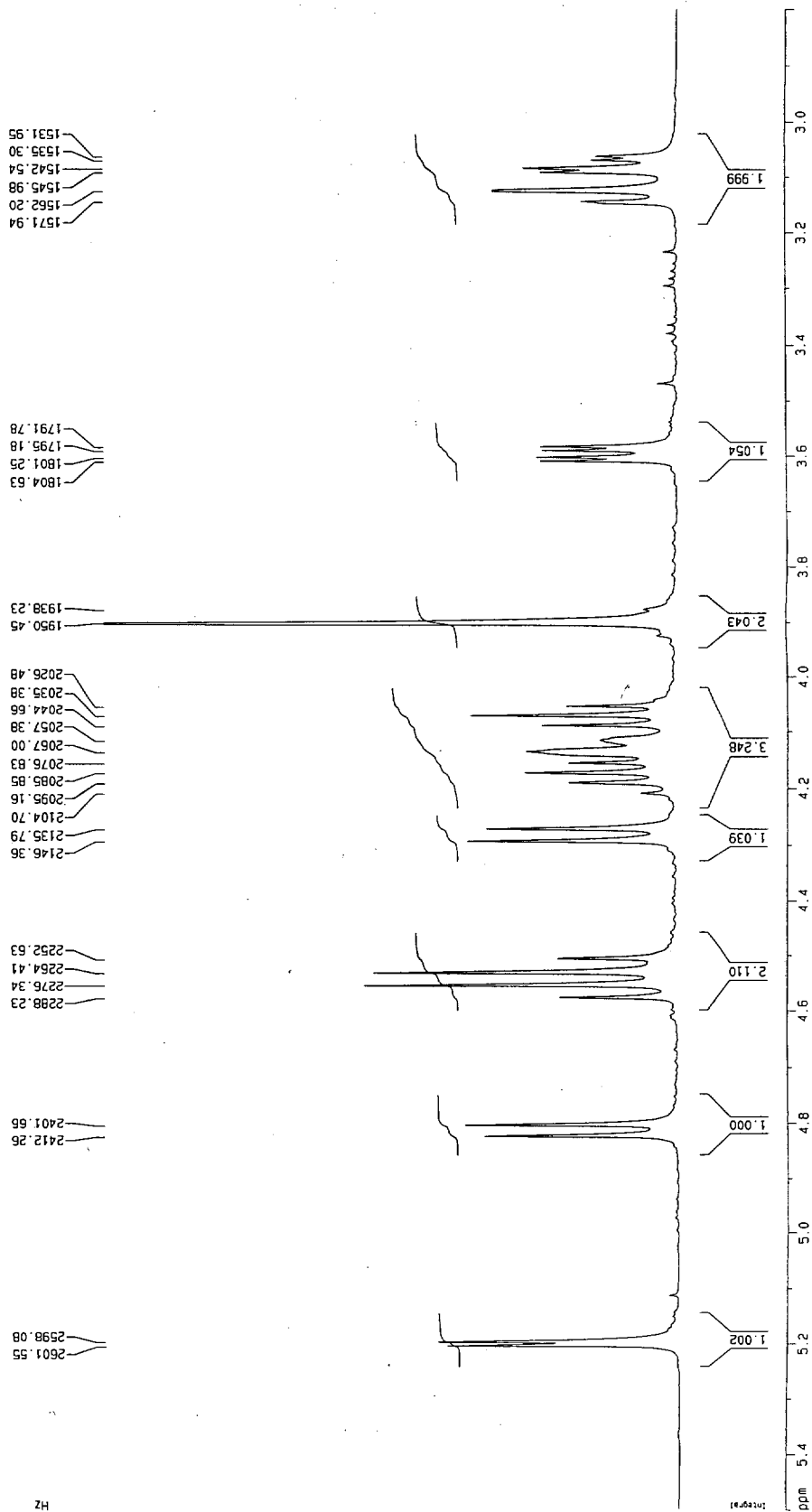
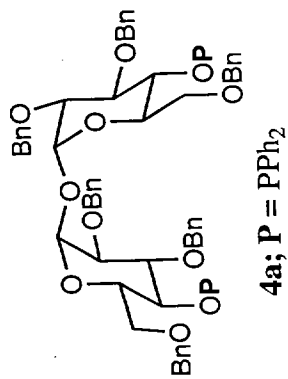


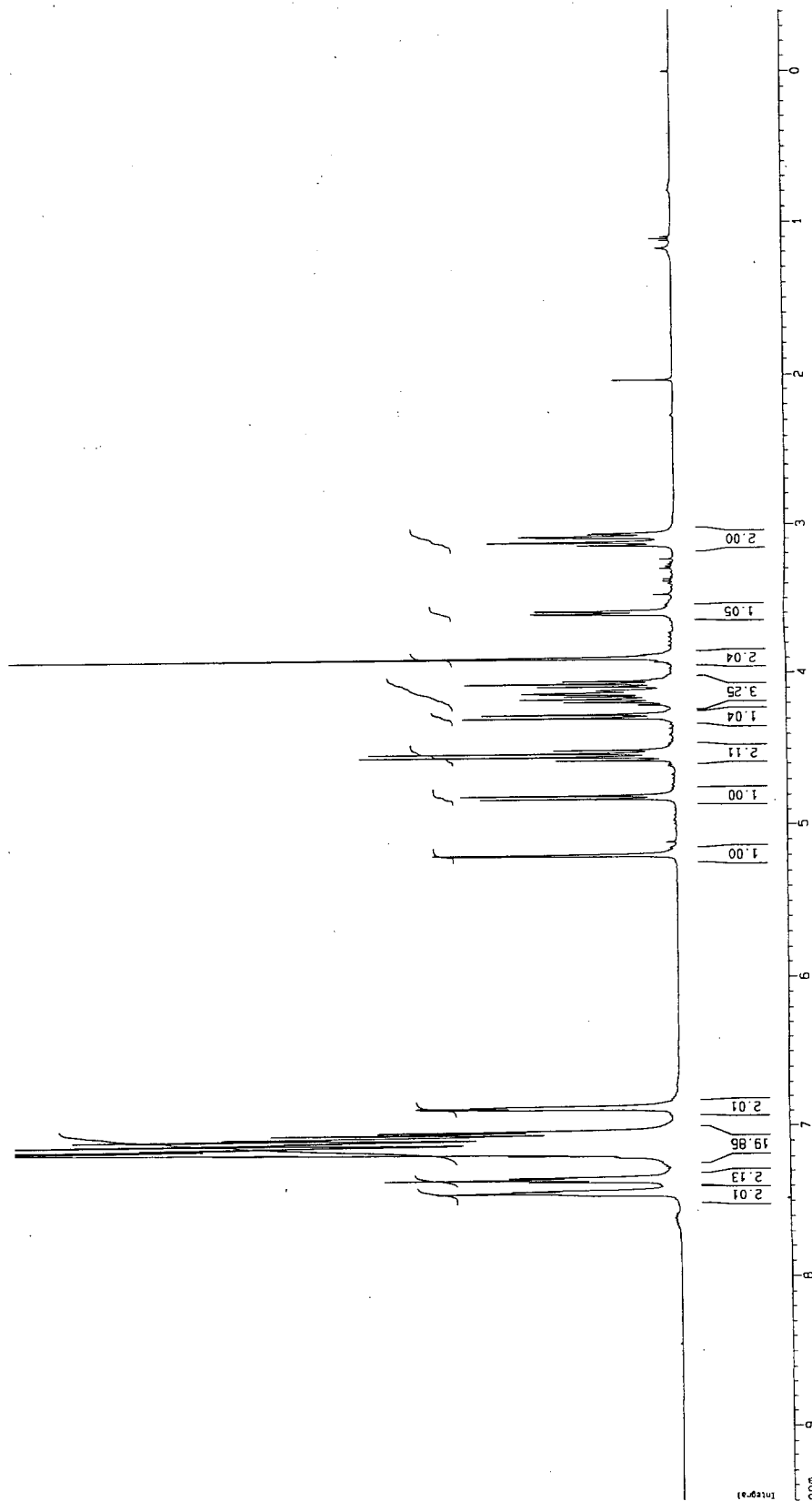
SS1110

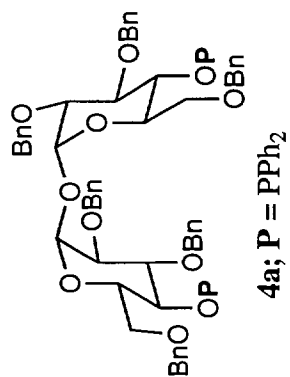


HZ



SSI110



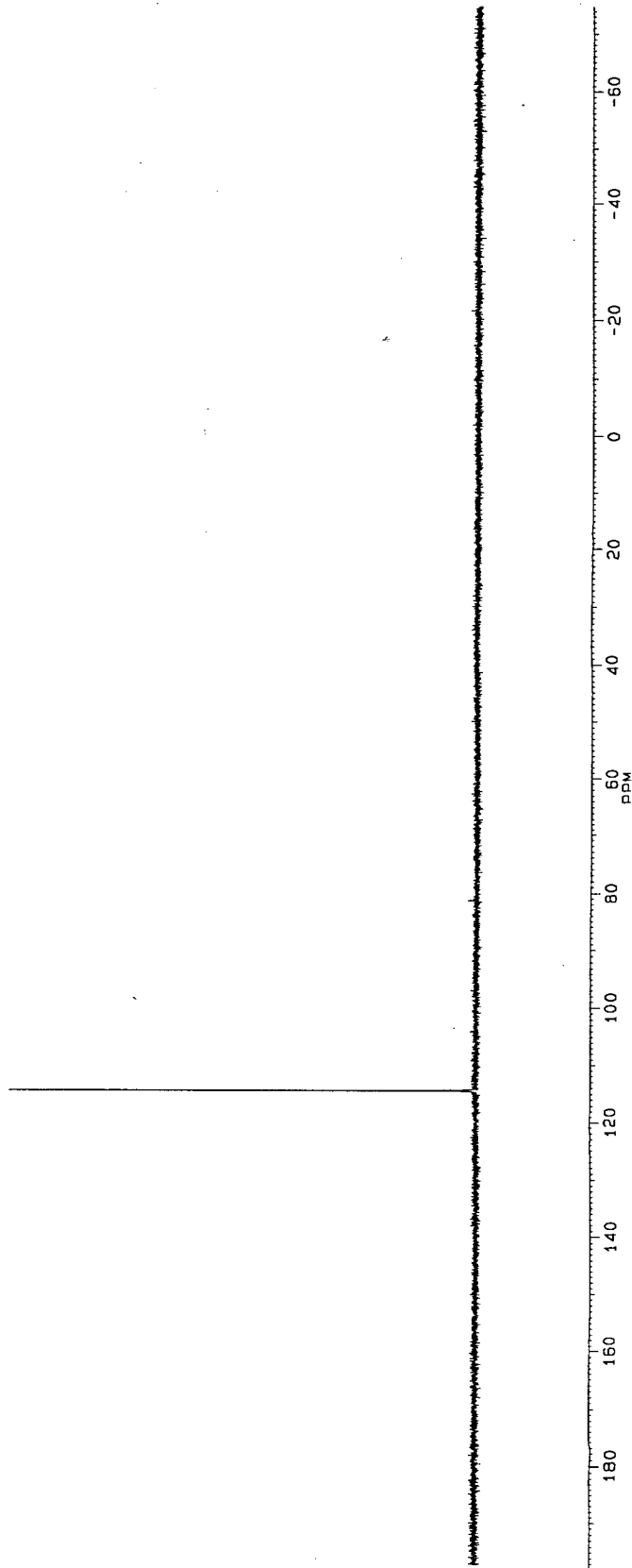


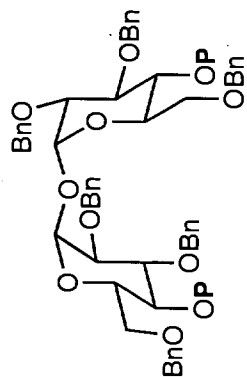
SSII-10

81.264

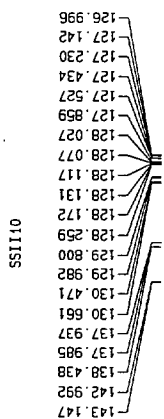
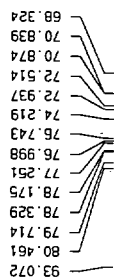
114.366  
114.261

