

Thesis Title Investigation of Antimalarial Principles
from Seeds of Amomum krervanh (ZINGIBERACEAE)

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ABSTRACT

The investigation of antimalarial principles from the seeds of Amomum krervanh (ZINGIBERACEAE) has led to the separation of seven pure compounds comprising four monoterpenes, one flavonoid and possibly two diterpenes. Three of the monoterpenes are known compounds, viz : myrtenal, myrtenol and *trans* -pinocarveol, while the fourth is a new compound whose structure has been elucidated as *trans* -3-hydroxymyrtanal. The flavonoid has been found to be 3,7,4'-trimethoxy-5-hydroxyflavone. Only partial structures have been proposed for the remaining two compounds which are thought to be diterpenes.

The above compounds (with exception of the flavonoid) give EC₅₀ values in the range 10⁻⁵-10⁻⁸ g/ml. Besides *in vitro* testing, *in vivo* tests were also carried out on myrtenol and one of the diterpenes which exhibited an *in vitro* EC₅₀ value of 6.15 x 10⁻⁸ g/ml. However, *in vivo* test results are not yet conclusive due to problems concerning solubility of the compounds.