


องค์ประกอบทางเคมีของใบลิ้นกระบือ

*Excoecaria cochinchinensis* Lour. var. *viridis* Merr.



นางสาว ช่อลัดดา ไชคสมบุญกุล

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**CHEMICAL CONSTITUENTS OF THE LEAF OF**

*Excoecaria cochinchinensis* Lour. var. *viridis* Merr.



**Miss Choladda Choksomboonkul**

**สถาบันวิทยบริการ**  
**จุฬาลงกรณ์มหาวิทยาลัย**

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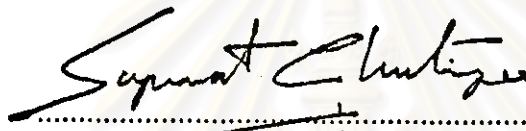
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พิมพ์ต้นฉบับบทความวิจัยวิทยานิพนธ์ภายในกรอบสี่เหลี่ยมนี้เพียงแผ่นเดียว

ชวลิตดา โชคสมบูรณ์กุล : องค์ประกอบทางเคมีของใบตีนกระบือ (*Excoecaria cochinchinensis* Lour. var. *viridis* Merr.) อาจารย์ที่ปรึกษา : รศ.ดร. โสภณ เรืองสำราณ 114 หน้า, ISBN 974-635-220-2

จากการแยกองค์ประกอบทางเคมีของใบตีนกระบือ และทำให้บริสุทธิ์ โดยการสกัดด้วยตัวทำละลาย และโดยวิธีคอลัมน์โครมาโทกราฟี สามารถหาสูตรโครงสร้างต่างๆ โดยอาศัยสมบัติทางกายภาพ, ปฏิกริยาทางเคมี และข้อมูลทางสเปกโทรสโคปี ได้สาร 8 ชนิด ได้แก่ ของผสมกรดคาร์บอกซิลิกโซ่ตรง (C<sub>22</sub>-C<sub>28</sub>),  $\beta$ -sitosterol,  $\beta$ -sitosteryl-3-O-D-glucopyranoside, methyl 10-epipheophorbide-a, kaempferol, gallic acid, chiro-inositol และ KCl



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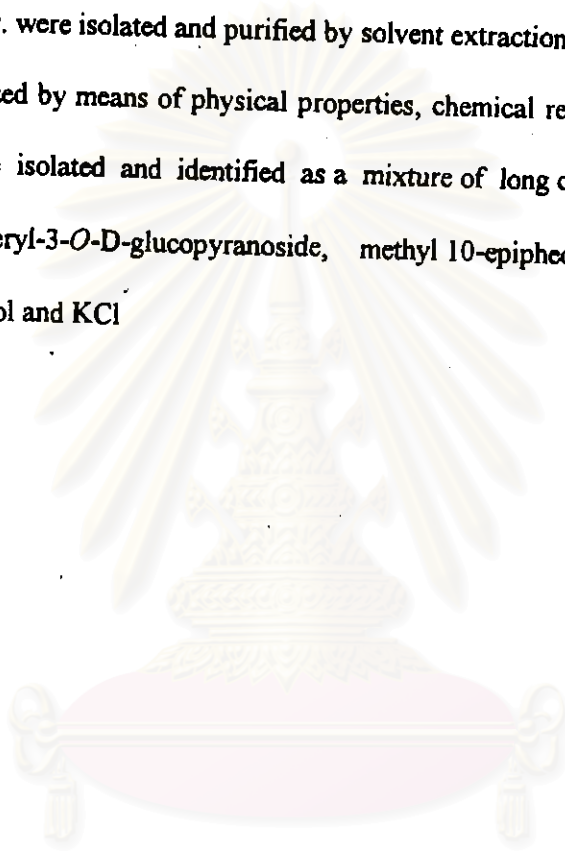
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Chemical constituents of fresh leaves of the leaves of the *Excoecaria cochinchinensis* Lour. var. *viridis* Merr. were isolated and purified by solvent extraction and column chromatography. These were characterized by means of physical properties, chemical reactions and spectroscopic data. Eight substances were isolated and identified as a mixture of long chain carboxylic acid (C<sub>22</sub>-C<sub>28</sub>),  $\beta$ -sitosterol,  $\beta$ -sitosteryl-3-O-D-glucopyranoside, methyl 10-epipheophorbide-a, kaempferol, gallic acid, *chiro*-inositol and KCl



