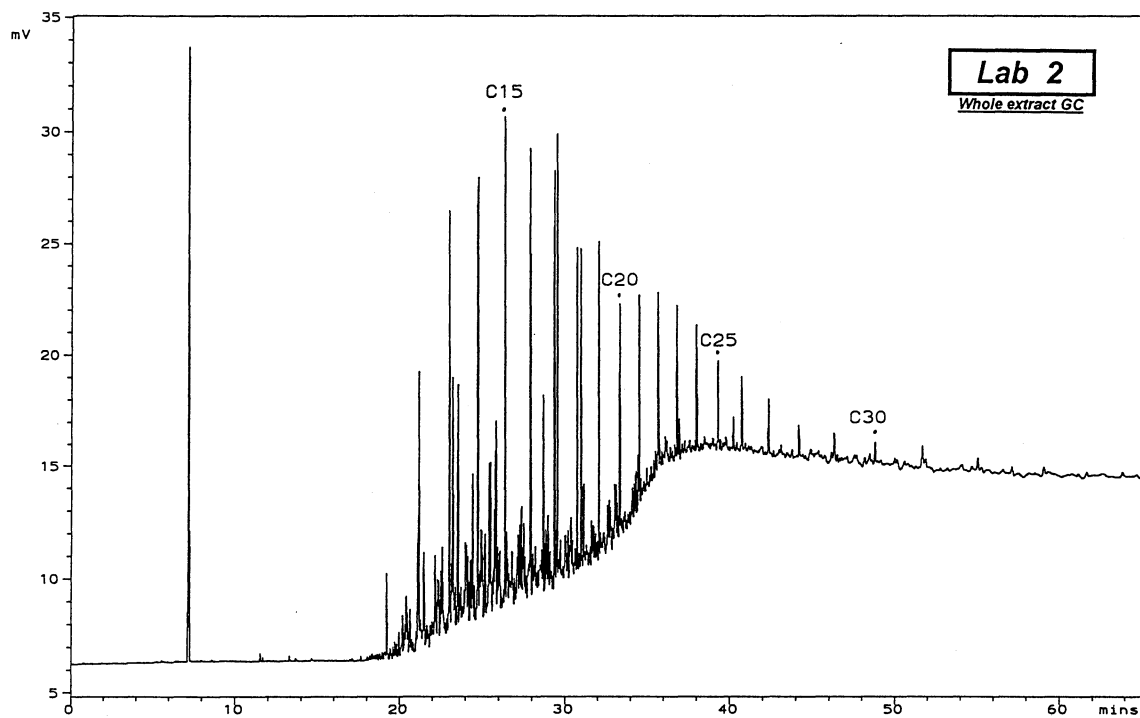
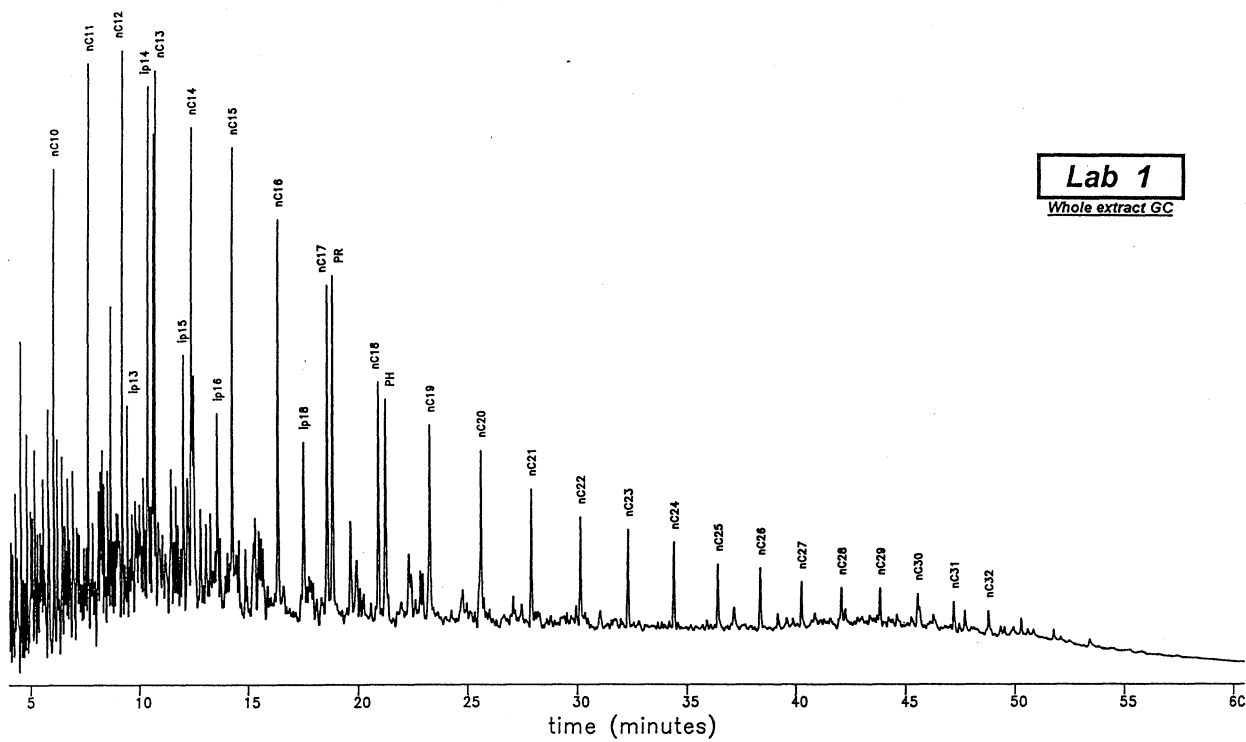
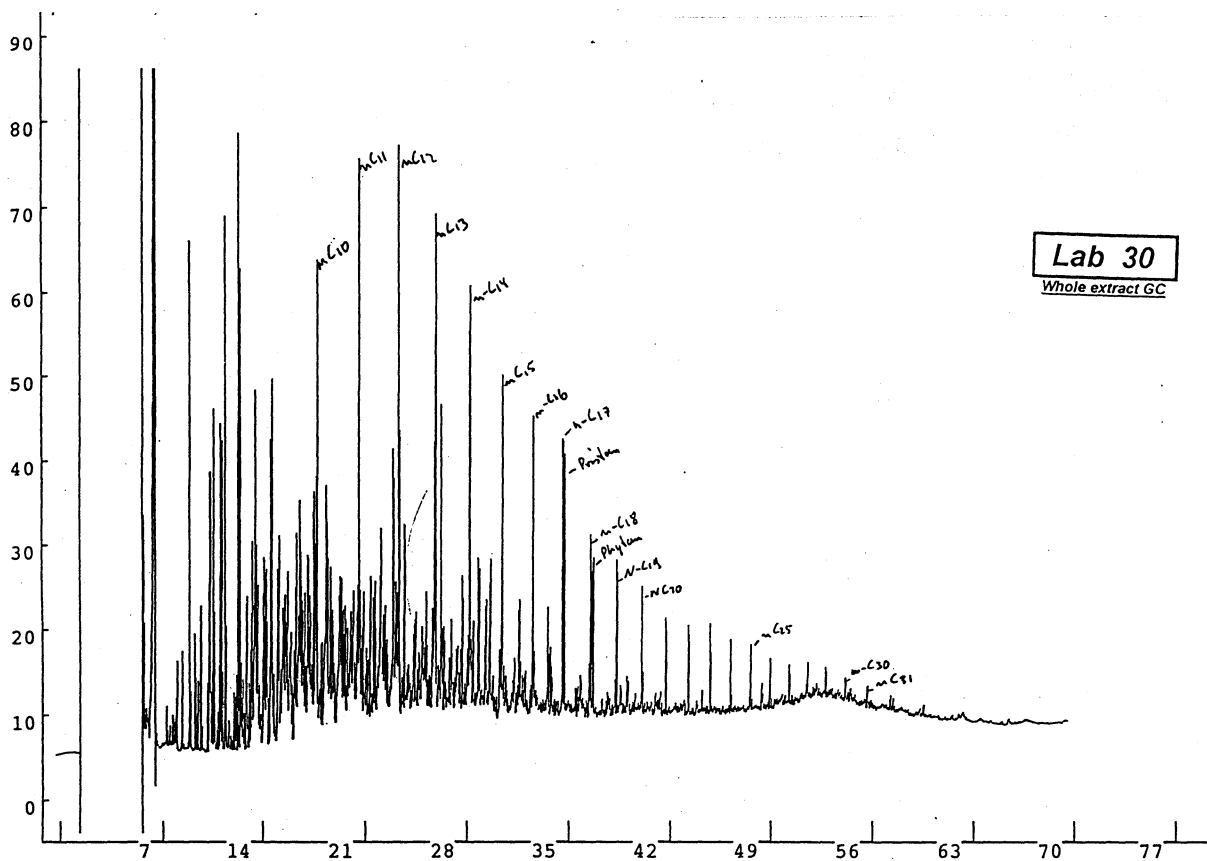


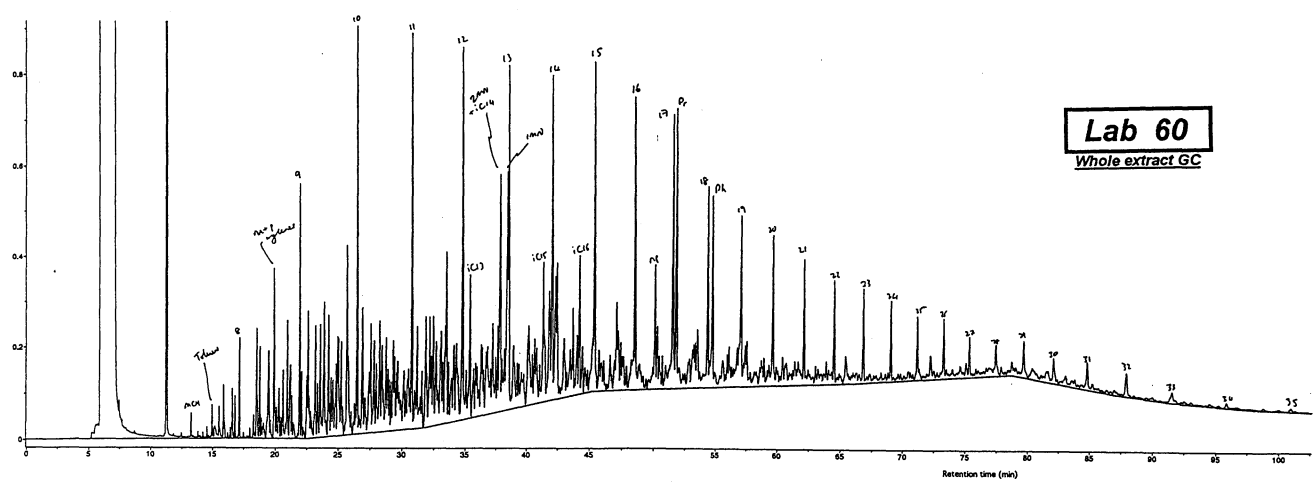
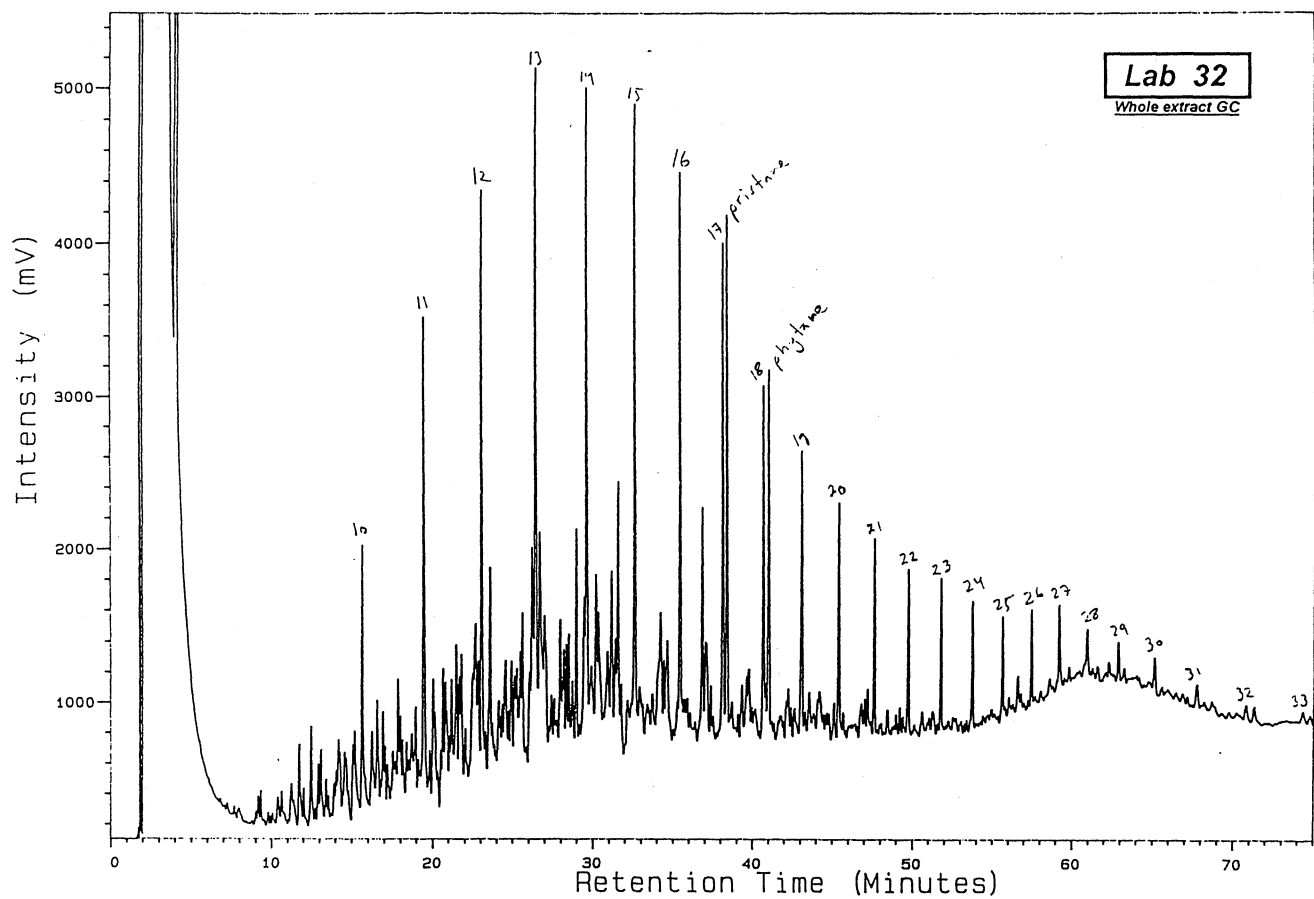
NGS JR-1

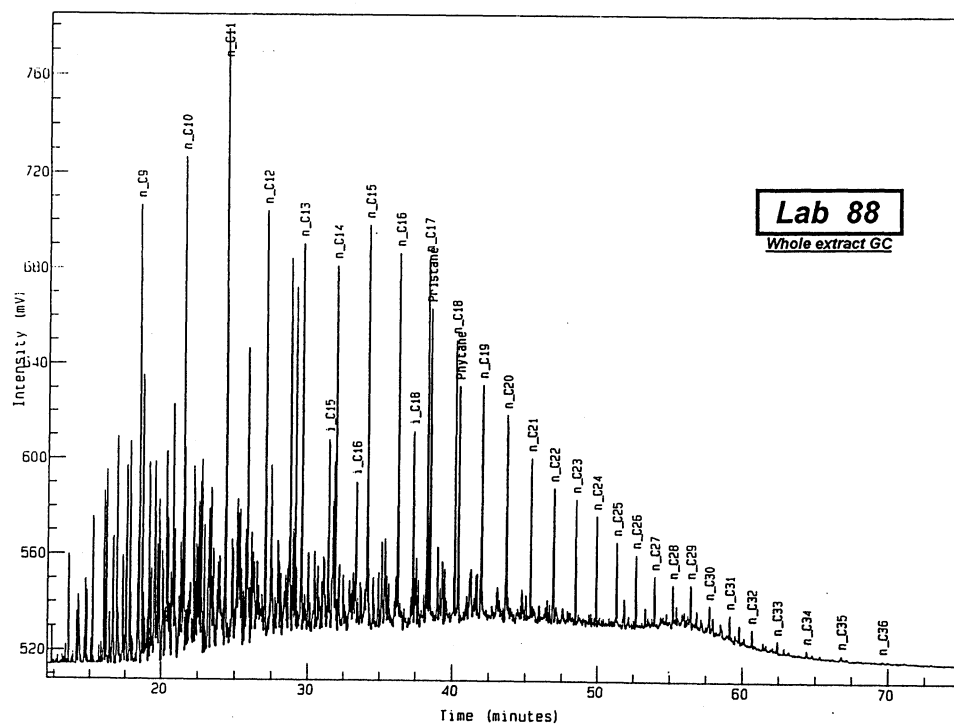
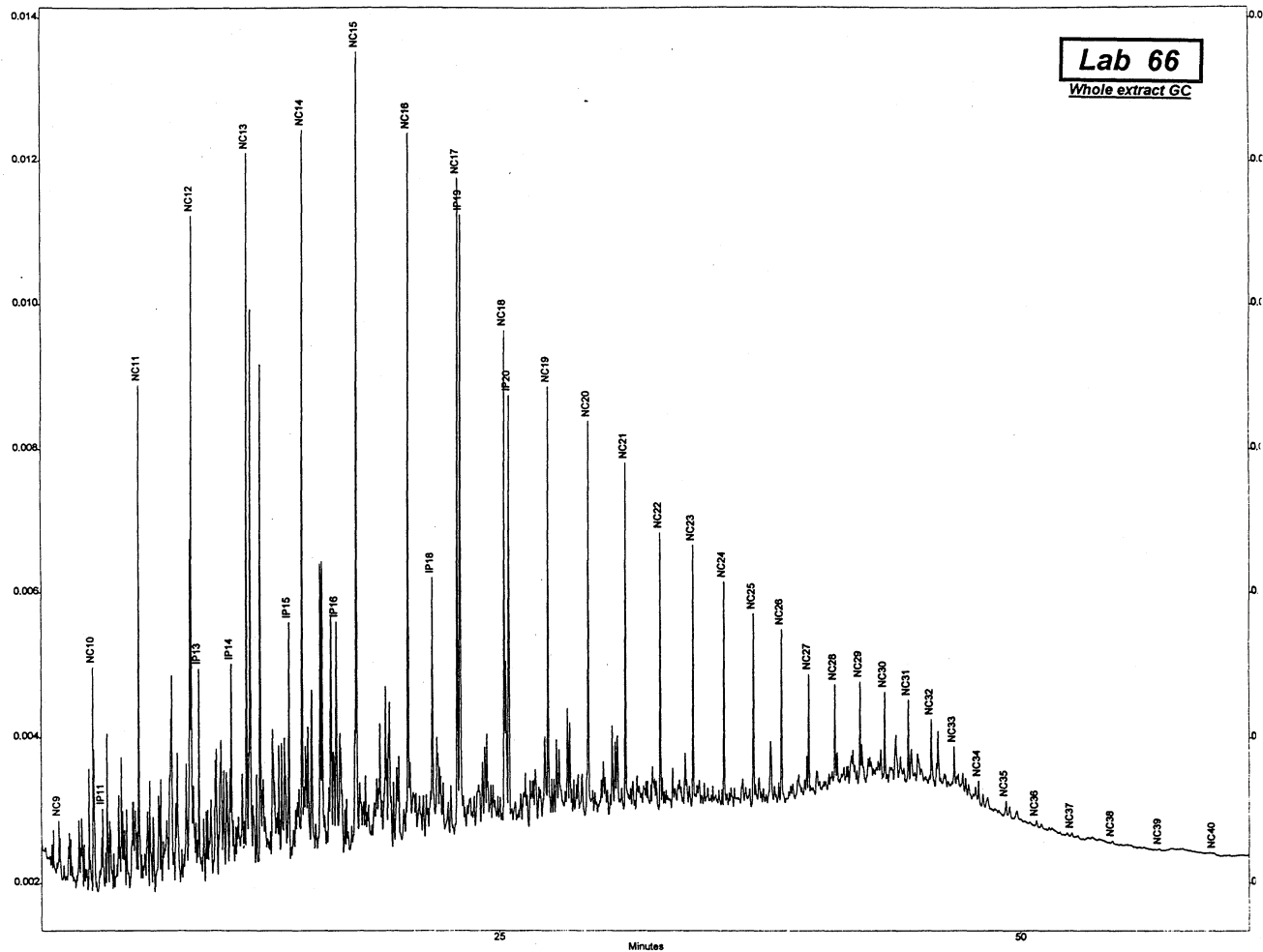
Appendix A5.3a

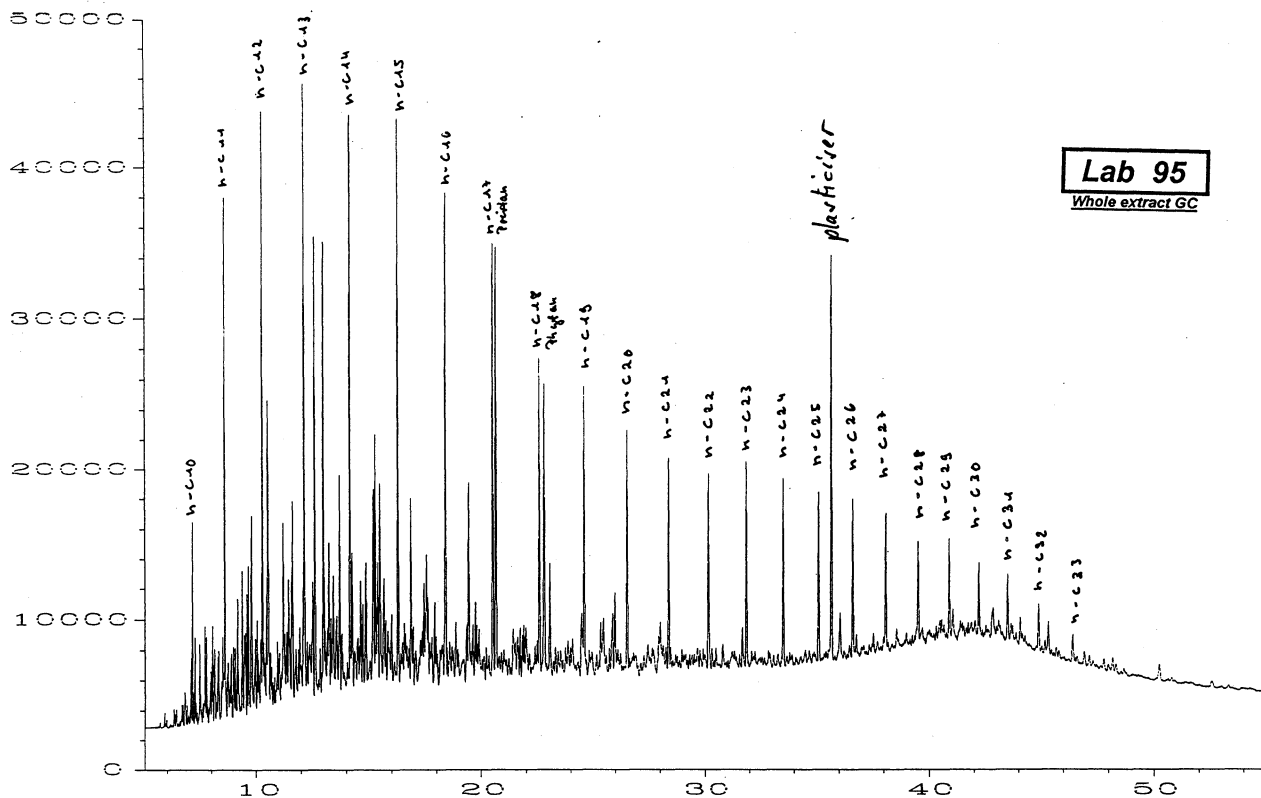
Whole extract GC chromatograms









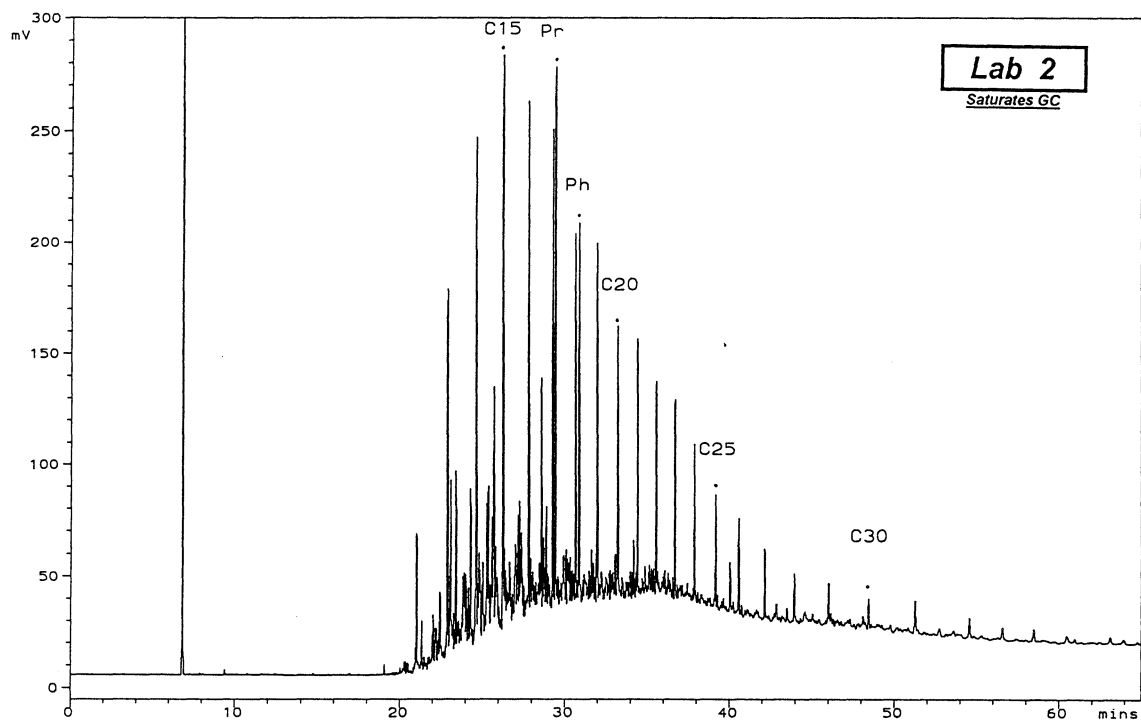
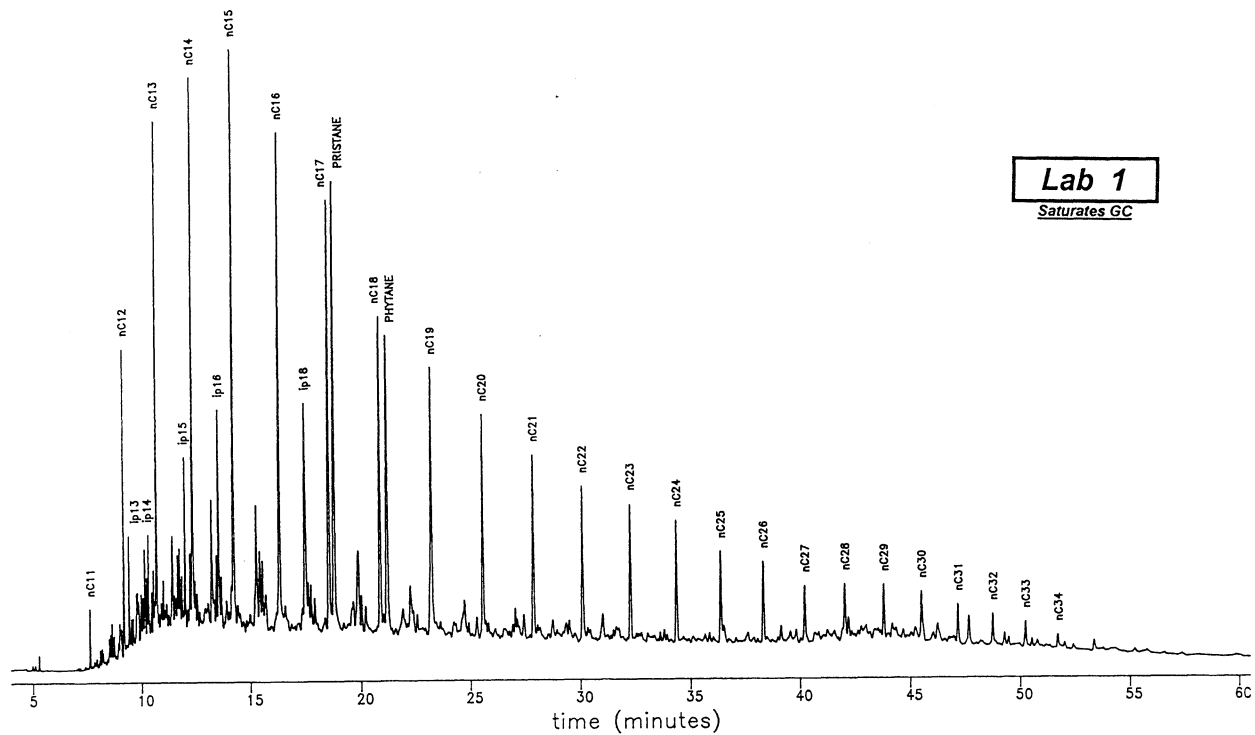


Lab 95
Whole extract GC

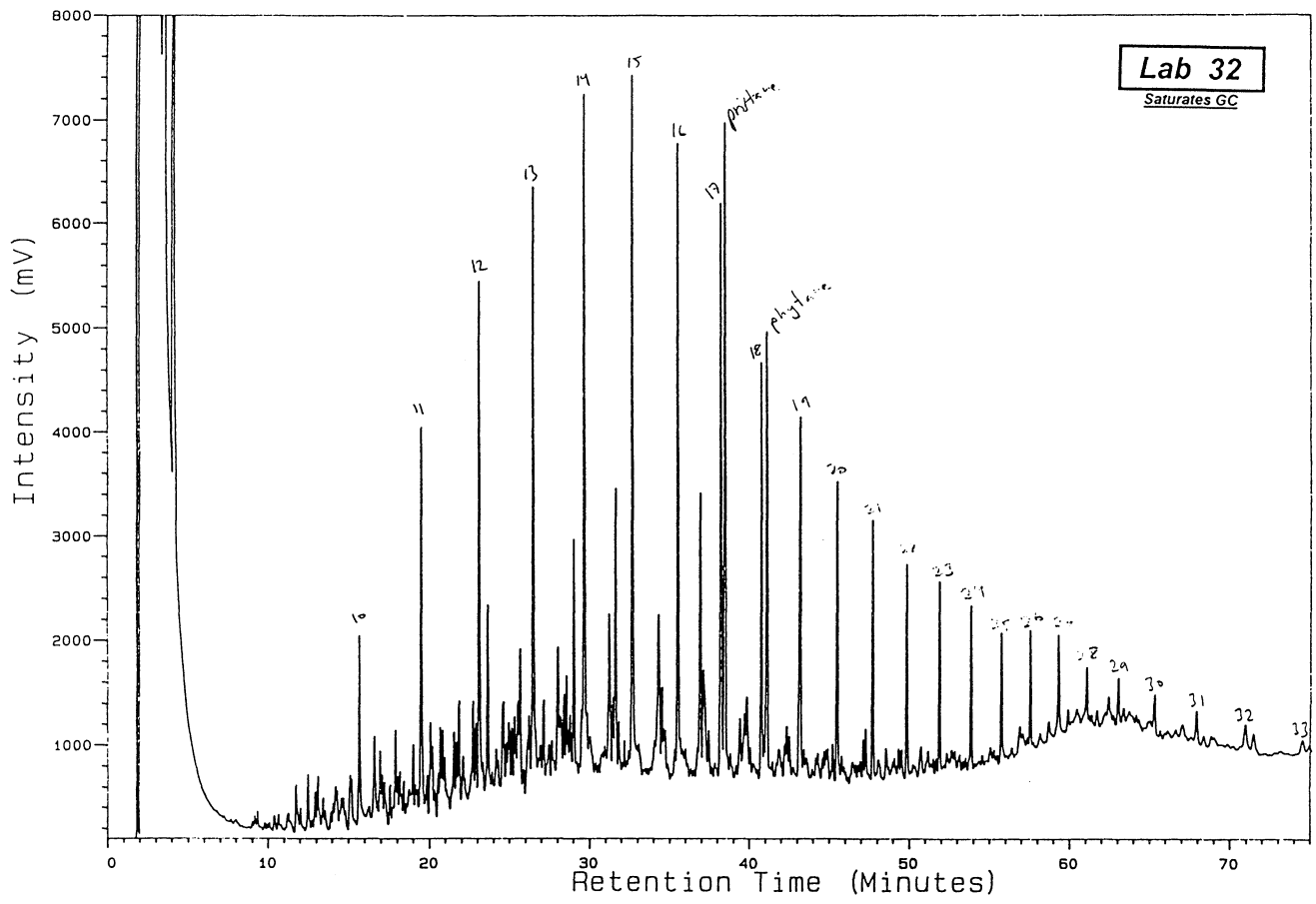
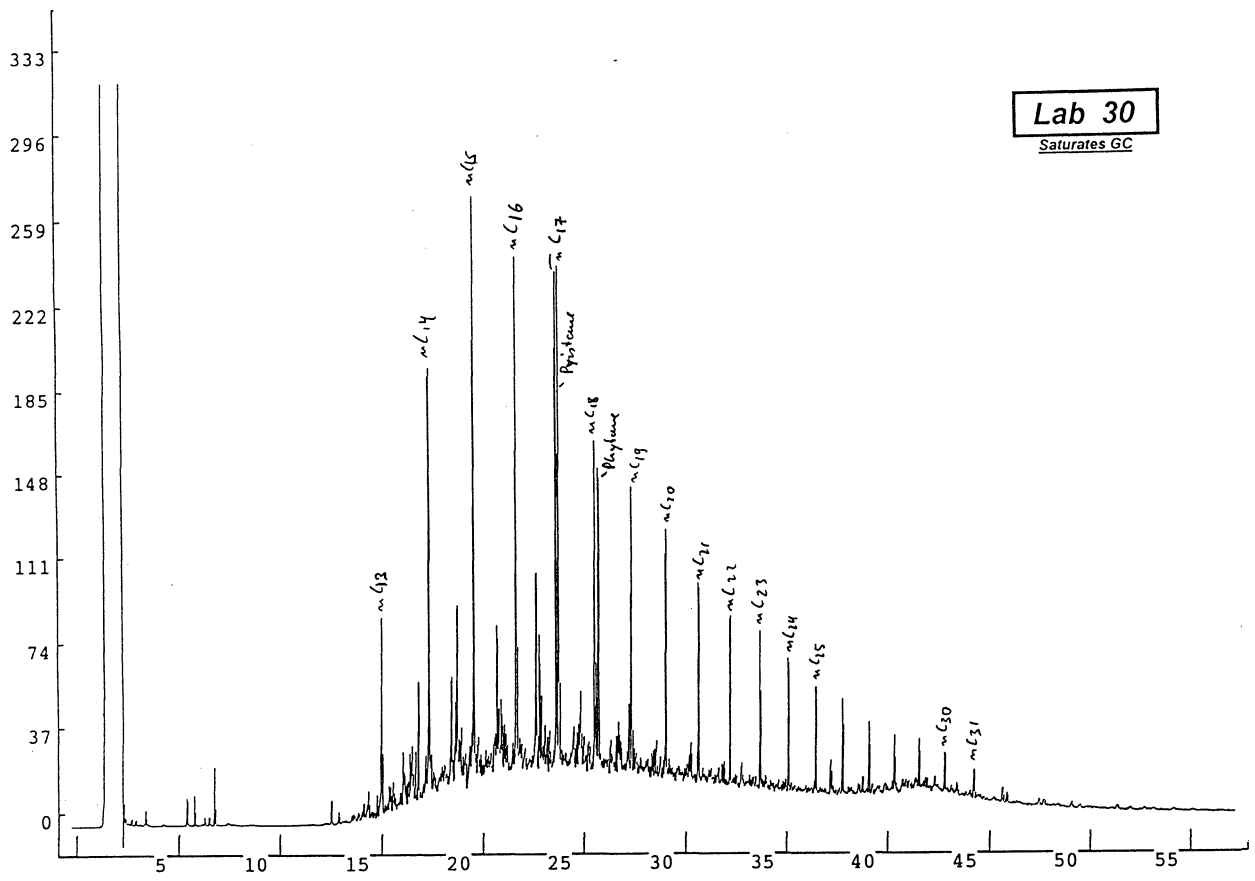
NGS JR-1

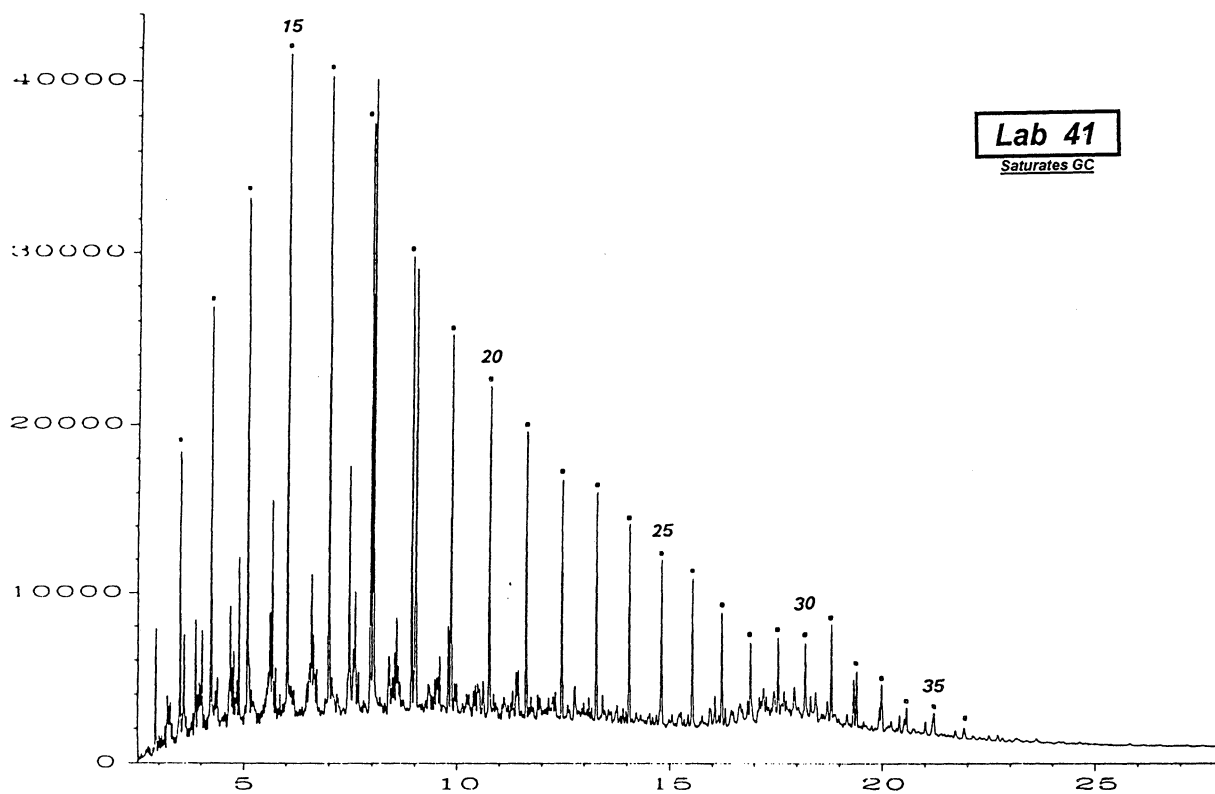
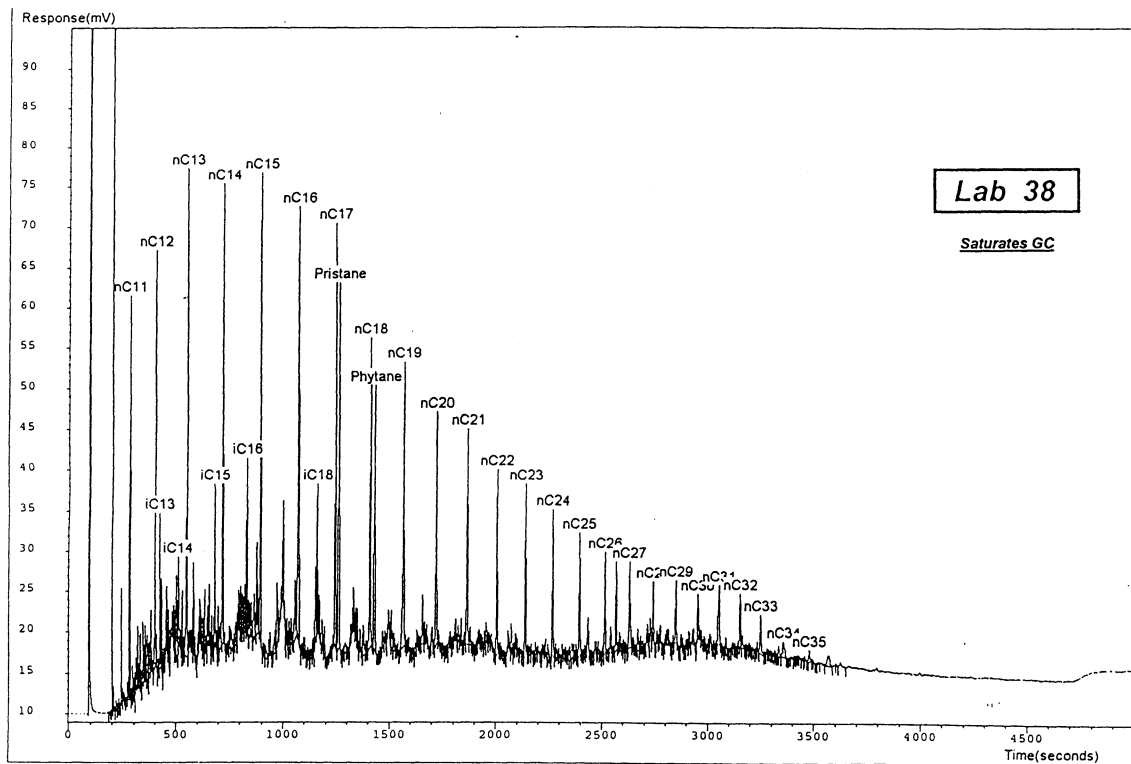
Appendix A5.3b

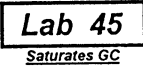
Saturates fraction GC chromatograms

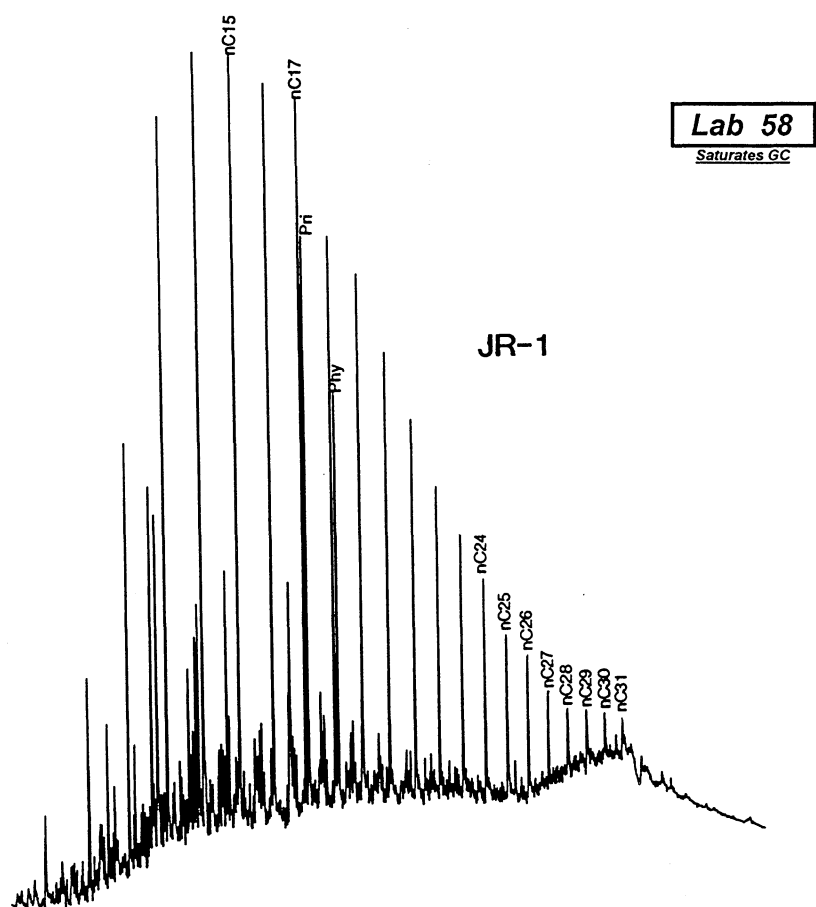
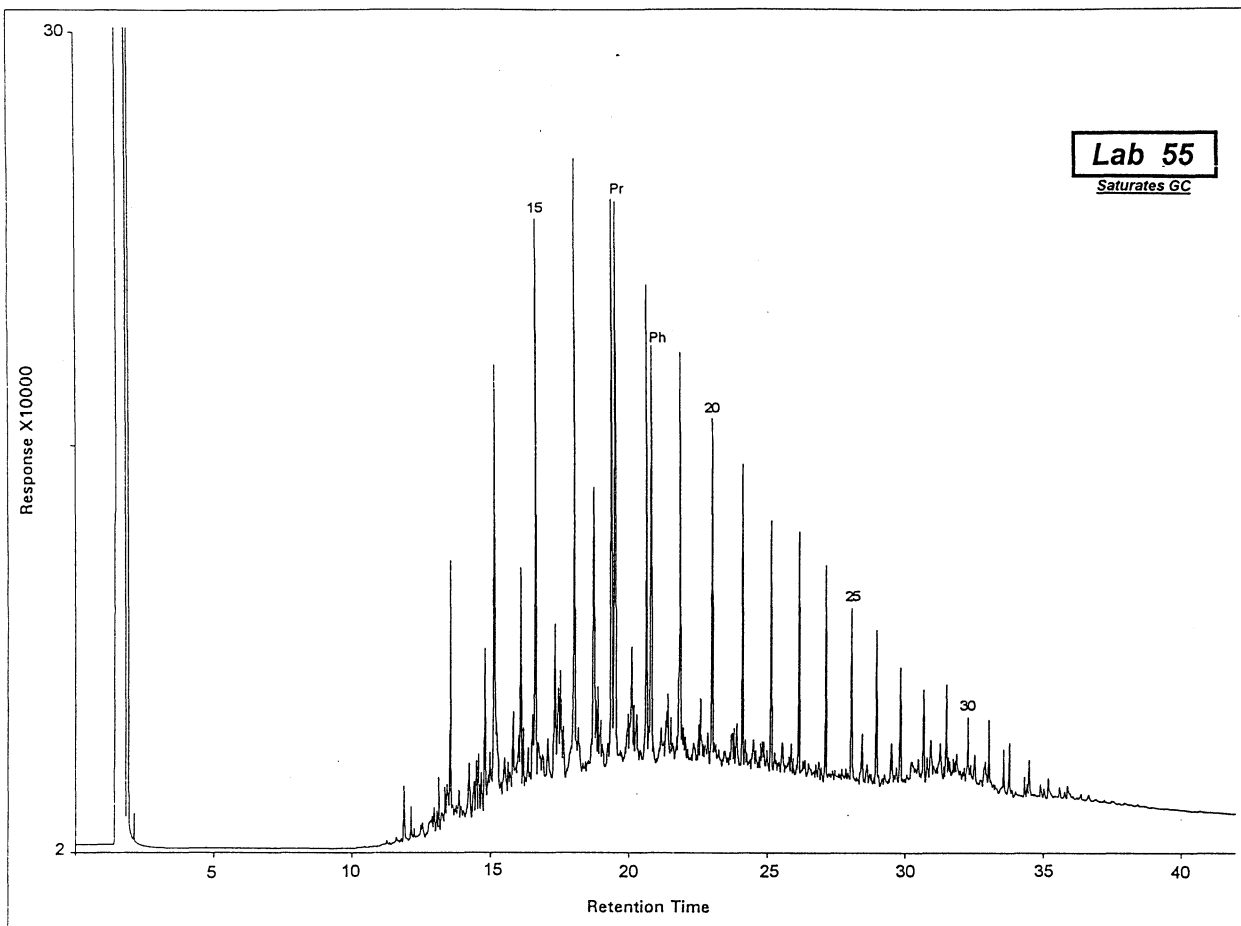


