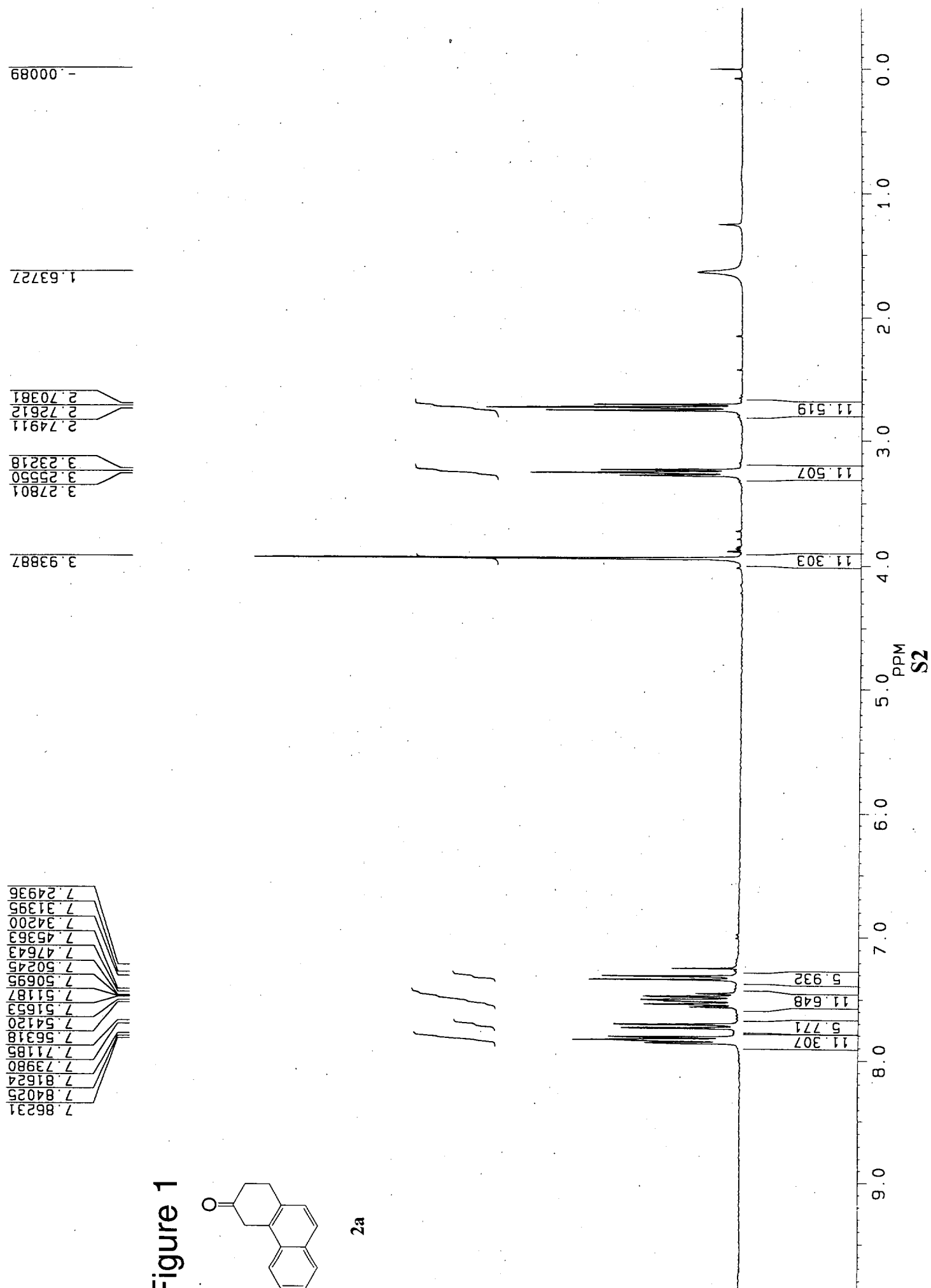
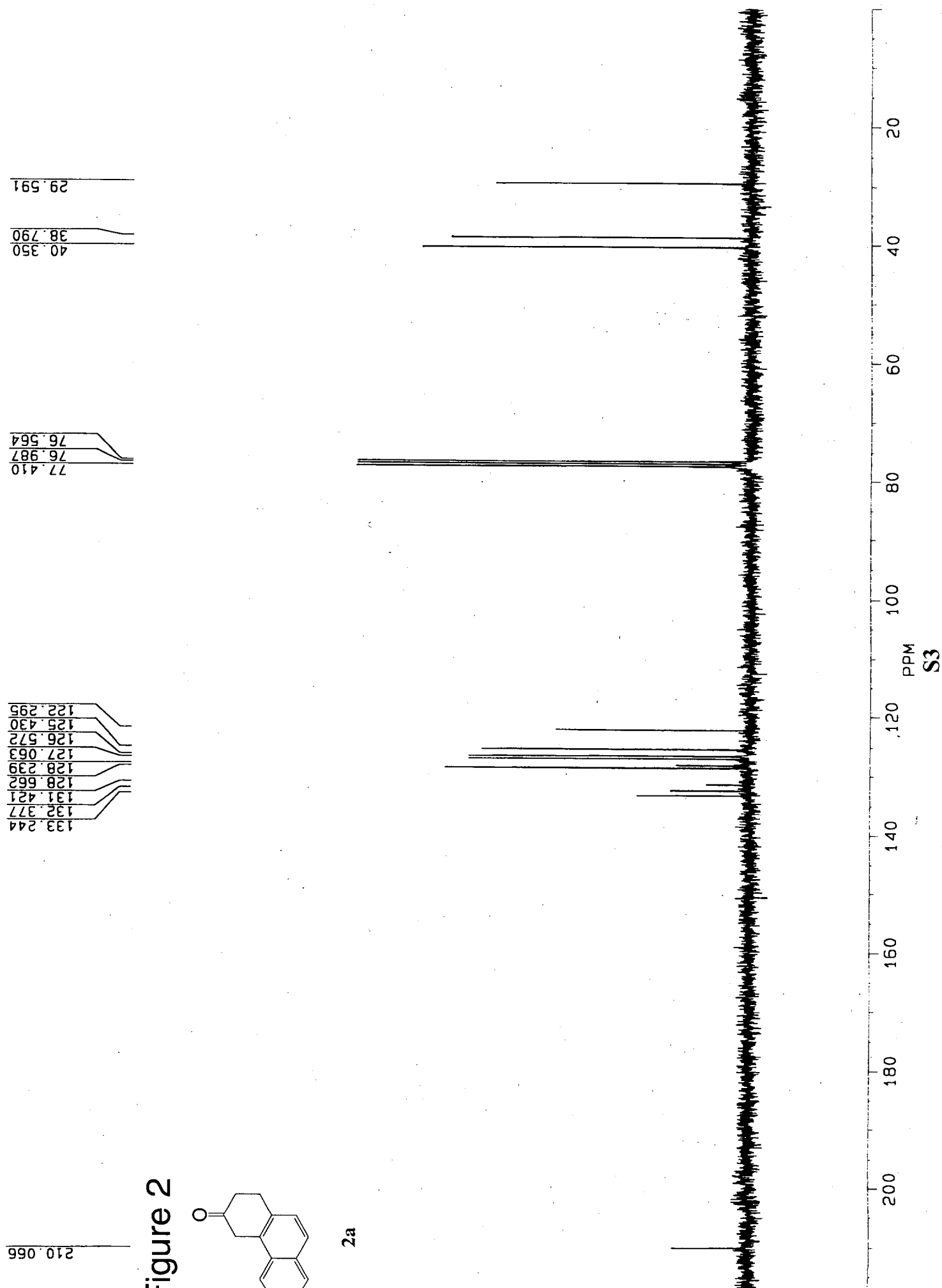
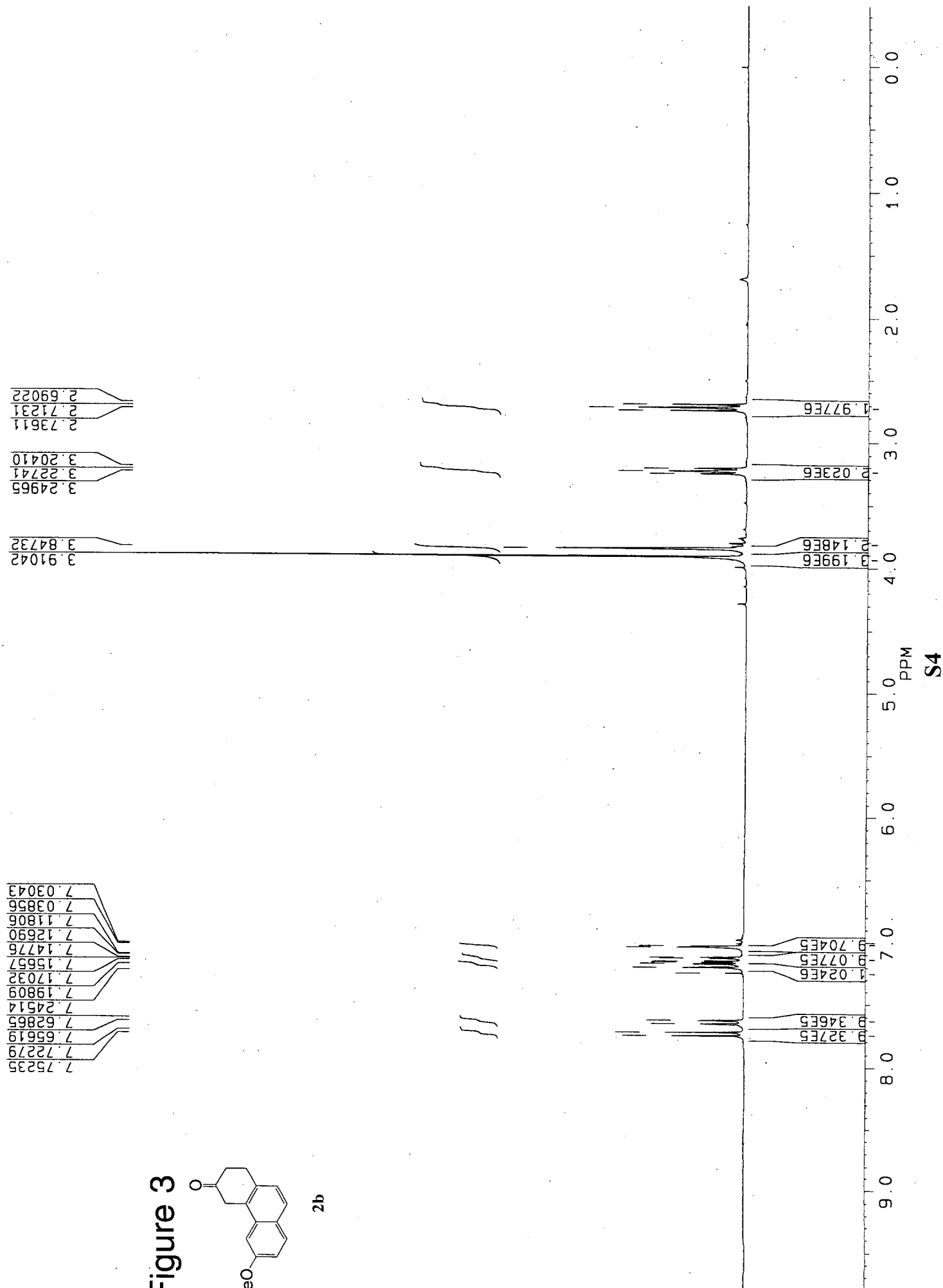


