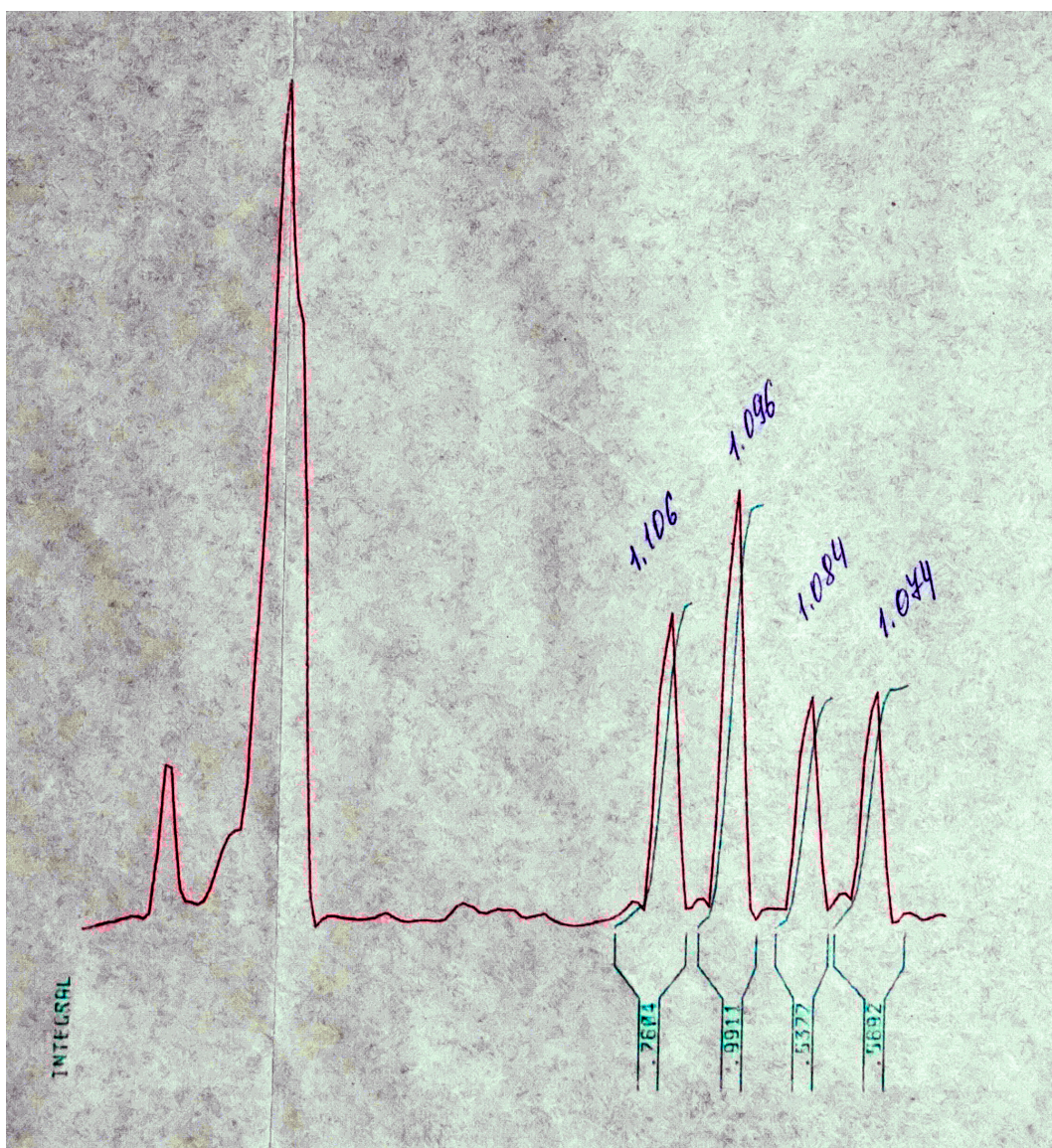
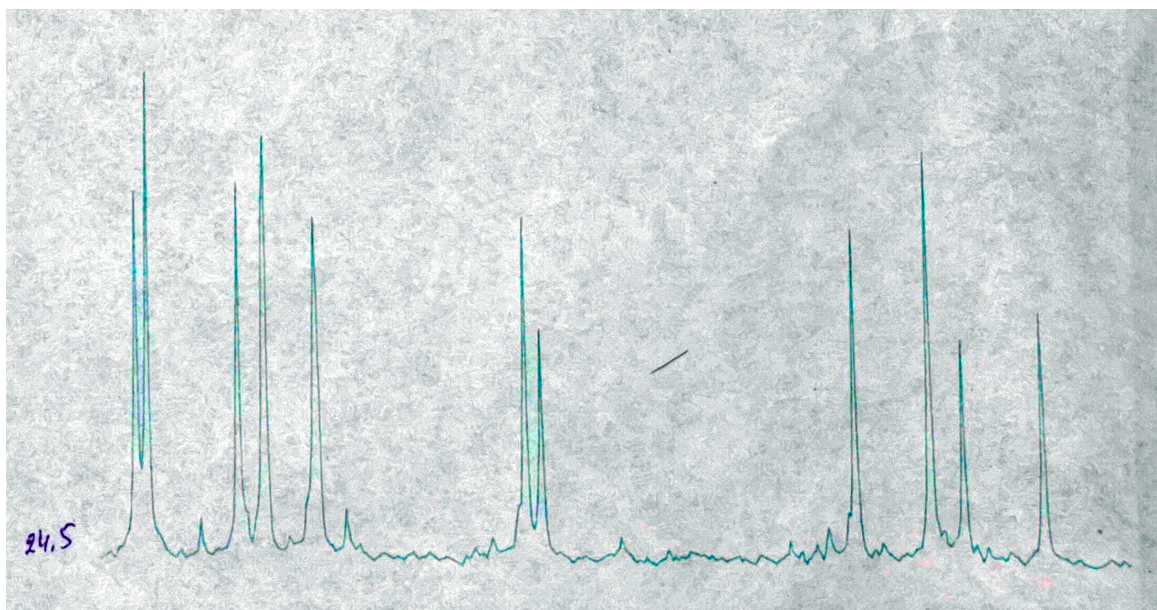
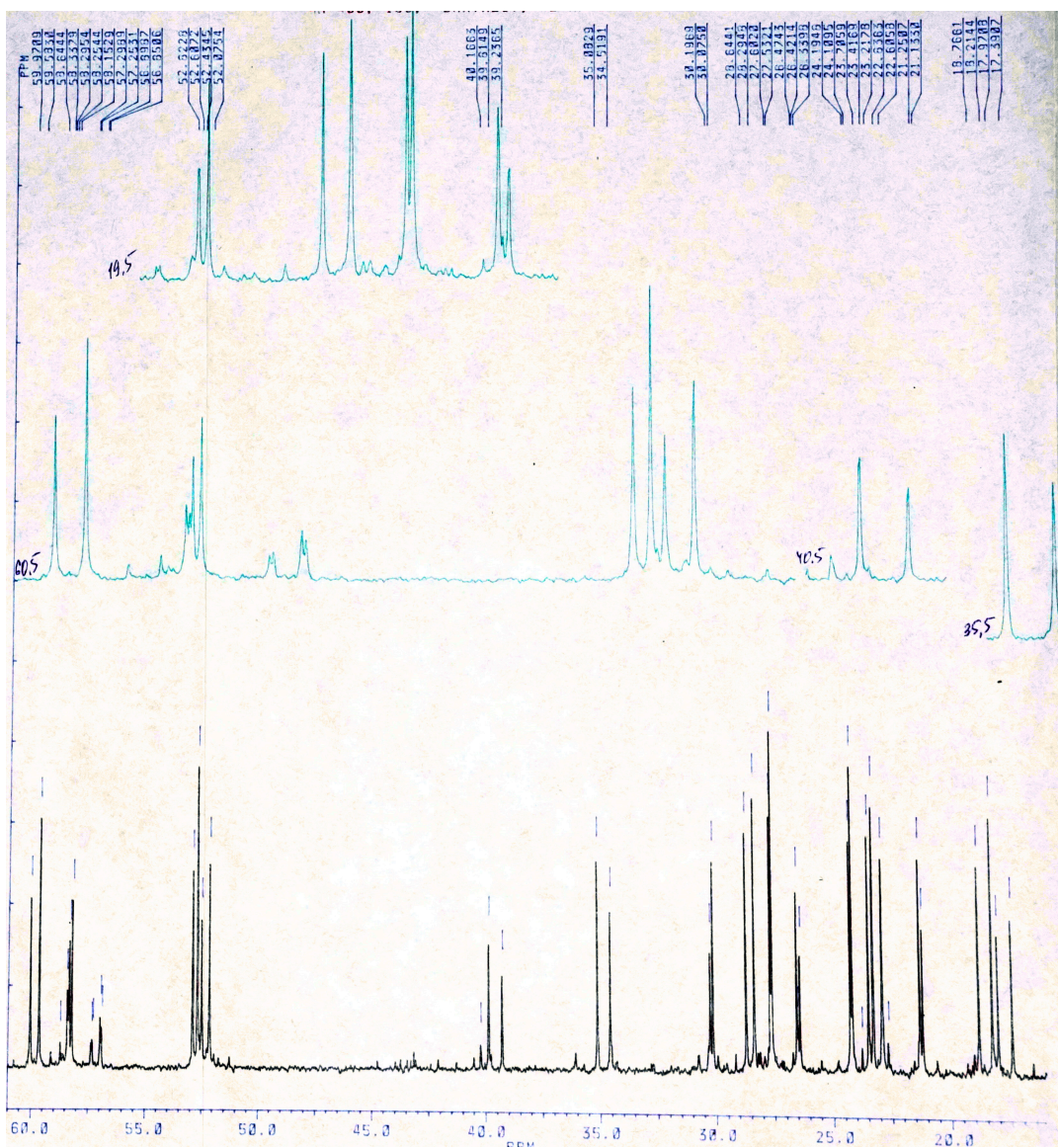




