การศึกษาองค์ประกอบทางเคมีของน้ำมันระเหยจากพืชในวงศ์ RUTACEAE ของไทย

นางสาววารูณี ธำรงวงศ์สวัสดิ์

วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาเภสัชศาสตรมหาบัณฑิต ภาควิชาเภสัชเวท บัณฑิตวิทยาลัย จุฬาลงกรณ์มหาวิทยาลัย ปีการศึกษา 2539

ISBN 974-636-231-1

ลิขสิทธิ์ของบัณฑิตวิทยาลัย จุฬาลงกรณ์มหาวิทยาลัย

STUDY ON CHEMICAL COMPOSITION OF ESSENTIAL OIL FROM THAI RUTACEOUS PLANTS

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A Thesis Submitted in Partial Fulfillment of the Requirements
for the Degree of Master of Science in Pharmacy

Department of Pharmacognosy

Graduate School

Chulalongkorn University

Academic Year 1996

ISBN 974-636-231-1

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	Rutaceous Plants.
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พิมพ์ตันฉบับบทคัดย่อวิทยานิพนธ์ภายในกรอบสีเขียวนี้เพียงแผ่นเดียว

วารุณี ธำรงวงศ์สวัสดิ์ : การศึกษาองค์ประกอบน้ำมันระเหยของพืชในวงศ์ Rutaceae ของไทย. (Study on Chemical Composition of Essential Oil from Thai Rutaceous Plants) อ. ที่ปรึกษา : รศ.ดร. นิจศิริ เรืองรังษี, อ.ที่ปรึกษาร่วม : รศ.ดร.วันชัย ดีเอกนามกูล, 213 หน้า, ISBN 974-636-231-1

ได้ทำการศึกษาพืชในวงศ์ Rutaceae ของประเทศไทยจำนวน 18 ต้น ในแง่ของปริมาณและชนิดของ องค์ประกอบของน้ำมันระเหย ในจำนวนนี้ 4 สกุล จะถูกจัดไว้ในเผ่า Clauseneae และ 7 สกุลอยู่ใน Citreae โมโนเทอร์ปืนและเชสควิเทอร์ปืน เป็นองค์ประกอบส่วนใหญ่ที่พบในน้ำมันระเหย ขณะที่เฟนนิลโปรพานอยด์ จะพบเป็นส่วนน้อย การกระจายของโมโนเทอร์ปืนและเชสควิเทอร์ปืนที่แตกต่างกันในแต่ละต้นเป็นเหตุให้เกิด กลิ่นที่แตกต่างกัน Clauseneae เป็นแหล่งที่พบเชสควิเทอร์ปืนมาก ขณะที่ Citreae จะพบทั้งโมโนเทอร์ปืนและ เชสควิเทอร์ปืน จากพืช 18 ชนิดตรวจพบองค์ประกอบเคมี 143 ชนิด และได้อภิปรายการกระจายและ ความหลากหลายขององค์ประกอบต่าง ๆ ในพืชแต่ละชนิดอย่างละเอียด

ภาควิชา	เภสัชเวท
สาขาวิชา	เภสัชเวท
ปีการศึกษา	2539

ลายมือชื่อนิสิต ลายมือชื่ออาจารย์ที่ปรึกษา ลายมือชื่ออาจารย์ที่ปรึกษาร่วม

พิมพ์ต้นฉบับบทคัดย่อวิทยานิพนธ์ภายในกรอบสีเขียวนี้เพียงแผ่นเดียว

C875400 : MAJOR PHARMACOGNOSY

KEY WORD: RUTACEAE/ ESSENTIAL OIL/ CHEMICAL COMPOSITION

WARUNEE THAMRONGVONGSAWAD : STUDY ON CHEMICAL COMPOSITION

OF ESSENTIAL OIL FROM THAI RUTACEOUS PLANTS. THESIS ADVISOR :

ASSOC. PROF. NIJSIRI RUANGRUNGSRI, Ph.D., THESIS CO-ADVISOR : ASSOC.

