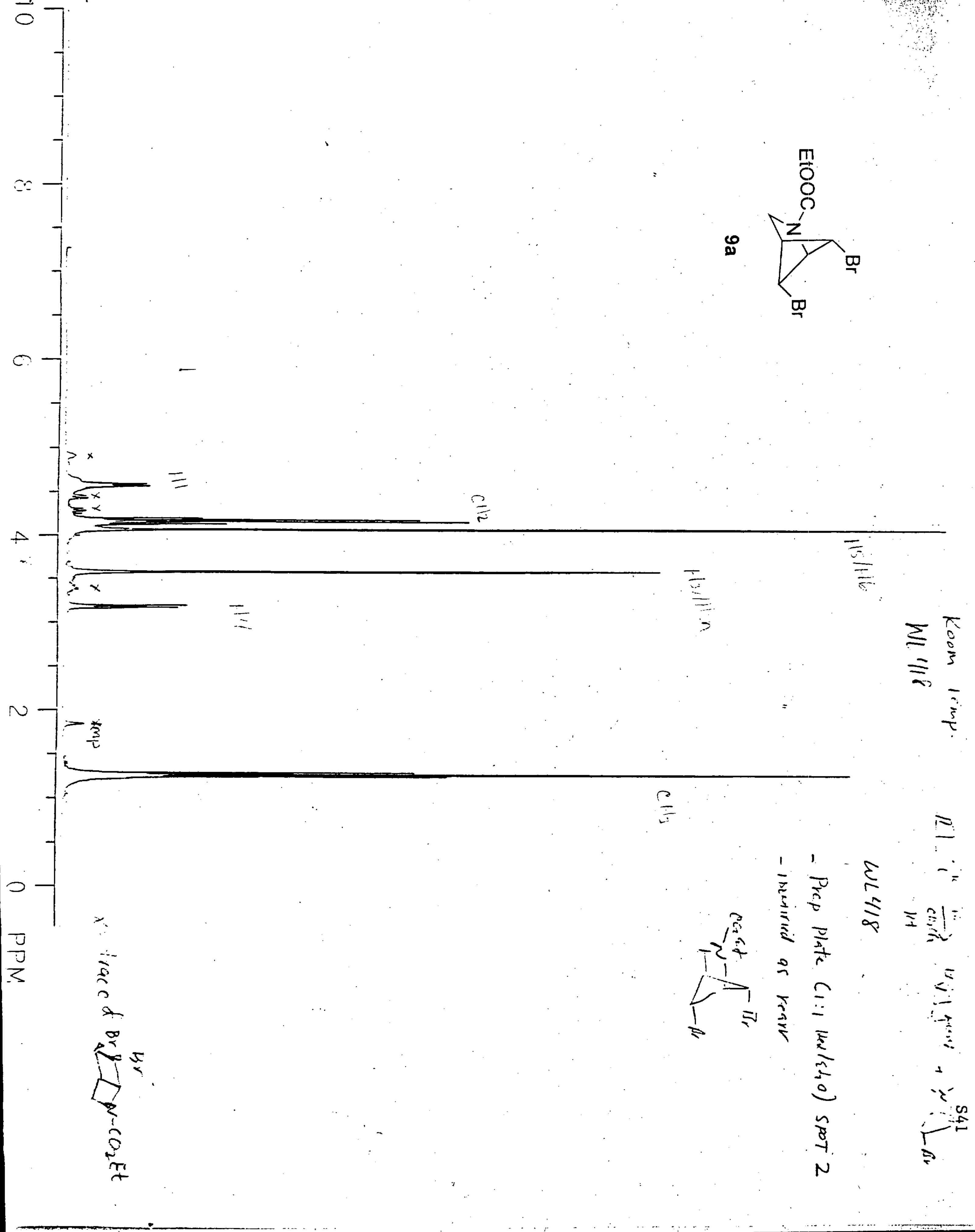
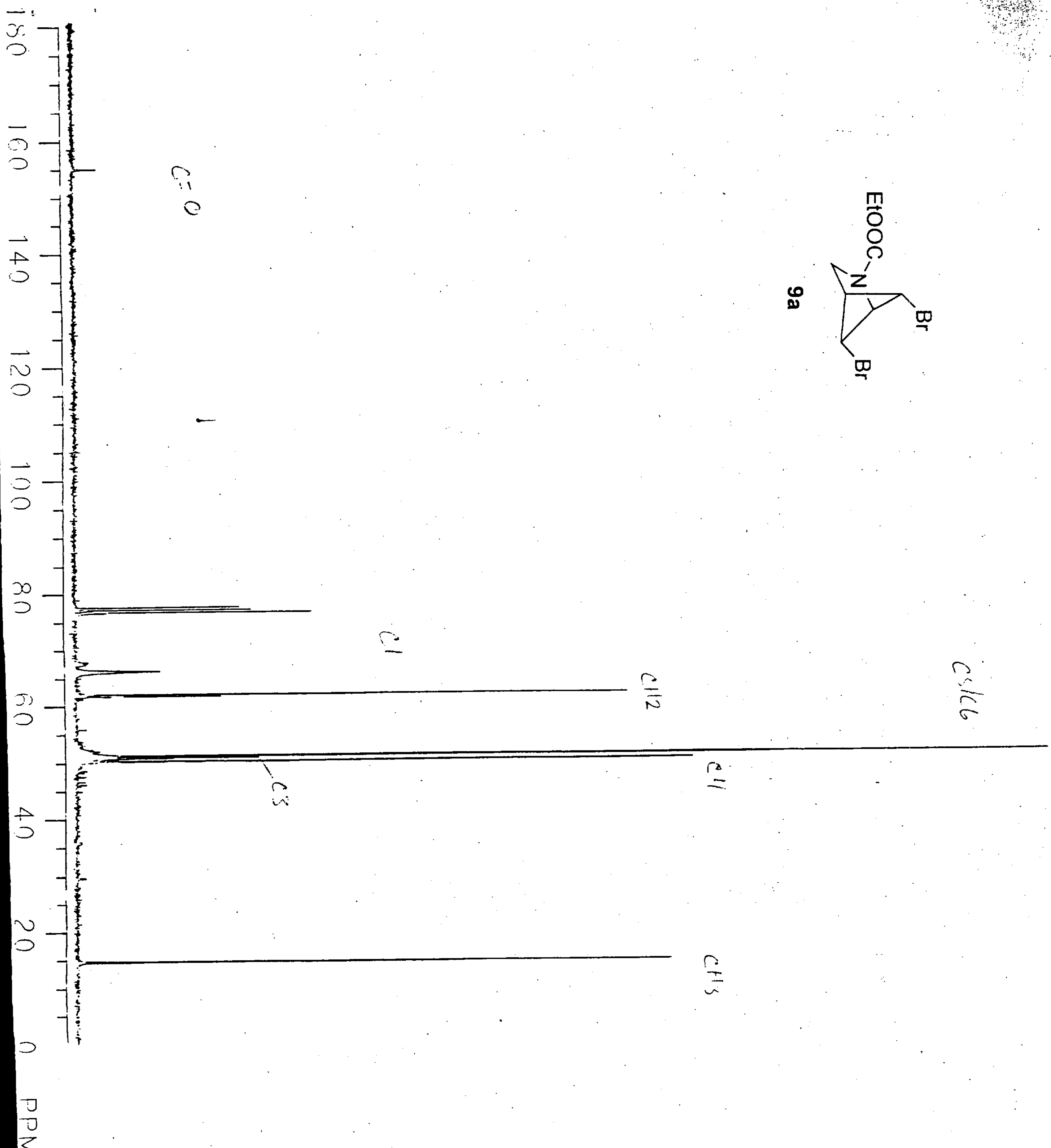
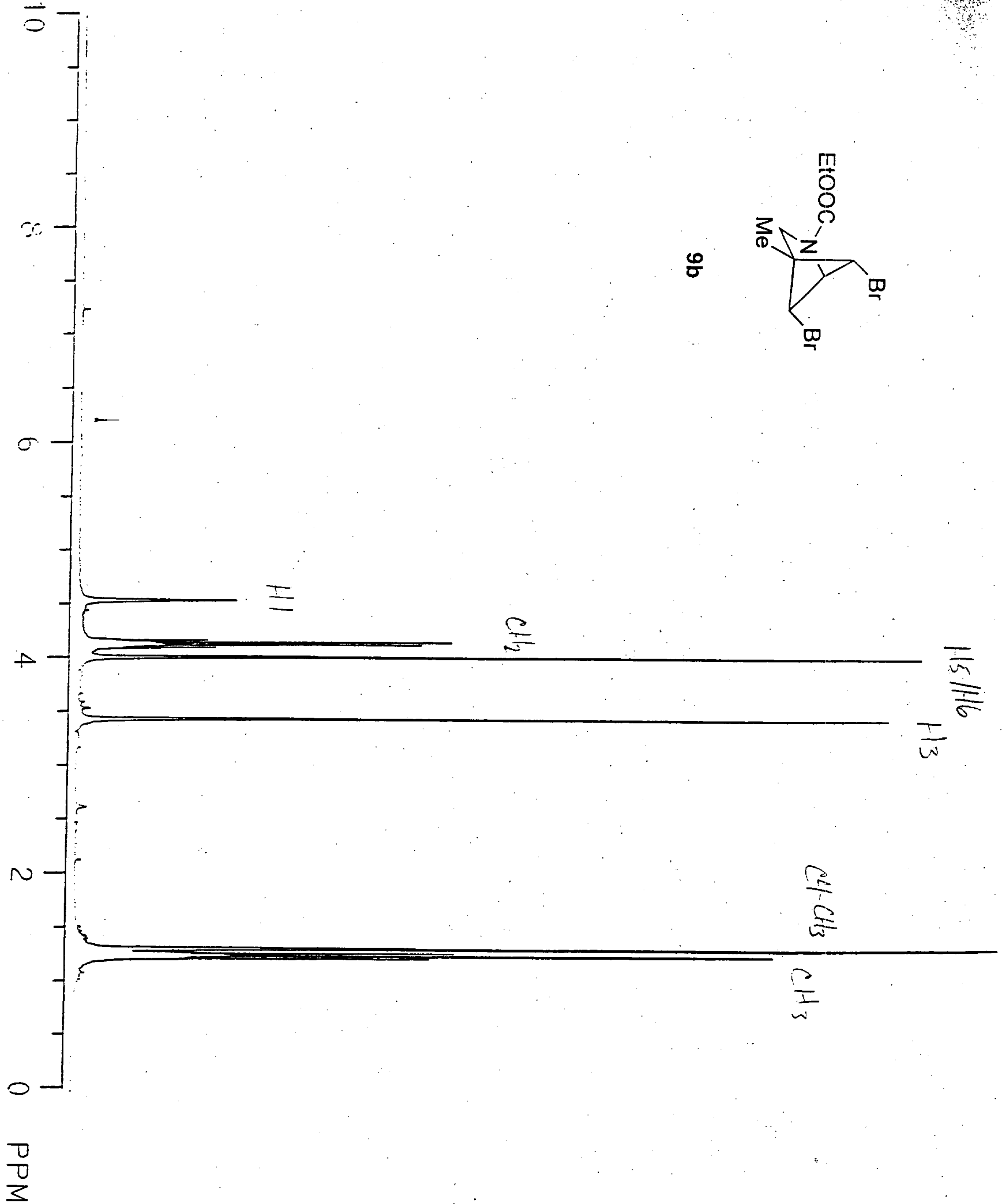
