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[Lab. of Pharmacognosy]

Flavonoids in Root Bark of *Pongamia pinnata*.

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Further investigation of the flavonoid constituents of *Pongamia pinnata* from Japan results in the isolation of 18 flavonoids including nine new ones, named ponganones III-XI, from its root bark. The new structures were determined to be (2*S*)-3',4'-dimethoxy-6'',6''-dimethylpyrano[2'',3'' : 7,8]flavanone, (2*S*)-6,3',4'-trimethoxy-6'',6''-dimethylpyrano[2'',3'' : 7,8]flavanone, (2*S*)-7-methoxy-6-O- γ,γ -dimethylallyl-3',4'-methylenedioxyflavanone, 2'-hydroxy-3,4,5'-trimethoxy-6'',6''-dimethylpyrano[2'',3'' : 4',3']chalcone, 2',4'-dimethoxy-3,4-methylenedioxydihydrochalcone, etc. These structures were determined by means of spectral analysis and synthesis.

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[Lab. of Pharmacognosy]

Three Flavanones with A Lavandulyl Group in the Roots of *Sophora exigua*.

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Two novel flavanones with a lavandulyl residue, exiguaf flavanones A and B, were isolated from the roots of *Sophora exigua* in addition to a known flavanone (sophoraflavanone G). The structures of the new flavanones were determined to be 5,7,2',6'-tetrahydroxy-8-lavandulyl-(exiguaf flavanone A) and 5,2',6'-trihydroxy-8-lavandulyl-7-methoxyflavanone (exiguaf flavanone B) by means of 2D NMR spectral analysis.

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[Lab. of Pharmacognosy]

Studies on Inhibitors of Skins Tumor Promotion XI. Inhibitory Effects of Flavonoids from *Scutellaria baicalensis* on Epstein-Barr Virus Activation and Their Anti-tumor-Promoting Activities.

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To search for possible anti-tumor-promoters, fourteen flavones obtained from the root of *Scutellaria baicalensis* were examined for their inhibitory effects of EBV early antigen activation, by a short term *in vitro* assay. Among these flavones, 5,7,2'-trihydroxy- and 5,7,2',3'-tetrahydroxyflavones showed remarkable inhibitory effects on the EBV activation, and the effect of the latter on Raji cell cycle was also examined by flow cytometer.