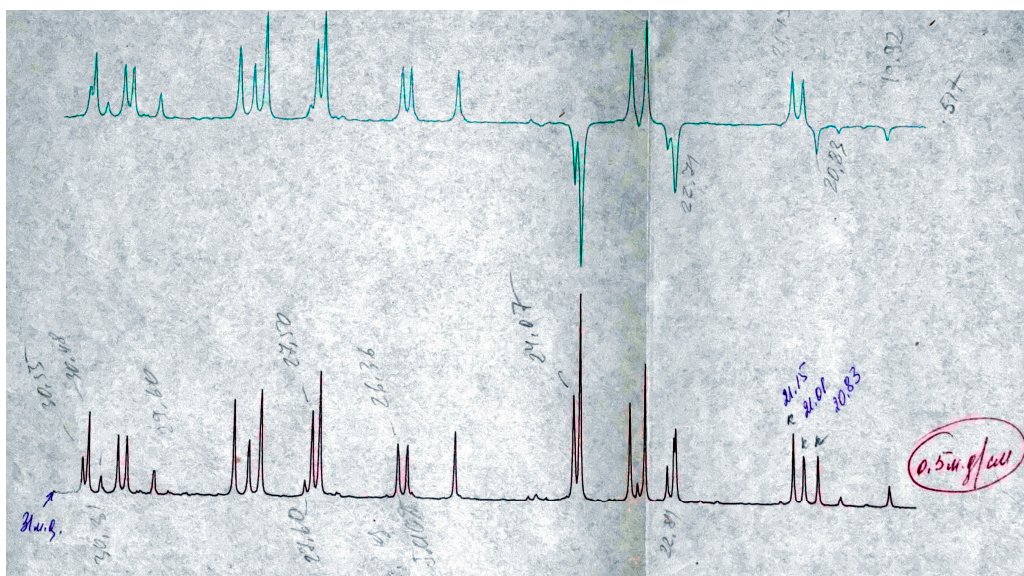
¹H-NMR compound 8, synthesis var2 determination of the ratio of isomers