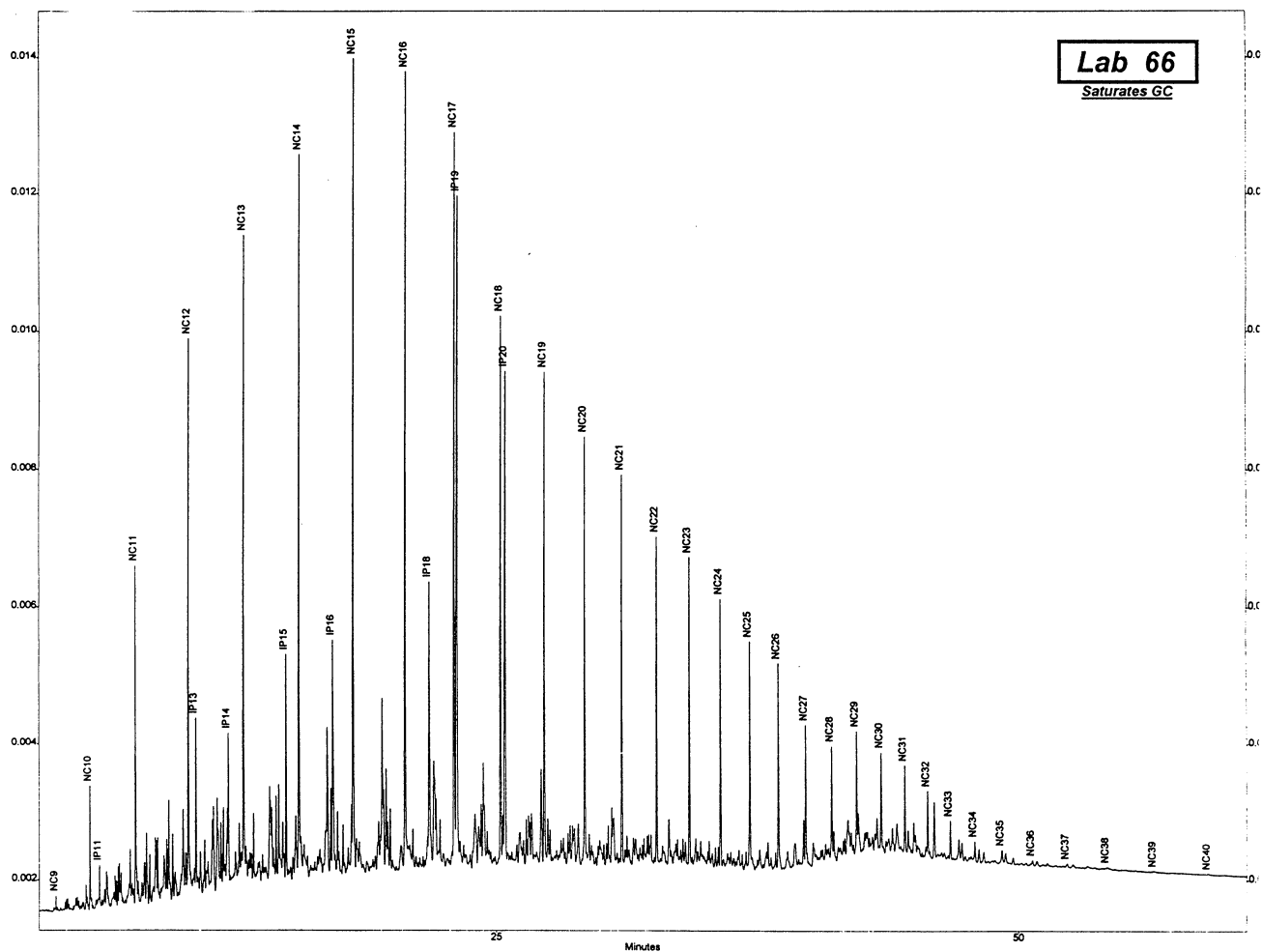
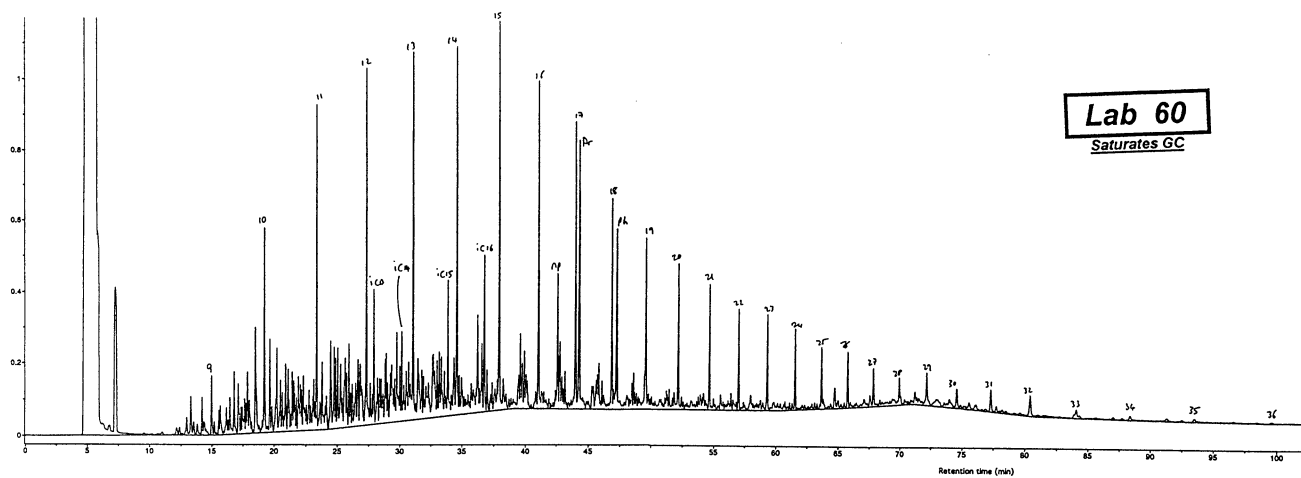
Lab 30
Saturates GC

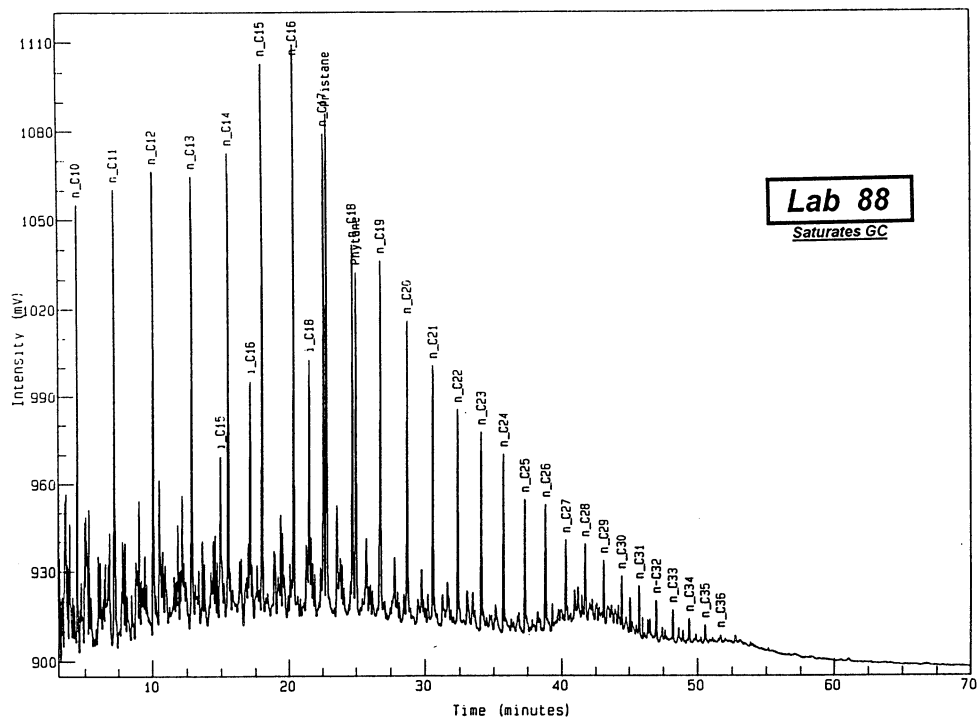
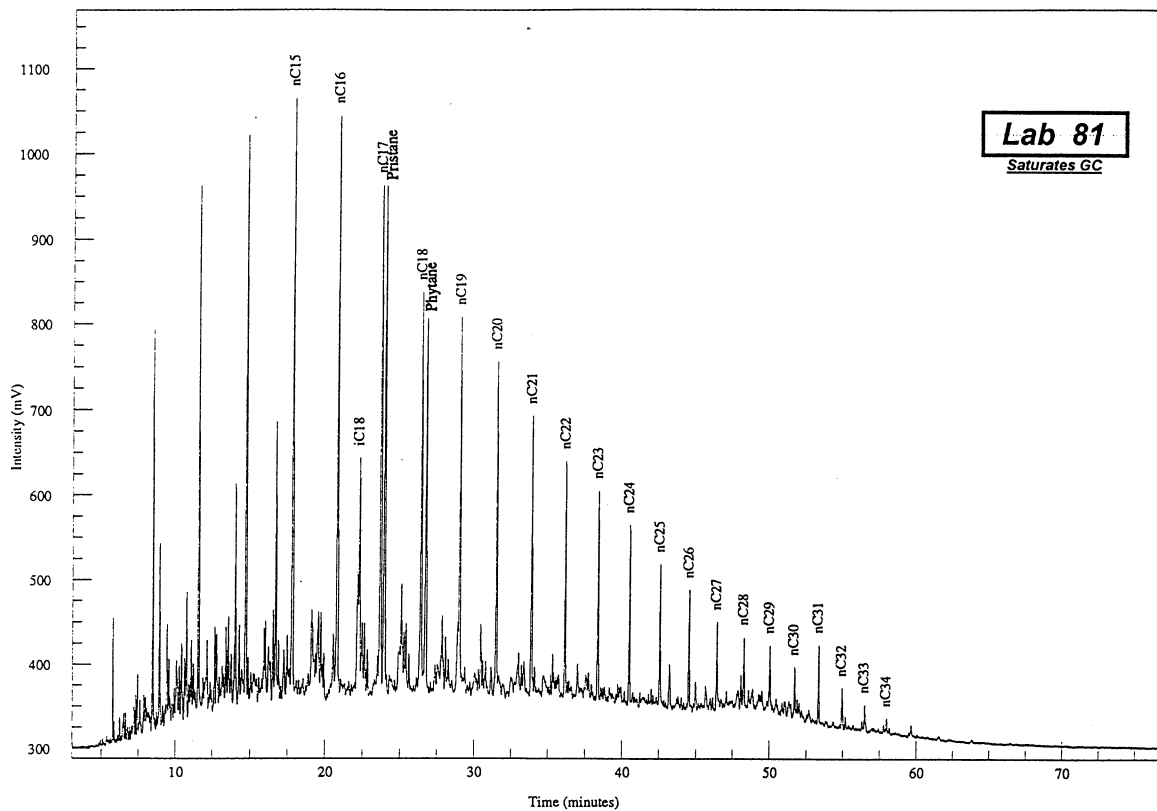


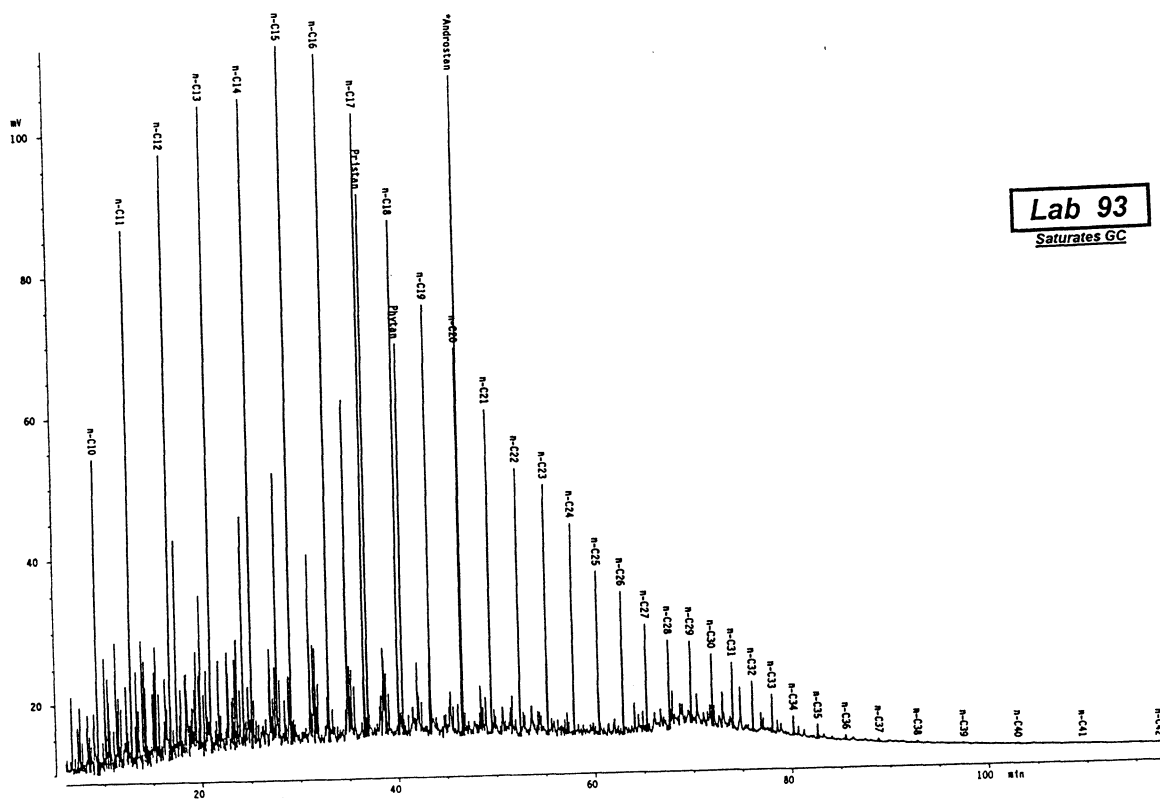
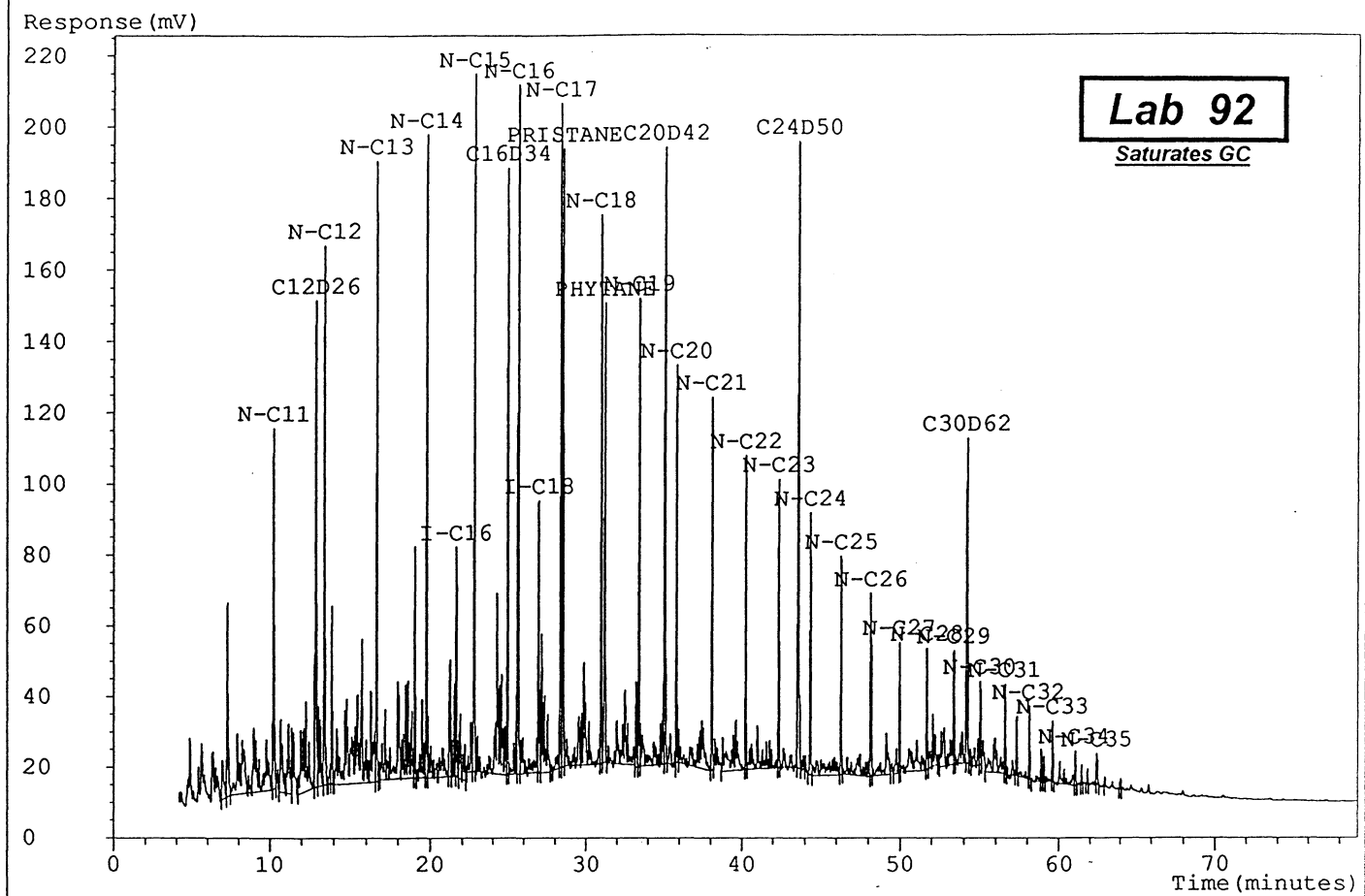


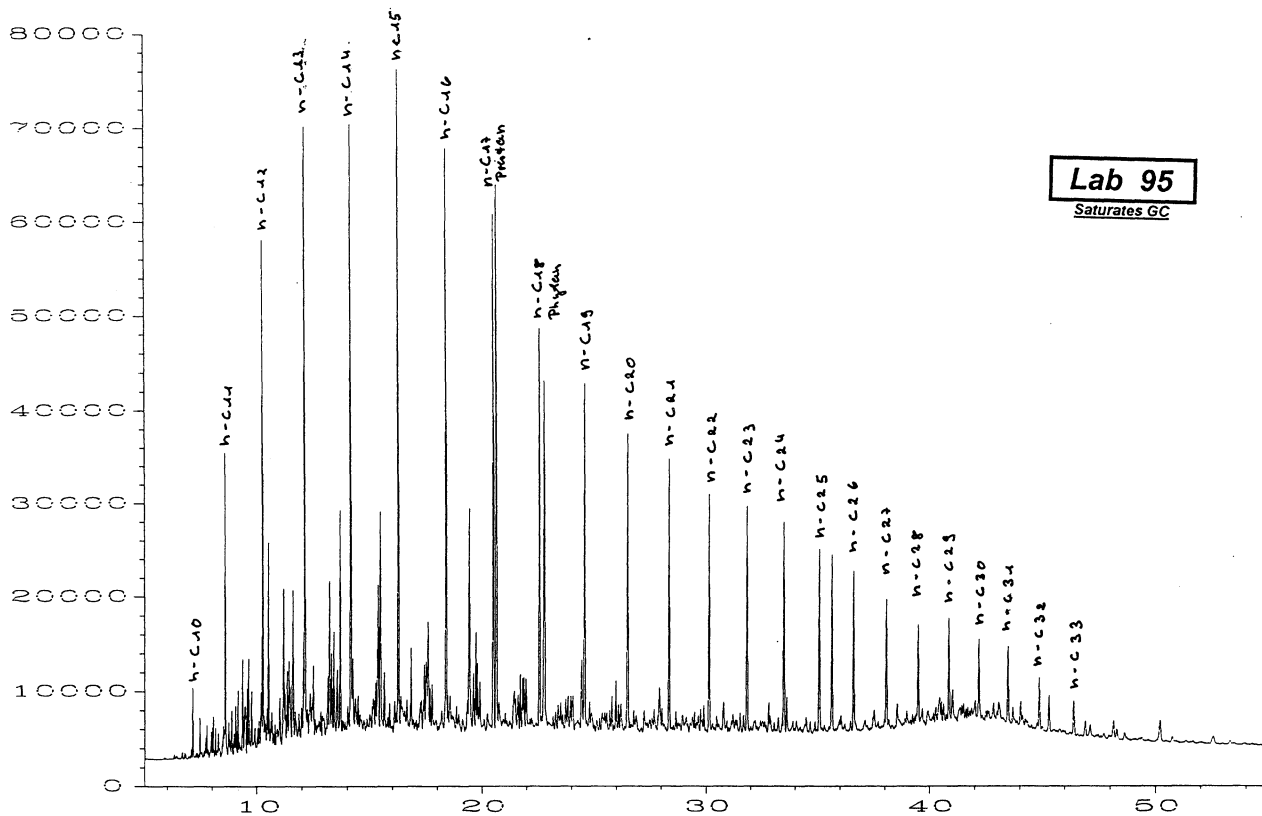










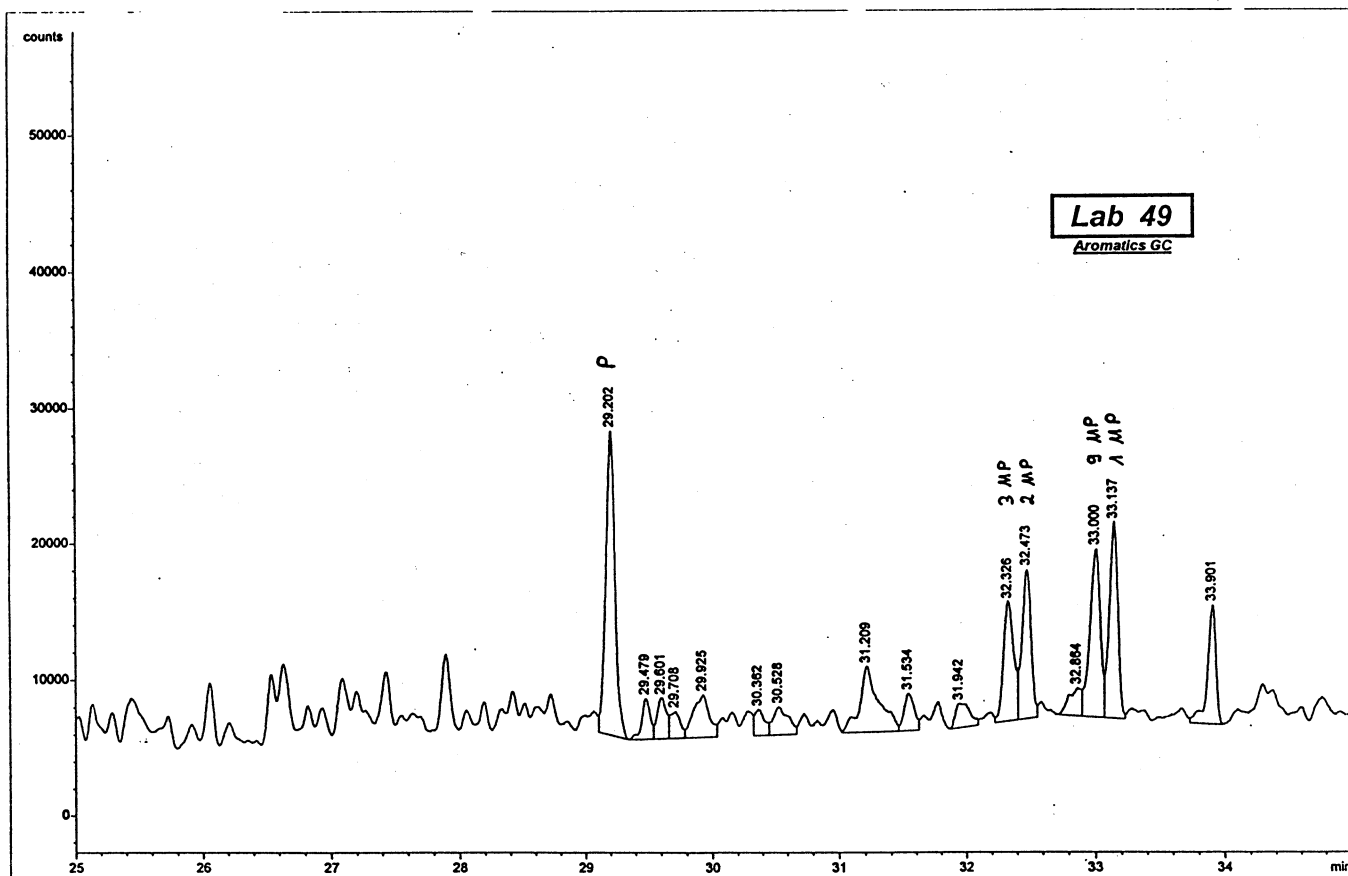
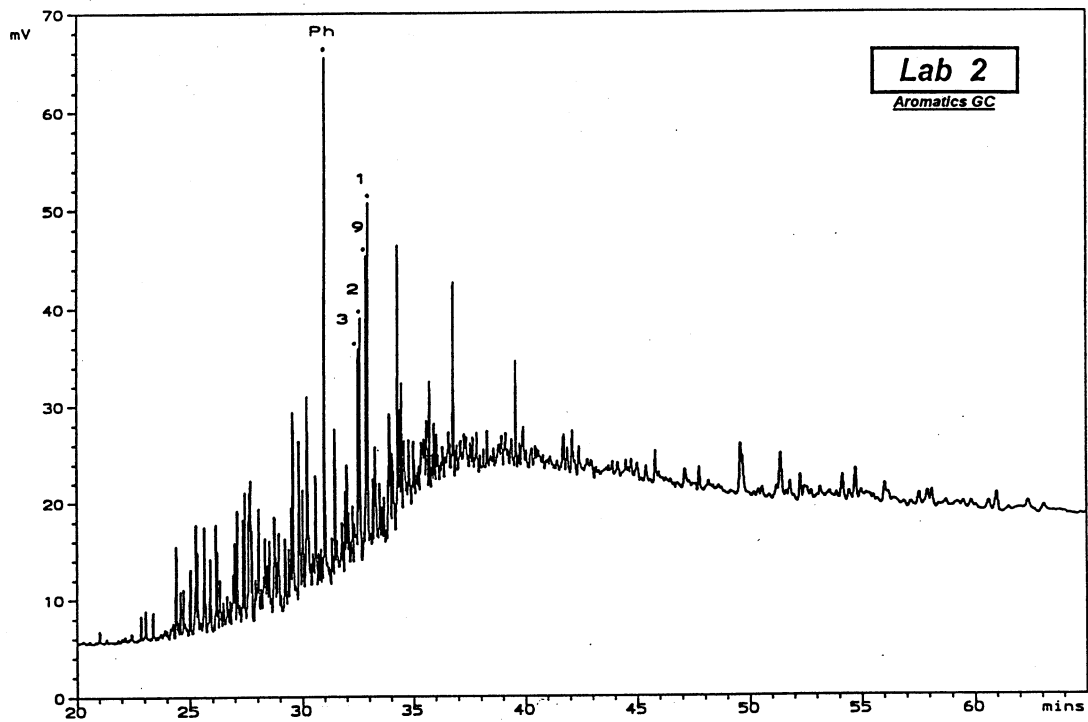


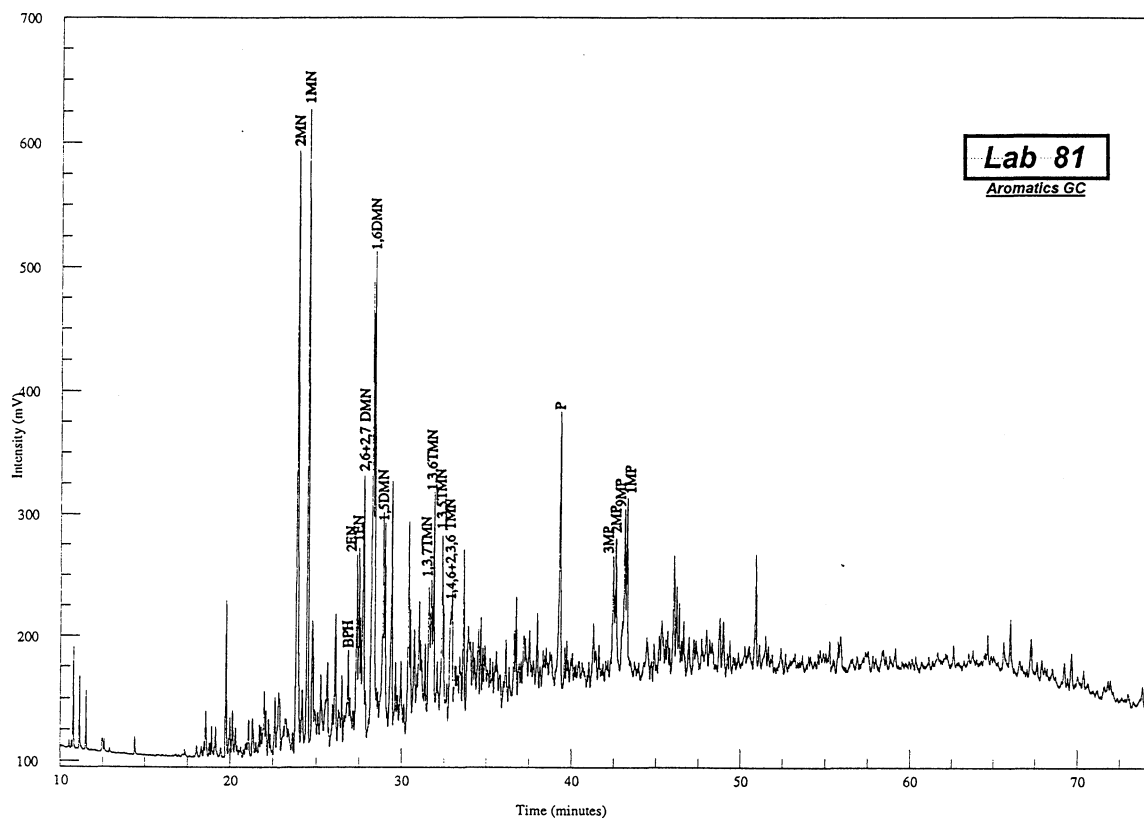
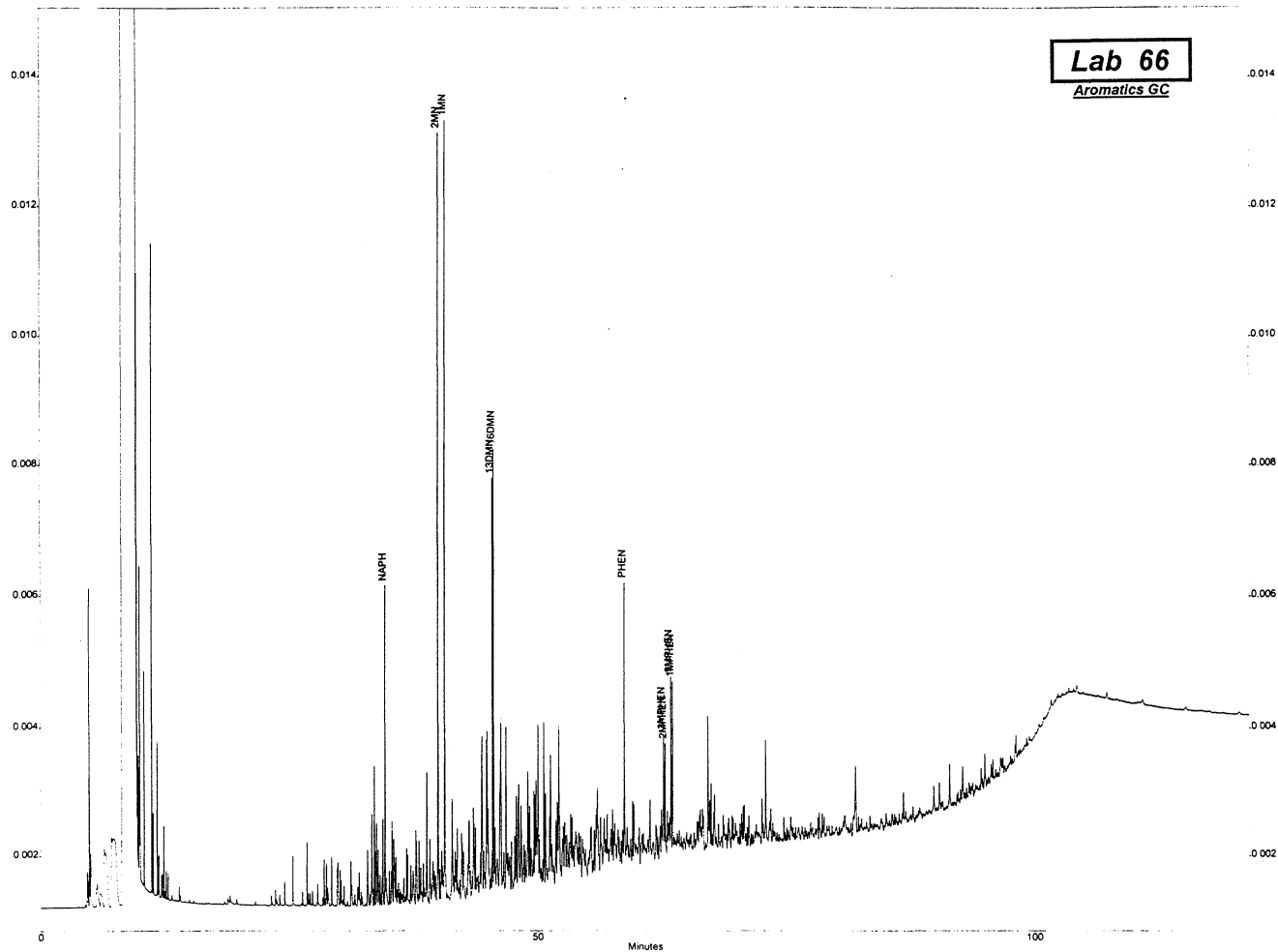
Lab 95
Saturates GC

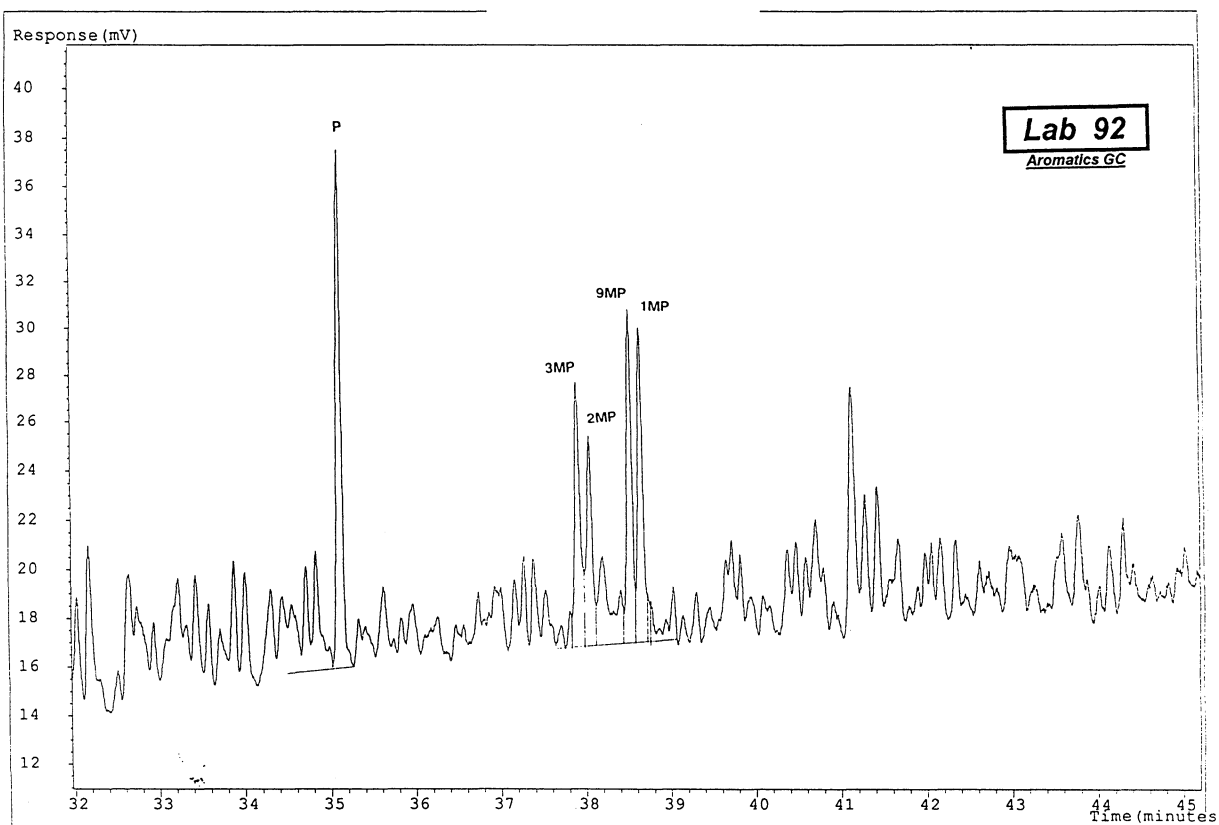
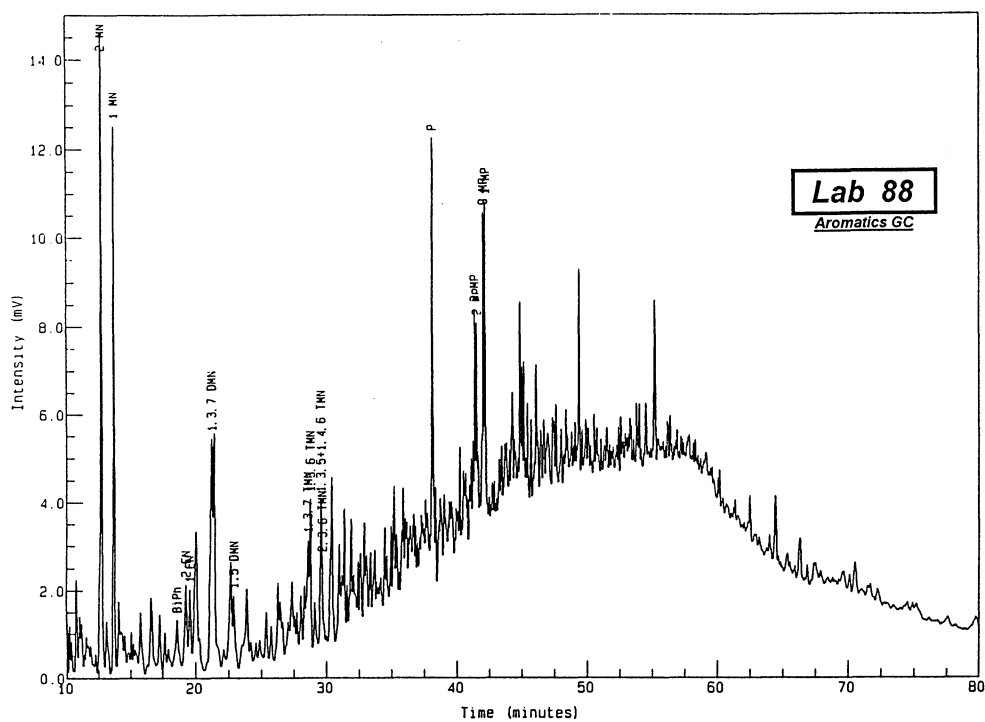
NGS JR-1

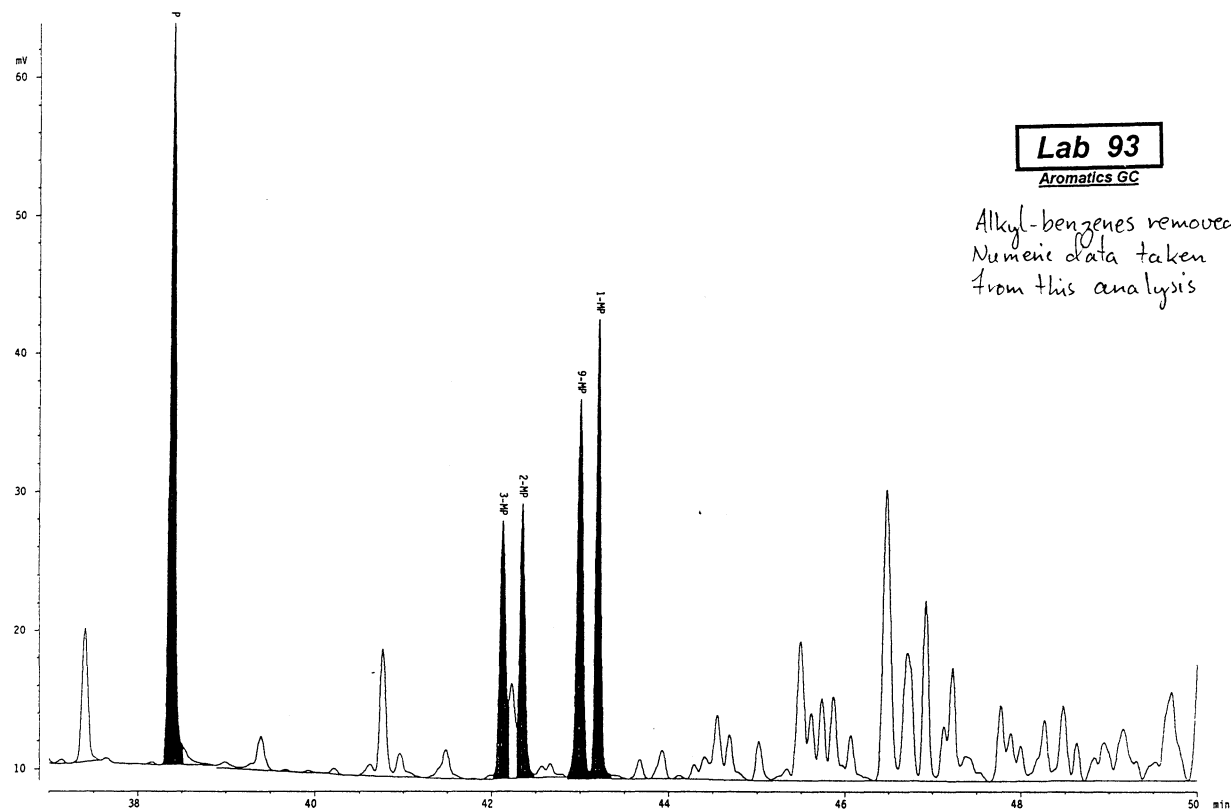
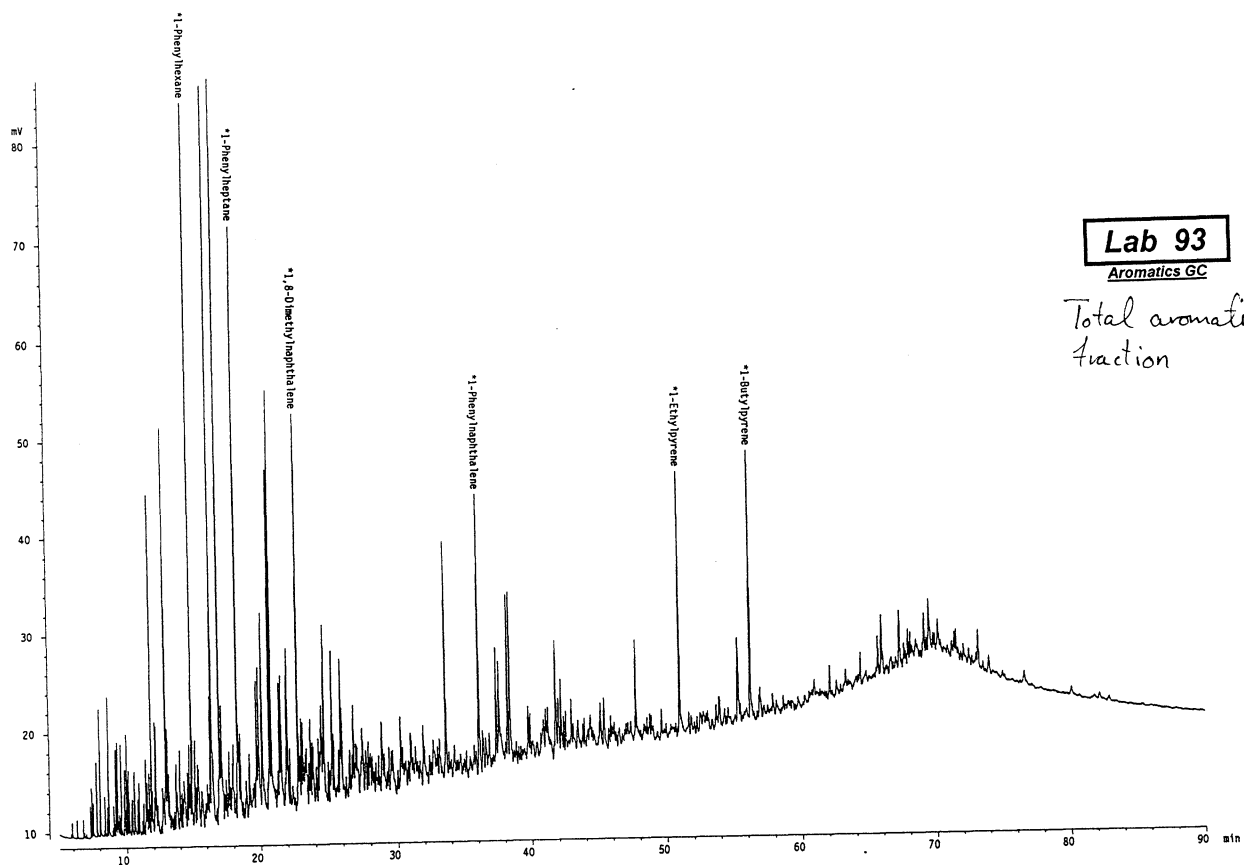
Appendix A5.3c

