Therefore, accurate screening for neurotoxic nonprotein amino acids in plants has become important. An efficient capillary electrophoretic (CE) profiling and screening method was developed for the simultaneous determination of 4 protein amino acids and 22 toxic nonprotein amino acids containing aromatic moiety in free forms. Water extraction combined with solid-phase extraction in cation-exchange mode was employed for the selective isolation of free amino acids from toxic plants. The recovered amino acids were analysed by capillary electrophoretic profiling method using dual CZE and MECC run buffer system. Migration orders of all amino acids on the two run buffers were very different and migration times (t_M) measured were thus very characteristic of each aromatic amino acid, enabling cross-check for each amino acid. Optimized extraction and analysis condition were applied to natural products including *mimosa pudica* L.. Present dual run buffer CE profiling system appears to be potentially useful in the rapid screening for toxic aromatic nonprotein amino acids in foods and natural products.

[PD4-5] [10/19/2000 (Thr) 15:00 - 16:00 / [Hall B]]