Phytochemical constituents from *Cacalia koraiensis* Nakai

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As part of a research program on the bioactive terpene constituents of Korean compositae plants, we have investigated *Cacalia koraiensis* (compositae), collected from Gangwon Province on August 2001. On reviewing the literatures of this species, triterpenes and pyrrolizidine alkaloids were isolated[1)] and some pharmacological activities were investigated. This species have been used for tinea and spasmolysis[2)]. However, chemical constituents of this plant have not been reported. The aerial parts of this plant (1.9kg) were extracted with MeOH three times at room temperature. The extract (110g) was fractionated with n-hexane, methylene chloride, ethyl acetate and BuOH. The repeated column chromatographic separation of the fractions resulted in the isolation of five terpenoids and three compounds. Structures of isolated compounds have been established by chemical and spectroscopic means. In this poster, we demonstrate the isolation and the structure determination of the compounds from *Cacalia koraiensis*.

1)Suoming Z., Guiling Z., Rong L., Guoqiang L., Eremophilan sesquiterpenes from *Cacalia roborowskii*. *Phytochemistry*,48(3),519-524 (1998)
2)Lee, C. B., Illustrated Flora of Korea, Hyangmoonsa, Seoul, pp.750,1979

[PD2-25] [10/17/2002 (Thr) 09:30 - 12:30 / Hall C]

Chemical constituents of *Synurus deltoides* (Aiton) Nakai

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S.deltoides (Compositae) distributed widely in Korea, China. It is edible as a food additive, but there has been no study on chemical constituents. Therefore, we isolated nine compounds from *S.deltoides*. On the basis of spectroscopic evidence, the structure of these compouds were characterized as lupeol(1), α-amyrin(2), β-amyrin (3), ursolic acid(4), nonacosanol(5), nonacosanoic acid(6), mixture of β-sitosterol, stigmasterol and campesterol (7), β-sitosteryl-3-O-β-D-glucopyranoside(8), stigmasteryl-3-O-β-D-glucopyranoside(9). They were first isolated from *S.deltoides*.

[PD2-26] [10/17/2002 (Thr) 09:30 - 12:30 / Hall C]

Butyrylcholineesterase(BChE) Inhibitors from a Brown Alga *Sargassum* sp.

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In continuing search for BChE-inhibitory compounds from Korean marine algae, we found a highly potent inhibitory activity in the methanolic extract of *Sargassum* species. After partition of the MeOH extract between $CHCl_3$ and 30% MeOH, the former layer was subjected to a series of ODS flash chromatography, silica column chromatography, and preparative TLC to afford three compounds (1-3). Detailed structural elucidation of them is in progress. Compound 1 showed potent BChE-inhibitory activity with IC_{50} values of 11 ng/mL.

[PD2-27] [10/17/2002 (Thr) 09:30 - 12:30 / Hall C]

Diacylglycerol Acyltransferase Inhibitors from the Fruits of Evodia rutaecarpa and the Root of Salvia