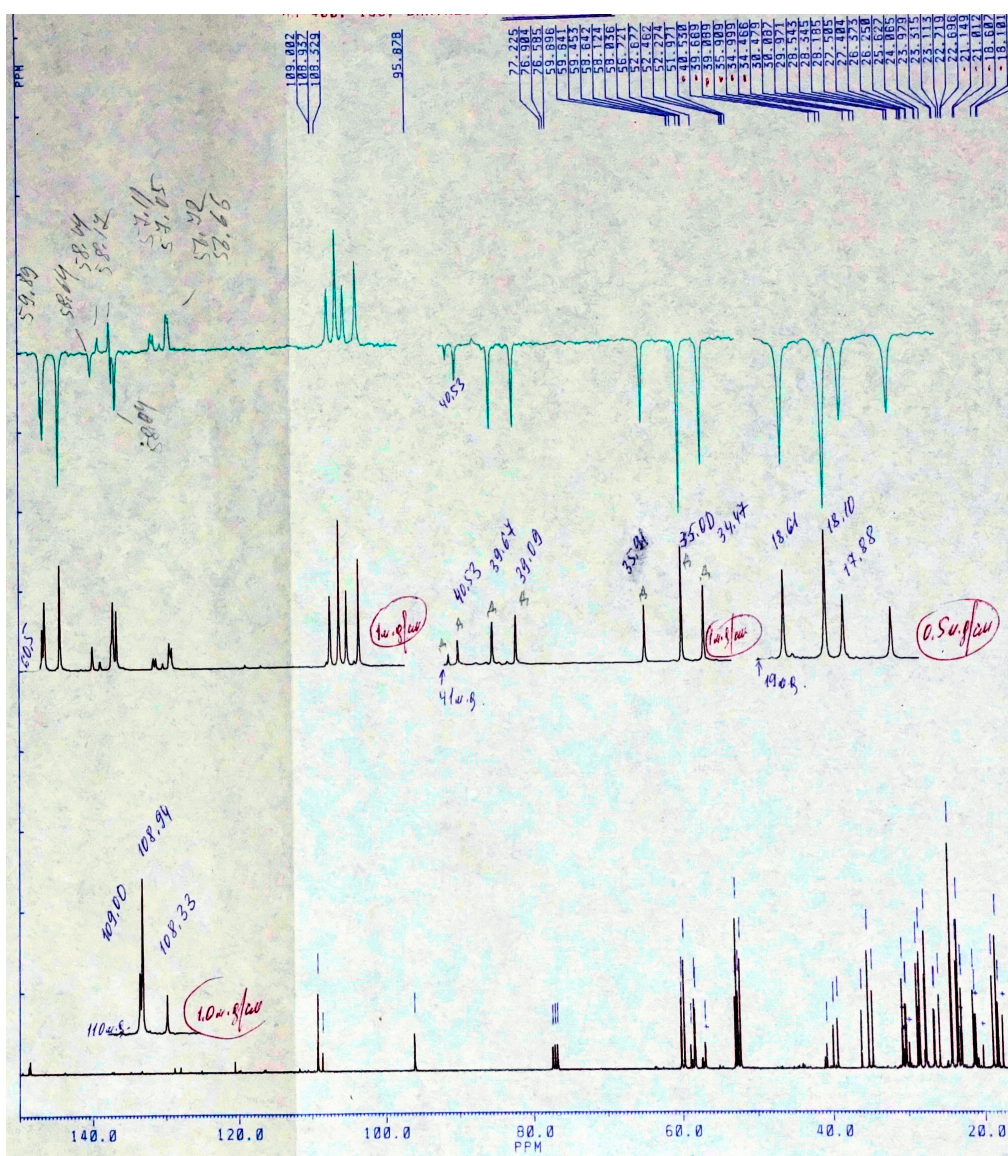
^{13}C -NMR compound 8, synthesis var1 domain 24.5ppm



^{13}C -NMR compound 8, synthesis var1

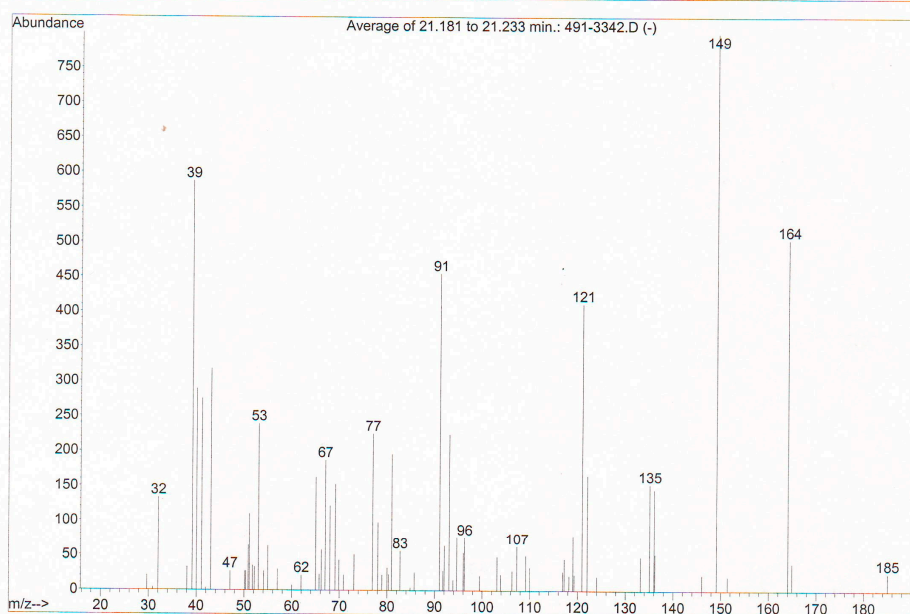
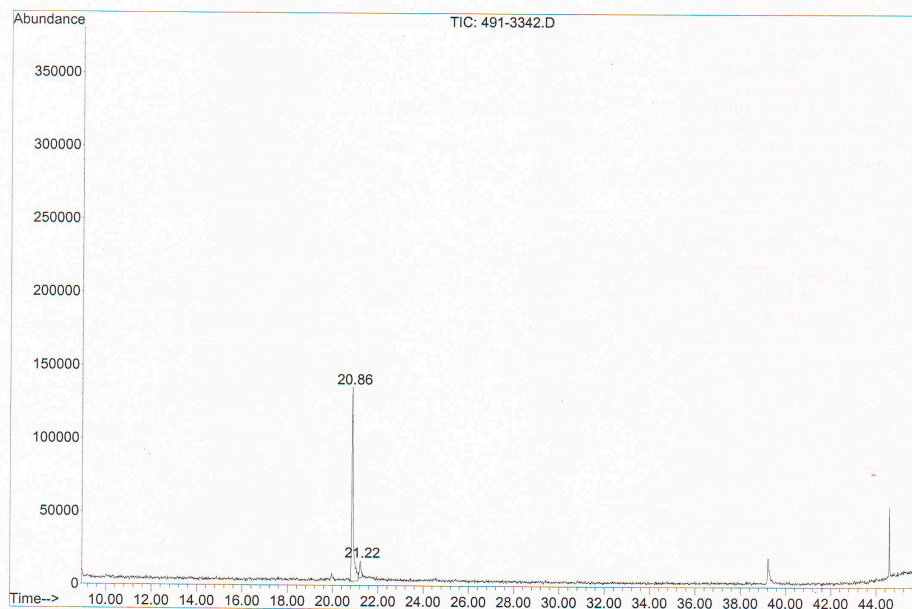