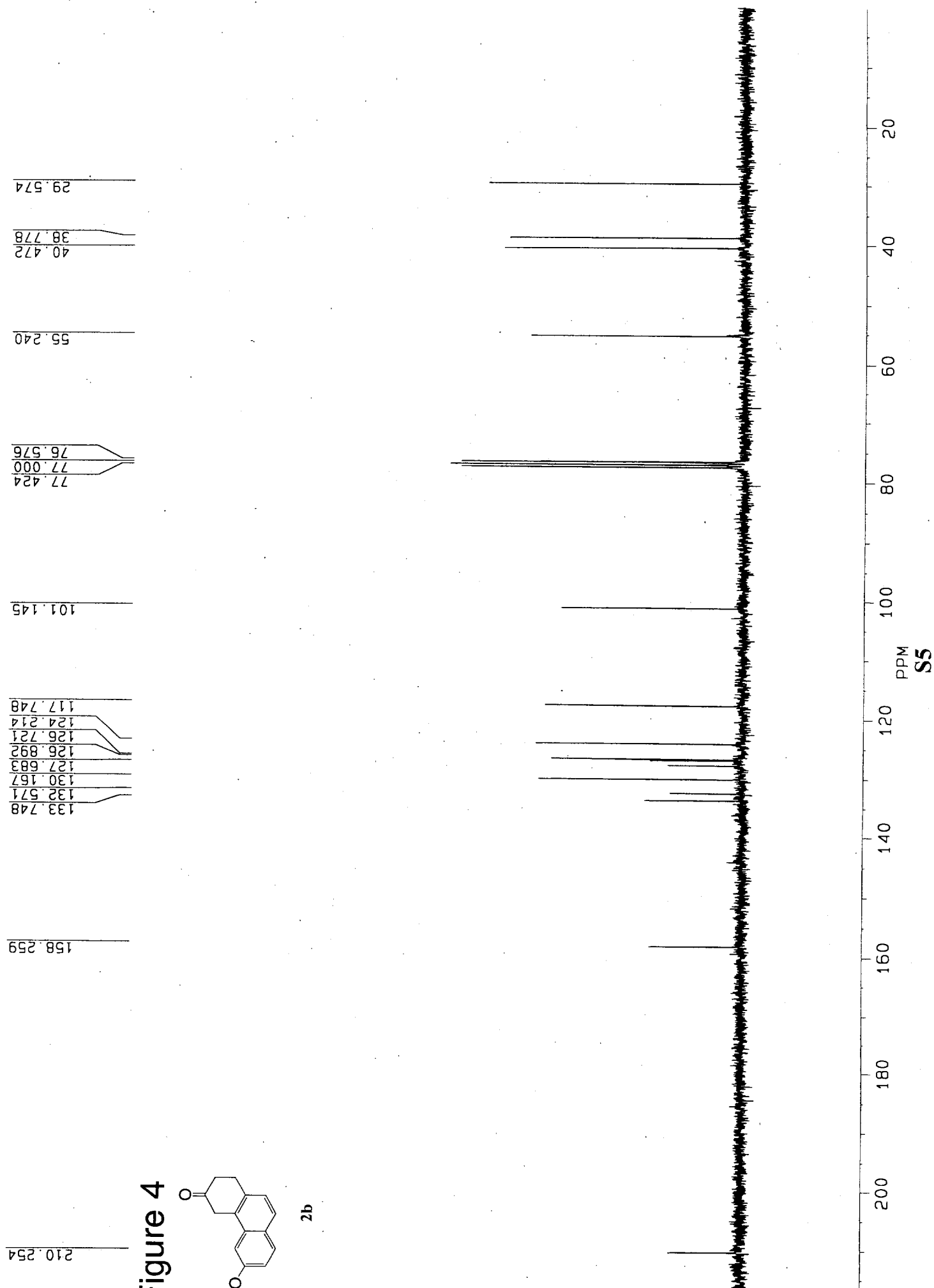
Supporting Information: (23 pages)

- Figure 1: ^1H NMR for 1,2,4-trihydrophenanthren-3-one **2a**.
 Figure 2: ^{13}C NMR for 1,2,4-trihydrophenanthren-3-one **2a**.
 Figure 3: ^1H NMR for 6-methoxy-1,2,4-trihydrophenanthren-3-one **2b**.
 Figure 4: ^{13}C NMR for 6-methoxy-1,2,4-trihydrophenanthren-3-one **2b**.
 Figure 5: ^1H NMR for tetracyclo[8.8.0.0^{2,7}.0^{13,18}]octadeca-1(10),2(7),8,11,13(18),14,16-heptaen-4-one **2c**.
 Figure 6: ^{13}C NMR for tetracyclo[8.8.0.0^{2,7}.0^{13,18}]octadeca-1(10),2(7),8,11,13(18),14,16-heptaen-4-one **2c**.
 Figure 7: ^1H NMR for pentacyclo[12.8.0.0^{2,7}.0^{13,18}.0^{15,20}]docosa-1(14),2(7),3,5,8(13),9,11,15(20),21-nonaen-17-one **2d**.
 Figure 8: ^{13}C NMR for pentacyclo[12.8.0.0^{2,7}.0^{13,18}.0^{15,20}]docosa-1(14),2(7),3,5,8(13),9,11,15(20),21-nonaen-17-one **2d**.
 Figure 9: ^1H NMR for 5-oxatricyclo[7.4.0.0^{2,6}]trideca-1(2),3,6(7),8-tetraen-12-one **2e**.
 Figure 10: ^{13}C NMR for 5-oxatricyclo[7.4.0.0^{2,6}]trideca-1(2),3,6(7),8-tetraen-12-one **2e**.
 Figure 11: ^1H NMR for 4-methyl-5-oxatricyclo[7.4.0.0^{2,6}]trideca-1(2),3,6(7),8-tetraen-12-one **2f**.
 Figure 12: ^{13}C NMR for 4-methyl-5-oxatricyclo[7.4.0.0^{2,6}]trideca-1(2),3,6(7),8-tetraen-12-one **2f**.
 Figure 13: ^1H NMR for 3-oxatricyclo[7.4.0.0^{2,6}]trideca-1(2),4,6(7),8-tetraen-12-one **2g**.
 Figure 14: ^{13}C NMR for 3-oxatricyclo[7.4.0.0^{2,6}]trideca-1(2),4,6(7),8-tetraen-12-one **2g**.
 Figure 15: ^1H NMR for 5-thiatricyclo[7.4.0.0^{2,6}]trideca-1(2),3,6(7),8-tetraen-12-one **2h**.
 Figure 16: ^{13}C NMR for 5-thiatricyclo[7.4.0.0^{2,6}]trideca-1(2),3,6(7),8-tetraen-12-one **2h**.
 Figure 17: ^1H NMR for 4-methyl-5-thiatricyclo[7.4.0.0^{2,6}]trideca-1(2),3,6(7),8-tetraen-12-one **2i**.
 Figure 18: ^{13}C NMR for 4-methyl-5-thiatricyclo[7.4.0.0^{2,6}]trideca-1(2),3,6(7),8-tetraen-12-one **2i**.
 Figure 19: ^1H NMR for 3-thiatricyclo[7.4.0.0^{2,6}]trideca-1(2),4,6(7),8-tetraen-12-one **2j**.
 Figure 20: ^{13}C NMR for 3-thiatricyclo[7.4.0.0^{2,6}]trideca-1(2),4,6(7),8-tetraen-12-one **2j**.
 Figure 21: ^1H NMR for 4,10,11,11-tetradeutero-5-oxatricyclo[7.4.0.0^{2,6}]trideca-1(2),3,6(7),8-tetraen-12-one **7**.
 Figure 22: ^{13}C NMR for 4,10,11,11-tetradeutero-5-oxatricyclo[7.4.0.0^{2,6}]trideca-1(2),3,6(7),8-tetraen-12-one **7**.