ppm



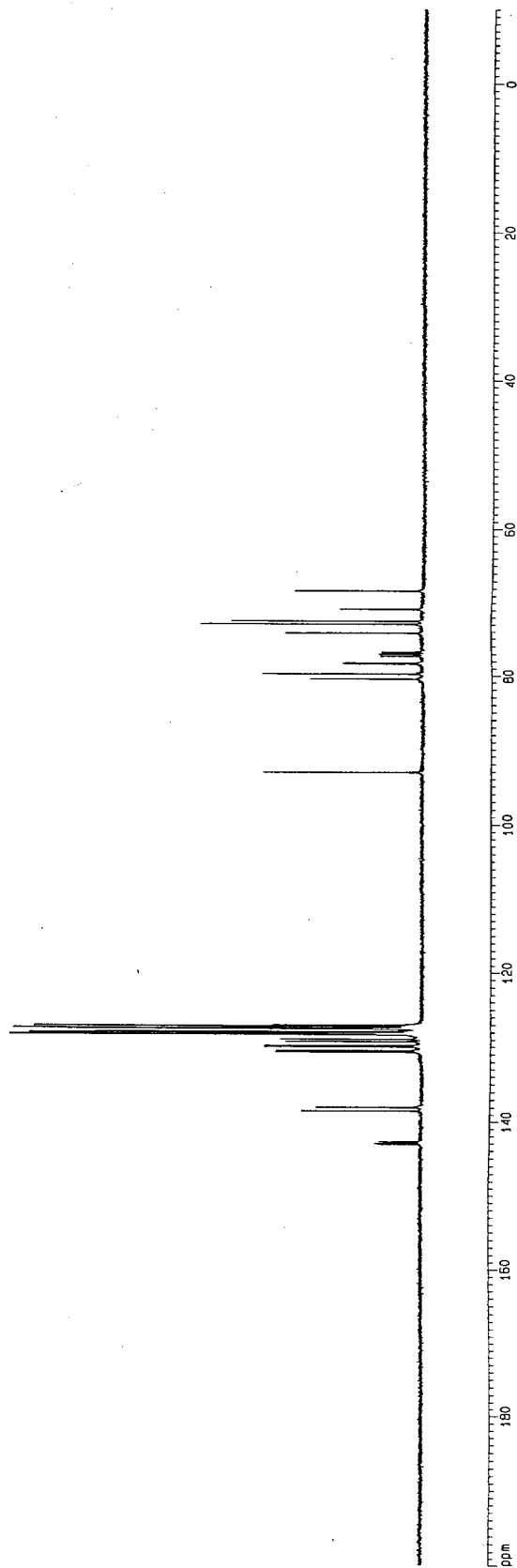


4a; P = PPh<sub>2</sub>



SS1110

ppm



ppm

2.25501  
2.20779  
2.19814  
2.06193

3.70555  
3.69120  
3.66889  
3.65448  
3.31207

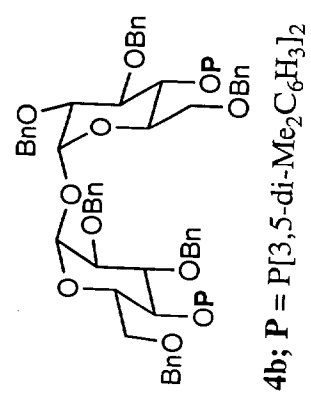
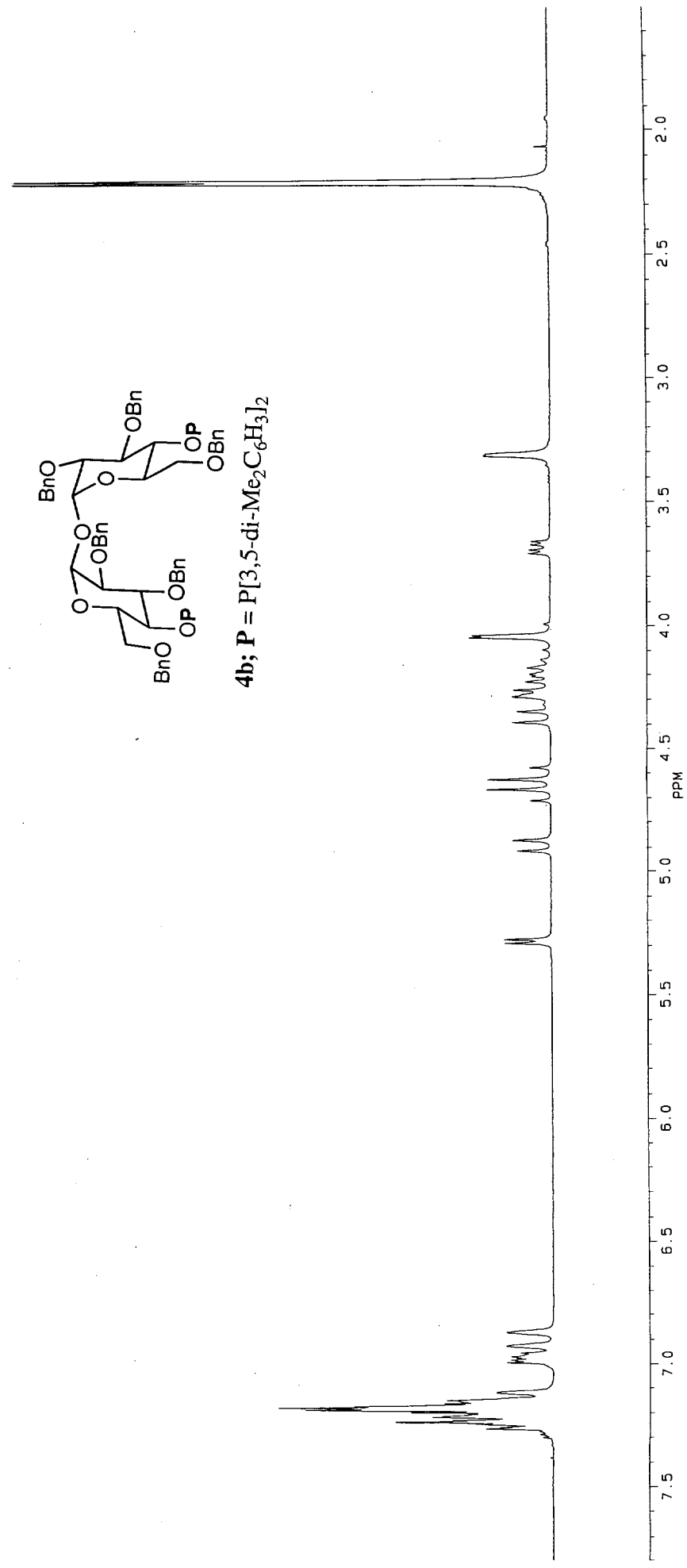
4.70980  
4.66203  
4.62281  
4.57510  
4.38859  
4.34595  
4.31756  
4.28732  
4.26049  
4.25633  
4.20434  
4.18497  
4.16744  
4.13066  
4.09315  
4.04510  
4.03743  
3.98884

4.91166  
4.86502

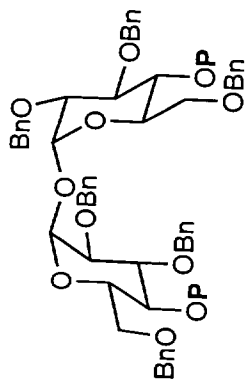
5.28769  
5.27329

7.27300  
7.26420  
7.25195  
7.25695  
7.24375  
7.23809  
7.21470  
7.21043  
7.19944  
7.19418  
7.18369  
7.17428  
7.16834  
7.15721  
7.15059  
7.14420  
7.13774  
7.13237  
6.99099  
6.98087  
6.97336  
6.96790  
6.95261  
6.92369  
6.92174  
6.87113  
6.86935

ppm



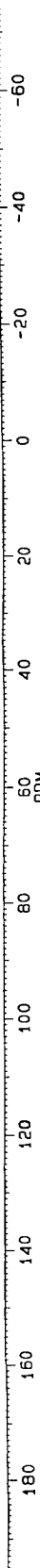
PPM/CH 7.941  
SR 5719.98

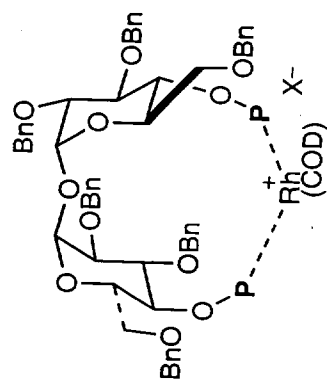


**4b**; P = P[3,5-di-Me<sub>2</sub>C<sub>6</sub>H<sub>3</sub>]<sub>2</sub>

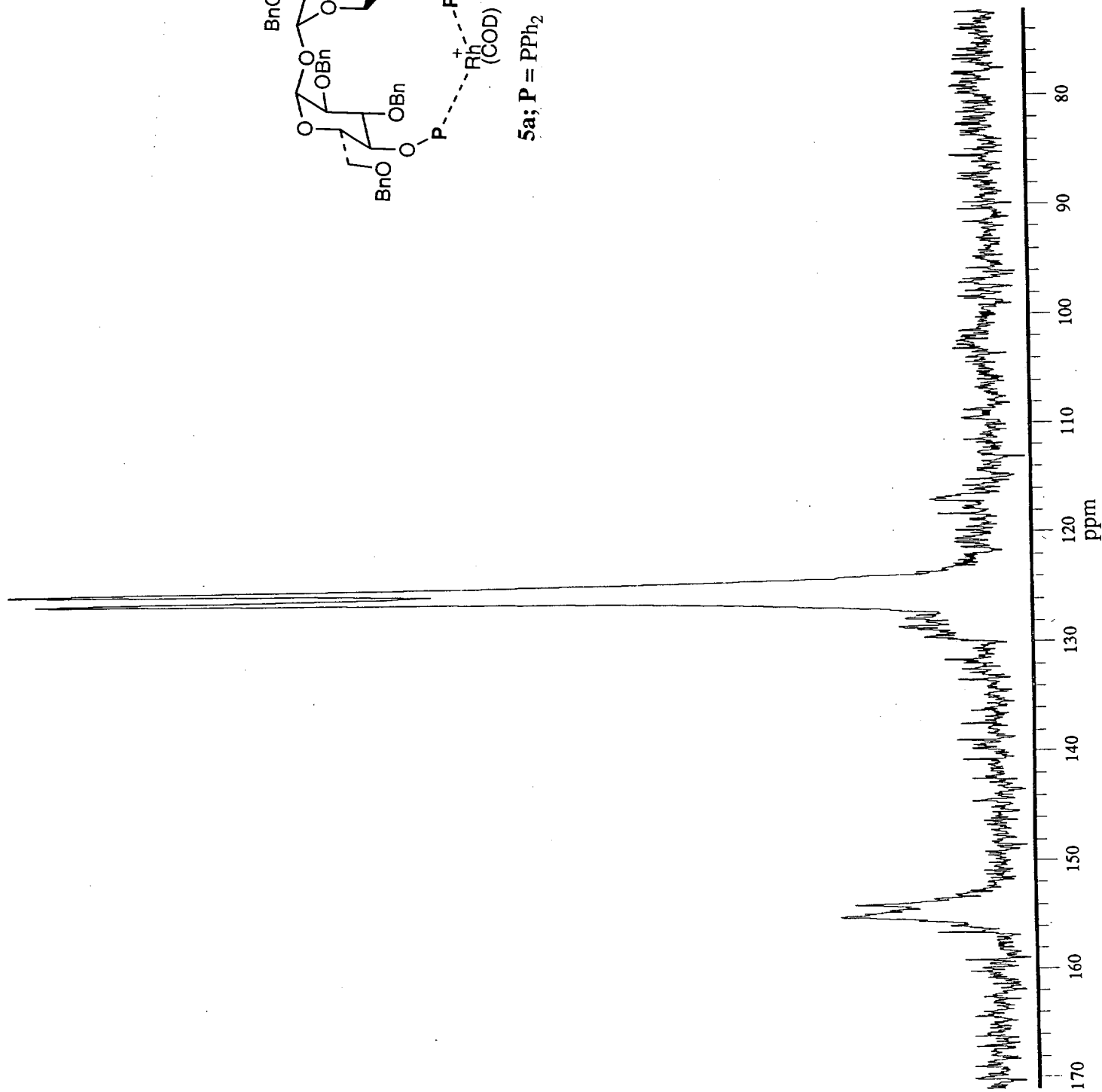
116.895

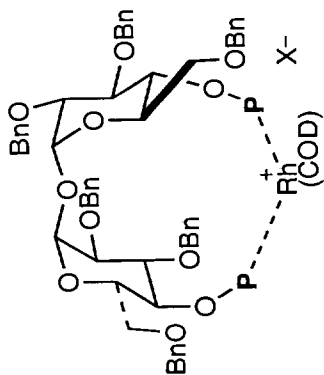
Wdd





5a; P = PPh<sub>2</sub>

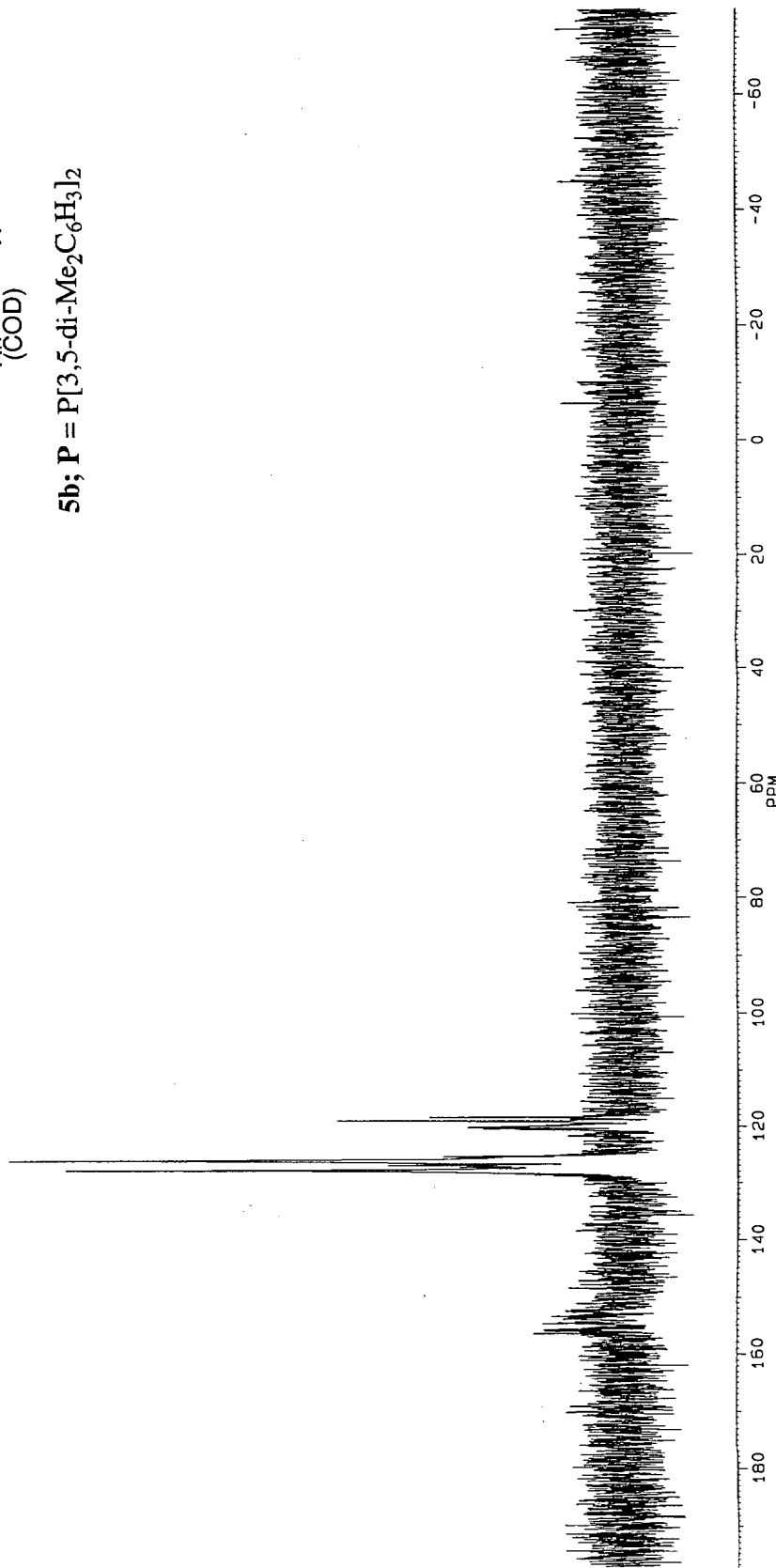




5b; P = P[3,5-di-Me<sub>2</sub>C<sub>6</sub>H<sub>3</sub>]<sub>2</sub>

127.825  
126.909  
126.101  
125.182  
120.311  
120.058  
119.070  
118.855  
118.293

156.397  
155.771  
154.579





1.48021  
1.32322  
1.32135  
1.31458  
1.29998  
1.29736  
1.29061  
1.27599  
1.26704  
1.95097  
1.93818  
1.91447

2.16720  
2.16414  
2.15917  
2.14833  
2.08172

3.59489  
3.59096  
3.58711  
3.58324  
3.57938  
3.52556

2.88014

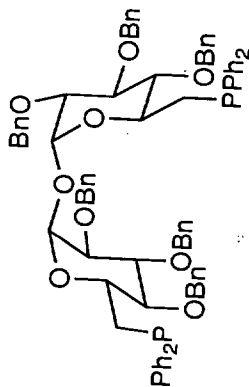
3.65887  
3.65495  
3.65108  
3.64721  
3.64334  
3.63947  
3.63560  
3.63173  
3.62786  
3.62400

SS203

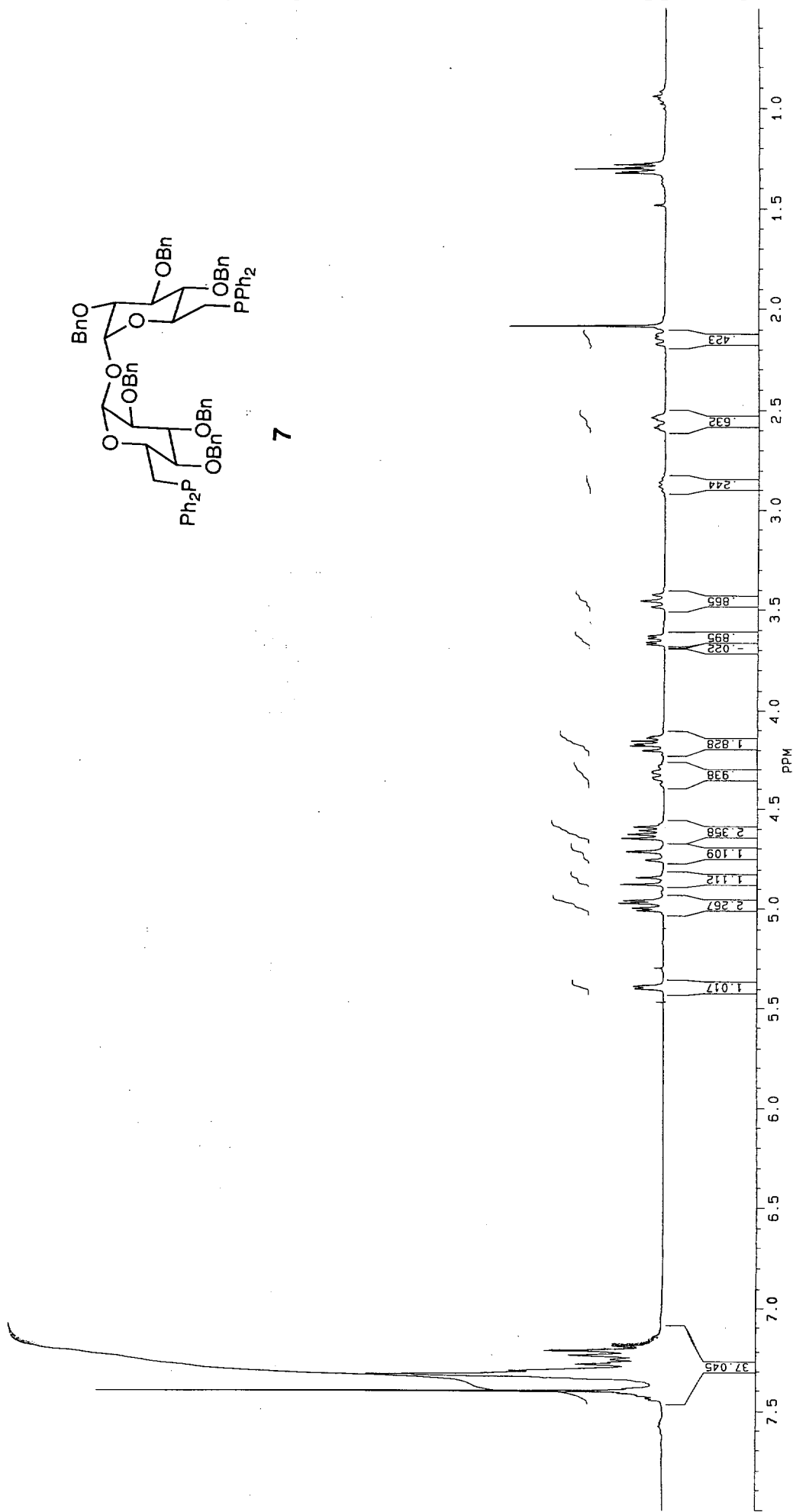
5.00800  
4.99625  
4.91170  
4.98870  
4.87398  
4.83775  
4.75450  
4.71454  
4.64651  
4.62590  
4.60658  
4.58856  
4.54899  
4.51741  
4.30967  
4.19277  
4.17678  
4.16800  
4.15317  
4.13723  
4.12961