^{13}C -NMR compound 8, synthesis var2 domain 31ppm



^{13}C -NMR compound 8, synthesis var2

File : D:\BOX-MASS\491-3342.D
 Operator : Salnikova O.I.
 Acquired : 24 Nov 2008 2:20 pm using AcqMethod AN4-300Q
 Instrument : 5971 - In
 Sample Name: 49-1-33-42 Laev
 Misc Info : HP-5MS inj280 2m50 4d/m200 20d/m300m10 ms170
 Vial Number: 1



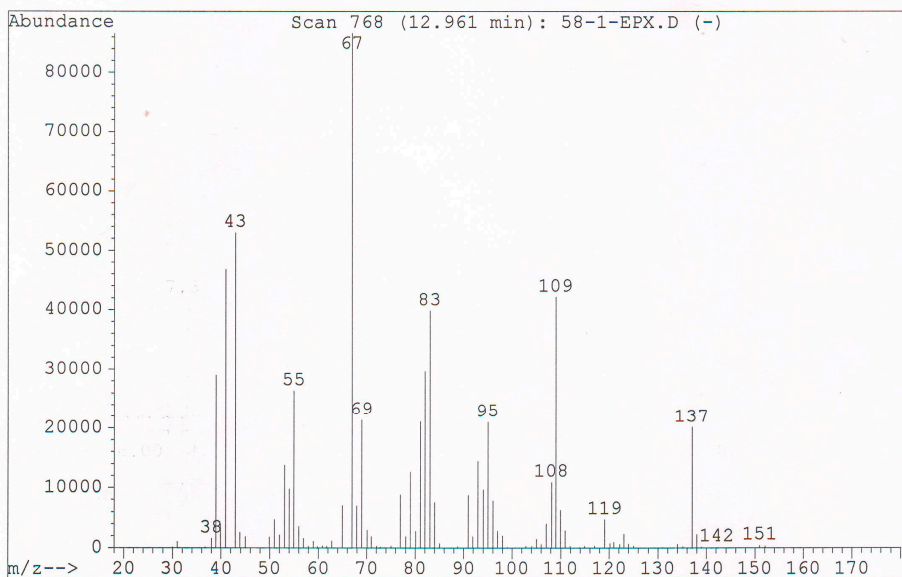
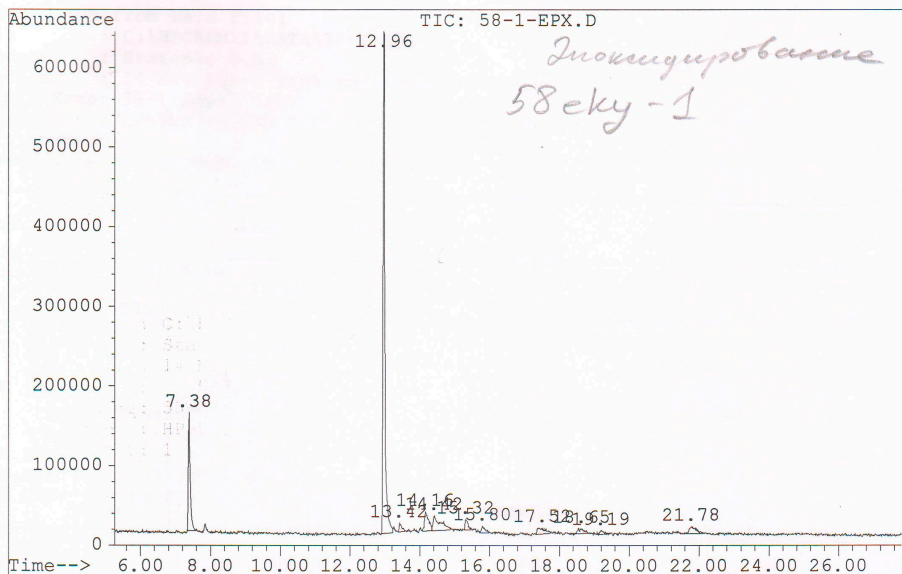
GLC-MS 3-carene allyl oxydation 1page CAR-3-EN-2-ONE

Misc Info : HP-5MS inj280 2m50 4d/m200 20d/m300m10 ms170
 Vial Number: 1
 CurrentMeth: D:\HPCHEM\2\METHODS\ANALIZ.M

Retention Time	Area	Area %	Name
Total Ion Chromatogram			
20.856	584539	91.153	MM=150 m.b. car-3-en-5-one
21.220	56731	8.847	MM=164

GLC-MS 3-carene allyl oxydation 2page CAR-3-EN-2-ONE

Sample Name: 58-1-epox Laev
 Misc Info : HP-5MS inj280 2m50 4d/m200 20d/m300m10 ms130
 Vial Number: 1



GLC-MS alpha-pinene epoxide distilled 1page

Misc Info : HP-5MS inj280 2m50 4d/m200 20d/m300m10 ms130
 Vial Number: 1
 CurrentMeth: C:\HPCHEM\1\METHODS\DEFAULT.M