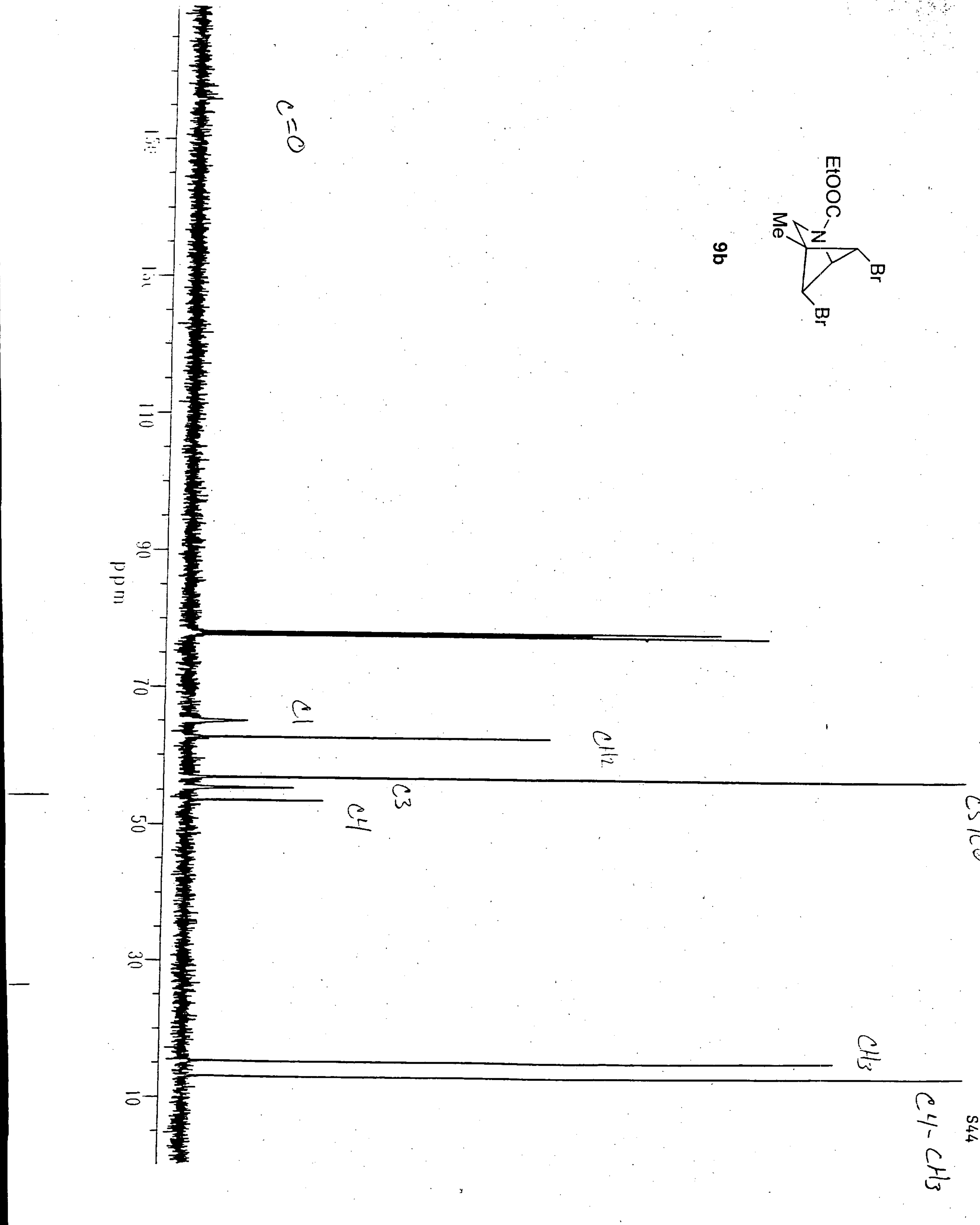
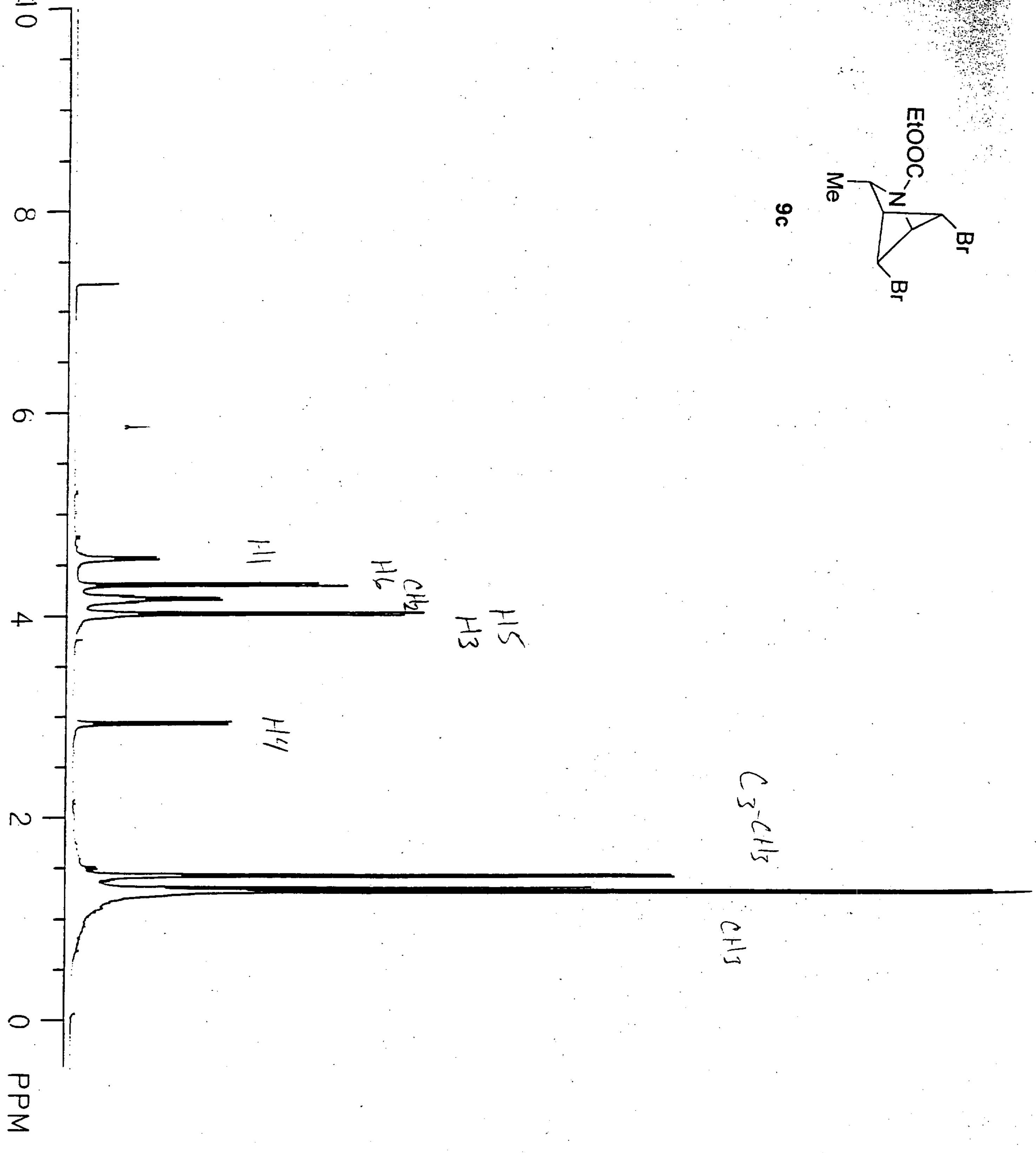
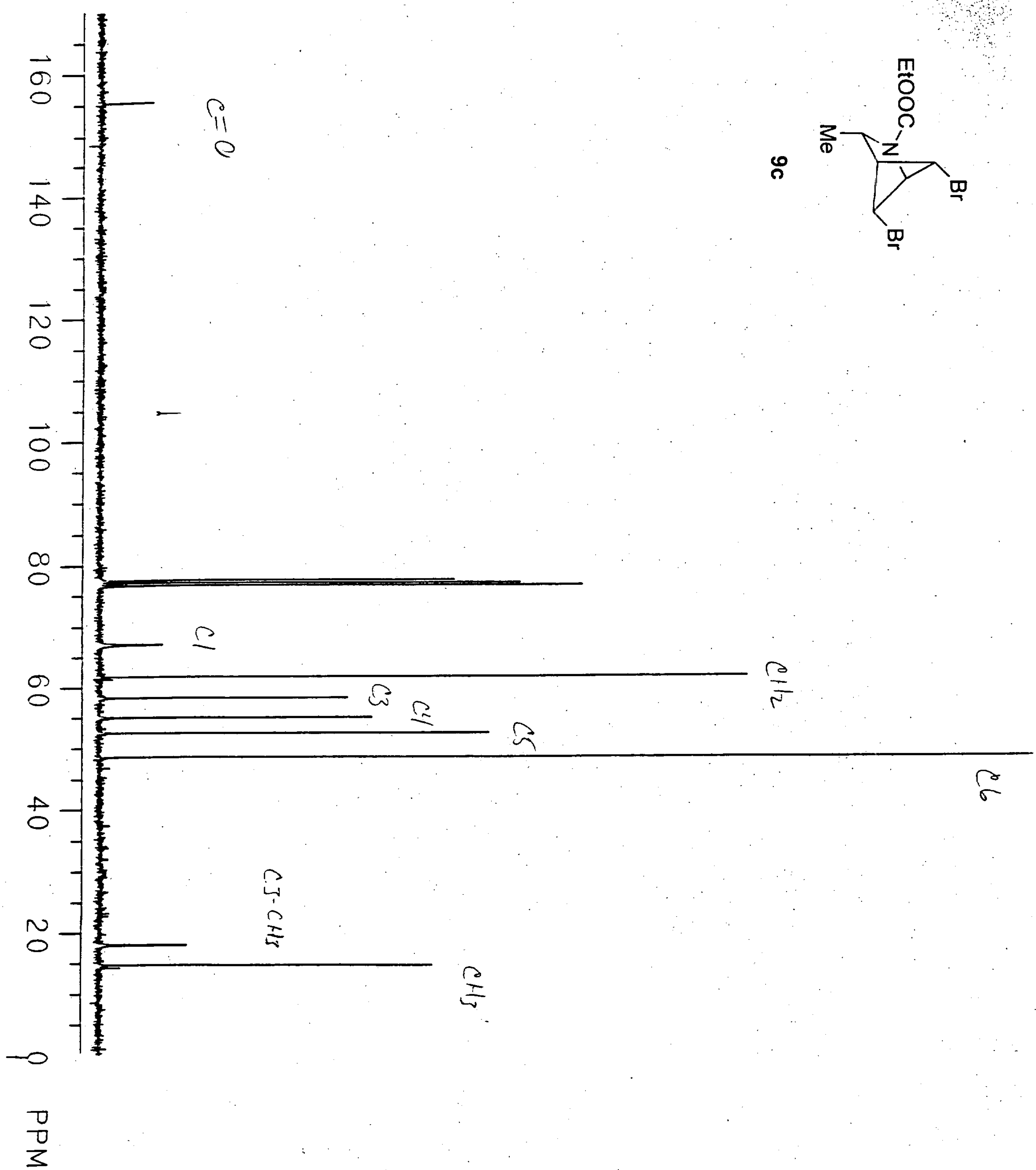