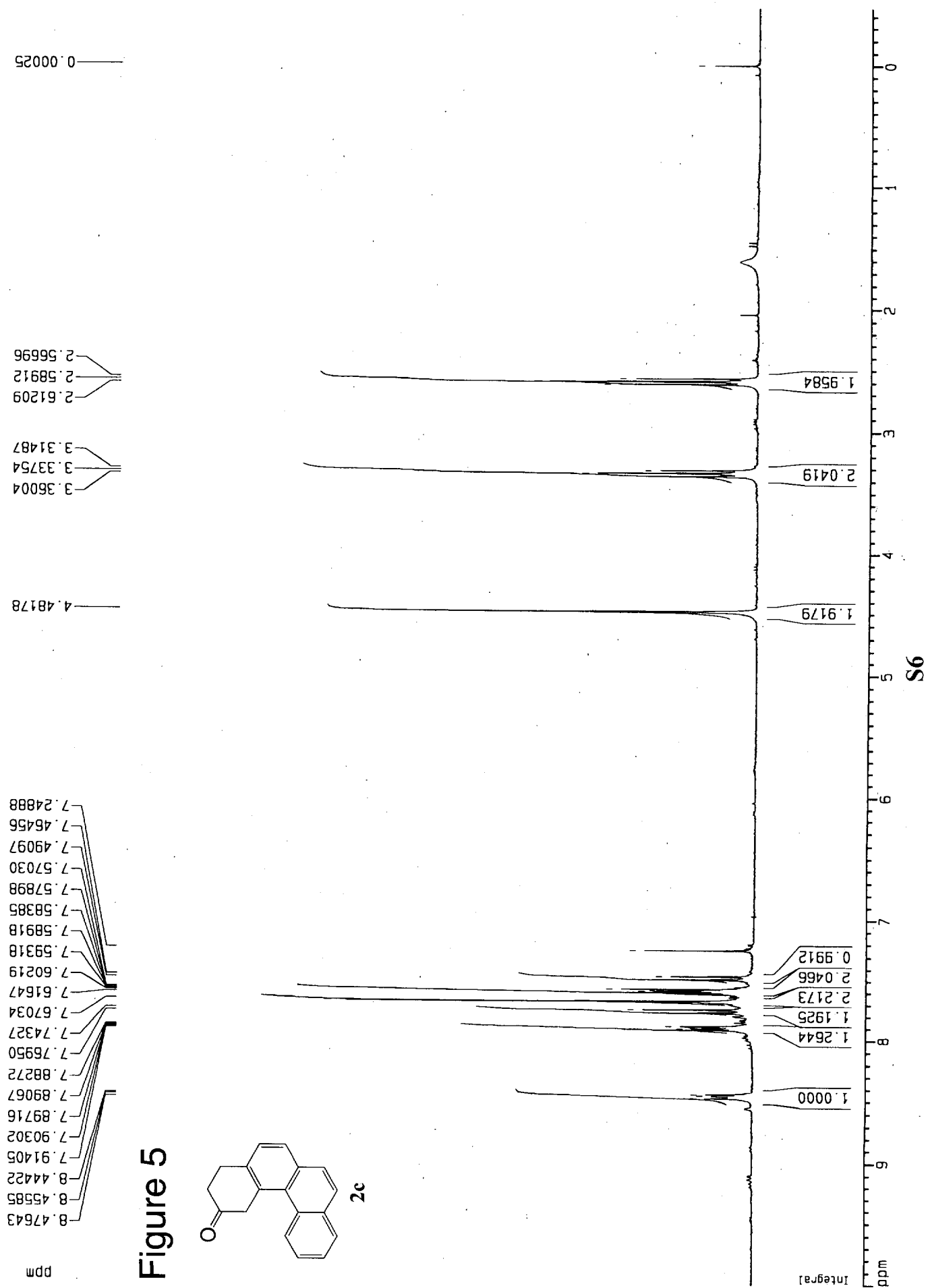
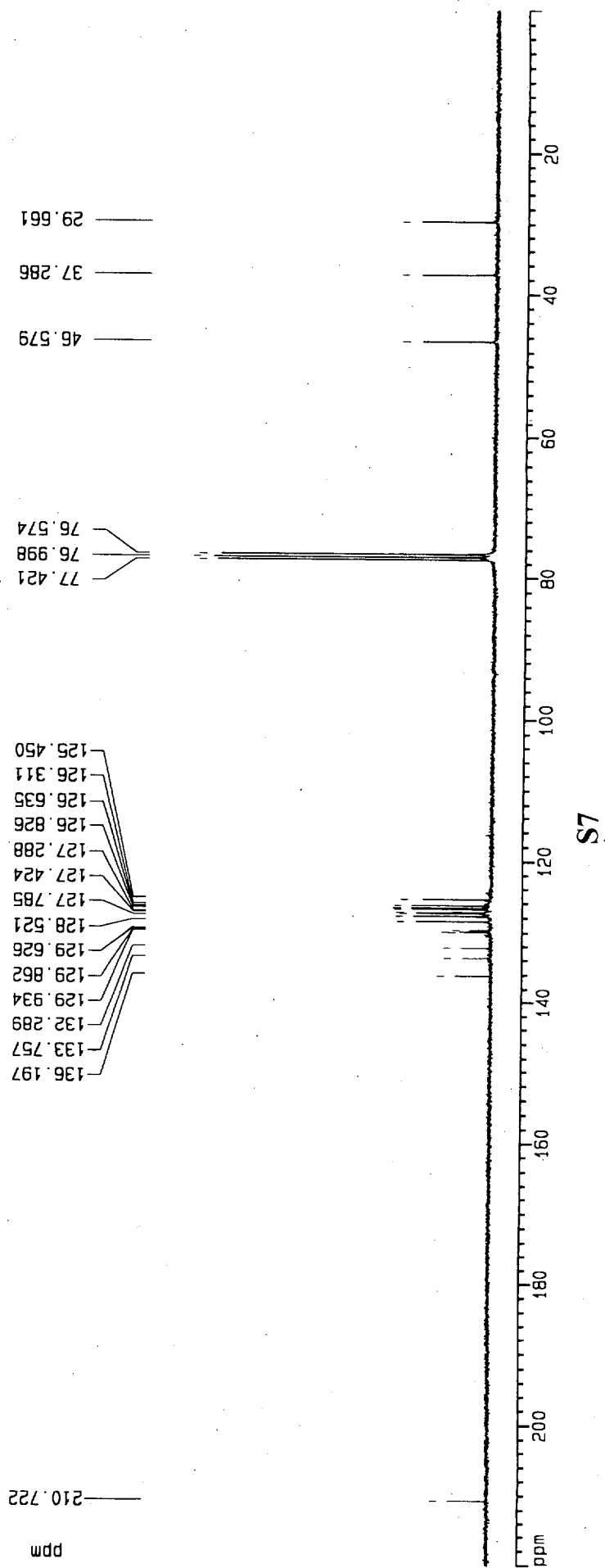
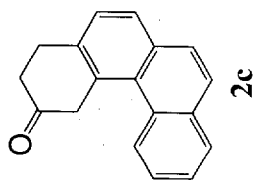


Figure 6



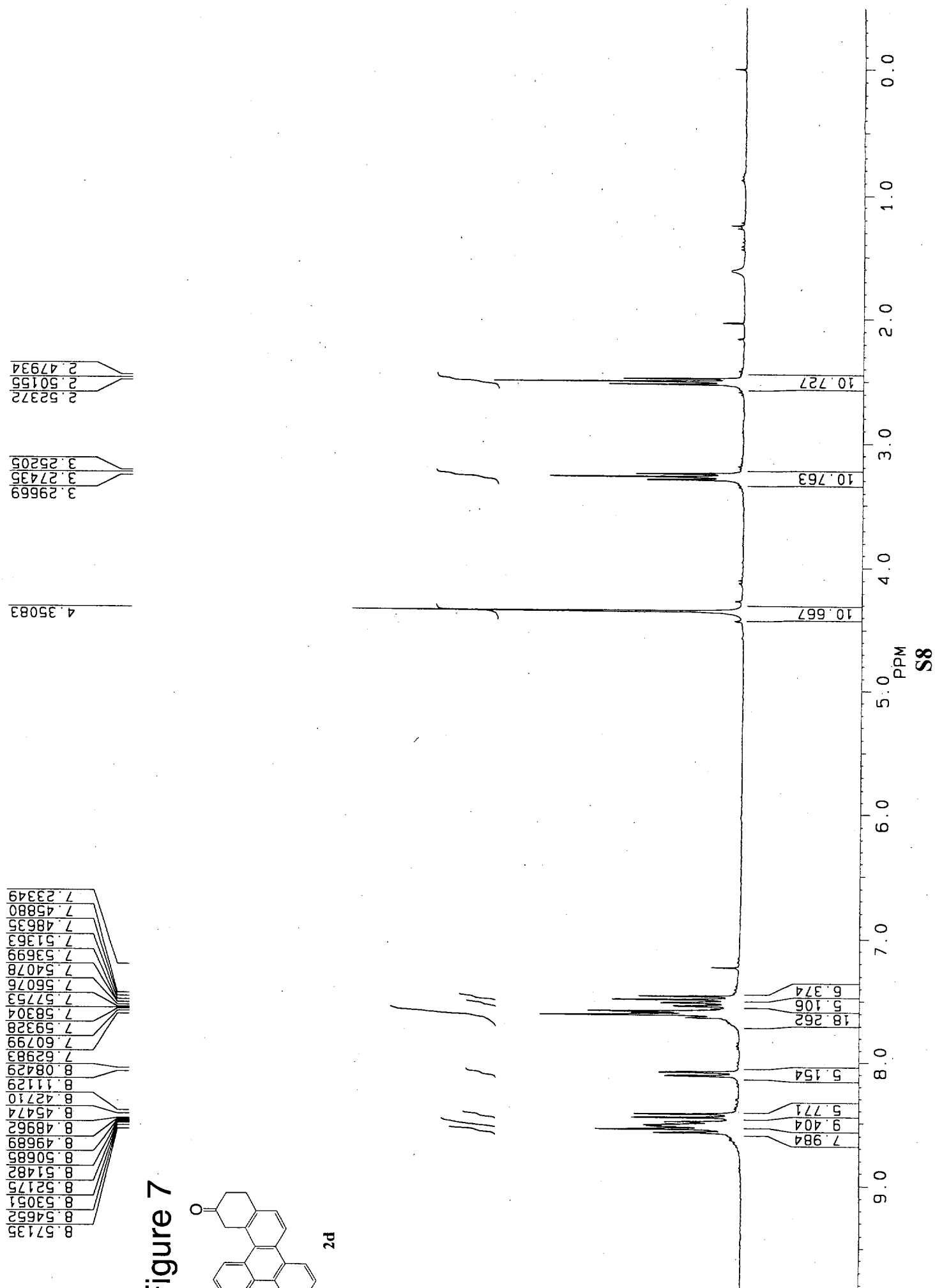
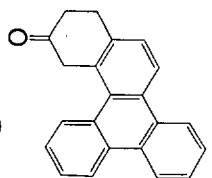


