

isolated from the water extract of the roots of *Platycodon grandiflorum* (Campanulaceae). The chemical structure of 1 was determined based on the spectral and chemical evidence.

[PD2-19] [10/17/2002 (Thr) 09:30 - 12:30 / Hall C]

Terpenoids from *Artemisia rubripes* Nakai

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Twenty *Artemisia* species are distributed in South Korea and rich in terpenoids. *Artemisia rubripes* (Compositae) has been used as a Korean traditional medicine for stomachache, vomiting, diarrhea and hemostatic agent¹⁾. The antimutagenic effect²⁾ and essential oils³⁾ of *Artemisia rubripes* were reported, but phytochemical study has not been fully investigated. As part of our systematic study on the terpene constituents of *Artemisia* species, we have investigated *A. rubripes* (1kg) collected at Dae-Kwan ryung, Gangwon Province on Aug. 1997. The aerial parts of this plant were extracted with methylene chloride at room temperature. The repeated column chromatographic separation of the extract (60g) resulted in the isolation of five terpenes and one coumarin. Their structures were determined on the basis of spectroscopic data. In this poster, we demonstrate the isolation and the structure determination of the isolated compounds from *Artemisia rubripes*.

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3) Khanina, M. A., Serykh, E. A., Berezovskaya, T. P., Khan, V. A., *Khim. Priro. Soedin.* 6, 859-860 (1991)

[PD2-20] [10/17/2002 (Thr) 09:30 - 12:30 / Hall C]

Cytotoxic Constituents from *Amanita pantherina* (DC. ex Fr.) Krombh

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In search for plant-derived cytotoxic compounds, it was found that the MeOH extracts obtained from *Amanita pantherina* (DC. ex Fr.) Krombh exhibited significant cytotoxic activity against human tumor cell line. The classical fractionation on the basis of the inhibitory activity upon the growth human tumor cell line, in vitro, and repeated column chromatography afforded several cytotoxic compounds from *Amanita pantherina* (DC. ex Fr.) Krombh. The structures of these compounds were established on the basis of analysis of spectra data, element analysis and some chemical transformations as follows: 5,7-dihydroxy-8-methoxyflavone, acacetin-7-O- β -rutoside, pectolarigenin-7-O- β -rutoside, bishydroxymethyl-carbamyl acetic acid dimer, bishydroxymethyl-carbamyl acetic acid dimer sodium, and all compounds were isolated for the first time in this mushroom. Cytotoxic activity of compounds obtained from *Amanita pantherina* on five tumor cells line was evaluated by procedure of SRB methods.

[PD2-21] [10/17/2002 (Thr) 09:30 - 12:30 / Hall C]

Prostane-type Triterpenes from *Alismatis Rhizoma* and Their Anti-complement Activity

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Alismatis Rhizoma is originated from the rhizome of *Alisma plantago-aquatica* L. var. *orientale* Samuelson or *A. canaliculatum* A. Br. et Bouche (Alismataceae). Propane-type triterpenes, guaiane-type sesquiterpenes, and kaurane-type diterpenes have been reported as the main constituents from these plants. Four propane-type triterpenes, alisol B 23-acetate (1), alisol C 23-acetate (2), alisol B (3), and alisol A 24-acetate (4), were isolated from the EtOAc-soluble fraction of this dried rhizome. The structures of compounds were identified by comparison their chemical and spectral data with those reported previously. As anti-complement activity of triterpenes isolated from Alismatis Rhizoma, alisol B (3) and alisol A 24-acetate (4) showed inhibitory activity against classical pathway complement system with 50% inhibitory concentrations (IC₅₀) values of 70.8 and 67.0 μg/ml, respectively. Whereas, alisol B 23-acetate (1) and alisol C 23-acetate (2) were inactive against anti-complement activity system. This result suggested that a hydroxyl group at C-23 of the propane-type triterpenes was a chromophore shown the anti-complement activity.

[PD2-22] [10/17/2002 (Thr) 09:30 – 12:30 / Hall C]

Phenolic Compounds from Barks of *Pinus densiflora* siebold et Zuccarini and Their NO Production Inhibitory Activities.

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The barks of *Pinus densiflora* representative *Pinus* species grows in Korea, have been used for oriental traditional medicine as the remedies for rheumatitis, hemorrhage and cancer. Water soluble fraction of 80% acetone extracts from the barks of *Pinus densiflora* (PDB) showed nitrogen monoxide(NO) production inhibitory activity in IFN-γ, LPS stimulated RAW 264.7 cell. We also isolated some phenolic compounds from water soluble fraction of PDB and determined nitrogen monoxide(NO) production inhibitory activity. These results suggest that barks of *Pinus densiflora* might be developed as a anti-inflammatory agent.

[PD2-23] [10/17/2002 (Thr) 09:30 – 12:30 / Hall C]

Phytochemical Constituents of *Siegesbeckia pubesence* Makino

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Siegesbeckia pubesence (Compositae), a perennial herb, is widely distributed in our country and has been used for rheumatic arthritis, hypertension, malaria, neurasthnia and snake-bite in traditional Chinese medicine¹⁾. On reviewing the literatures of this plant, diterpenoids and alkaloids were isolated and some pharmacological activities were investigated^{2),3)}. As part of our systematic study for Korean Compositae plants, we have investigated *Siegesbeckia pubesence* (7kg), collected from Mt. Odae on Aug. 2001. The aerial parts of this plant were extracted with MeOH three times at room temperature. The extracts (362g) were fractionated with n-hexane, chloroform and butanol. The repeated column chromatographic separation of the chloroform and butanol fractions resulted in the isolation of five diterpenes. Their structures were established on the basis of spectroscopic data and their biological effects are in the progress. In this poster, we demonstrate the isolation and the structure determination of the compounds from *Siegesbeckia pubesence*

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[PD2-24] [10/17/2002 (Thr) 09:30 – 12:30 / Hall C]