EtOOC
N
Br
Br
9a
10
8
6
4
2
0
PPM
CH2
CH3
S41
- Prep Plate
-CO2Et

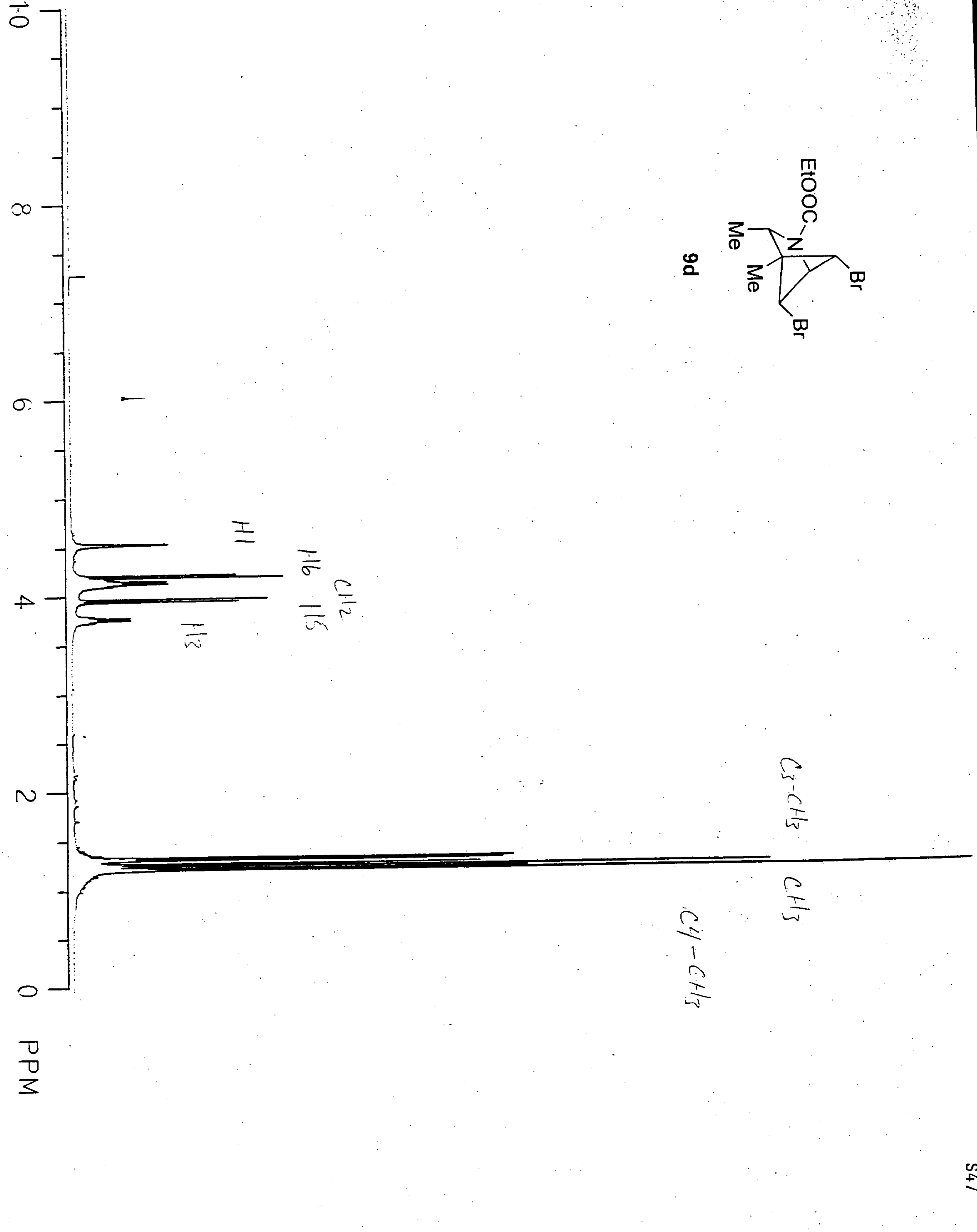

180
160
140
120
100
80
60
40
20
0
PPM
C=O
C1
CH2
C3
CH3
EtOOC
N
Br
Br
9a

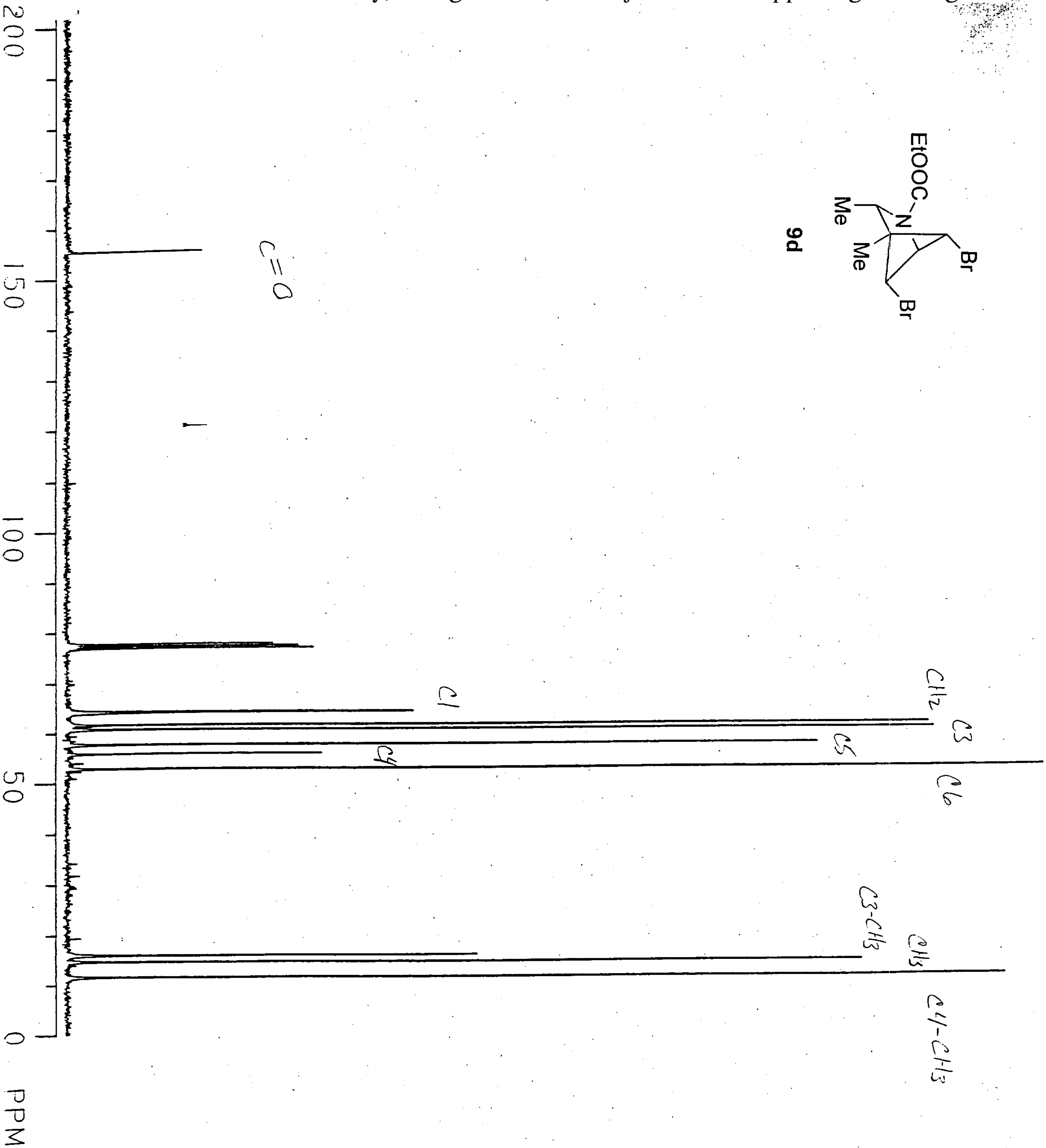

EtOOC
N
Me
Br
Br
9b
10
8
6
4
2
0
PPM
H1
CH2
H5/H6
H3
CH-CH3
CH3

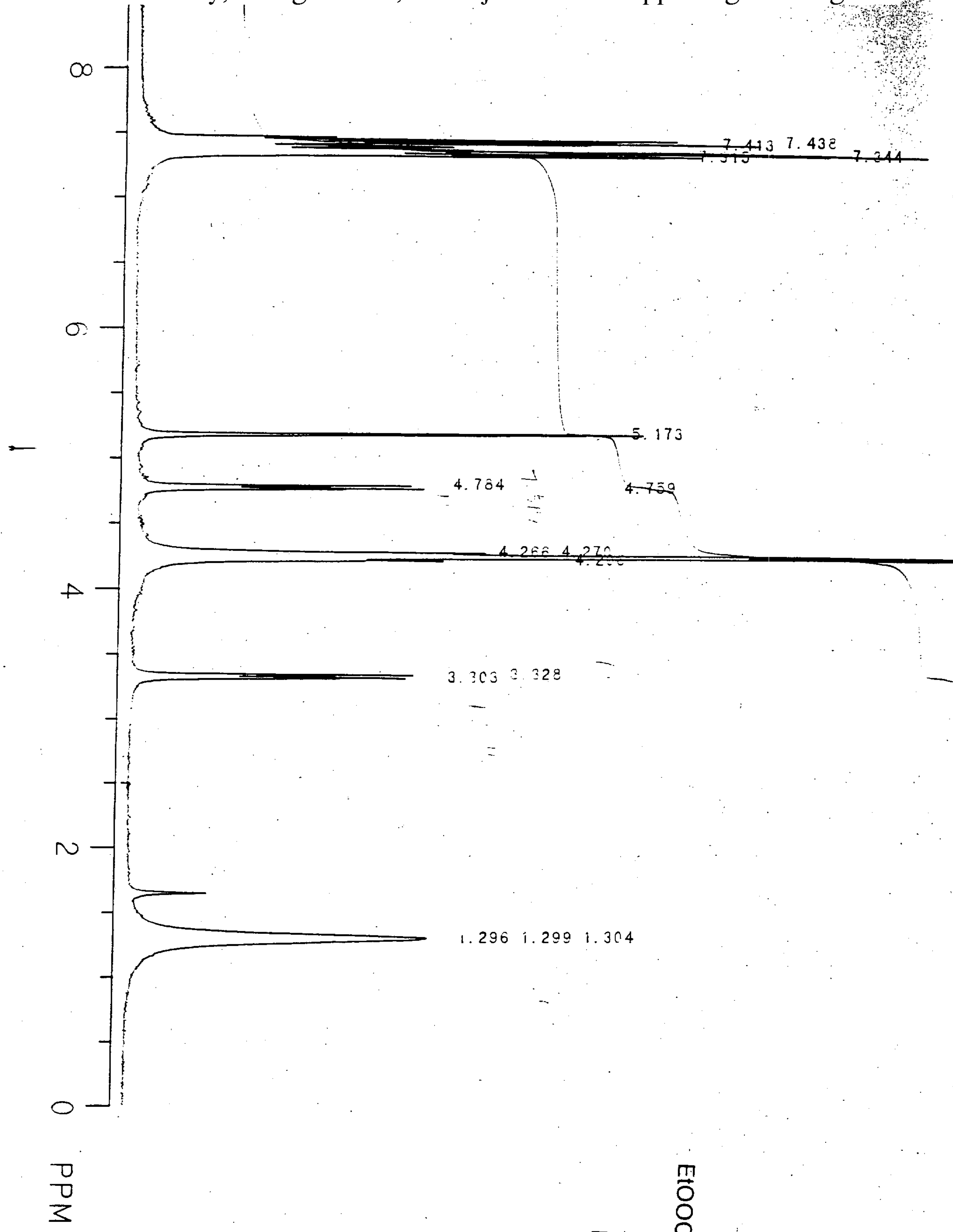

EtOOC
N
Me
Br
Br
9b
C=O
C1
CH2
C3
C4
CH3
C4-CH3
110
90
ppm
70
50
30
10
S44


EtOOC
N
Me
Br
Br
9c
10
8
6
4
2
0
PPM
H1
H6
CH2
H5
H3
H4
C3-CH3
CH3