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## CONTENTS

	Page
<b>Abstract in Thai</b> .....	iv
<b>Abstract in English</b> .....	v
<b>Acknowledgement</b> .....	vi
<b>List of Tables</b> .....	x
<b>List of Figures</b> .....	xii
<b>List of Schemes</b> .....	xv
<b>List of Abbreviations</b> .....	xvi
<b>CHAPTER I INTRODUCTION</b> .....	1
1.1 Chemical constituents of plants in <i>Excoecaria</i> genus.....	4
<b>CHAPTER II EXPERIMENTAL AND RESULTS</b> .....	11
2.1 Plant Materials.....	11
2.2 Equipment.....	11
2.3 Solvents and Chromatographic Media.....	12
2.4 Physical Separation Techniques.....	13
2.5 Extraction and Initial Fractionation.....	13
2.6 Isolation of the Chemical Constituents of <i>Excoecaria cochinchinensis</i> Lour. var. <i>viridis</i> Merr.....	15
2.6.1 Separation of Fraction I.....	15
2.6.2 Separation of Fraction II.....	17

	Page
2.6.3 Separation of Fraction III .....	18
2.6.4 Separation of Fraction IV .....	20
2.7 Purification and properties of the eluted compounds.....	21
2.7.1 Purification and properties of Mixture I .....	21
2.7.2 Purification and properties of Compound II .....	22
2.7.3 Purification and properties of Compound III .....	23
2.7.4 Purification and properties of Compound IV .....	24
2.7.5 Purification and properties of Compound V .....	25
2.7.6 Purification and properties of Compound VI .....	26
2.7.7 Purification and properties of Compound VII .....	27
2.7.8 Purification and properties of Compound VIII.....	27
<b>CHAPTER III DISCUSSION.....</b>	<b>28</b>
3.1 Structural elucidation of Mixture I .....	28
3.2 Structural elucidation of Compound II .....	31
3.3 Structural elucidation of Compound III .....	35
3.4 Structural elucidation of Compound IV .....	38
3.5 Structural elucidation of Compound V .....	52
3.6 Structural elucidation of Compound VI .....	56
3.7 Structural elucidation of Compound VII .....	59
3.8 Structural elucidation of Compound VIII .....	63
<b>CHAPTER IV CONCLUSION.....</b>	<b>64</b>



	Page
<b>REFERENCES</b> .....	68
<b>APPENDIX</b> .....	72
<b>VITA</b> .....	114



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## LIST OF TABLES

Table	Page
1.1 The chemical constituents of plants in <i>Excoecaria</i> genus.....	4
2.1 The results of fresh leaves extraction of <i>E. cochinchinensis</i> Lour. var. <i>viridis</i> Merr. ....	15
2.2 The results of the separation of Fraction I .....	16
2.3 The results of the separation of Fraction II .....	17
2.4 The results of the separation of Fraction III .....	19
2.5 The results of the separation of Fraction IV .....	20
3.1 The IR absorption band assignments of Mixture I .....	28
3.2 Number of carbon in methyl ester derivatives of Mixture I .....	29
3.3 The mixture of long chain carboxylic acid in Mixture I .....	30
3.4 The IR absorption band assignments of Compound II .....	31
3.5 <sup>13</sup> C-NMR spectrum of Compound II compared with $\beta$ -sitosterol.....	33
3.6 The IR absorption band assignments of Compound III .....	35
3.7 <sup>13</sup> C-NMR spectrum of Compound III compared with $\beta$ -sitosterol-3- <i>O</i> - $\beta$ -D-glucopyranoside (only the sugar part shown).....	37
3.8 The IR absorption band assignments of Compound IV .....	38
3.9 <sup>13</sup> C chemical shifts of Compound IV compared with the literature .....	41
3.10 One bond and multiple bond C-H correlation of Compound IV.....	43

