

Chemical Composition of the Essential Oils of Two *Alpinia* Species from Hainan Island, China

Peng Nan^{a,b}, Yaoming Hu^c, Jiayuan Zhao^a, Ying Feng^b, and Yang Zhong^{a,*}

^a Ministry of Education Key Laboratory for Biodiversity Science and Ecological Engineering, School of Life Sciences, Fudan University, Shanghai 200433, China. Fax: 86-21-65642468. E-mail: yangzhong@fudan.edu.cn

^b Shanghai Center for Bioinformation Technology, Shanghai 201203, China

^c Center for Analysis and Measurement, Fudan University, Shanghai 200433, China

* Author for correspondence and reprint requests

Z. Naturforsch. **59c**, 157–160 (2004); received July 24/August 29, 2003

The essential oils of two *Alpinia* species, *i.e.* *A. hainanensis* and *A. katsumadai*, from Hainan Island, China were analyzed by using GC-MS. The major constituents in the leaf oil of *A. hainanensis* were ocimene (27.4%), β -pinene (10.1%), 9-octadecenoic acid (6.5%), *n*-hexadecanoic acid (5.8%), 9,12-octadecadienoic acid (5.4%), and terpinen (4.3%). The oil constituents obtained from the flowers of *A. hainanensis* were ocimene (39.8%), β -pinene (17.7%), terpinene (5.5%), *p*-menth-1-en-ol (4.9%), caryophyllene (4.9%), and phellandrene (4.4%). In *A. katsumadai*, the major constituents in the leaf oil were *p*-menth-1-en-ol (22.0%), terpinen (19.0%), 4-carene (9.1%), 1,8-cineole (8.3%), and camphor (5.6%). The major constituents in the flower oil were *p*-menth-1-en-ol (21.3%), 1,8-cineole (20.2%), terpinen (12.6%), phellandrene (7.0%), 4-carene (6.4%), and β -pinene (5.2%).

Key words: *Alpinia hainanensis* and *katsumadai*, Essential Oil, GC-MS