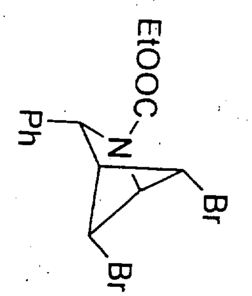

EtOOC
N
Me
Br
Br
9c
160
140
120
100
80
60
40
20
0
PPM
C=O
C1
CH2
C3
C4
C5
C6
C3-CH3
CH3


EtOOC
N
Me
Me
Br
Br
9d
10
8
6
4
2
0
PPM
H1
H6
H5
CH2
H3
C5-CH3
CH3
C4-CH3


EtOOC
N
Me
Me
Br
Br
9d
200
150
100
50
0
PPM
C=O
C1
CH2
C3
C5
C4
C6
C3-CH3
CH3
C4-CH3

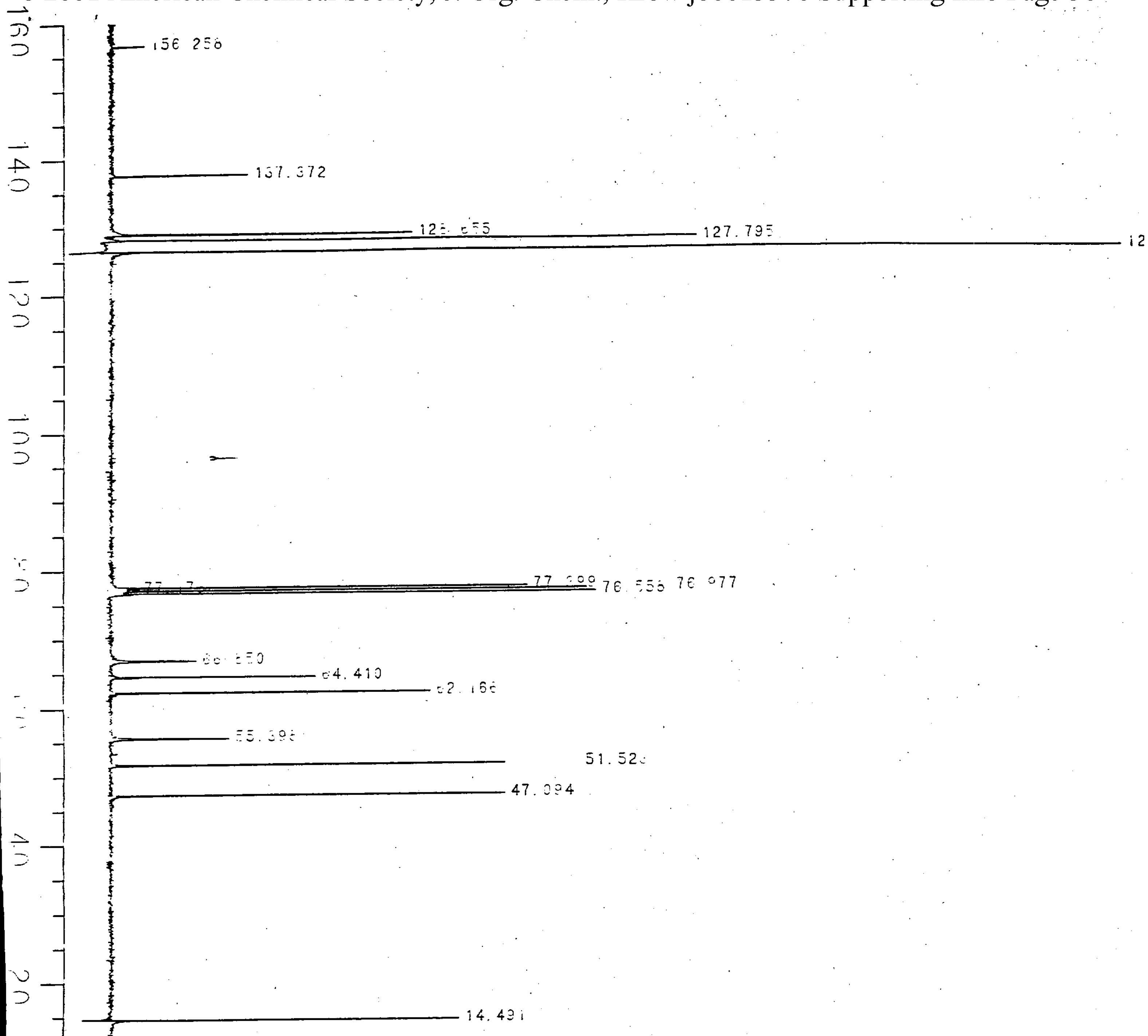


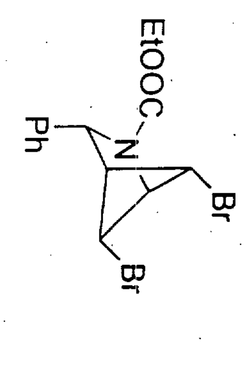
8
6
4
2
0
PPM
7.413 7.438
7.344
5.173
4.784
4.759
4.266 4.270
3.303 3.328
1.296 1.299 1.304