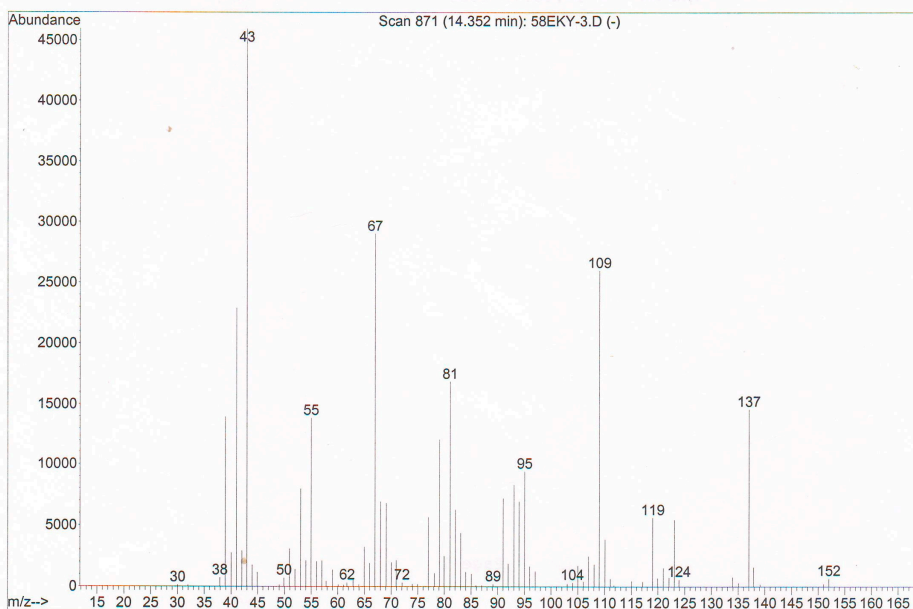
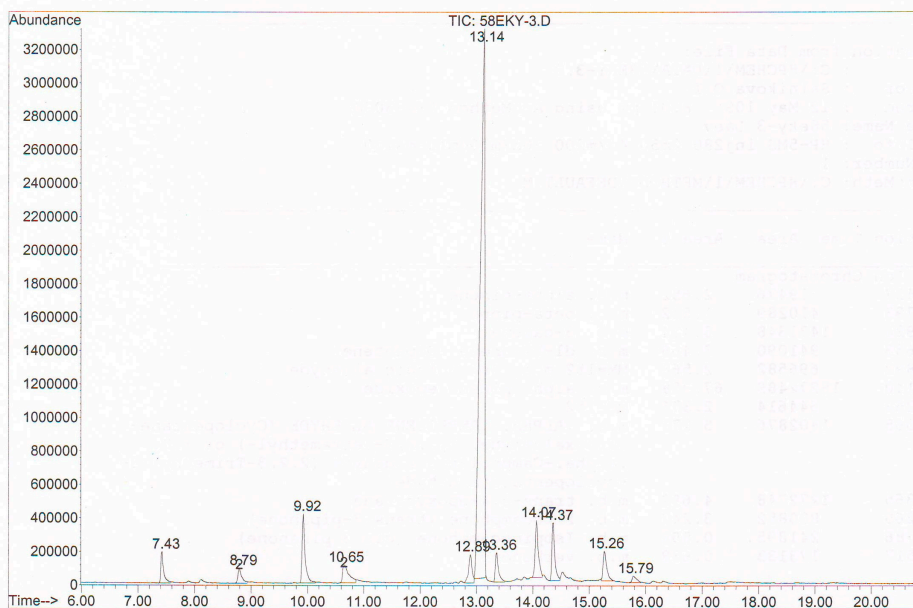
Retention Time	Area	Area %	Name
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Total Ion Chromatogram

7.384	515759	13.192	<i>α-pinene</i>
12.961	2350703	60.124	<i>2-oxo-2-phenylpropane</i>
13.417	58596	1.499	
14.158	198884	5.087	
14.419	272166	6.961	
15.317	79931	2.044	
15.799	64682	1.654	
17.515	125776	3.217	
18.647	81179	2.076	
19.193	37727	0.965	
21.781	124353	3.181	

GLC-MS alpha-pinene epoxide distilled 2page

Misc Info : HP-5MS inj280 2m50 4d/m200 20d/m300m10 ms130
Vial Number: 1



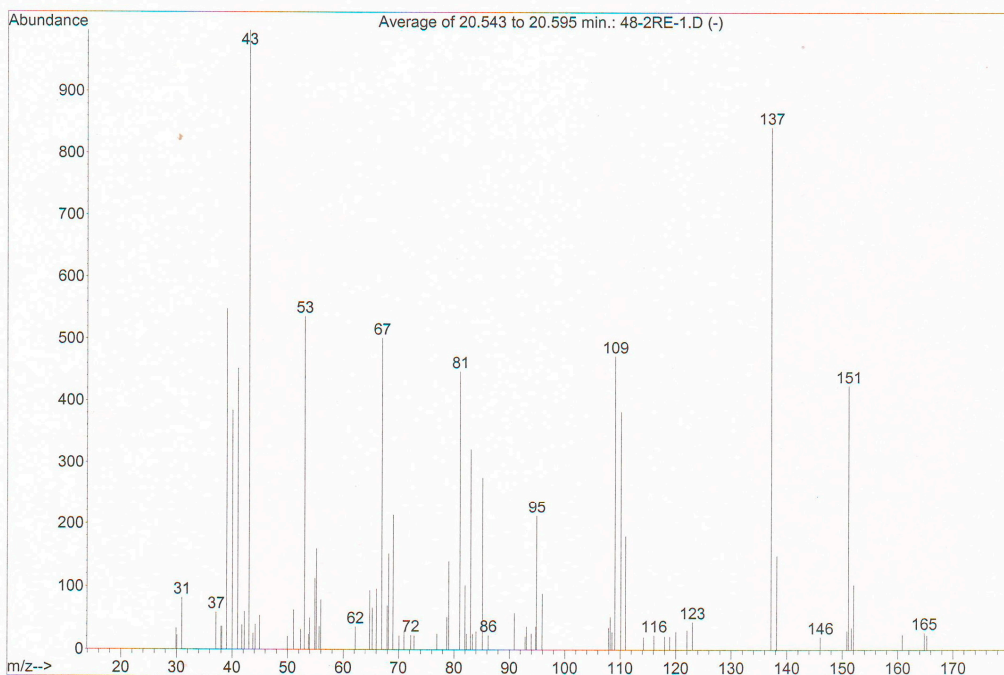
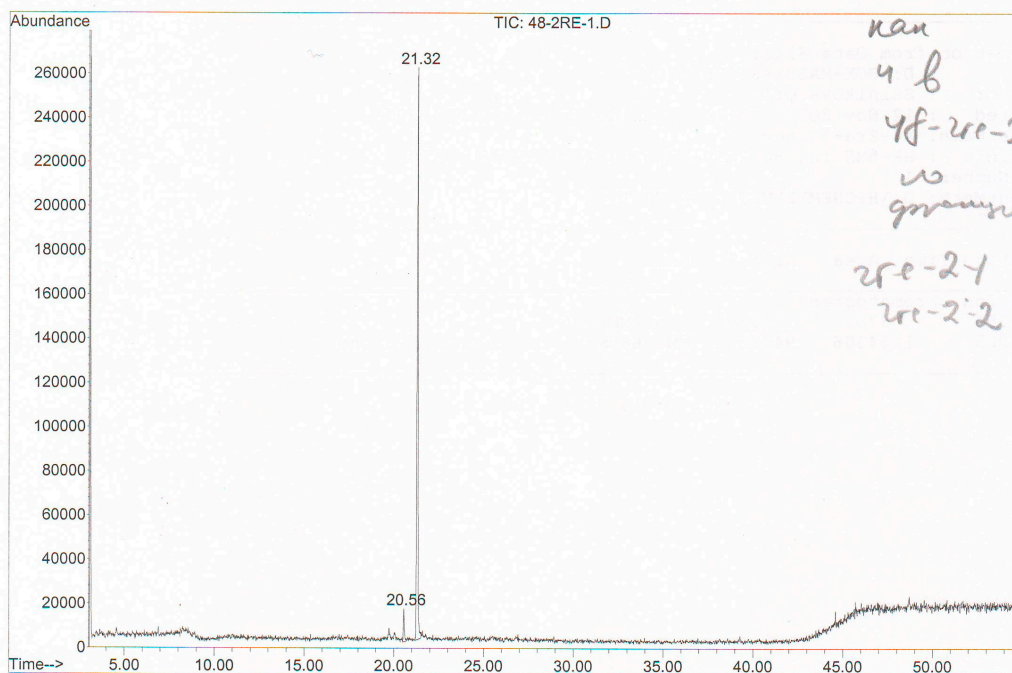
GLC-MS alpha-pinene epoxide mixture 1page

