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In galactose metabolic pathway : there are three inborn metabolic disorders galactokinase deficiency (galactosemia type Ⅱ), galactose-1-phosphate uridyl transferase(GALT) daficiency (galactosemia type Ⅰ), uridine diphosphate galactose-4-epimerase deficiency (galactosemia typeⅢ). Among these disorders GALT deficiency is the most severe and common. Infants with GALT deficiency fail to metabolize galactose-1-phosphate. As a consequence, galactose-1-phosphate and galactose are accumulated in blood in which GALT enzyme plays the role of a pathognomonic marker.In the previous paper, we reported a reversed-phase HPLC method using 8-Amino-2-naphthalenesulfonic acid as derivatization reagent for the determination of galactosemia. But, this method has the defects such as a relatively longer pretreatment, the reduction of sensitivity.We developed a advanced diagnostic method for galactosemia by shortening pretreatment and increasing the sensitivity.

[PD4-8] [2003-10-10 14:00 - 17:30 / Grand Ballroom Pre-function]

Indirect chiral separation of α-arylmethylpropionic acids by liquid chromatography

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A various α-arylmethylpropionic acids(profen) have been widely used as non-steroidal anti-inflammatory drugs for the relief of acute and chronic rheumatoid arthritis and osteoarthritis, as well as for other connective tissue disorders and pains. Example is fenoprofen, ibuprofen, ketoprofen, and naproxen. All are chiral and, except for naproxen and ibuprofen, are marketed in racemic form. Enantioseparations of profens have been of considerable interest because their anti-inflammatory and analgesic effects have been attributed almost exclusively to their (S)-enantiomer. A simple method for determination of optical purity of (+) and (-)-α-arylmethylpropionic acids has been developed. By means of EEDQ, α-arylmethylpropinic acids was coupled to (S)-napthylethylamide. The diasteoisomeric derivatives was then separated by normal-phase liquid chromatography. And separation process of diastreomeric isomer was interpreted by molecular mechanics and quantum mechanics calculation of diasteromeric conformation.

[PD4-9] [2003-10-10 14:00 - 17:30 / Grand Ballroom Pre-function]

Studies on the tyrosinase inhibitory comound of Potentilla bifurca L. var. glabrata Lehm

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Tyrosinase is an important enzyme involved in the transition steps from tyrosine to melanin. Inhibition of the tyrosinase activity could block melanin formation from tyrosine and thus prevent melanin pigmentation on skin. This may contribute to the development of new whitening agent that would be useful in the prevention of pigmentation. in this study, we isolated tyrosinase inhibitory compound from BuOH fraction of Potentilla bifurca L. var. glabrata Lehm by activity guided fractionation method. Based on spectroscopic data, the active compound was identified as a quercetin 4''-O-glucopyranoside.

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

Physical properties and determination of eupatilin, a new antigastritic agent, by high performance liquid chromatography

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