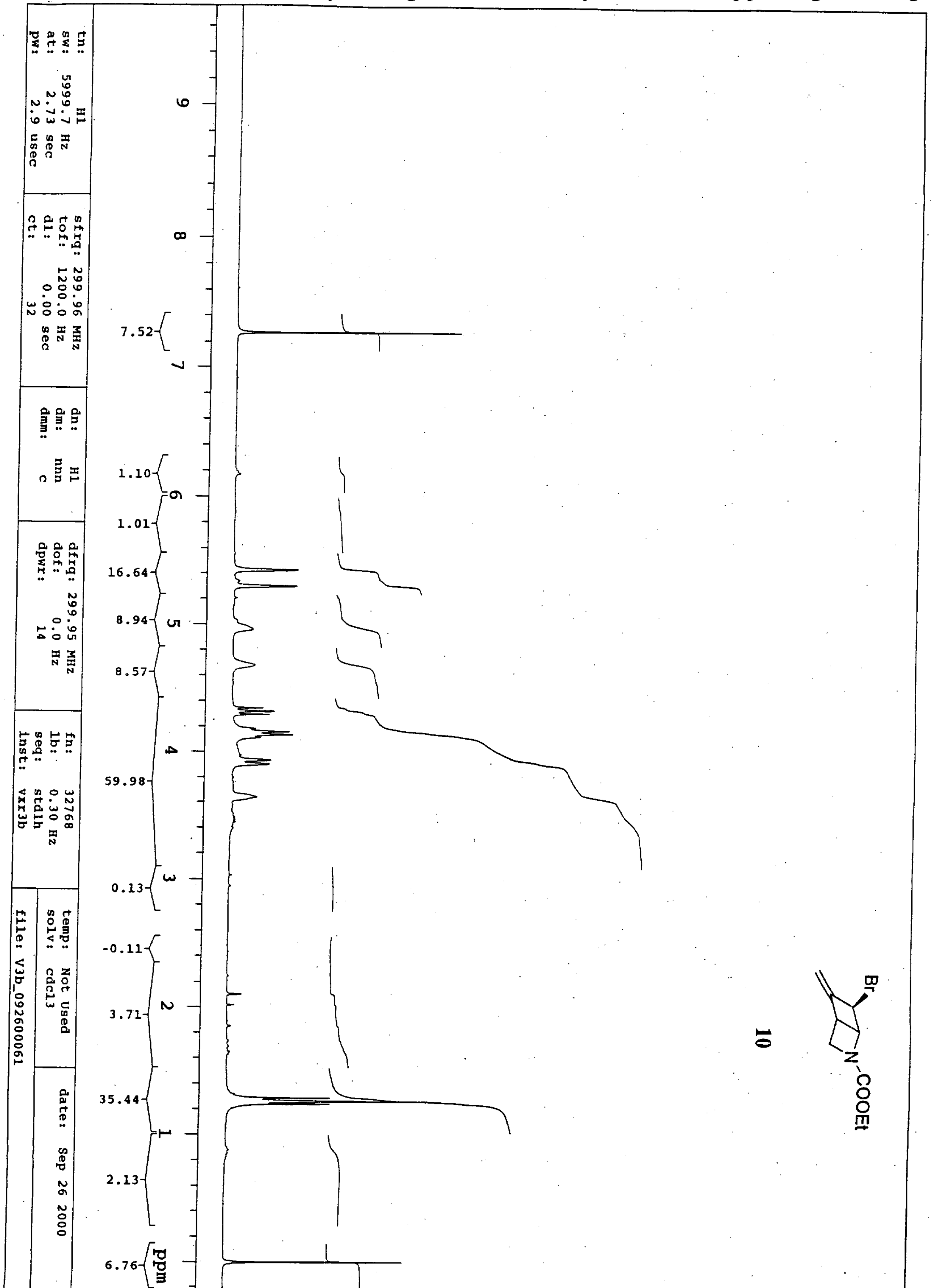
EtOOC
N
Ph
Br
Br

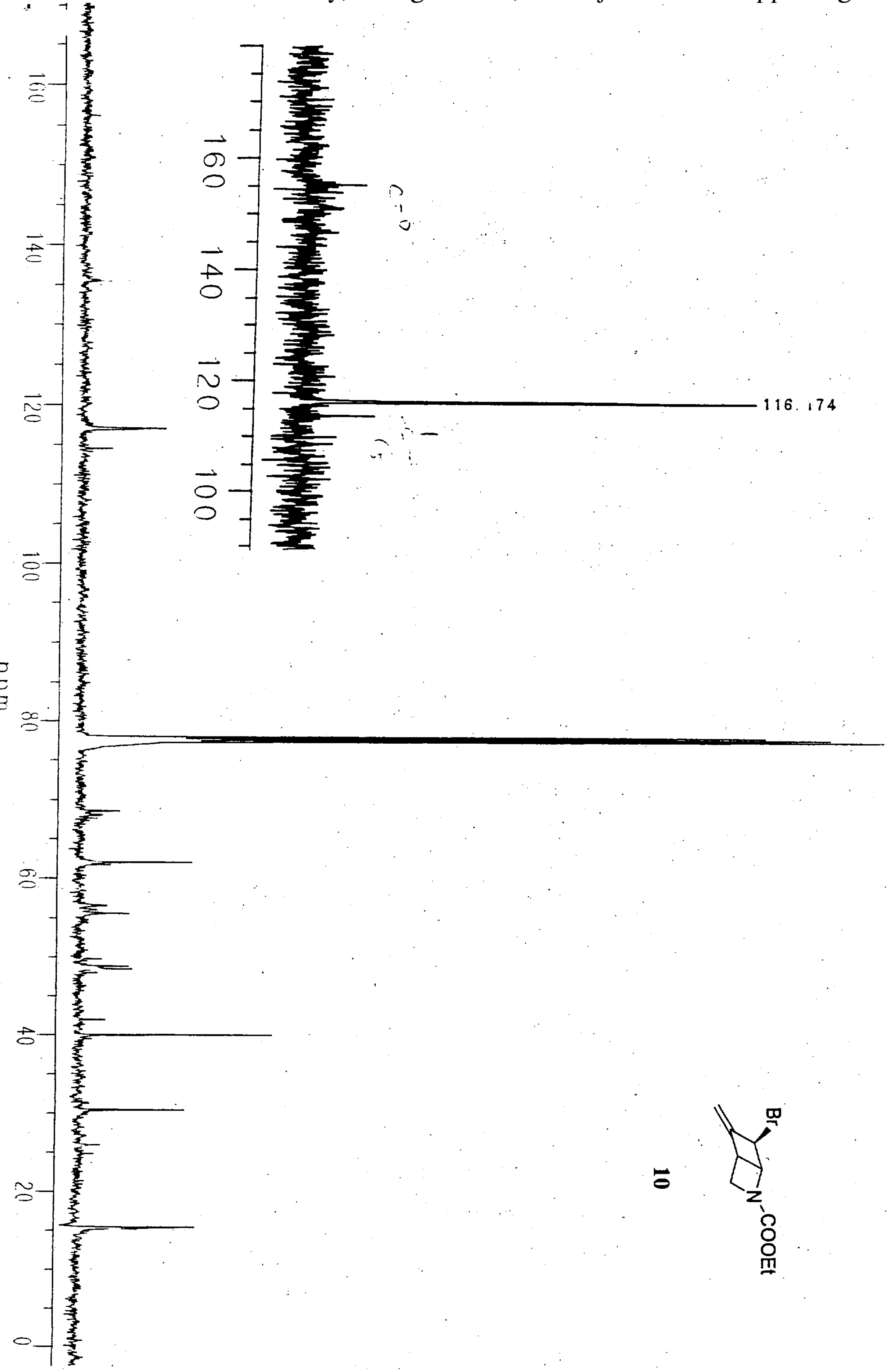
9e





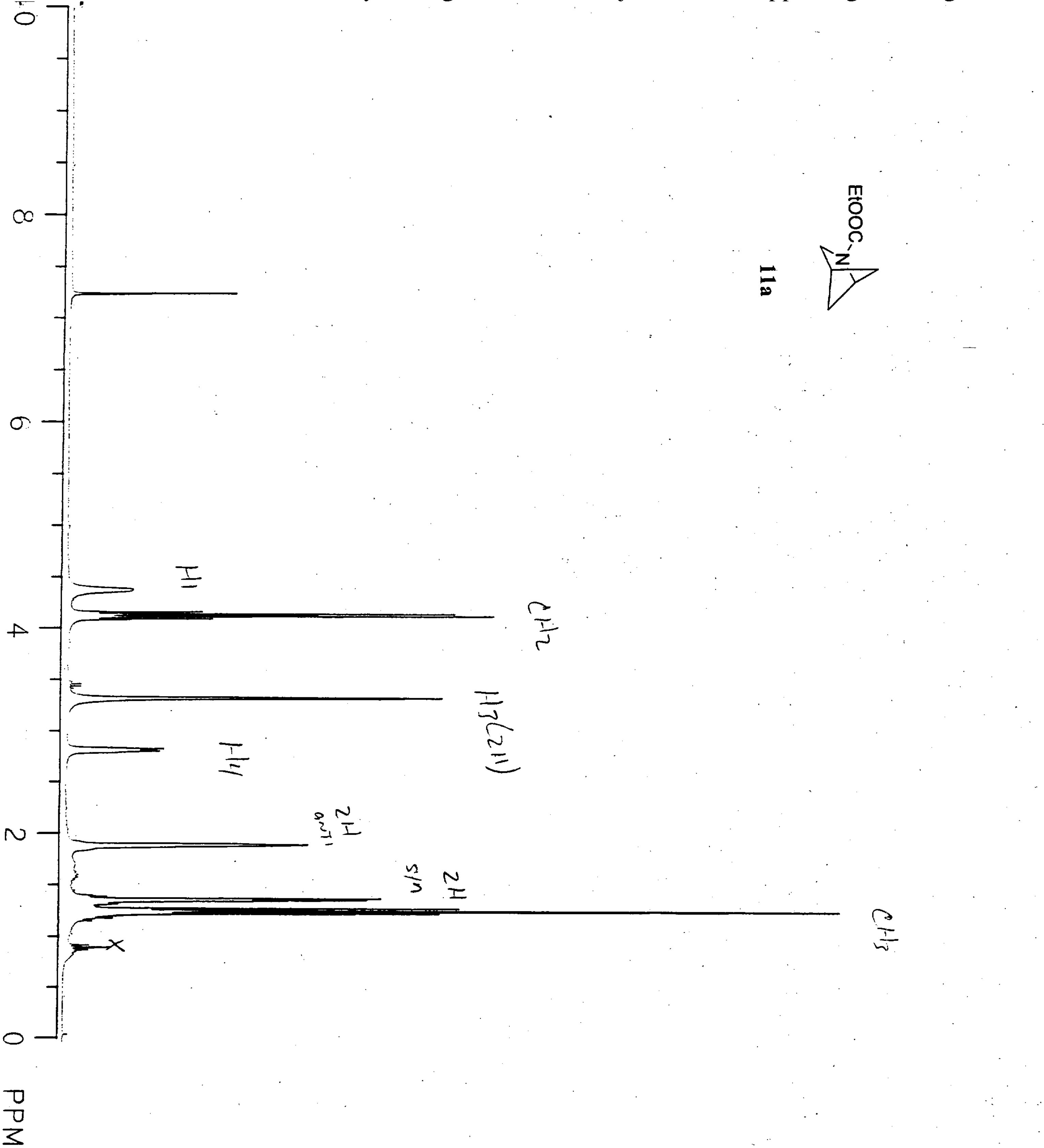
9e

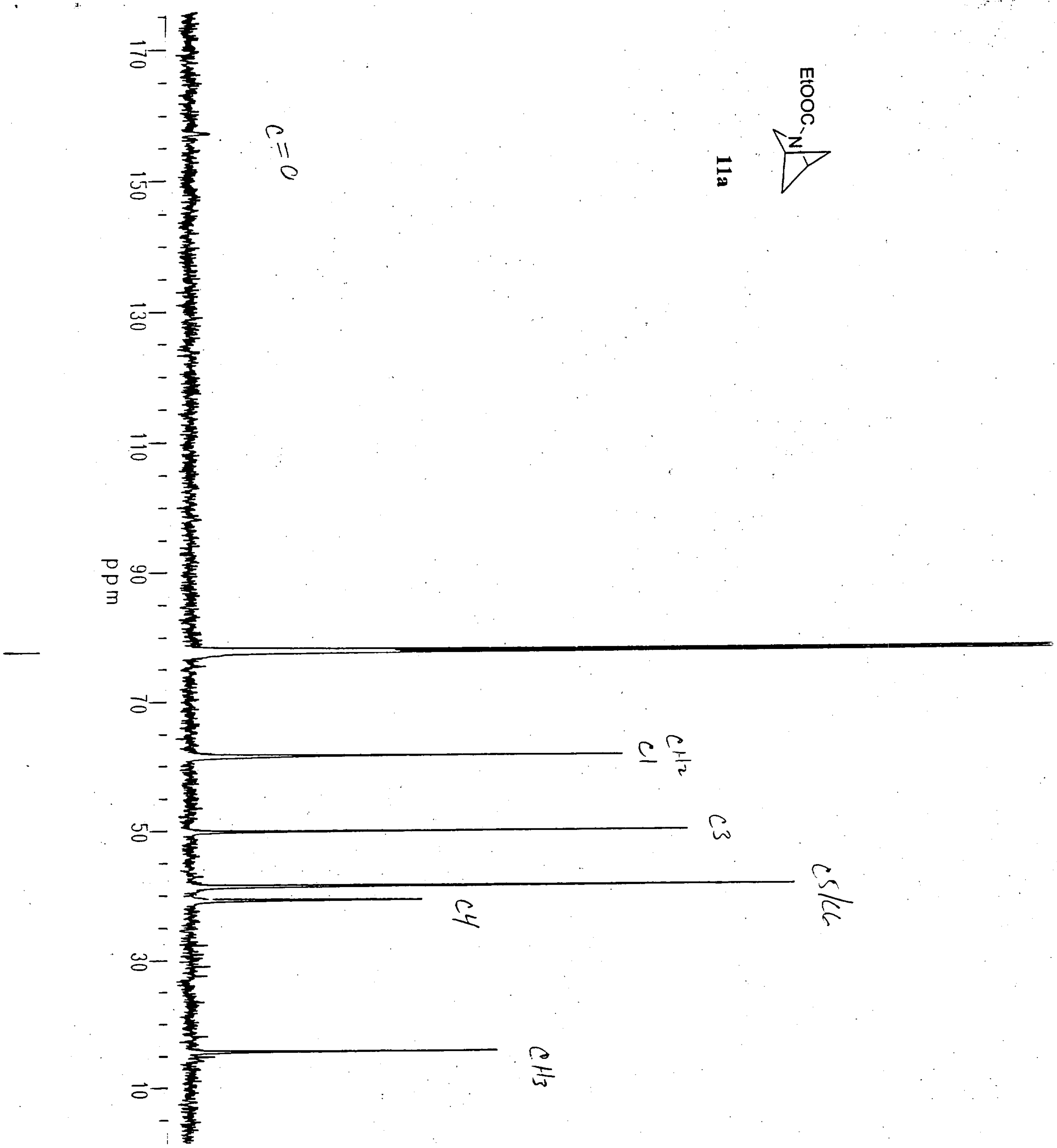

tn: H1
sw: 5999.7 Hz
at: 2.73 sec
pw: 2.9 usec
sfrq: 299.96 MHz
tof: 1200.0 Hz
d1: 0.00 sec
ct: 32
dn: H1
dm: nnn
dmm: c
dfrq: 299.95 MHz
dof: 0.0 Hz
dpwr: 14
fn: 32768
lb: 0.30 Hz
seq: std1h
inst: vxr3b
temp: Not Used
solv: cdcl3
date: Sep 26 2000
file: V3b_092600061
9
8
7.52
7
1.10
6
1.01
16.64
5
8.94
8.57
4
59.98
3
0.13
-0.11
2
3.71
35.44
1
2.13
6.76
ppm
Br
N-COOEt
10