Aromatic fraction GC chromatograms

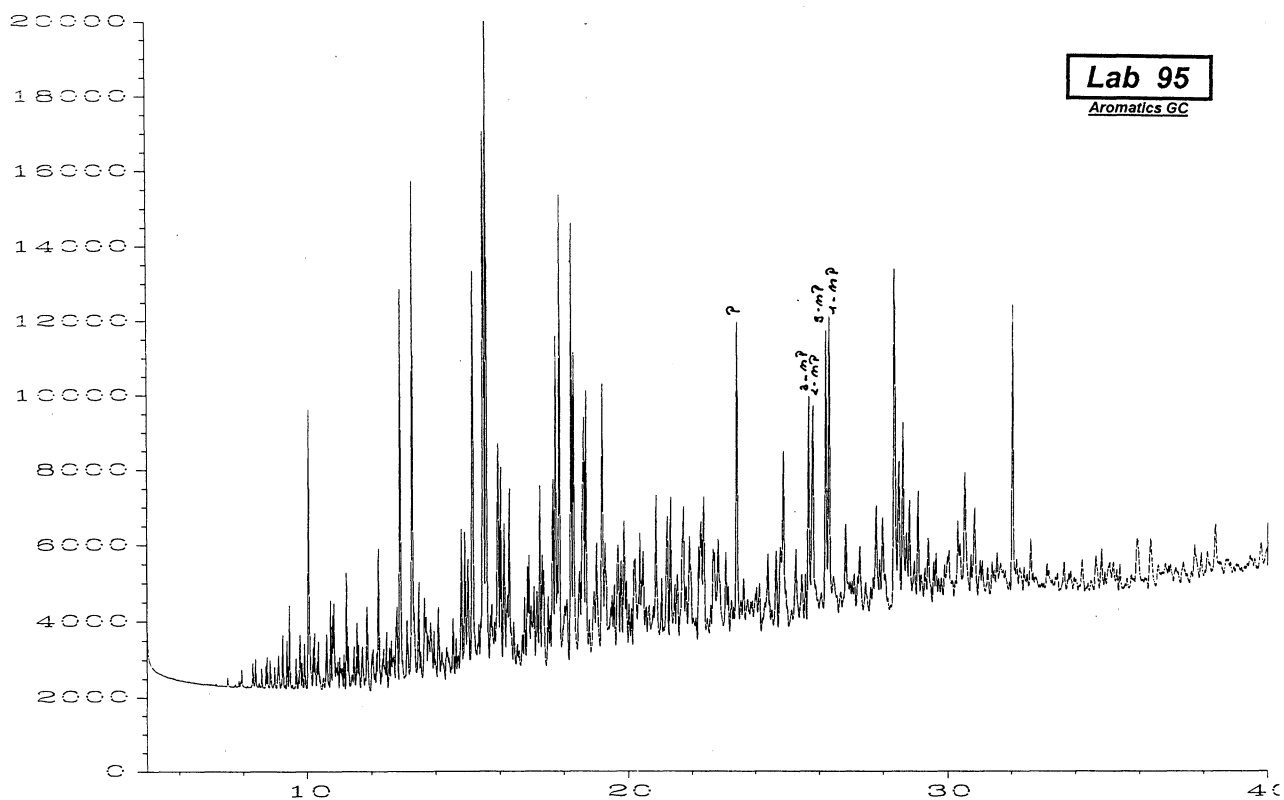








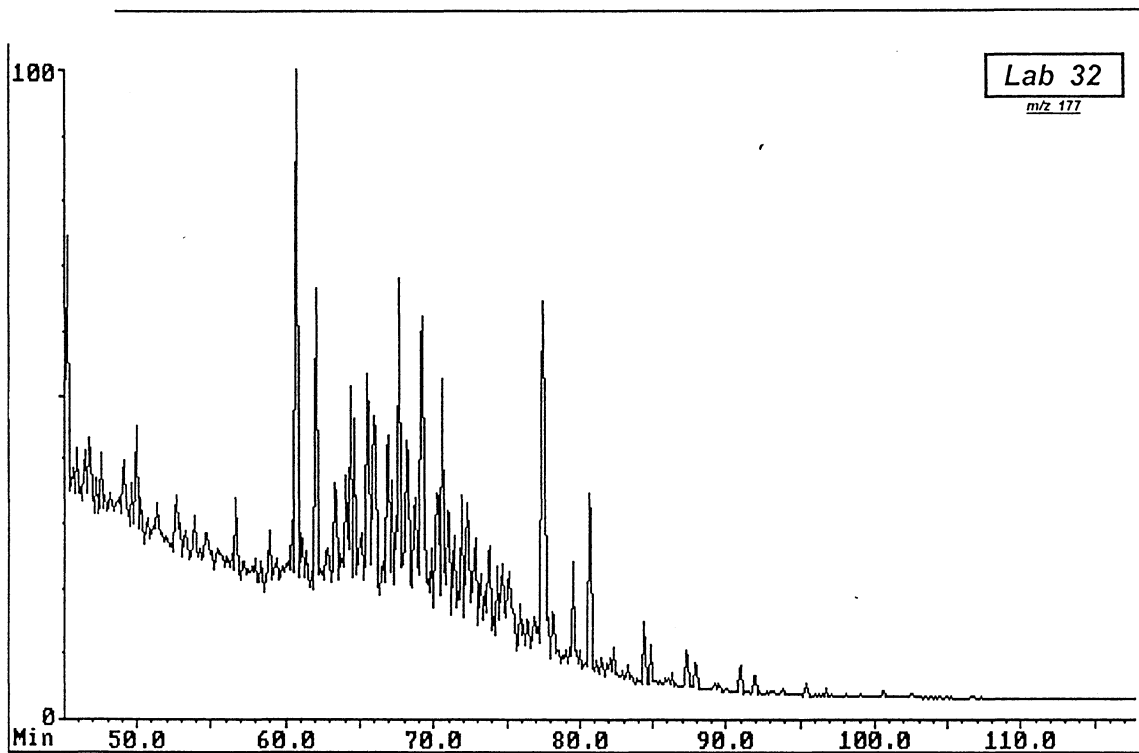
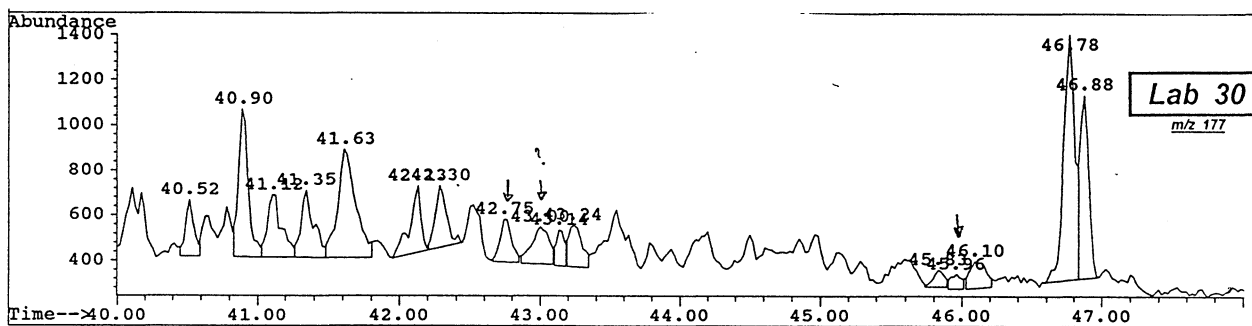
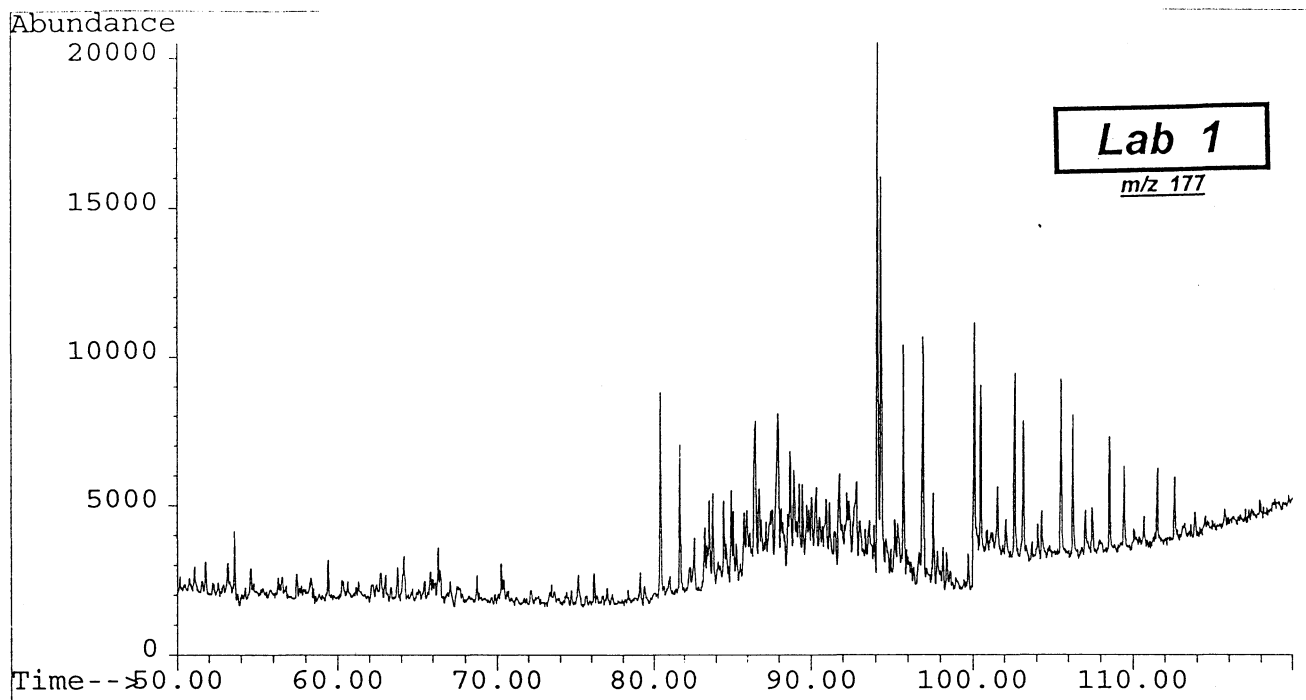
Lab 95
Aromatics GC

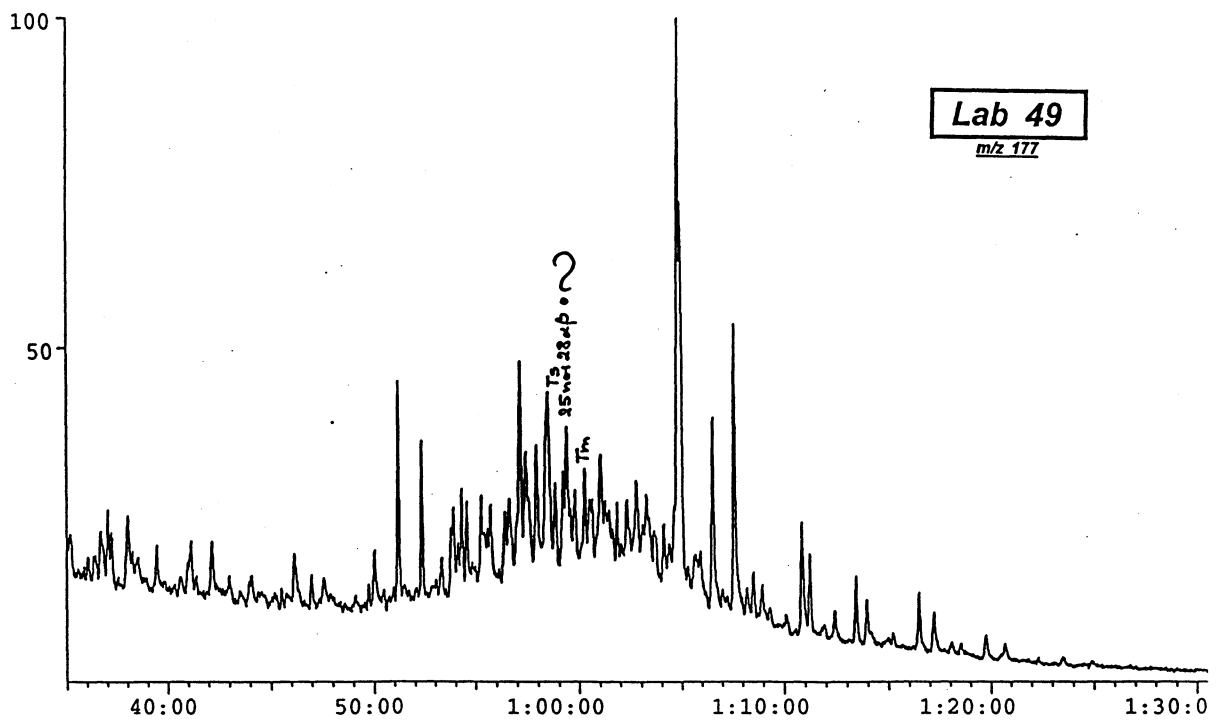
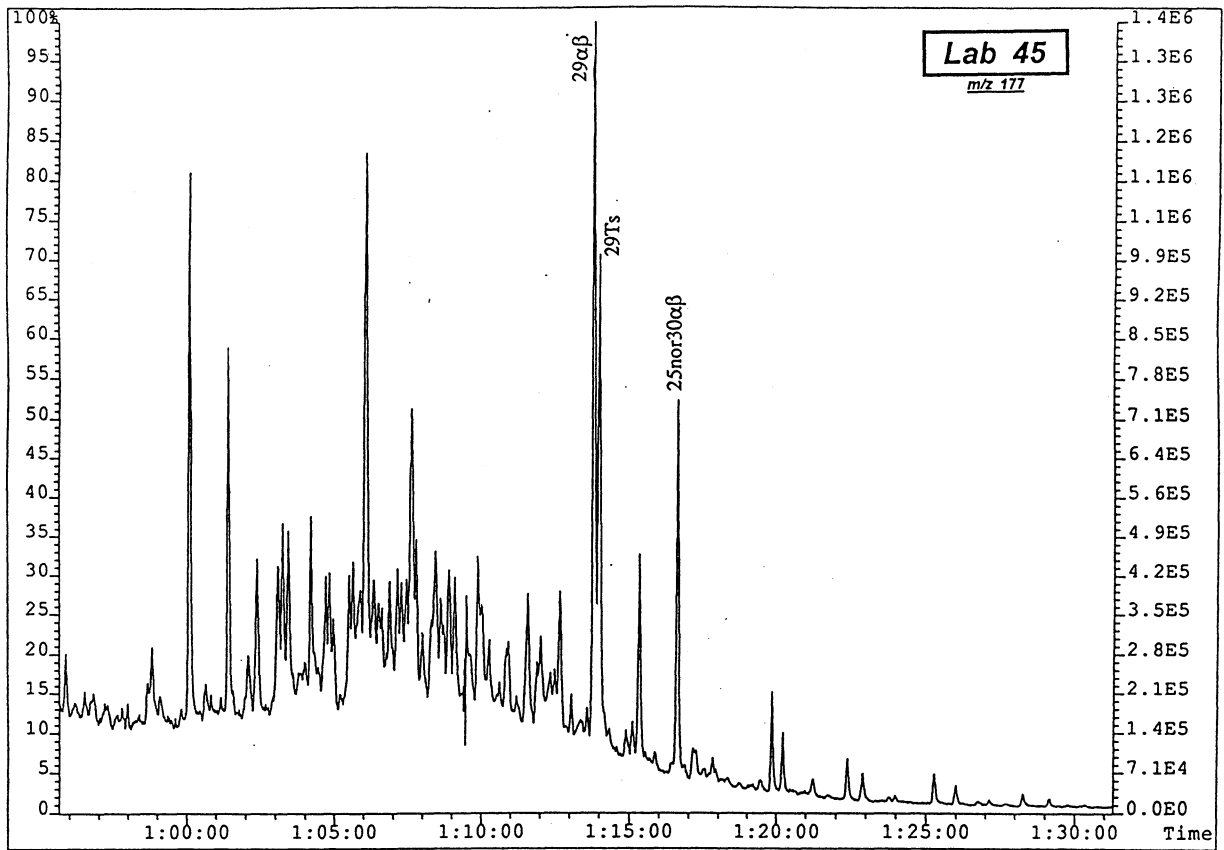


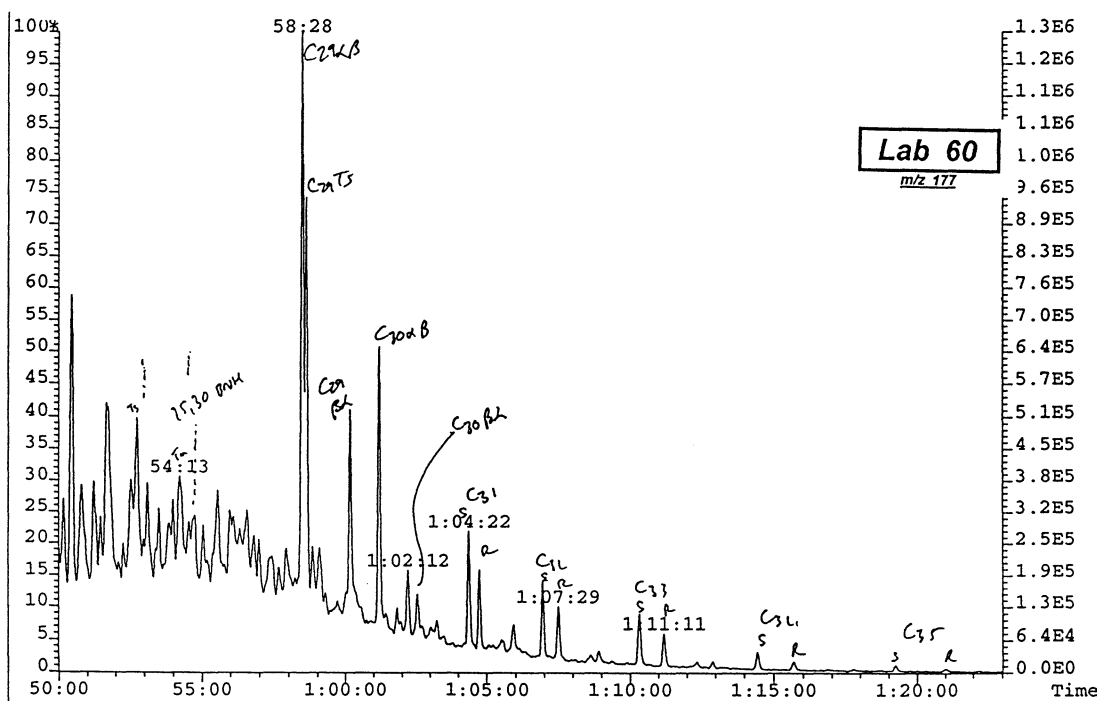
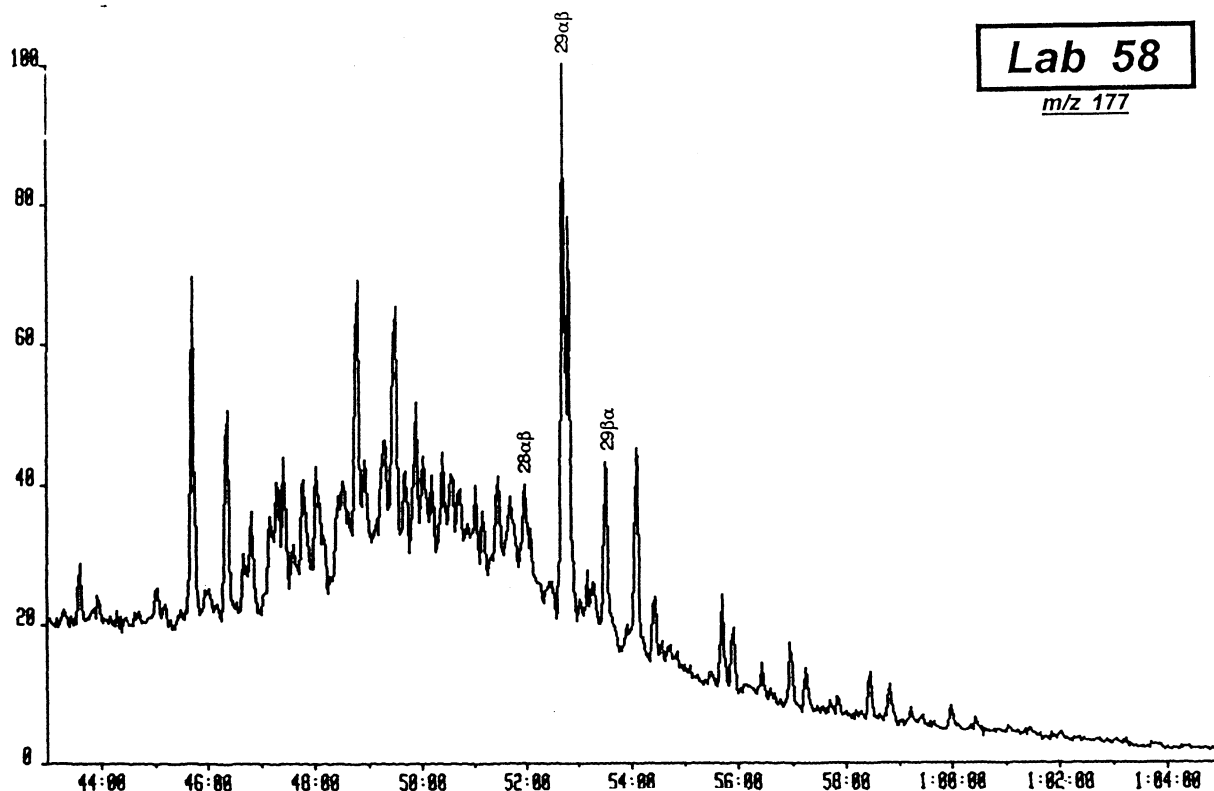
NGS JR-1

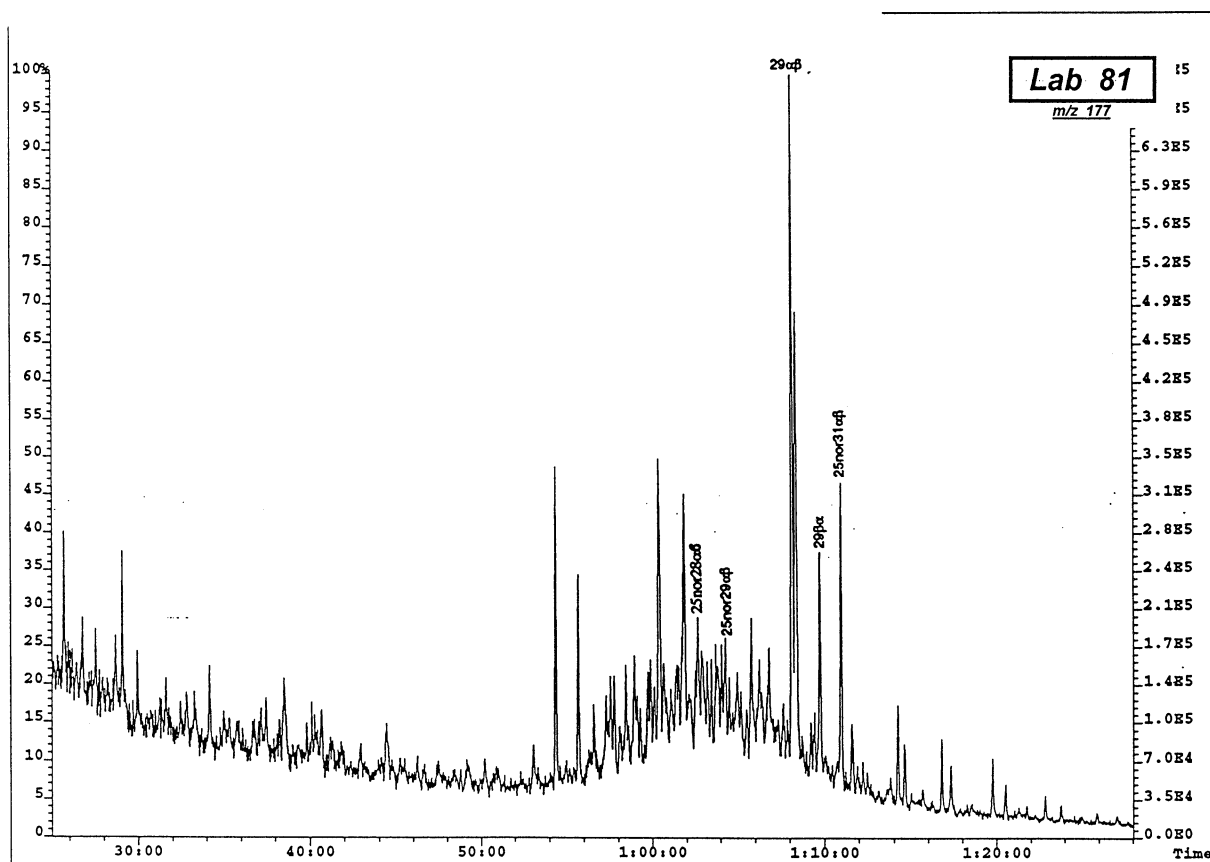
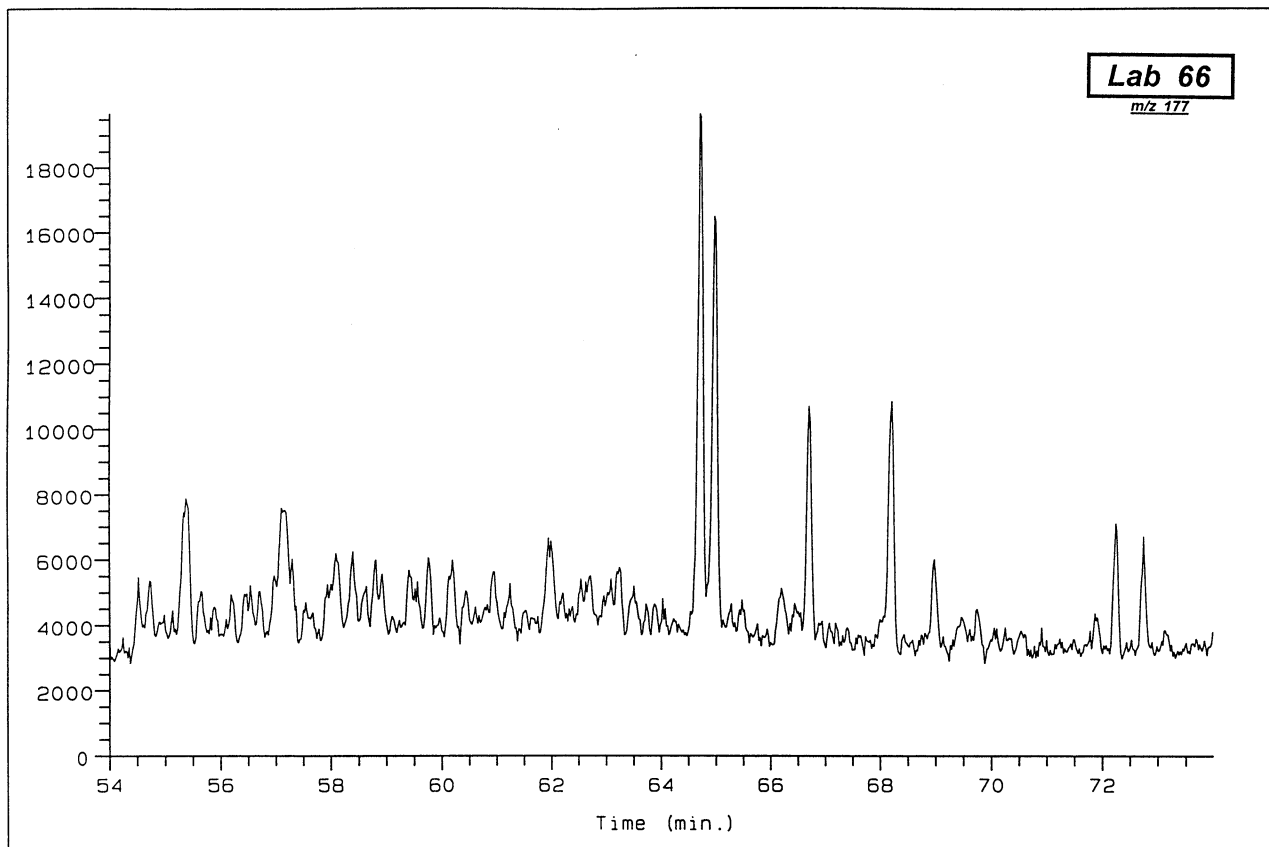
Appendix A5.4a-1

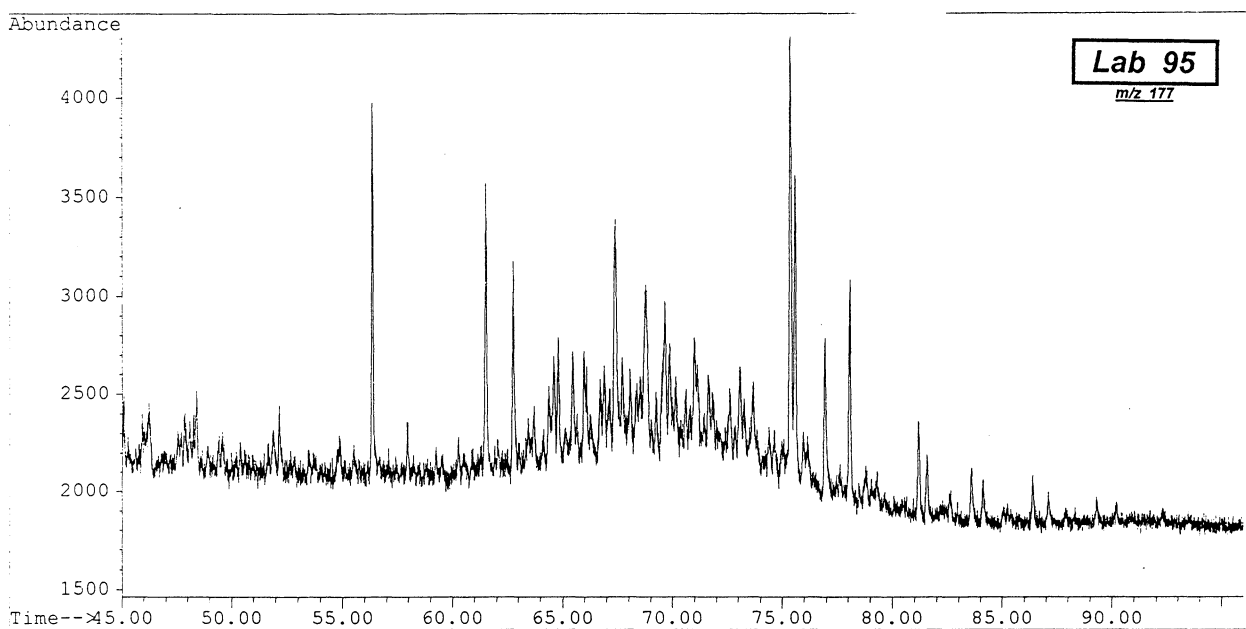
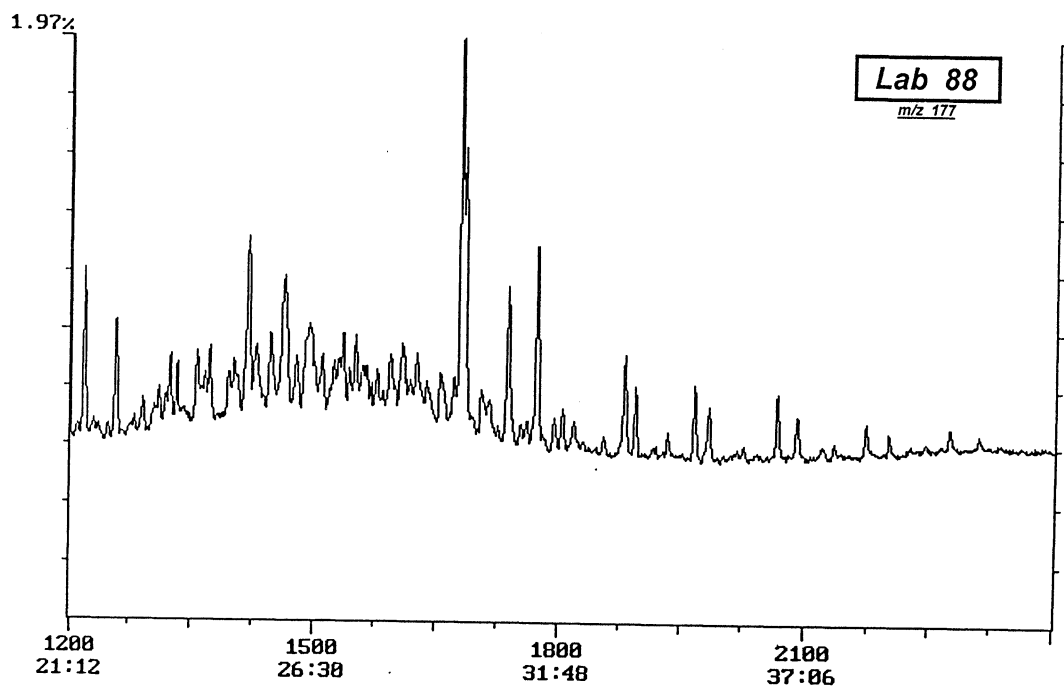
Saturates fraction m/z 177 GC-MS fragmentograms







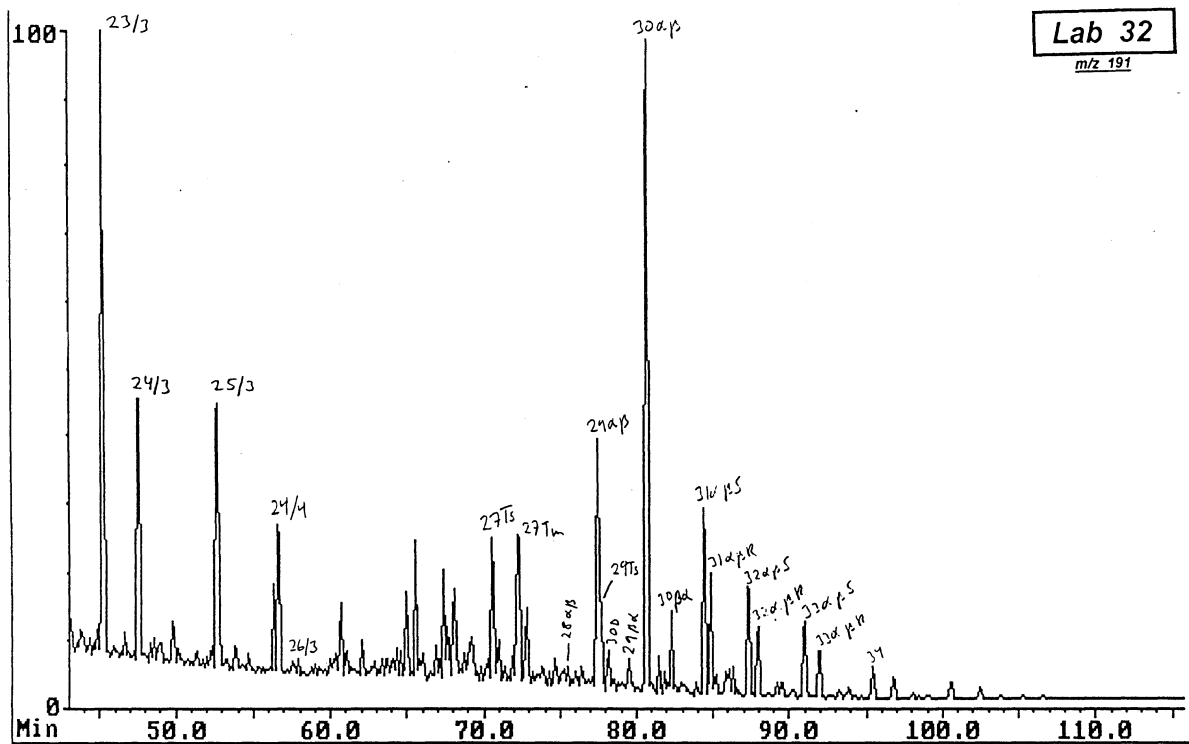




NGS JR-1

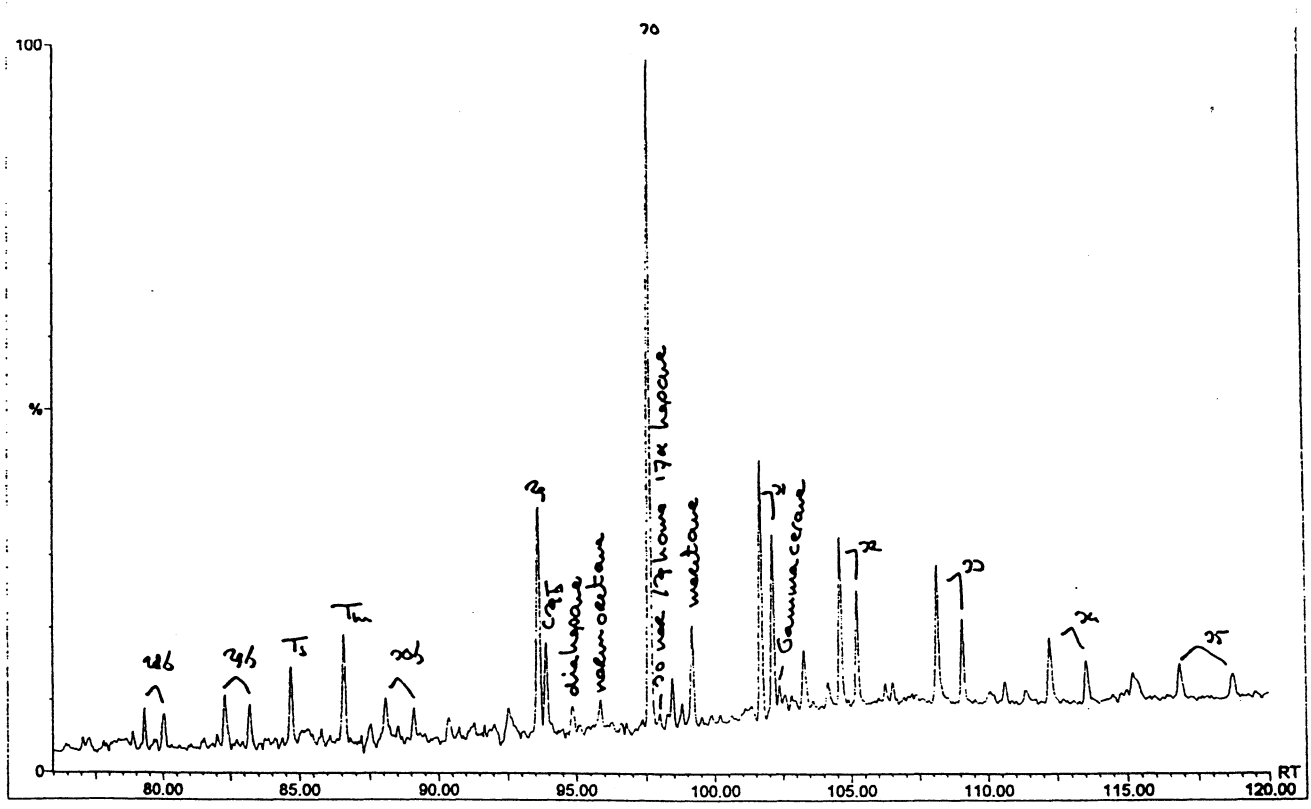
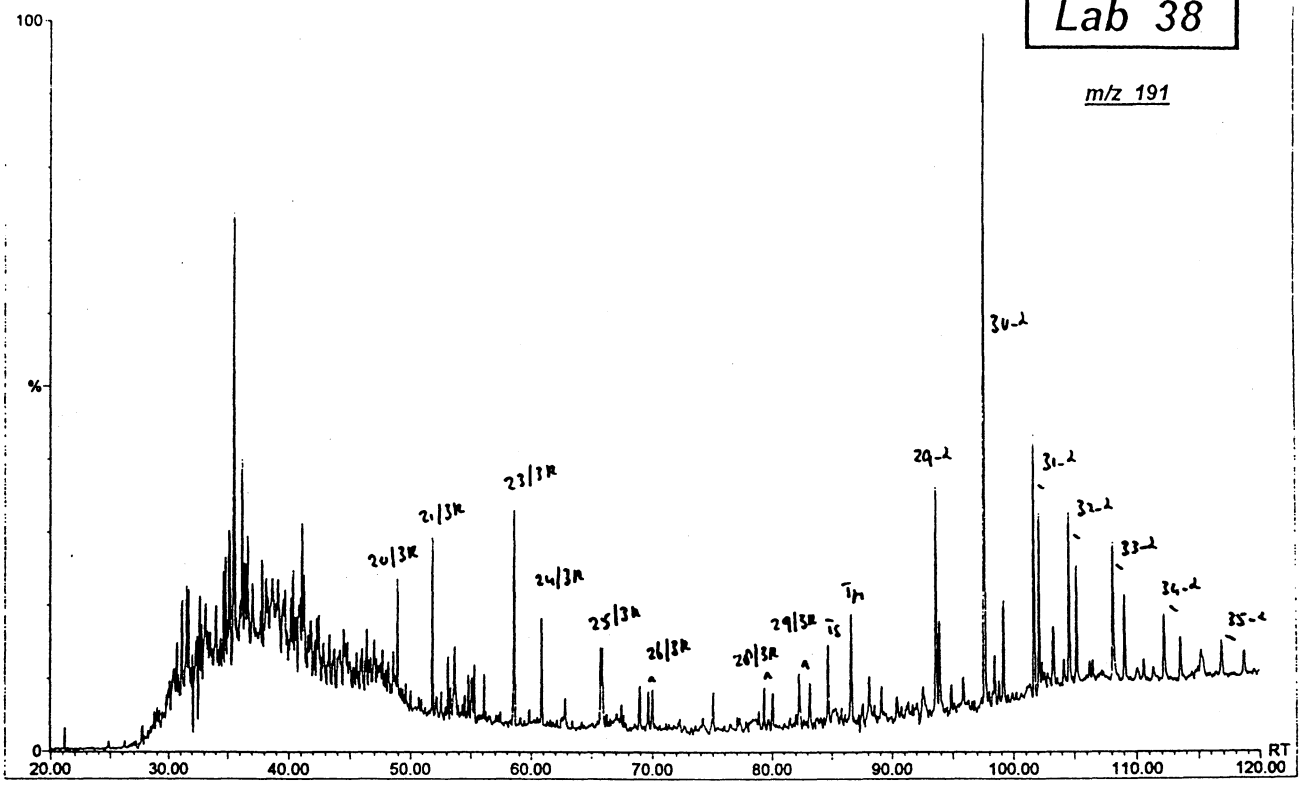
Appendix A5.4a-2