5.46500  
5.39754  
5.38636  
5.29457

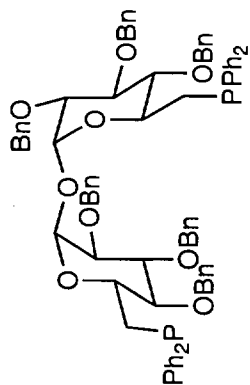
7.44377  
7.43565  
7.42370  
7.41993  
7.41102  
7.40211  
7.39326  
7.38704  
7.38532  
7.38275  
7.34658  
7.31760  
7.31411  
7.30807  
7.26440  
7.25313  
7.25283  
7.23813  
7.23500  
7.21530  
7.20176  
7.19523  
7.17121  
7.15360



7

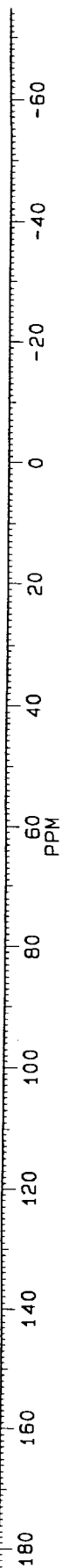


SS185-COL



7

-21.8162  
-21.9144  
-22.0042



SS193

1.44407  
1.27862

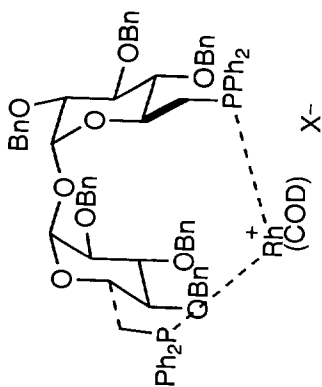
2.39290  
2.38305  
2.37882  
2.37372

3.36415  
3.35121

3.88261  
4.10737  
4.15334  
4.17099  
4.59382  
4.63841  
4.67894  
4.70688  
4.72607  
4.75595  
4.79401  
4.83841  
4.84867  
4.89435  
4.94334  
4.97189  
5.01486  
5.20105  
5.24442  
5.59948

7.51773  
7.46981  
7.45614  
7.44816  
7.42841  
7.41954  
7.40034  
7.39669  
7.38977  
7.37782  
7.36860  
7.34494  
7.33136  
7.32542  
7.31287  
7.30421  
7.26340  
7.22221  
7.21532  
7.18859  
7.10499  
7.09855  
7.06711

PPM



81.66

19.12  
5.21  
5.88  
2.29  
14.16

17.70

99.34

24.58

25.37  
10.21

56.03

375.61

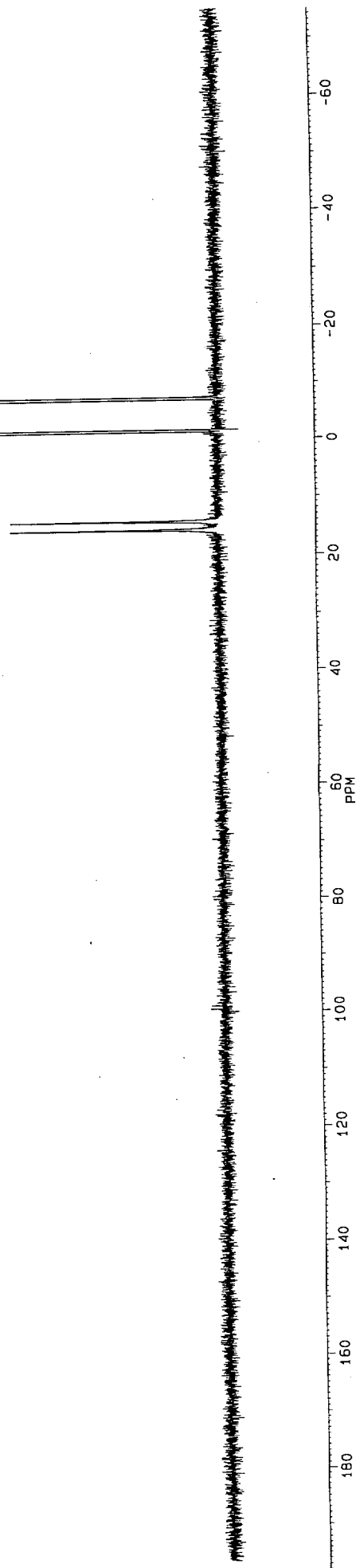
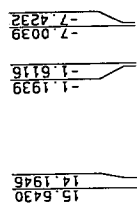
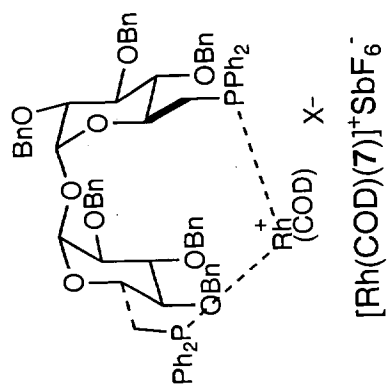
15.53

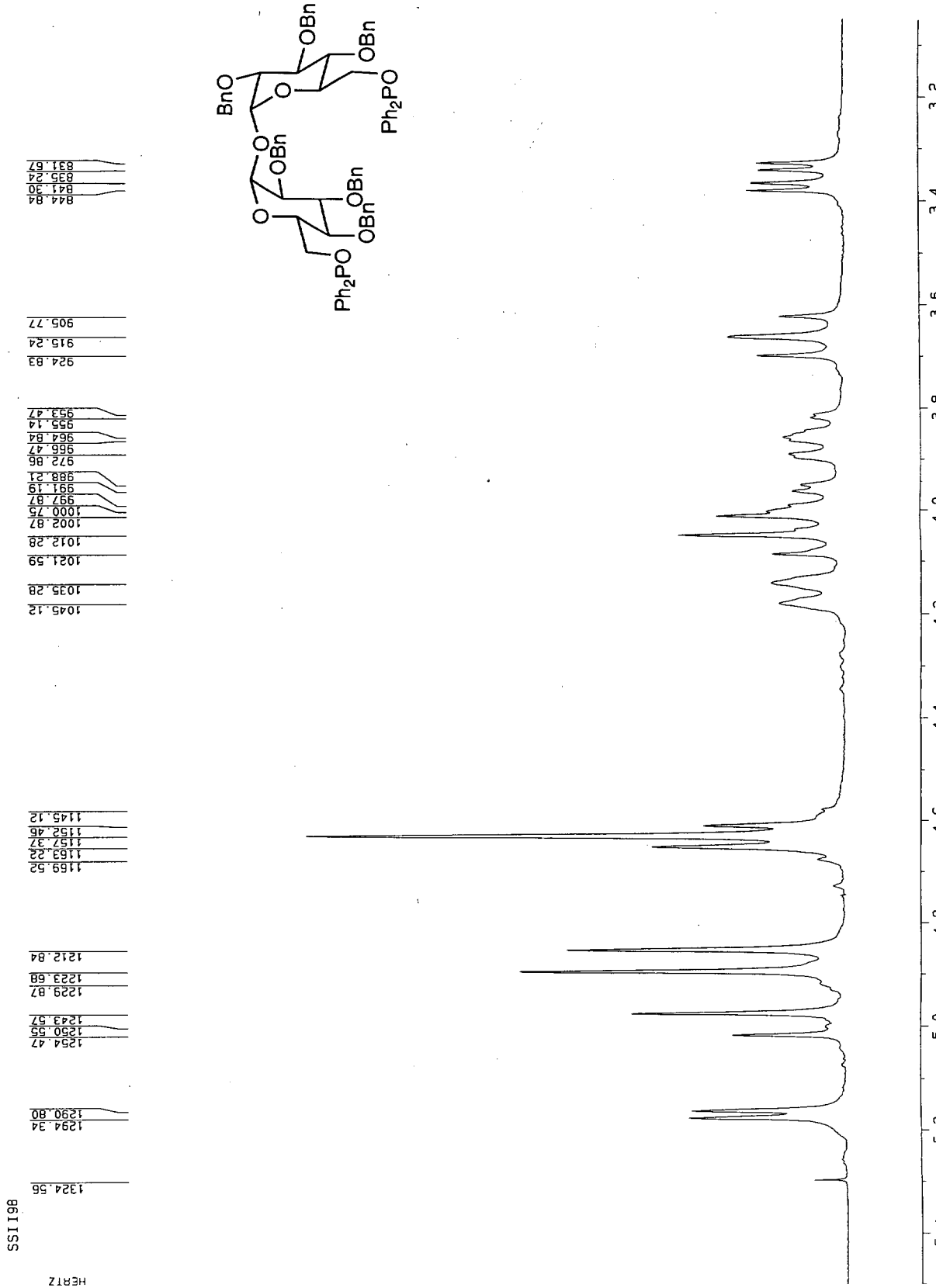
1.0  
1.5  
2.0  
2.5  
3.0  
3.5  
4.0  
4.5  
5.0  
5.5  
6.0  
6.5  
7.0  
7.5  
8.0

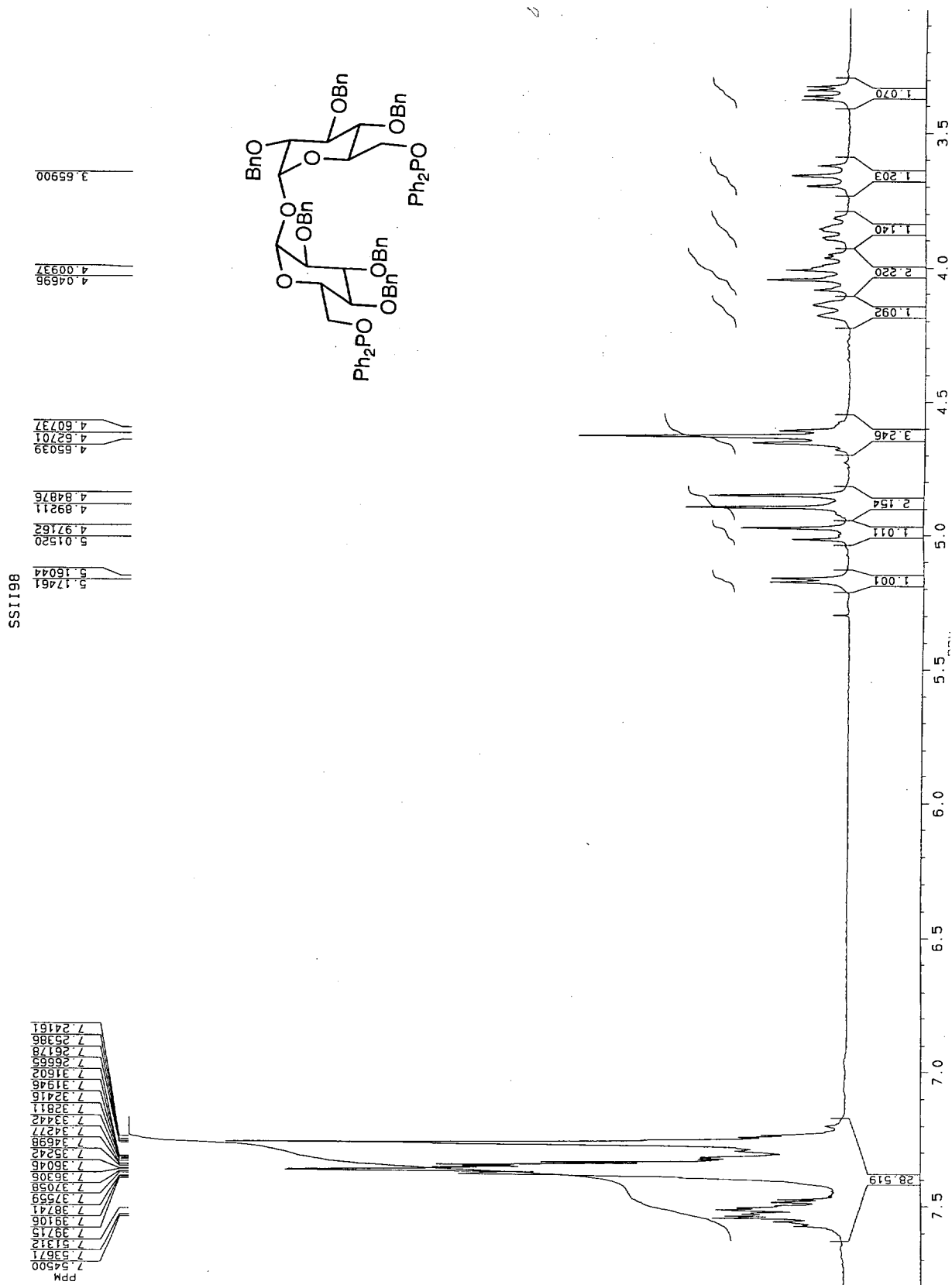
PPM

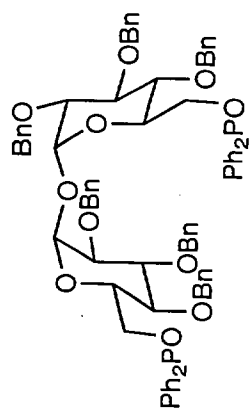
SS233

ppm





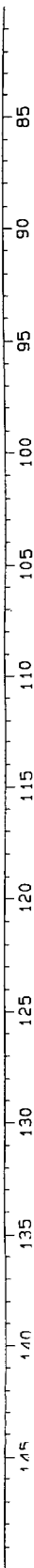


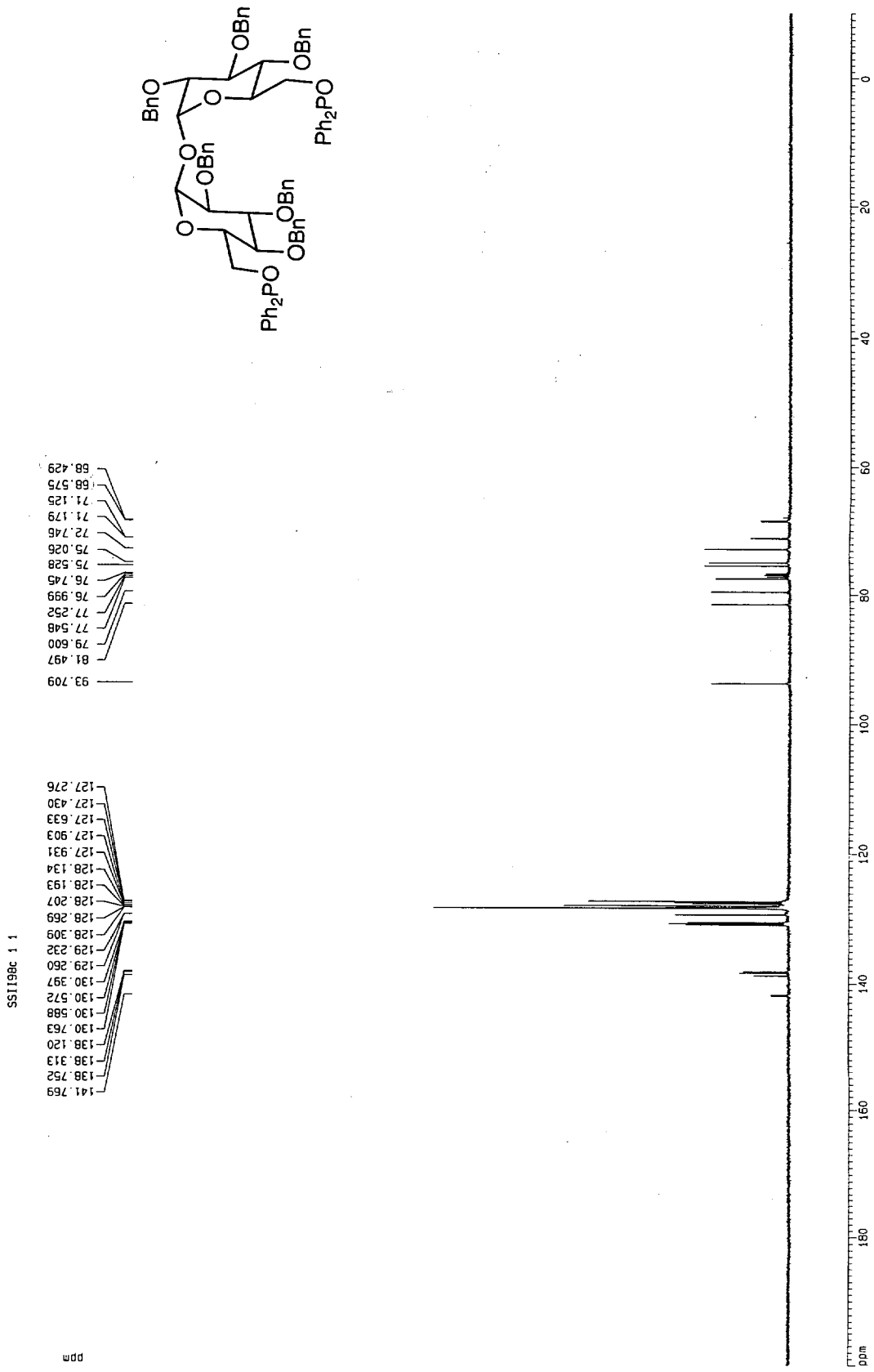


SSI198

115.056

Wdd





SS1196c 1 1

ppm



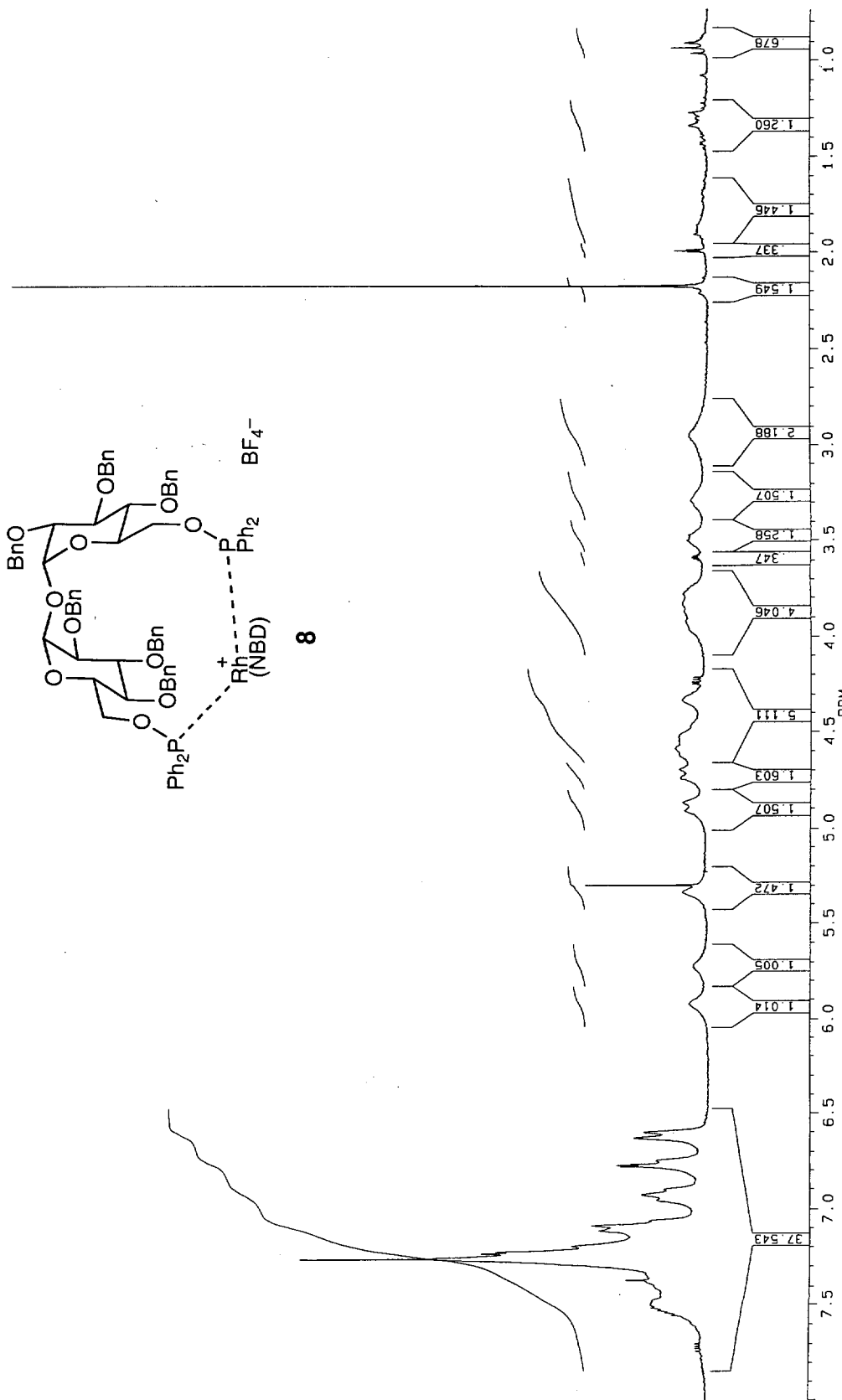
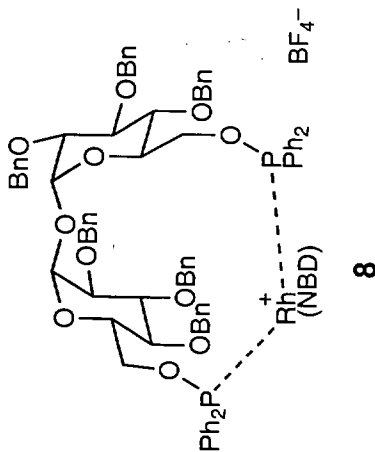
H170300011155

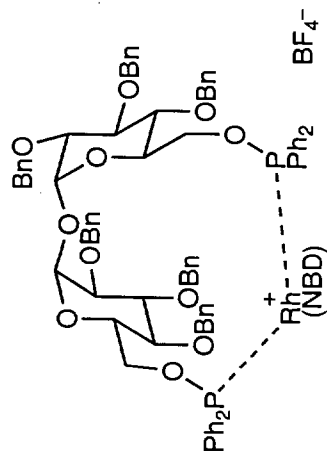
7.5292  
7.5146  
7.4609  
7.36518  
7.25183  
7.2301  
7.22384  
7.19407  
7.1203  
7.08322  
7.05433  
6.95336  
6.92654  
6.76621  
6.76873  
6.76090  
6.74432  
6.62746  
6.59815

5.29527

2.17215

ppm

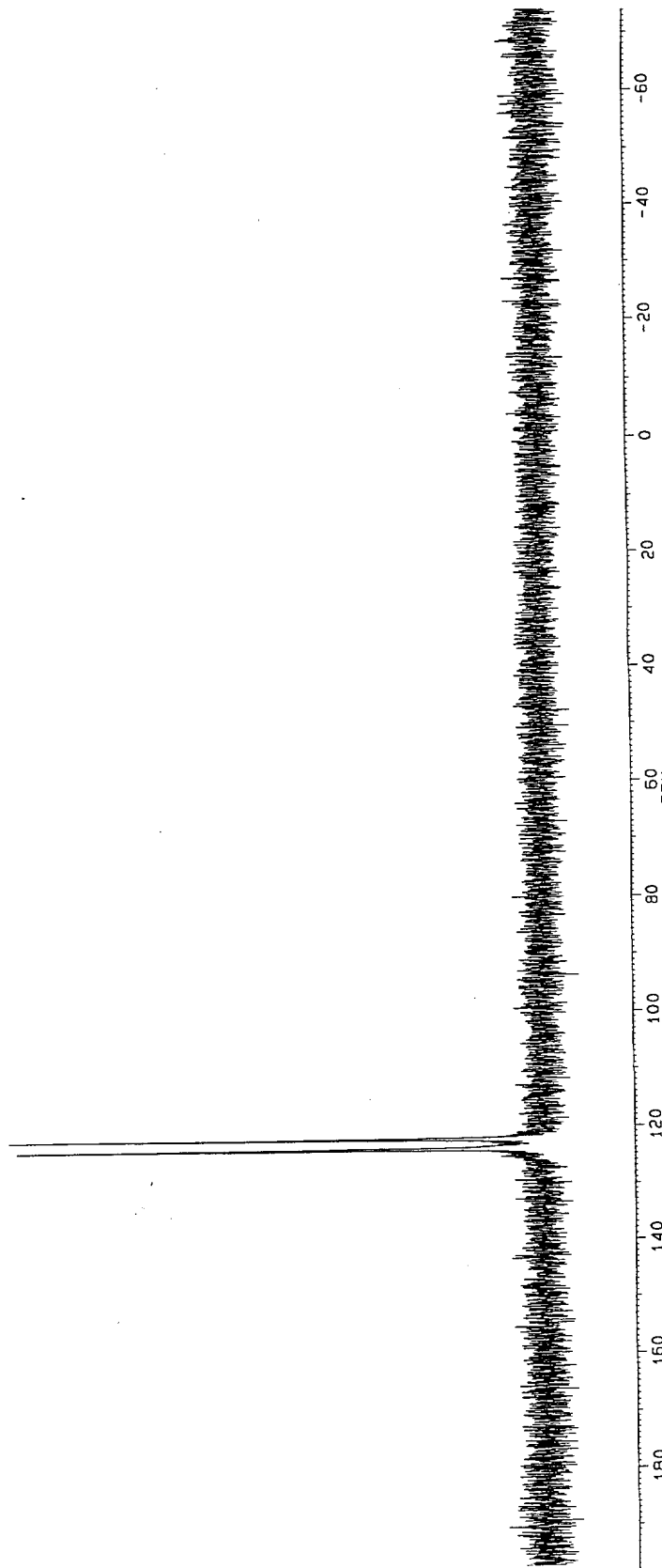


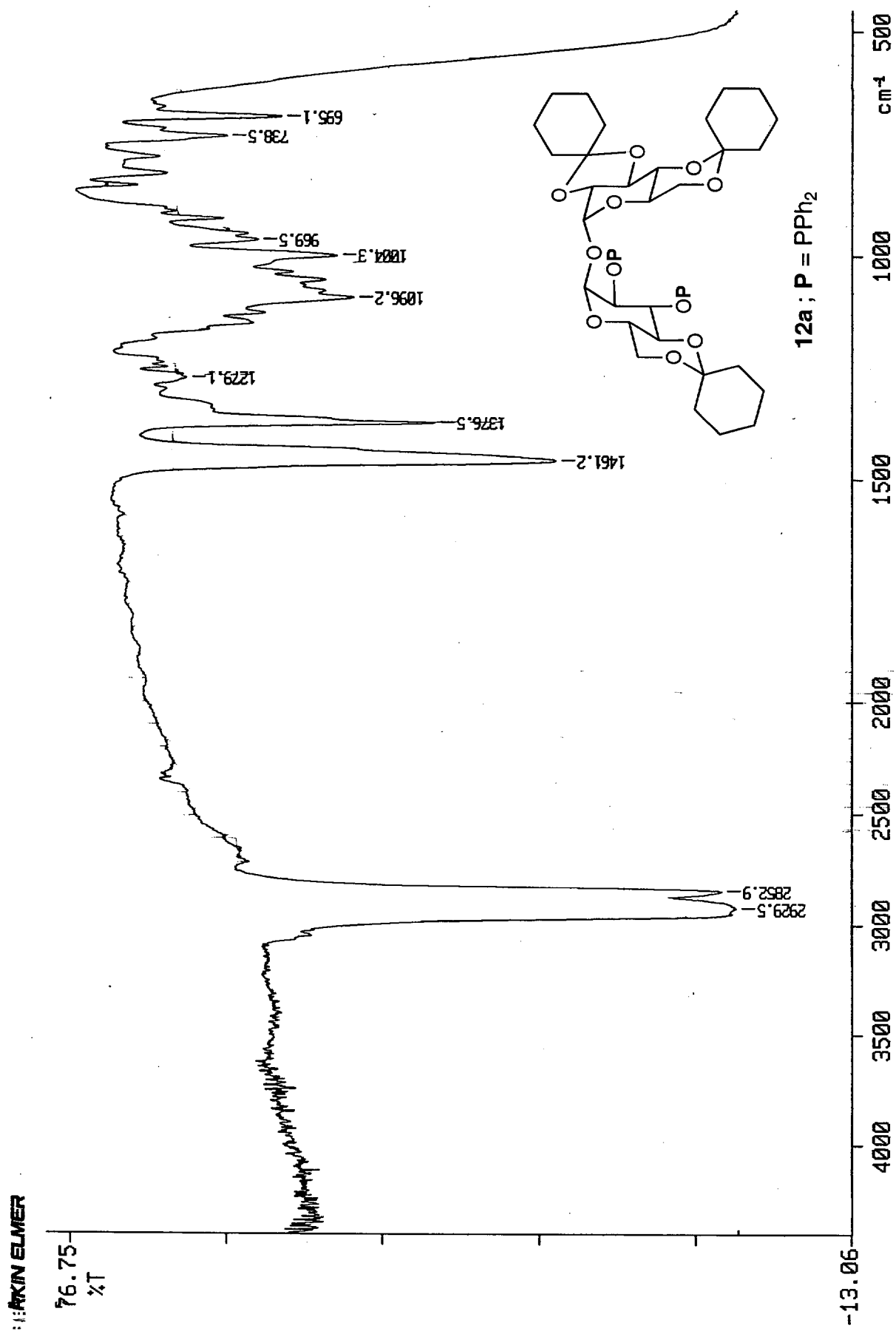


8

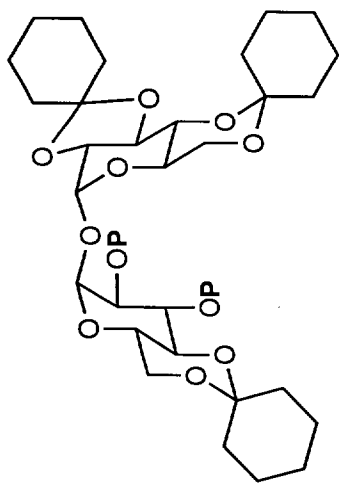
124.059  
122.245

ppm





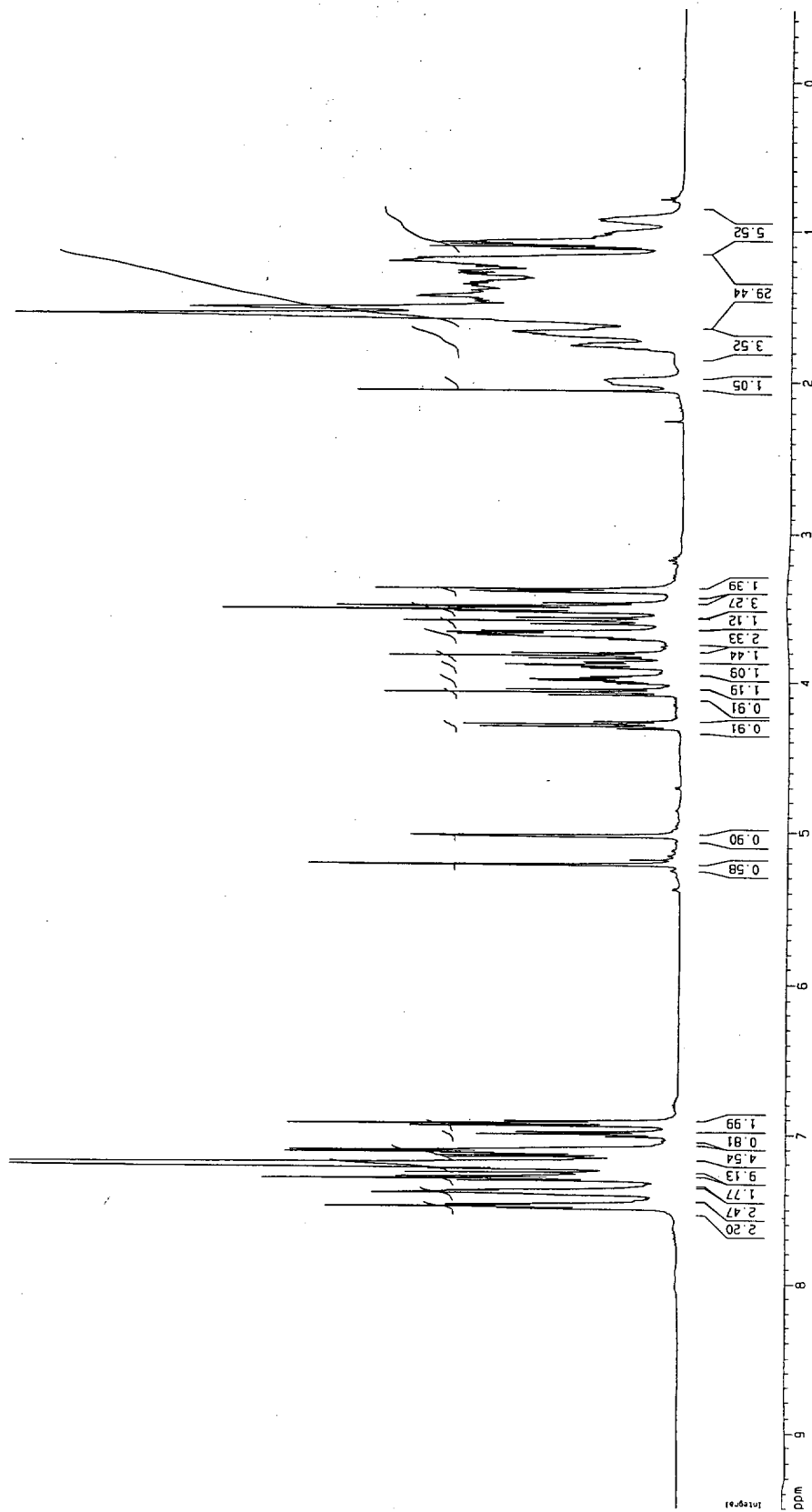
98/11/19 16:03  
X: 16 scans, 4.0cm<sup>-1</sup>

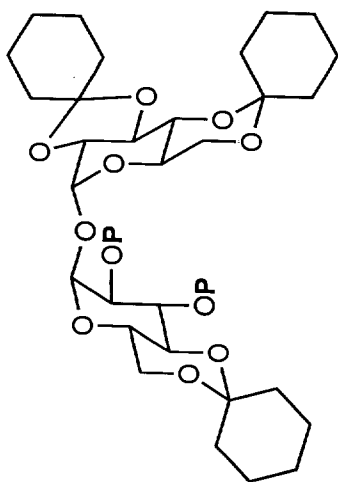


**12a ; P = PPh<sub>2</sub>**

1

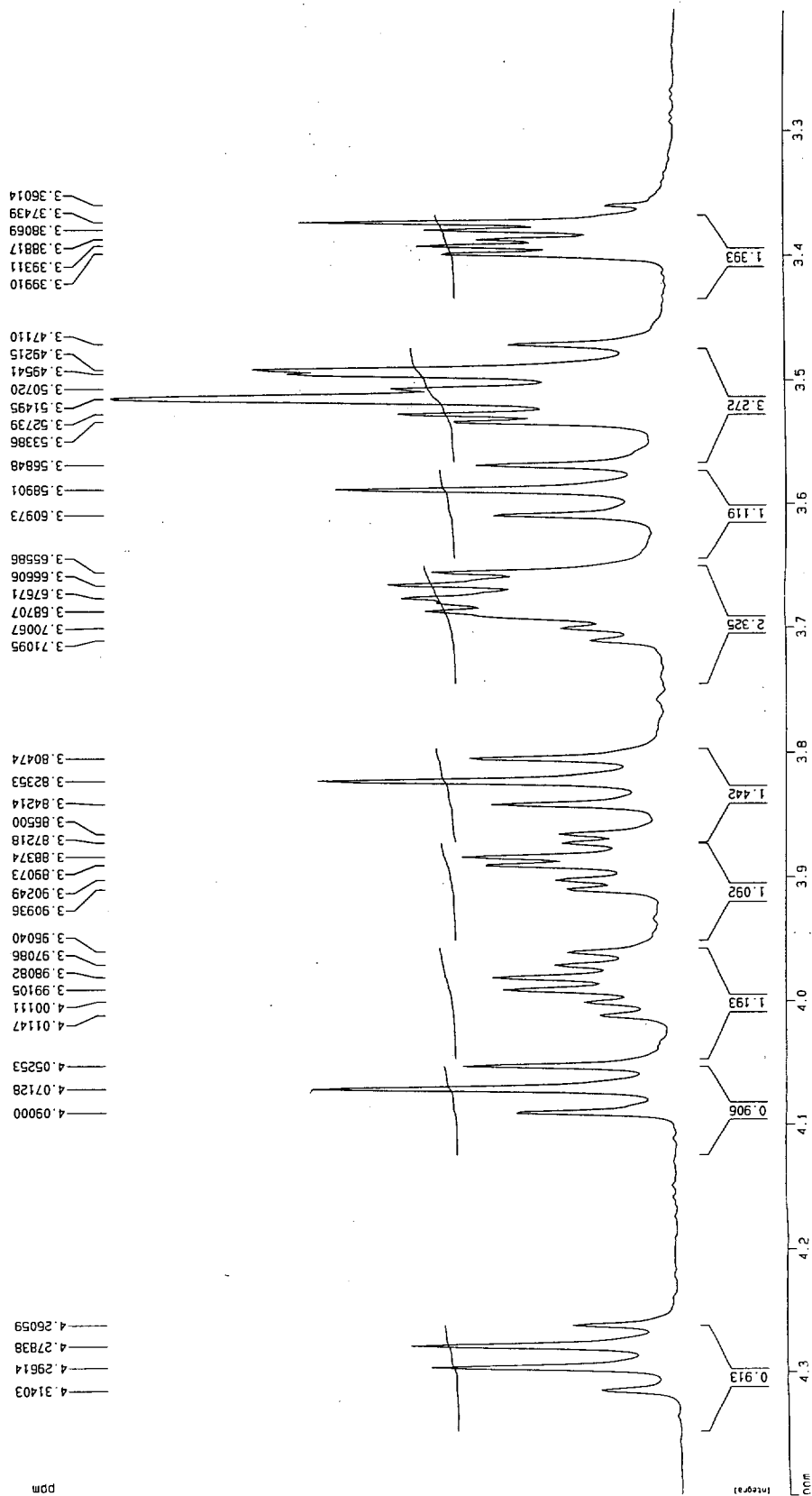
SSII-107 T(1)-referenced (add 6.11 ppm to every peak)

