

methylchromone (2), respectively, based on spectroscopic evidences and direct comparison with synthetic compounds. (1) was found from urine, bile and blood, while (2) was found from urine and bile.

[PD4-17] [10/19/2000 (Thr) 15:00 – 16:00 / [Hall B]]

Analysis of Four Herbal Medicines by Pattern Recognition Method

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Chromatographic pattern recognition method was applied to the analysis of four herbal medicines, namely, Caryophylli Flos, Curcumae Rhizoma, Amomi Semen, and Asiasari Radix. Reference herbal medicine, which is a standard in components and their contents, was prepared by mixing the same amount of samples collected over the country. Each sample was analyzed by pattern recognition method using reference herbal medicine as a standard. Mean values of content ratio of 40–50 samples of Caryophylli Flos, Curcumae Rhizoma, Amomi Semen, and Asiasari Radix were $100 \pm 13.3\%$, $97.0 \pm 16.3\%$, $101 \pm 10.6\%$, and $98.7 \pm 9.64\%$, respectively. Similarities between reference medicine and test sample were $89.5 \pm 6.14\%$, $84.2 \pm 5.24\%$, $88.3 \pm 5.17\%$ and $84.2 \pm 5.40\%$, respectively. Chromatographic pattern recognition was very successful for the quality control of herbal medicines.

[PD4-18] [10/19/2000 (Thr) 15:00 – 16:00 / [Hall B]]

Analysis of the compounds in Citrus junos

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The fruit of Citrus junos Sieb has long been used in folk medicine for a cough remedy, an expectorant and an aromatic bitter pectic. Limonoids, coumarines and flavonoids were reported from various Citrus plants. Reported biological activities from these compounds include antitumor, cancer chemopreventive, antihypertensive, cholesterol-lowering, and antithrombogenic activities. C. junos is cultivated mainly in Korea, China and Japan. It is consumed as fruit, junos honey and junos juice in Korea. We studied chemical constituents of the ripe fruit of C. junos cultivated in the southern seashore in Korea. Seven compounds were isolated and their structure were elucidated based on the physicochemical properties and spectroscopic evidences, namely, umbelliferone, hispidulin, 9-hydroxy-4-methoxypsoralen, aurapten, cirsimaritin, limonin, and deacetyl-nomilin. The contents of these seven compounds in the peel and the flesh of the fruit of C. junos were determined by HPLC. The contents in the peel were 0.006, 0.025, 0.011, 0.183, 0.022, 0.137 mg/g, and trace, respectively, while they were 0.001, 0.005, 0.004, 0.006, 0.004, 0.022 mg/g, and trace in the flesh.

[PD4-19] [10/19/2000 (Thr) 15:00 – 16:00 / [Hall B]]

Seven new dammarane glycosides from heat processed ginseng

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