Saturates fraction m/z 191 GC-MS fragmentograms



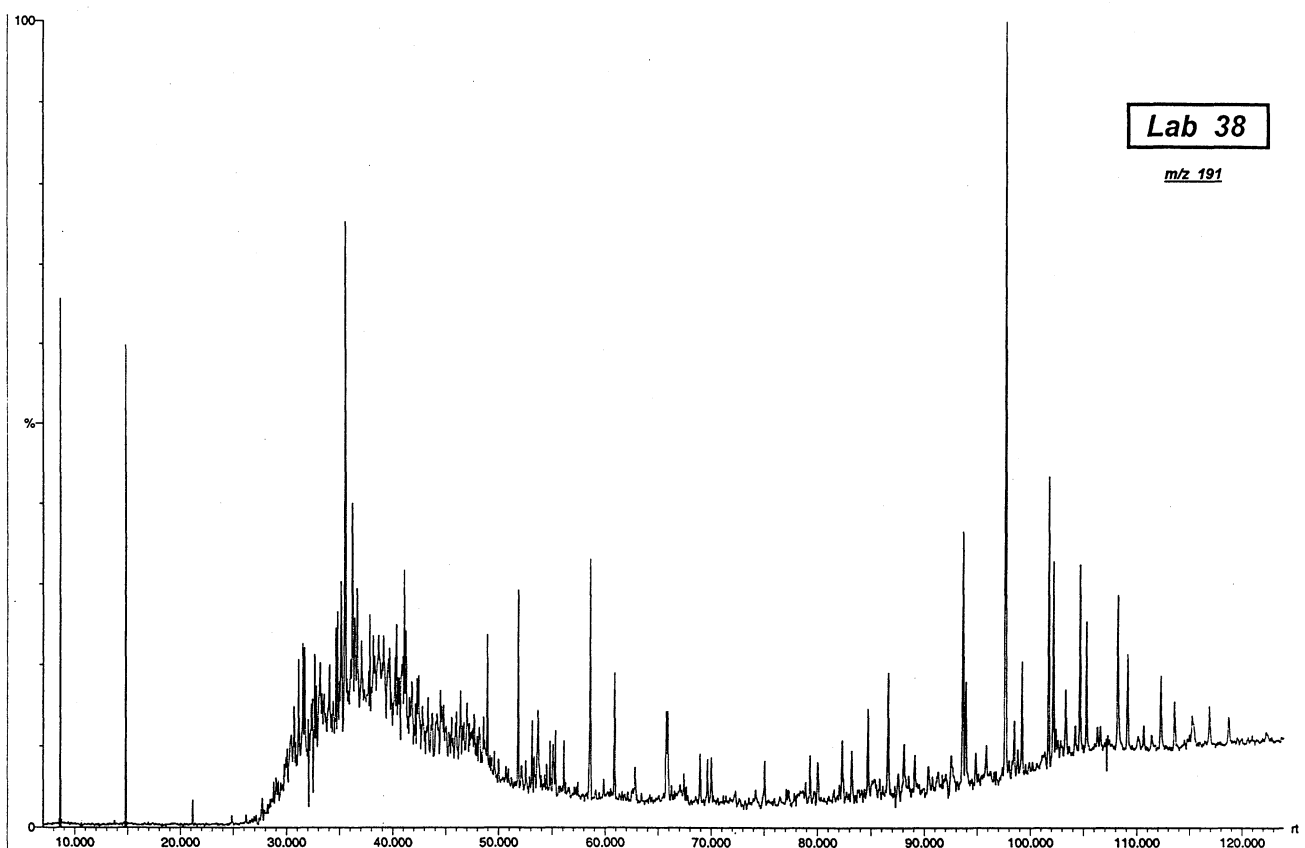
Lab 38

m/z 191



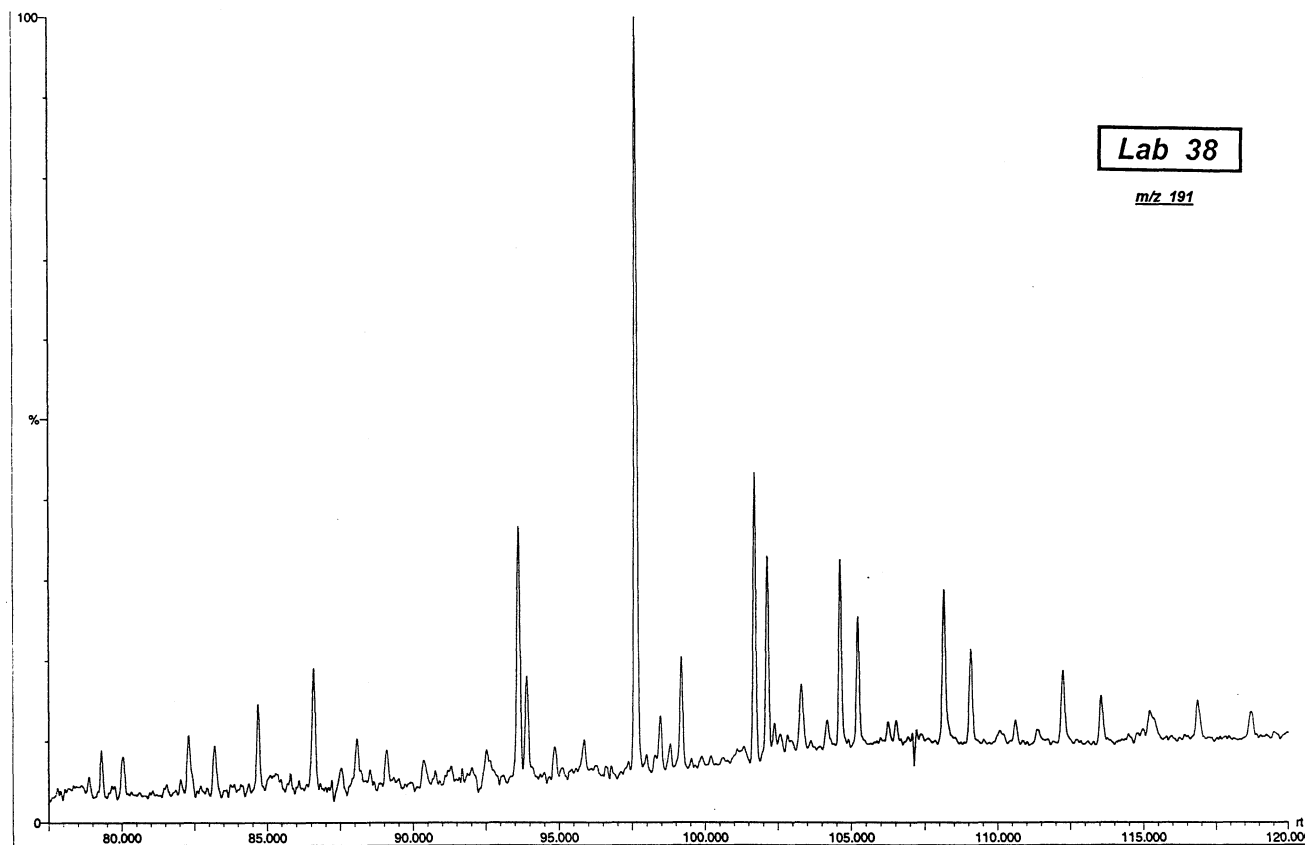
Lab 38

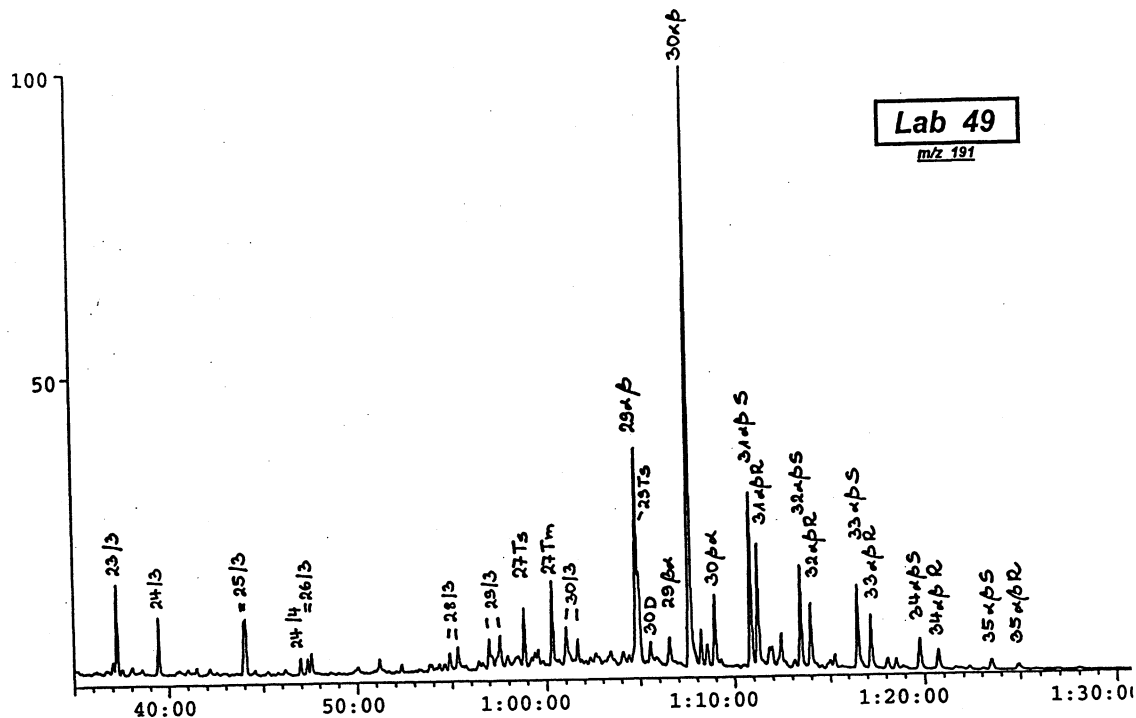
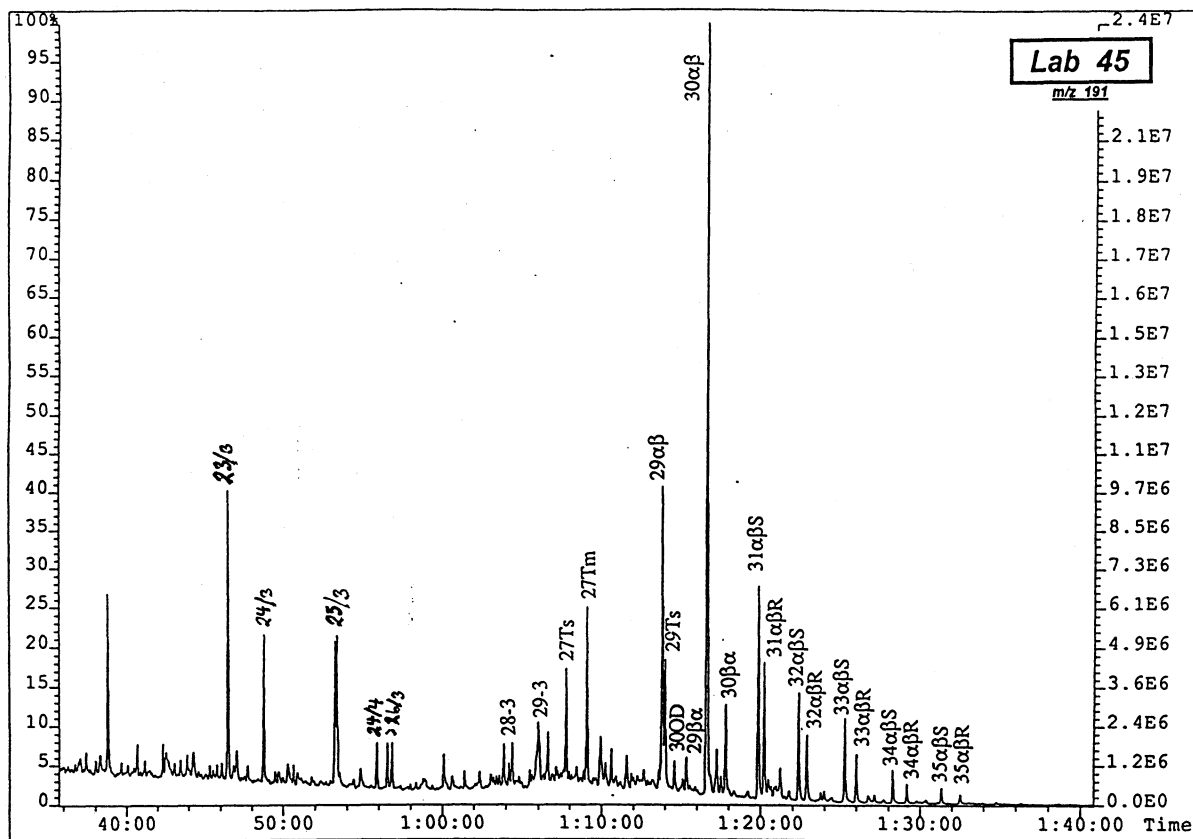
m/z 191

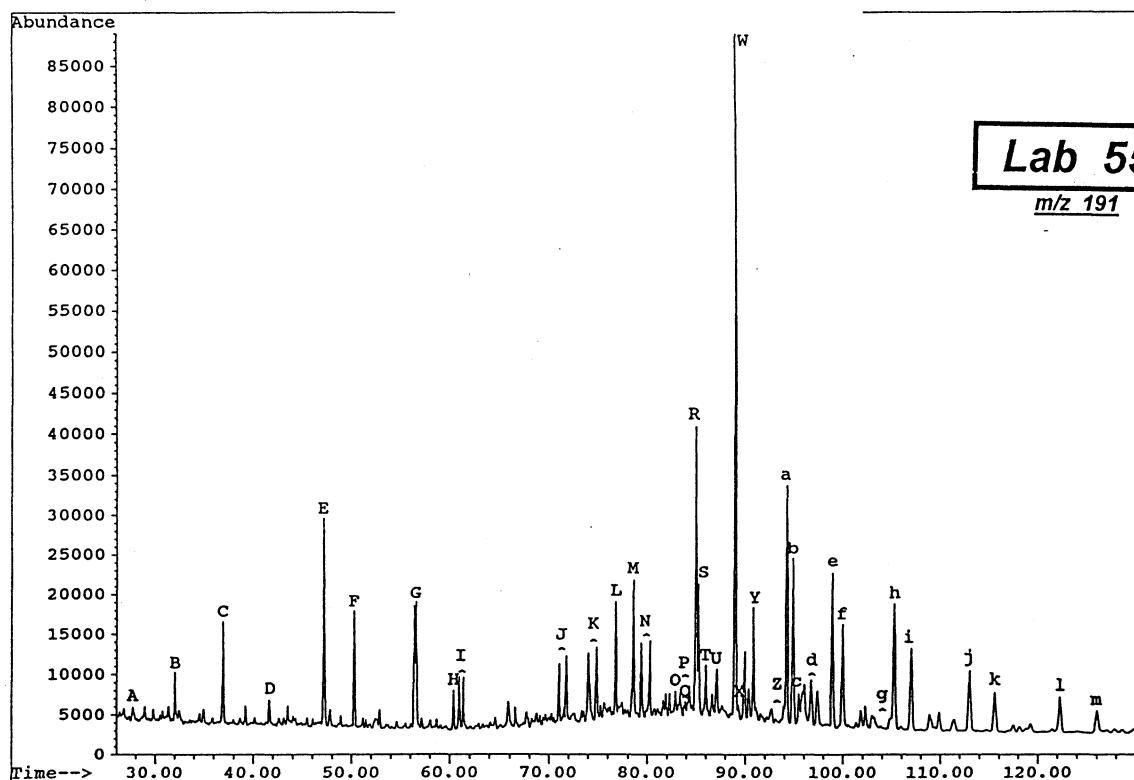


Lab 38

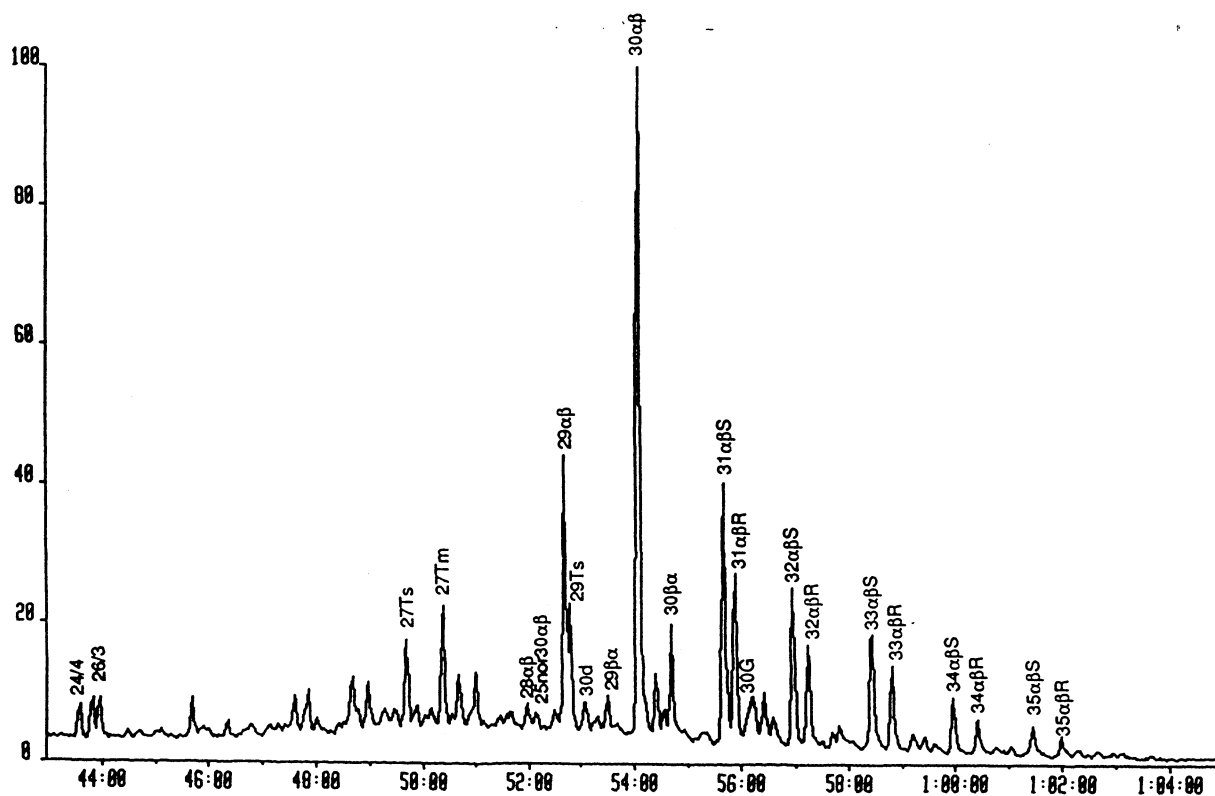
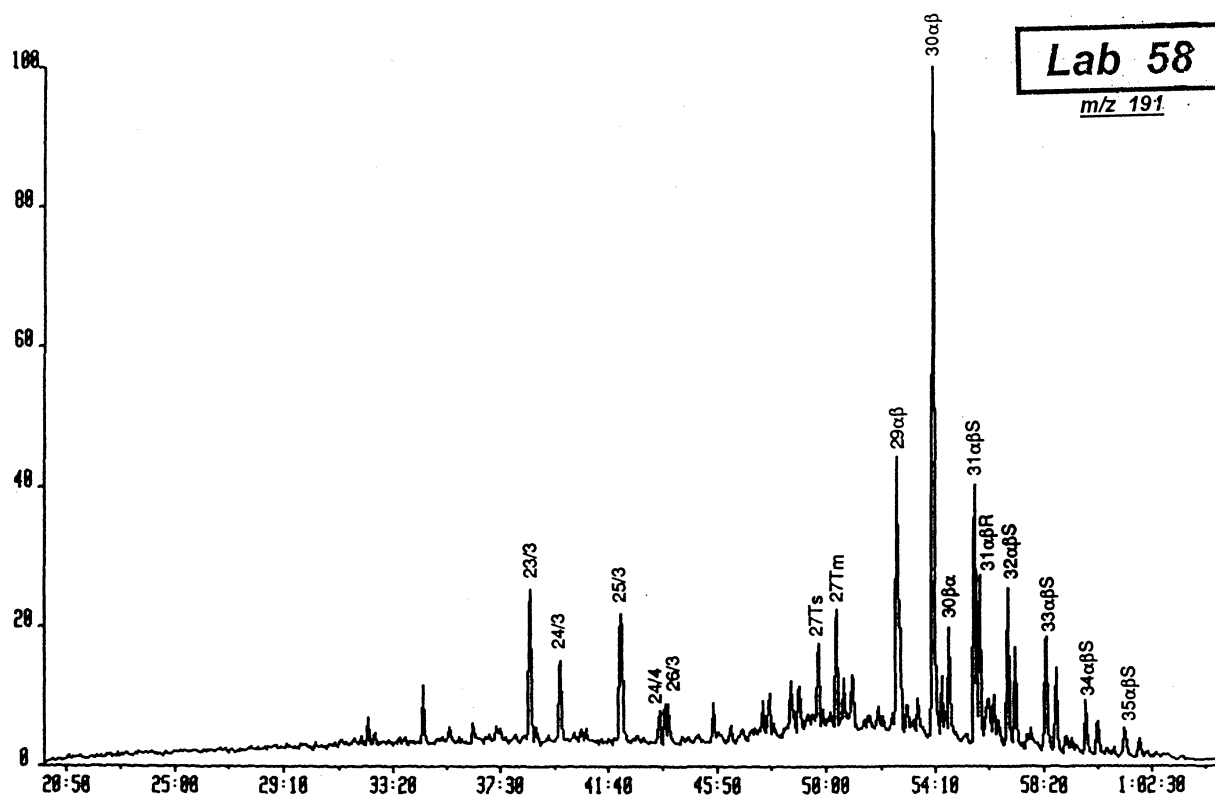
m/z 191

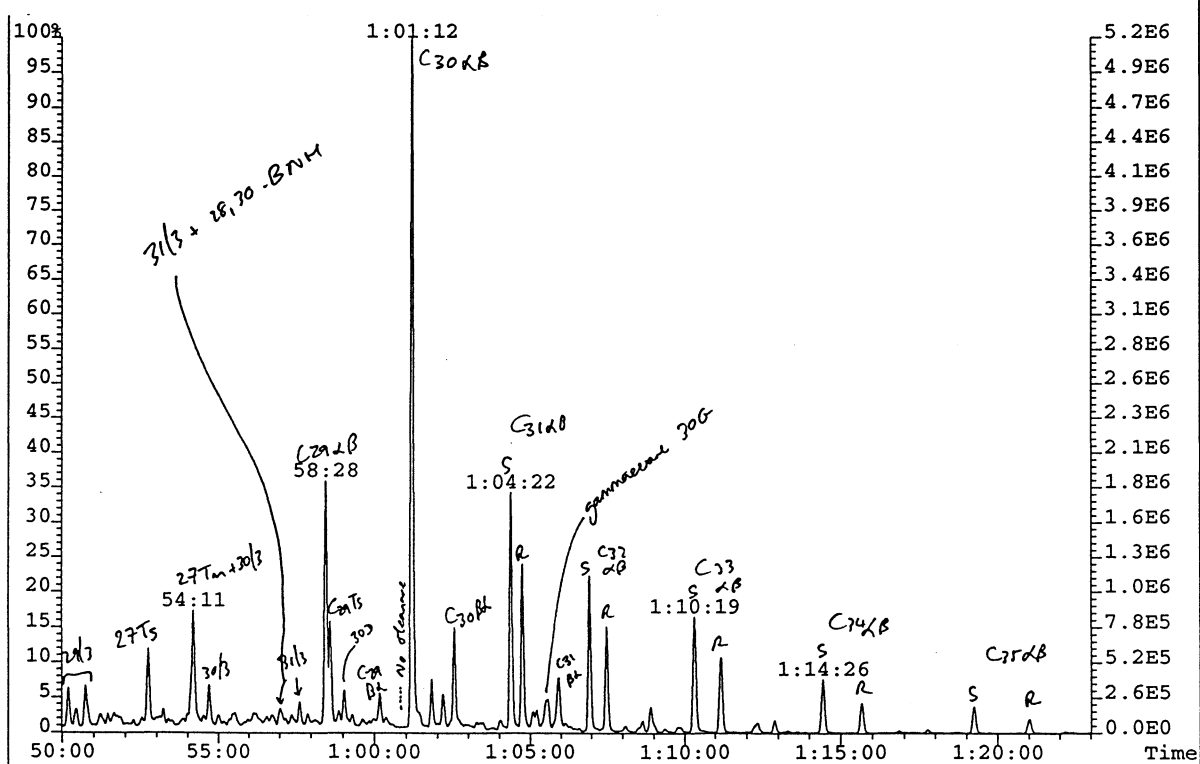
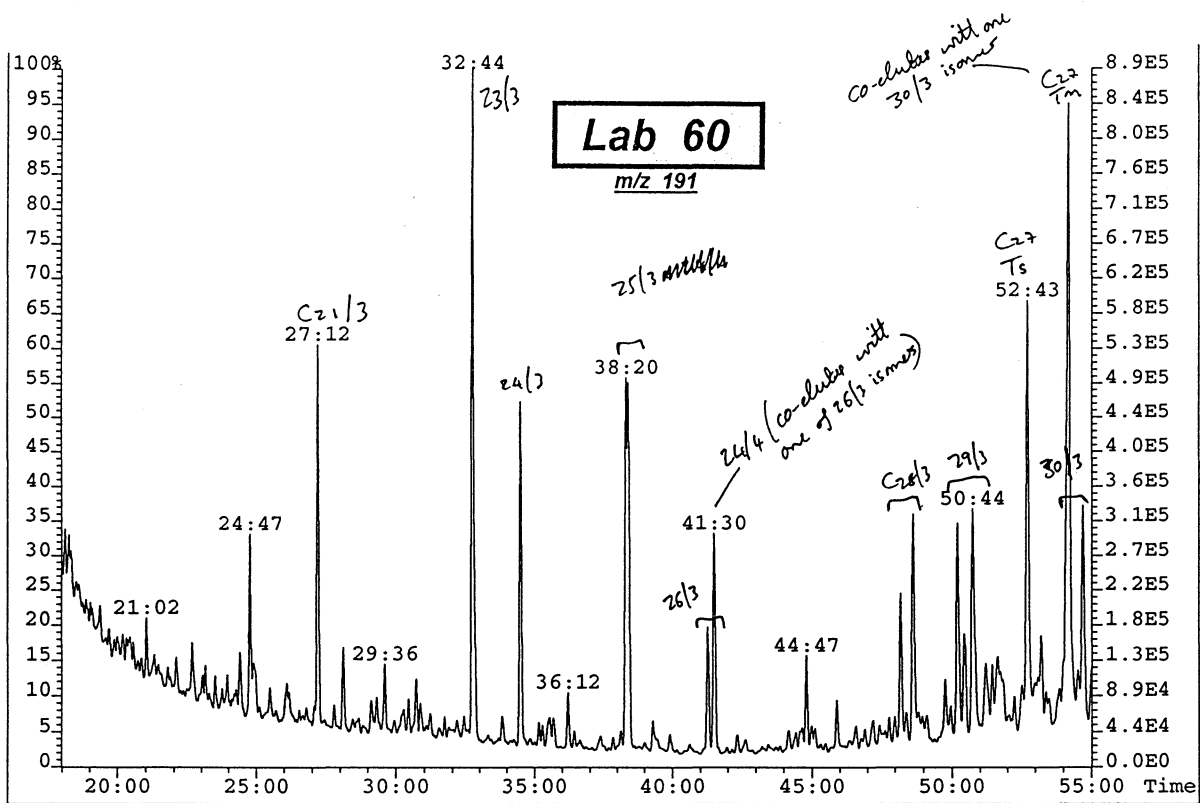


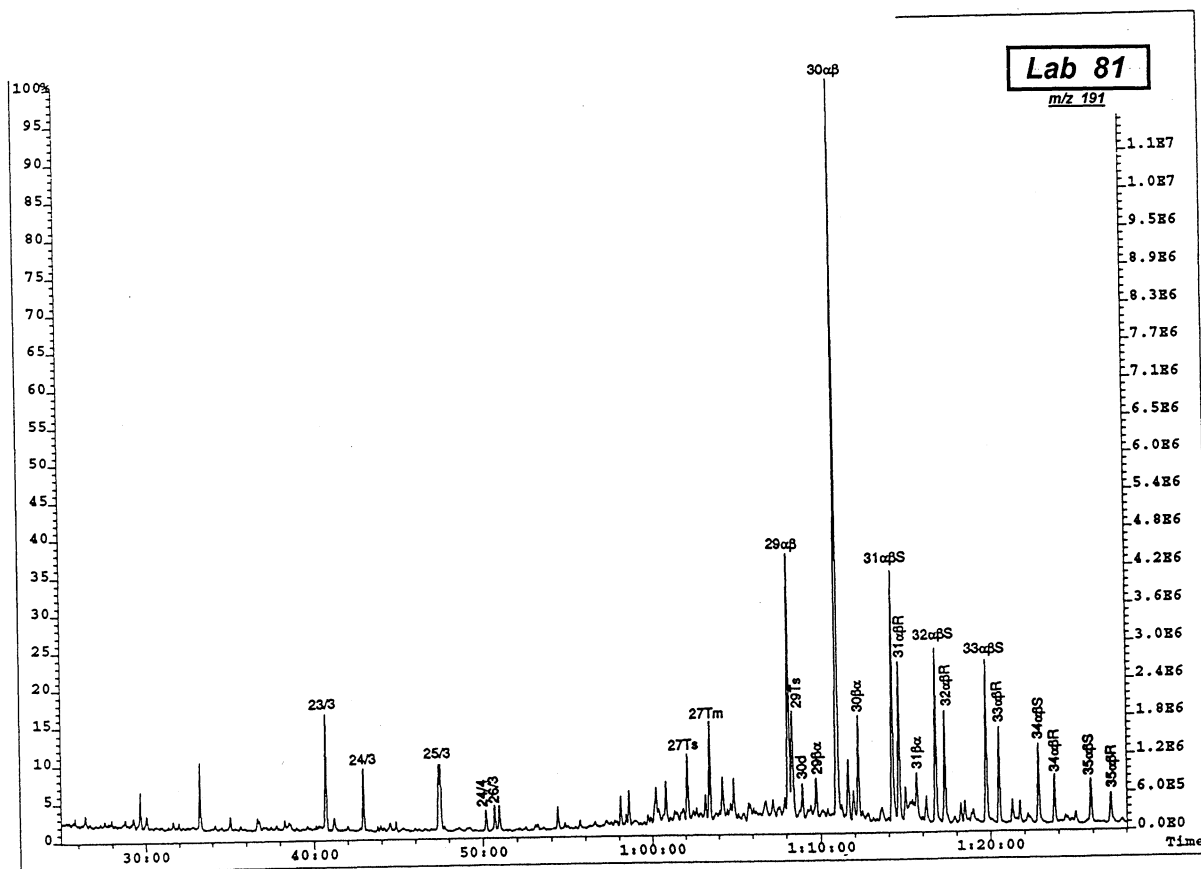
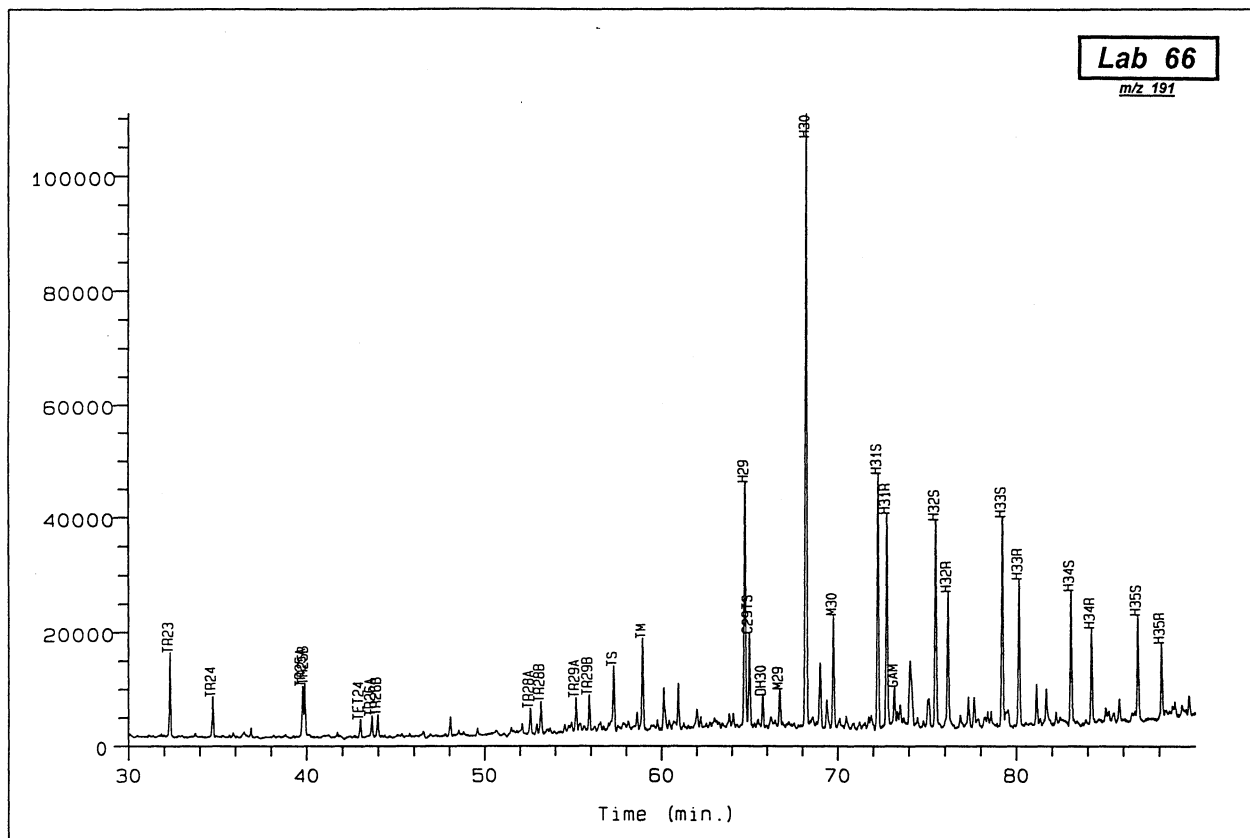




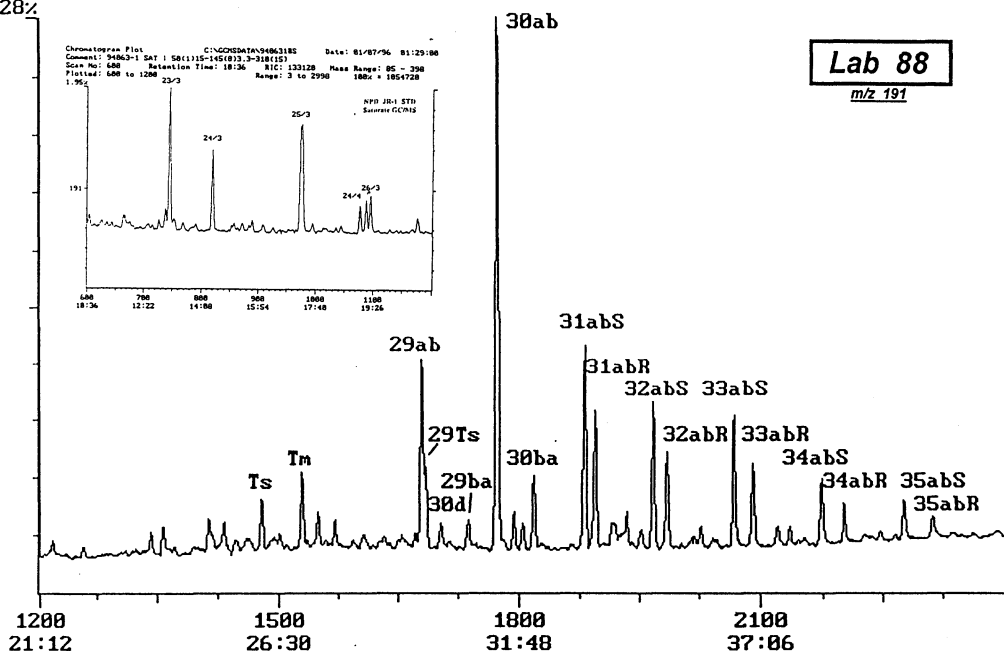
Peak ID	Triterpane Name		Ret Time	Area	Area%	ppm	
1	A	C ₁₉ Tricyclic Terpane	27.672	187816	0.33	6	
2	B	C ₂₀ Tricyclic Terpane	32.055	550529	0.96	16	
3	C	C ₂₁ Tricyclic Terpane	36.919	1125188	1.97	33	
4	D	C ₂₂ Tricyclic Terpane	41.624	333333	0.58	10	
5	E	C ₂₃ Tricyclic Terpane	23/3	47.177	2375124	4.16	70
6	F	C ₂₄ Tricyclic Terpane	24/3	50.281	1236498	2.17	37
7	G	C ₂₅ Tricyclic Terpane (22R)	25/3	56.425	1411283	2.47	42
8	G	C ₂₅ Tricyclic Terpane (22S)	25/3	56.610	1267324	2.22	38
9	H	C ₂₄ Tetracyclic Terpane	24/4	60.372	444794	0.78	13
10	I	C ₂₆ Tricyclic Terpane (22R)	26/3	60.950	587970	1.03	17
11	I	C ₂₆ Tricyclic Terpane (22S)	26/3	61.366	561792	0.98	17
12	J	C ₂₈ Tricyclic Terpane (22R)		71.052	636601	1.12	19
13	J	C ₂₈ Tricyclic Terpane (22S)		71.780	734690	1.29	22
14	K	C ₂₉ Tricyclic Terpane (22R)		74.002	913667	1.60	27
15	K	C ₂₉ Tricyclic Terpane (22S)		74.831	897875	1.57	27
16	L	C ₂₇ 18αH-Trisnorhopane (Ts)	27Ts	76.808	1324195	2.32	39
17	M	C ₂₇ 17αH-Trisnorhopane (Tm)	27Tm	78.618	1687966	2.96	50
18	N	C ₃₀ Tricyclic Terpane (22R)		79.382	897632	1.57	27
19	N	C ₃₀ Tricyclic Terpane (22S)		80.277	898292	1.57	27
20	O	C ₂₈ 17αH,18αH,21βH-28,30-Bisnorhopane	28αβ	82.876	329386	0.58	10
21	P	C ₃₁ Tricyclic Terpane (22R)		83.368	289990	0.51	9
22	Q	C ₂₉ 17αH, 21βH 25-Norhopane	25nor30αβ	83.882	156912	0.27	5
23	P	C ₃₁ Tricyclic Terpane (22S)		84.332	392333	0.69	12
24	R	C ₂₉ 17αH,21βH-Norhopane	29αβ	84.995	3443968	6.04	102
25	S	C ₂₉ 18αH-Norneohopane (29Ts)	29Ts	85.245	1556354	2.73	46
26	T	C ₃₀ 17αH Diahopane	30d	85.996	663664	1.16	20
27	U	C ₂₉ 17βH,21αH-Normoretane	29βα	87.108	670435	1.17	20
28	V	C ₃₀ 18αH + 18βH-Oleanane	30O		0	0.00	0
29	W	C ₃₀ 17αH,21βH-Hopane	30αβ	89.013	8782350	15.39	260
30	X	C ₃₀ 30-Nor-29-homo-17αH-Hopane		89.324	192712	0.34	6
31	Y	C ₃₀ 17βH,21αH-Moretane	30βα	90.847	1447355	2.54	43
32	Z	C ₃₃ Tricyclic Terpane (22R)		92.687	328198	0.58	10
33	Z	C ₃₃ Tricyclic Terpane (22S)		93.915	233694	0.41	7
34	a	C ₃₁ 17αH,21βH-Homohopane (22S)	31αβS	94.229	3398240	5.95	101
35	b	C ₃₁ 17αH,21βH-Homohopane (22R)	31αβR	94.888	2333473	4.09	69
36	c	C ₃₀ Gammacerane	30G	95.480	432144	0.76	13
37	d	C ₃₄ Tricyclic Terpane (22R)		96.040	1310386	2.30	39
38	d	C ₃₄ Tricyclic Terpane (22S)		97.372	720946	1.26	21
39	e	C ₃₂ 17αH,21βH-Bishomohopane (22S)	32αβS	98.924	2432458	4.26	72
40	f	C ₃₂ 17αH,21βH-Bishomohopane (22R)	32αβR	99.980	1726323	3.03	51
41	g	C ₃₅ Tricyclic Terpane (22R)		102.950	480609	0.84	14
42	g	C ₃₅ Tricyclic Terpane (22S)		104.860	261952	0.46	8
43	h	C ₃₃ 17αH,21βH-Trishomohopane (22S)	33αβS	105.229	2278325	3.99	67
44	i	C ₃₃ 17αH,21βH-Trishomohopane (22R)	33αβR	106.981	1526143	2.67	45
45	j	C ₃₄ 17αH,21βH-Tetrahomohopane (22S)	34αβS	113.013	1293714	2.27	38
46	k	C ₃₄ 17αH,21βH-Tetrahomohopane (22R)	34αβR	115.598	840995	1.47	25
47	l	C ₃₅ 17αH,21βH-Pentahomohopane (22S)	35αβS	122.285	878389	1.54	26
48	m	C ₃₅ 17αH,21βH-Pentahomohopane (22R)	35αβR	126.050	591350	1.04	18

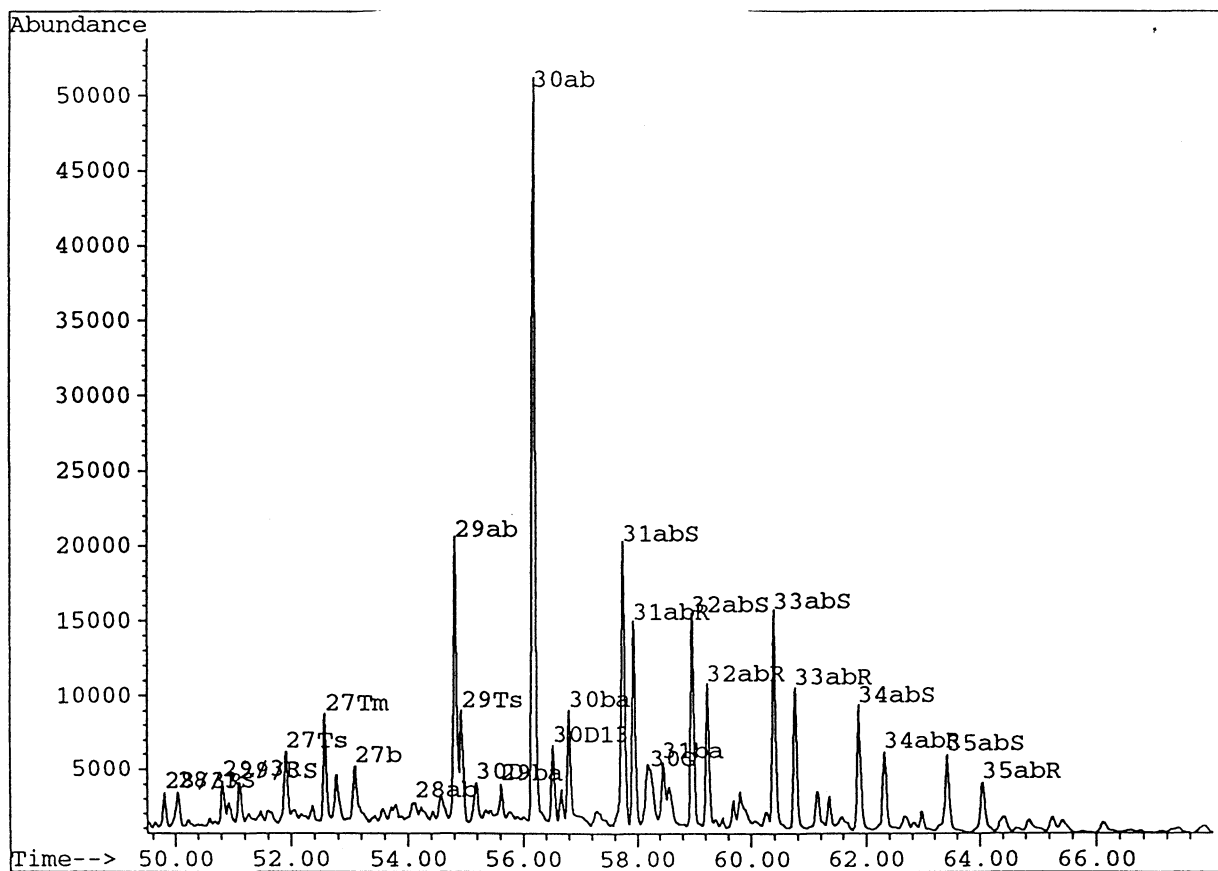
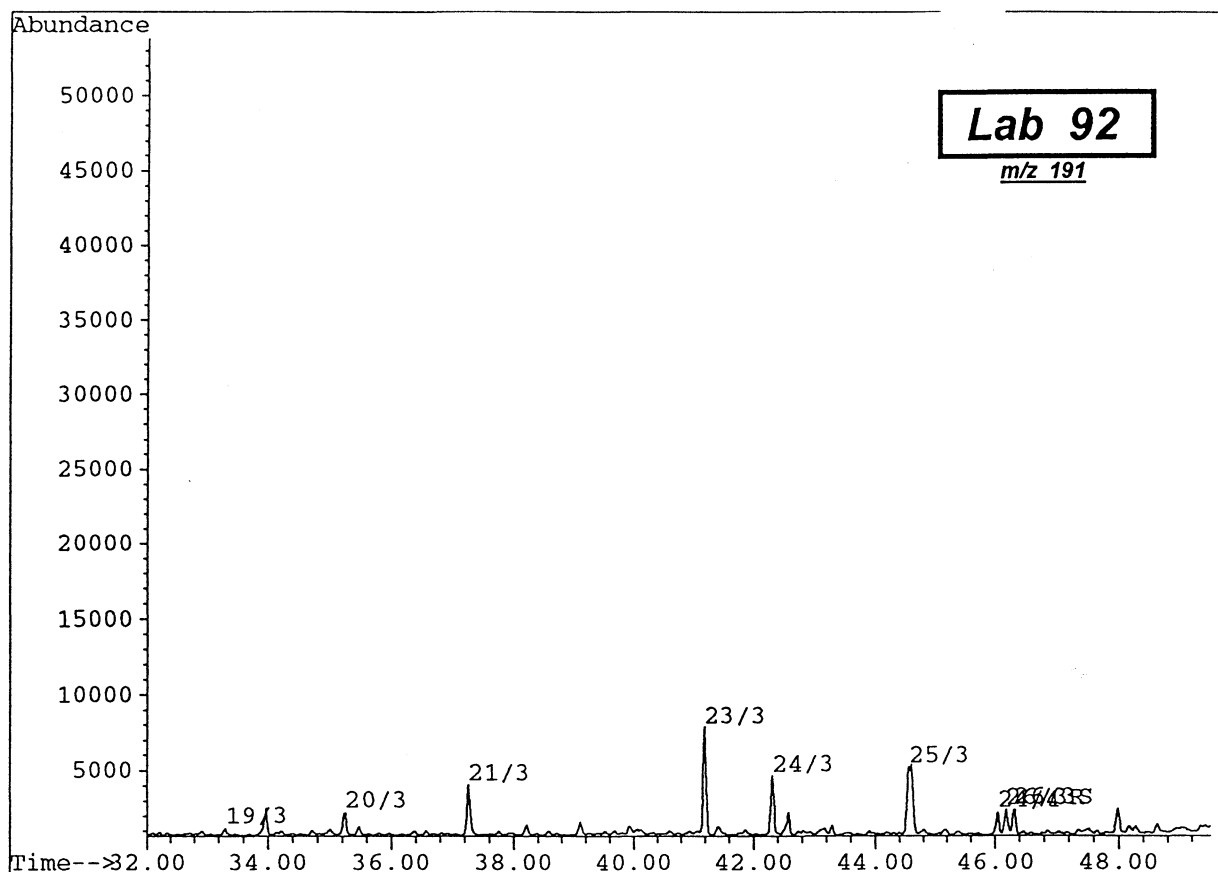