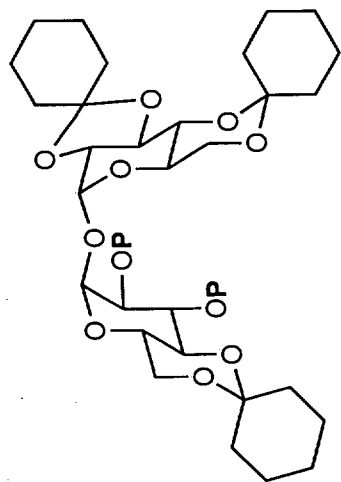




12a ; P = PPh<sub>2</sub>

SSII-107





**12a ; P = PPh<sub>2</sub>**

113.331

/ CDCl<sub>3</sub>

SSII-39

115.707

115.824

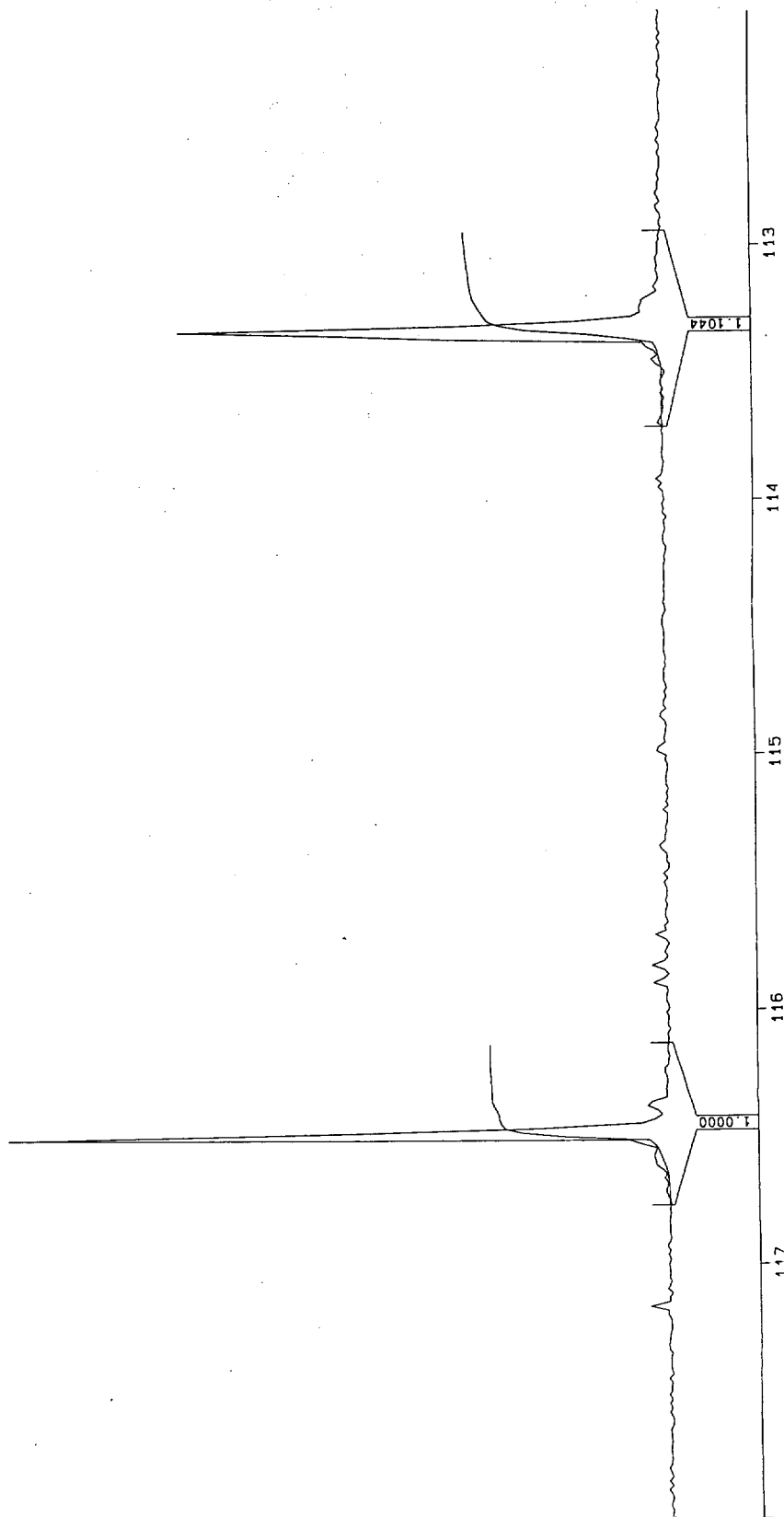
115.890

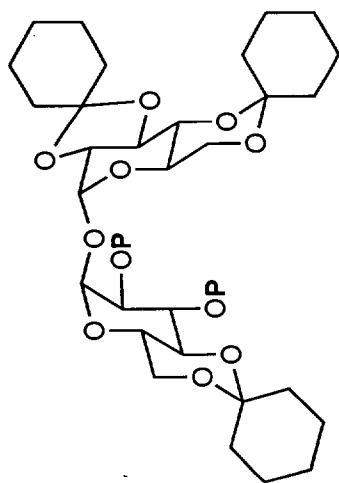
116.373

116.490

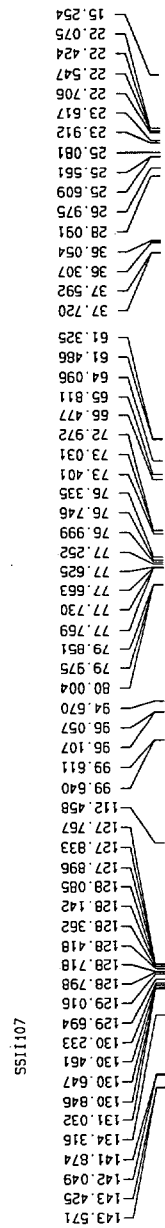
117.163

ppm

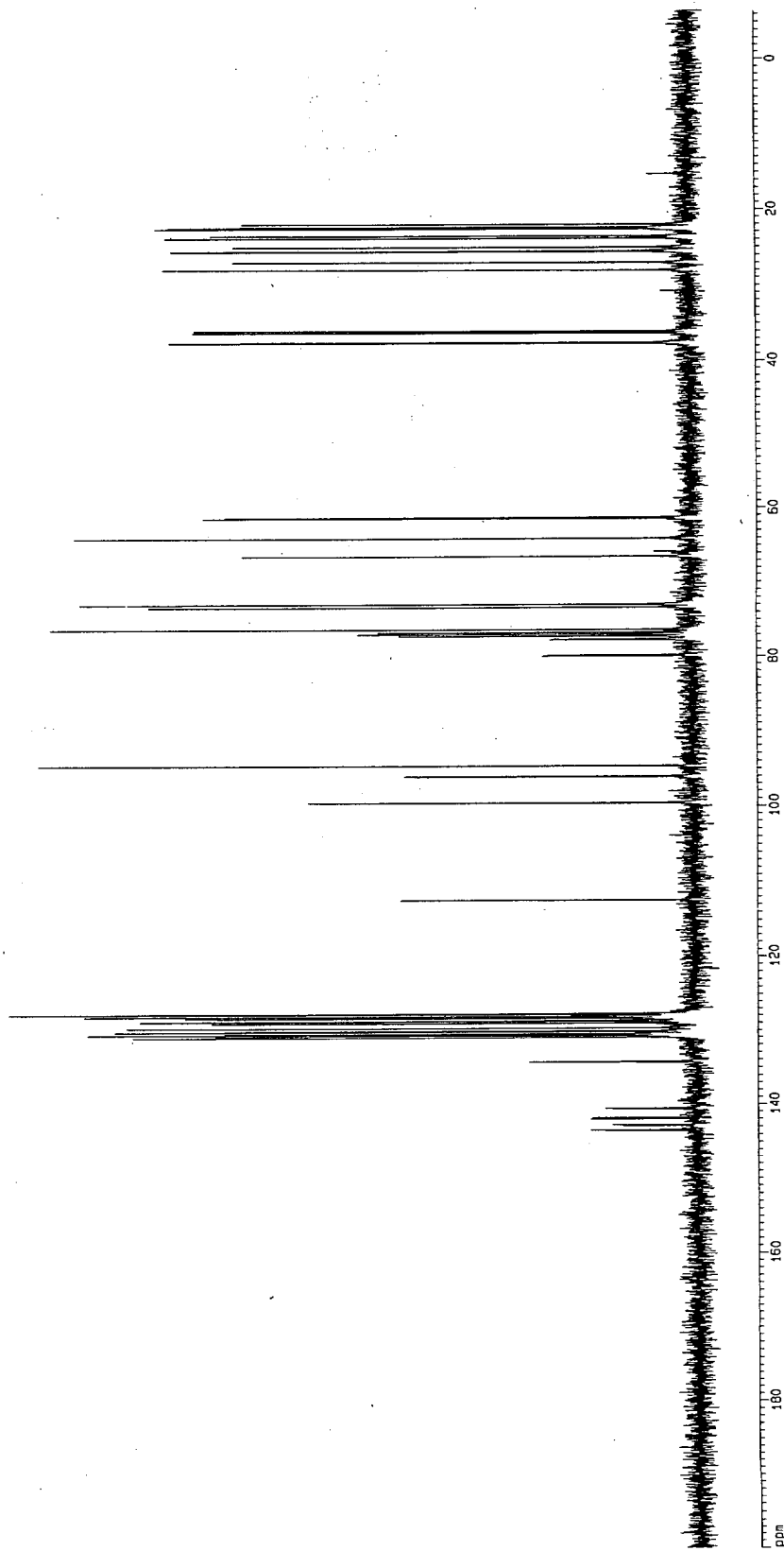


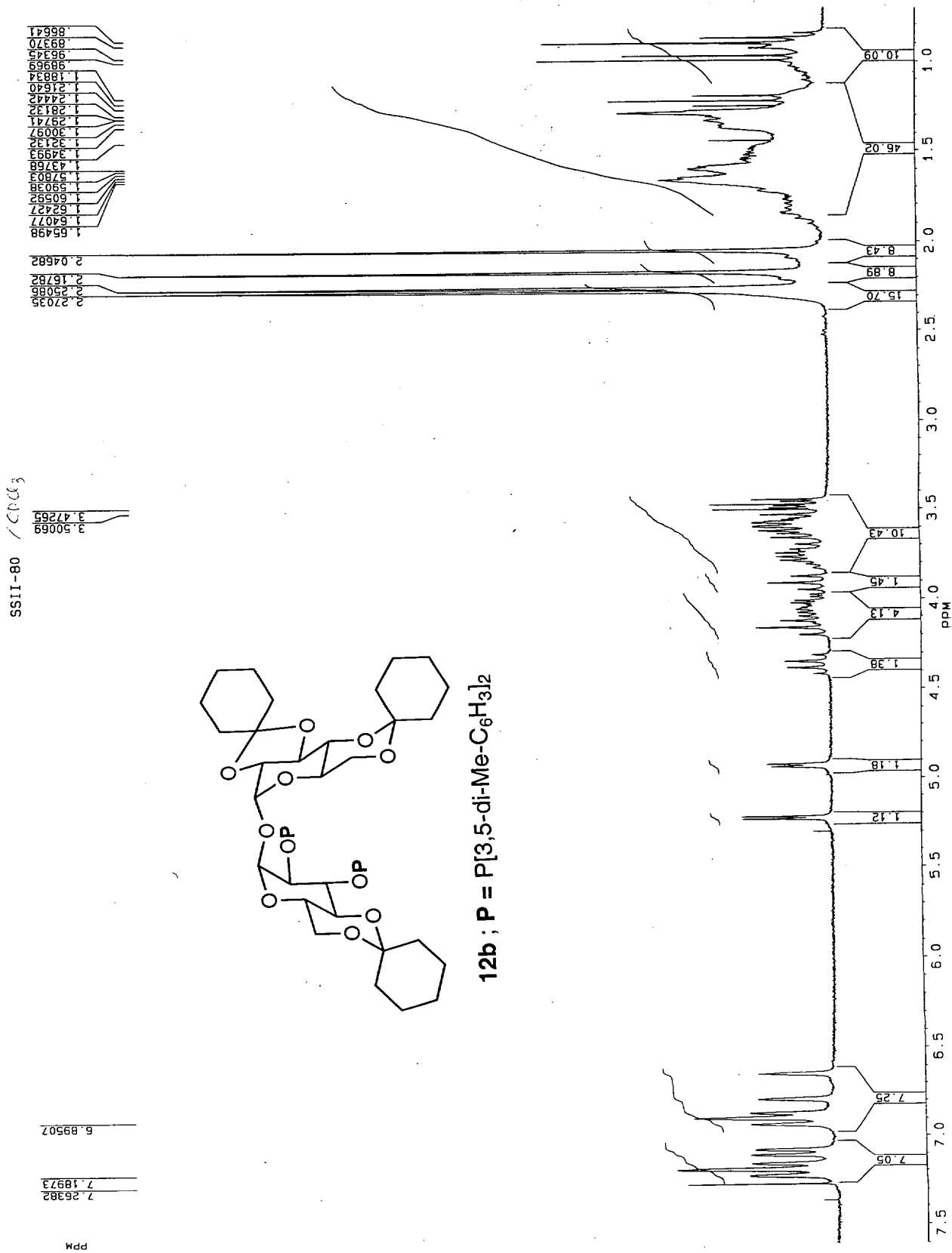


**12a ; P = PPh<sub>2</sub>**



ppm

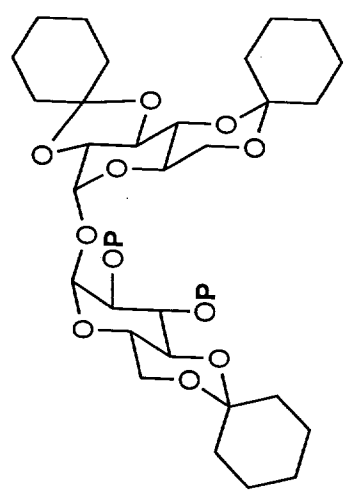




