

species of Gentianaceae, especially *Gentiana scabra*, but there has no pharmacognostical confirmation on it. To clarify the botanical origin of "Yong Dam", we studies on the anatomical characteristics of *Gentiana* species growing wild in Korea i.e. *Gentiana scabra* var. *buergeri*, *G. uchiyamai*, *G. triflora*, *G. axillariflora* var. *coreana* and of "Yong Dam" from Korea on korean market. Through our studies, the botanical origin of "Yong Dam" from Korea was proved to be *Gentiana scabra* var. *buergeri* and *Geniana axillariflora* var. *coreana*.

[PD3-1] [10/19/2000 (Thr) 15:00 - 16:00 / [Hall B]]

A Study on the Extraction Quantity of Amygdalin in Armenicae Semen

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Armeniacae semen is the natural medicine which has been generally used for asthma, dyspnea, edema, etc. Armeniaceae semen has been usually used as powders after it is peeled off in korean traditional medicine.

Amygdalin, major ingredient of armeniacae semen, is decomposed to benzaldehyde, HCN, glucose by emulsin, the enzyme, in water. Therefore, amygdalin are almost decomposed when the armeniacae semen are made into the form of the decoction of armeniaceae semen powder.

To understand the decomposed extent of amygdalin, we have studied making differences of the particle sizes and extractants. The results indicated that amygdalin were not almost decomposed in organic solvent(extractant) such as methanol in which emulsin didn't work on. And the larger particle size was, the lower decomposition rate we could get in water.

The separation and quantitation of amygdalin was carried by high- performance liquid chromatography.

[PD3-2] [10/19/2000 (Thr) 15:00 - 16:00 / [Hall B]]

A Study on the Extraction Quantity of Amygdalin in Persicae Semen

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Persicae semen is the natural medicine which has been generally used for relieving cough, removing the phlegm and blood stasis in korean traditional medicine. Persicae semen has been usually used as powders without peeled off.

Amygdalin, major ingredient of persicae semen, is decomposed to benzaldehyde, HCN, glucose by emulsin, the enzyme, in water. Therefore, amygdalin are almost decomposed when persicae semen are made into the form of the decoction of persicae semen powder.

To understand the decomposed extent of amygdalin, we have studied making differences of the particle sizes and extractants. The results indicated that amygdalin were not almost decomposed in organic solvent(extractant) such as methanol in which emulsin didn't work on. And the larger particle size was, the lower decomposing rate we could get in water. In powder, the extraction rate of amygdalin was 5~6% in contrast to 65 % in whole.

[PD3-3] [10/19/2000 (Thr) 15:00 - 16:00 / [Hall B]]

Studies on the Essential Oils of *Dendranthema zawadskii* Tzv.

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Dendranthema zawadskii grows wild in all areas of Korea. Its herb and flower have been used as folk medicine for a long time in Korea. Its usages are related to woman's disease, stomach disease, and appetite-induced drug.

The following monoterpene have been found:

(1R)-alpha-pinene, 1-methyl-3-(1-methylethyl)benzene, trans-1-methyl-4-(1-methylethyl)-2-cyclohexene, 2-methyl-5-(1-methylethyl)-(1-alpha,2-alpha,5-alpha)-bicyclo[3,1,0]hex-3-en-2-ol, 1-methyl-4-(1-methylethenyl)benzene, o-isopropentyltoluene.

The following sesquiterpene have been found:

(1-alpha,4a-alpha,8a-alpha)-1,2,3,4,4a,5,6,8a-octahydro-7-methyl-4-methylene-1-(1-methylethyl)naphthalene, (1S-cis)-1,2,3,4,5,6,7,8-octahydro-1,4-dimethyl-7-(1-methylethylidene)azulene.

[PD3-4] [10/19/2000 (Thr) 15:00 - 16:00 / [Hall B]]

Pharmacognostic Studies on Genus *Gentiana* Plants

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Various species of *Gentianaceae* have been esteemed as restoratives, febrifuges and improvers of the appetite and are recommended in old herbals; the leaves and roots were used medicinally in Korea and China. In this studies, we used 4 kinds of species, such as *Gentiana sutchuenensis*, *Gentiana zollingeri*, *Gentiana squarrosa* and *Gentiana thunbergii* for the anatomical analysis from roots, stems and epidermis. >From that studies, it was proved that all mentioned above are originated from *Gentiana sutchuenensis*. And also we purified from the *Gentiana sutchuenensis* 3-nitro-1,2-benedicarboxylic acid di(2-ethylhexyl)adipeate as essential oils.

[PD3-5] [10/19/2000 (Thr) 15:00 - 16:00 / [Hall B]]

Coumarine Glycosides from Seeds of *Fraxinus sieboldiana* var. *serrata*

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Fraxinus sieboldiana var. *serrata* is distributed in Korea, and the roots and seeds of this species are used as gout, myalgia and rheumatism. The dried seeds of *Fraxinus sieboldiana* var. *serrata* were extracted with hot methanol repeatedly to give an extract (50.6 g), which was chromatographed on silica gel with CHCl₃-MeOH-H₂O and sephadex LH-20 (MeOH). They were identified as 3β-hydroxy-urs-12-en-28-oic acid, fraxin (formula, C₁₆H₁₈O₆, mp. 204-205°C) and aesculin (formula, C₁₅H₁₆O₆, mp. 193°C).

[PD3-6] [10/19/2000 (Thr) 15:00 - 16:00 / [Hall B]]