116.174
160
140
120
100
160
140
120
100
80
60
40
20
0
ppm

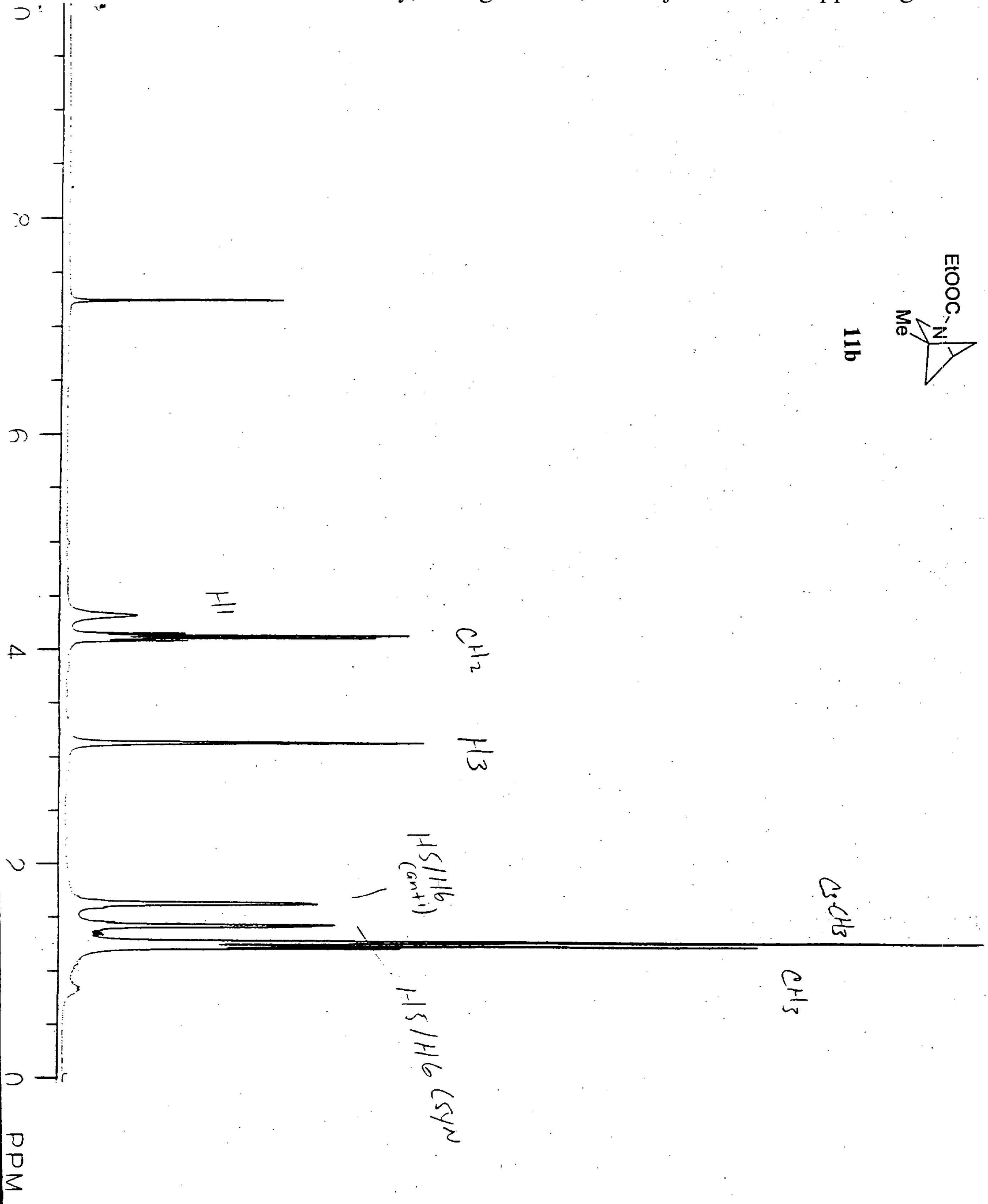

Br
N-COOEt

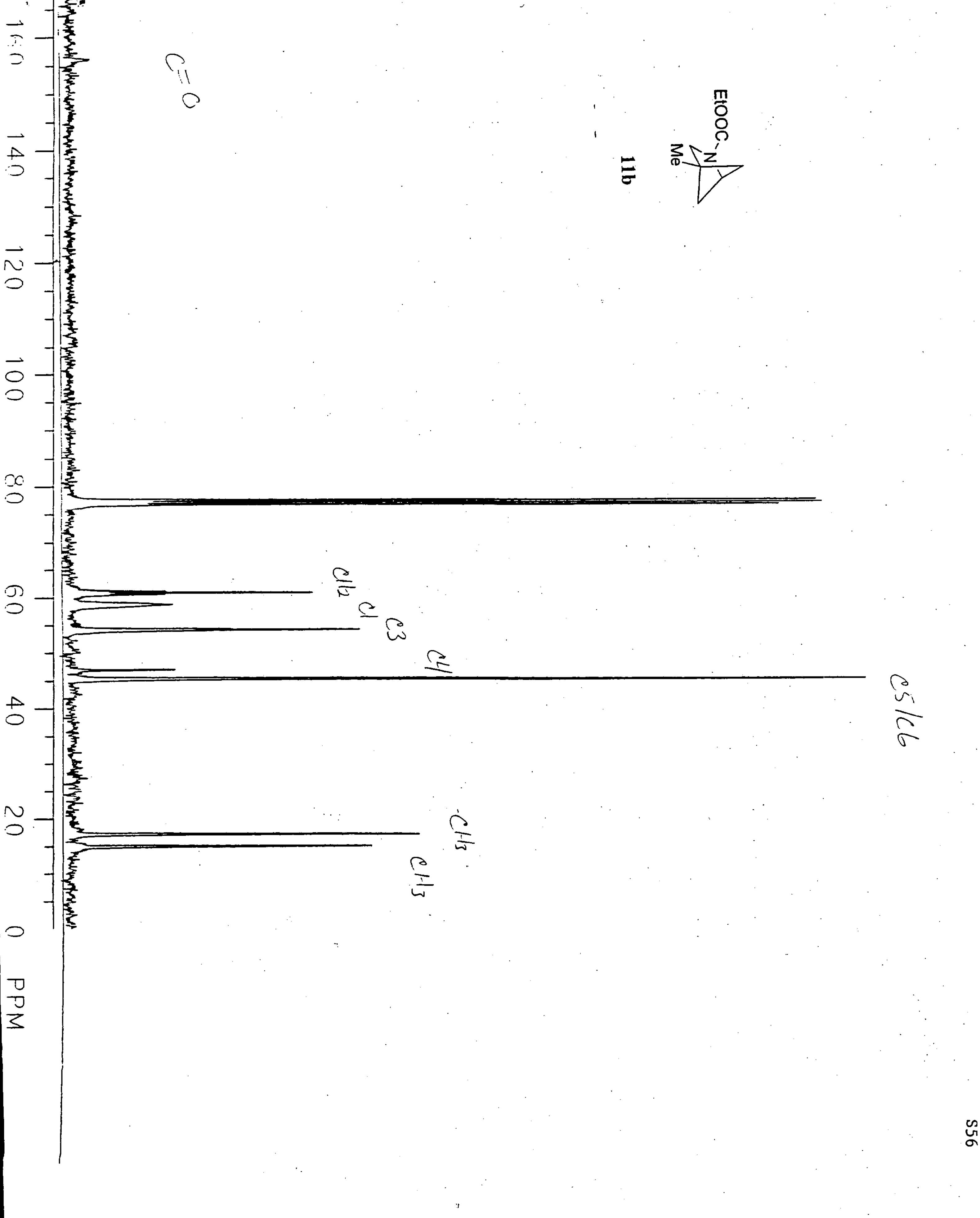
10

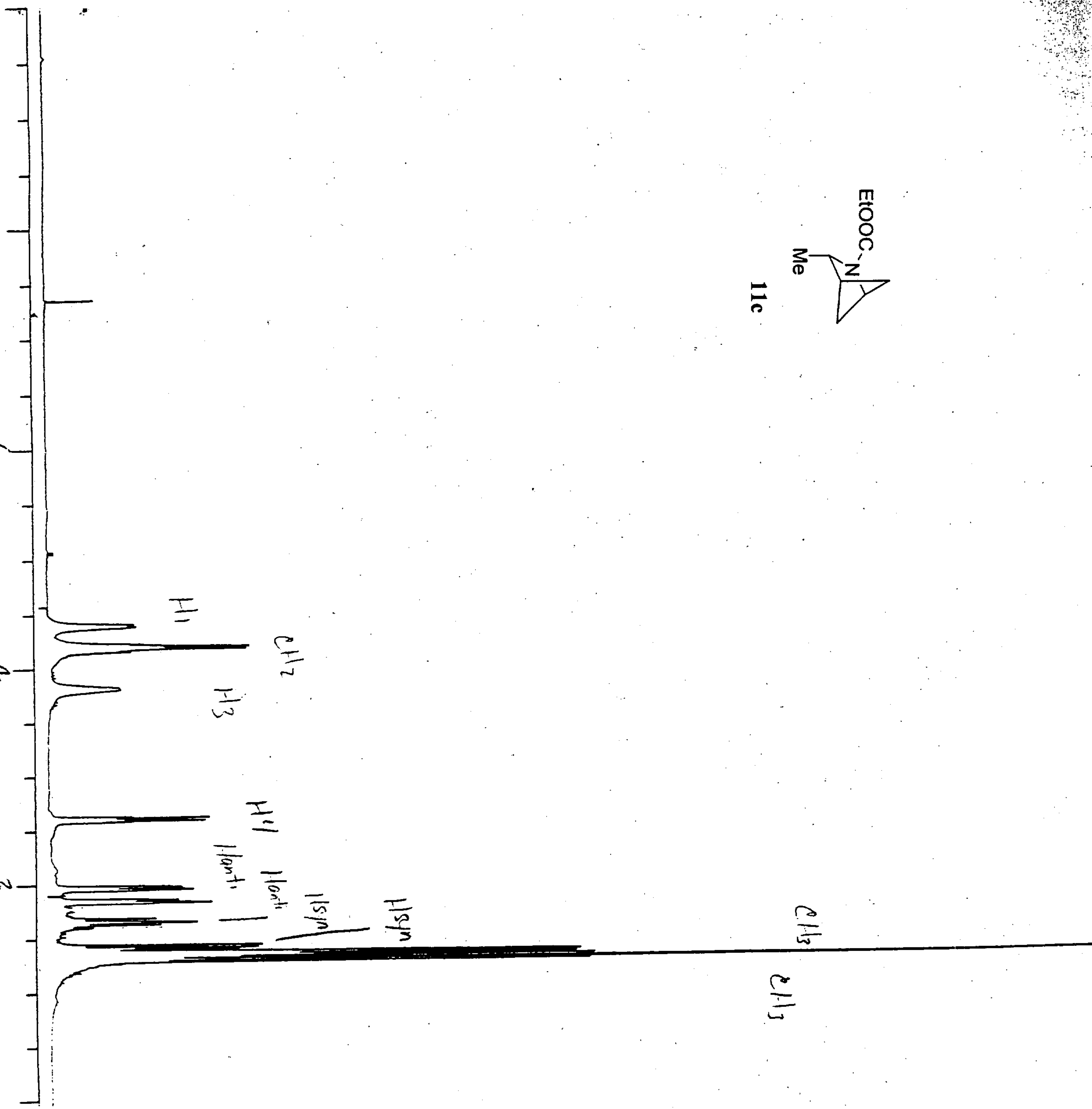

EtOOC-N
11a
