This study was carried out to examine the constituents of Amorpha fruticosa (Leguminosae), a shrub originated from North Africa. Dried and ground fruit of A. fruticosa were extracted with methanol and then concentrated to give the crude extracts. The crude extracts was successively fractioned with organic solvents, such as n-hexane, CH₃Cl and EtOAc. Seven compounds were isolated from the fruits of A. fruticosa. On the basis of spectroscopic data, the structures of these compounds were determined as: kaempferol 7-O-a-L-rhamnopyranoside (I), methyl 3, 4, 5-trihydroxybenzoate (methyl gallate, II), tephrosin (III), dalbinol (IV), gallic acid (V), 2',4',5',7-tetramethoxyisoflavone (VI) and Dalbinol 2'-O-β-D-Glucopyranoside (VII) respectively. In addition, treatment of PC12 cells with methyl gallate (II) increased dopamine content in a dose-dependent manner (120.6 % inhibition at 5 mg/ml for 24 hr).

[PD2-6] [ 2003-10-11 09:00 - 12:30 / Grand Ballroom Pre-function ]
Anti-Oxidant and Hepato-protective Activities of the Stems of Acanthopanax senticosus
R & D Center for Functional Foods, Institute of Food and Culture, Pulmuone Co. Ltd, Natural Products Research Institute and College of Pharmacy, Seoul National University, Seokwon Life Science Research Institute, World Sea Green Co. Ltd

The anti-oxidant activities of Acanthopanax senticosus stems were investigated. The n-BuOH fraction of A. senticosus stems exhibited a significant decrease in serum transaminase activities elevated by hepatic damage induced by CCl₄ intoxication in rats. The n-BuOH fraction inhibited the sGPT activities by 65.79%. The n-BuOH fraction showed the increase in the anti-oxidant enzymes such as hepatic cytosolic superoxide dismutase, catalase and glutathione peroxidase activities by 30.31, 19.82 and 155%, respectively, in CCl₄ intoxicated rats. These results suggest that the stems of A. senticosus possess not only the hepatoprotective, but also the anti-oxidant activities in rats.

[PD2-7] [ 2003-10-11 09:00 - 12:30 / Grand Ballroom Pre-function ]
Two new megastigmane glycosides from Phyllanthus ussuriensis
Ryu Minyoung*, Kim Chul Young, Kim Jinwoong
College of Pharmacy, Seoul National University, Seoul 151-742, Korea

Phyllanthus ussuriensis Rupr. et Maxim. (Euphorbiaceae) has long been used in folk medicine to treat kidney and urinary bladder disturbances, intestinal infections, diabetes, and hepatitis. Reported chemical constituents of this species are one flavonoid (rutin), two gallocateins (gallic acid, methyl gallate) and two ellagitannins. An investigation of the n-BuOH fraction of P. ussuriensis led to the isolation of two new megastigmane glycosides, 10-hydroxy-4,7-megastigmadiene-3-one-9-O-b-D-glucopyranoside (1), 10-hydroxy-4,6-megastigmadiene-3-one-9-O-b-D-glucopyranoside (2) and two known compounds roseoside (3) and 3-oxo-a-ionol-9-O-b-D-glucopyranoside (4). The structural elucidation of these compounds was based on the analysis of spectroscopic data.

[PD2-8] [ 2003-10-11 09:00 - 12:30 / Grand Ballroom Pre-function ]
Catechin-7-O-β-D-apiofuranoside: An Anti-inflammatory constituent from alnus japonica bark
Jeong ChoonSik*, Kang MinHee, Hyun Jin Ee, Lim DukYun
College of Pharmacy, Dongduk Women's University

Alnus japonica (Betulaceae) has been traditionally used for purifying blood, and curing feces containing blood,