

[Shoyakugaku Zasshi, 46, 42-48 (1992)]

[Lab. of Pharmacognosy]

**Chemical Constituents and Their Variations among *Coptis* Species
in Japan.**

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In this work on the chemical characterization of *Coptis* species (Ranunculaceae) in Japan, some minor constituents were isolated and their structures were determined and the chemotaxonomical results obtained in the present study generally agreed with the morphological and taxonomical classification.

[Phytochemistry, 31, 2487-2490 (1992)]

[Lab. of Pharmacognosy]

Five Complex Flavonoids in the Farinose Exudate of *Pityrogramma calomelanos*.

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From the farinose exudate of *Pityrogramma calomelanos*, five new complex flavonoids named calomelanos F-J were isolated. Calomelanol F was characterized as an angular structure, and those of calomelanols G, H, I and J as linear structures from spectroscopic evidence.

[Phytochemistry, 31, 2855-2858 (1992)]

[Lab. of Pharmacognosy]

Three 2',4',6'-Trioxxygenated Flavanones in Roots of *Echinosophora koreensis*.

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By further investigation on the constituents of roots of *Echinosophora koreensis*, three novel flavanones with a 2',4',6'-trioxxygenated B ring were isolated. These structures were determined to be (2*R*,3*S*)-8- γ , γ -dimethylallyl-6-geranyl-5,7,2',6'-tetrahydroxy-4'-methoxyflavanonol (kenusanone C), (2*S*)-8- γ , γ -dimethylallyl-5,7,2',6'-tetrahydroxy-4'-methoxyflavanone (kenusanone D) and (2*S*)-8- γ , γ -dimethylallyl-5,2',6'-trihydroxy-7,4'-dimethoxyflavanone (kenusanone E), respectively, by spectroscopic analysis. The characteristic behaviour of H-2 and H-3 in 2',6'-dioxxygenated flavanone or flavanonol is also discussed.