Misc Info : HP-5MS inj280 2m50 4d/m200 20d/m300m10 ms130
Vial Number: 1
CurrentMeth: C:\HPCHEM\1\METHODS\DEFAULT.M

Retention Time	Area	Area %	Name
Total Ion Chromatogram			
7.427	719476	2.652	m.b. alpha-pinene
8.793	410289	1.512	m.b. beta-pinene
9.924	1471348	5.424	m.b. 3-carene
10.653	941090	3.469	m.b. dl-Limonene (Dipentene)
12.892	696582	2.568	MM=152 m.b. fencholenic aldehyde
13.140	18272489	67.358	m.b. alpha-pinene epoxide
13.362	644614	2.376	MM=152
14.065	1402876	5.171	m.b. .ALPHA.-CAMPHOLENE ALDEHYDE (Cyclopentane-carboxaldehyde, 1,2,2,3-tetramethyl-) or m.b. .alpha.-Campholenic aldehyde (2,2,3-Trimethyl-3-cyclopentacetaldehyde)
14.365	1272748	4.692	m.b. trans-3,4-epoxycarane
15.265	880852	3.247	m.b. Pinocamphone (trans-3-pinanone)
15.786	241895	0.892	m.b. Isopinocampnone (cis-3-pinanone)
17.517	173133	0.638	m.b. verbenone