PROF. WANCHAI DE-EKNAMKUL, Ph.D., 213 pp. ISBN 974-636-231-1

Eighteen species of Thai rutaceous plants were investigated for their essential oil contents and compositions. Of these plants, four genera belong to the tribe Clauseneae whereas another seven belong to the tribe Citreae. Monoterpenes and sesquiterpenes are commonly found in essential oils of these particular species while phenylpropanoids is available as a minor components. The distribution of monoterpenes and sesquiterpenes in each plant species produce the characteristic smell. Clauseneae was found to be a rich sources of sesquiterpenes while Citreae was found to contain both monoterpenes and sesquiterpenes. One hundred and forty-three components were detected from 18 selected plant materials. The distribution and diversity of these components among 18 rutaceous plants have been discussed.

ภาควิชา	เภสัชเวท	ลายมือชื่อนิสิต
สาขาวิชา	เภสัชเวท	ลายมือชื่ออาจารย์ที่ปรึกษา ไม่วัน ในอาจานกรณ์
ปีการศึกษา	2539	ลายมือชื่ออาจารย์ที่ปรึกษาร่วม

ACKNOWLEDGEMENTS

The author wishes to express her deepest appreciation and grateful thanks to her advisor. Associate Professor Dr. Nijsiri Ruangrungsri, Department of pharmacognosy. Faculty of Pharmaceutical Sciences. Chulalongkorn University . for his helpful guidance and suggestions for this work.

The author would like to acknowledge her grateful thanks to Associate Professor Dr. Wanchai De-Eknamkul. Department of Pharmacognosy. Faculty of Pharmaceutical Sciences, Chulalongkorn University, for his helpful suggestions.

The author would like to express her appreciation and thanks to all the staff members of the Department of Pharmacognosy. Faculty of Pharmaceutical Sciences, Chulalongkorn University, for their kindness and help.

Finally, The author would like to acknowledge her appreciation to her parents, her brother, for their love, understanding and encouragement throughout her graduate study; and her friends for their friendship.



CONTENTS

Page

Abstract (Thai)	iv
Abstract (English)	V
Acknowledgement	vi
Contents	vii
List of Figures	x
List of Tables	xxv
Abbreviations	xxvii
Chapter I Introduction	1
Chapter II Historical	19
1. Chemical Constituents of Essential Oil in Rutaceae.	19
1.1 Terpenoids	34
- Chemistry and Distribution.	34
1.2 Monoterpenoids(C10)	35
- Introduction to Monoterpenoids	35
- Classification of Monoterpenoids	36
1.3 Sesquiterpenoids(C15)	40
- Introduction to Sesquiterpenoids	40
- Classification of Sesquiterpenoids	41
Chapter III Materials and Methods	43
-Source of Plant Materials	43
-Volatile Oil Content and Composition	45
Chapter IV Results	48
1. Essential Oil Composition of Aegle marmelos Corr	48
2. Essential Oil Composition of <i>Atalantia monophylla</i> Correa	52
3. Essential Oil Composition of Citrus aurantifolia Swing	57
4. Essential Oil Composition of Citrus hystrix DC	62

		Page
5. Essential Oil Co	mposition of Citrus maxima Merr	66
6. Essential Oil Co	mposition of Citrus medica Linn	71
7. Essential Oil Co	mposition of Citrus reticulata Banco	76
8 Essential Oil Co	mposition of Clausena anisata Hook	80
9. Essential Oil Co	omposition of ('lausena excavata Burm	84
10. Essential Oil Co	omposition of Feronia limonia Swing	89
11. Essential Oil Co	omposition of <i>Glycosmis pentaphylla</i> Corr	94
12 Essential Oil Co	omposition of Hesperethusa cremilata Roem	99
13. Essential Oil Co	omposition of <i>Micromelum minutum</i> Wight & Arn.	104
14. Essential Oil Co	omposition of Murraya paniculata Jack	109
15. Essential Oil Co	omposition of Paramignya scandens Craib	113
16. Essential Oil Co	omposition of <i>Toddalia asiatica</i> Lamk	117
17. Essential Oil Co	omposition of Triphasia trifolia P.Wils	122
18. Essential Oil Co	omposition of Zanthoxylum limonella Alston	127
Chapter V Discussion		132
1. Essential Oil Cor	ntent in Each Selected Rutaceous Plants	132
2. Distribution of E	ssential Oil Components in	
the Selected Rut	aceous Plants	133
3. Comparison of E	ssential Oil Composition among Citrus species	146
4. Comparison of the	ne Essential Oil Compositions of some Rutaceous	
Plants of the Sul	b family Aurantioideae	149
Chapter VI Conclusion.		154
Refferences	······································	155
Appendix		159
Vita		213