10
8
6
4
2
0
PPM
H1
CH2
H3(2H)
H4
2H anti
2H syn
CH3
X

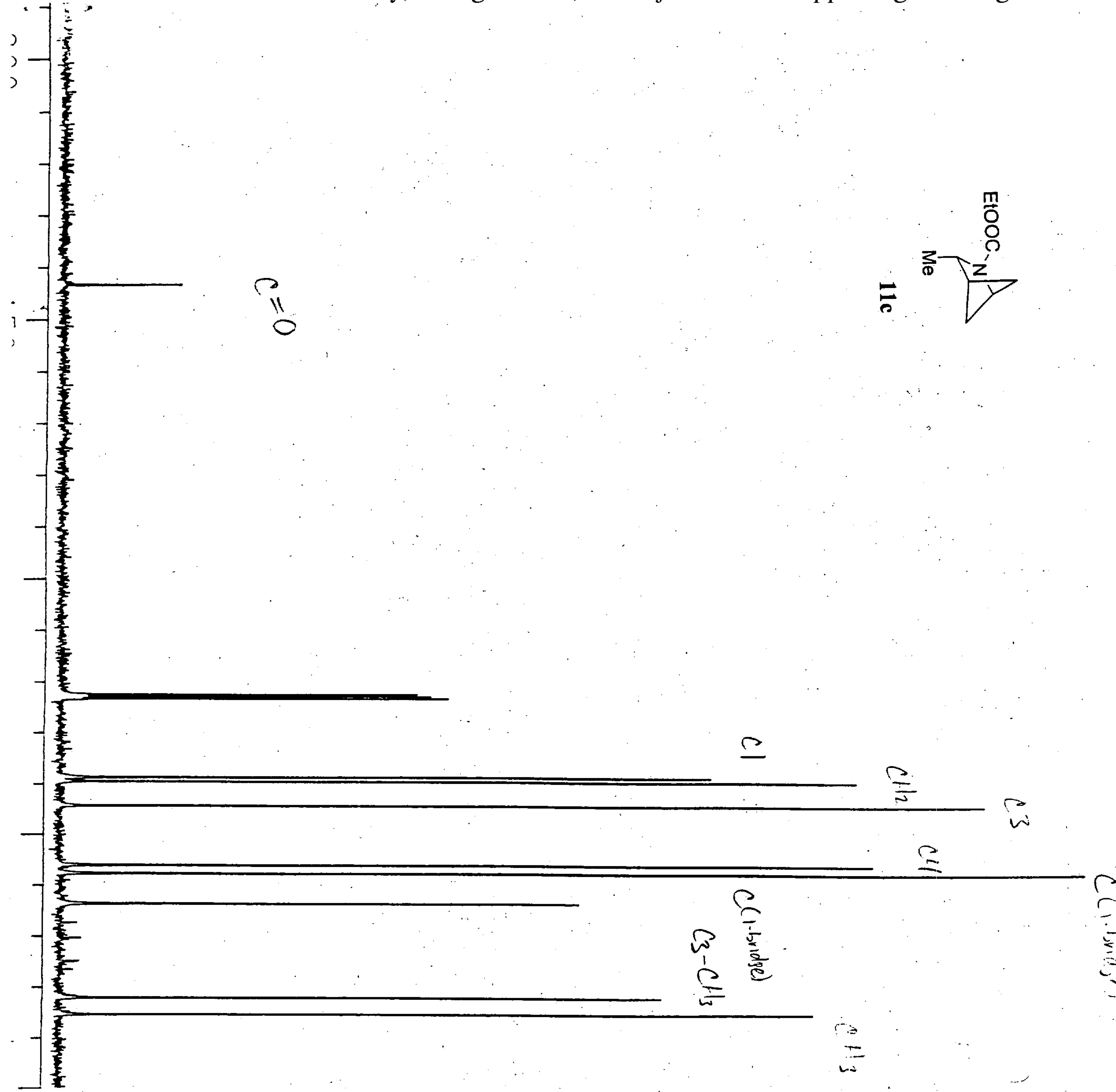


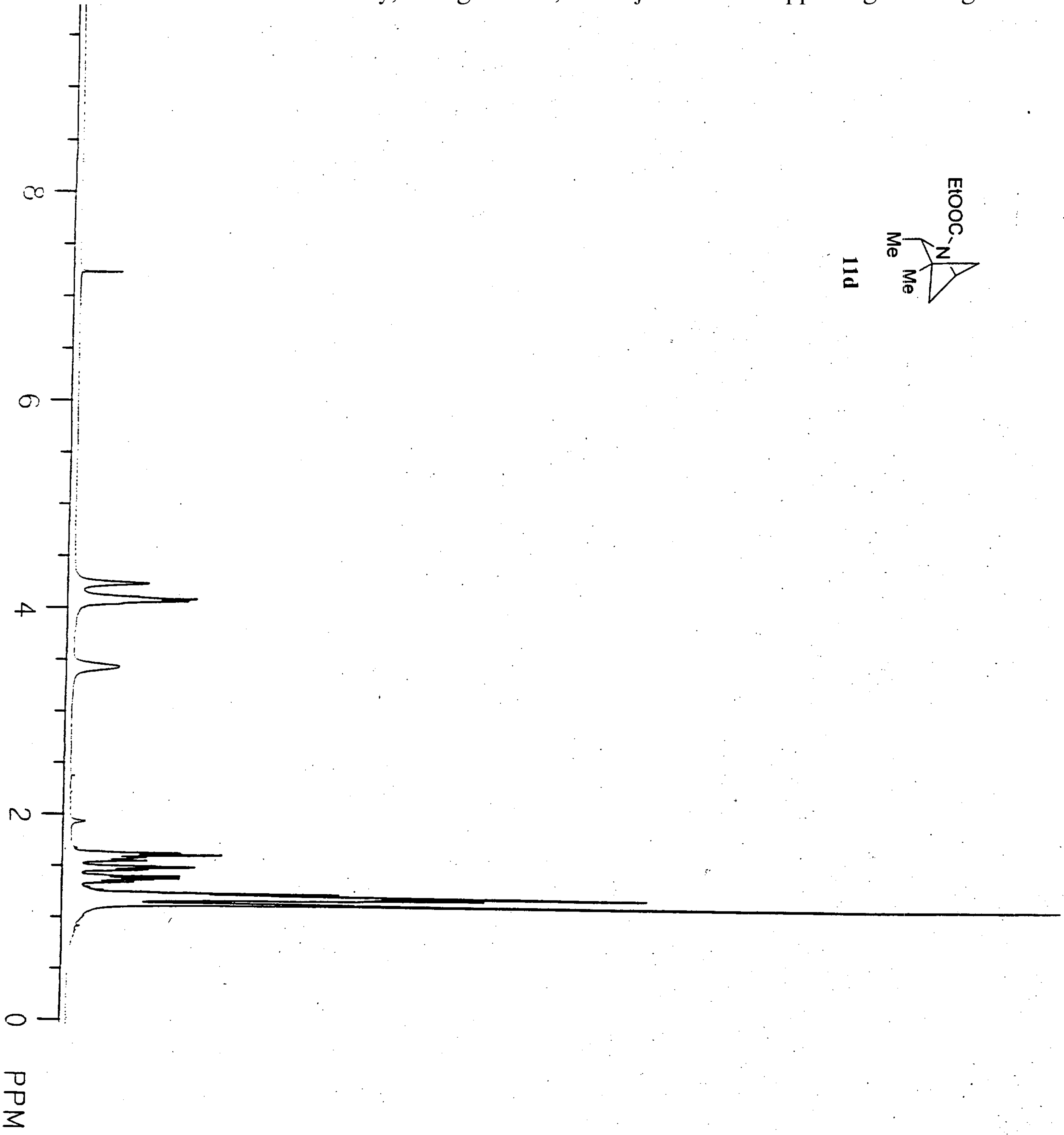
EtOOC
N
11a
C=O
CH2
C1
C3
C5/C6
C4
CH3
170
150
130
110
90
70
50
30
10
ppm

