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BRIEF COMMUNICATIONS

CHEMICAL CONSTITUENTS FROM THE LEAVES OF *Cinnamomum philippinense*

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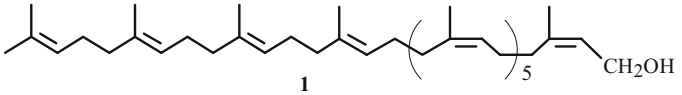
UDC 547.31 + 547.427

Cinnamomum philippinense (Lauraceae) is a medium-sized evergreen tree that is widely distributed in the Philippines and the southern part of Taiwan [1]. In the course of screening for biologically and chemically novel agents from Formosan Lauraceous plants [2–17], *C. philippinense* was chosen for further phytochemical investigation. The MeOH extract of its leaves was subjected to solvent partitioning and chromatographic separation to afford ten pure substances. The chemical constituents in the leaves of *C. philippinense* were separated with column chromatography.

Investigation of the MeOH extract of the leaves has led to the isolation of ten compounds: one polyprenol, ficaprenol-11 (**1**) [18]; four terpenoids, squalene (**2**) [19], 2,6,11-trimethyldodeca-2,6,10-triene (**3**) [20], phytol (**4**), and phytyl acetate (**5**); two steroids, β-sitostenone (**6**) and β-sitosterol (**7**); one chlorophyll, pheophytin-a (**8**); and a mixture of two aliphatic compounds, palmitic acid (**9**) and stearic acid (**10**). These compounds were obtained and characterized by a comparison of their physical and spectral data (UV, IR, NMR, and MS) with values found in the literature. All of these compounds were obtained from this plant for the first time.

The leaves of *C. philippinense* were collected from Taipei County, Taiwan in May, 2008. A voucher specimen was characterized by Dr. Yen-Ray Hsui of the Division of Silviculture, Taiwan Forestry Research Institute, Taipei, Taiwan and deposited in the School of Medical and Health Sciences, Fooyin University, Kaohsiung County, Taiwan. The air-dried leaves of *C. philippinense* (5.0 kg) were extracted with MeOH (80 L × 6) at room temperature, and the MeOH extract (195.5 g) was obtained upon concentration under reduced pressure. The MeOH extract was chromatographed over silica gel (800 g, 70–230 mesh) using *n*-hexane–acetone as eluent to produce seven fractions. Fraction 1 (5.37 g) was subjected to Si gel chromatography by eluting with *n*-hexane–acetone (40:1) to obtain a mixture of palmitic acid (**9**) and stearic acid (**10**) (12 mg, 0.0061%). Part of fraction 2 (8.94 g) was subjected to Si gel chromatography by eluting with *n*-hexane–acetone (10:1), then enriched with acetone to furnish nine fractions (2–1–2–9). Fraction 2–4 (2.11 g) was re-subjected to Si gel chromatography, eluting with *n*-hexane–acetone (40:1), and enriched gradually with acetone to obtain ficaprenol-11 (**1**) (61 mg, 0.0312%). Fraction 2–6 (2.31 g) was re-subjected to Si gel chromatography, eluting with *n*-hexane–acetone (30:1), and enriched gradually with acetone to obtain squalene (**2**) (21 mg, 0.0107%), methyl palmitate (**4**) (15 mg, 0.0077%), and methyl stearate (**5**) (12 mg, 0.0061%). Part of fraction 3 (7.53 g) was subjected to Si gel chromatography by eluting with *n*-hexane–acetone (8:1) to obtain 2,6,11-trimethyldodeca-2,6,10-triene (**3**) (8 mg, 0.0041%). Part of fraction 4 (6.63 g) was subjected to Si gel chromatography by eluting with *n*-hexane–acetone (8:1) to obtain β-sitostenone (**6**) (5 mg, 0.0026%). Fraction 6 (14.31 g) was subjected to Si gel chromatography by eluting with *n*-hexane–acetone (4:1) to obtain β-sitosterol (**7**) (2 mg, 0.0010%) and pheophytin-a (**8**) (3 mg, 0.0015%).



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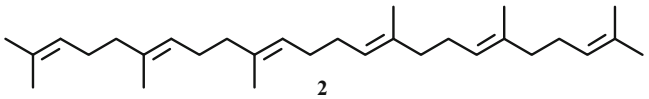

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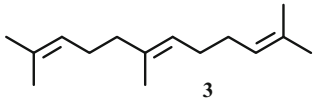

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