List of Figures

Figure		Page
1	Apparatus for volatile oil content determination	46
2	GC chromatogram of the essential oil from Aegle marmelos Corr leaves	49
3	The percentage composition of various terpenoid groups precent in the	
	essential oil of Aegle marmelos leaves	51
4	GC chromatogram of the essential oil from Atalantia monophylla Corre	a
	leaves	53
5	The percentage composition of various terpenoid groups precent in the	
	essential oil of Atalantia monophylla leaves	56
6	GC chromatogram of the essential oil from Citrus aurantifolia Swing.	
	leaves	58
7	The percentage composition of various terpenoid groups precent in the	
	essential oil of Citrus aurantifolia leaves	61
8	GC chromatogram of the essential oil from Citrus hystrix DC.	
	leaves	63
9	The percentage composition of various terpenoid groups precent in the	
	essential oil of Citrus hystrix leaves.	65
10	GC chromatogram of the essential oil from Citrus maxima Merr. leaves	67
11	The percentage composition of various terpenoid groups precent in the	
	essential oil of Citrus maxima leaves	70
12	GC chromatogram of the essential oil from Citrus medica Linn.	
	1	72

Figure		Page
13	The percentage composition of various terpenoid groups precent in the	
	essential oil of Citrus medica leaves.	75
14	GC chromatogram of the essential oil from Citrus reticulata Blanco.	
	leaves	77
15	The precentage composition of various terpenoid groups percent in the	
	essential oil of Citrus reticulata leaves.	79
16	GC chromatogram of the essential oil from Clausena anisata Hook.	
	leaves	81
17	The percentage composition of various terpenoid groups precent in the	
	essential oil of ('lausena anisata leaves	83
18	GC chromatogram of the essential oil from Clausena excavata Burm.	
	leaves	85
19	The percentage composition of various terpenoid groups precent in the	
	essential oil of Clausena excavata leaves.	88
20	GC chromatogram of the essential oil from Ferronia limonia Swing.	
	leaves	90
21	The percentage composition of various terpenoid groups precent in the	
	essential oil of Ferronia limonia leaves.	93
22	GC chromatogram of the essential oil from Glycosmis pentaphylla Corr	
	leaves	95
23	The percentage composition of various terpenoid groups precent in the	
	essential oil of Glycosmis pentaphylla leaves	98

Figure	e	Page
24	GC chromatogram of the essential oil from Hesperethusa cremulata Roen	n.
	leaves	110
25	The percentage composition of various terpenoid groups precent in the	
	essential oil of Hesperethusa cremilata leaves	103
26	GC chromatogram of the essential oil from Micromelum minutum	
	Wight&Arn leaves	105
27	The percentage composition of various terpenoid groups precent in the	
	essential oil of Micromelum minutum leaves	108
28	GC chromatogram of the essential oil from Murraya paniculata Jack.	
	leaves	110
29	The percentage composition of various terpenoid groups precent in the	
	essential oil of Murraya paniculata leaves.	112
30	GC chromatogram of the essential oil from Paramignya scandens Craib.	
	leaves	114
31	The percentage composition of various terpenoid groups precent in the	
	essential oil of <i>Paramignya scandens</i> leaves.	116
32	GC chromatogram of the essential oil from <i>Toddalia asiatica</i> Lamk.	
	leaves	118
33	The percentage composition of various terpenoid groups precent in the	
	essential oil of <i>Toddalia asiatica</i> leaves.	121
34	GC chromatogram of the essential oil from Triphasia trifolia P Wils	
	leaves	123

Figure		Page
35	The percentage composition of various terpenoid groups precent	
	in the 144 essential oil of <i>Triphasia trifolia</i> leaves	126
36	GC chromatogram of the essential oil from Zanthoxylum limonella	
	Alston. leaves.	128
37	The percentage composition of various terpenoid groups precent in the	
	essential oil of Zanthoxylum lumonella leaves.	131
38	The distribution of the major essential oil components (more than 10%)	
	in the selected Rutaceous plants.	134
39	The distribution of the moderate essential oil components (2-10%)	
	in the selected Rutaceous plants	136
40	The distribution of the low essential oil components (less than 10%)	
	in the selected Rutaceous plants.	141
41	The distribution of the essential oil components in the <i>Citrus</i> species	147
42	GC chromatogram of essential oil from Citrus species	148
43	GC chromatogram of essential oil from subfamily Aurantioideae	150
44	The distribution of the essential oil components in	
	subfamily Aurantioideae	151
45	Mass spectrum of acrorenol (A) compared with mass spectrum	
	of authentic acorenol (B) by GC-MS.	169
46	Mass spectrum of Anethol \leq (E)- (A) compared with mass spectrum	
47	of authentic Anethol (E)- (B) by GC-MS	169
47	Mass spectrum of aromadendrene (A) compared with mass spectrum of authentic aromadendrene (B) by GC-MS	169