<b>Table</b>	<b>Page</b>
3.11 $^1\text{H}$ - $^1\text{H}$ NMR on space correlation (NOESY) of Compound IV.....	48
3.12 The IR absorption band assignments of Compound V .....	52
3.13 $^{13}\text{C}$ -NMR spectral data of Compound V compared with kaempferol .....	53
3.14 The IR absorption band assignments of Compound VI .....	56
3.15 The IR absorption band assignments of Compound VII .....	59
3.16 $^{13}\text{C}$ -NMR spectra of the inositols compared with Compound VII .....	60
4.1 All substances isolated from the leaves of <i>E. cochinchinensis</i> Lour. <i>var. viridis</i> Merr. ....	65

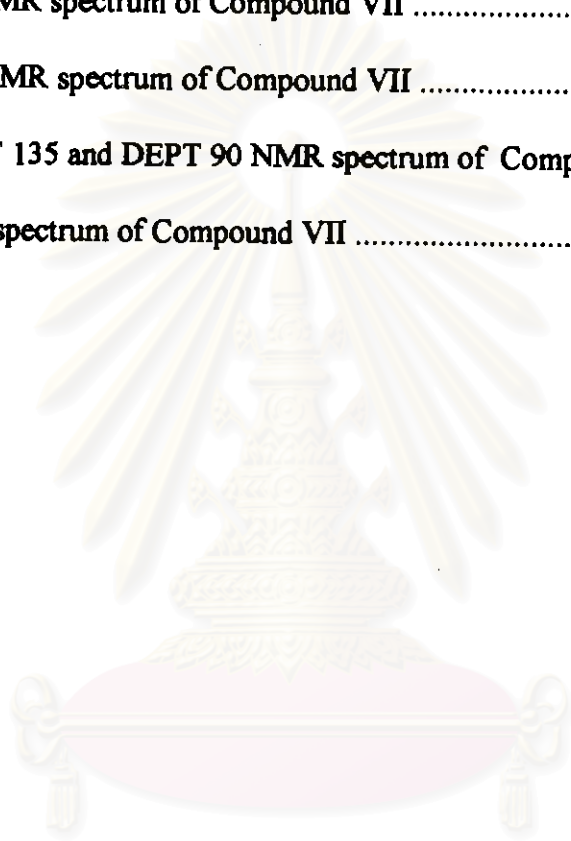
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## LIST OF FIGURES

Figure	Page
1. The leaf of <i>Excoecaria cochinchinensis</i> Lour. var. <i>viridis</i> Merr.....	3
2. The chemical constituents of plants in <i>Excoecaria</i> genus.....	7
3. The IR spectrum of Mixture I.....	73
4. The GC-MS chromatogram of methyl ester of Mixture I .....	74
5. The mass spectrum of Mixture I at retention time 23.15 .....	75
6. The mass spectrum of Mixture I at retention time 24.36 .....	76
7. The mass spectrum of Mixture I at retention time 25.52 .....	77
8. The mass spectrum of Mixture I at retention time 26.51 .....	78
9. The mass spectrum of Mixture I at retention time 27.49 .....	79
10. The mass spectrum of Mixture I at retention time 28.39 .....	80
11. The mass spectrum of Mixture I at retention time 29.25 .....	81
12. The IR spectrum of Compound II .....	82
13. The mass spectrum of Compound II .....	83
14. The <sup>1</sup> H-NMR spectrum of Compound II .....	84
15. The <sup>13</sup> C-NMR spectrum of Compound II .....	85
16. The GLC chromatograms of	
(a) standard steroid : campesterol, stigmasterol, β-sitosterol	
(b) Compound II .....	86

Figure	Page
17. The IR spectrum of Compound III .....	87
18. The mass spectrum of Compound III .....	88
19. The $^1\text{H}$ -NMR spectrum of Compound III .....	89
20. The $^{13}\text{C}$ -NMR spectrum of Compound III .....	90
21. The IR spectrum of Compound IV .....	91
22. The $^1\text{H}$ -NMR spectrum of Compound IV .....	92
23. The $^{13}\text{C}$ -NMR spectrum of Compound IV .....	93
24. The DEPT 135 and DEPT 90 NMR spectrum of Compound IV .....	94
25. The HMQC spectrum of Compound IV .....	95
26. The HMBC spectrum of Compound IV .....	96
27. The COSY of Compound IV .....	97
28. The NOESY of Compound IV .....	98
29. The IR spectrum of Compound V .....	99
30. The $^1\text{H}$ -NMR spectrum of Compound V .....	100
31. The $^{13}\text{C}$ -NMR spectrum of Compound V .....	101
32. The DEPT 130 and DEPT 90 NMR spectrum of Compound V .....	102
33. The mass spectrum of Compound V .....	103
34. The IR spectrum of Compound VI .....	104
35. The $^1\text{H}$ -NMR spectrum of Compound VI .....	105
36. The $^{13}\text{C}$ -NMR spectrum of Compound VI .....	106

