

In a previous presentation(49th), we reported the isolation and structure elucidation of five new saponins from the fruits of *Ternstroemia japonica* Thunberg. All of these saponins have been shown to be 3-O-[β -D-glucopyranosyl(1 \rightarrow 2)][α -L-rhamnopyranosyl(1 \rightarrow 2)- β -D-galactopyranosyl(1 \rightarrow 3)]- β -D-glucuronopyranoside. The present presentation deals with the isolation and structure elucidation of additional two new saponins with 28-O- β -D-glucopyranosyl in addition to the same glycosidic parts of 3-O- from the same source. They are as follows: 1, 3-O-[β -D-glucopyranosyl(1 \rightarrow 2)][α -L-rhamnopyranosyl(1 \rightarrow 2)- β -D-galactopyranosyl(1 \rightarrow 3)]- β -D-glucuronopyranosyl 28-O- β -D-glucopyranosyl 3 β , 15 α , 16 α , 28-tetrahydroxy-olean-12-ene, 2, 3-O-[β -D-glucopyranosyl(1 \rightarrow 2)][α -L-rhamnopyranosyl(1 \rightarrow 2)- β -D-galactopyranosyl(1 \rightarrow 3)]- β -D-glucuronopyranosyl 28-O- β -D-glucopyranosyl 16-O-acetyl primulagenin A.

[PD2-9] [04/20/2001 (Fri) 13:30 - 14:30 / Hall 4]

Chemolin and goniothalamycin, a novel and a known cytotoxic Annonaceous acetogenins from *Annona cherimolia* seeds

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Annonaceous acetogenins are waxy substances consisting of C₃₂ or C₃₄ long chain fatty acids which have been combined with a propan-2-ol unit at C-2 to form a γ -lactone. They are only found in several genera of the plant family, Annonaceae. Their diverse bioactivities as antitumour, immunosuppressive, pesticidal, anuprotzoal, antifeedant, anthelmintic and antimicrobial agents have attracted more and more interest worldwide.

Used in traditional medicine as insecticide and parasiticide, *Annona cherimolia* Mill. (Annonaceae) is a traditional tree native to Peru, now cultivated for its edible fruits in the South of Spain.

Previous work on the seeds led to the isolation of ten novel and nine known; in addition, a novel (chemolin) and a known (goniothalamycin) Annonaceous acetogenins have been obtained from the seeds.

Chemolin has a mono-THF ring with one flanking hydroxyl group and possesses an 1,2-diol of the aliphatic chain. Goniothalamycin has a mono-THF ring with two flanking hydroxyl group in their molecules. Goniothalamycin was known, but was newly isolated from this plant.

[PD2-10] [04/20/2001 (Fri) 13:30 - 14:30 / Hall 4]

Comparative Analysis of Diterpenoid Alkaloids with HPLC Detectors

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Aconitum species plants are representative medicinal drugs which contains toxic alkaloids such as diterpenoid alkaloids. But Aconiti sp. is one of the essential herbal medicines which possess anti-inflammatory, analgesic, and cardiotoxic effects. We tried to analyse diterpenoids alkaloids in medicinal plants of our country. At first, we collected medicinal herbs of aconitum species. Two species were collected in Chookryong Mt. of maseuk province at Kyungki-do. The one was jiriba flower(Aconitum chiisanensis) and the other was three-leaf hinge (Aconitum triphyllum). one species (three-leaf hinge: Aconitum triphyllum) was also collected in Gaeam Mt. of yanggu province at Kangwon-do.

For the determination of aconitine, hypaconitine and mesaconitine in aconitum sp., A reversed phase system consisting of an ODS column and mixture of methanol-water-chloroform-triethylamine

(70:30:1:0.1) as the mobile phase was used. Two kinds of detector, PDA(photodiode array) and ELSD (evaporative light scattering detector) were used for the comparison of detection of aconitine, hypaconitine and mesaconitine.

The condition in mobile phase, column, flow rate was same in two detectors. The result was expressed with the ratio of peak height/area. In ELSD the ratio of peak height/area was 0.022 in aconitine, 0.025 in mesaconitine and 0.013 in hypaconitine. On the other hand in PDA at 254nm the ratio was 0.034 in aconitine, 0.043 in mesaconitine and 0.026 in hypaconitine.

[PD2-11] [04/20/2001 (Fri) 13:30 – 14:30 / Hall 4]

Standardization of Natural Medicines – Dipsaci Radix –

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Abstract – The Roots of *Dipsacus asperoides* has been used as an antiinflammatory agent, an analgesics, the treatment of fractures and enhancement of liver activity. In order to evaluate the quality of it, Isolation of triterpenoid saponin was achieved by silicagel chromatography. The HPLC method for quantitative determination of akebia saponin D(3-O- α -L-arabinopyranosyl hederagenin 28-O- β -D-glucopyranosyl ester) provided the method for standardization of *Dipsaci Radix*.

[PD2-12] [04/20/2001 (Fri) 13:30 – 14:30 / Hall 4]

Constituents from *Actinodaphne lancifolia*

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Actinodaphne lancifolia(Sieb. et Zucc.) Meissn is the evergreen tree of the family Lauraceae, distributed in the southern part of Korea including Cheju Island. Traditionally, the root called as "Si Pi Jang Gun" has been used for the treatment of stomachache, arthritis, overexertion as well as edema. As a part of our continuing interest in the bioactive metabolites we have examined the MeOH extract of *Actinodaphne lancifolia*.

Separation of the lactonic compounds from the n-hexane extract of *Actinodaphne lancifolia* afforded isolancifolide, secoisolancifolide, 4-(3,7-dimethyl-2,6-octadienyl)-4-methoxy-3-methylbut-2-enolide and dihydro-4-hydroxy-5-methoxy-5-methyl-3-nonylidene-2(3H)-furanone. The structures of these compounds were identified and determined by physico-chemical and spectral evidences.

[PD2-13] [04/20/2001 (Fri) 13:30 – 14:30 / Hall 4]

Phytochemical Constituents of *Lactus scariola*

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