

## Chemical Constituents from the Fruit Peel of *Goniothalamus scortechinii*

(Sebatian Kimia daripada Kulit Buah *Goniothalamus scortechinii*)

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### ABSTRACT

The phytochemical investigation on the fruit peel of *Goniothalamus scortechinii* (Selayar Raja Ubat) obtained from Gunung Stong, Kelantan has resulted in the isolation of five compounds namely pinocembrine, altholactone, goniofufurone, goniotriol and gonioypyrrone. Their structures were determined by extensive ultra violet (UV), infrared (IR), nuclear magnetic resonance (NMR) spectroscopy and gas chromatography-mass spectrum (GCMS) analysis.

**Keywords:** Altholactone; goniofufurone; goniotriol; gonioypyrrone; *Goniothalamus scortechinii*; pinocembrine

### ABSTRAK

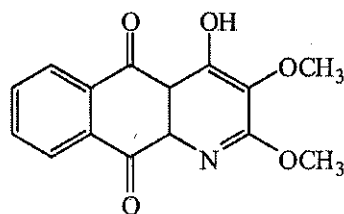
Kajian fitokimia ke atas kulit buah *Goniothalamus scortechinii* (Selayar Raja Ubat) yang diperolehi dari Gunung Stong, Kelantan telah berjaya memencilkan lima sebatian iaitu pinosembrin, altholakton, goniofufuron, goniotriol dan goniopipiron. Kesemua struktur ditentukan dengan menggunakan teknik spektroskopi ultra lembayung (UL), inframerah (IM), resonans magnet nukleus (RMN) dan analisis kromatografi gas-spektrum jisim (KGSJ).

**Kata kunci:** Altholakton; goniofufuron; goniopipiron; goniotriol; *Goniothalamus scortechinii*; pinosembrin

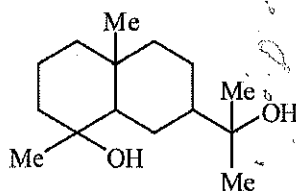
### INTRODUCTION

*Goniothalamus* is one of the largest genera of paleotropical Annonaceae with over 120 species distributed throughout the tropics and subtropics with some species being used widely as traditional medicines (Fasihuddin et al. 1995). *G. scortechinii* locally known as Selayar Raja Ubat is a small tree of about 5–10 m tall, endemic to Peninsular Malaysia and distributed in the states of Kedah, Kelantan, Pahang, Pulau Pinang and Perak (Saunders 2003). The most common medicinal usage of this plant seems to be connected with abortion, post-natal treatment and insect repellents (Dzulkipli et al. 1984).

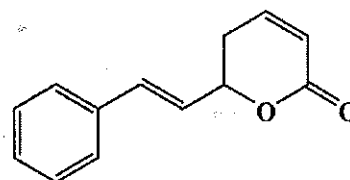
Previous studies on the roots of this plant which was collected from Kedah resulted in the isolation of an 1-aza-anthraquinone, scorazanone (1) (Din et al. 1990) and a sesquiterpene, crytomeridiol (2) (Din et al. 1997). A styryllactone, goniothalamine (3) was also obtained from the roots of this plant (Zakaria et al. 1989). In the current study, the fruits of *G. scortechinii* were collected from Kelantan. The fruit peels were removed and the peels were soaked in methanol. The methanolic extract was further investigated since there were no report available on the chemical constituents of the fruit peel from this species.



(1)



(2)



(3)