Figure	Page
48	Mass spectrum of aromadendrene allo- (A) compared with
	mass spectrumof authentic aromadendrene <i>allo</i> - (B) by GC-MS170
49	Mass spectrum of ascaridol - trans- (A) compared with
	mass spectrum of authentic ascaridole <i>trans</i> - (B) by GC-MS170
50	Mass spectrum of bergamotene alpha-trans- (A) compared
	with mass spectrum of authentic bergamotene alpha-trans-> (B)
	by GC-MS
51	Mass spectrum of bergamotol acetate (Z)- (A) compared with mass
	spectrum of authentic bergamotol acetate (Z)- (B) by GC-MS171
52	Mass spectrum of bicyclogermacrene (A) compared with mass spectrum
	of authentic bicyclogermacrene (B) by GC-MS
53	Mass spectrum of bisabolenal < heta-> (A) compared with mass spectrum
	of authentic bisabolenal< heta-> (B) by GC-MS
54	Mass spectrum of bisabolene beta-> (A) compared with mass spectrum
	of authentic bisabolene beta-> (B) by GC-MS
55	Mass spectrum of bisabolol < epi-heta-> (A) compared with mass spectrum
	of authentic bisabolol <epi-beta-> (B) by GC-MS</epi-beta->
56	Mass spectrum of bornyl acetate (A) compared with mass spectrum
	of authentic bornyl acetate (B) by GC-MS
57	Mass spectrum of bornyl acetate < cis (A) compared with mass spectrum
	of authentic bornyl acetate cis- (B) by GC-MS
58	Mass spectrum of bourbonene (A) compared with mass spectrum of authentic bourbonene (B) by GC-MS

Figure	·	Page
59	Mass spectrum of cadinene delta- (A) compared with	
	mass spectrum of authentic cadinene delta- (B) by GC-MS	.173
60	Mass spectrum of cadinene gamma- (A) compared with	
	mass spectrum of authentic cadinene gamma- (B) by GC-MS	174
61	Mass spectrum of cadinol alpha- (A) compared with mass spectrum	
	of authenticcadinol alpha-> (B) by GC-MS	174
62	Mass spectrum of cadinol epi-alpha- (A) compared with mass spectrum	l
	of authenticcadidol epi-alpha- (B) by GC-MS.	174
63	Mass spectrum of camphene (A) compared with mass spectrum	
	of authentic camphene (B) by GC-MS	175
64	Mass spectrum of carene delta-2- (A) compared with mass spectrum	
	of authentic carene delta-2- (B) by GC-MS	175
65	Mass spectrum of carvacrol (A) compared with mass spectrum	
	of authentic carvacrol (B) by GC-MS	175
66	Mass spectrum of carvenone (A) compared with mass spectrum	
	of authentic carvenone (B) by GC-MS	176
67	Mass spectrum of carveol cis-> (A) compared with mass spectrum	
	of authentic carveol < cis- (B) by GC-MS.	176
68	Mass spectrum of carveol trans- (A) compared with mass spectrum	
	of authentic carveol- trans- (B) by GC-MS	176
69	Mass spectrum of carvone (A) compared with mass spectrum	
	of authentic carvone (B) by GC-MS	177

Figure	Page
70	Mass spectrum of caryophyllene oxide (A) compared with
	mass spectrum of authentic caryophyllene oxide (B) by GC-MS
71	Mass spectrum of caryophyllene (E)- (A) compared with
	mass spectrum of authentic caryophyllene (E)- (B) by GC-MS177
72	Mass spectrum of caryophyllene (Z) - (A) compared with
	mass spectrum of authentic caryophyllene (Z)- (B) by GC-MS178
73	Mass spectrum of caryophyllene 14 -hydroxy -9 -epi- (E) - (A)
	compared with mass spectrum of authentic caryophyllene
	14-hydroxy -9-epi-(E)- (B) by GC-MS
74	Mass spectrum of caryophyllene $9-epi-(E)-$ (A) compared with
	mass spectrum of authentic caryophyllene 9-epi-(E) (B) by GC-MS178
75	Mass spectrum of cedrene 1,7-di-epi-heta- (A) compared with
	mass spectrum of authentic cedrene 1,7-di-epi-heta-> (B) by GC-MS179
76	Mass spectrum of cineol 1.8-> (A) compared with mass spectrum
	of authentic cineol (B) by GC-MS
77	Mass spectrum of dimethoxy \leq (Z)- \equiv (A) compared with mass spectrum
	of authentic dimethoxy (Z)- (B) by GC-MS
78	Mass spectrum of citronellal (A) compared with mass spectrum
	of authentic citronellal (B) by GC-MS
79	Mass spectrum of citronellol (A) compared with mass spectrum
	of authentic citronellol (B) by GC-MS
80	Mass spectrum of citronellyl acetate (A) compared with mass spectrum

Figure		Page
	of authentic citronellyl acetate (B) by GC-MS.	.180
81	Mass spectrum of citronellyl formate (A) compared with mass spectrum	
	of authentic citronellyl formate (B) by GC-MS	.181
82	Mass spectrum of copaene alpha- (A) compared with mass spectrum	
	of authentic copaene <i>alpha</i> - (B) by GC-MS	181
83	Mass spectrum of cubebene <i>alpha</i> - (A) compared with mass spectrum	
	of authentic cubebene <i>alpha</i> - (B) by GC-MS	181
84	Mass spectrum of cubebene heta- (A) compared with mass spectrum	
	of authentic cubebene heta- (B) by GC-MS	182
85	Mass spectrum of cubebol epi- (A) compared with mass spectrum	
	of authentic cubebol epi- (B) by GC-MS	.182
86	Mass spectrum of curcumene $< ar > (A)$ compared with mass spectrum	
	of authentic curcumene ar- (B) by GC-MS	182
87	Mass spectrum of curcumene heta- (A) compared with mass spectrum	1
	of authentic curcumene - heta-> (B) by GC-MS	. 183
88	Mass spectrum of cymene ortho- (A) compared with mass spectrum	
	of authentic cymene ortho- (B) by GC-MS	. 183
89	Mass spectrum of cyperene (A) compared with mass spectrum	
	of authentic cyperene (B) by GC-MS	183
90	Mass spectrum of decanal n - (A) compared with mass spectrum	
	of authentic decanal <i>n</i> - (B) by GC-MS	184
91	Mass spectrum of decanol acetate (A) compared with mass spectrum	

Figure		Page
	of authentic decanol acetate (B) by GC-MS	184
92	Mass spectrum of decanol n - (A) compared with mass spectrum	
	of authentic decanol <i>n</i> - (B) by GC-MS	184
93	Mass spectrum of dihydrocarveol (A) compared with mass spectrum	
	of authentic dihydrocarveol (B) by GC-MS	185
94	Mass spectrum of elemene <i>heta</i> - (A) compared with mass spectrum	
	of authentic elemene <i>heta-</i> (B) by GC-MS.	185
95	Mass spectrum of elemene delta- (A) compared with mass spectrum	
	of authentic elemene delta- (B) by GC-MS	185
96	Mass spectrum of elemene gamma- (A) compared with mass spectrum	
	of authentic elemene gamma- (B) by GC-MS	186
97	Mass spectrum of elimicin (A) compared with mass spectrum	
	of authentic elemicin (B) by GC-MS	186
98	Mass spectrum of eudesmol acetate alpha-> (A) compared with mass	SS
	spectrum of authentic eudesmol acetate < alpha-> (B) by GC-MS	186
99	Mass spectrum of eudesmol acetate heta-> (A) compared with mass	
	spectrum of authentic eudesmol acetate <i>heta-></i> (B) by GC-MS	187
100	Mass spectrum of eudesmol <i>beta-</i> (A) compared with mass spectrum of authentic eudesmol <i>beta-</i> (B) by GC-MS	187
101	Mass spectrum of farnescene (E,E) -alpha- (A) compared with mass	SS
102	spectrum of authentic farnescene (E,E)-alpha- (B) by GC-MS	187
	of authentic foeniculin (B) by GC-MS	188

Figure	Pag	e
103	Mass spectrum of geranial (A) compared with mass spectrum	
	of authentic geraial (B) by GC-MS	8
104	Mass spectrum of geraniol (A) compared with mass spectrum	
	of authentic geraniol (B) by GC-MS	38
105	Mass spectrum of geranyl acetate (A) compared with mass spectrum	
	of authentic geranyl acetate (B) by GC-MS	9
106	Mass spectrum of germacrene A (A) compared with mass spectrum	
	of authentic germacrene A (B) by GC-MS18	39
107	Mass spectrum of germacrene B (A) compared with mass spectrum	
	of authentic germacrene B (B) by GC-MS	39
108	Mass spectrum of germacrene D (A) compared with mass spectrum	
	of authentic germacrene D (B) by GC-MS) 0
109	Mass spectrum of globulol (A) compared with mass spectrum	
	of authentic globulol (B) by GC-MS	€0
110	Mass spectrum of guaiene cis-heta- (A) compared with mass spectrum	
	of authentic guaiene cis-heta-> (B) by GC-MS	90
111	Mass spectrum of guaiene trans-beta- (A) compared with mass spectrum	
	of authentic guaiene trans-heta- (B) by GC-MS)]
112	Mass spectrum of guaiol acetate (A) compared with mass spectrum	
	of authentic guaiol acetate (B) by GC-MS19	€1
113	Mass spectrum of gurjunene alpha- (A) compared with mass spectrum	
	of authentic gurjunene <i>alpha</i> - (B) by GC-MS	91

Figure	Page
114	Mass spectrum of gurjunene gamma- (A) compared with mass spectrum
	of authentic gurjunene gamma- (B) by GC-MS
115	Mass spectrum of hepten-2-one<6-methyl-5-> (A) compared with
	mass spectrum of authentic hepten-2-one<6-methyl-5-> (B) by GC-MS192
116	Mass spectrum of hexenyl butyrate (Z) — (A) compared with mass spectrum
	of authentic hexenyl butyrate (Z)- (B) by GC-MS
117	Mass spectrum of hexyl-n-hexanoate n- (A) compared with mass spectrum
	of authentic hexyl-n-hexanoate n - (B) by GC-MS
118	Mass spectrum of hinesol (A) compared with mass spectrum
	of authentic hinesol (B) by GC-MS
119	Mass spectrum of humulene epoxide II (A) compared with mass spectrum
	of authentic humulene epoxide II (B) by GC-MS
120	Mass spectrum of humulene < alpha-> (A) compared with mass spectrum
	of authentic humulene <i>alpha</i> -> (B) by GC-MS
12 1	Mass spectrum of hydroxy citronellal (A) compared with mass spectrum
	of authentic hydroxy citronellal (B) by GC-MS
122	Mass spectrum of isopulegol (A) compared with mass spectrum
	of authentic isopulegol (B) by GC-MS
123	Mass spectrum of isopulegol iso- (A) compared with mass spectrum
	of authentic isopulegol iso- (B) by GC-MS
124	Mass spectrum of juniper camphor (A) compared with mass spectrum
	of authentic juniper camphor (B) by GC-MS

Figure	e	Page
125	Mass spectrum of lavandulyl acetate (A) compared with mass spectrum	
	of authentic lavandulyl acetate (B) by GC-MS	195
126	Mass spectrum of limonene (A) compared with mass spectrum	
	of authentic limonene (B) by GC-MS	196
127	Mass spectrum of linalool (A) compared with mass spectrum	
	of authentic linalool (B) by GC-MS.	196
128	Mass spectrum of linalool oxide (A) compared with mass spectrum	
	of authentic linalool oxide (B) by GC-MS.	196
129	Mass spectrum of longiborneol acetate (A) compared with mass spectru	ım
	of authentic longiborneol acetate (B) by GC-MS	197
130	Mass spectrum of longifolene (A) compared with mass spectrum	
	of authentic longifolene (B) by GC-MS.	197
131	Mass spectrum of menth-2-en-1-ol cis-para-> (A) compared with	
	mass spectrum of authentic menth-2-en-1-ol cis-para- (B)	
	by GC-MS	197
132	Mass spectrum of menth-2-en-1-ol trans-para- (A) compared	
	with mass spectrum of authentic menth-2-en-1-ol **trans-para-> (B)	
	by GC-MS	198
133	Mass spectrum of mentha-1(7),8-diene para- (A) compared	
	with mass spectrum of authentic mentha-1(7),8-diene para- (B) by GC-MS.	198
134	Mass spectrum of methyl chavicol (A) compared with	
	mass spectrum of authentic methyl chavicol (B)by GC-MS	198

Figure		Page
135	Mass spectrum of methyl eugenol (A) compared with mass	
	spectrum of authentic methyl eugenol (B) by GC-MS	199
136	Mass spectrum of musk ambrette (A) compared with mass	
	spectrum of authentic musk ambrette (B) by GC-MS	199
137	Mass spectrum of muurolol -alpha- (A) compared with mass	
	spectrum of authentic muurolol alpha-> (B) by GC-MS	199
138	Mass spectrum of muurolol epi-alpha- (A) compared with mass	
	spectrum of authentic muurolol epi-alpha-> (B) by GC-MS	200
139	Mass spectrum of myrcene (A) compared with mass spectrum of	
	authentic myrcene (B) by GC-MS	200
140	Mass spectrum of neral (A) compared with mass spectrum of	
	authentic neral (B) by GC-MS	200
141	Mass spectrum of nerol (A) compared with mass spectrum of	
	authentic nerol (B) by GC-MS	201
142	Mass spectrum of nerolidol (E) - (A) compared with mass spectrum	
	of authentic nerolidol (E)- (B) by GC-MS	201
143	Mass spectrum of $nerolidol(Z)$ - (A) compared with mass	
	spectrum of authentic nerolidol \leq (Z)- \geq (B) by GC-MS	201
144	Mass spectrum of ocimene \leq (E)-heta- \geq (A) compared with mass	
	spectrum of authentic ocimene (E)-heta- (B) by GC-MS	202
145	Mass spectrum of ocimene (Z) -heta- (A) compared with mass	
	spectrum of authentic ocimene (Z)-heta-> (B) by GC-MS	202

Figure	•	Page
146	Mass spectrum of phellandrene alpha- (A) compared with mass	
	spectrum of authentic phellandrene alpha- (B)by GC-MS	202
147	Mass spectrum of phellandrene heta- (A) compared with mass	
	spectrum of authentic phellandrene< heta- (B) by GC-MS	203
148	Mass spectrum of pinene hydrate cis- (A) compared with mass	
	spectrum of authentic pinene hydrate cis- (B) by GC-MS	203
149	Mass spectrum of pinene oxide beta- (A) compared	
	with mass spectrum of authentic pinene oxide < heta- (B)	
	by GC-MS	203
150	Mass spectrum of pinene <i>beta-</i> (A) compared with mass spectrum	
	of authentic pinene heta- (B) by GC-MS	204
151	Mass spectrum of pinocarvyl acetate cis- (A) compared	
	with mass spectrum of authentic pinocarvyl acetate cis-> (B)	
	by GC-MS	204
152	Mass spectrum of pinocarvyl acetate trans- (A) compared with	
	mass spectrum of authentic pinocarvyl acetate strans- (B) by GC-MS.	204
153	Mass spectrum of piperitol cis- (A) compared with	
	mass spectrum of authentic piperitol cis- (B) by GC-MS	205
154	Mass spectrum of sabina ketone (A) compared with mass spectrum	
	of authentic sabina ketone (B)by GC-MS	205
155	Mass spectrum of sabinene (A) compared with mass spectrum of	
	authentic sabinene (B) by GC-MS	205

Figure		Page
156	Mass spectrum of sabinene hydrate cis- (A) compared with	
	mass spectrum of authentic sabinene hydrate cis- (B)	
	by GC-MS	206
157	Mass spectrum of sabinol trans- (A) compared with mass spectrum	
	of authentic sabinol trans- (B) by GC-MS	206
158	Mass spectrum of selin-11-en-4-alpha-ol (A) compared with	
	mass spectrum of authentic selin-11-en-4-alpha-ol (B) by GC-MS	206
159	Mass spectrum of sesquisabinene hydrate cis- (A) compared	
	with mass spectrum of authentic sesquisabinene hydrate cis- (B)	
	by GC-MS	207
160	Mass spectrum of seychellene (A) compared with mass spectrum of	
	authentic seychellene (B) by GC-MS	207
161	Mass spectrum of spathulenol (A) compared with mass spectrum of	
	authentic spathulenol (B) by GC-MS	207
162	Mass spectrum of sylvestrene (A) compared with mass spectrum of	
	authentic sylvestrene (B) by GC-MS	208
163	Mass spectrum of terpin-4-ol (A) compared with mass spectrum	
	of authentic terpin-4-ol (B)by GC-MS	208
164	Mass spectrum of terpinene alpha- (A) compared with	
	mass spectrum of authentic terpinene alpha- (B)by GC-MS	
165	Mass spectrum of terpinene - gamma- (A) compared with mass spectrum of authentic terpinene gamma- (B)by GC-MS	

Figure	.	Page
166	Mass spectrum of terpineol <i>alpha</i> - (A) compared with mass spectrum	
	of authentic terpineol <i>alpha</i> - (B) by GC-MS	
167	Mass spectrum of terpinolene (A) compared with mass spectrum of	
	authentic terpinolene (B)by GC-MS	209
168	Mass spectrum of thujene <i>alpha</i> - (A) compared with mass spectrum	
	of authentic thujene alpha- (B)by GC-MS	210
169	Mass spectrum of tricyclene (A) compared with mass spectrum of	
	authentic tricyclene (B)by GC-MS	210
170	Mass spectrum of undecanone 2- (A) compared with	
	mass spectrum of authentic undecanone 2-3 (B)by GC-MS	210
171	Mass spectrum of tumerone ar- (A) compared with	
	mass spectrum of authentic tumerone ar-> (B)by GC-MS	211
172	Mass spectrum of undecanal (A) compared with mass spectrum of	
	authentic undecanal (B)by GC-MS	211
173	Mass spectrum of vetivenol bicyclo- (A) compared with mass	
	spectrum of authentic vetivenol hicyclo- (B) by GC-MS	211
174	Mass spectrum of viridiflorene (A) compared with mass spectrum of	
	authentic viridifforene (B) by GC-MS.	212

List of Tables

Table	Page
1	Secondary products derived from activated isoprene
2	The essential oil composition of Aegle marmelos leaves
3	The essential oil composition of <i>Atalantia monophylla</i> leaves
4	The essential oil composition of Citrus aurantifolia leaves
5	The essential oil composition of Citrus hystrix leaves
6	The essential oil composition of <i>Citrus maxima</i> leaves
7	The essential oil composition of Citrus medica leaves
8	The essential oil composition of <i>Citrus reticulata</i> leaves
9	The essential oil composition of <i>Clausena anisata</i> leaves
10	The essential oil composition of Clausena excavata leaves
11	The essential oil composition of Ferronia limonia leaves91
12	The essential oil composition of Glycosmis pentaphylla leaves96
13	The essential oil composition of <i>Hesperethusa crenulata</i> leaves101
14	The essential oil composition of <i>Micromelum minutum</i> leaves105
15	The essential oil composition of Murraya paniculata leaves
16	The essential oil composition of <i>Paramignya scandens</i> leaves115
17	The essential oil composition of <i>Toddalia asiatica</i> leaves 119

Table		Page
18	The essential oil composition of <i>Triphasia trifolia</i> leaves	.124
19	The essential oil composition of Zanthoxylum limonella leaves	129
20	Essential oil content in the selected Rutaceous plants	.132
21	Some major essential oil components found in the selected	
	Rutaceous plants	.135
22	The essential oil components present only in one single	
	plant out of the 18 selected Rutaceous plants	138
23	The essential oil components that are widely distributed	
	in the selected Rutaceous plants.	145
24	The chemical components of essential oil isolated from selected	
	Rutaceous plants	60

ABBREVIATIONS

cm = Centimeter

g = Gram

GC = Gas chromatography

GC-MS = Gas chromatography- Mass spectrometry

 i_1d_2 = Internal diameter

mg = Milligram

ml = Millilter

min = Minute

MW = Molecular weight

V/W = Volume by weight

wt = Weight

°C = Degree celsius

TOT = Total ion exchange

RT = Retention time

MeOH = Methanol

spp. = Species

No. = Number

Fig = Figure