Figure 8



2d

ppm
210.651

137.246
131.326
130.021
129.981
129.940
129.830
129.780
129.088
128.905
127.470
127.239
127.133
126.645
125.610
123.498
123.230
123.094
121.237

77.357
77.039
76.721

47.029
36.984
29.210

S9

ppm

200

180

160

140

120

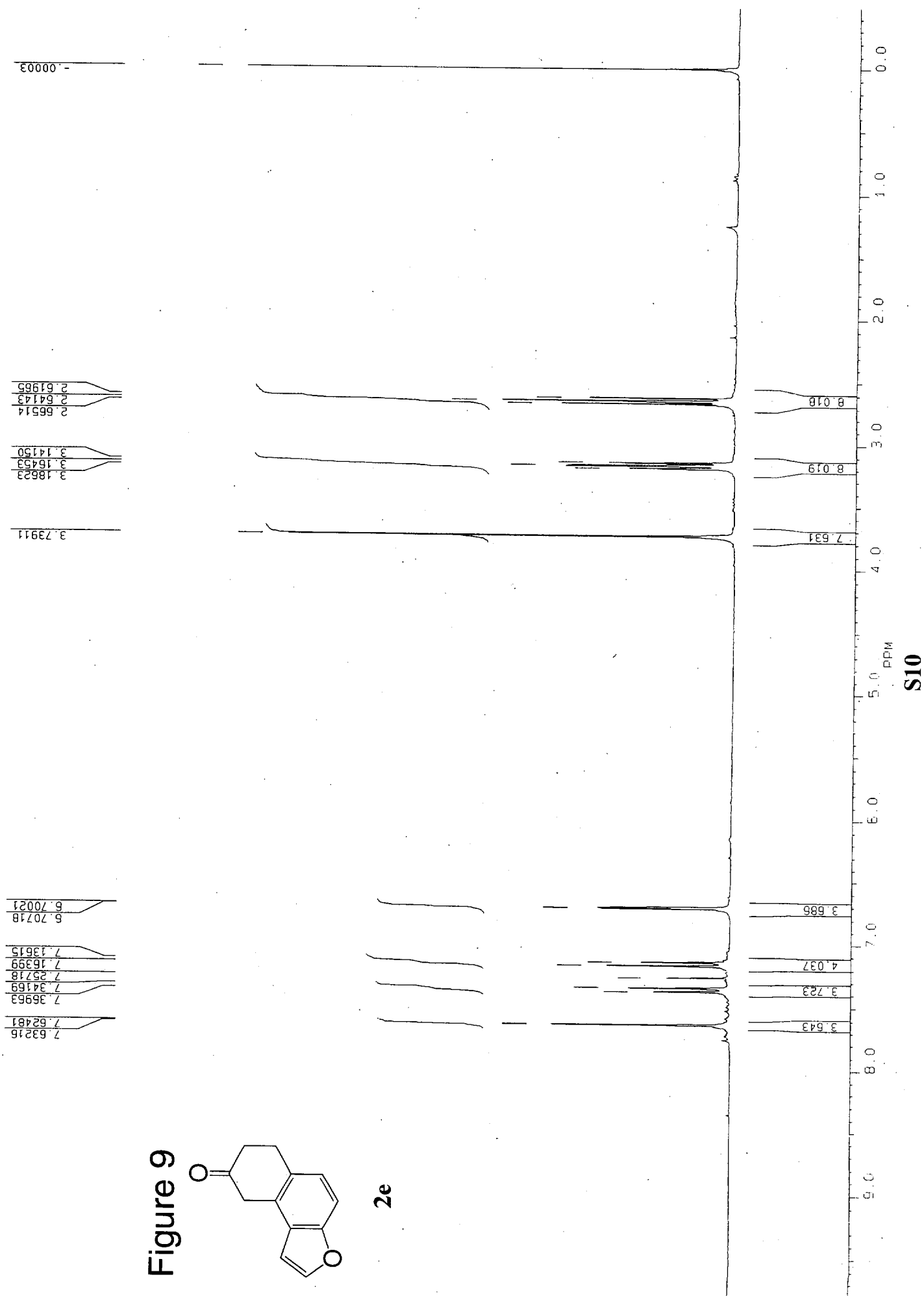
100