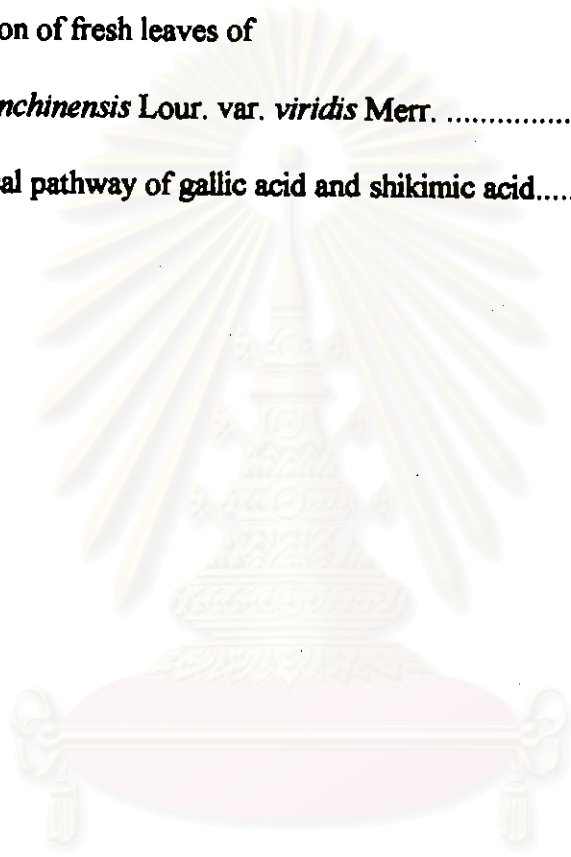
<b>Figure</b>	<b>Page</b>
37. The DEPT 135 and DEPT 90 NMR spectrum of compound VI .....	107
38. The mass spectrum of Compound VI .....	108
39. The IR spectrum of Compound VII .....	109
40. The $^1\text{H}$ -NMR spectrum of Compound VII .....	110
41. The $^{13}\text{C}$ -NMR spectrum of Compound VII .....	111
42. The DEPT 135 and DEPT 90 NMR spectrum of Compound VII .....	112
43. The mass spectrum of Compound VII .....	113



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## LIST OF SCHEME

Scheme	Page
2.1 Extraction of fresh leaves of <i>E. cochinchinensis</i> Lour. var. <i>viridis</i> Merr. ....	14
3.1 Biological pathway of gallic acid and shikimic acid.....	58



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## LIST OF ABBREVIATIONS

$^{\circ}\text{C}$	degree celsius
$^{13}\text{C}$ NMR	carbon 13 nuclear magnetic resonance
$^1\text{H}$ NMR	proton nuclear magnetic resonance
br	broad (NMR)
cm	centimeter
$\text{cm}^{-1}$	unit of wavenumber
cont.	continue
$\delta$	chemical shift
d	doublet (NMR)
dd	doublet of doublet (NMR)
dec.	decompose
DEPT	distortionless enhancement by polarization transfer
EI	electron impact technique in mass spectrometry
g	gram (s)
GC-MS	gas chromatography-mass spectrometry
GLC	gas liquid chromatography
HMBC	heteronuclear multiple bond correlation
HMQC	heteronuclear multiple quantum correlation
id.	internal diameter



IR	infrared
$J$	coupling constant (NMR)
m	multiplet (NMR)
$M^+$	molecular ion in mass spectrum
m.p.	melting point
$m/z$	mass per charge
mg	milligram (s)
min	minute
ml	millilitre
$\nu_{max}$	the wavelength at maximum absorption
No.	number
NOESY	nuclear overhauser effect
ppm	part per million
q	quartet (IR)
$R_f$	retention factor
s	singlet (NMR)
t	triplet (NMR)
TLC	thin layer chromatography
wt.by.wt.	weight by weight