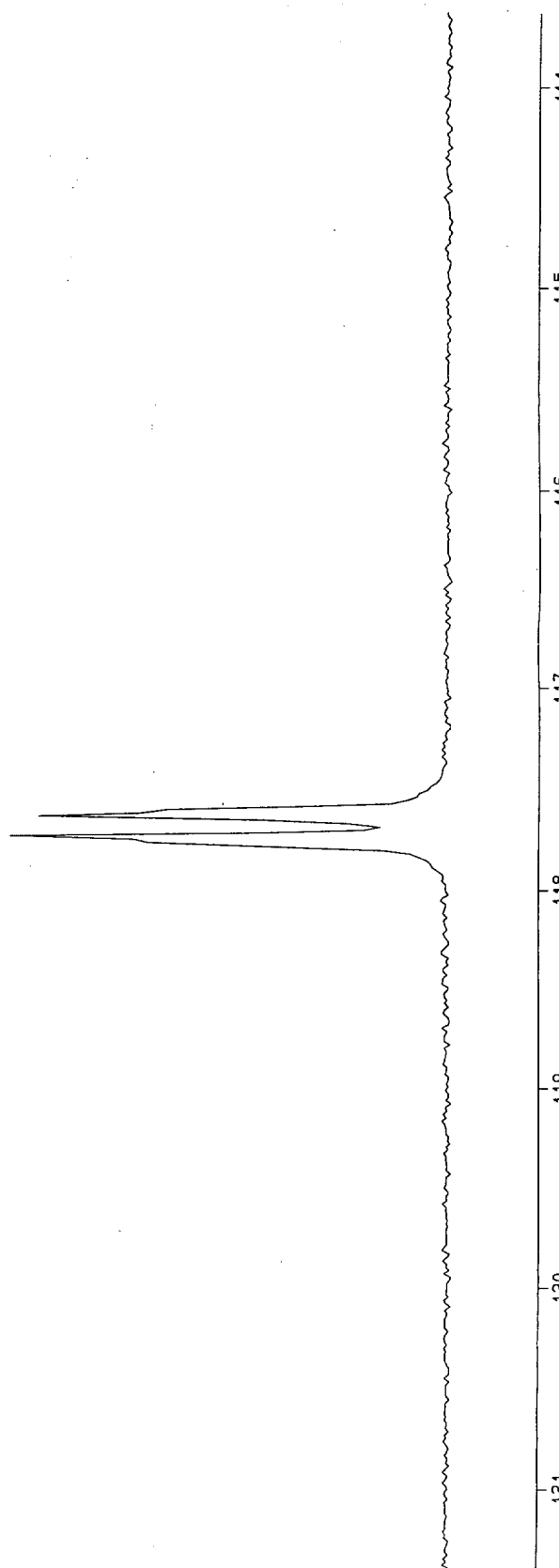


SSII-80

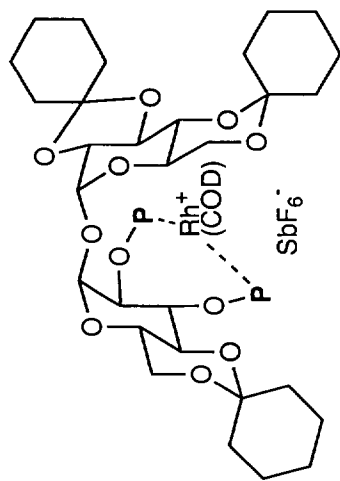
117.735  
117.629



**12b ; P = P[3,5-di-Me-C<sub>6</sub>H<sub>3</sub>]<sub>2</sub>**

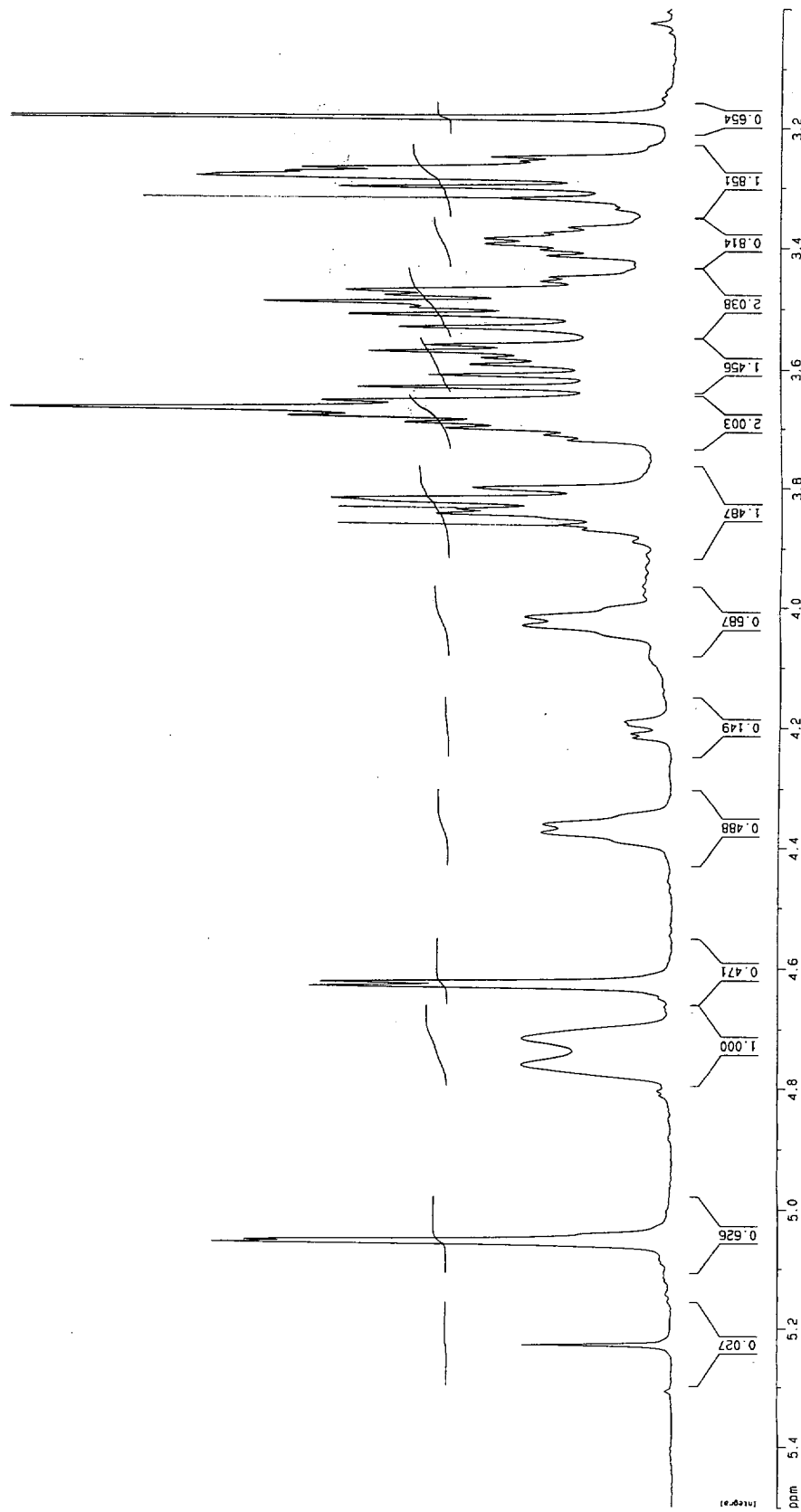


Mdd



**13a ; P = PPh<sub>2</sub>**

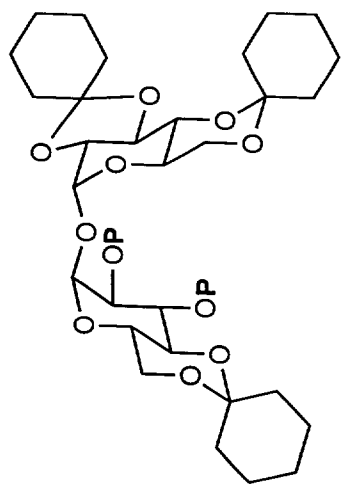
SSI141



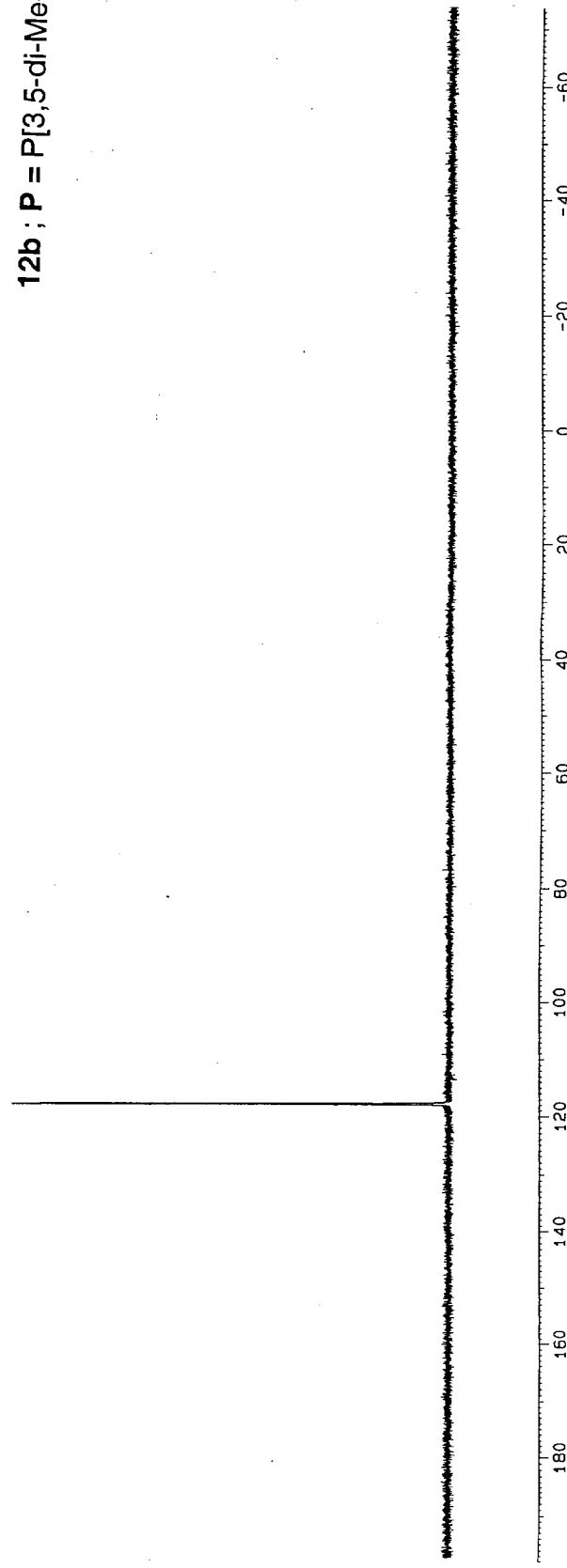
SSII-80 / 01/03

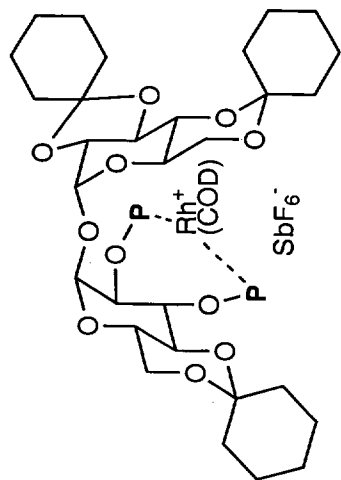
117.735  
117.629

Mdd



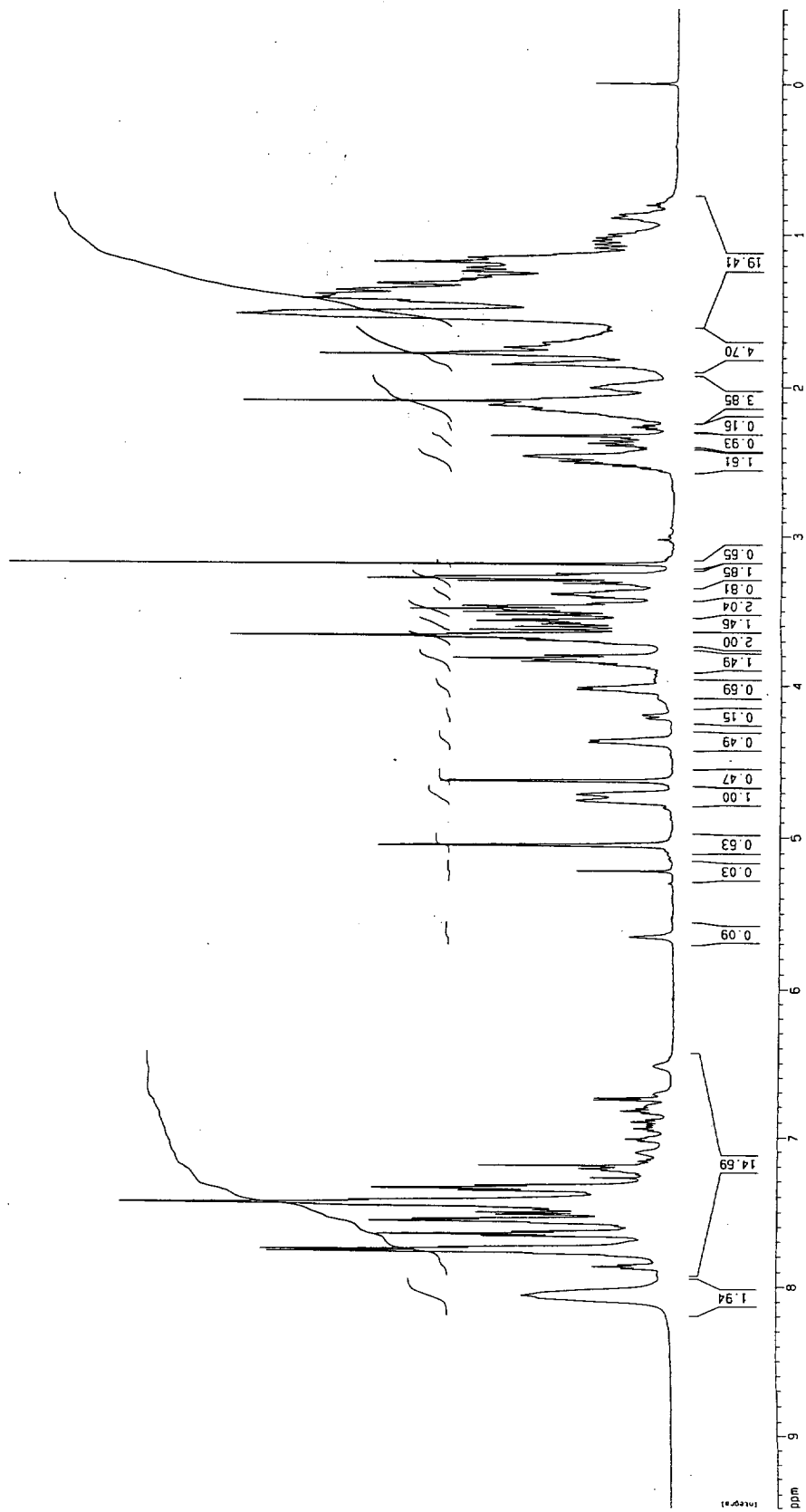
12b ; P = P[3,5-di-Me-C<sub>6</sub>H<sub>3</sub>]<sub>2</sub>

