

PP15. Chemical constituents of essential oils from some Vietnamese plants

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Vietnam, like any other tropical country of the world, is blessed with many medicinal plants and herbs. However, a literature search has revealed that the chemical compositions of the majority of these plants, as well as their biological potentials, have not been documented. The present paper aimed to report the chemical constituents identified in the essential oils of some plants grown in Vietnam. The essential oils were obtained by hydrodistillation in accordance with the Vietnamese Pharmacopoeia. The chemical constituents of the oils were analyzed by gas chromatography and gas chromatography-mass spectrometry on an HP-5MS column. The main compounds in the leaf oil of *Alphonsea tonquinensis* A.DC. (Annonaceae) were β -caryophyllene (27.8%), β -elemene (15.6%) and caryophyllene oxide (14.5%). The stem oil was comprised mainly of germacrene D (17.4%), β -caryophyllene (9.9%), α -pinene (9.5%), β -elemene (9.3%) and β -pinene (9.2%). The principal compounds identified in the leaf, bark and stem oils of *Schefflera myriocarpa* Harms (Araliaceae) were mainly monoterpenes represented by α -pinene (17.1-21.2%), α -phellandrene (9.2-27.4%) and limonene (19.8-36.8%). In addition, methyl eugenol (10.4%) was found in the bark. *Siliquamomum tonkinense* Baill. (Zingiberaceae) yielded a leaf oil whose major compounds were β -pinene (29.3%), α -pinene (15.7%), and sabinene (14.6%), while 1,8-cineole (19.1%), γ -terpinene (14.9%), *o*-cymene (14.0%), and α -pinene (12.5%) were the main compounds present in the rhizome oil. The major components of the leaf oil of *Anoectochilus setaceus* Blume (Orchidaceae) were α -cadinol (17.1%), (*E,E*)-farnesol (14.0%) and terpinen-4-ol (11.0%) while β -pinene (20.8%) and α -pinene (15.4%) were the main compounds identified in the oil of *Codonopsis javanica* (Blume) Hook.f. & Thomson (Campanulaceae). However, the dominant compounds of the oil of *Aristolochia kwangsiensis* Chun & F.C.How ex S.Yun Liang (Aristolochiaceae) were sabinene (34.8%), β -caryophyllene (8.8%) and terpinen-4-ol (8.6%). To the best of our knowledge, this is the first report on the essential-oil compositions of these species. The chemotaxonomic importance of the results would also be discussed.

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