

# Chemical constituents of the essential oil from the bark of *Cinnamomum illicioides* A. Chev. from Vietnam

Giang P.M., Konig W.A., Son P.T.

Faculty of Chemistry, College of Natural Science, Vietnam National University, 19 Le Thanh Tong Street, Hanoi, Viet Nam; Institut für Organische Chemie, Universität Hamburg, 20146 Hamburg, Germany

**Abstract:** The chemical constituents of the hydrodistilled essential oil from the bark of *Cinnamomum illicioides* A. Chev., Lauraceae, from Vietnam, have been studied by GC and GC-MS. Seventeen monoterpenoids, eugenol, and thirty-six sesquiterpenoids, accounting for 25, 41.2, and 27.9% of the oil, respectively, were identified. Terpinen-4-ol (10.4%), eugenol (41.2%), and δ-cadinene (5.6%) are the major components of the oil. © 2006 The Japanese Society of Pharmacognosy and Springer.

**Author Keywords:** δ-Cadinene; *Cinnamomum illicioides*; Eugenol; GC; GC-MS; Lauraceae; Terpinen-4-ol  
**Index Keywords:** alpha thujene; beta elemene; beta pinene; borneol; bornyl acetate; camphene; carvacrol; caryophyllene; cineole; copaene; delta cadinene; elemol; essential oil; eugenol; gamma cadinene; humulene; myrcene; para cymene; pinene; sesquiterpenoid; spathulenol; terpenoid derivative; terpinen 4 ol; terpinene; terpinolene; article; bark; chemical composition; *Cinnamomum*; *Cinnamomum illicioides*; gas chromatography; mass spectrometry; Viet Nam

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Correspondence Address: Son, P. T.; Faculty of Chemistry, College of Natural Science, Vietnam National University, 19 Le Thanh Tong Street, Hanoi, Viet Nam

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Authors with affiliations:

- Giang, P.M., Faculty of Chemistry, College of Natural Science, Vietnam National University, 19 Le Thanh Tong Street, Hanoi, Viet Nam
- König, W.A., Institut für Organische Chemie, Universität Hamburg, 20146 Hamburg, Germany
- Son, P.T., Faculty of Chemistry, College of Natural Science, Vietnam National University, 19 Le Thanh Tong Street, Hanoi, Viet Nam

#### References:

- Do, T.L., (1991) Medicinal Plants and Herbal Remedies of Vietnam, , Science and Technique Hanoi
- Hu, T.W., Lin, Y.T., Ho, C.K., Natural variation of chemical components of the leaf oil of *Cinnamomum osmophloeum* Kaneh (1985) Bulletin of Taiwan Forestry Research Industry, New Series, 78, p. 18
- Ross, M.S.F., Analysis of cinnamon oils by high-pressure liquid chromatography (1976) J Chromatogr, 118, pp. 273-275
- Chang, S.T., Chen, P.F., Chang, S.C., Antibacterial activity of leaf essential oils and their constituents from *Cinnamomum osmophloeum* (2001) J Ethnopharmacol, 77, pp. 123-127
- Joulain, D., König, W.A., (1998) The Atlas of Spectral Data of Sesquiterpene Hydrocarbons, , E.B.-Verlag Hamburg
- Hochmuth, D.H., König, W.A., Joulain, D., (2003) MassFinder 2.3, , <http://www.massfinder.com>, Software & Data Bank, Hamburg. Available at: