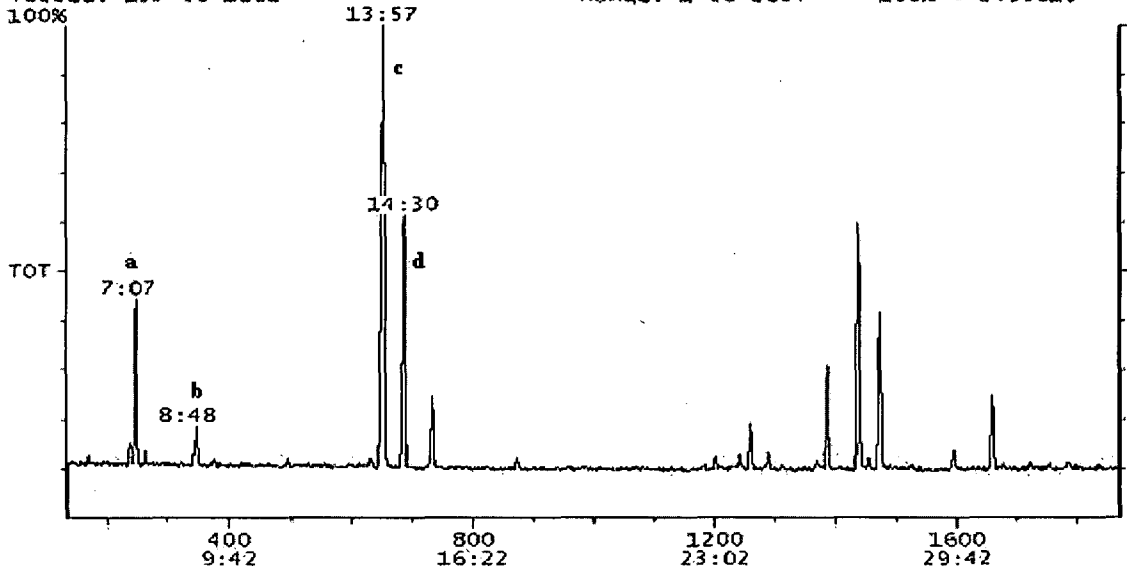


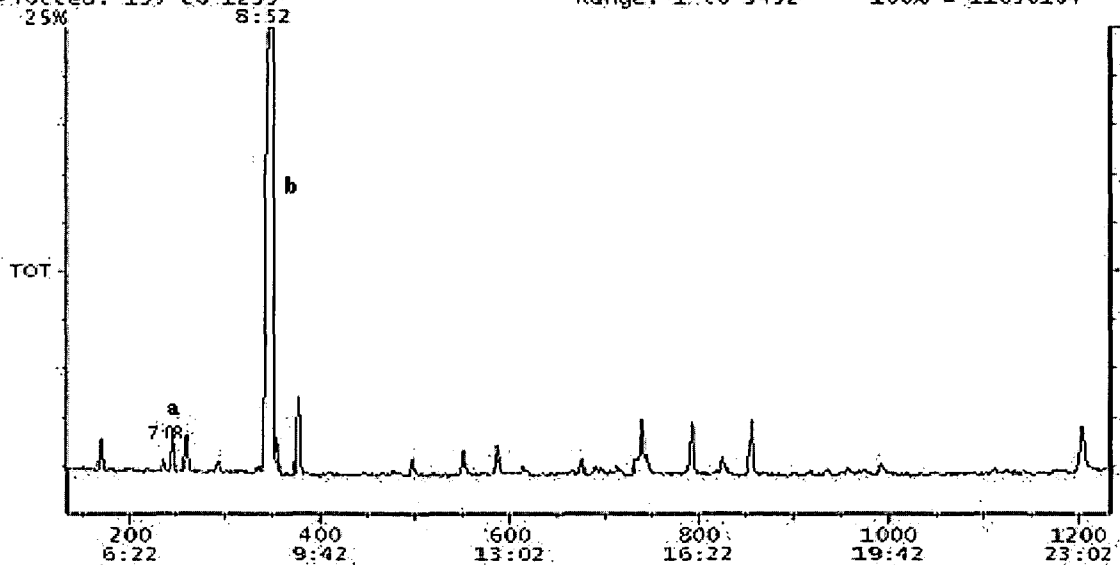
Annex I.

Chromatogram Plot C:\GCQ\DATA\VERES\HYOH9 09/30/97 15:58:26
Comment: Hyssopus officinalis 9 split
Scan No: 1868 Retention Time: 34:10 RIC: 242641 Mass Range: 41 - 400
Plotted: 133 to 1868 Range: 1 to 2604 100% = 2490619



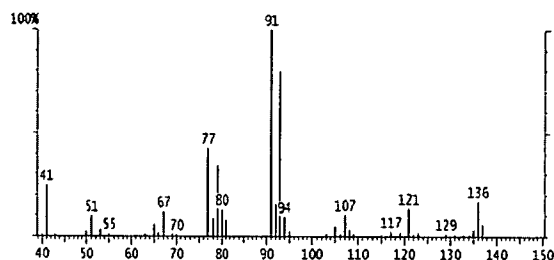
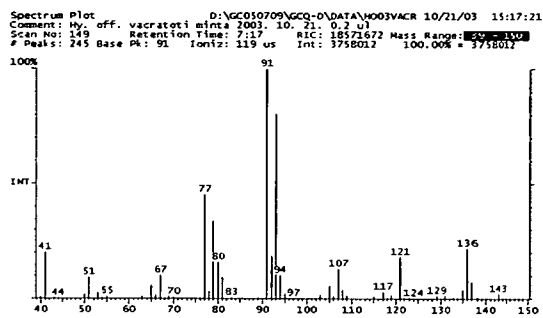
Total ion chromatogram of the essential oil isolated from hyssop No 9
(a: β -pinene, b: limonene, c: pinocamphone, d: isopinocampone)

Chromatogram Plot C:\GCQ\DATA\HYOH12 Date: 10/01/97 11:29:59
Comment: Hyssopus officinalis 12 split
Scan No: 1233 Retention Time: 23:35 RIC: 247976 Mass Range: 40 - 400
Plotted: 135 to 1233 Range: 1 to 3432 100% = 11630104

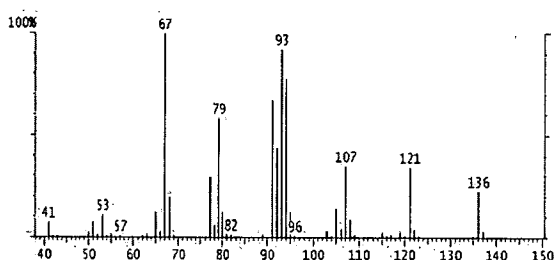
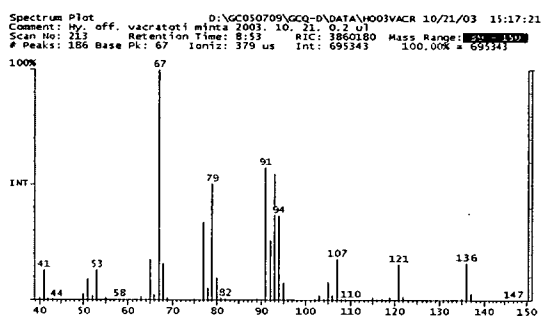


Total ion chromatogram of the essential oil isolated from hyssop No 12
(a: β -pinene, b: limonene)

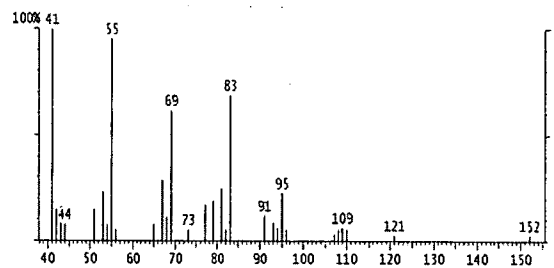
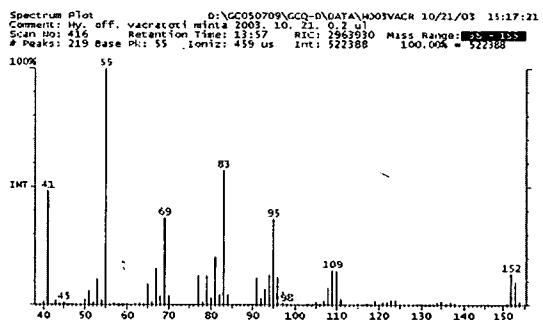
Annex II.



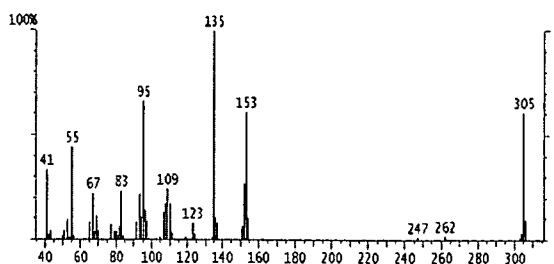
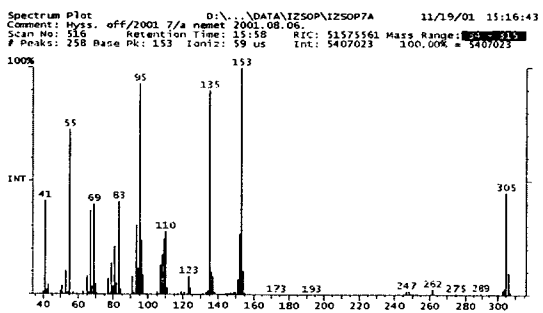
MS spectra of β -pinene (A: in sample; B: in own database)



MS spectra of limonene (A: in sample; B: in own database)



MS spectra of pinocamphone (A: in sample; B: in database)



MS spectra of isopinocamphone (A: in sample; B: in database)

Annex III.

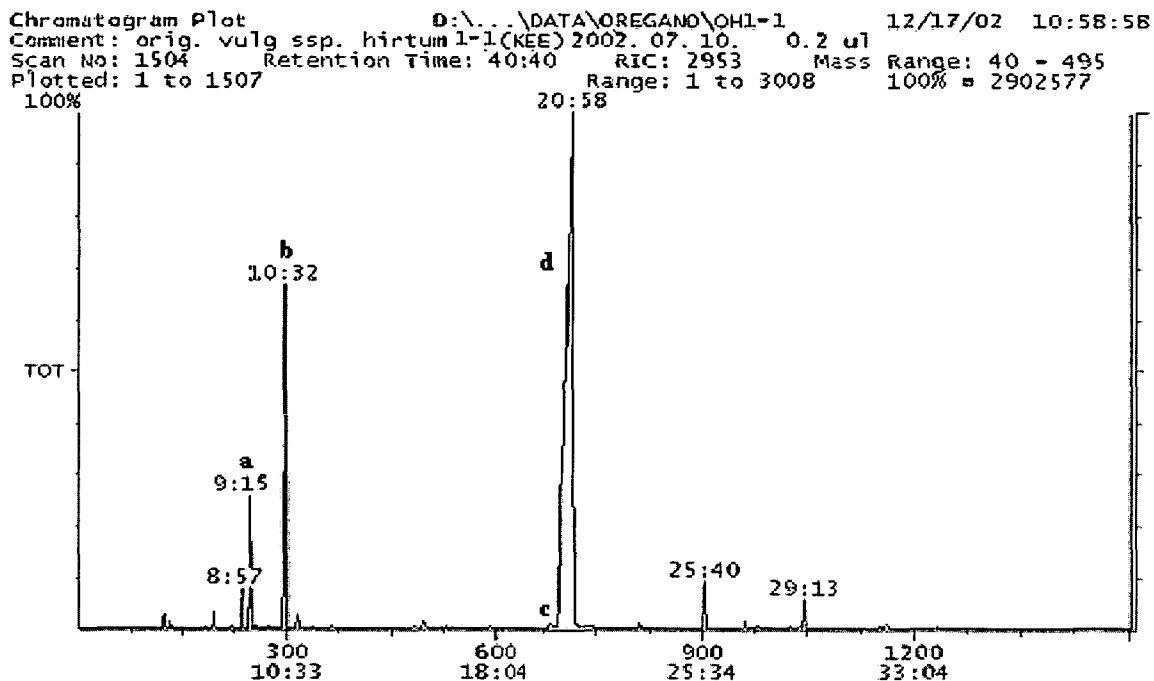
Composition of the essential oils of *Origanum* subspecies examined
(oils were distilled from flowering plants)

			<i>O. vulgare</i> subsp. <i>hirtum</i>	<i>O. vulgare</i> subsp. <i>vulgare</i>
<i>RI*</i>	<i>RI**</i>	<i>Compounds</i>	%	%
931	926-930	α -thujene	0.86	0.40
939	935-938	α -pinene	0.72	0.31
953	950-951	camphene	0.27	0.04
976	973-974	sabinene	-	7.93
980	978-980	β -pinene	0.69	0.45
991	987-989	β -myrcene	1.73	0.61
1018	1015-1018	α -terpinene	1.24	0.63
1026	1024-1025	<i>p</i> -cymene	4.67	22.31
1031	1030-1033	limonene	0.39	0.62
1040	1037-1038	<i>Z</i> - β -ocimene	-	3.76
1050	1047-1049	<i>E</i> - β -ocimene	-	3.56
1062	1058-1060	γ -terpinene	6.63	5.11
1098	1097-1102	linalool	-	0.28
1160	1161-1162	pinocamphone	-	0.18
1167	1168-1169	borneol	0.57	-
1173	1174-1175	isopinocamphone	-	1.32
1177	1178-1180	terpin-4-ol	0.49	0.44
1189	1187-1190	α -terpineol	-	0.83
	1285-1289	unknown	-	0.13
1290	1291-1293	thymol	0.30	0.34
1298	1297-1302	carvacrol	76.44	-
1384	1380-1384	β -bourbonene	-	1.44
1418	1417-1420	β -caryophyllene	1.60	4.09
1480	1477-1480	germacrene D	-	4.18
1576	1576	spathulenol	-	4.86
1581	1579-1582	caryophyllene oxide	-	10.26

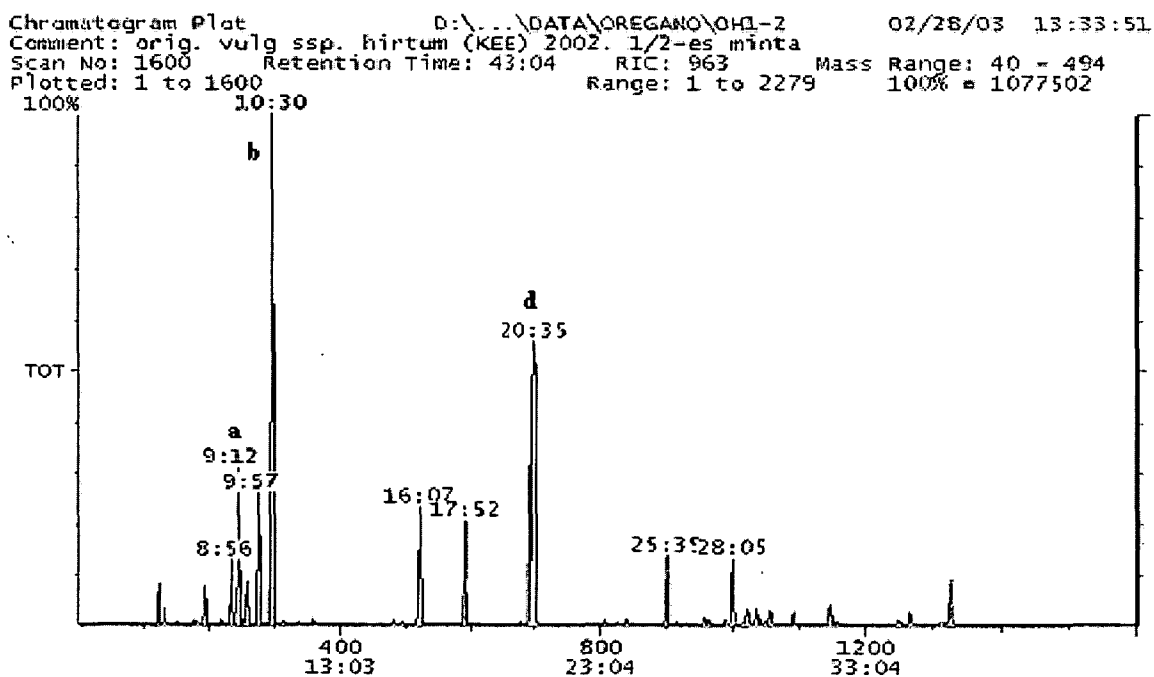
RI* : Kovats retention indices according to literature data

RI** : Kovats retention indices measured by our team

Annex IV.

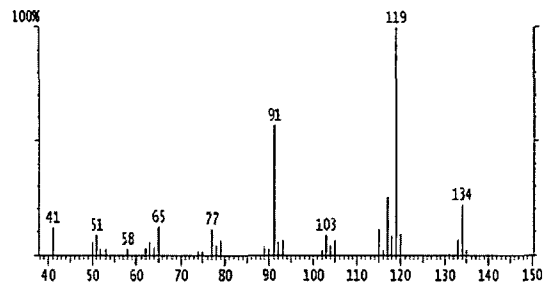
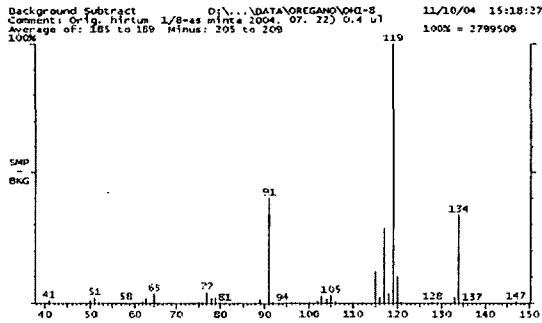


Total ion chromatogram of the essential of *O. vulgare* subsp. *hirtum* No 1/1 (2002)
 (a: p-cymene, b: γ -terpinene, c: thymol, d: carvacrol)

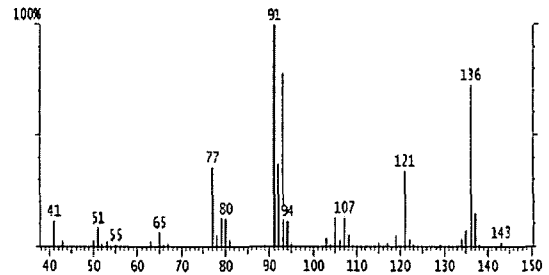
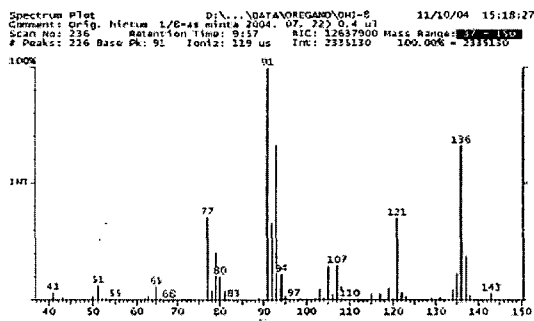


Total ion chromatogram of the essential of *O. vulgare* subsp. *hirtum* No 1/2 (2002)
 (a: p-cymene, b: γ -terpinene, d: carvacrol)

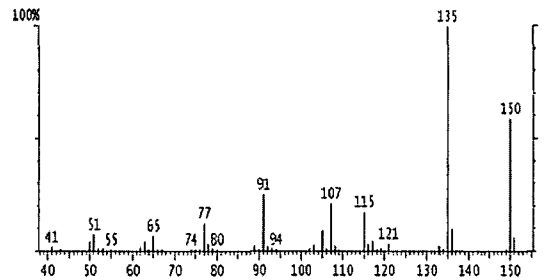
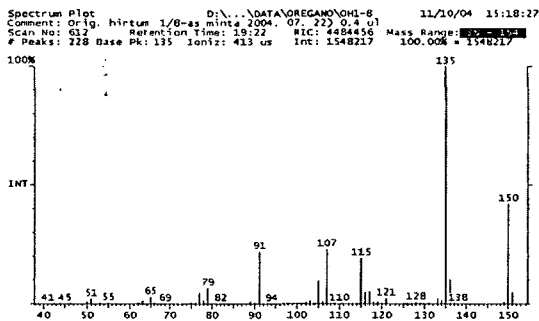
Annex V.



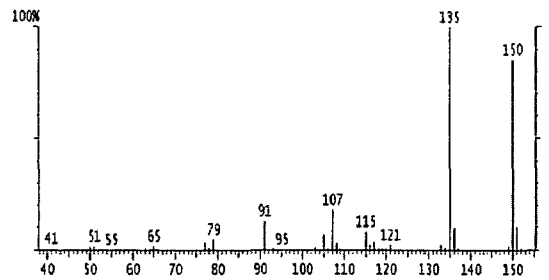
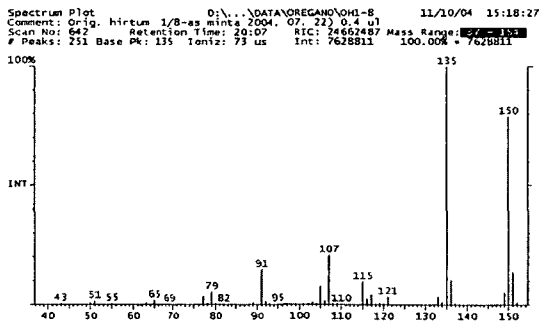
MS spectra of *p*-cymene (A: in sample; B: in database)



MS spectra of γ -terpinene (A: in sample; B: in own database)

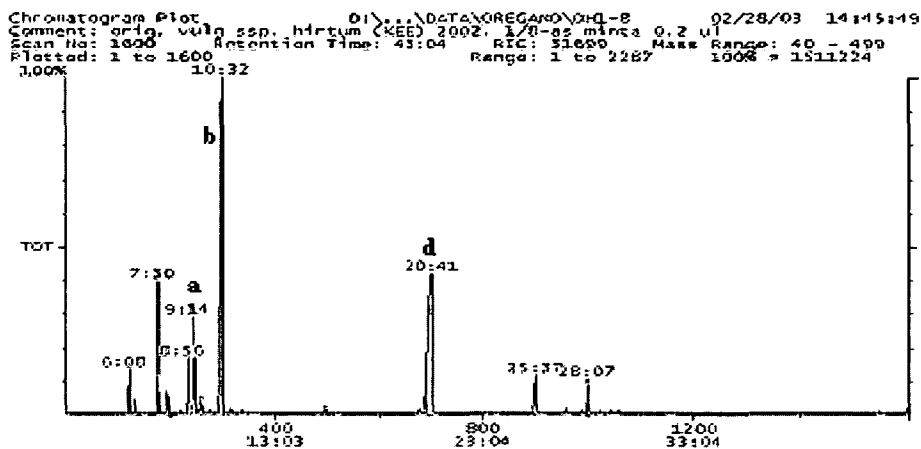


MS spectra of thymol (A: in sample; B: in own database)

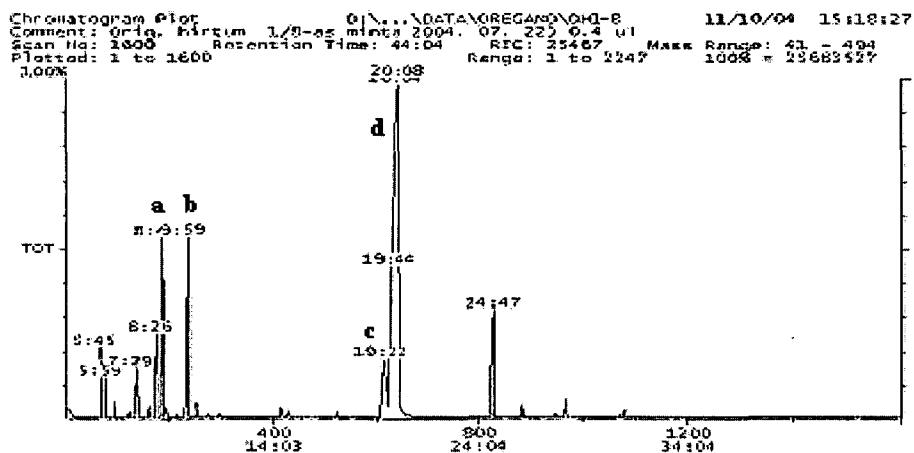


MS spectra of carvacrol (A: in sample; B: in own database)

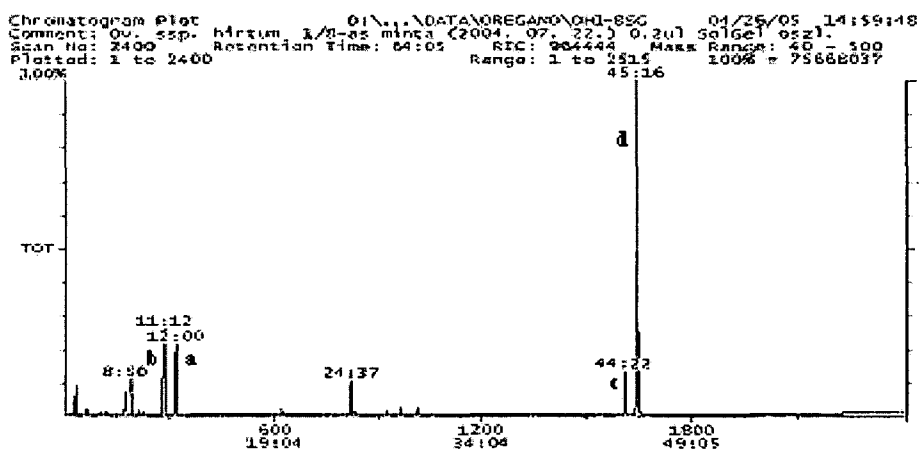
Annex VI.



1. Total ion chromatogram of the essential of *O. vulgare* subsp. *hirtum* No 1/8 (2002)



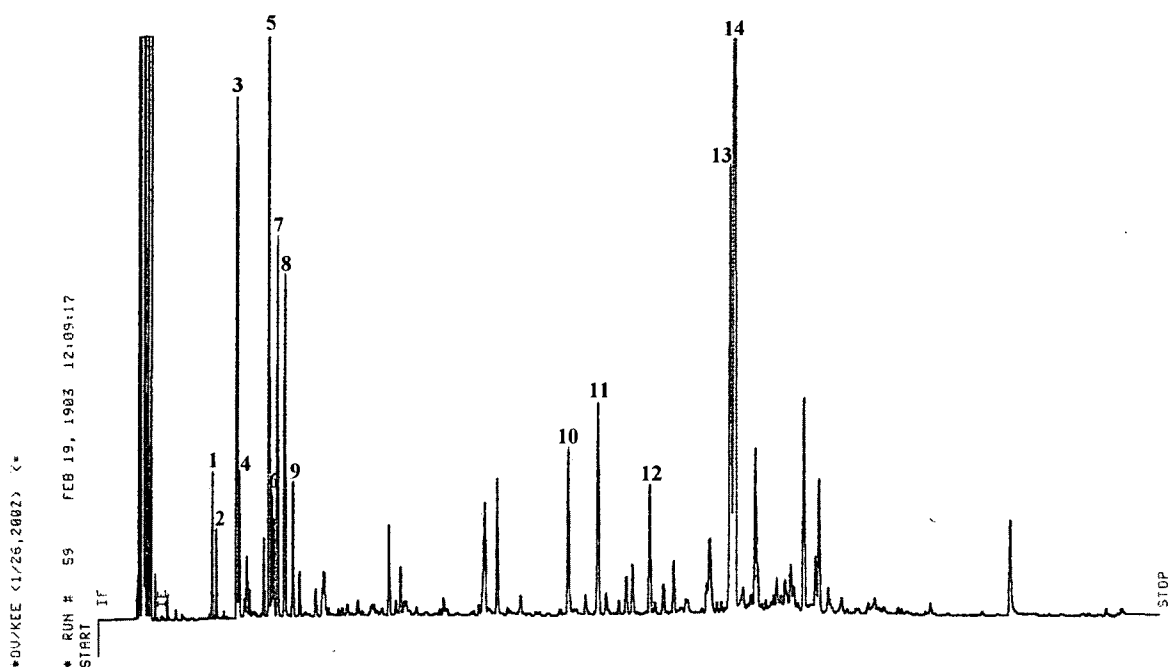
2. Total ion chromatogram of the essential of *O. vulgare* subsp. *hirtum* No 1/8 (2004)



3. Total ion chromatogram of the essential of *O. vulgare* subsp. *hirtum* No 1/8 (2004)

(a: p-cymene, b: γ -terpinene, c: thymol, d: carvacrol)
 (1 and 2: use DB-5 MS and, 3: SolGel-WAX column)

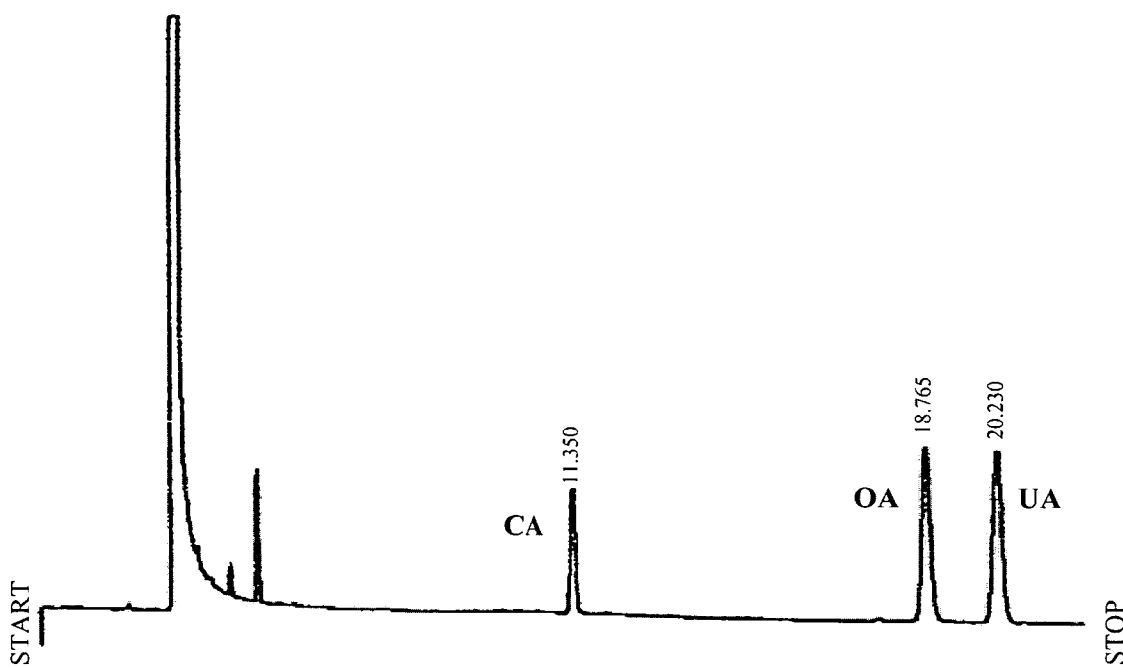
Annex VII.



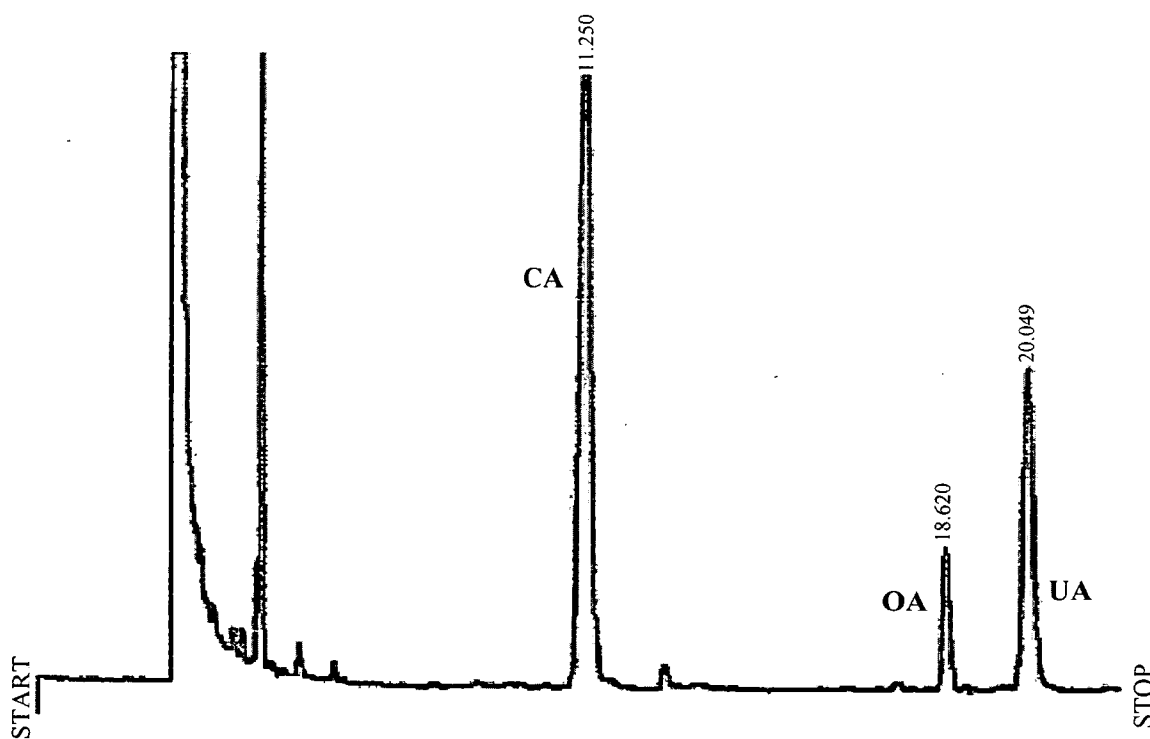
Gas-chromatogram of *Origanum vulgare* ssp. *vulgare* oil

Peaks: 1 = α -thujene 2 = α -pinene, 3 = sabinene, 4 = β -pinene 5 = *p*-cymene,
6 = limonene 7 = β -phellandrene 8 = (*Z*)- β -ocimene 9 = γ -terpinene,
10 = β -bourbonene 11 = β -caryophyllene, 12 = germacrene D, 13 = spathulenol,
14 = caryophyllene oxide

Annex VIII.



Gas chromatogram of a mixture of authentic compounds



Gas chromatogram of a mixture of a *Hyssopus officinalis* L. f. albus sample
(legends: CA: cholesteryl acetate , OA: oleanolic acid, UA: ursolic acid)