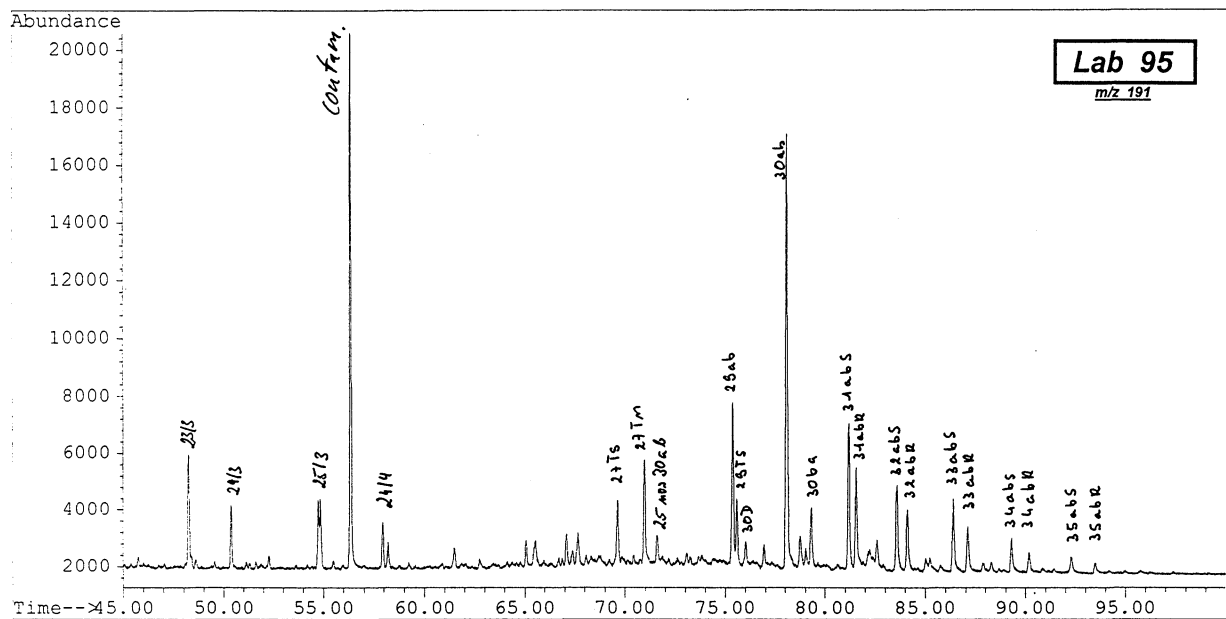




9.28%



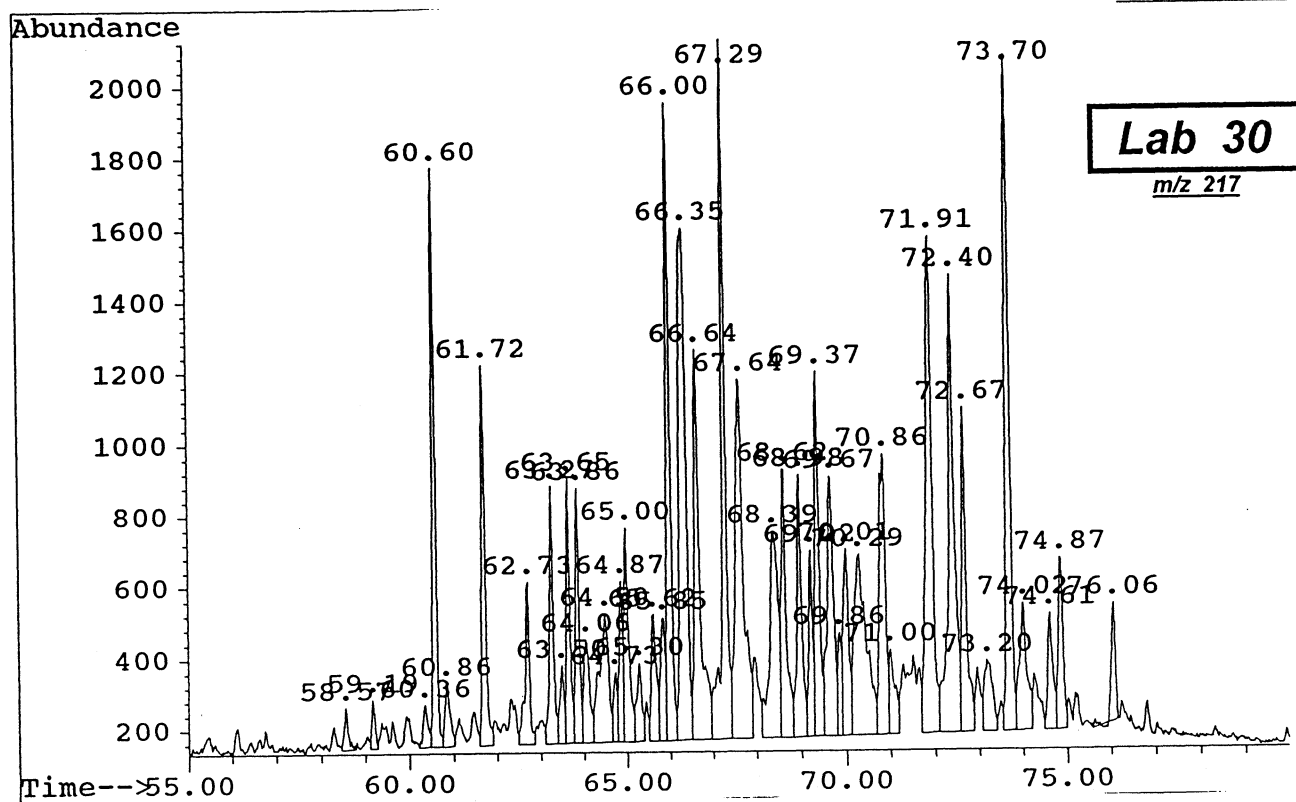
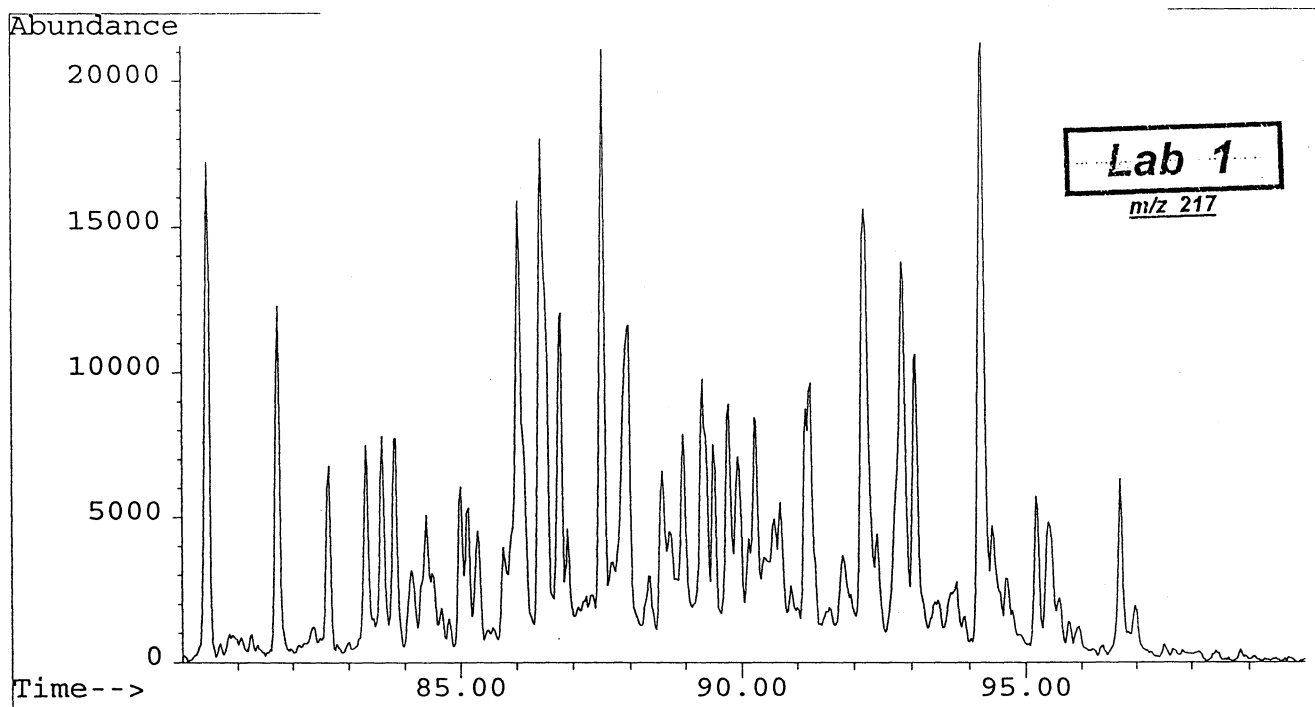


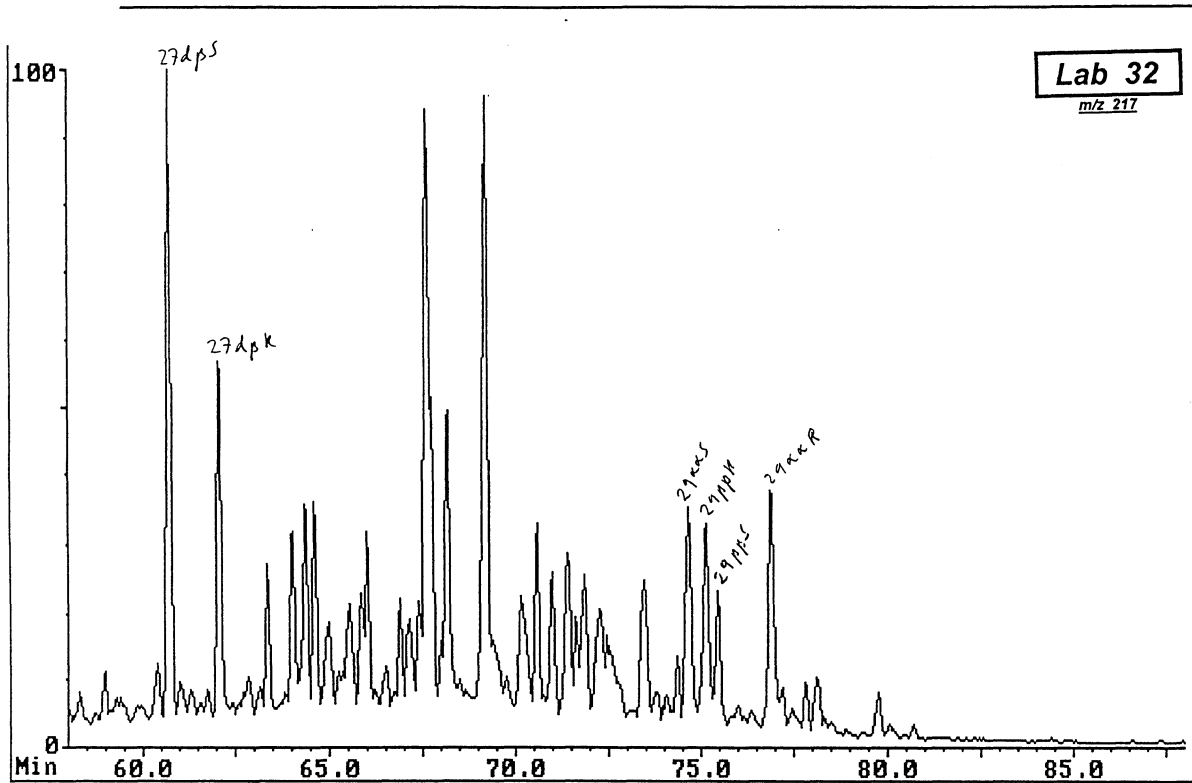


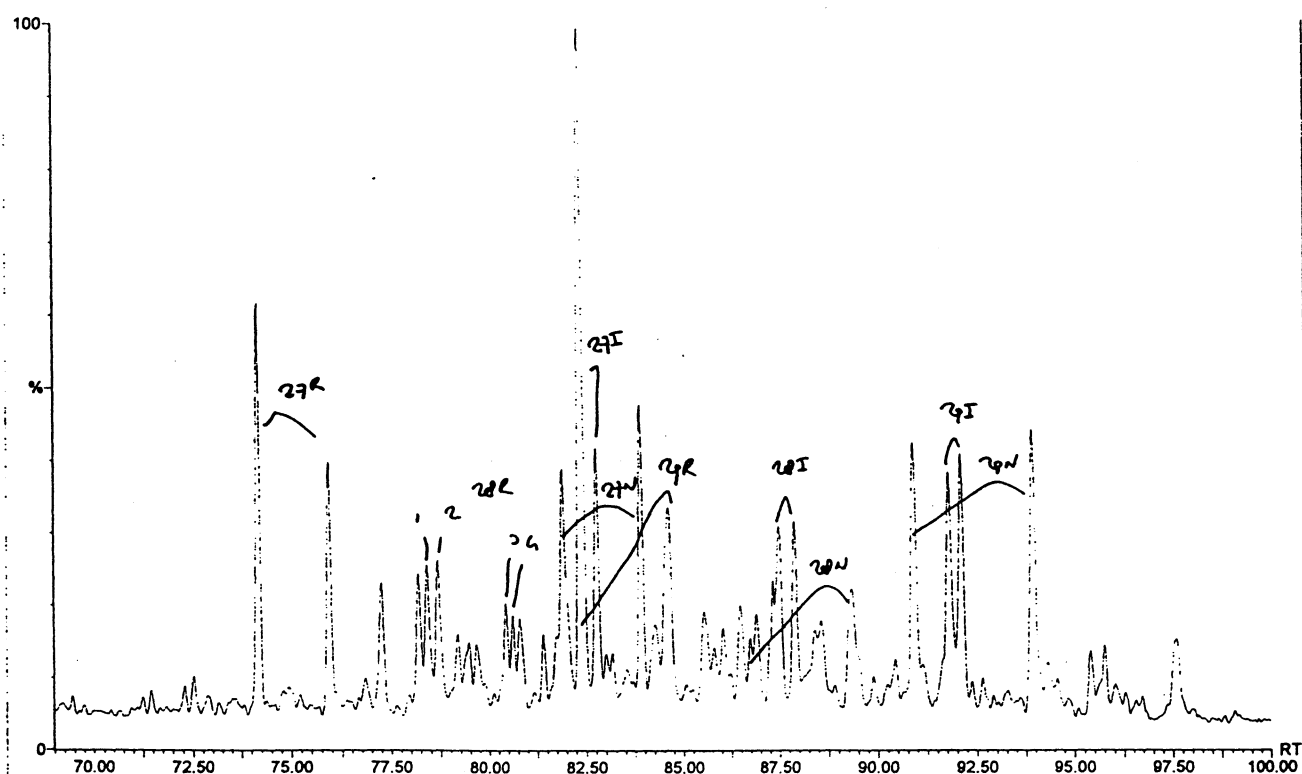
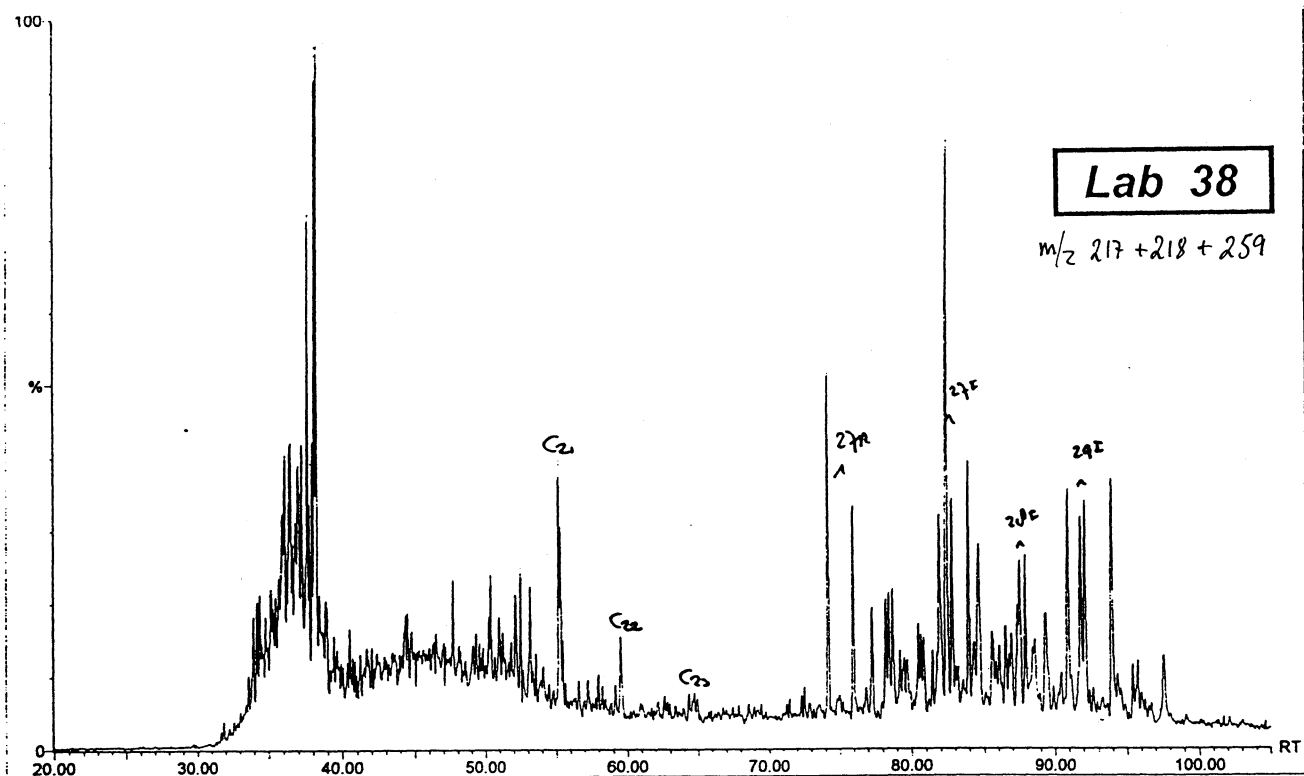
NGS JR-1

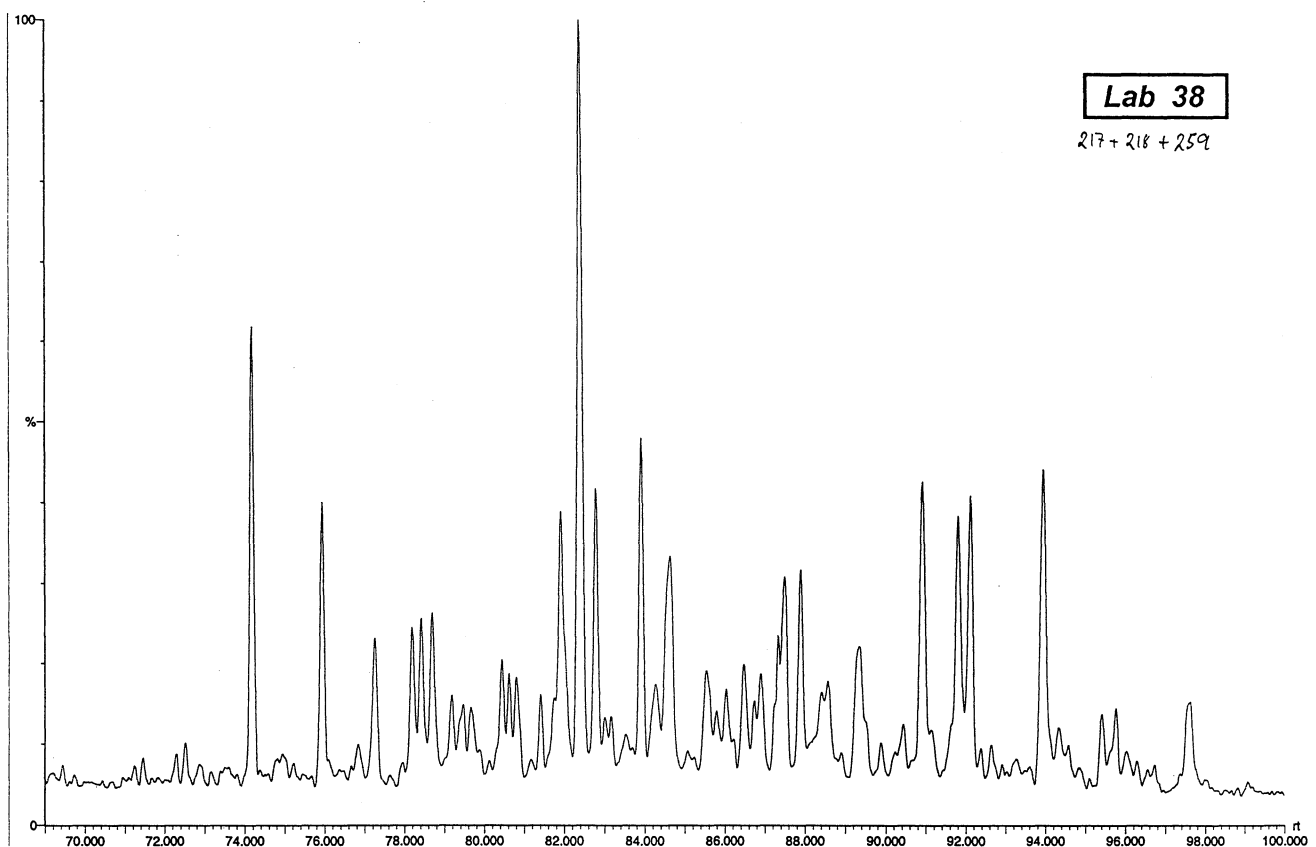
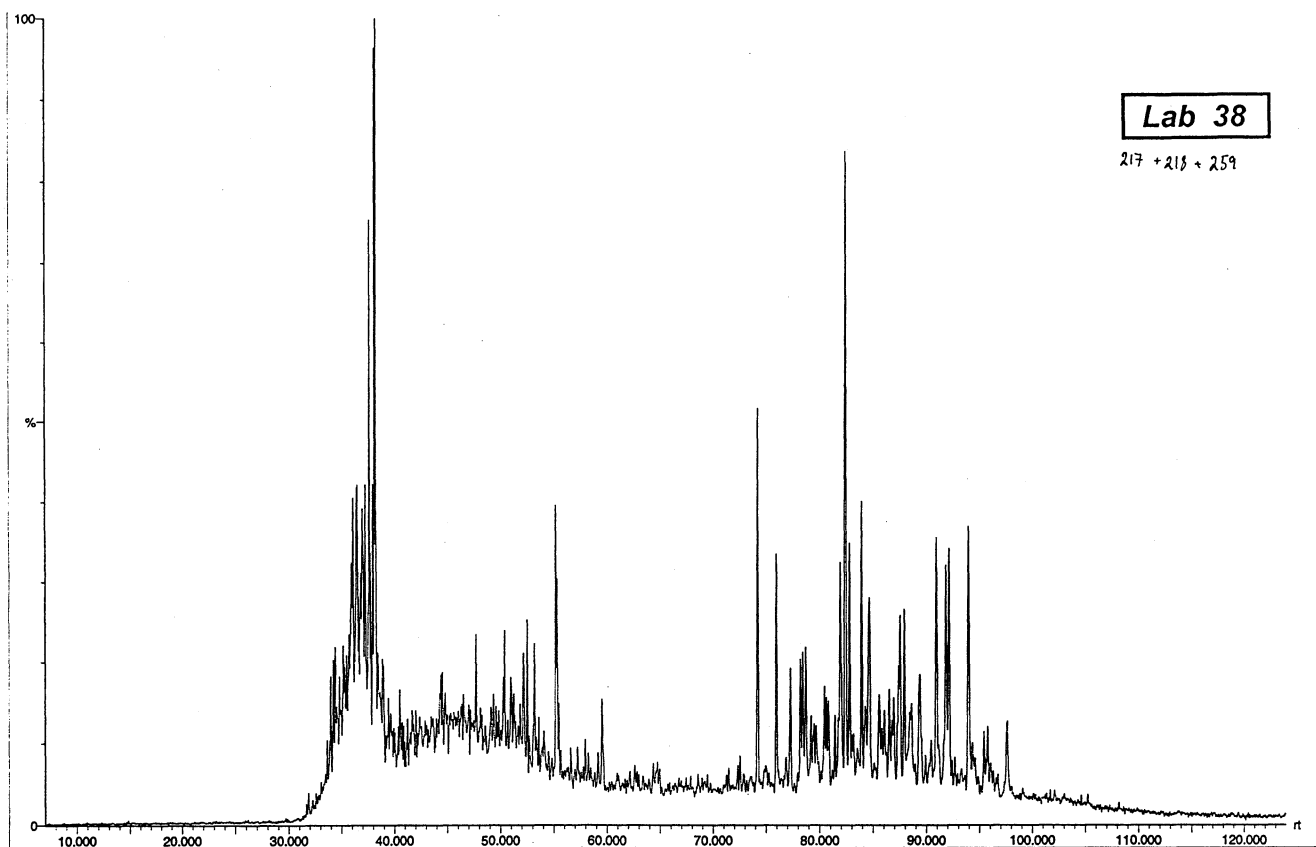
Appendix A5.4a-3

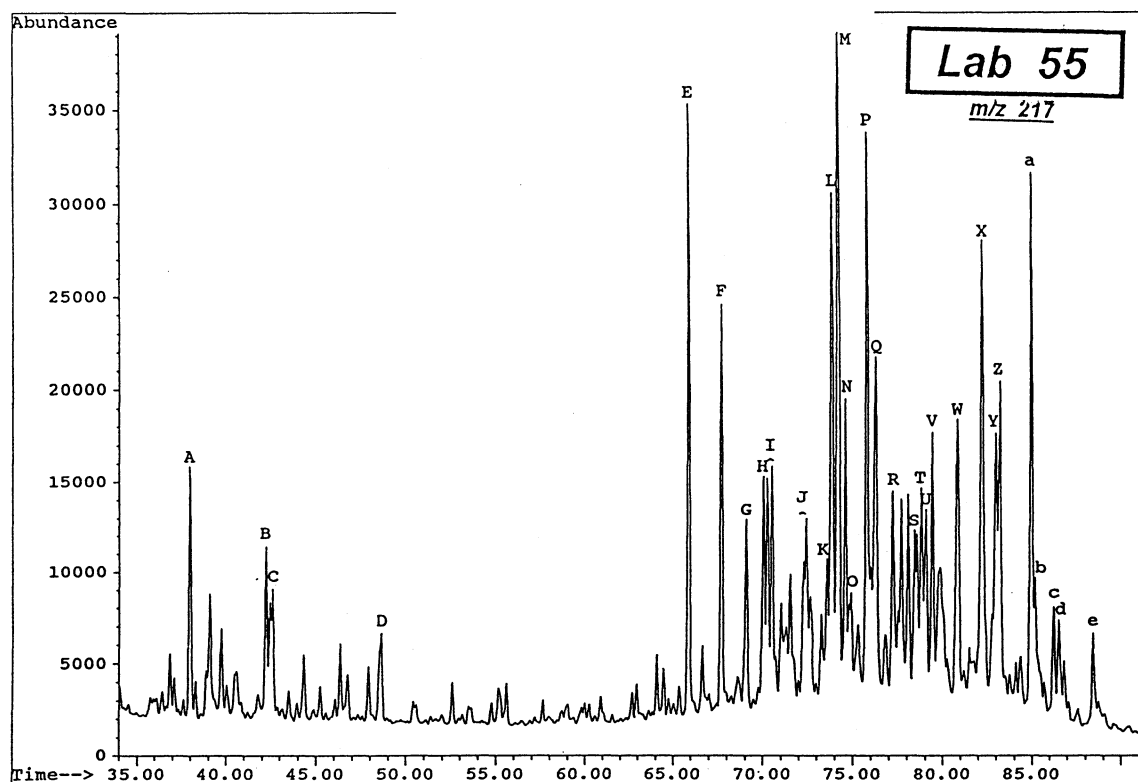
Saturates fraction m/z 217 GC-MS fragmentograms



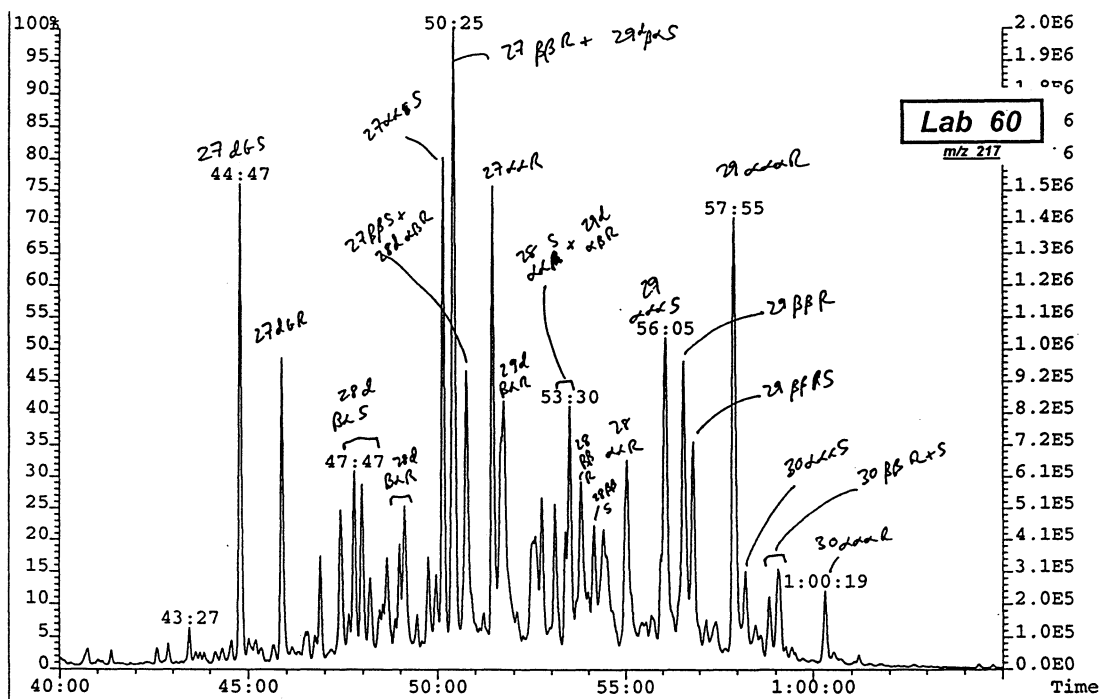
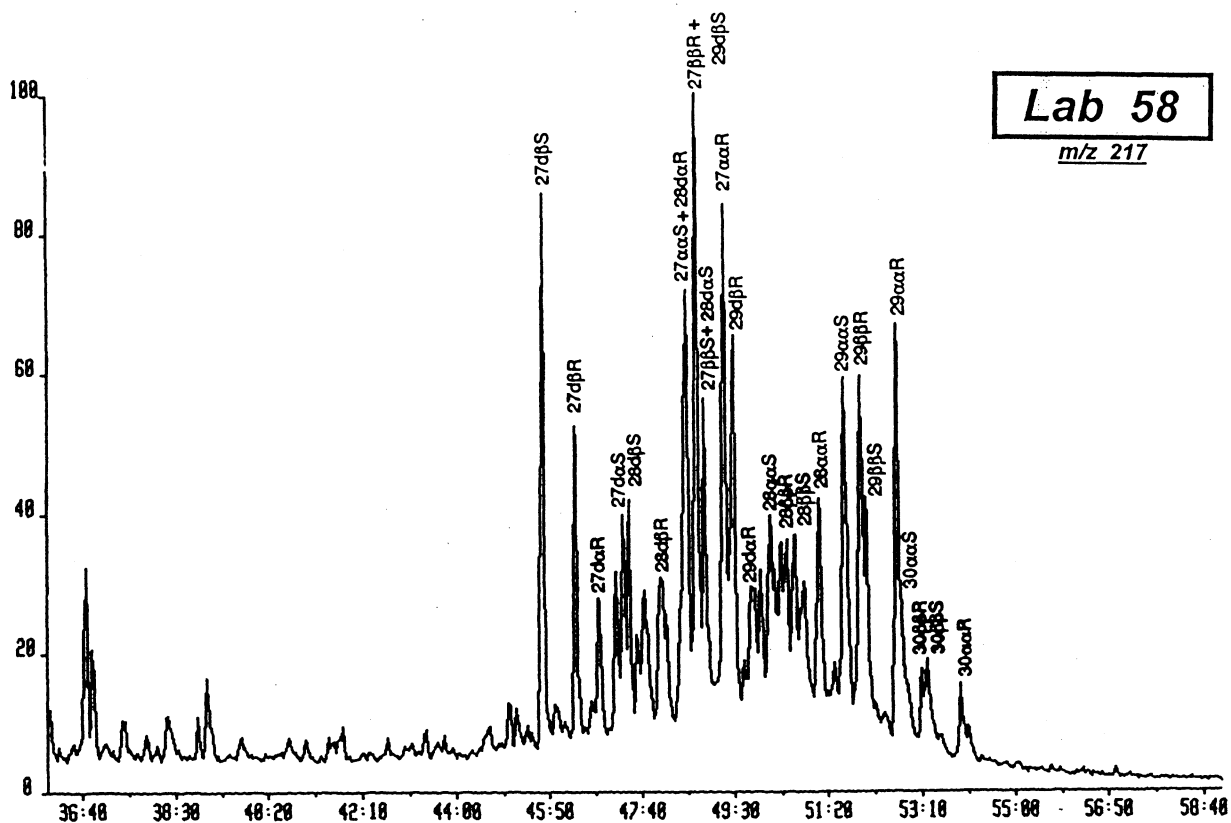


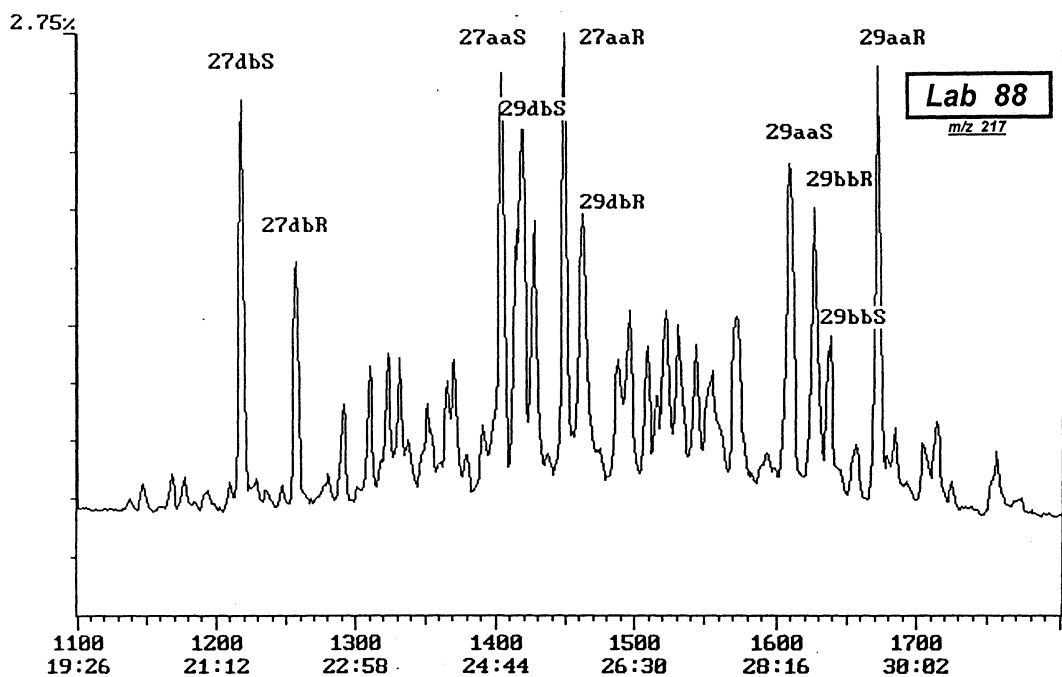


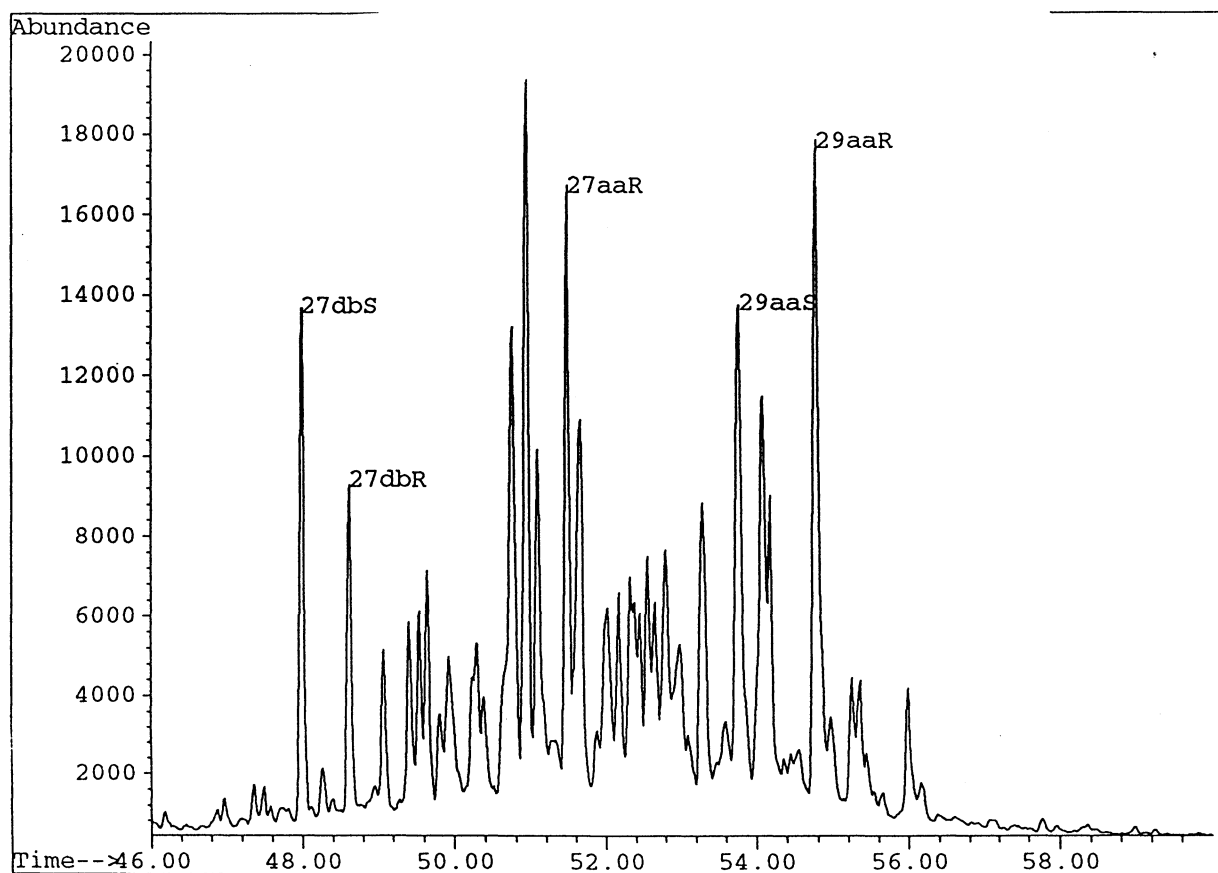
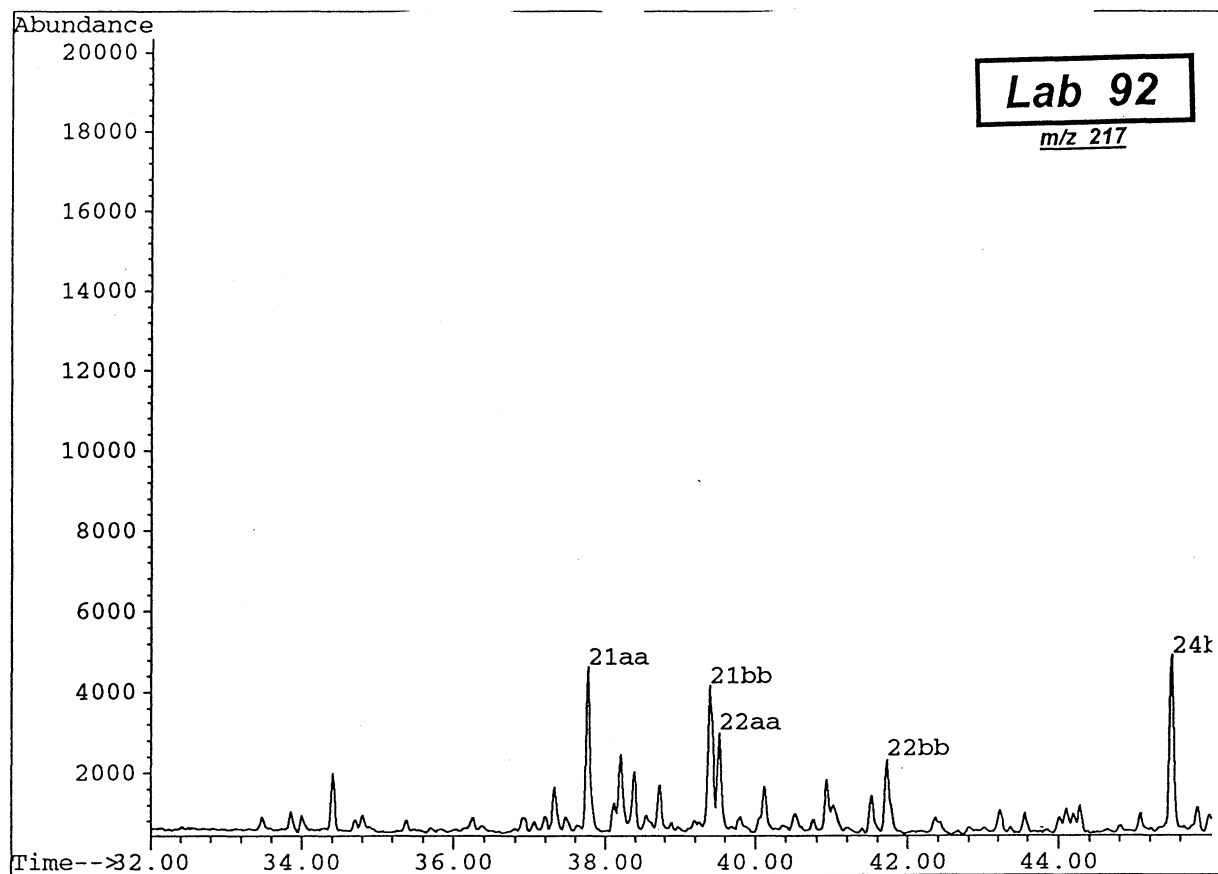