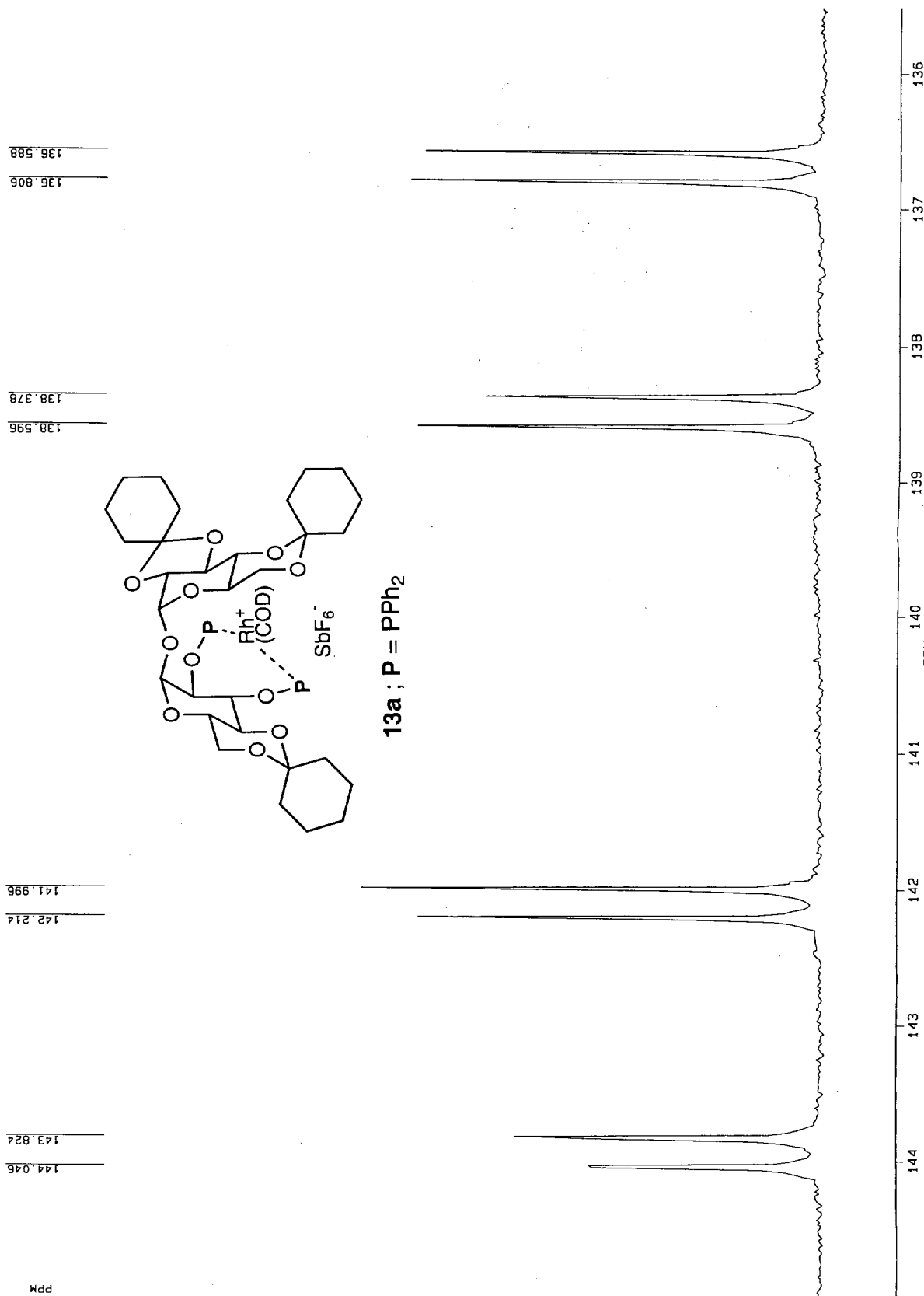


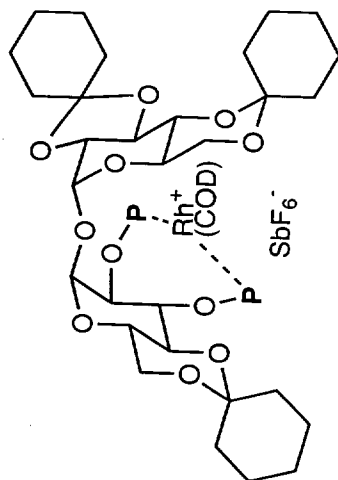


**13a ; P = PPh<sub>2</sub>**

SSII41







**13b** ; P = P[3,5-di-Me-C<sub>6</sub>H<sub>3</sub>]<sub>2</sub>

134.124  
134.363

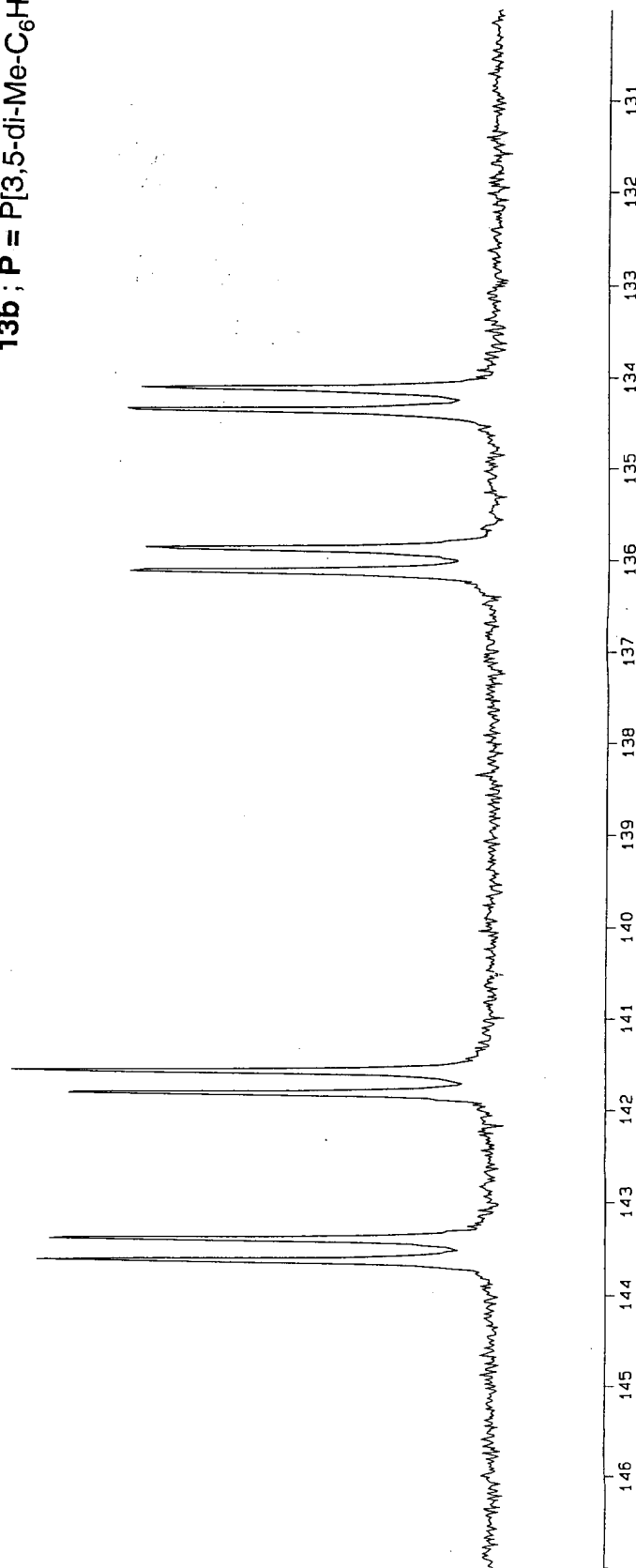
136.124  
136.884

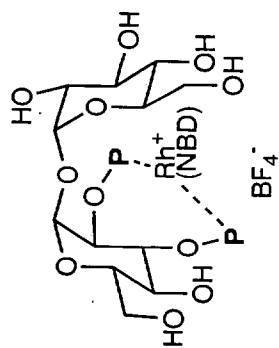
SSII82P

141.816  
141.576

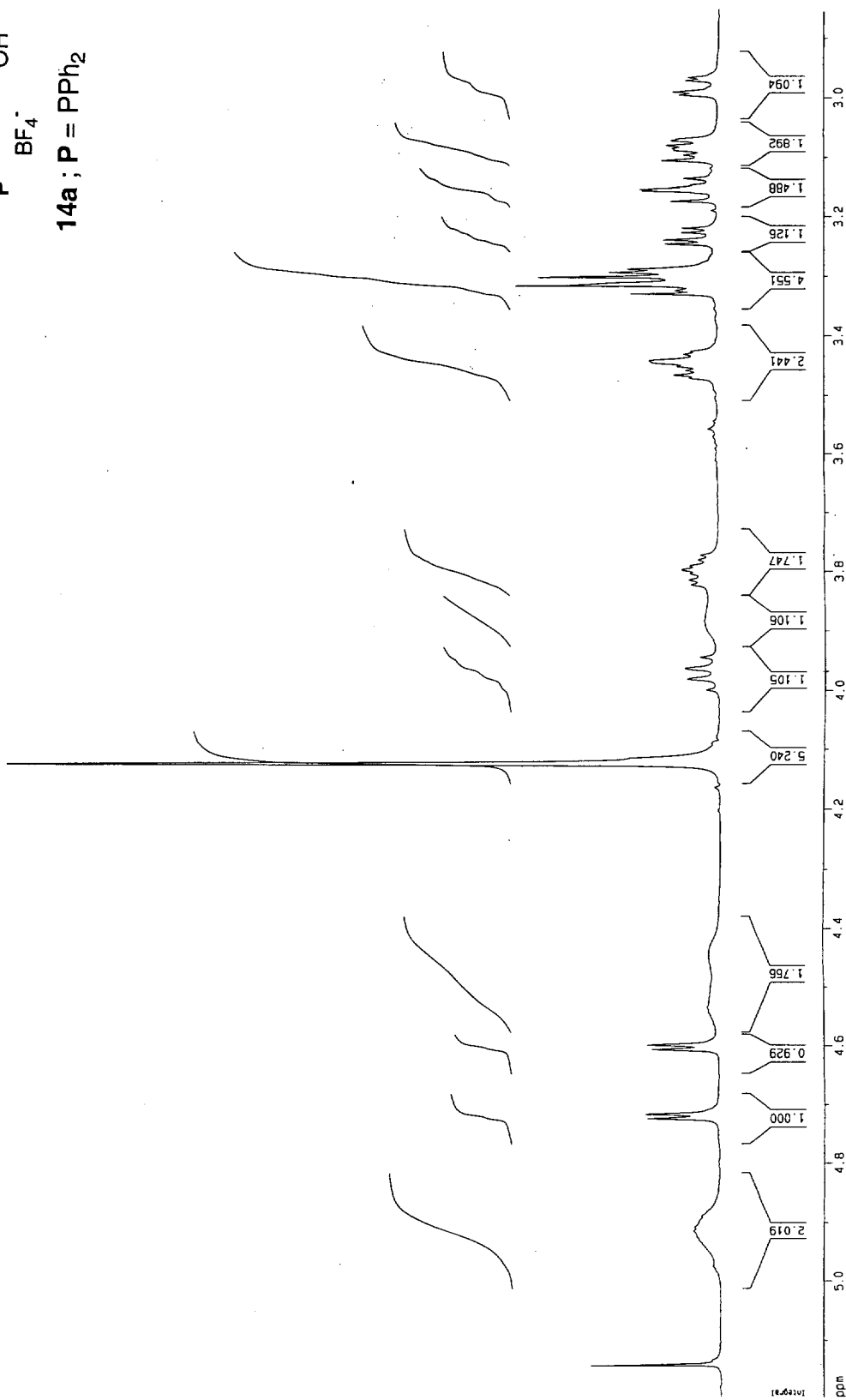
143.390  
143.630

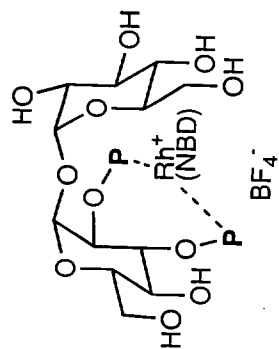
ppm



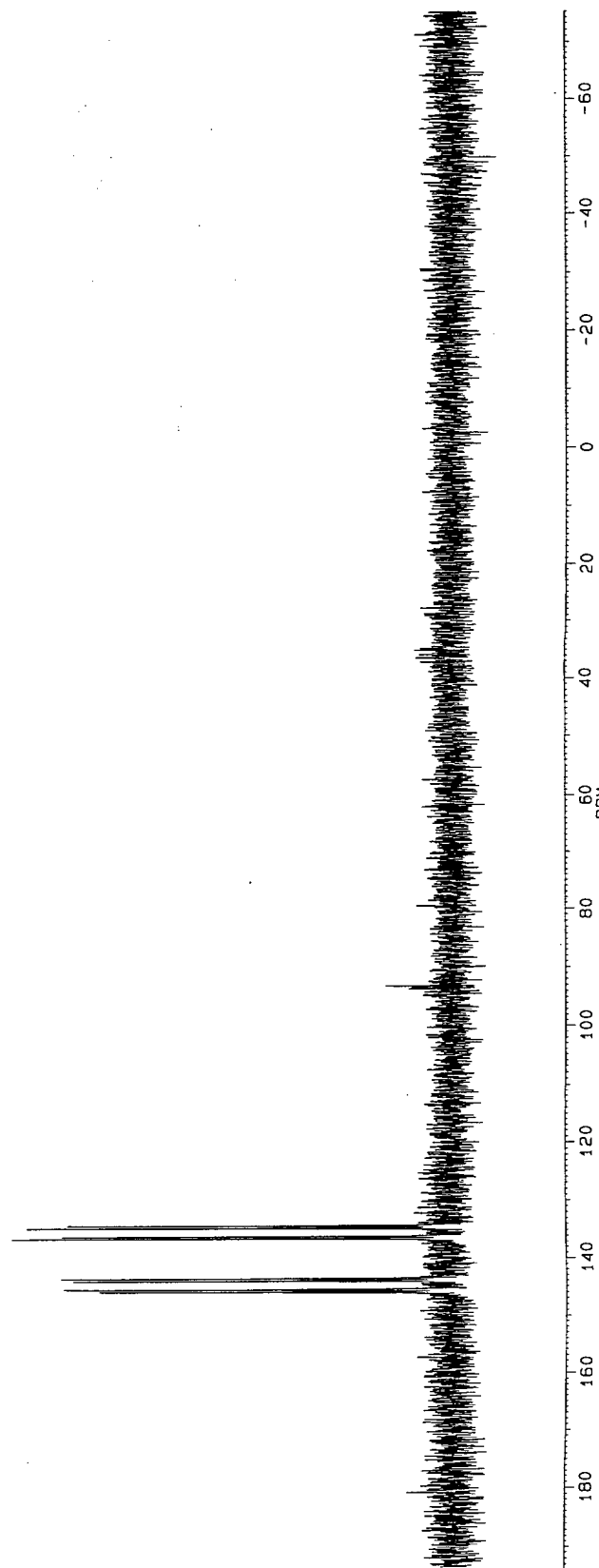


**14a**; P = PPh<sub>2</sub>

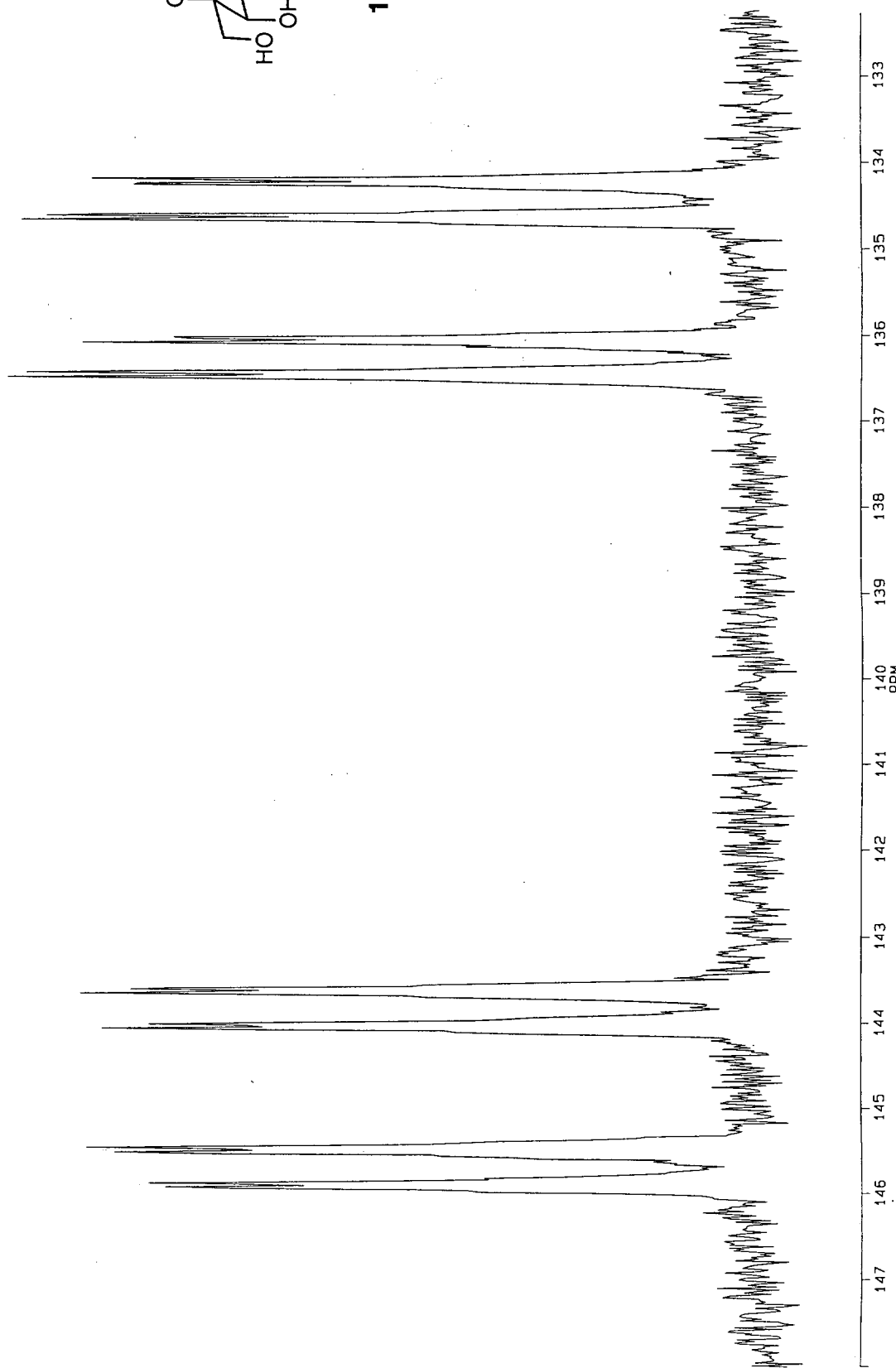
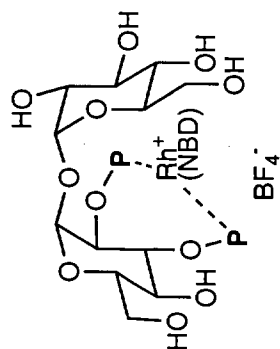




14a ; P = PPh<sub>2</sub>





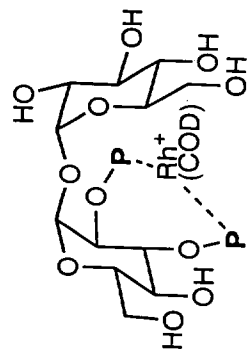


SPEC: 111929  
 Samp: A291P SSII-99 SIMS(+) NBA SHIN  
 Comm: MAT-900  
 Mode: FAB +VE +LMR BSCAN (EXP) UP HR  
 Oper: DC  
 Base: 136.1  
 Norm: 136.1  
 Peak: 1000.00 mmu  
 Data: +2>6

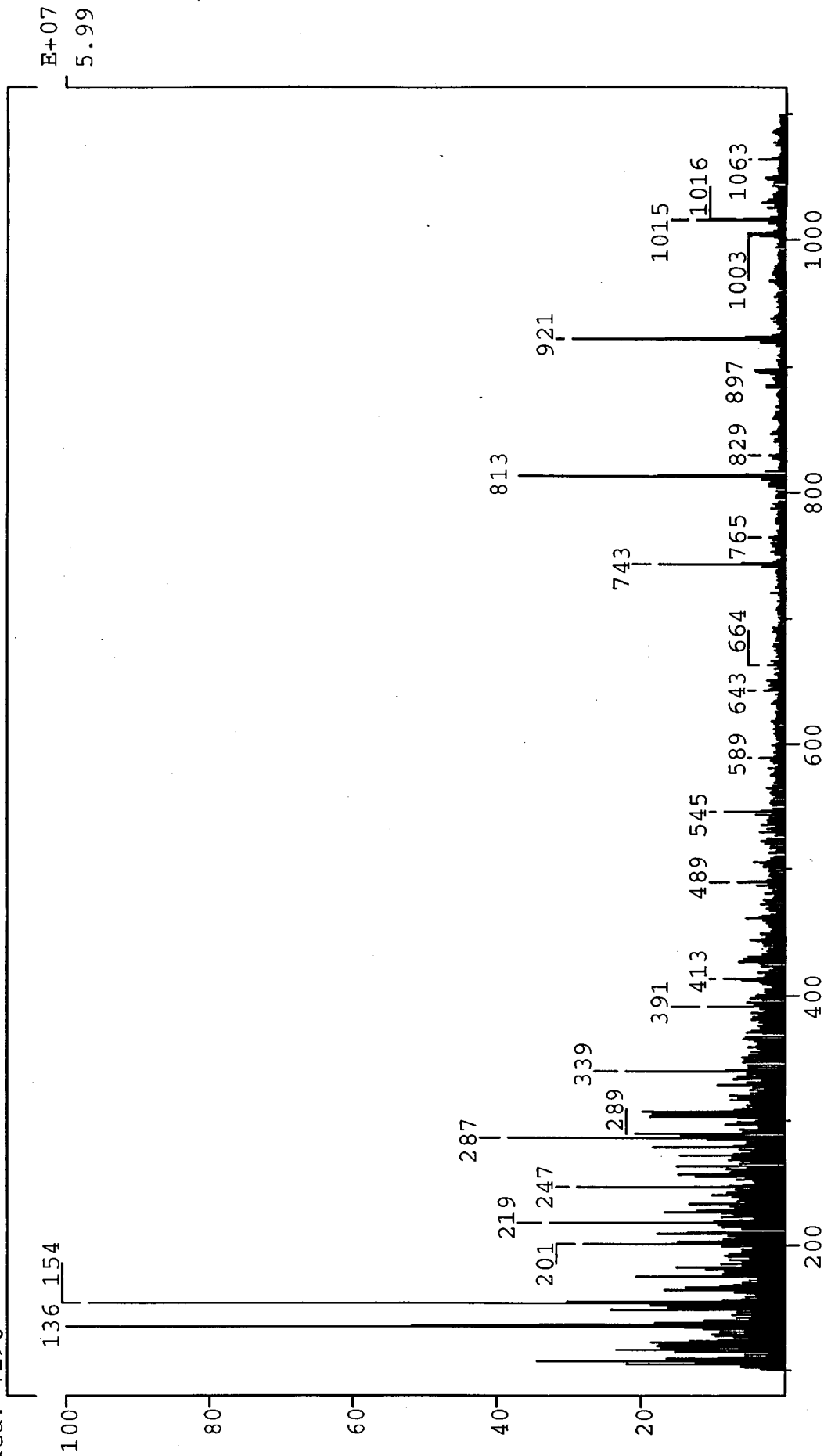
19-Nov-98 DERIVED SPECTRUM

Start : 16:08:51  
 Inlet :  
 Masses: 100 > 1100  
 #peaks: 1225

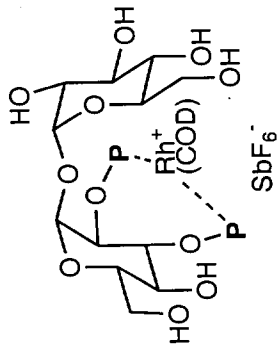
Inten : 59885744  
 RIC : 2438139967



14a ; P = PPh<sub>2</sub>



-48.862

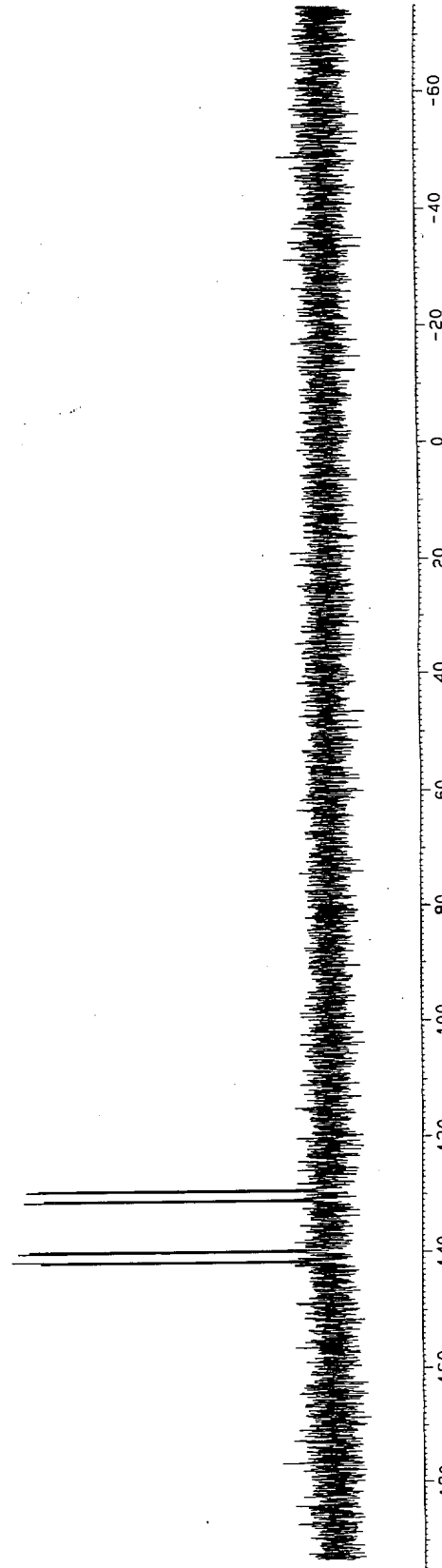


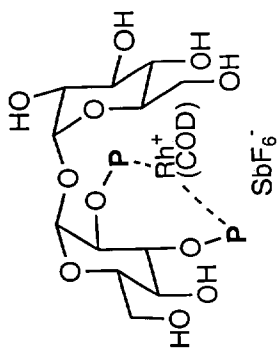
14b ; P = P[3,5-di-Me-C<sub>6</sub>H<sub>3</sub>]<sub>2</sub>

141.577  
141.301  
139.801  
139.525  
131.064  
130.786  
129.317  
129.036

176.417

ppm





**14b ; P = P [3,5-di-Me-C<sub>6</sub>H<sub>3</sub>]<sub>2</sub>**

129.316  
129.036

131.062  
130.785

139.801  
139.523

141.576  
141.301

ppm