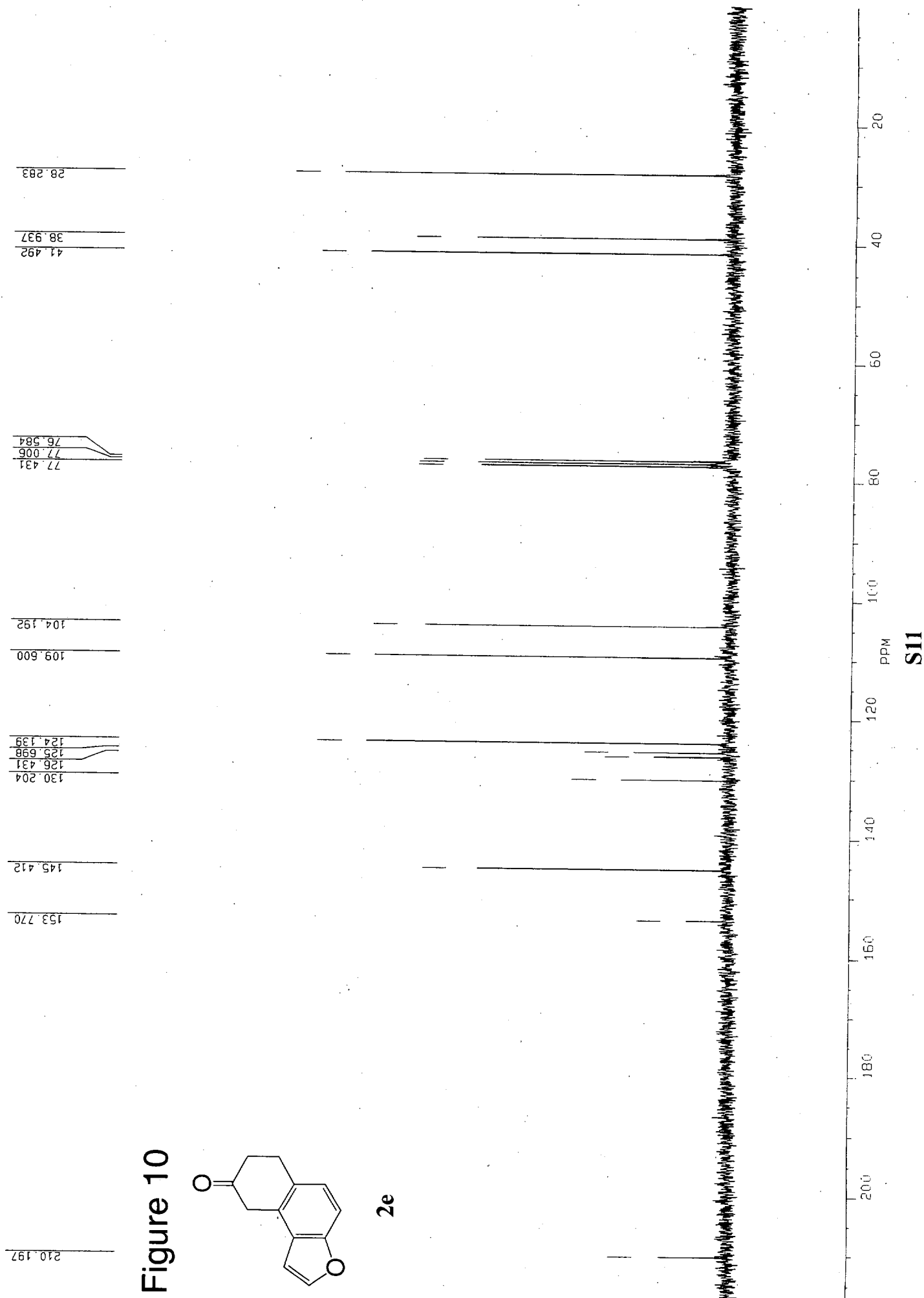
80

60

40

20





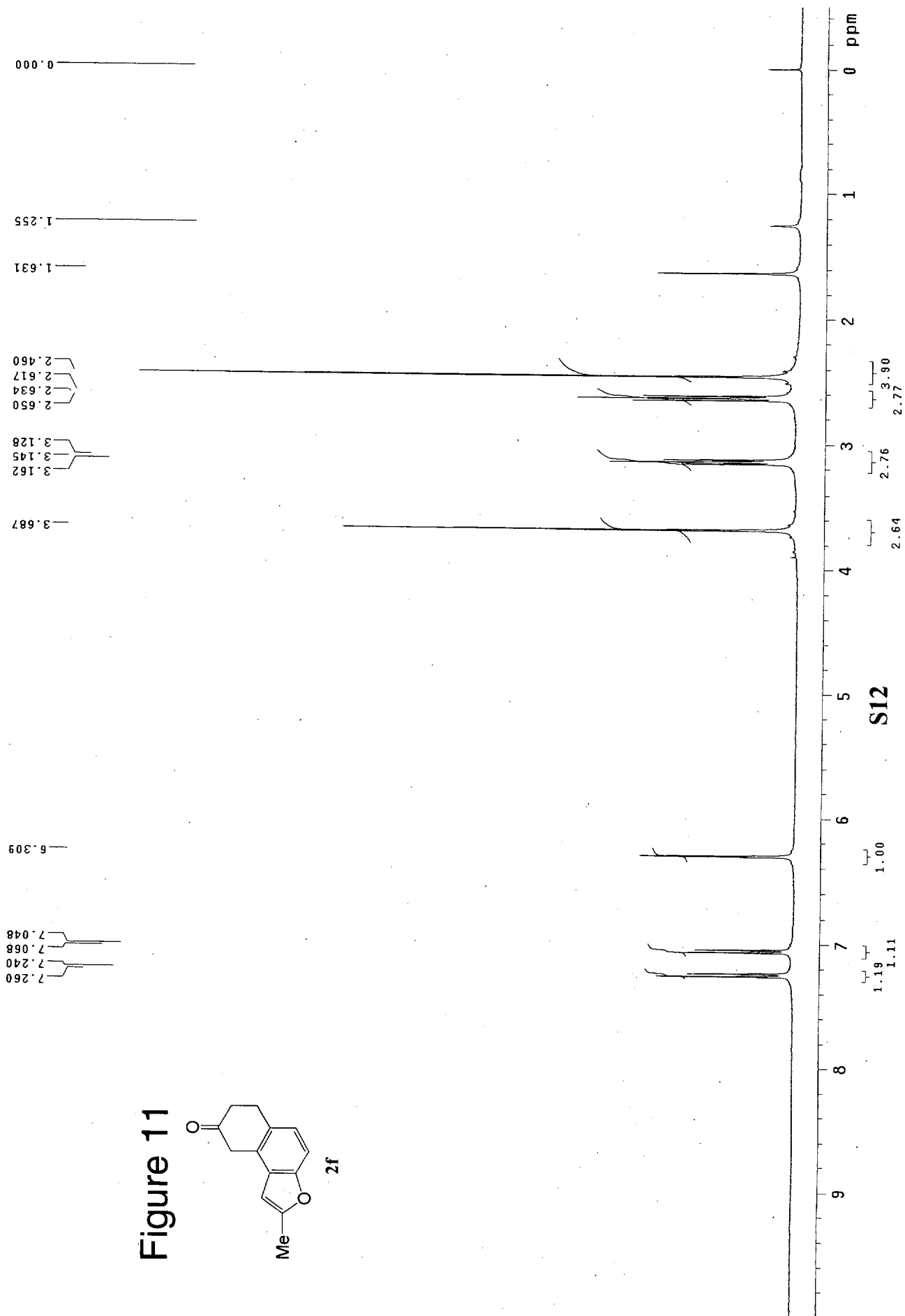
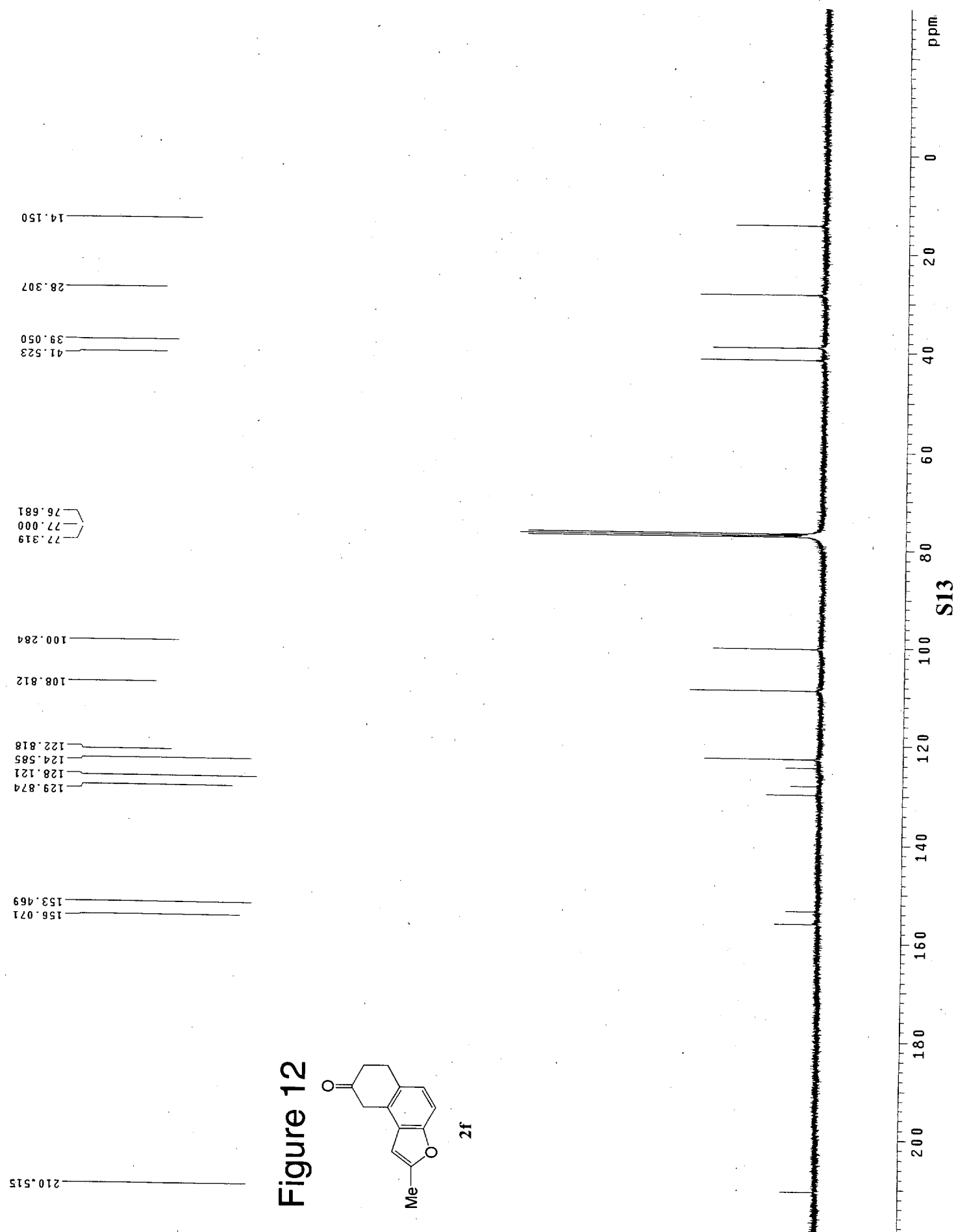


Figure 11



2.67762
2.65350
2.63205

3.21654
3.19487
3.17162

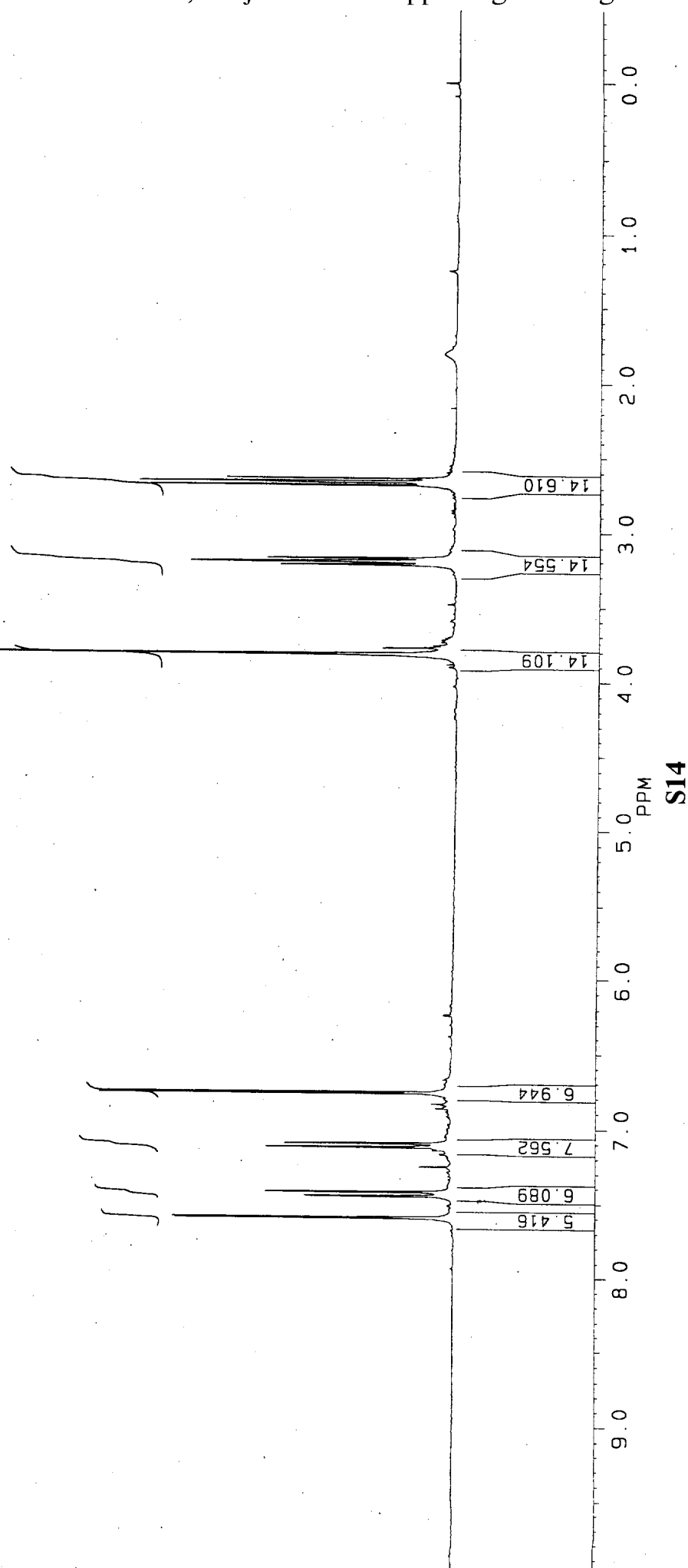
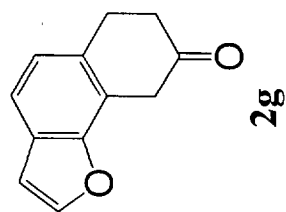
3.81045

