〔Yakugaku Zasshi, **110**, 453 (1990)〕

Studies on the Methods for Chemical Identification of Forsythiae Fructus and Plantaginis Herba.

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On Forsythiae Fructs, a color reaction with 4-aminoantipyrine due to phenylethanoid glycoside, namely, forsythiaside and acteoside, is distinctive by showing red. Moreover, a color reaction with hydroxyamine and ferric chloride due to lignan, arctigenin, is distinctive by showing reddish purple, and a color reaction with sulfuric acid due to lignan, phillurin, is distinctive by showing red. The three origins of Forsythiae Fructus are distinguishable by difference of color reaction due to lignans. On Plantaginis Herba, a color reaction with 4-aminoantipyrine due to plantamajoside is remarkable and identification is also applicable by thin layer chromatography.

〔Yakushigaku Zasshi, **25**, 125 (1990)〕

Yokusai Iinuma's Herbarium of "Sabina Called in Market"

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The authors obtained the herbarium which Yokusai Iinuma had redorded as a "Sabina called in market" in his "Somoku-Zusetsu". The leaf of this plant was characterized with linear, entire margin, stomatal line, spiral arranged and twisted base. In the transverse section of leaf, fibrovascular bundle were vertical arranged to the longer axis and the fiber were continuously covered beneath the epidermis. These features corresponded with those of *Podocarpus imbricatus*. Another similar plants were collected and compared histotsxonomically. Considering with the ancient literatures, this herbarium recorded by Iinuma was identified to be *Podocarpus imbricatus*.

〔Phytochemistry, **29**, 857 (1990)〕

Butanolides from *Litsea japonica*

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Six lactones, litsenolide D_1, litsenolide D_2, litsenolide E_1, litsenolide E_2, hamabiwalactone A and hamabiwalactone B, were isolated from fresh leaves of *Litsea japonica* (japanse name "Hamabiwa") along with the known six litsenolides (litsenolide A_1, A_2, B_1, B_2, C_1 and C_2). Their structures were elucidated on the basis of spectoscopic evidence. The chemical structures of the new litsenolides (litsenolide D_1, D_2, E_1 and E_2) were determined to be α-alkylidene-β-hydroxy-γ-methyl-α,β'-unsaturated-γ-lactone. And the structures of hamabiwalactones were determined to be endocyclic α,β-unsaturated-γ-lactones. The isolation of hamabiwalactones from lauraceous plants is the first example.