3636878 SCOC/D : MAJOR : ORGANIC CHEMISTRY : Ph.D (ORGANIC CHEMISTRY)
KEY WORDS : *IRVINGIA MALAYANA / CLAUSENA EXCAVATA*

THAWORN JAIPETCH : CHEMICAL CONSTITUENTS OF *IRVINGIA MALAYANA* AND *CLAUSENA EXCAVATA*. THESIS ADVISORS : VICHAI REUTRAKUL, Ph.D., MANAT POHMAKOTR, Dr. rear. nat., PATOOMRATANA TUCHINDA, Ph.D. 235 p.
ISBN 974-662-471-7

Chapter I

Chemical investigation of constitutents of *Irvingia malayana* resulted in the isolation of the following compounds : Friedelin (1), Friedelinol (2), 3,3',4'-tri-*O*-methyellagic acid (3), methyl 3,4,5-trihydroxybenzoate (4), 3,3',4'-tri-*O*-methylellagic acid-6"-acetoxy-4-β-glucoside (5), 3,3'-di-*O*-methylellagic acid-4-β-xyloside (6), 3,3',4'-tri-*O*-methylellagic acid-4-β-glucoside (7), 5,7,4'-trihydroxyflavone-8-C-β-glucopyranoside (8), 5,7,3',4'-tetrahydroxyflavone-8-C-β-glucopyranoside (9) and 5,3',4'-trihydroxyflavone-6-C-β-glucopyranoside-7-*O*-linkage (10). The isolated compounds were tested for cytotoxicity and anti-HIV reverse transcriptase. Compound (3) showed activities against several human cell lines i.e. KB, KB-V (+VLB), KB-V(-VLB), Lu-1 and ZR-75-1. Compounds (7), (8), (9), and (10) moderately exhibited activities in the HIV-RT assay.

Chapter II

Phytochemical studies of roots, stems, barks and leaves-twigs of *Clausena excavata* led to the isolation of three carbazole alkaloids and four coumarins (from roots), a pentanortriterpene (from stems), one novel and one known carbazole (from barks) and a novel compound (from leaves-twigs). Most compounds showed cytotoxicity against several human cell lines i.e. P-388, KB, KB-V(+VLB), KB-V(-VLB), Col 2, BCA-1, LU-1, LNCaP.

The structures were elucidated on the basis of spectroscopic techniques.