(Phytochemistry, 26, 2418 (1987))

Acylated Luteolin Glucosides from Salix gilgiana.

Mizuo Mizuno*, Masaya Kato, Munekazu Iinuma, Toshi yuki Tanaka, Arika Kimura, Hiroyoshi Ohashi, Hideki Sakai

Besides apigenin and luteolin 7-glucoside, four novel glucosides acylated with acetic, trans-cinnamic, p-coumaric and ferulic acids, respectively were isolated from the leaves of Salix gilgiana (Salicaceae). On the basis of spectral and chemical evidences, the structures were determined as follows; luteolin 7-O-(6"-trans-cinnamoyl)- β -p-glucopyranoside, luteolin 7-O-(6"-feruloyl)- β -p-glucopyranoside, luteolin 7-O-(6"-acetyl)- β -p-glucopyranoside and luteolin 7-O-(6"-p-coumaroyl)- β -p-glucopyranoside. In our present study, four acylated flavone glucosides were characterized. These compounds are to be used in order to construct a chemotaxonomy of the genus Salix.

(Planta Medica, 300 (1987))

Polysulfanes in the Volatile Oils of Ferula Species.

Zhi—da Min*, Qi—fi Mai, Mizuo Mizuno, Toshiyuki Tanaka, Munekazu Iinuma

Ferula species (Umbelliferae) grow in Afganistan, Iran, India and the Xinjing province in China. The resins of the plants have been used in China for the remedy of malaria and dysentery, and also sometimes as an insecticide. A study on the volatile oils of oleogum resin of Ferul a sinkiangensis and F. fukanensis by use of GC-MS (CI/El) showed the presence of twenty-six polysulfanes (disulfanes, trisulfanes, thio-disulfanes and di-disulfanes). The main component was sec-butyl-cis-1-propenyl disulfane in F. sinkiangensis, and sec-butyl-trans-1-propenyl disulfane in F. fukanensis. As minor components, seven new polysulfanes were detected in the oils for the first time.

(J. Nat. Prod., 50, 326 (1987))

Benzophenanthridine Alkaloids from the Seeds of Coptis japonica var. disscta.

Mizuo Mizuno*, Hiroyuki Kojima, Toshiyuki Tanaka, Munekazu Iinuma, Zhi—da Min, Hiroko Murata

The rhizomes of *Coptis* spp. revealed the presence of many alkaloids including berberine, coptisine, palmatine and magnoflorine by the previous phytochemical studies are used as an important crude drug in both China and Japan. Our present investigation on the constituents in the seeds of *Coptis japonica* (THUNB.) MAKINO var. *dissecta* (YATABE) Nakai, yielded four alkaloids with benzophenanthridine skeletons, i. e. 6-acetonyl-5, 6-dihydrosanguinarien, sanguinarine, norsanguinarine and oxysanguinarine. Their respective structures were determined by comparison with authentic samples. These alkaloids usually contained in the Papaveraceae and Rutaceae were confirmed for the first time in the Ranunculaceae.