

องค์ประกอบทางเคมีของกิ่งดาเสือใบเล็ก (*Amoora gigantea* Pierre ex. Laness.)

นางสาวจิราภรณ์ อ้นสมบุญ



วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาดำรงหลักสูตรปริญญาวิทยาศาสตรมหาบัณฑิต

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**CHEMICAL CONSTITUENTS OF THE BRANCH OF**

*Amoora gigantea* Pierre ex. Laness.

**Miss Jiraporn Ansomboon**

**A Thesis Submitted in Partial Fulfillment of the Requirements**

**for the Degree of Master of Science**

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**Graduate School**

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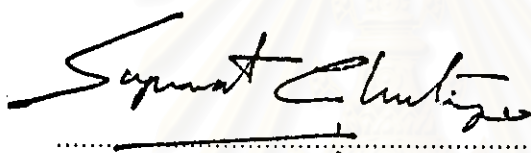
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Department           **Chemistry**  
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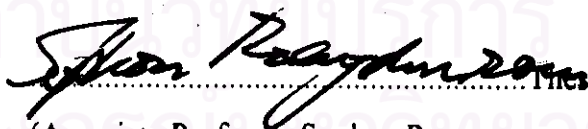


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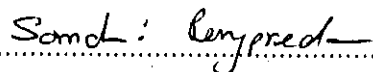
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จิราภรณ์ อันสมบูรณ์ : องค์ประกอบทางเคมีของกิ่งตาเสือใบเล็ก

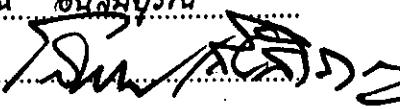
(CHEMICAL CONSTITUENTS OF THE BRANCH OF *Amoora gigantea* Pierre ex. Laness.)

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นำกิ่งของต้นตาเสือใบเล็ก (*Amoora gigantea* Pierre ex. Laness.) มาสกัดด้วยตัวทำละลายอินทรีย์ และนำสิ่งสกัดที่ได้จากกิ่งของต้นตาเสือใบเล็กมาทำการแยกด้วยคอลัมน์โครมาโทกราฟี สามารถแยกสารได้ 7 ชนิด การหาสูตรโครงสร้างของสารเหล่านี้อาศัยคุณสมบัติทางกายภาพ คุณสมบัติทางเคมีและหลักฐานทางสเปกโตรสโคปี พบสูตรโครงสร้างของสาร 7 ชนิดที่แยกได้คือ ของผสมของกรดคาร์บอกซิลิกโซ่ตรงยาว,  $5\alpha$ -dammara-20(21).24-diene-3-one. ของผสมของสเตอรอยด์ (campesterol, stigmasterol และ  $\beta$ -sitosterol). ของผสมของสเตอรอยด์ไกลโคไซด์ (campesterol-3-O- $\beta$ -D-glucopyranoside, stigmasterol-3-O- $\beta$ -D-glucopyranoside และ  $\beta$ -sitosterol-3-O- $\beta$ -D-glucopyranoside), ซูโครส, myo-inositol และ โปแตสเซียมคลอไรด์

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ภาควิชา.....เคมี.....  
สาขาวิชา.....เคมี.....  
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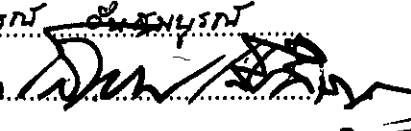
JIRAPORN ANSOMBOON : CHEMICAL CONSTITUENTS OF THE BRANCH  
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The dried branch of *Amoora gigantea* Pierre ex. Laness. were extracted by organic solvents. The crude extracts from different fractions were separated by column chromatography and seven components were obtained. The structures of them were established on the basis of physical properties, chemical properties and spectral evidences. These seven components were identified as a mixture of long chain carboxylic acids,  $5\alpha$ -dammara-20(21),24-diene-3-one, a mixture of steroids (campesterol, stigmasterol and  $\beta$ -sitosterol), a mixture of steroid glycosides (campesterol-3-O- $\beta$ -D-glucopyranoside, stigmasterol-3-O- $\beta$ -D-glucopyranoside and  $\beta$ -sitosterol-3-O- $\beta$ -D-glucopyranoside), sucrose, myo-inositol and KCl.