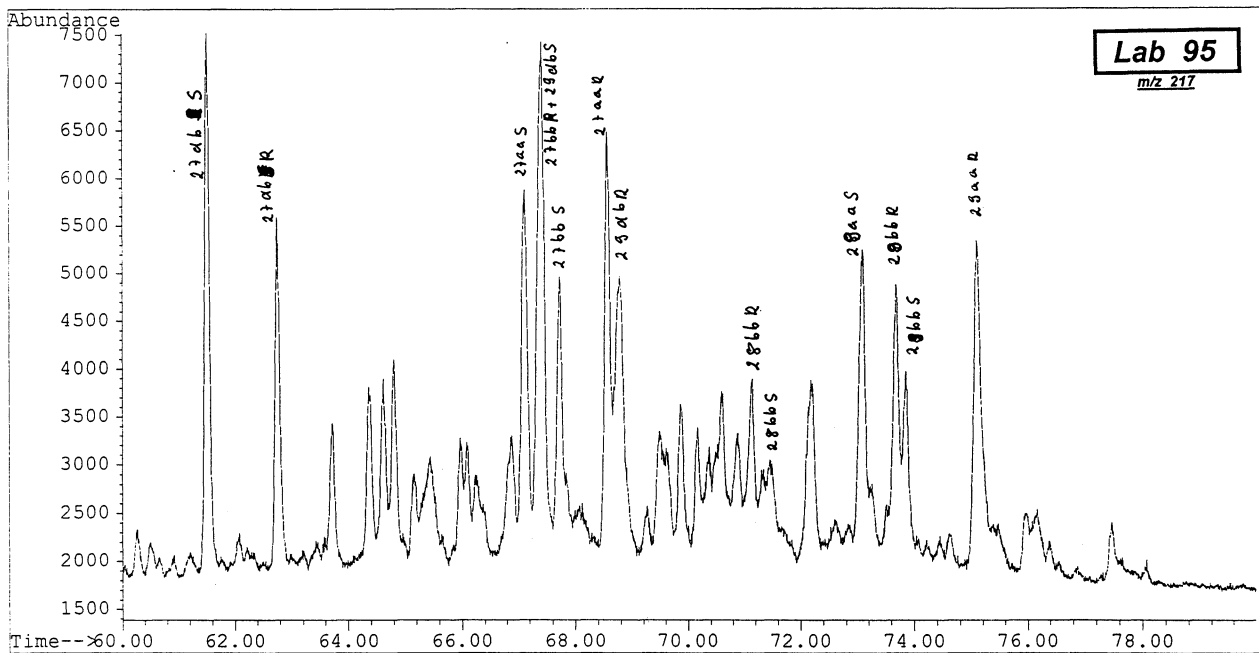


Peak ID	Sterane Name	Ret Time	Area	Area%	ppm
1	A C ₂₁ diasterane	37.990	1217790	2.47	36
2	B C ₂₁ αβ sterane	42.230	840843	1.71	25
3	C C ₂₂ diasterane	42.595	1126778	2.29	33
4	D C ₂₂ αβ sterane	48.634	630801	1.28	19
5	E C ₂₇ βα diasterane (20S)	27dβS 65.884	3001344	6.09	89
6	F C ₂₇ βα diasterane (20R)	27dβR 67.703	1913892	3.88	57
7	G C ₂₇ αβ diasterane (20S)	27dαR 69.098	1042905	2.12	31
8	H C ₂₇ αβ diasterane (20R)	27dαS 70.031	1097234	2.23	32
9	I C ₂₈ βα diasterane (20S)	28dβS 70.501	2394659	4.86	71
10	J C ₂₈ βα diasterane (20R)	28dβR 72.412	1497452	3.04	44
11	K C ₂₈ αβ diasterane (20S)	28dαR 73.557	809888	1.64	24
12	L C ₂₇ ααα sterane (20S)	27ααS 73.812	2975933	6.04	88
13	M C ₂₇ αββ ster-(20R) + C ₂₉ βα dia-(20S)	27ββR + 29dβS 74.186	4007233	8.13	119
14	N C ₂₇ αββ sterane (20S)	27ββS 74.578	1447925	2.94	43
15	O C ₂₈ αβ diasterane (20R)	28dαS 74.907	758591	1.54	22
16	P C ₂₇ ααα sterane (20R)	27ααR 75.768	2902633	5.89	86
17	Q C ₂₈ βα diasterane (20R)	29dβR 76.256	2512214	5.10	74
18	R C ₂₈ αβ diasterane (20S)	29dαR 77.189	1193347	2.42	35
19	S C ₂₈ ααα sterane (20S)	28ααS 78.401	711559	1.44	21
20	T C ₂₉ αβ diasterane (20R)	29dαS 78.783	1126683	2.29	33
21	U C ₂₈ αββ sterane (20R)	28ββR 79.040	958932	1.95	28
22	V C ₂₈ αββ sterane (20S)	28ββS 79.405	1431635	2.90	42
23	W C ₂₈ ααα sterane (20R)	28ααR 80.813	1930447	3.92	57
24	X C ₂₉ ααα sterane (20S)	29ααS 82.182	3213283	6.52	95
25	Y C ₂₉ αββ sterane (20R)	29ββR 82.954	1419088	2.88	42
26	Z C ₂₉ αββ sterane (20S)	29ββS 83.182	1779320	3.61	53
27	a C ₂₈ ααα sterane (20R)	29ααR 84.931	2820250	5.72	83
28	b C ₃₀ ααα sterane (20S)	30ααS 85.147	687099	1.39	20
29	c C ₃₀ αββ sterane (20R)	30ββR 86.207	643828	1.31	19
30	d C ₃₀ αββ sterane (20S)	30ββS 86.506	609629	1.24	18
31	e C ₃₀ ααα sterane (20R)	30ααR 88.442	580332	1.18	17





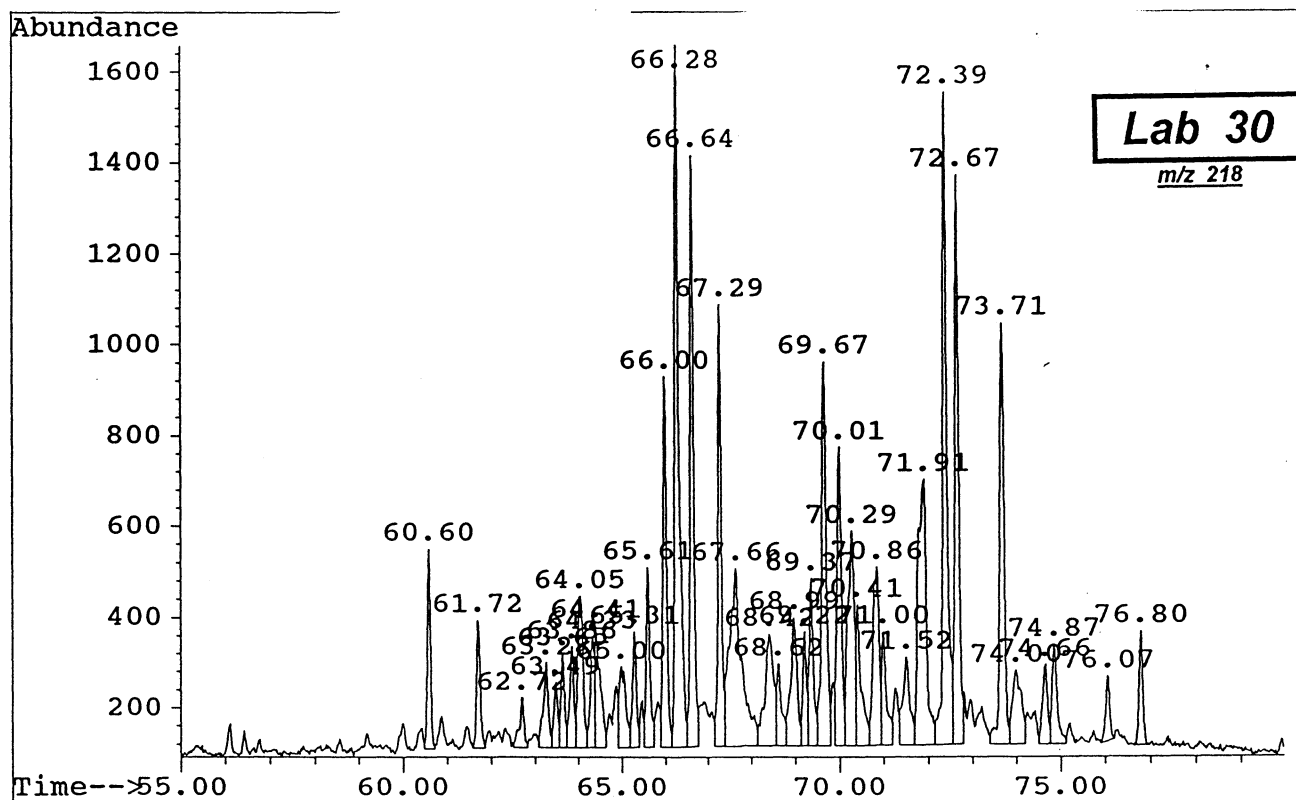
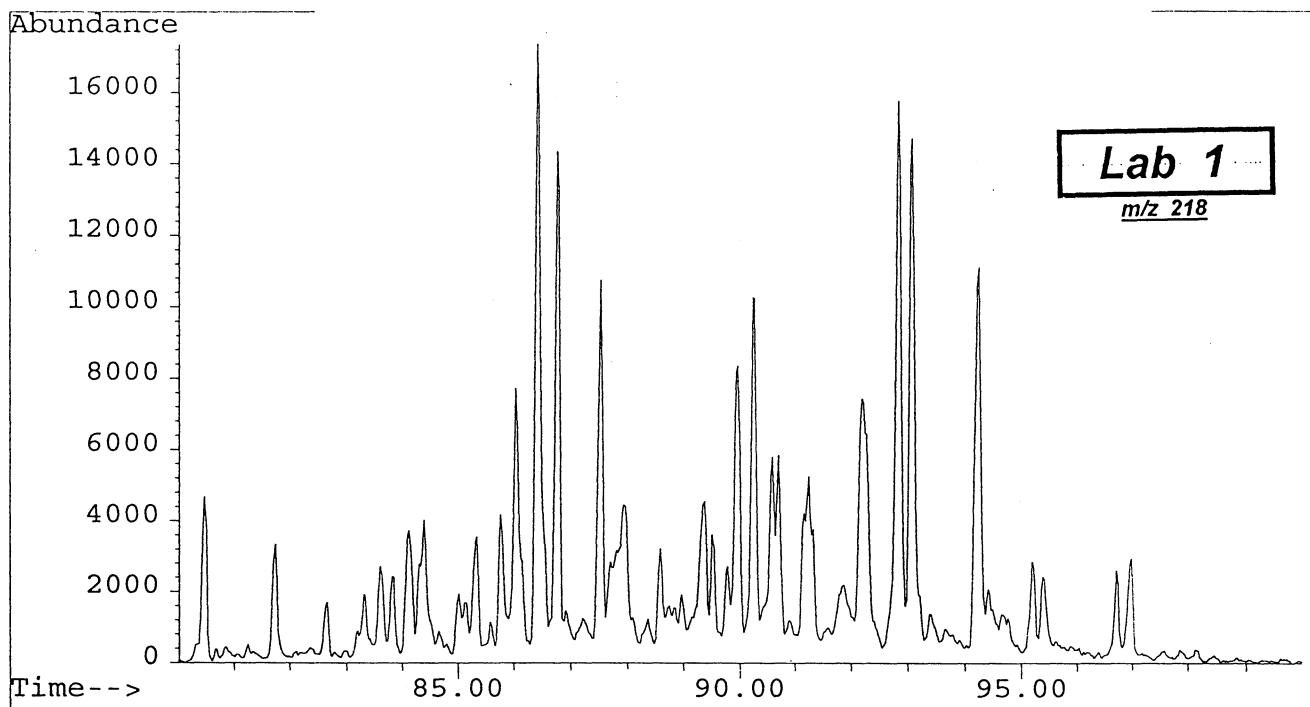


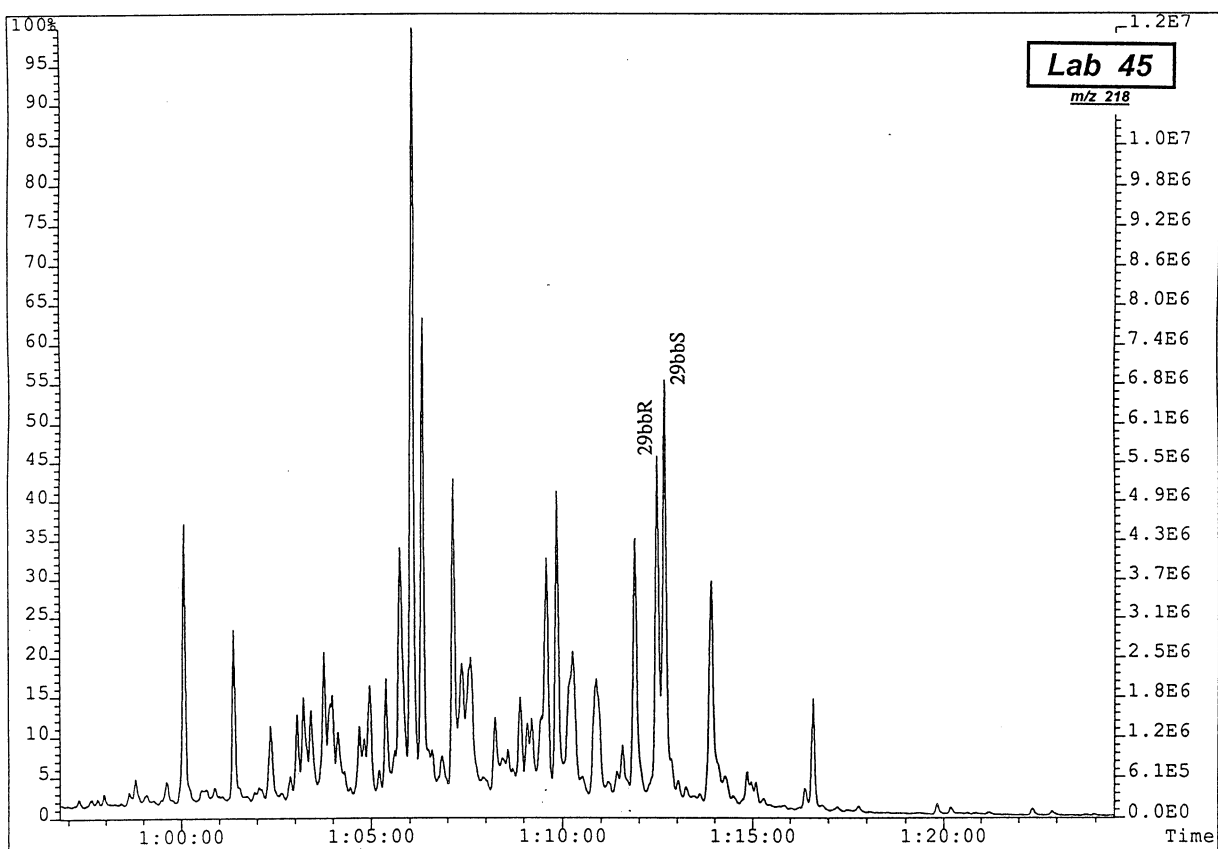
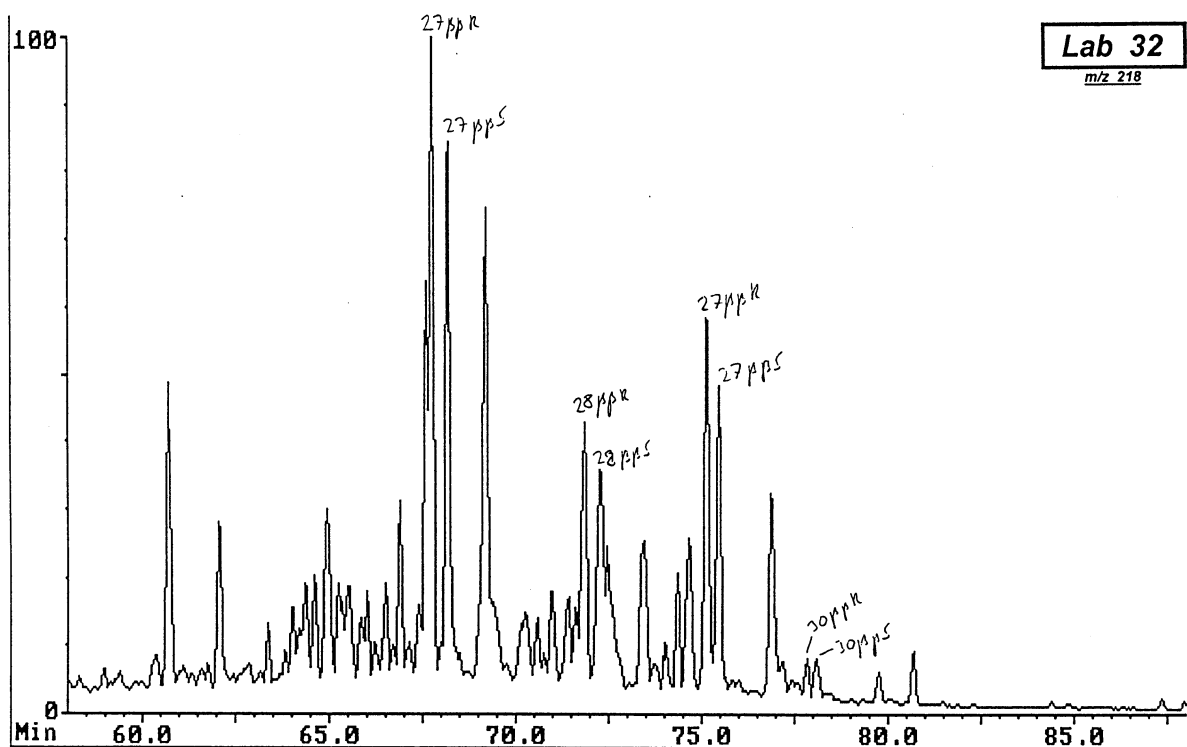


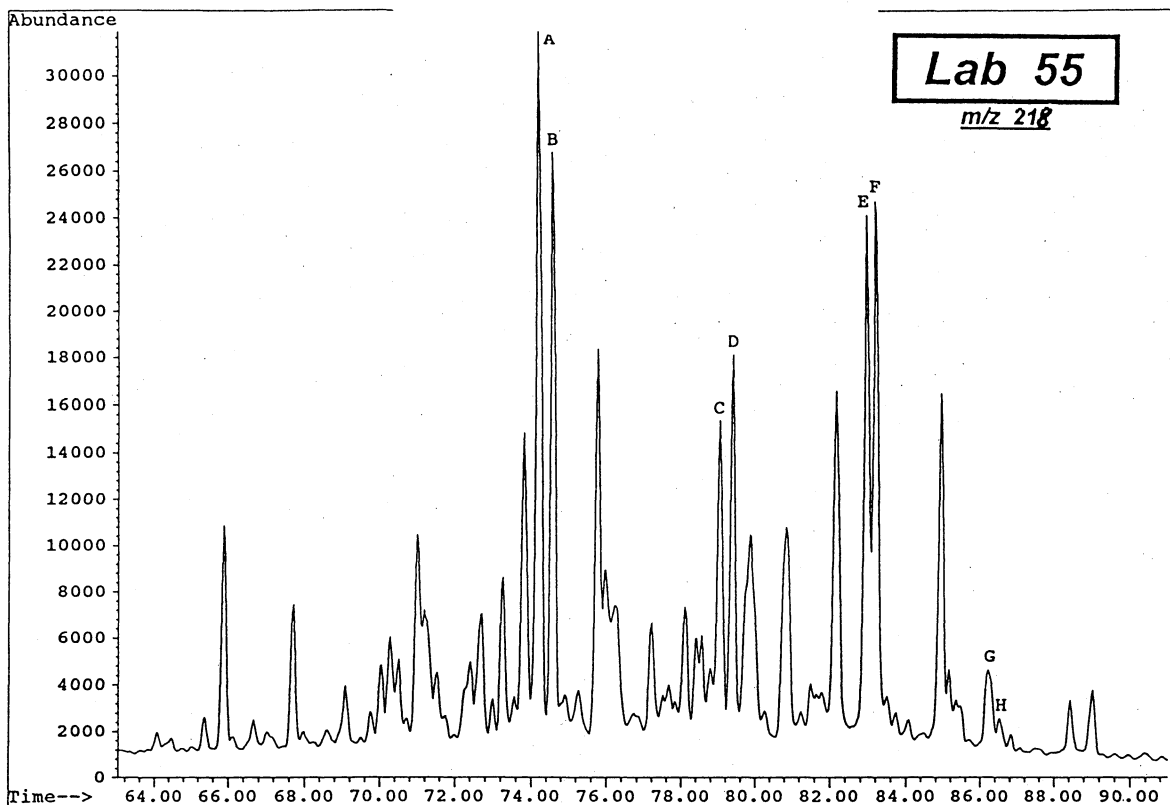
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Appendix A5.4a-4

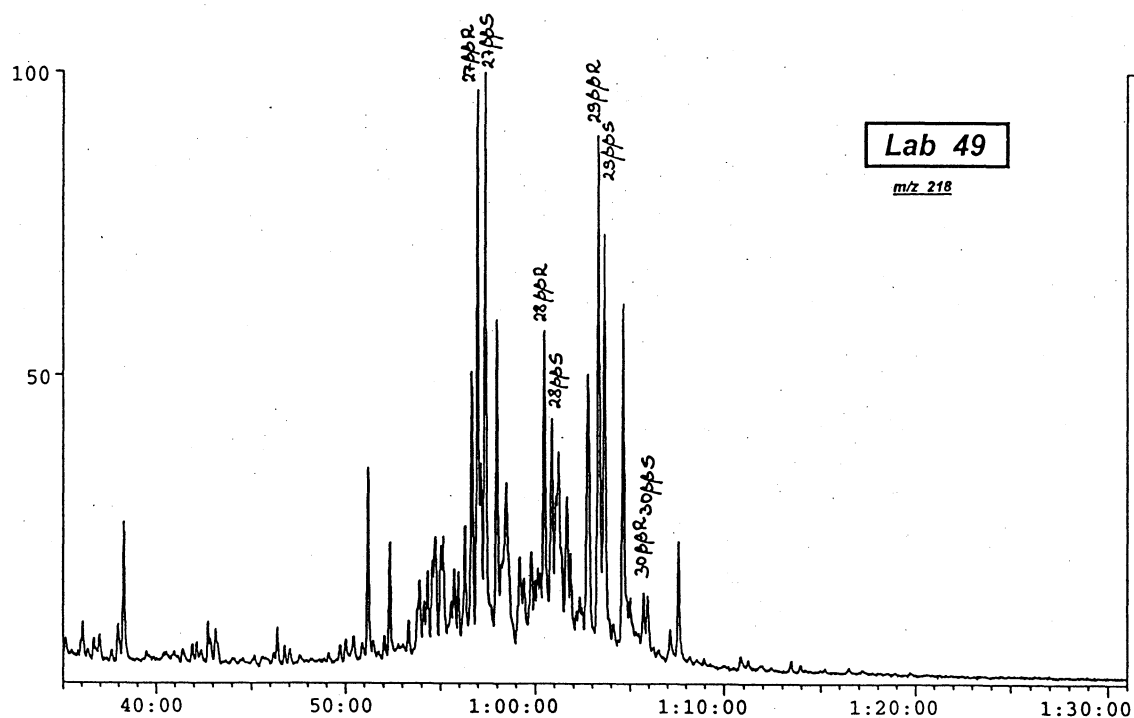
Saturates fraction m/z 218 GC-MS fragmentograms

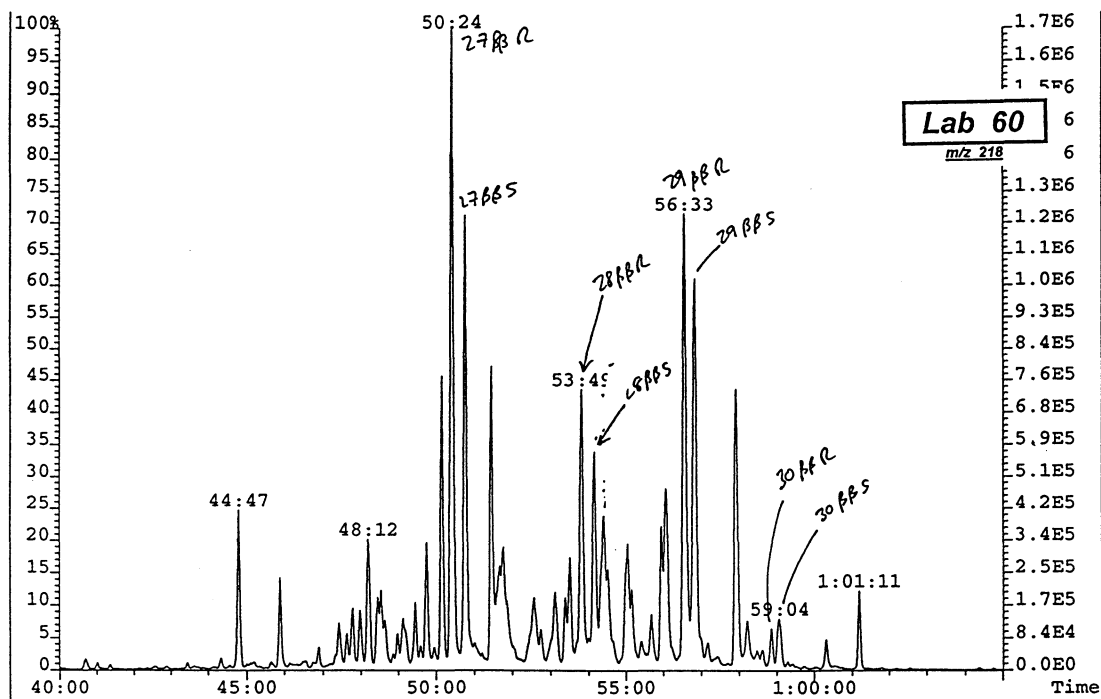
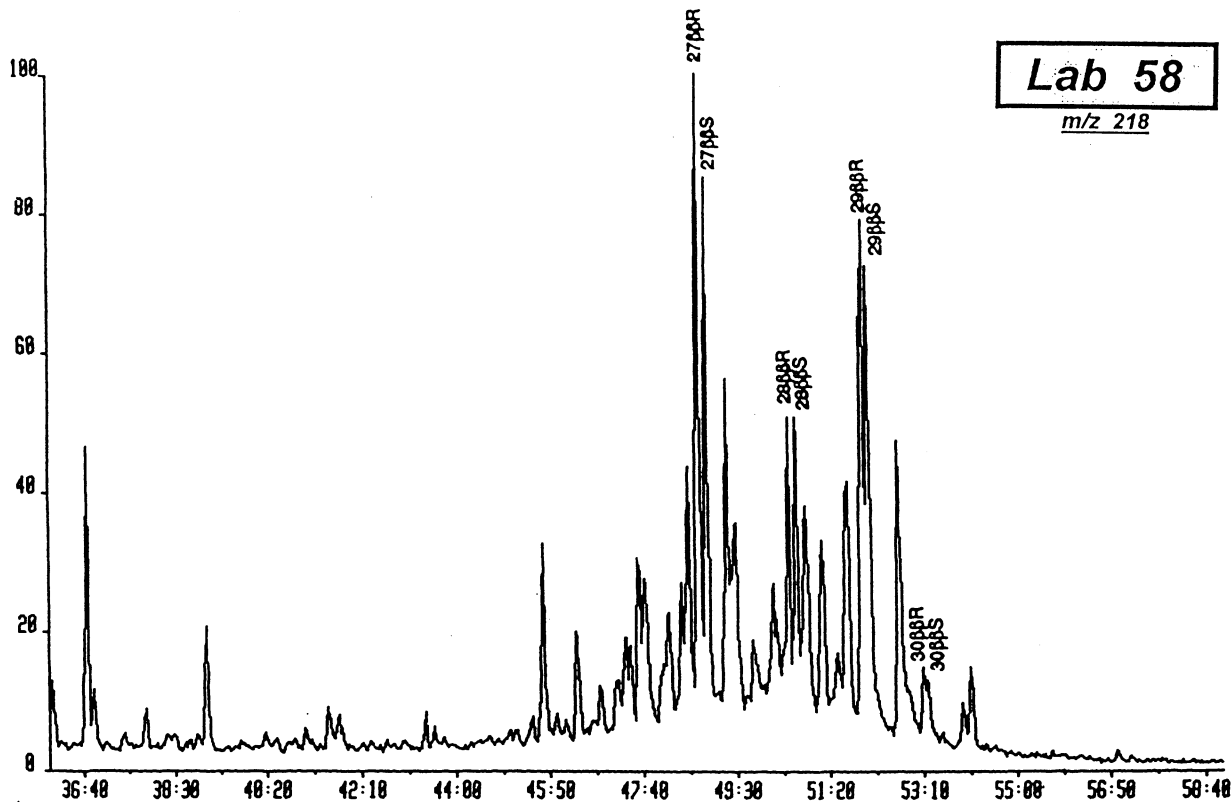


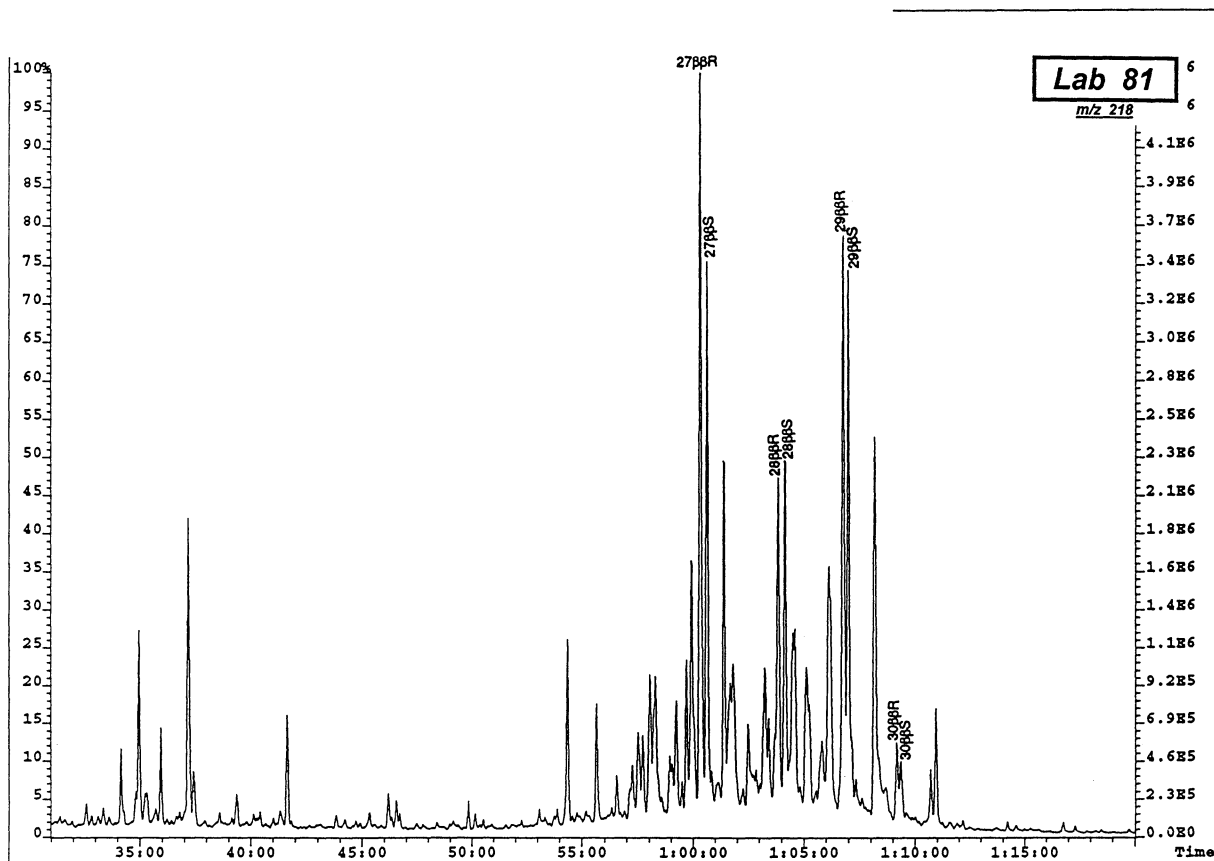
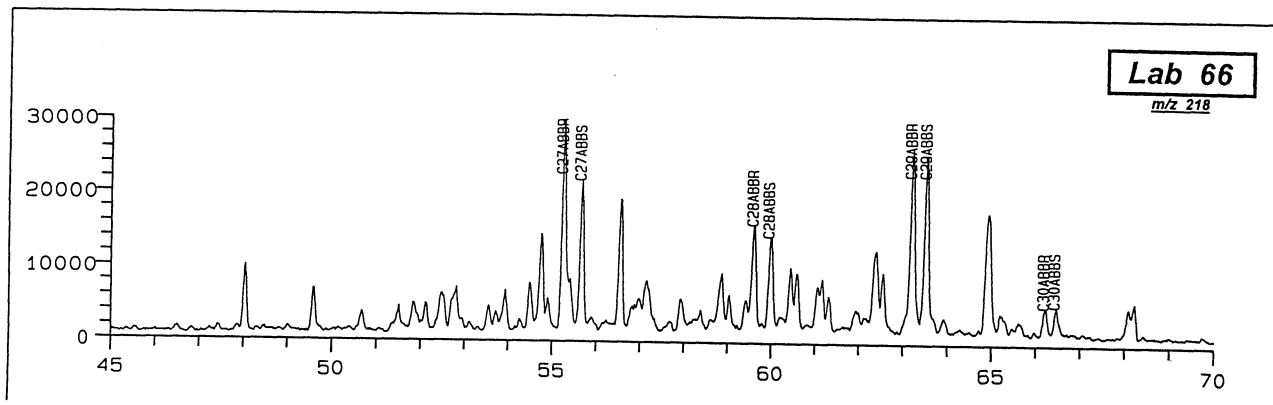


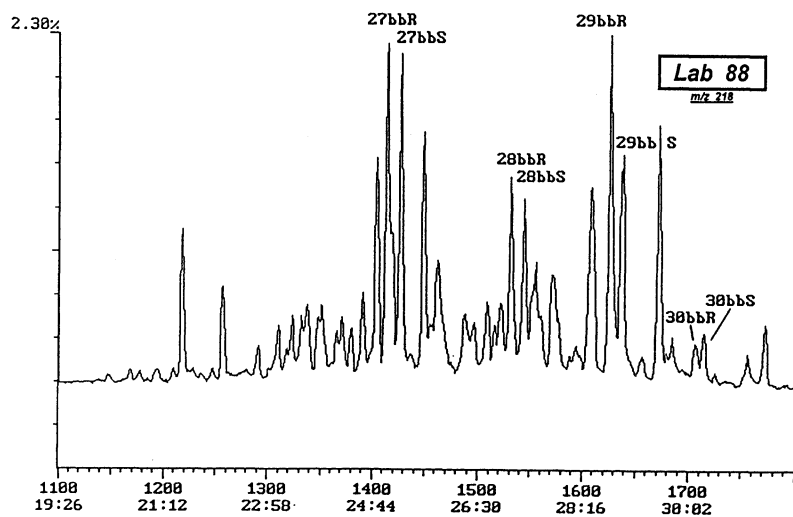
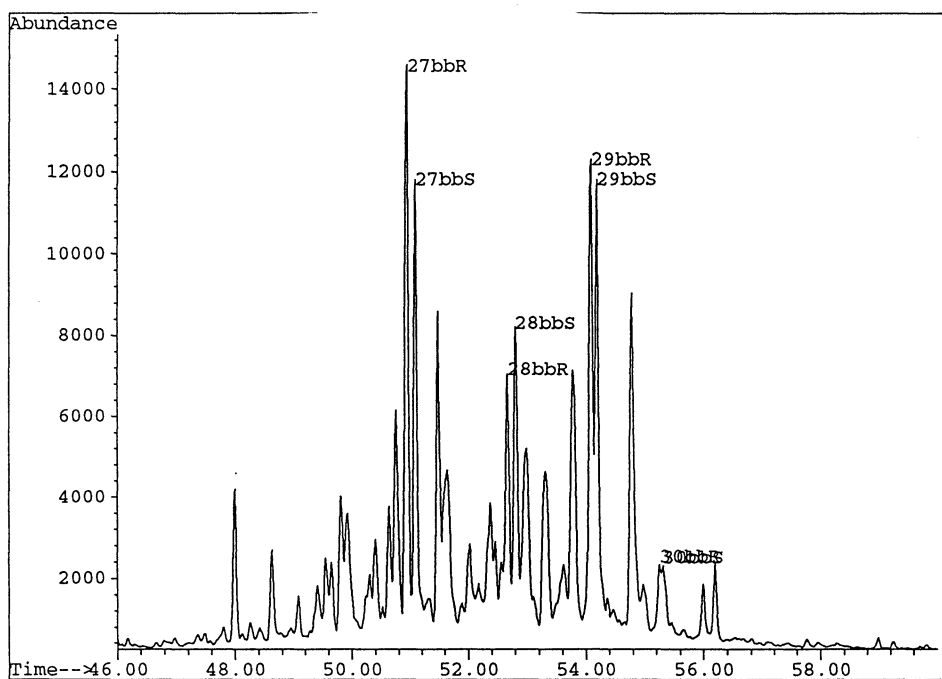
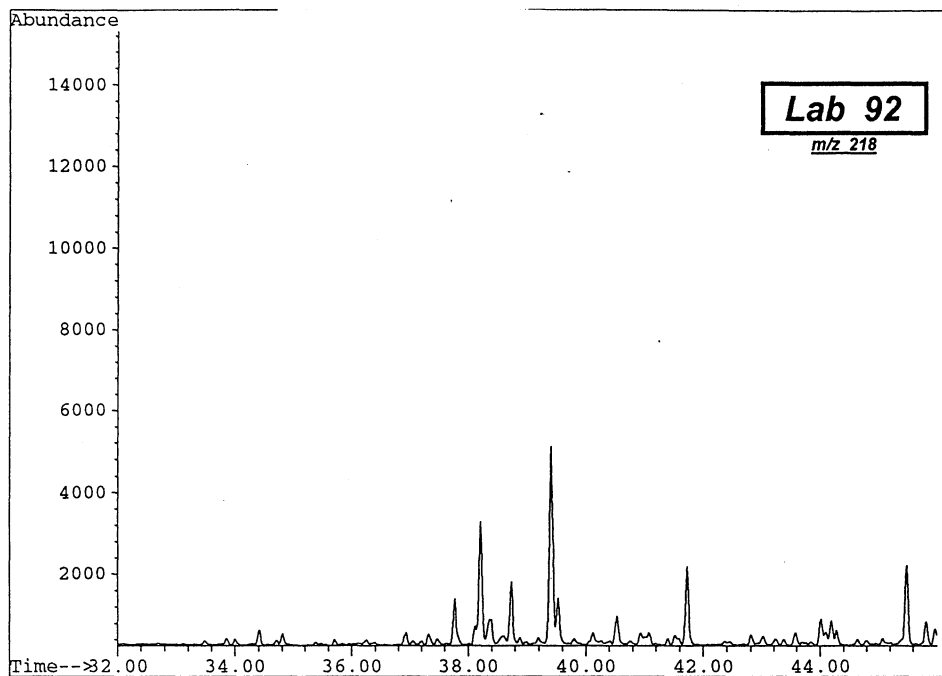


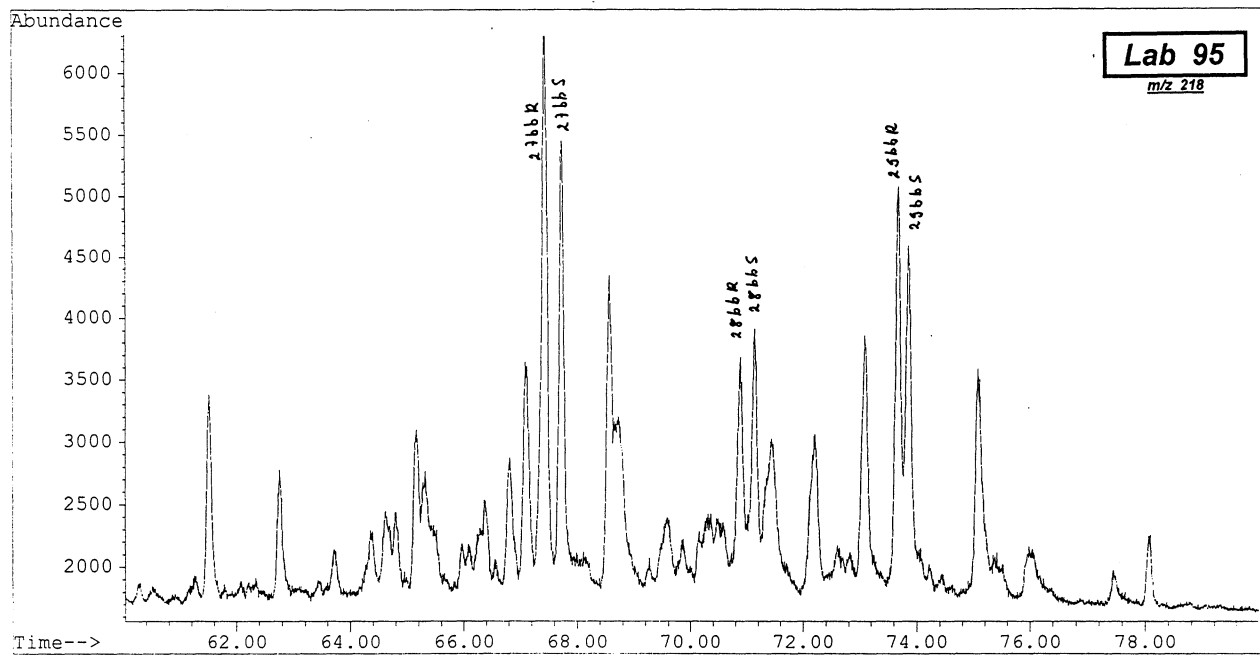
Peak ID	Sterane Name	Ret Time	Area	Area%	ppm
A	27 α 28 β PR	74.226	3149316	22.95	93
B	27 α 28 β PS	74.597	2311961	16.85	68
C	28 β PR	79.060	1553919	11.32	46
D	28 β PS	79.410	1646427	12.00	49
E	29 β PR	82.954	2115382	15.42	63
F	29 β PS	83.194	2348369	17.11	70
G	30 β PR	86.210	462104	3.37	14
H	30 β PS	86.517	133945	0.98	4







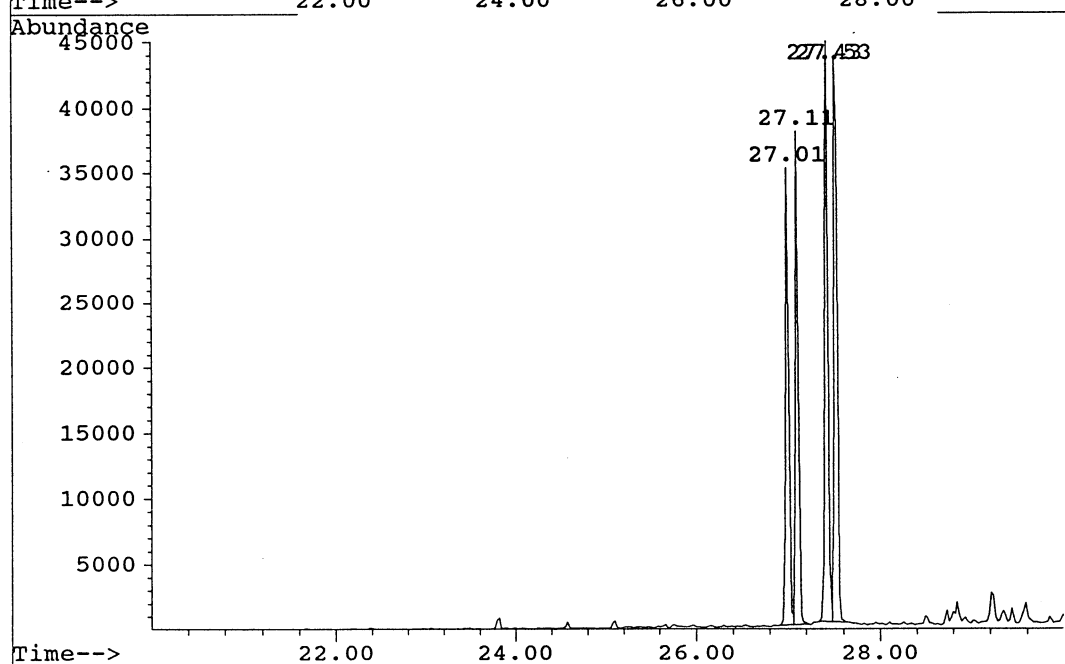
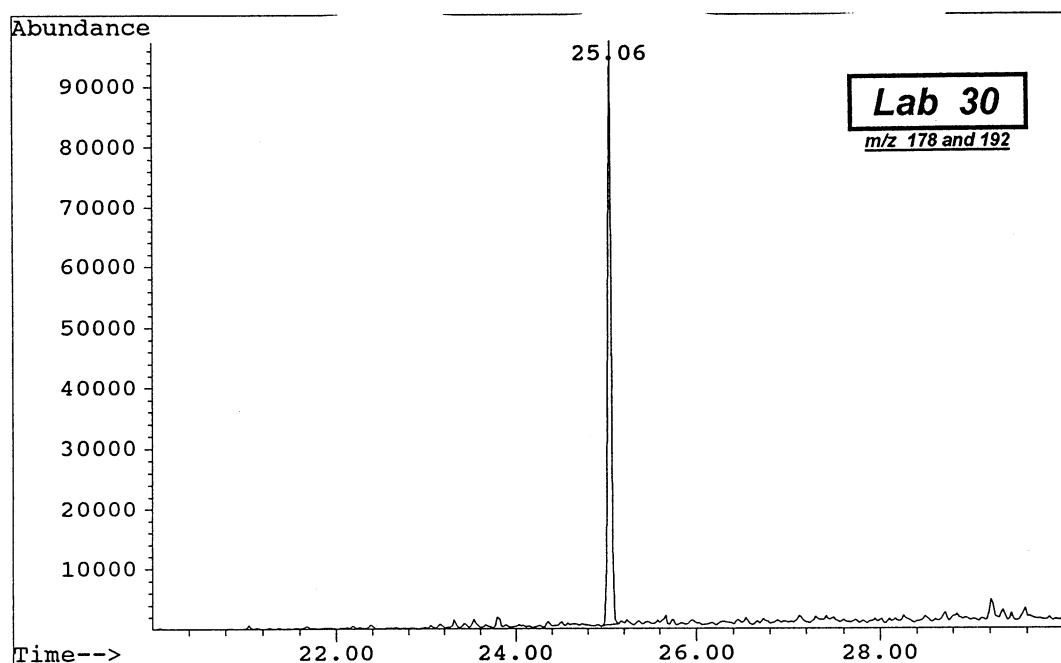
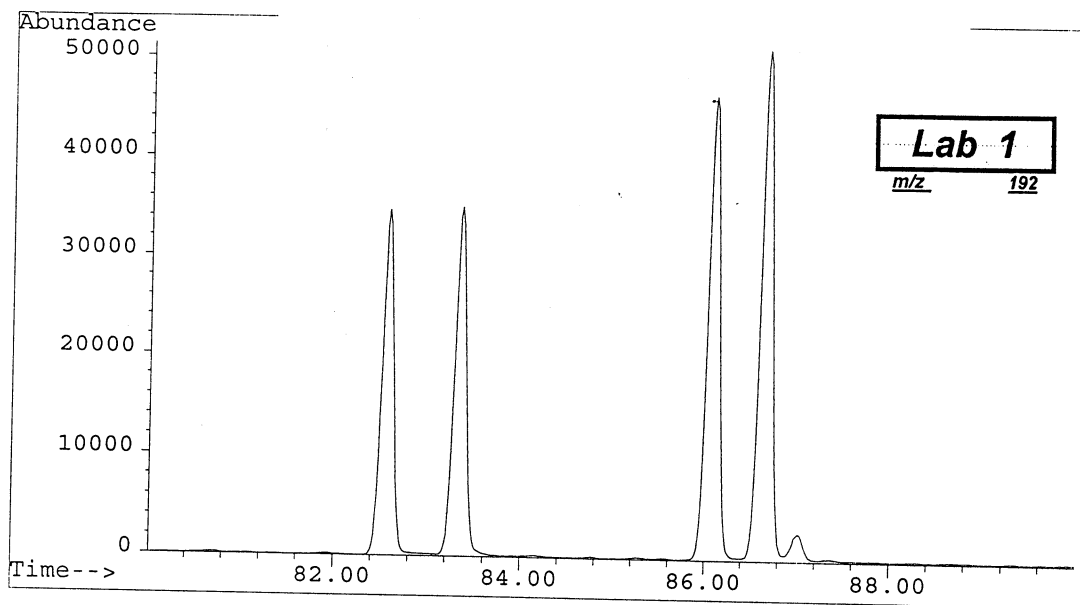


