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[Lab. of Pharmacognosy]

**Comparison of *Aristolochia* Species with Chemical Constituents.**

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Chemical constituents, in particular, aristololactam derivatives of nine *Aristolochia* species (*A. shimadai*, *A. manshuriensis*, *A. cucurbitifolia*, *A. westlandii*, *A. onoei*, *A. kaempferi*, *A. likiuensis*, *A. debilis* and *A. tagara*) were analyzed by means of high performance liquid chromatography. The results chemotaxonomically suggested their subgenera, and sometimes their sections are restricted by the relative content of aristololactam derivatives.

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**Prenylated Flavanone Production in Callus Cultures of *Sophora flavescens* var. *angustifolia*.**

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Callus cultures of *Sophora flavescens* var. *angustifolia* established on Murashige-Skoog medium containing 1  $\mu$ M-2,4-dichlorophenoxyacetic acid and 1  $\mu$ M kinetin produce the prenylated flavanones sophoraflavanone G and lehmanning. In addition, maackiain and its 3-O-glucoside were also produced in the callus. Upon transfer to White's medium or M9 medium, the content of prenylated flavanones was increased, whereas that of pterocarpanes was decreased. Time-course indicated that the production of pterocarpanes was correlated with cell growth. On the other hand, an inverse relationship existed between cell growth and the production of prenylated flavanones.

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[Lab. of Pharmacognosy]

**Two New  $\beta$ -Hydroxychalcones from the Root Bark of *Pongamia pinnata*.**

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The genus *Pongamia* consists of only one species, *P. pinnata*, which is widely distributed along Southeast Asia to West Pacific and North Australia. Two new  $\beta$ -hydroxychalcones named ponganones I and II were isolated from the root bark of *Pongamia pinnata* in Japan. The structures were characterized as 7-hydroxy-2',5'-dimethoxy-[6'',6''-dimethylpyrano (2'',3'': 4',3')] chalcone for ponganone I, and 7-hydroxy-2',5'-dimethoxy-3,4-methylene-dioxy-[6'',6''-dimethylpyrano (2'',3'': 4',3')] chalcone for ponganone II, respectively, by means of spectroscopic analysis.