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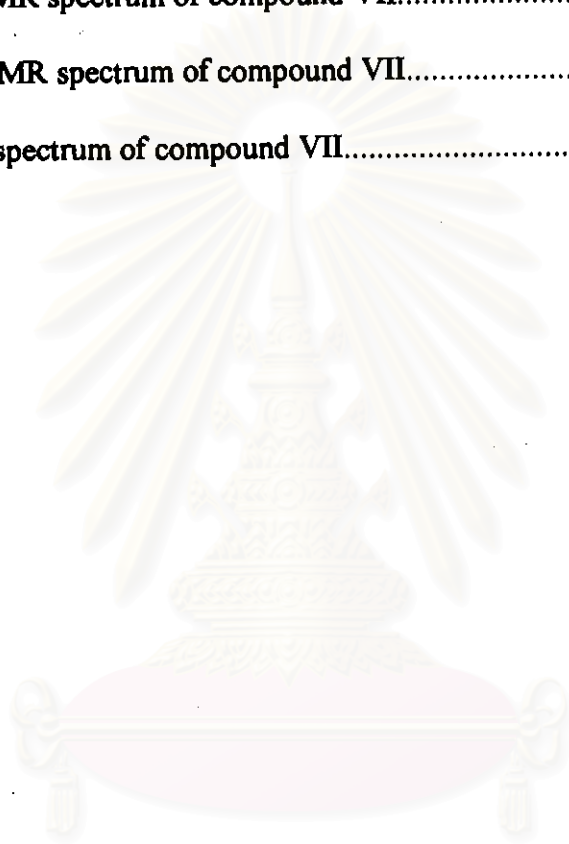
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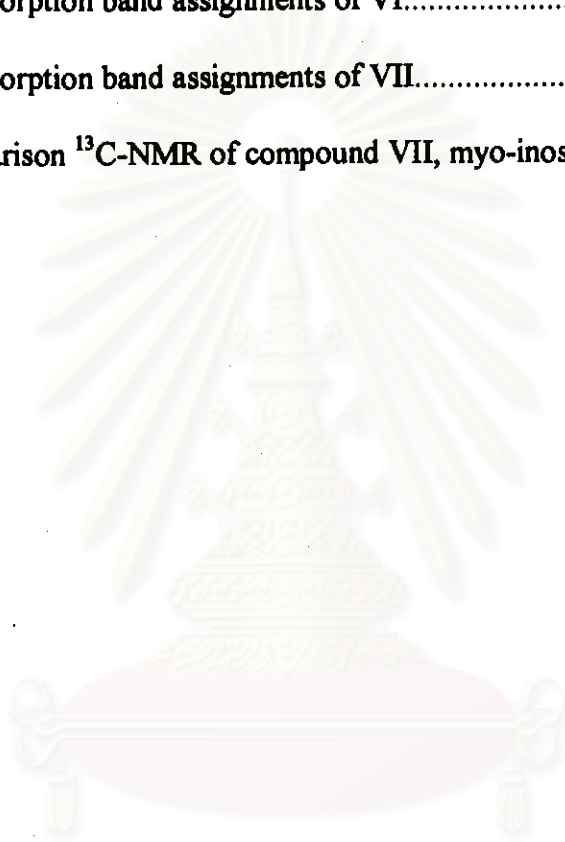


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## LIST OF ABBREVIATIONS

TMS	Tetramethylsilane
$\delta$	chemical shift
ppm.	part per million
m.p.	melting point
TLC	thin layer chromatography
mm	millimeter
g	gram (s)
cm	unit of centimeter
wt	weight
l	litre (s)
ml	millilitre (s)
$^{\circ}\text{C}$	degree Celsius
pp	page
$R_t$	retention time in gas chromatogram
min.	minute
mg	milligram (s)
Fig.	Figure
$R_f$	rate of flow in chromatography
$\lambda_{\text{max}}$	the wavelenght at maximum absorption



$\text{cm}^{-1}$	wavenumber
s	strong (IR)
m	medium (IR)
b	broad (IR)
w	weak (IR)
s	singlet (NMR)
d	doublet (NMR)
t	triplet (NMR)
m	multiplet (NMR)
M.W.	Molecular weight
$M^+$	molecular ion in mass spectrum
m/e	mass to charge ratio



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