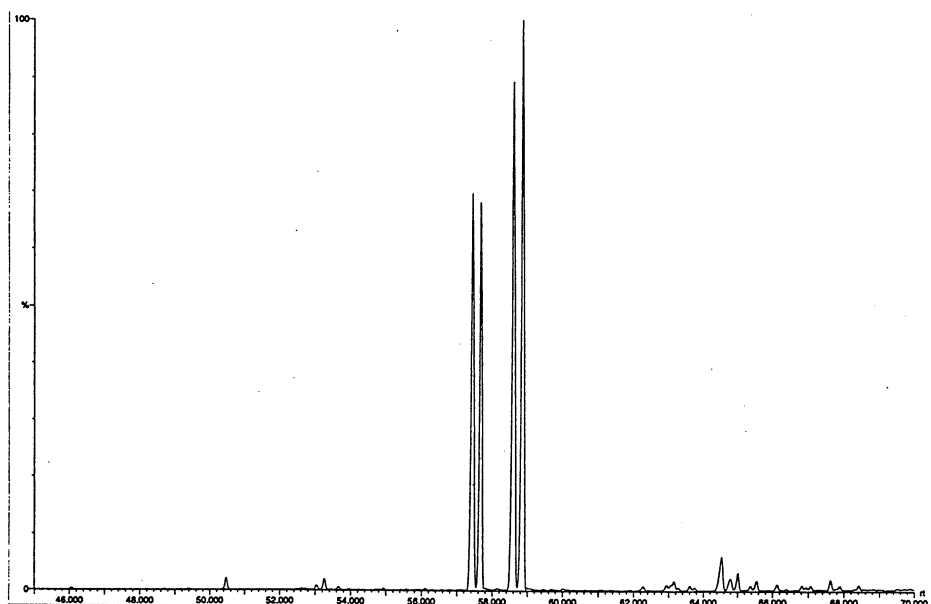
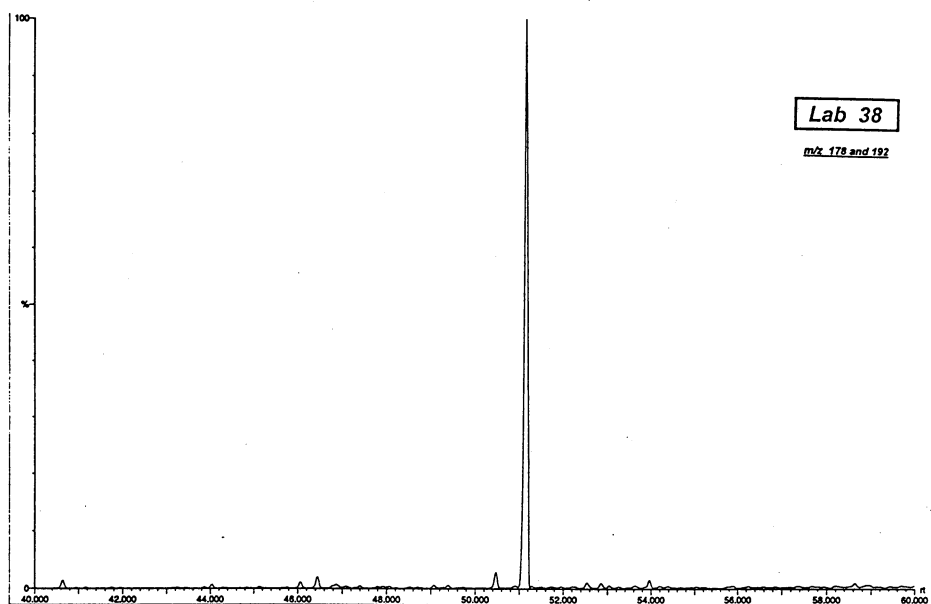
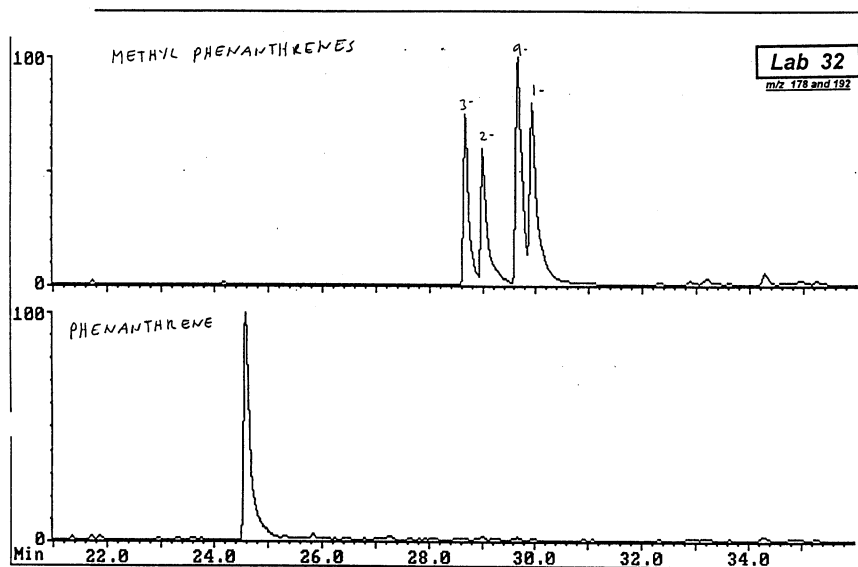


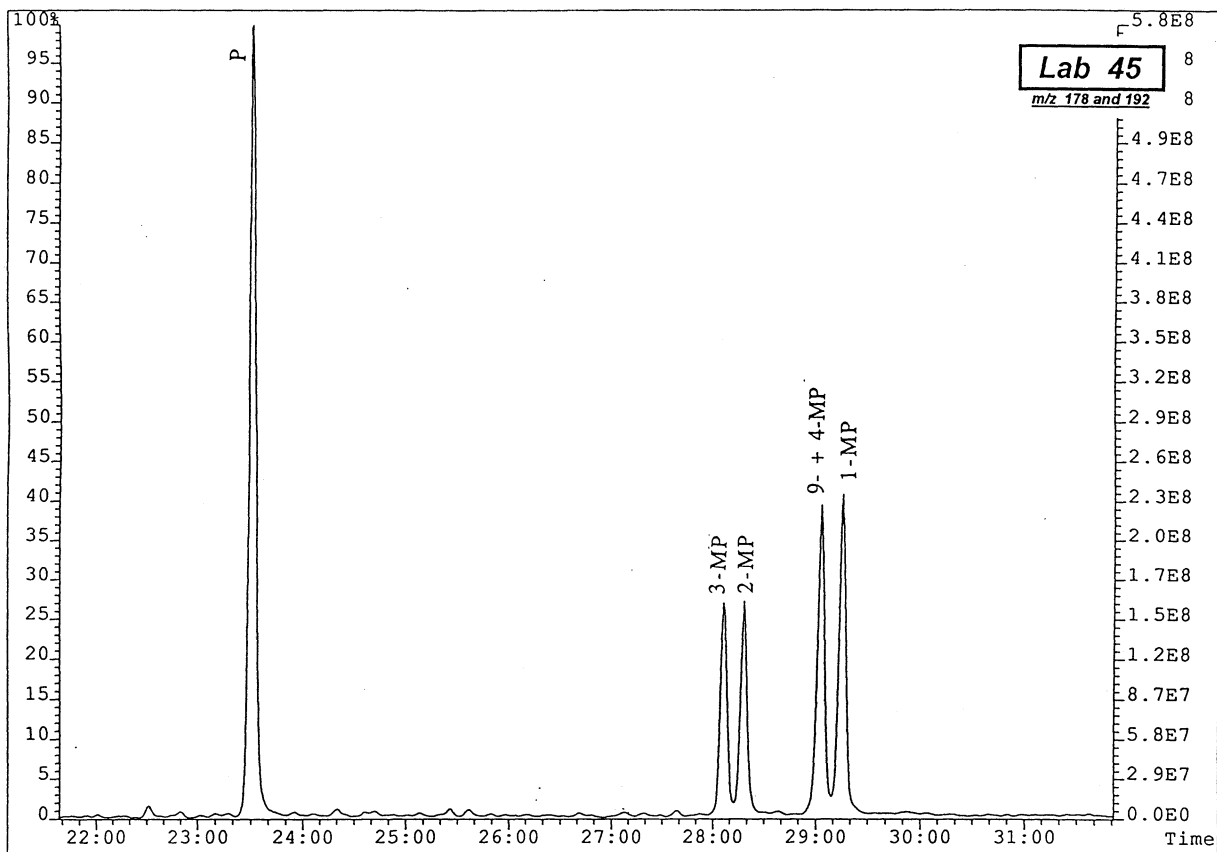
NGS JR-1

Appendix A5.4b-1

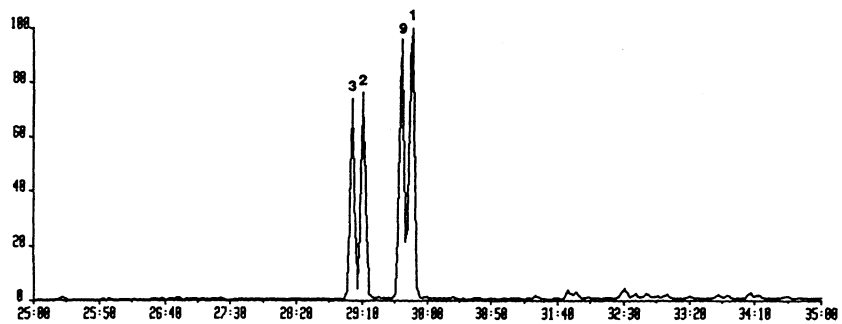
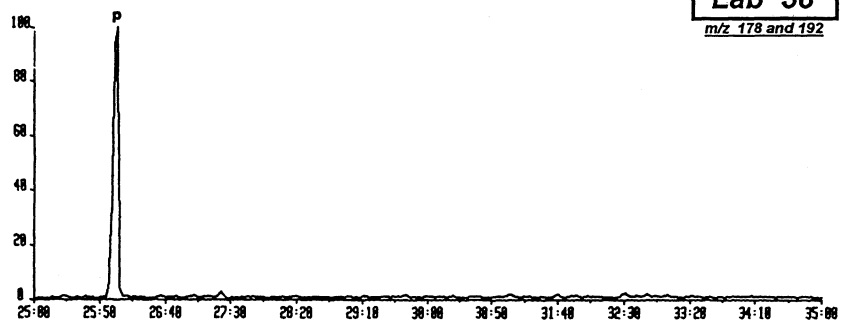
Aromatic fraction m/z 178 and 192 GC-MS fragmentograms



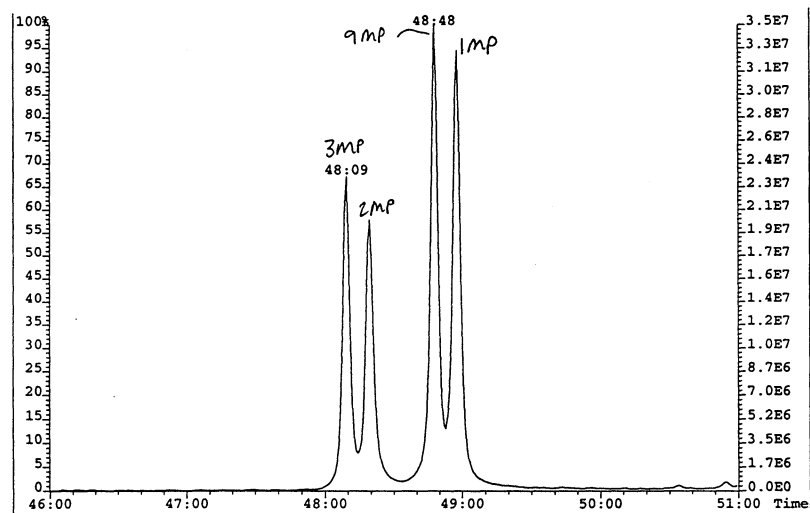
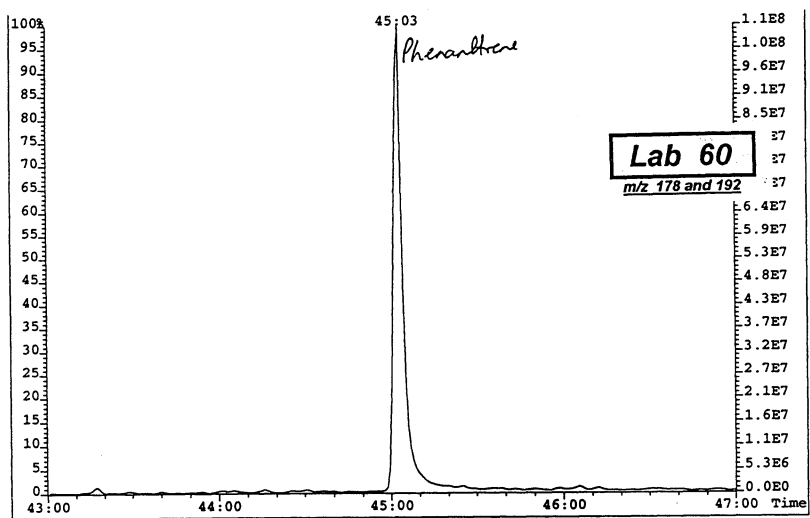


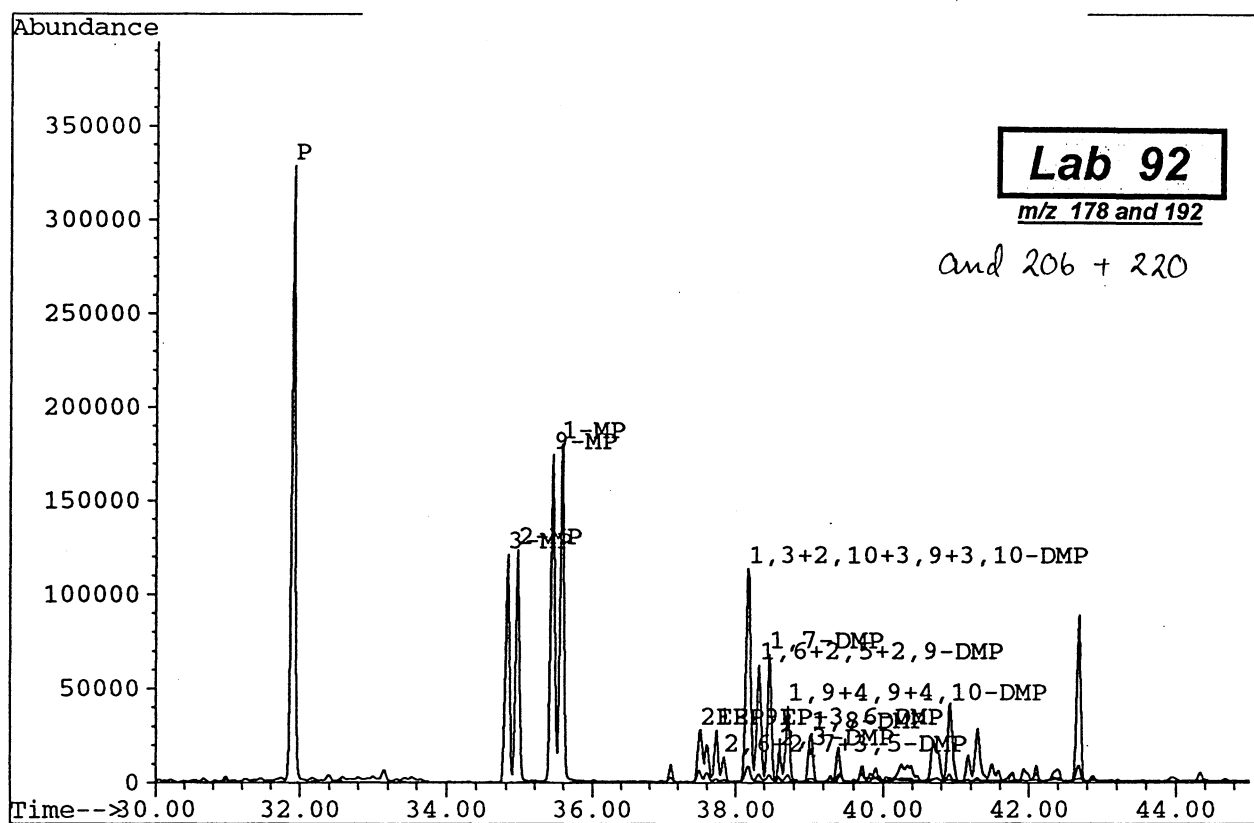


Lab 58
m/z 178 and 192



Lab 60
m/z 178 and 192

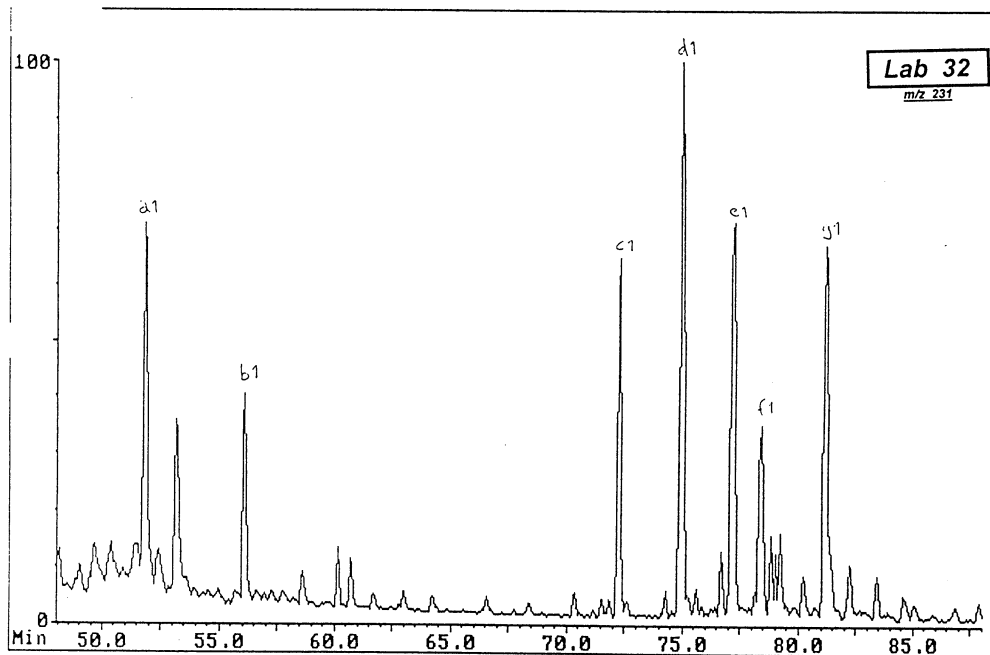
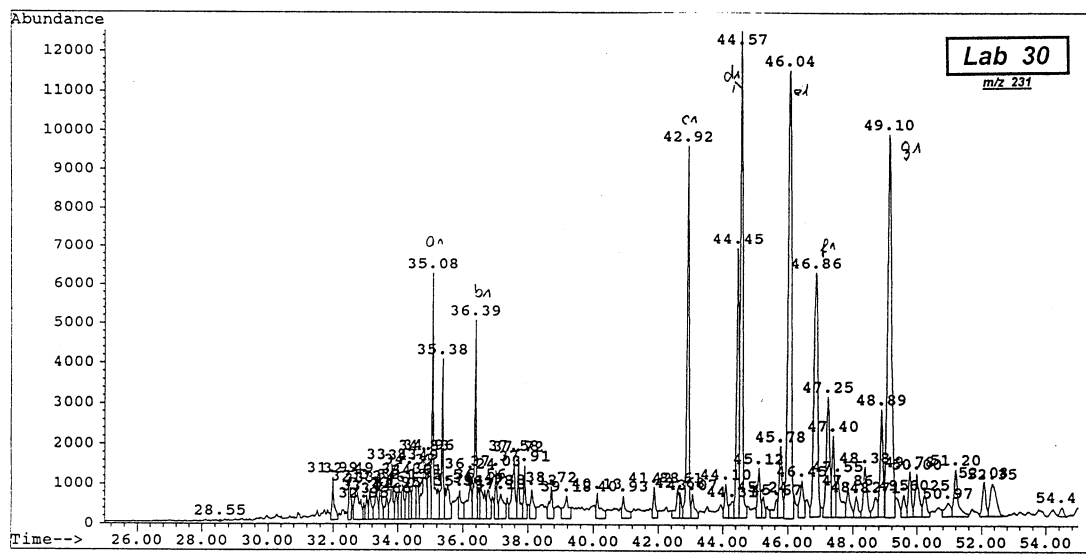
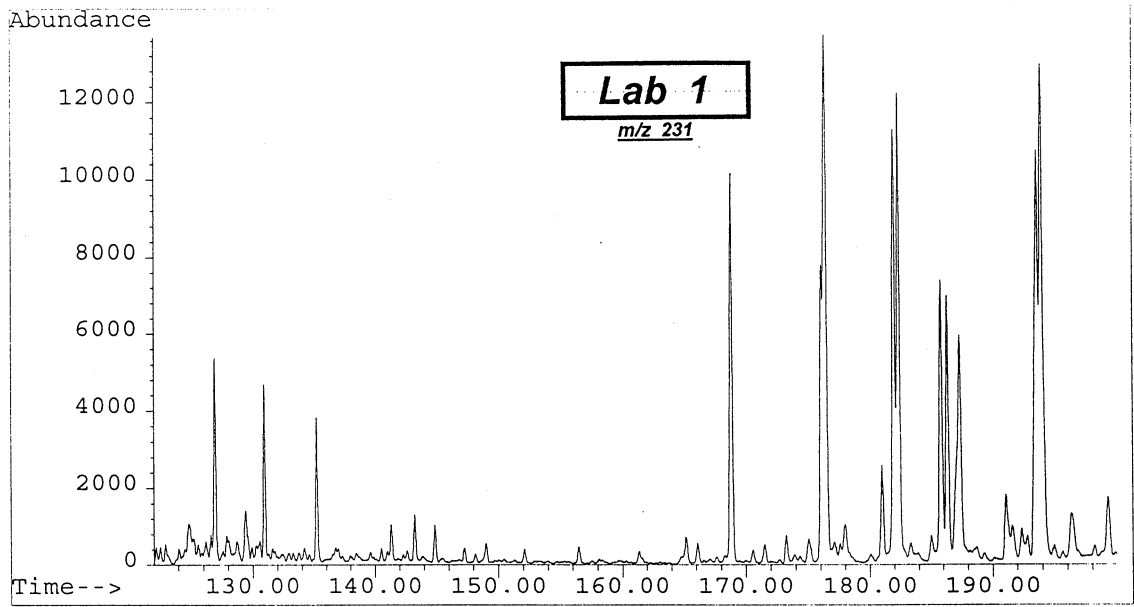


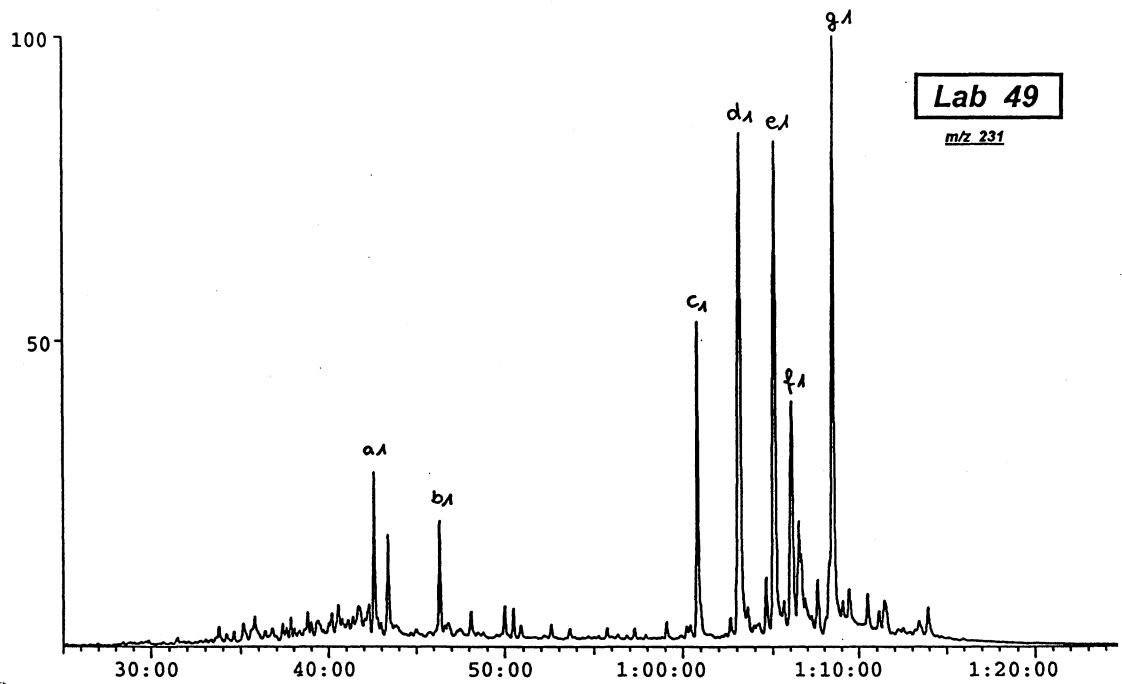
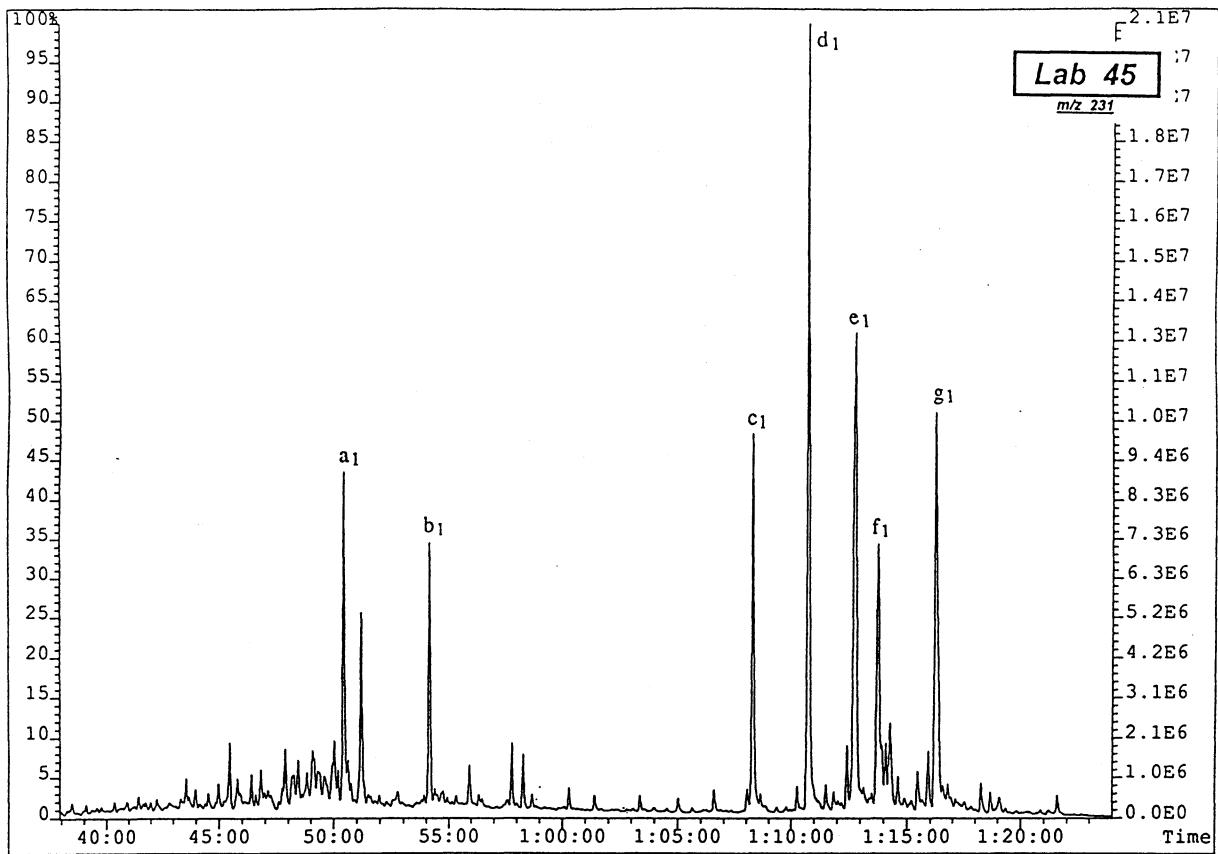


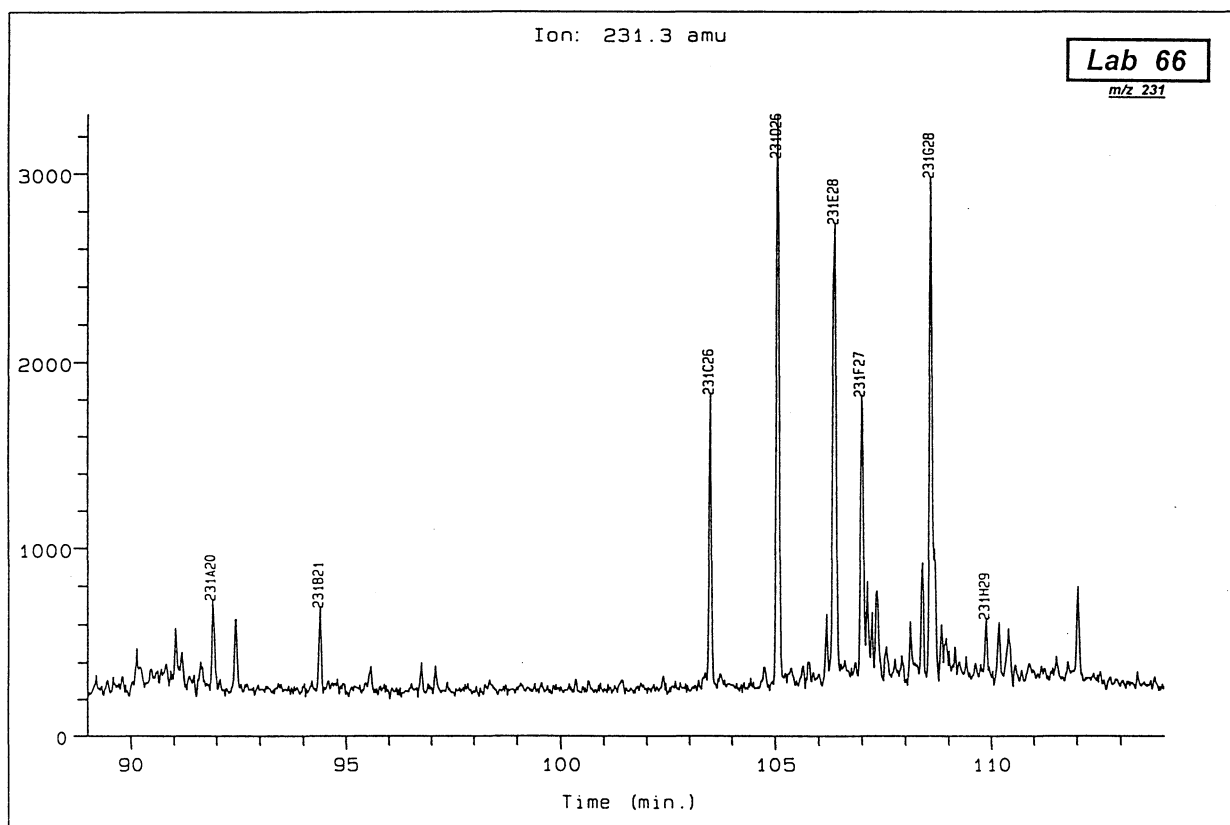
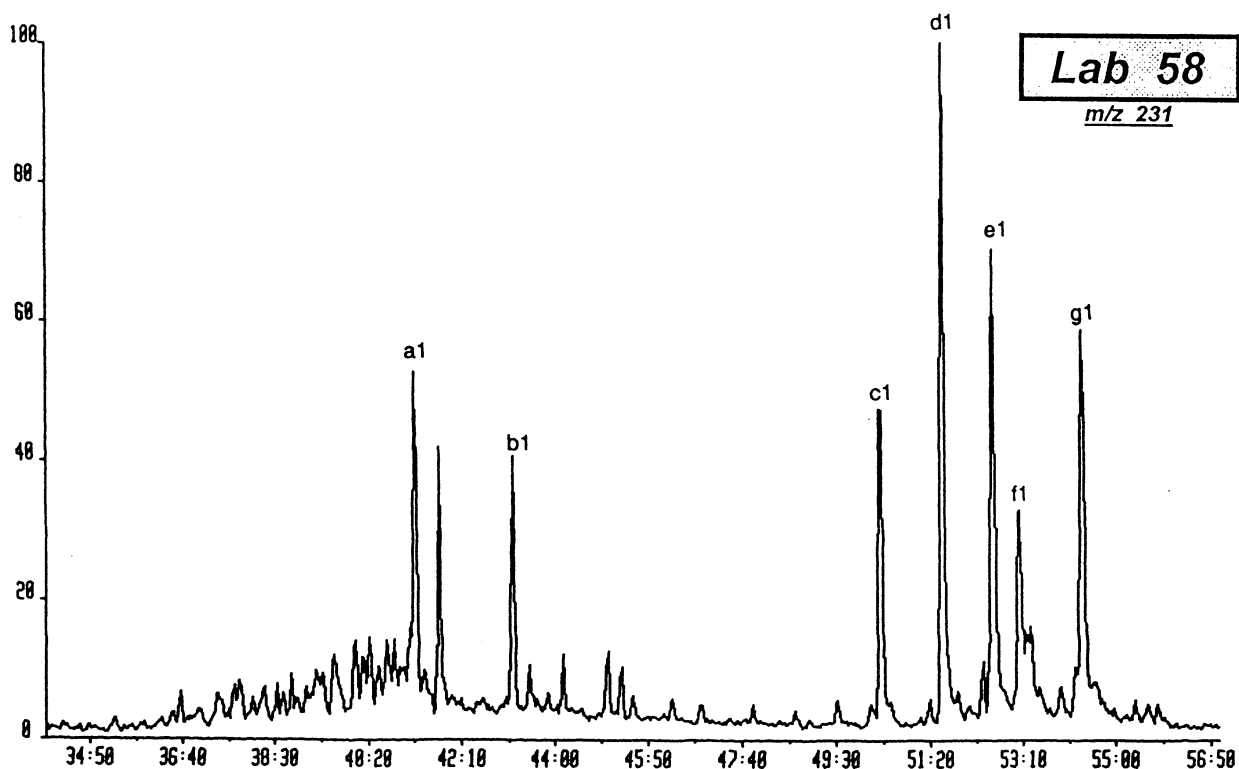
NGS JR-1

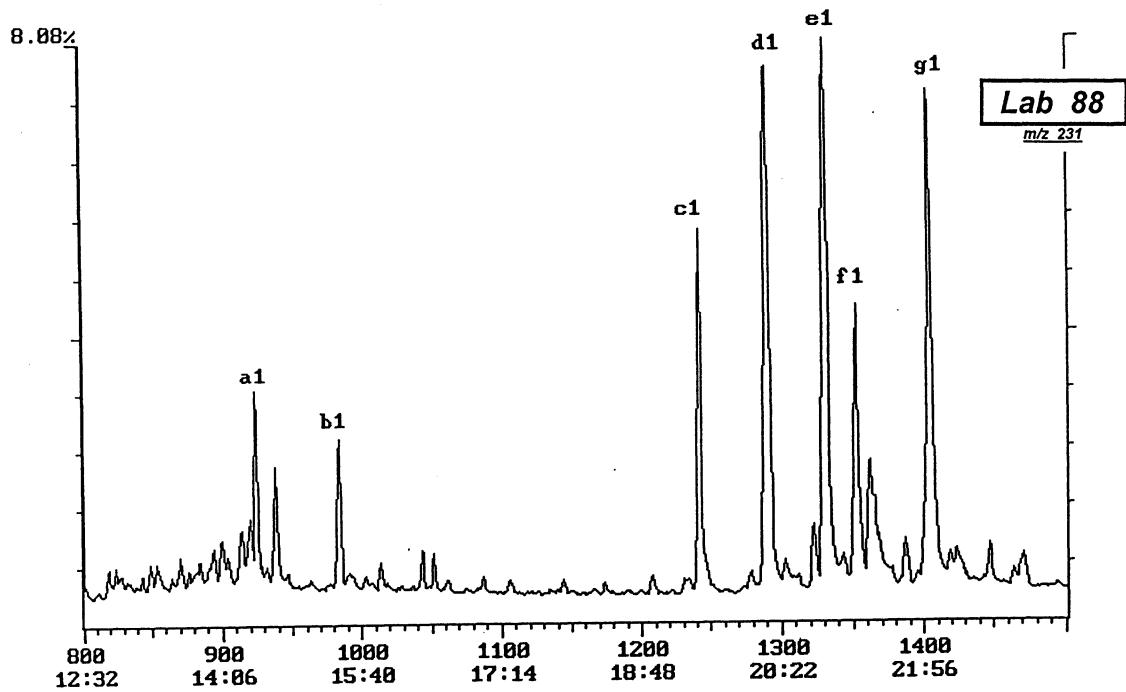
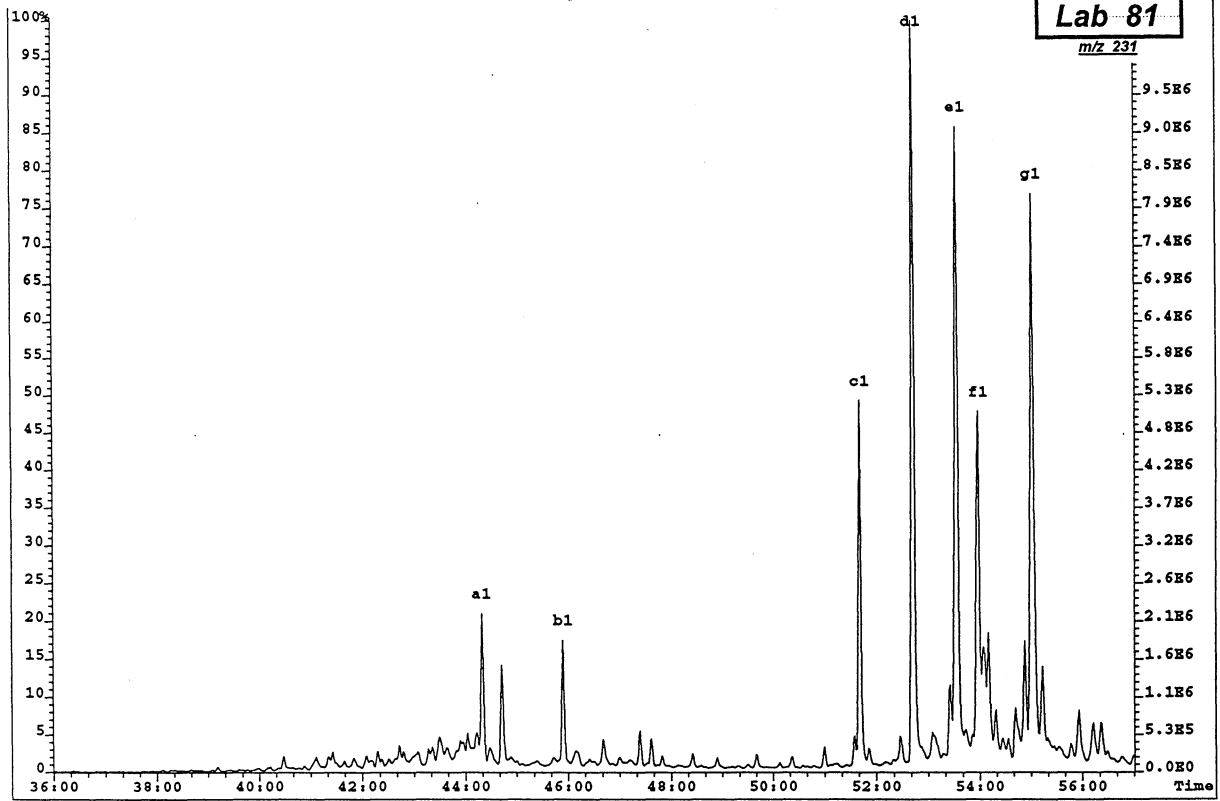
Appendix A5.4b-2

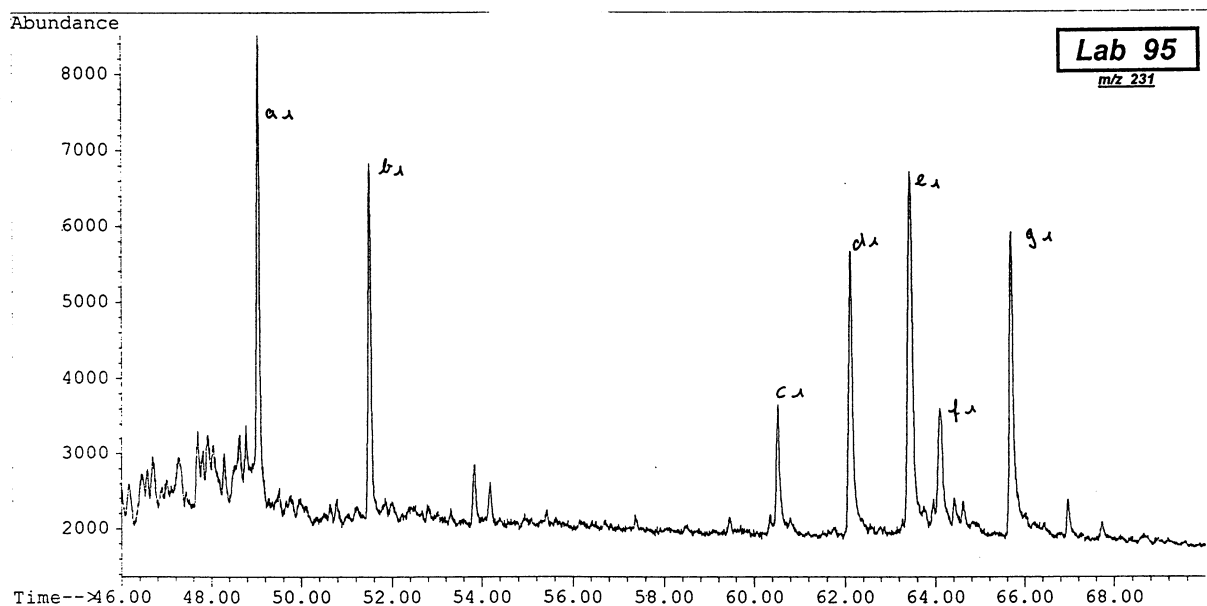
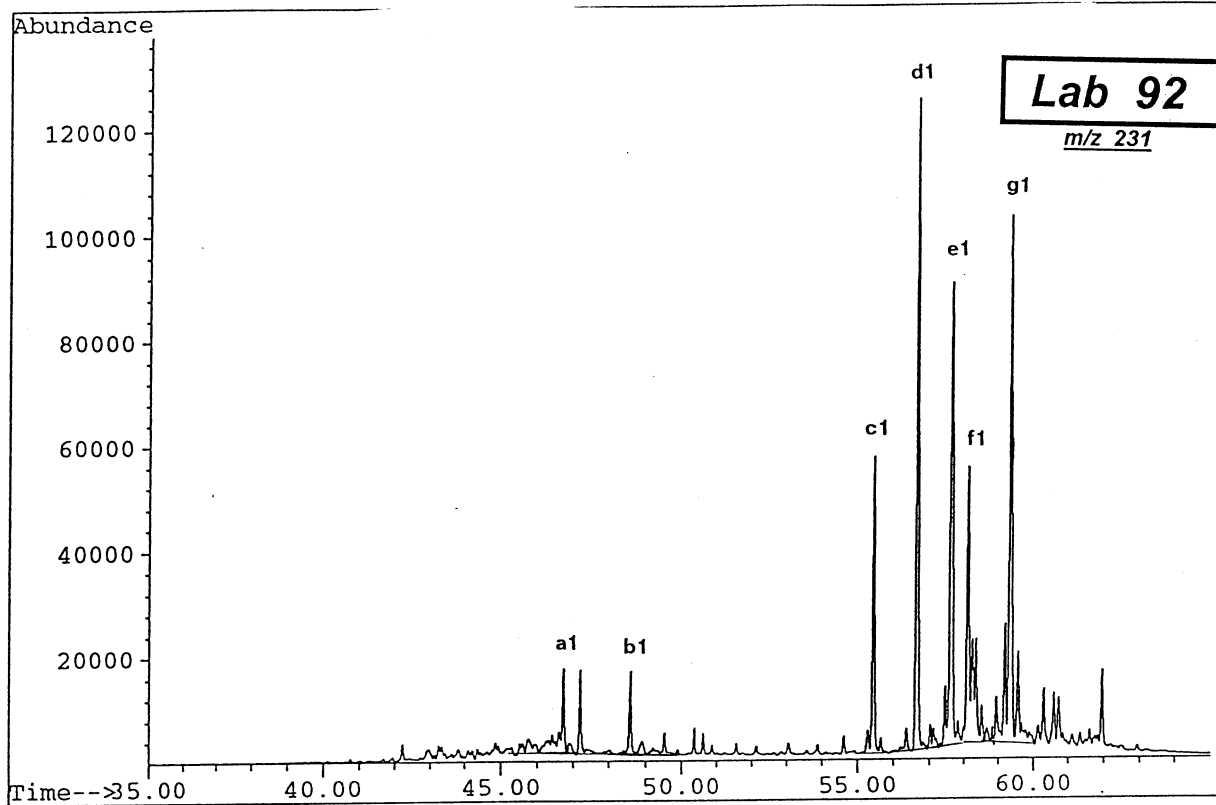
Aromatic fraction m/z 231 GC-MS fragmentograms







