



Chapter I

Introduction

Litsea cubeba (Lour.) Pers. is a small aromatic tree which offers an oil called Chinese lemon-grass oil. It is known in Thai as "Takhrai Ton"(ตะไคร้ต้น) or "Chakhai ton" (จะไต้ต้น).

This plant is not only used for producing oil, but also used for many other purposes such as medicine, furniture, handcraft and for land conservation (Koerniati, 1989).

The genus *Litsea* belongs to the tribe Laureae of the subfamily Lauroideae in the family Lauraceae.

In Thailand, there are several plants called "Takhrai ton". These plants are
Cinnamomum parthenoxylon Meissn.

C.siamense Craib

Litsea cubeba Pers.

L. euosma W.W.Smith

L. garrettii Gamble

Ormosia robusta Baker

(Suvatti, 1978; Smitinand, 1980)

Almost all of them belong to the family Lauraceae, except *O. robusta* which belongs to the family Papilionaceae.

Various parts of "Thakhrat ton", *Litsea cubeba*, have been used in folkloric medicine for a wide variety of diseases in China and South East Asian countries (Perry, 1980).

Phytochemical works on the alkaloids of *L. cubeba* yield laurotetanine (IV₃₄) as the first alkaloid to be isolated and characterized (Wehmer, 1935). Subsequently, several more alkaloids have been reported from this plant. Almost all of them are aporphine alkaloids. All the phytochemical work on *L. cubeba* have been done on every part of the plant except the leaves. Currently, the total number of alkaloids so far isolated and characterized from *L. cubeba* is 11 isoquinoline alkaloids and one phenanthrene alkaloid (Tomita, *et al.*, 1965d; Lu and Lin, 1967; Wu, *et al.*, 1991). It is notable that most of the previous study have been performed on plant materials collected from different countries for example China, Taiwan and Indonesia but not from Thailand. The variation in geographical races and even chemical composition might occur in the species of *L. cubeba*. This thesis describes the investigation of alkaloids from the leaves of *L. cubeba* collected from Mae Hong Son, Thailand, with the hope of revealing any interesting variation in the pattern of alkaloid from various plant parts previously reported.

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