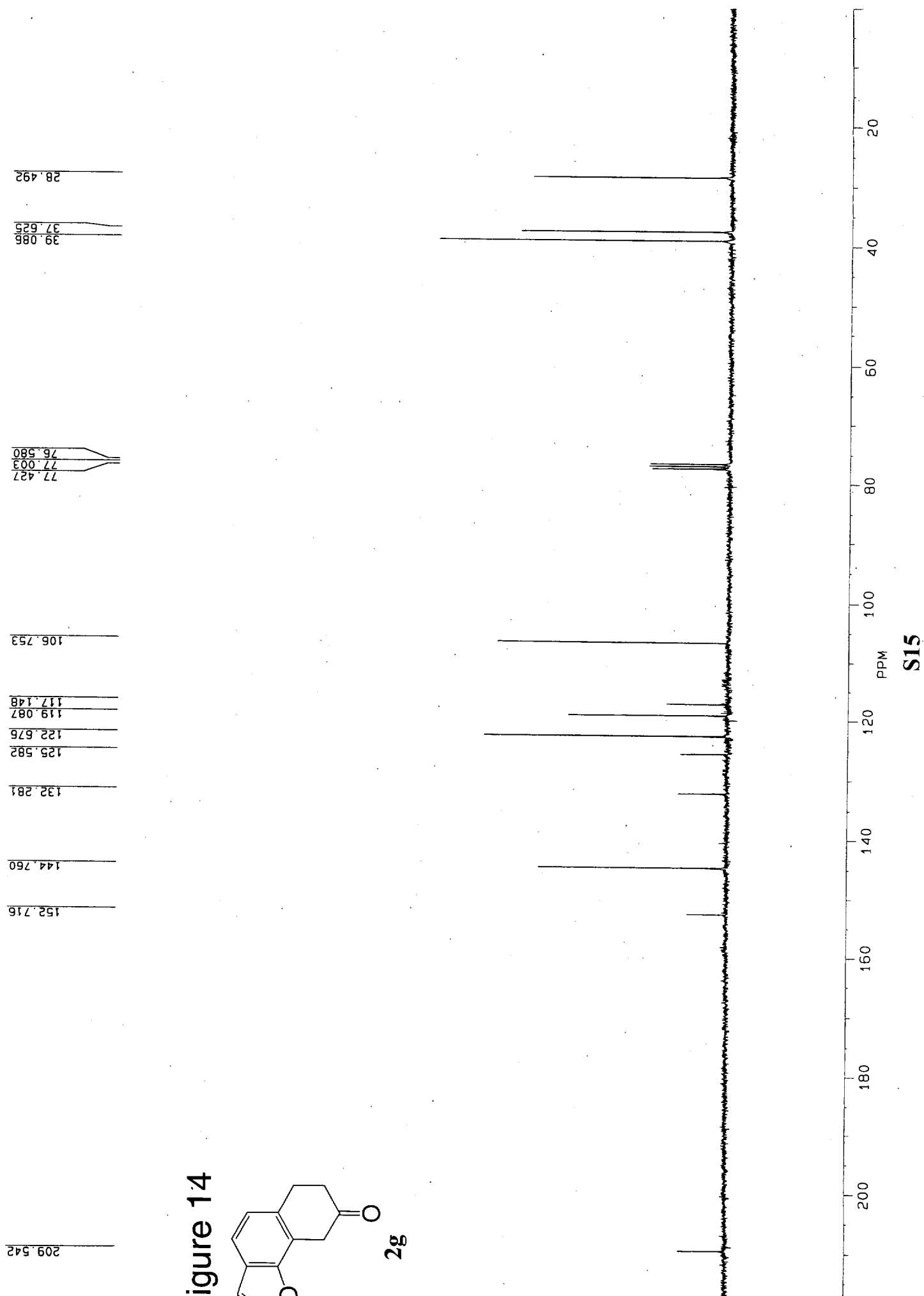
6.75241
6.75973

7.09254
7.11864

7.42093
7.44686
7.59028
7.59757

Figure 13





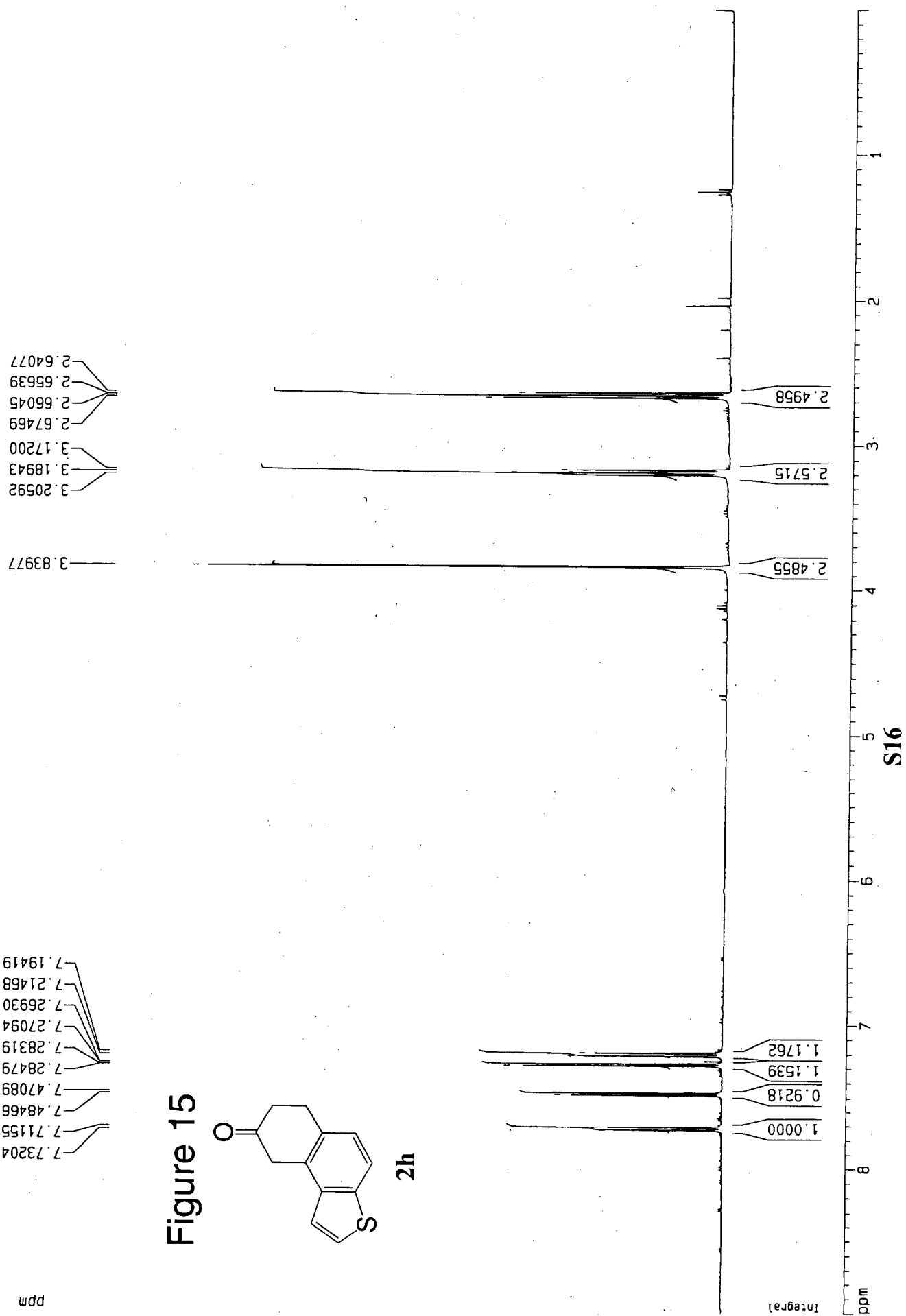
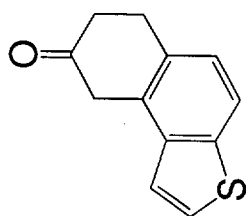
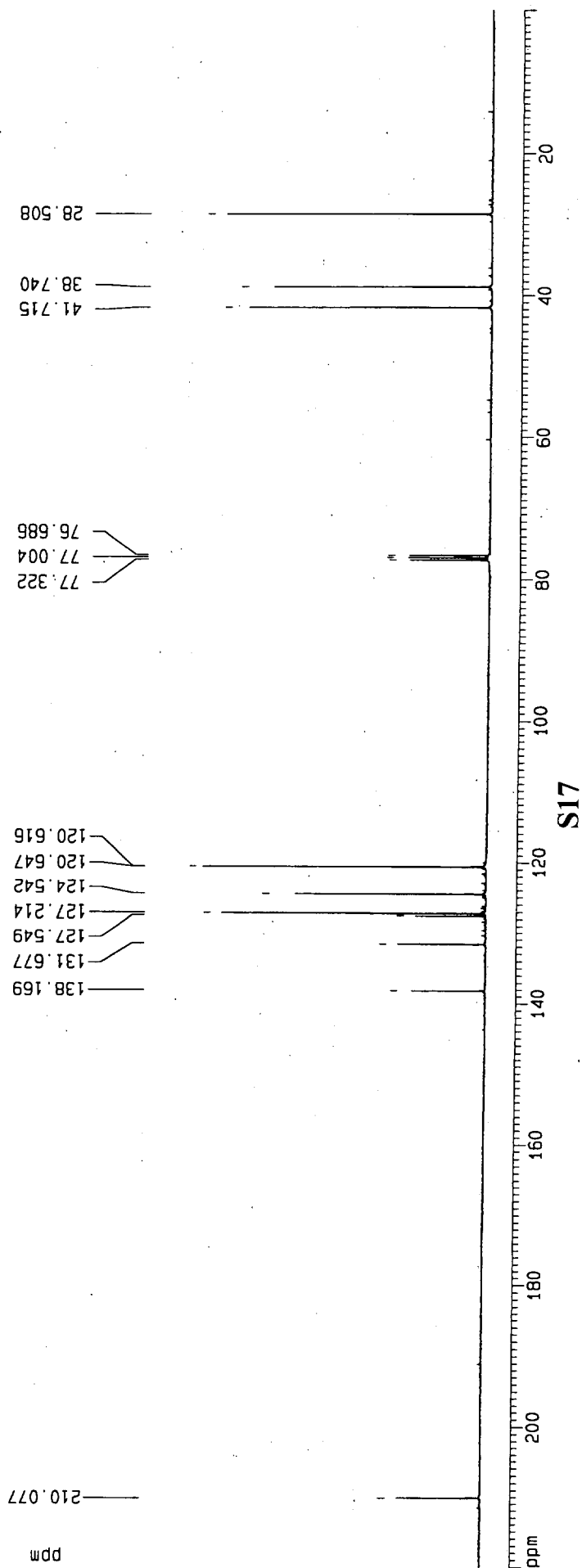
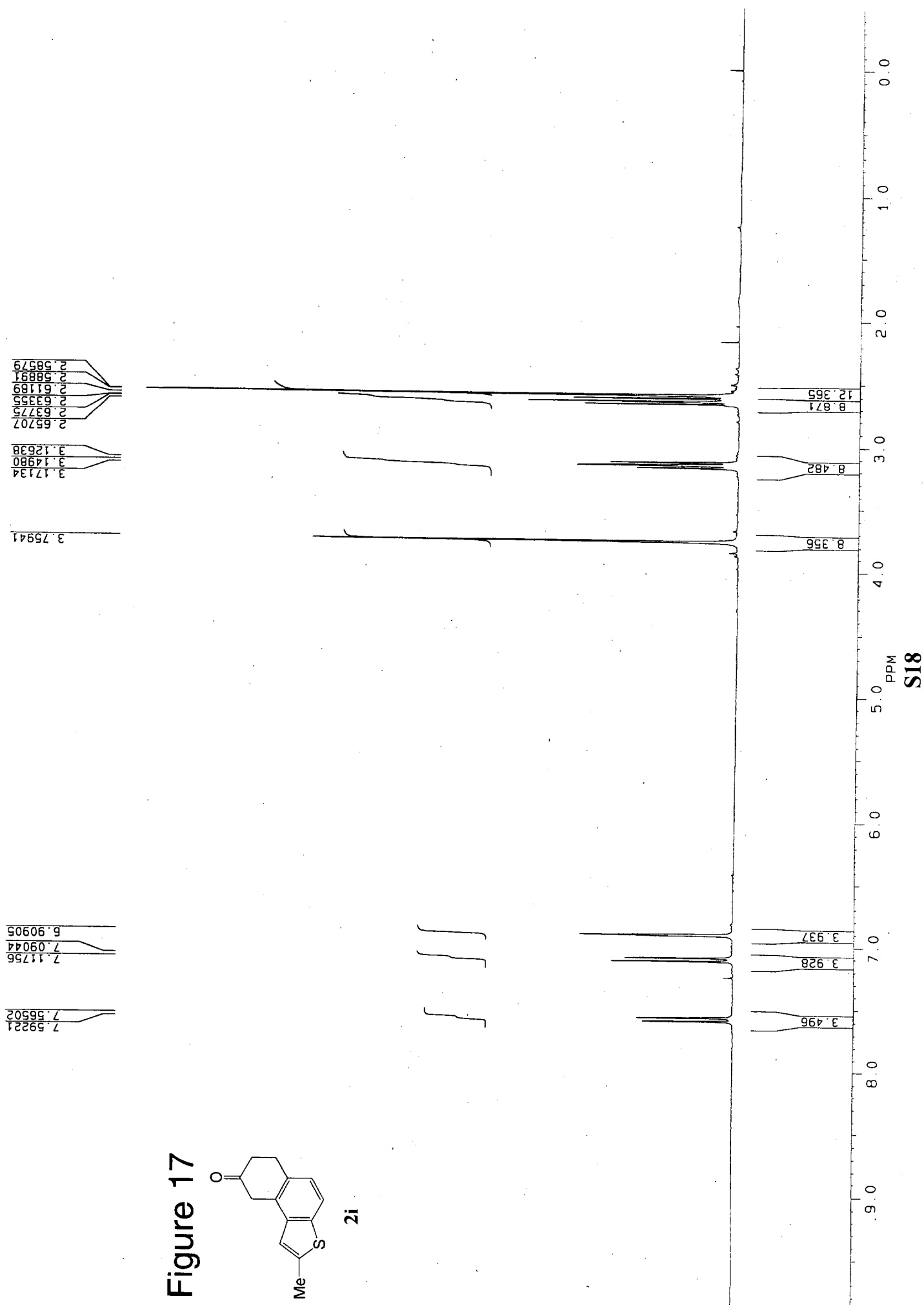