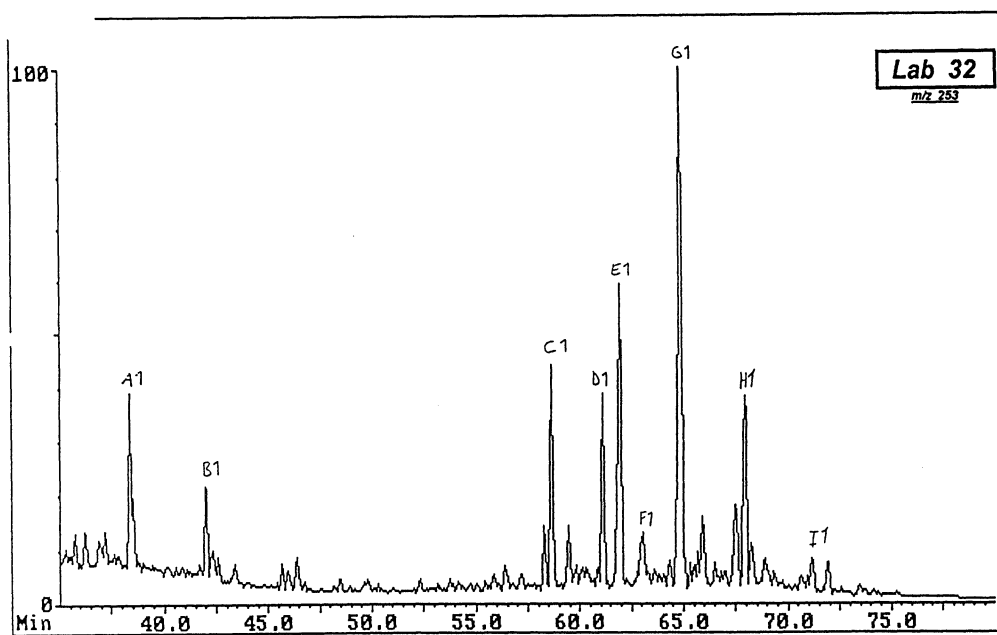
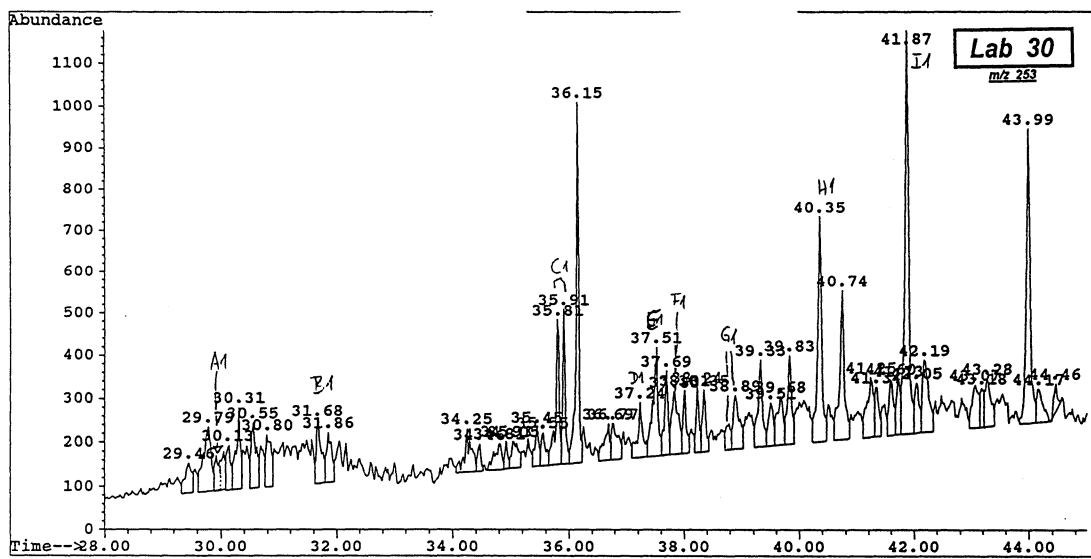
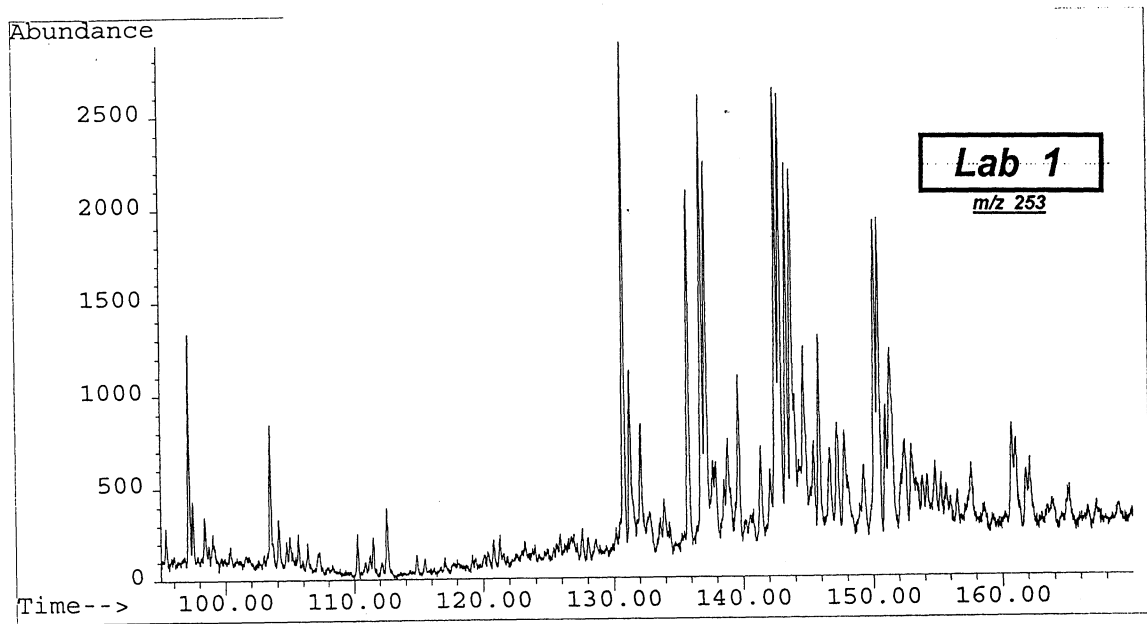


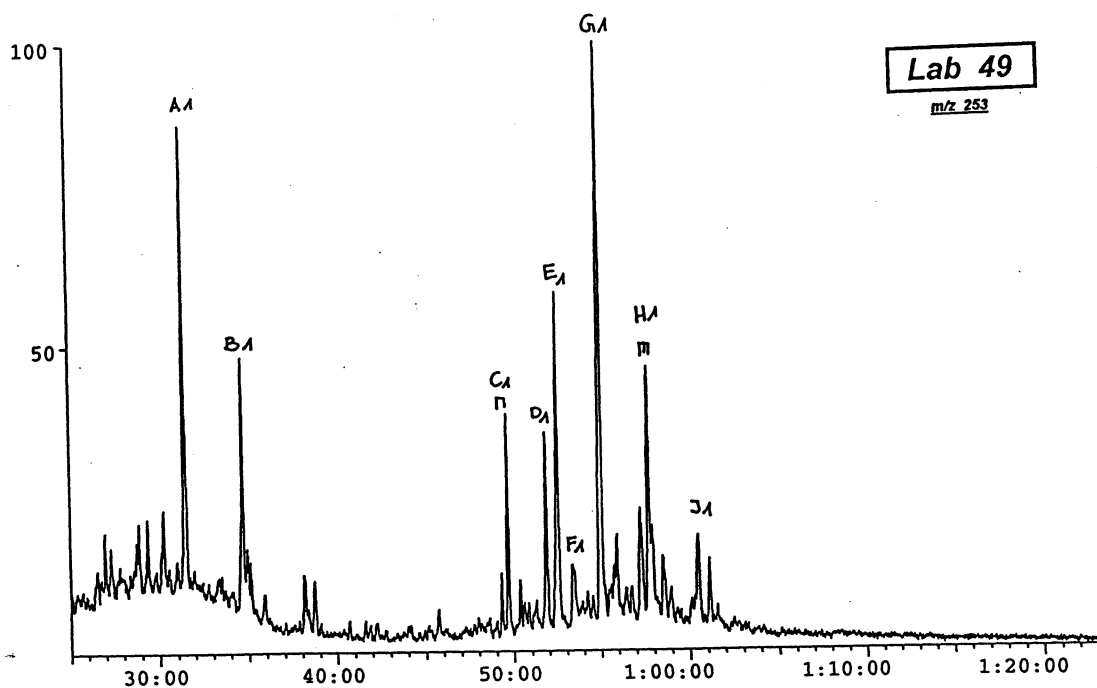
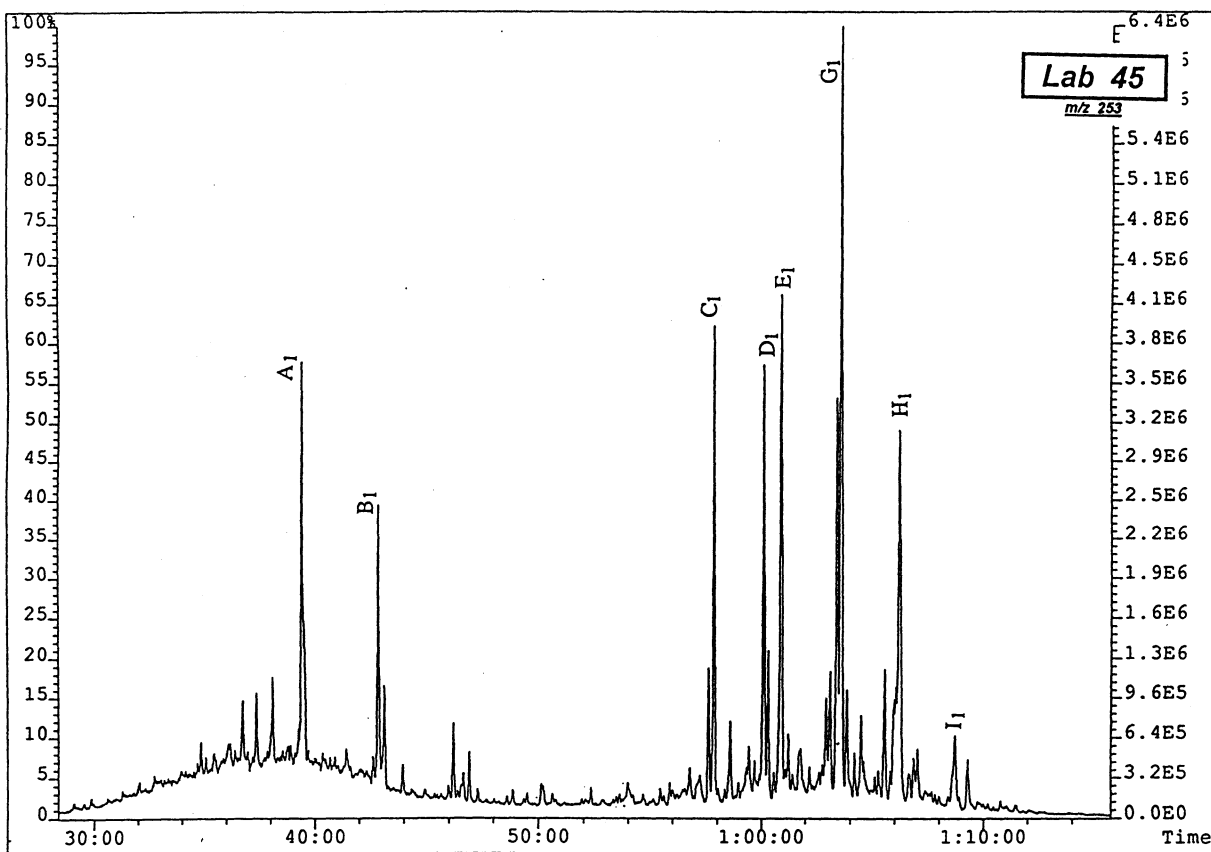


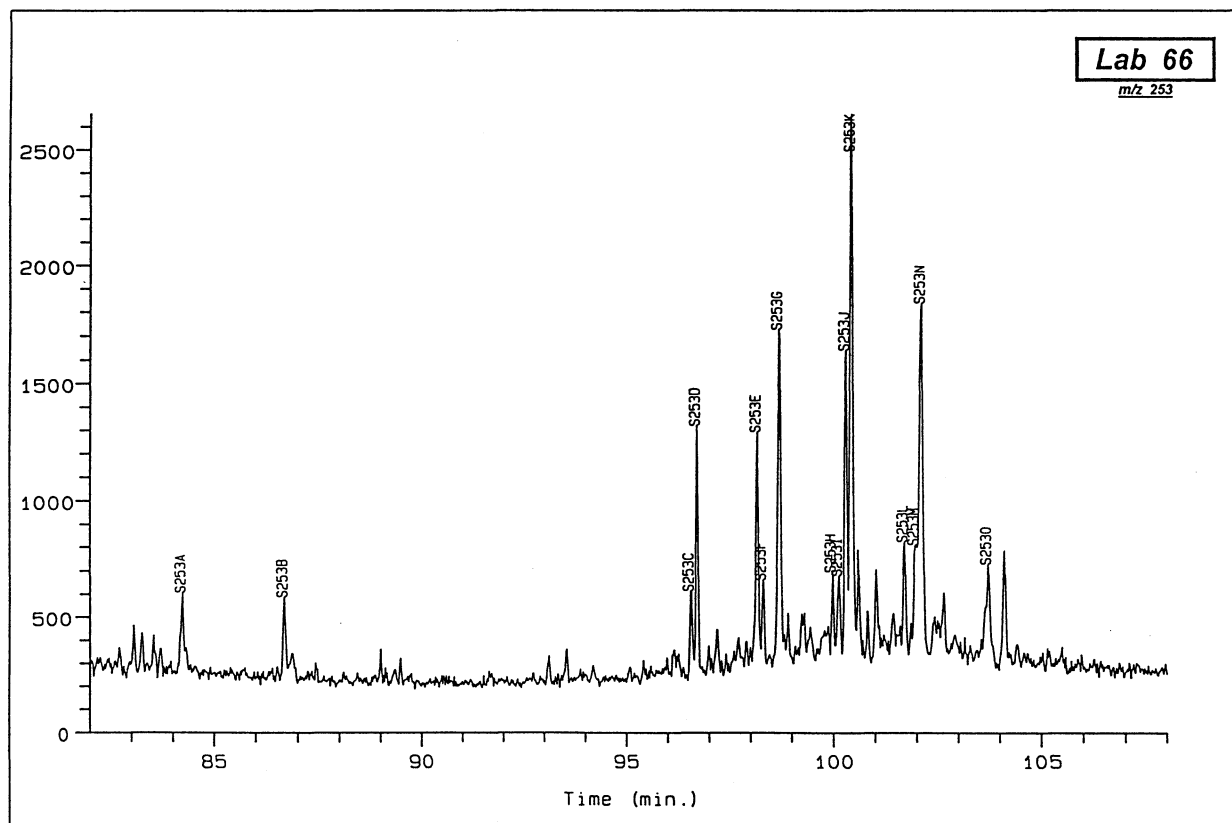
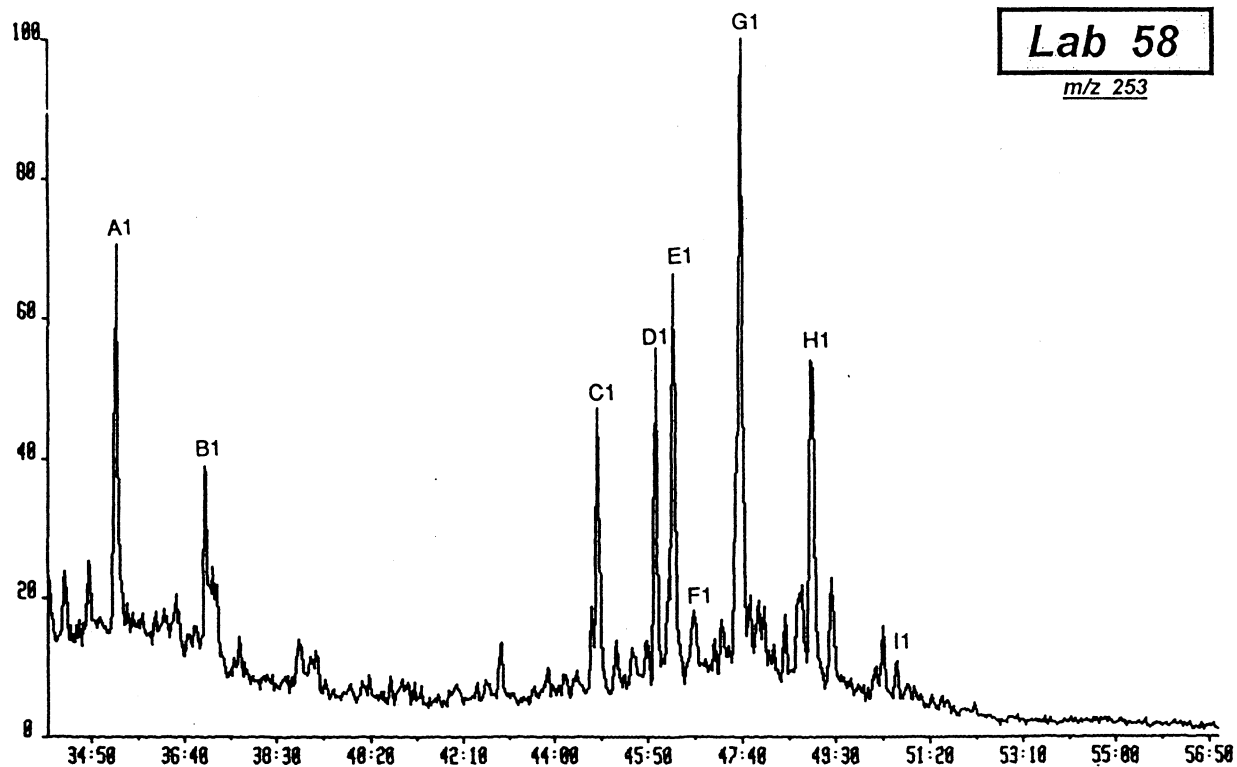
NGS JR-1

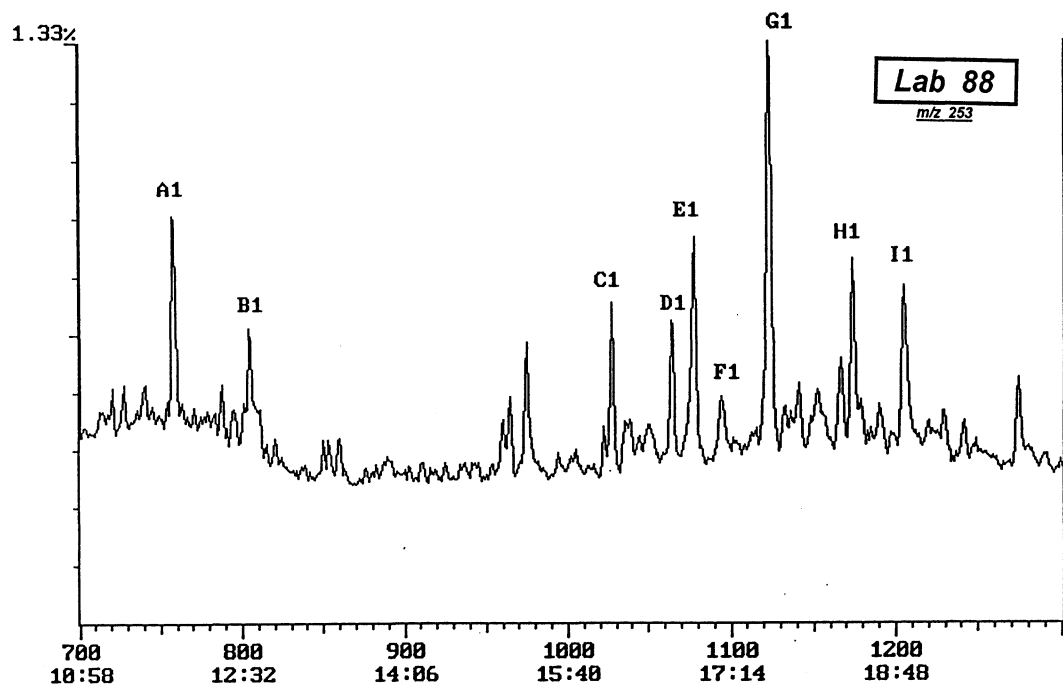
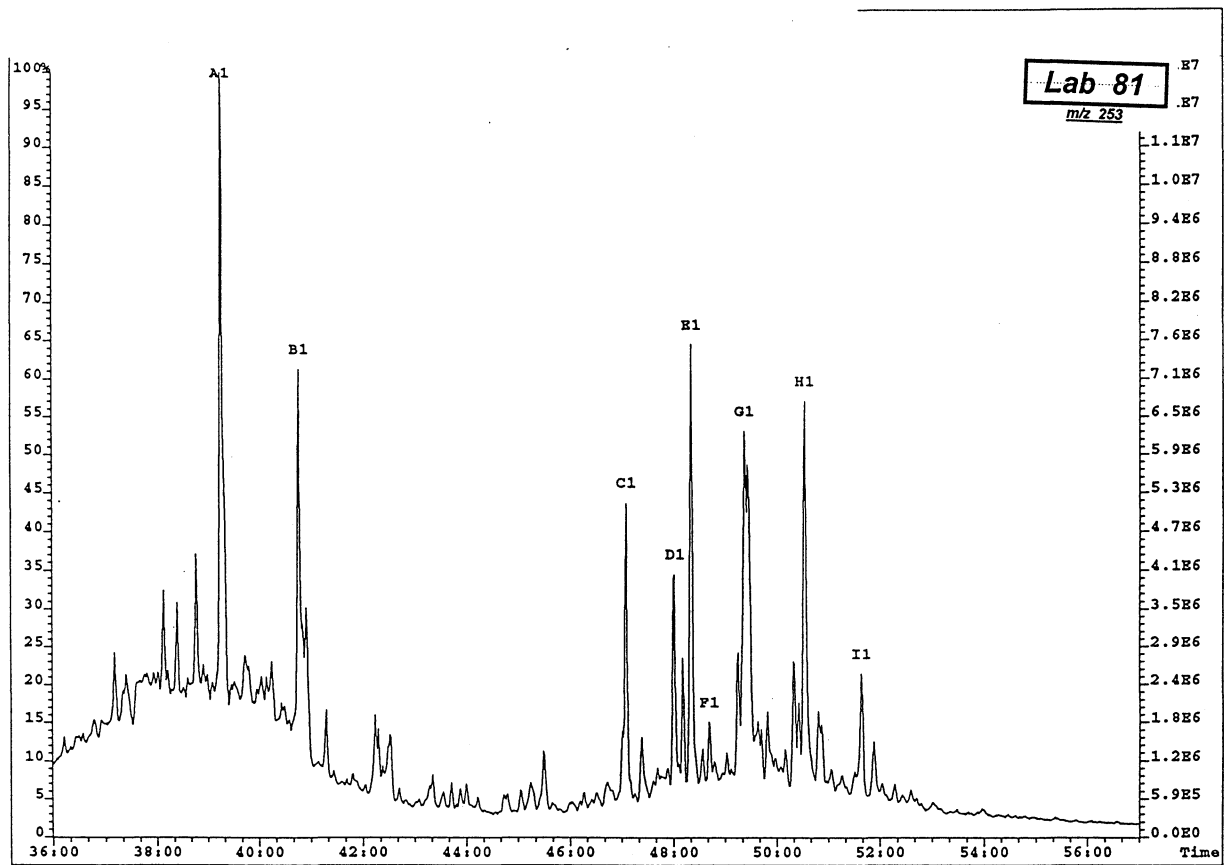
Appendix A5.4b-3

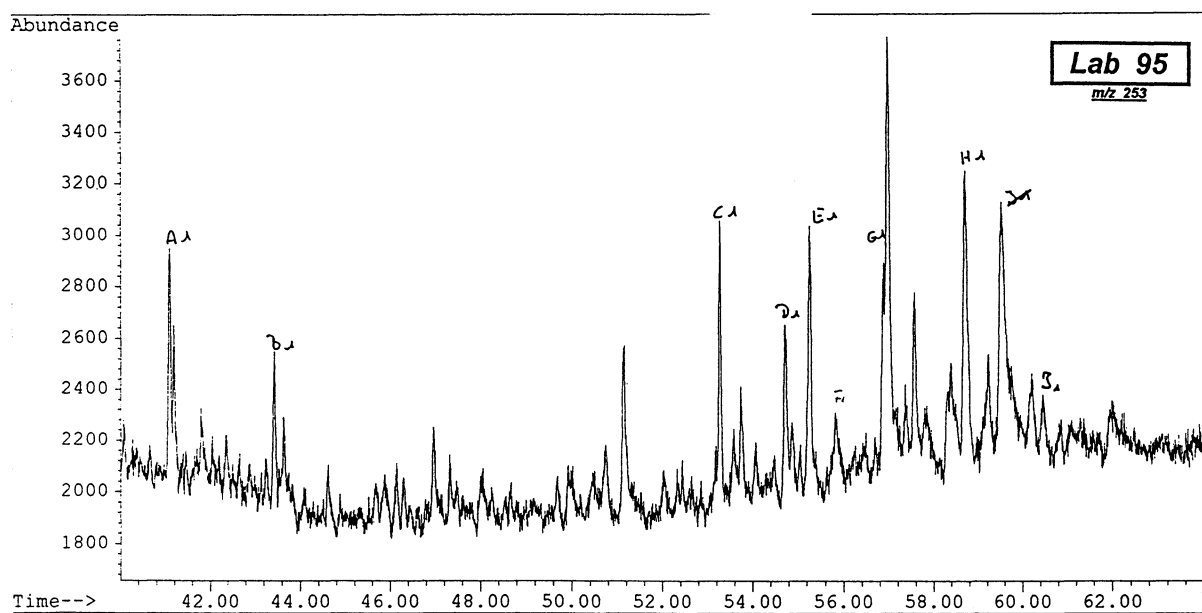
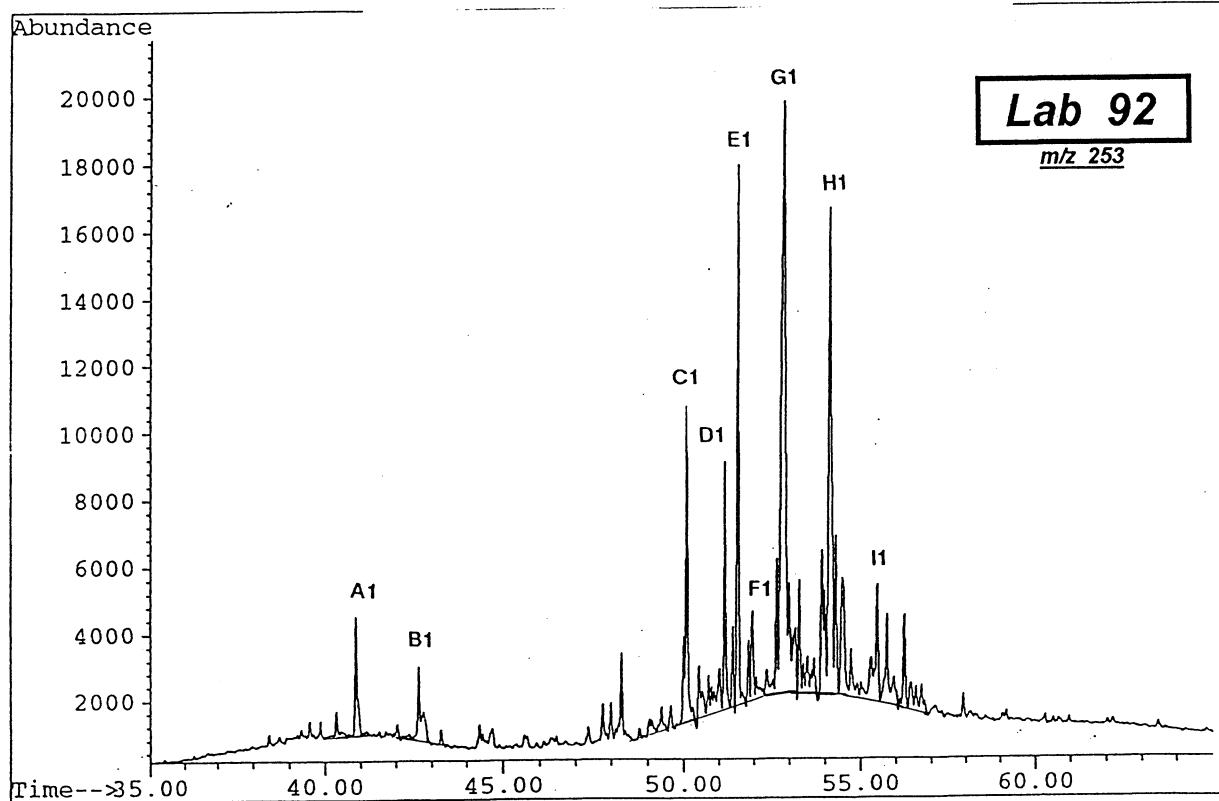
Aromatic fraction m/z 253 GC-MS fragmentograms







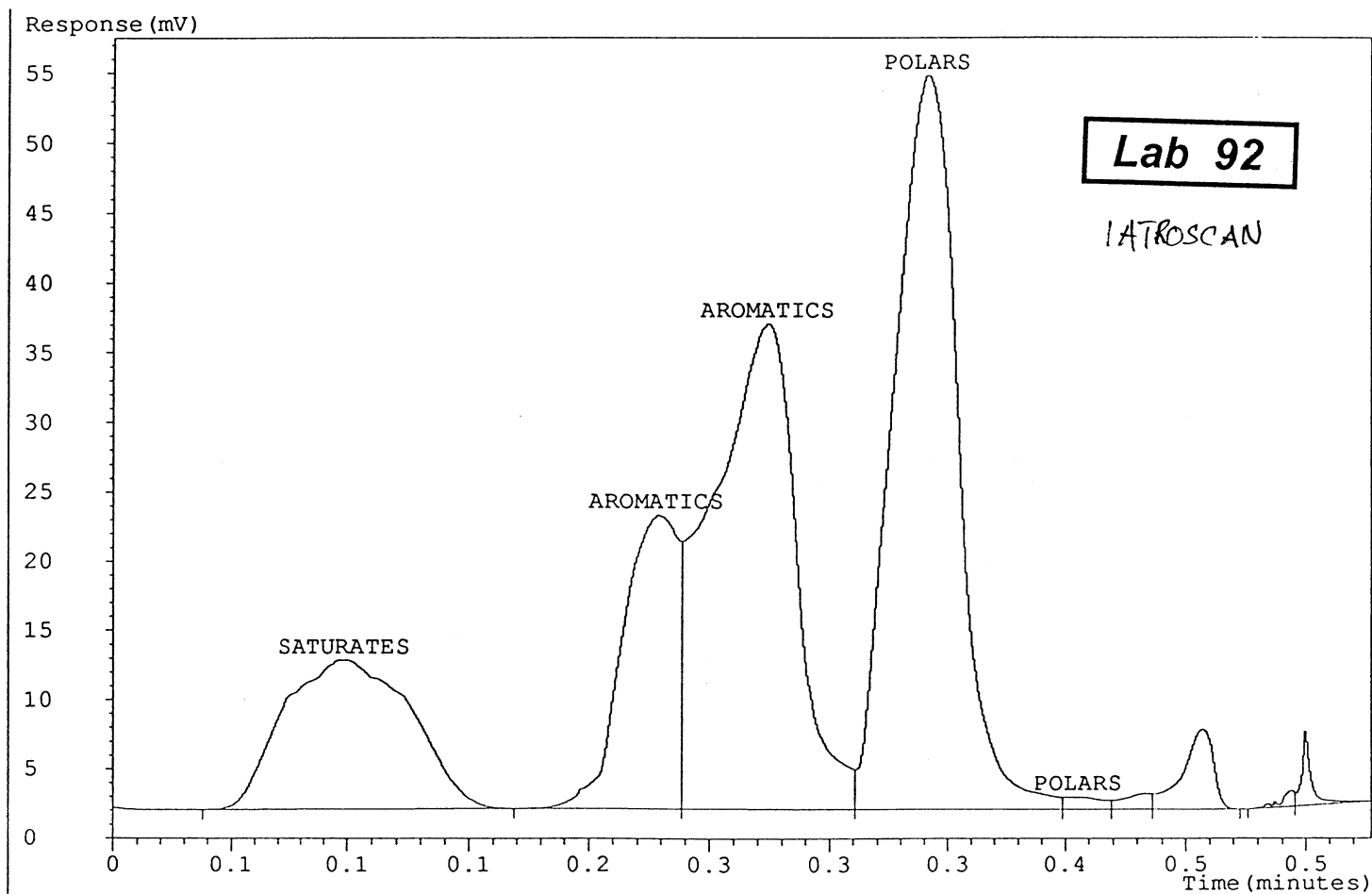
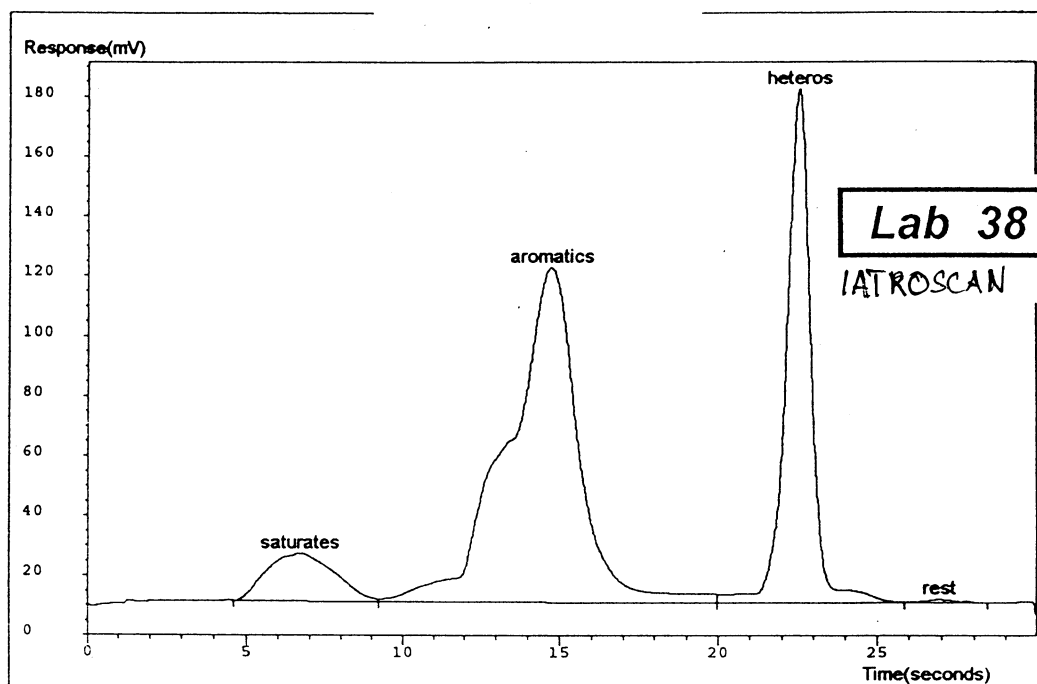




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Appendix A5.5

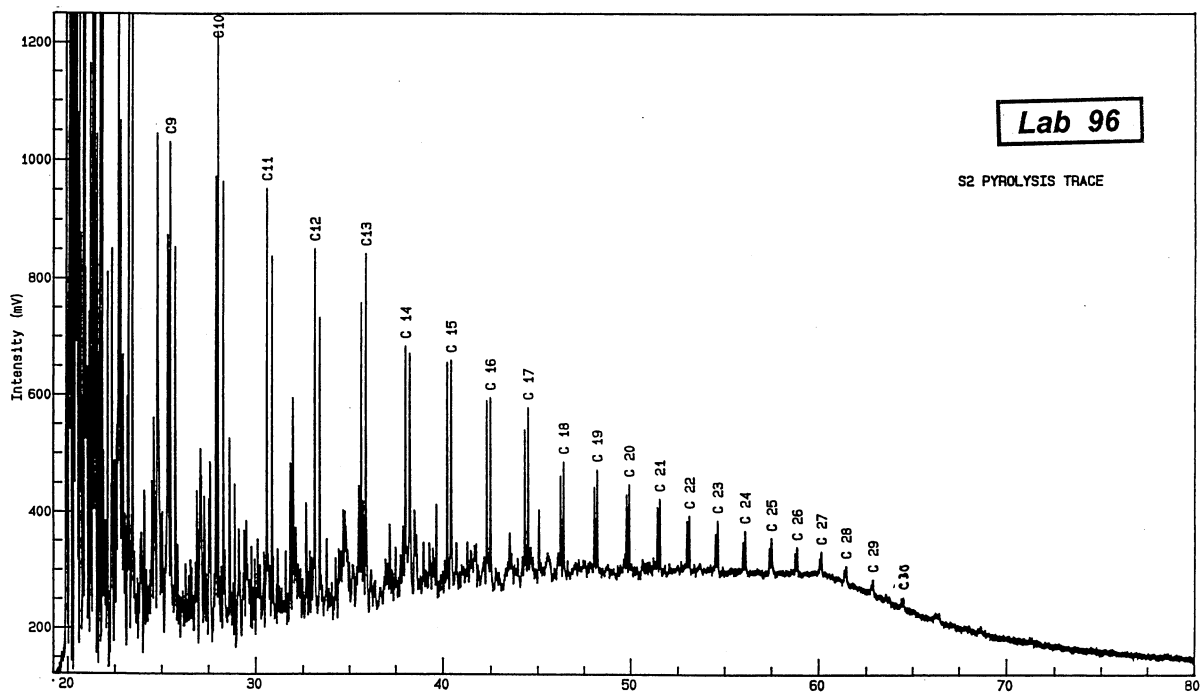
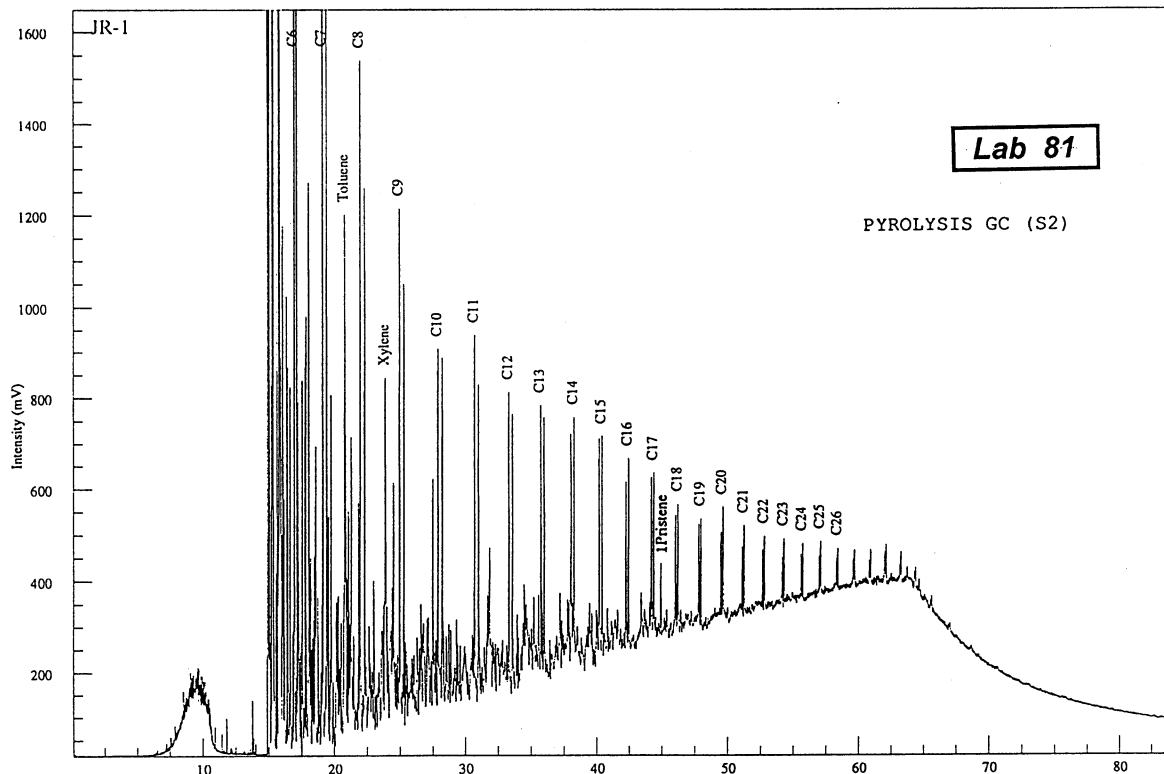
latroscan chromatograms

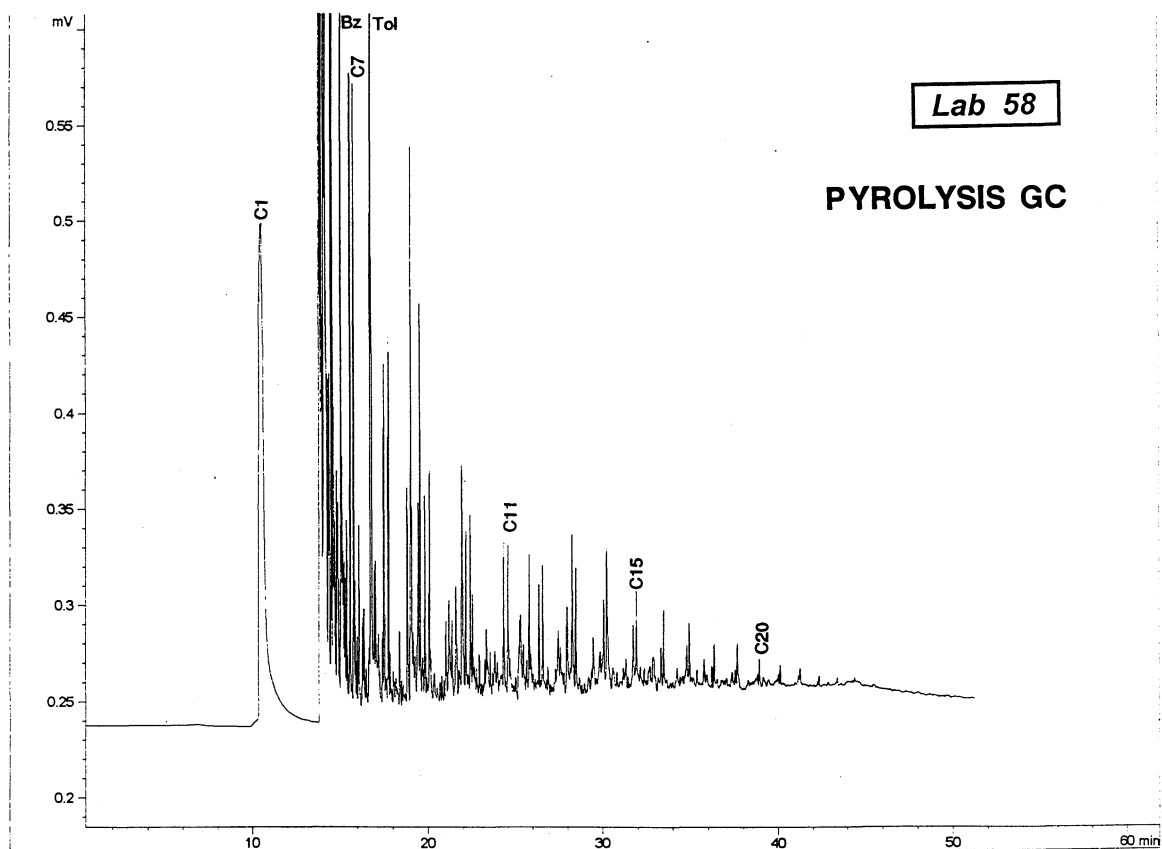
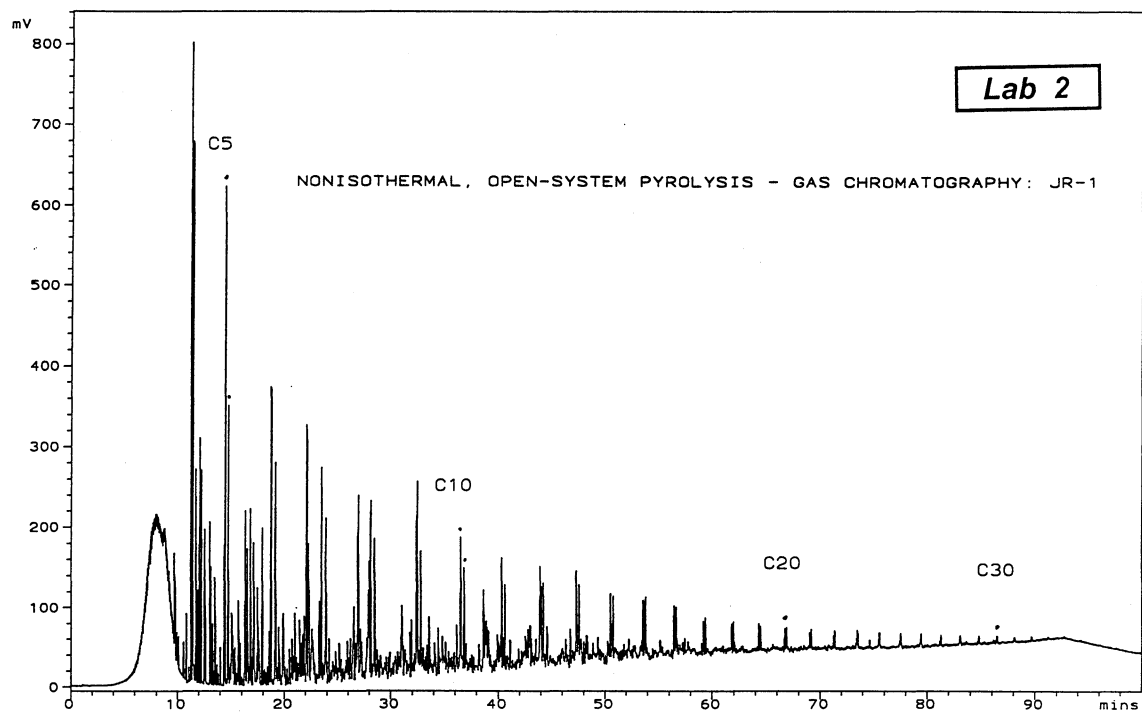


NGS JR-1

Appendix A5.6

Pyrolysis GC chromatograms





NGS JR-1

Appendix A5.7

Thermal extraction GC chromatograms