GLC-MS alpha-pinene epoxide mixture 2page

Misc Info : HP-5MS inj280 2m50 4d/m200 20d/m300m5 ms170
Vial Number: 1

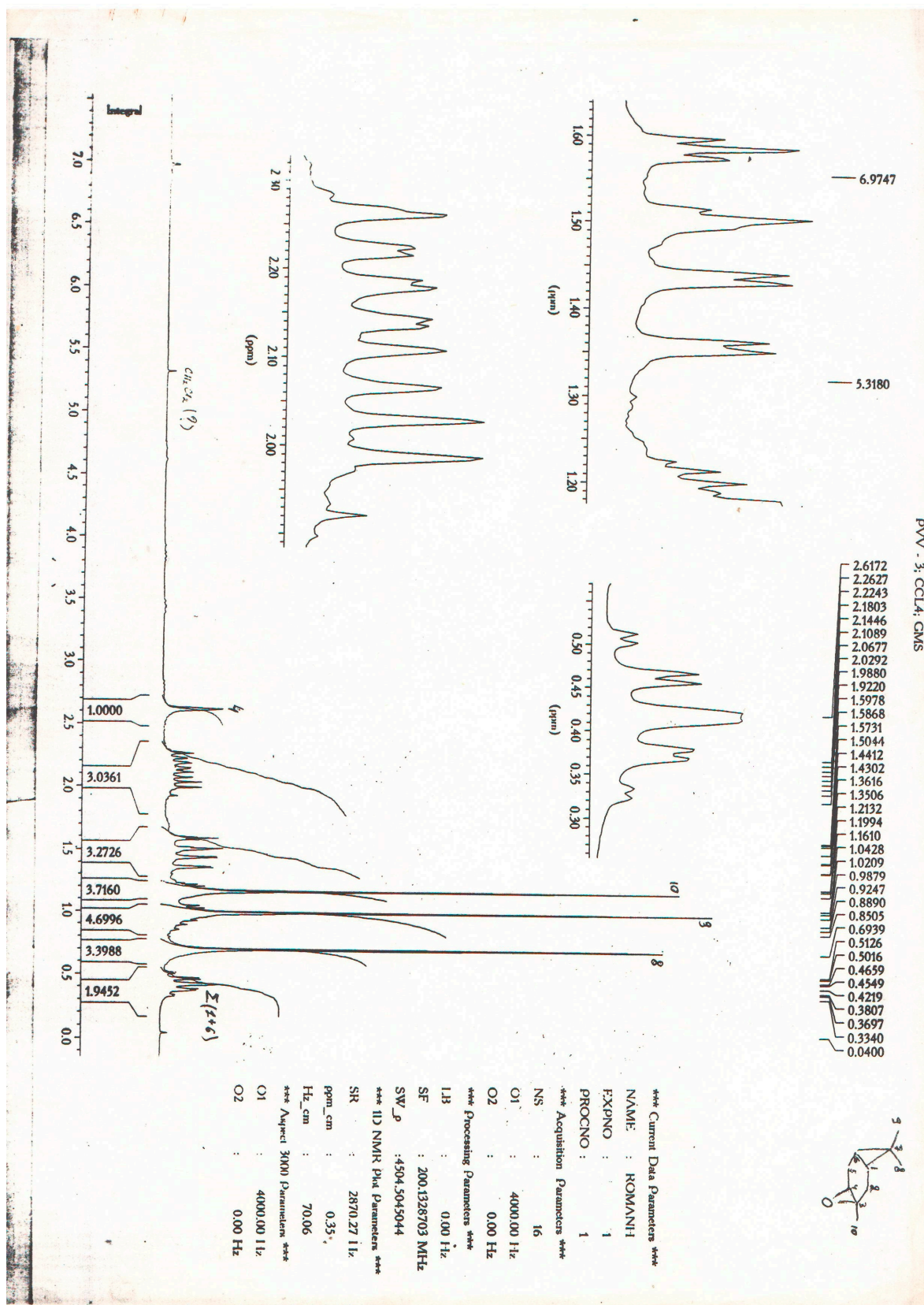


GLC-MS car-3-en-2,5-dione 1page

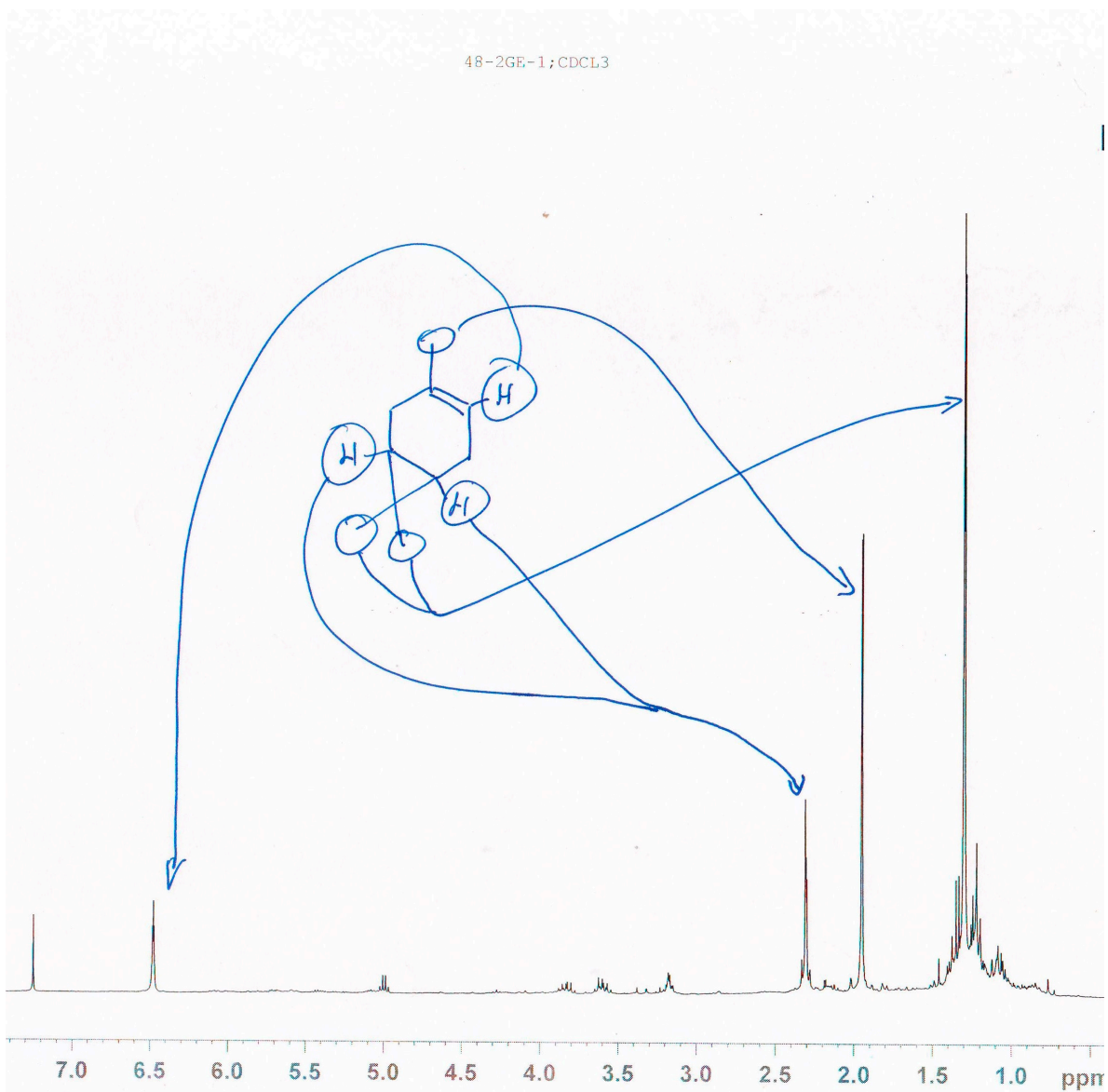
Misc Info : HP-5MS inj280 2m50 4d/m200 20d/m300m5 ms170
Vial Number: 1
CurrentMeth: D:\HPCHEM\2\METHODS\ANALIZ.M

Retention Time	Area	Area %	Name
Total Ion Chromatogram			
20.556	57621	5.136	m.b. MM=166
21.323	1064306	94.864	MM=164 m.b. car-3-en-2,5-dione