Figure 16



2h





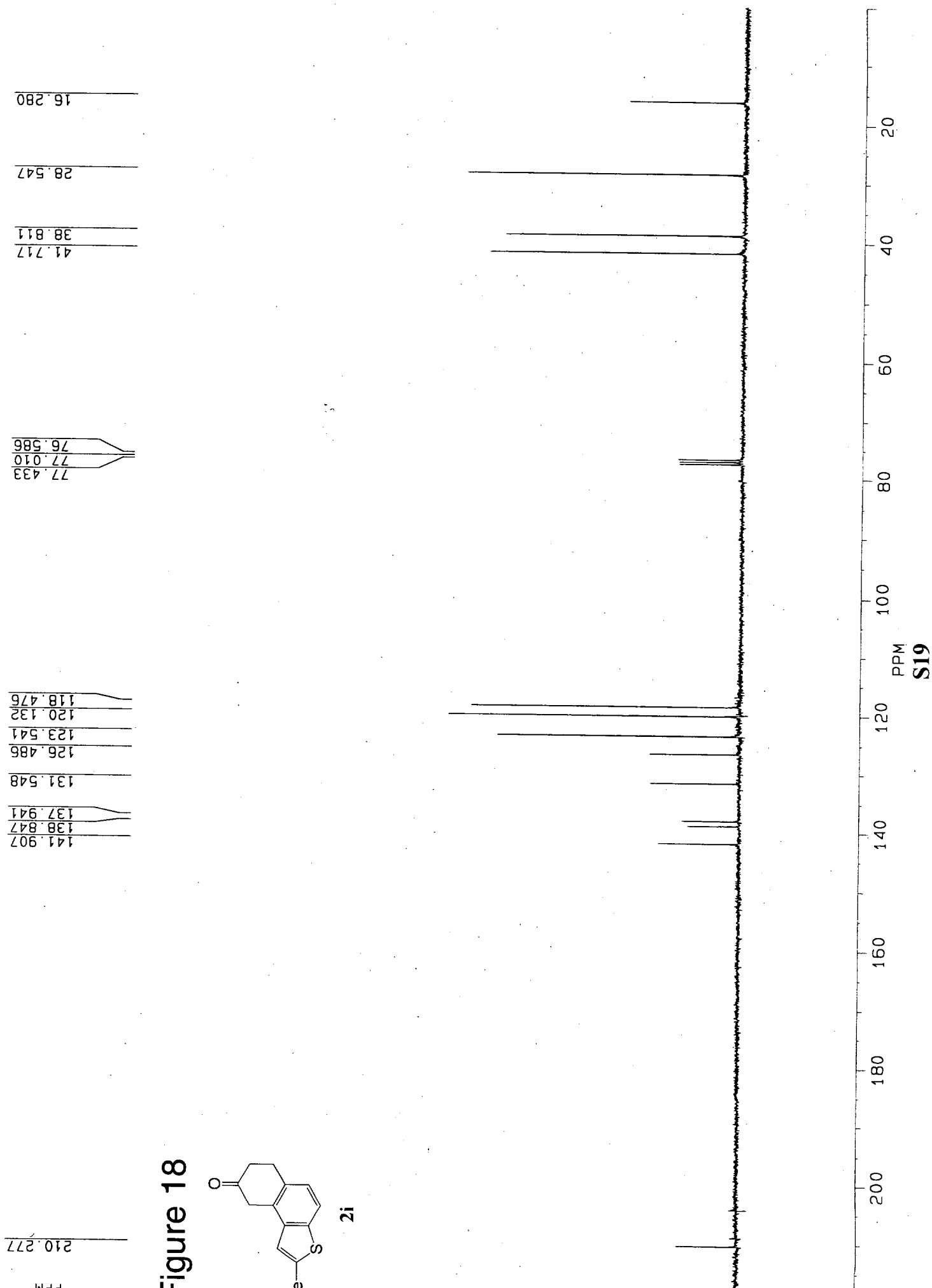
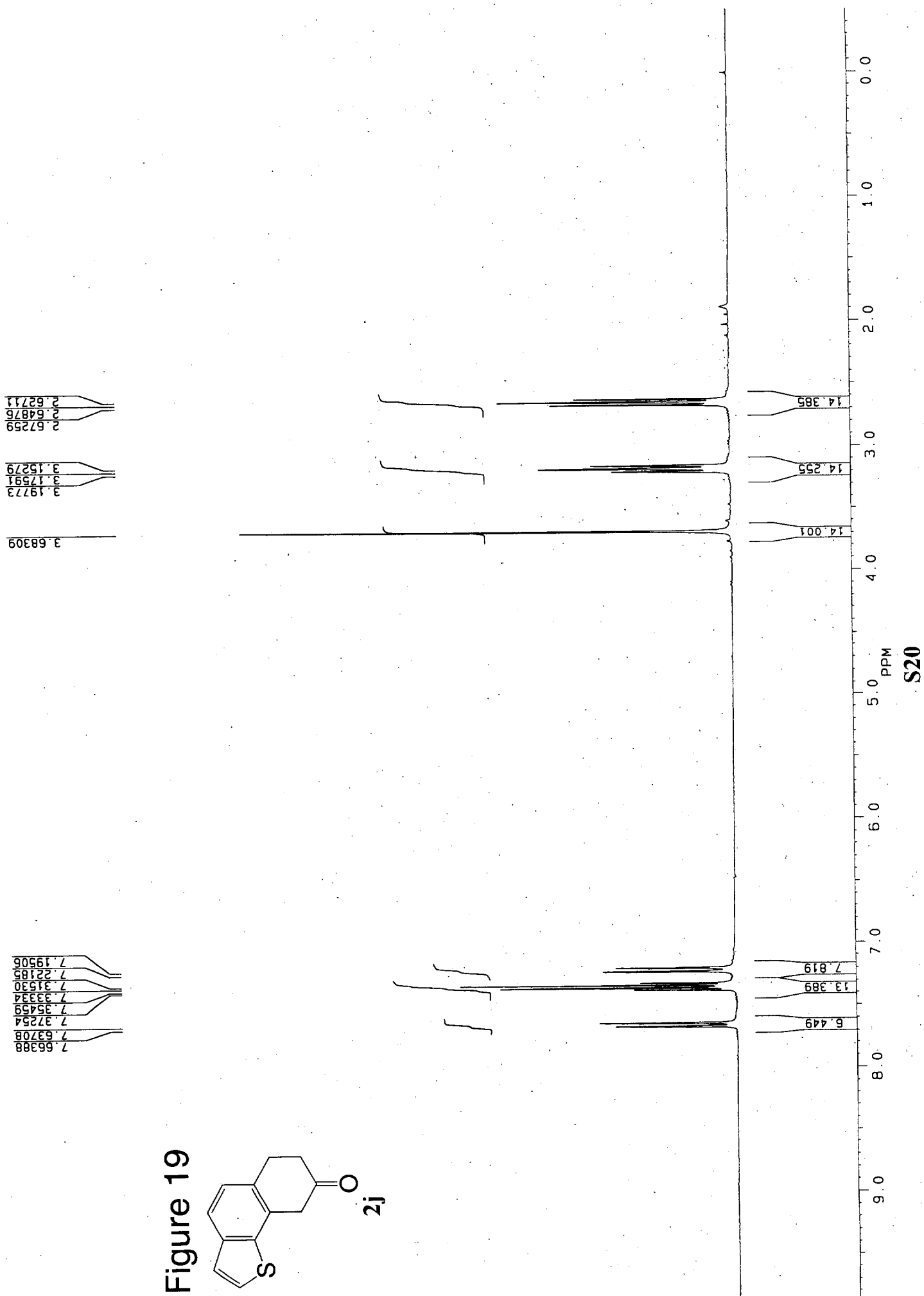
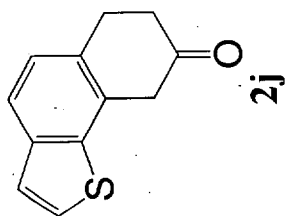
