were identified by comparison with the chemical and spectral data reported.
The flavonoids (1-4) isolated from *L. japonica* were tested for their anti-complement activity against classical pathway complement system. Afzelin (2), astragalin 7-*O*-coumaric acid (3), and quercetin (4) showed inhibitory activity with 50% inhibitory concentrations (IC_{50}) values of 208, 161, and 237 μg/ml, respectively, while epicatechin (1) was only weak activity.

[PD2-22] [04/19/2002 (Fri) 10:00 - 13:00 / Hall E]

Antirheumatoid Arthritis Effect of the Kochia scoparia Fruits and Structure-Activity Relationship between Momordin Ic, its Prosapogenin and Sapogenin

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MeOH extract of *Kochia scoparia* was fractionated into $CHCl_3$, EtOAc and BuOH fractions and the last fraction were hydrolyzed by 3%-NaOH (MeOH-H_2O) to compare the bioactivities on antinociceptive and anti-inflammatory effects. Silica gel column chromatography of BuOH fraction afforded a large amount of 3-O-β-D-xylopyranosyl (1-3)-β-D-glucuronopyranosyl oleanolic acid (momordin Ic, 4) and that of acid hydrolysate of BuOH fraction gave 3-O-β-D-glucuronopyranosyl oleanolic acid (momordin Ib, 3), its 6'-O methylester (2) and oleanolic acid (1). Silica gel column chromatography of alkaline hydrolysate afforded a large amount of 4. MeOH extract and both EtOAc and BuOH fractions were active in the rheumatoidal rat induced Freund's complete adjuvant reagent (FCA) whereas $CHCl_3$ fraction was inactive. Compound 1 and 4 showed significant activities in the same assay but oleanolic acid 3-O-glucuronopyranoside (3) showed no activity. These trends were also observed in carrageenan-induced edema of the rat and in the antinociceptive activity tests undertaken in hot plate and writhing methods. These results suggest that momordin Ic and its aglycone, oleanolic acid, could be active principles for rheumatoid arthritis.

[PD2-23] [04/19/2002 (Fri) 10:00 - 13:00 / Hall E]

A Polyacetylene and Flavonoid Glycosides from Cirsium rhinoceros Nakai

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Cirsium rhinoceros Nakai (Compositae) is a herbaceous perennial which grows indigenously in Jeju Island, Korea. This plant has been used in folklore medicine for hematemesis, hematuria and hemorrhage. Although several plants of the *Cirsium* genus have been examined for thier chemical constituents, *C. rhinoceros* has not been investigated in detail on phytochemical analysis.
C. rhinoceros was extracted by a standardized extraction method. Its *n*-hexane and BuOH extracts were fractionated by chromatography to provide a polyacetylene and three flavonoid glycosides.

[PD2-24] [04/19/2002 (Fri) 10:00 - 13:00 / Hall E]

Jacaranone and its derivatives from Ternstroemia japonica

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Ternstroemia japonica is a native plant in southern part of Korea, and its fruits have been used for chest pain and numbness in traditional Japanese medicine. In our search for antioxidative compounds from the fruits of *T. japonica*, jacaranone and its three derivatives were isolated along with three known triterpenes,

by activity-guided separation. The structures were elucidated by NMR and mass spectroscopy as follows : 1: jacaranone, 2: 3-hydroxy-2,3-dihydrojacaranone, 3: 3-methoxy-2,3-dihydrojacaranone, 4: 3-ethoxy-4-*O*-acetyljacaranone, 5: 3-*O*-acetyloleanolic acid, 6: 3-*O*-acetylursolic acid, 7: ursolic acid.
This is the first isolation of jacaranone from Theaceae. Compounds 3 and 4 were new derivatives. Jacaranone was reported to have antitumor, antibacterial, and HIV inhibitory activity, and revealed to have more potent antioxidative activity than triterpene or saponin in our DPPH scavenging test.

[PD2-25] [04/19/2002 (Fri) 10:00 - 13:00 / Hall E]

Furanosesterterpene and Lipids From Sarcotragus Sponge

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A furanosesterterpene,three cyclitol derivatives, three glycerolipids, and two fatty acids have been isolated from the marine sponge Sarcotragus sp. by bioactivity-guided fractionation. The gross structures were established based on NMR and MS analysis. The stereochemistry was defined by CD spectroscopy and optical rotation.The compounds were evaluated for cytotoxicity against five human tumor cell lines to exhibit moderate activity.

[PD2-26] [04/19/2002 (Fri) 10:00 - 13:00 / Hall E]

Sesquiterpenes and Sterols from Aster glehni

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Aster glehni (Compositae), a perenial herb, is mainly distributed in the southern island of South Korea and especially cultivated as culinary vegetable in the Ullung island. *Aster* species are as traditional Chinese medicine for the treatment of bruises, snakebite, headache and dizziness. [1] The antioxidant effect[2] and essential oils[3] of *Aster glehni* were reported. Other phytochemical and pharmacological studies have not been performed. As part of our systematic study for Korean Compositae plants, phytochemical constituents of *Aster glehni* have been studied. The aerial part of this plant was collected at Ullung island and extracted with methyl alcohol. The methyl alcohol extract was fractionated with n-hexane, methylene chloride, ethylacetate and butanol. The n-hexane soluble portion have been investigated and this effort led to isolate three sesquiterpenes and two sterols. Structures of isolated compounds have been established by chemical and spectroscopic means. In this poster, we demonstrate the isolation and the structure determination of compounds from n-hexane soluble portion of *Aster glehni*

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[PD2-27] [04/19/2002 (Fri) 10:00 - 13:00 / Hall E]

In vivo and In vitro Anti-lipid Peroxidative Effect of the Extract Complex of Korean Anti-thirst Drugs