Chemical Constituents of the Essential Oils of Aroliaceae and Lauraceae Families

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In the course of the chemosystematic study of Aroliaceae and Lauraceae families, the leaf oils of some plants were investigated. The leaf oils were obtained by steam distillation of the fresh leaves. The individual constituents were isolated by column chromatography followed by preparative gas chromatography, and identified by gas chromatography and by infrared spectra.

Acanthopanax innovans Franch. *et* Sav. (Aroliaceae). Sourse. Hiroshima Prefecture, Japan. Leaf Oil. Steam distillation of the fresh leaves gave a yield of 0.03% oil which possess the following physical properties: n_D^{25} 1.4895, α_D^{25} $-25.15°$. Constituents. Individual constituents were isolated by the preparative gas chromatography (GLC) and identified by infrared spectra: α-pinene (0.6%), camphene (0.3%), *cis*-ocimene (0.4%), *trans*-ocimene (5.2%), myrcene (3.9%), caryophyllene (14.5%), β-farnesene (50.5%).

Acanthopanax sciadophylloides Franch. *et* Sav. (Aroliaceae). Source. Hiroshima Prefecture. Leaf Oil. The leaf oil of this plant was obtained in 0.025% yield. The physical properties determined os follows: n_D^{25} 1.4872, α_D^{25} $+7.55°$. Constituents. α-pinene (2.0%), β-pinene (3.0%), myrcene (21.4%), caryophyllene (31.6%), β-farnesene (24.0%), α-humulene (5.0%), ethylbenzene (trace), *m*-xylene (trace), *o*-xylene (trace) were isolated by preparative GLC and identified by IR spectra.

Lindera communis var. Okinaensis (Kamik) Hatusima (Lauraceae). Sourse. Hyakuna in Okinawa Prefecture. Leaf Oil. Steam distillation of the fresh leaves gave a yield 0.19% leaf oil which possess the following properties: d_4^{25} 0.8913, n_D^{25} 1.4951, α_D^{25} $+12.3°$. Constituents: α-pinene (9.8%), camphene (4.9%), β-pinene (12.5%), *cis*-ocimene (17.5%), *trans*-ocimene (5.5%), caryophyllene (17.2%).

Cassytha filiformis Linn. (Lauraceae). Sourse. Hyakuna in Okinawa Prefecture. Stem Oil. The essential oil of the stems of this plant was obtained by the steam distillation in 0.075% yield. The physical properties determined as follows: d_4^{25} 0.9080, n_D^{25} 1.4860, α_D^{25} $+2.7°$. Constituents. A sesquiterpene hydrocarbon, caryophyllene, was isolated by preparative GLC and identified by IR spectrum.

Lindera sericea var. *glabrata* Blume. (Lauraceae). Sourse. Yuki in Hiroshima Prefecture. Leaf Oil. The essential oil from the leaves of the plant by steam distillation has been obtained in 0.32% yield and has the following physical properties: d_4^{25} 0.9736, n_D^{25} 1.4955, α_D^{25} $+34.1°$. Constituents: α-corocalene, β-eudesmol, cadalene, curcumene and shyobunone were isolated by preparative GLC and identified by IR spectra in addition to the previous paper [1].

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[1] Nanao Hayashi and Hisashi Komae, Z. Naturforsch. **28 c**, 227 [1973].