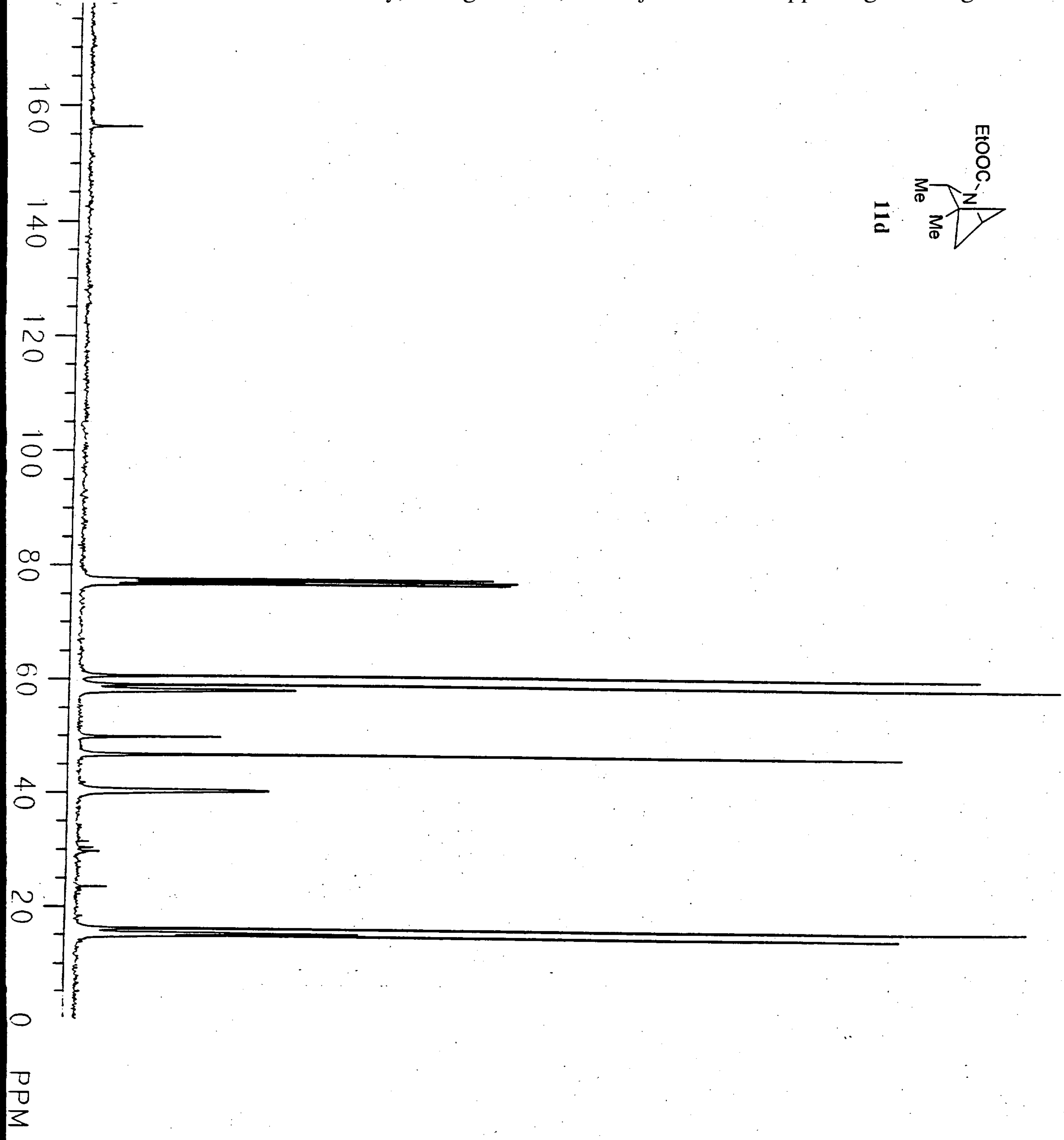

EtOOC
N
Me
11b
H1
CH2
H3
H5/H6 (anti)
Cs-CH3
CH3
H5/H6 (syn
8
6
4
2
0
PPM

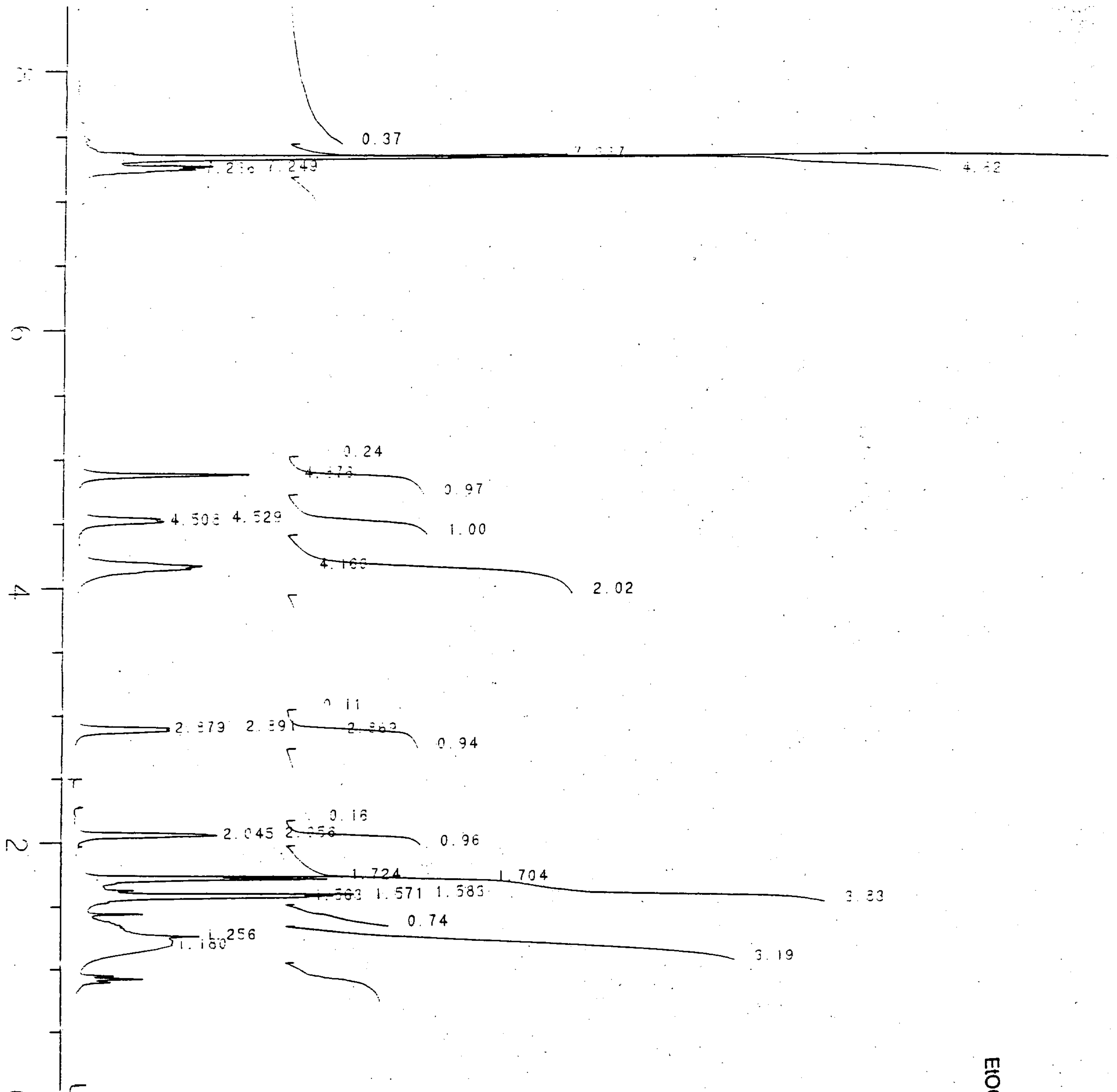

EtOOC–N
Me
11b
C=O
C5/C6
C4
C3
C1
PPM
160
140
120
100
80
60
40
20
0

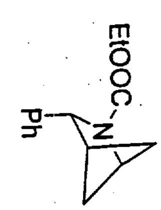

EtOOC
N
Me
11c
6
4
2
H1
CH2
H3
CH3


EtOOC
N
Me
11c
C=O
C1
CH2
C3
C1'
C(1-bridge)
C3-CH3


EtOOC
N
Me
Me
11d
8
6
4
2
0
PPM

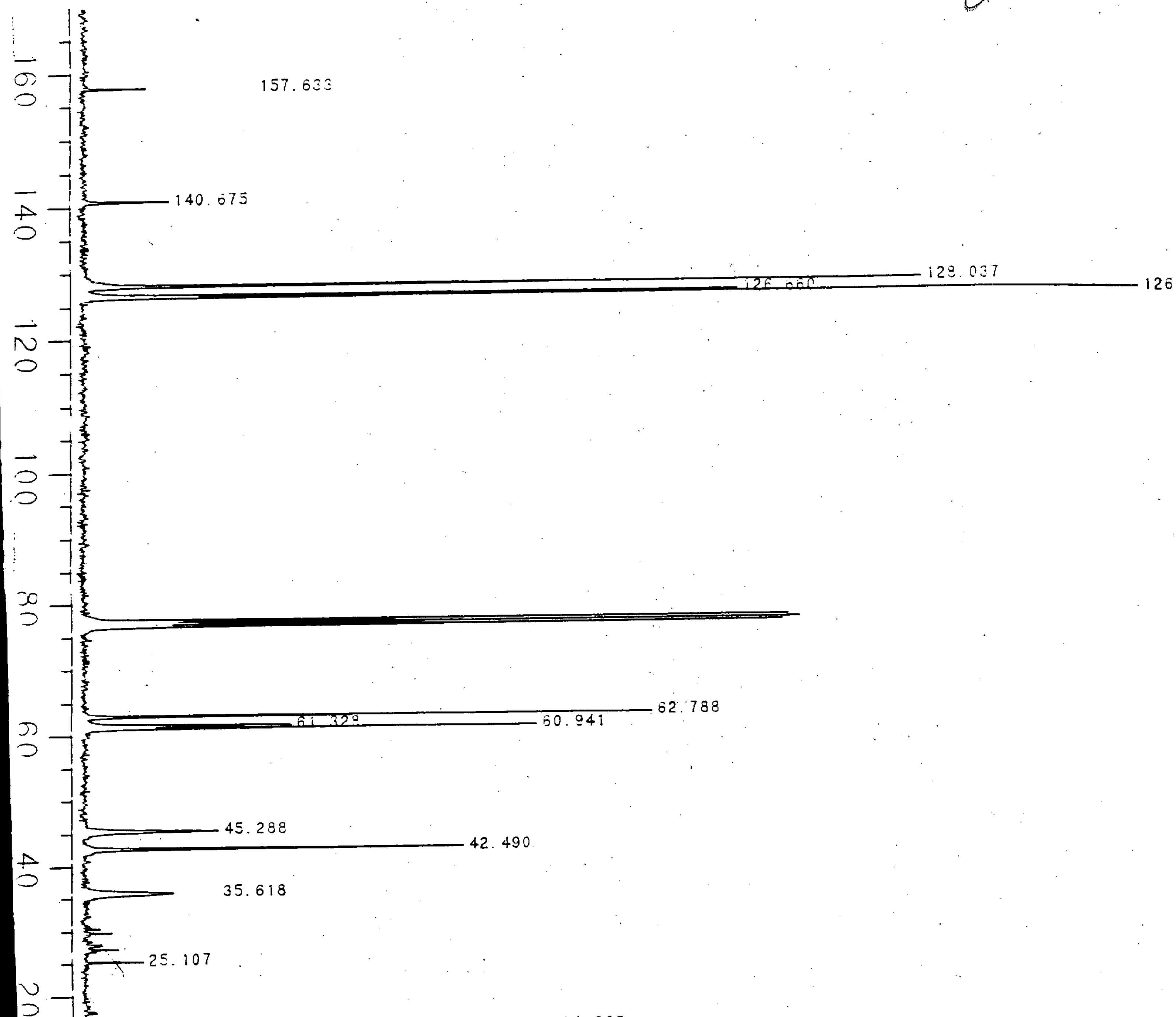

EtOOC
N
Me
Me
11d
160
140
120
100
80
60
40
20
0
PPM

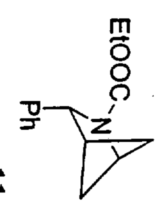

0.37
0.24
0.97
1.00
4.529
2.02
0.94
0.96
1.724
1.704
1.571
1.583
0.74
3.19
PPM


EtOOC
N
Ph

11e

62


157.633
140.675
128.037
126.660
126
62.788
61.329
60.941
45.288
42.490
35.618
25.107
14.663
160
140
120
100
80
60
40
20
0
PPM


EtOOC
N
Ph

11e

Supplementary material.

N-(Methoxycarbonyl)-3-methyl-2-azabicyclo[2.2.0]hex-5-ene (6c'). According to the procedure used to prepare alkene **6c** a solution of N-(methoxycarbonyl)-2-methyl-1,2-dihydropyridine[1] **5c'** (5.2 g, 34 mmol) afforded 520 mg (10%) of photoproduct **6c'**: ^{1}H NMR δ 1.30 (d, J = 6 Hz, 3H), 3.49 (dt, J = 6 Hz, 1H), 3.65 (s, 3H), 4.28 (q, J = 6 Hz, 1H), 4.73 (t, J = 3 Hz, 1H), 6.37 (t, J = 3 Hz, 1H), 6.53 (t, J = 3 Hz, 1H), HRMS m/z 153.0760, calcd for $C_8H_{11}NO_2$, 153.0790.

N-(Methoxycarbonyl)-5-*anti*-6-*anti*-dibromo-3-methyl-2-azabicyclo[2.1.1]hexane (9c'). According to the general procedure used to prepare dibromide **9c**, from alkene **6c'** (306 mg, 2 mmol) and bromine (320 mg, 2 mmol) in CH_2Cl_2 (30 mL) there was obtained 470 mg (75%) of rearranged dibromide **9c'**: ^{1}H NMR δ 1.38 (d, J = 6.3 Hz, 3H), 2.90 (dd, J = 7.3, 1.2 Hz, 1H), 3.69 (s, 3H), 3.97 (d, J = 7.5 Hz, 1H), 3.97 (q, J = 6.1 Hz, 1H), 4.26 (d, J = 7.6 Hz, 1H), 4.51 (d, J = 7.3 Hz, 1H), ^{13}C NMR δ 17.8, 48.1, 52.1, 52.4, 55.2, 58.2, 67.2, 155.6. Anal. Calcd for $C_8H_{11}Br_2NO_2$: C. 30.70; H, 3.54; N, 4.48. Found: C, 30.59; H, 3.61; N, 4.44.

Reference

1. Natsume, M.; Ogawa, M. *Heterocycles*, **1980**, *14*, 615.