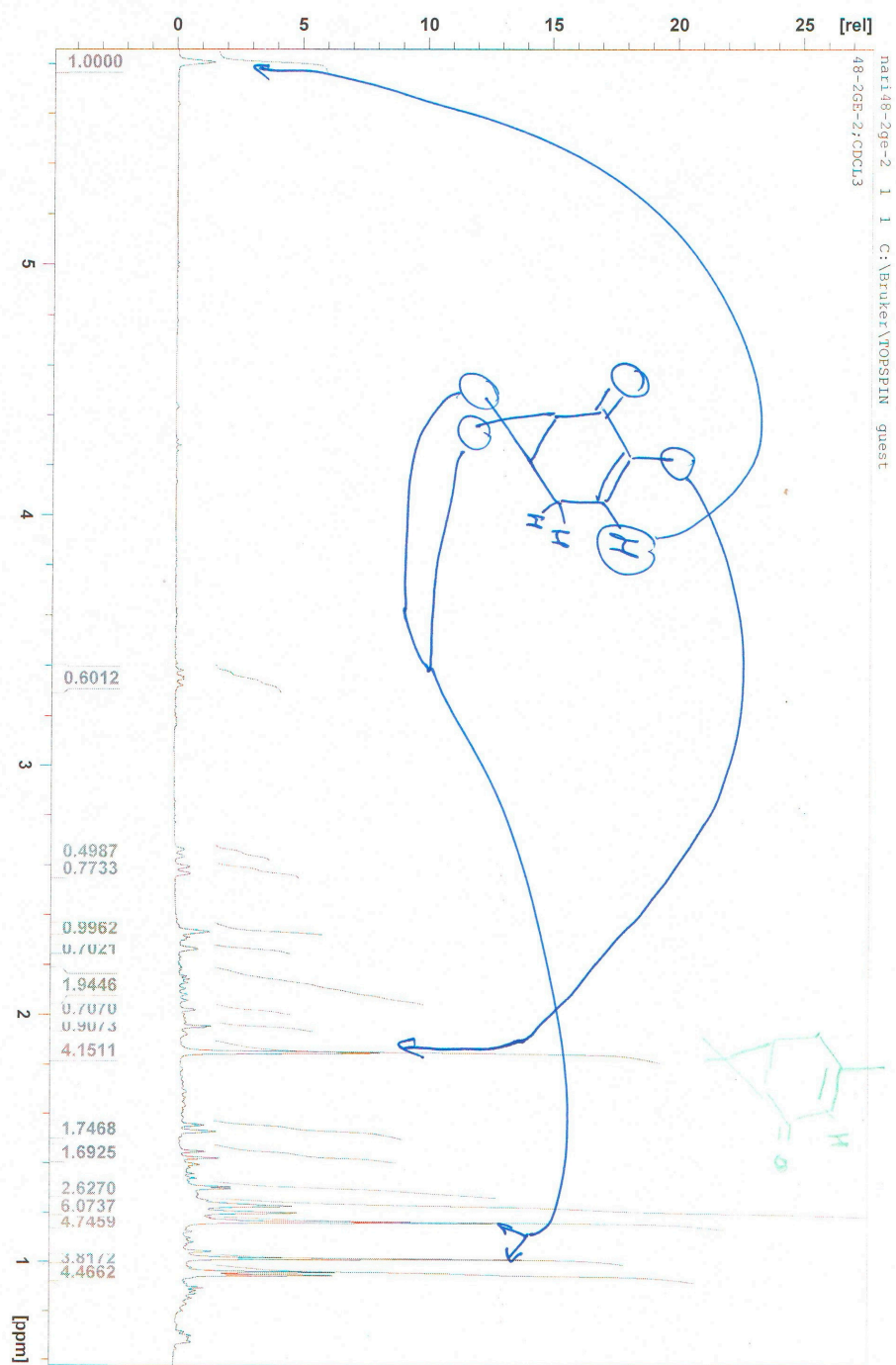
GLC-MS car-3-en-2,5-dione 2page



H-NMR 3-carene epoxide

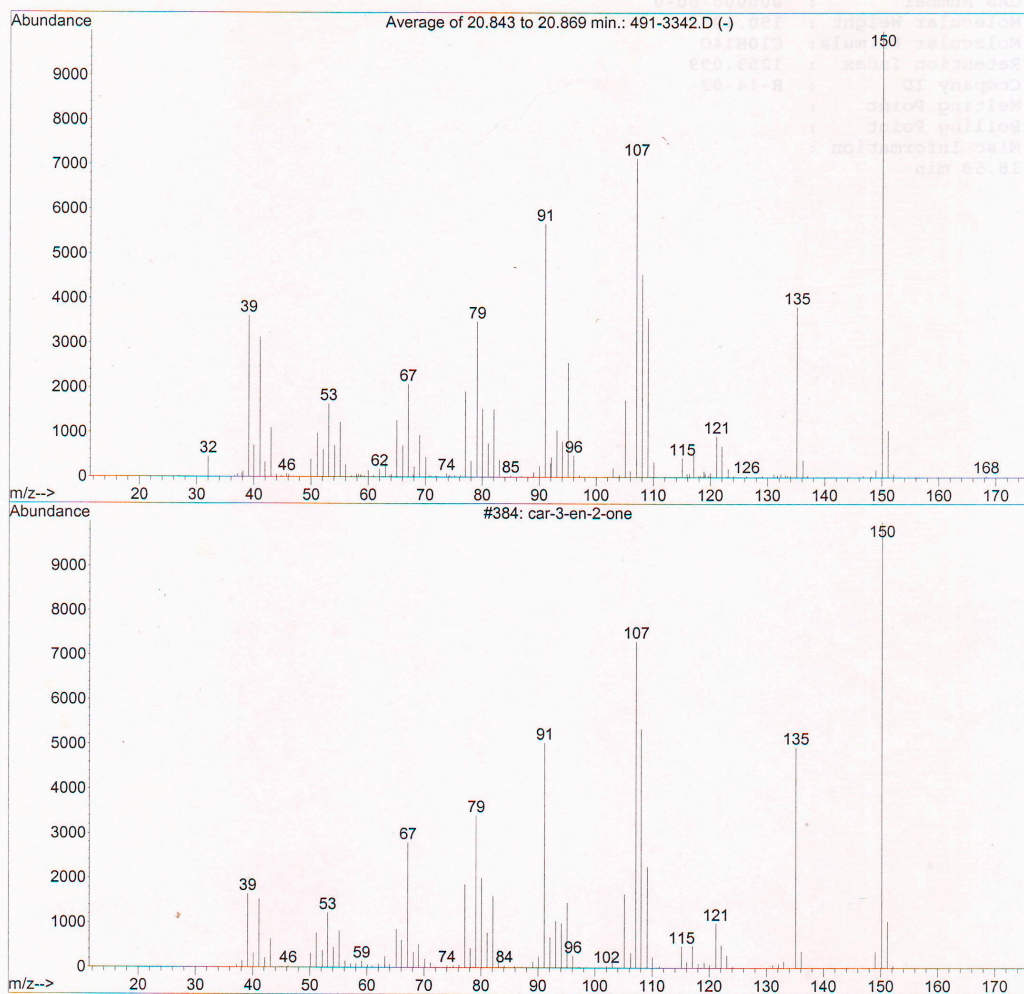


¹H-NMR 3-carene



H-NMR of car-3-en-2-one

Library Searched : L:\AVT_LIB.L
Quality : 93
ID : car-3-en-2-one



MS car-3-en-2-one from library