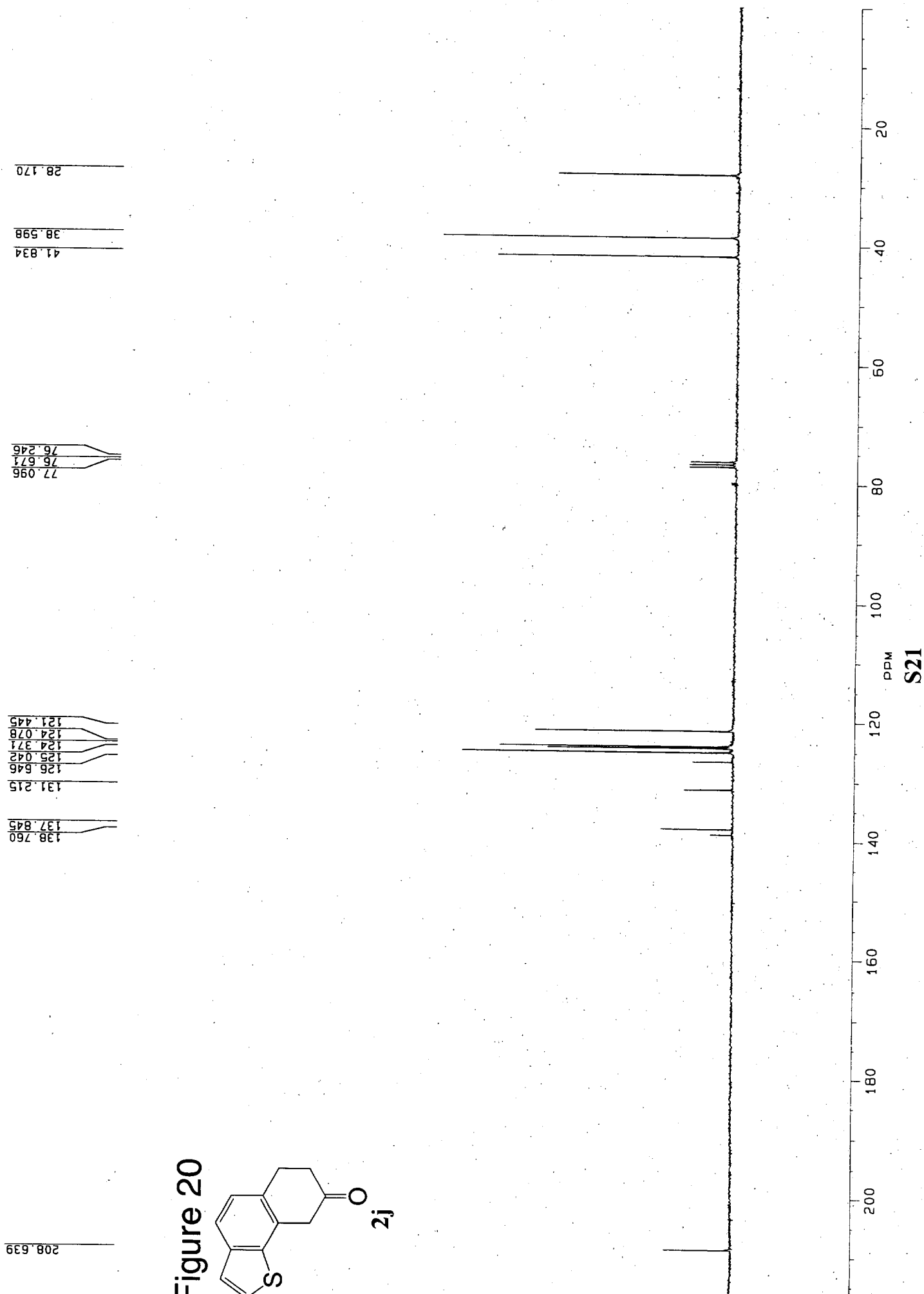
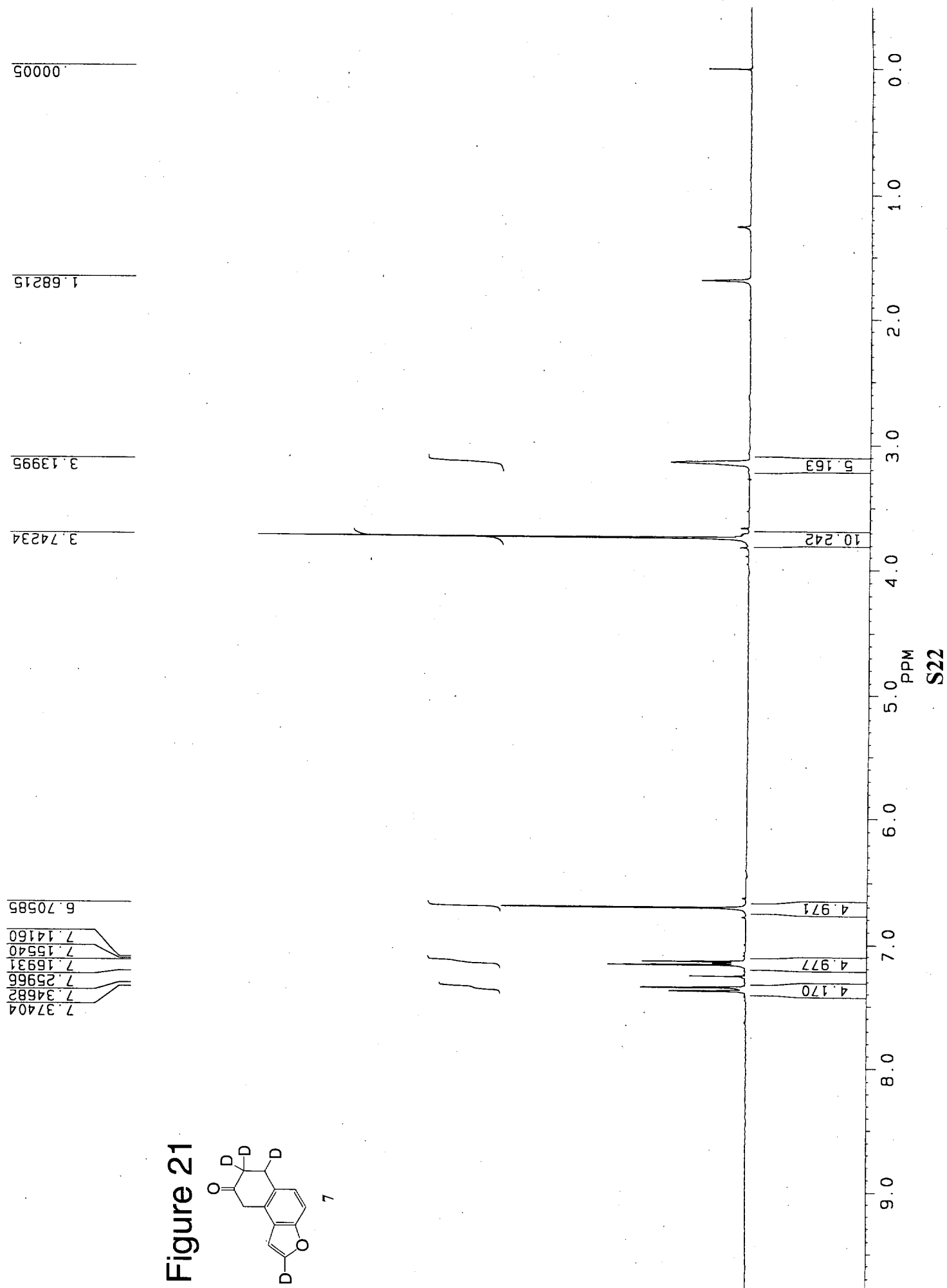


Figure 19







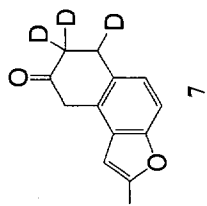
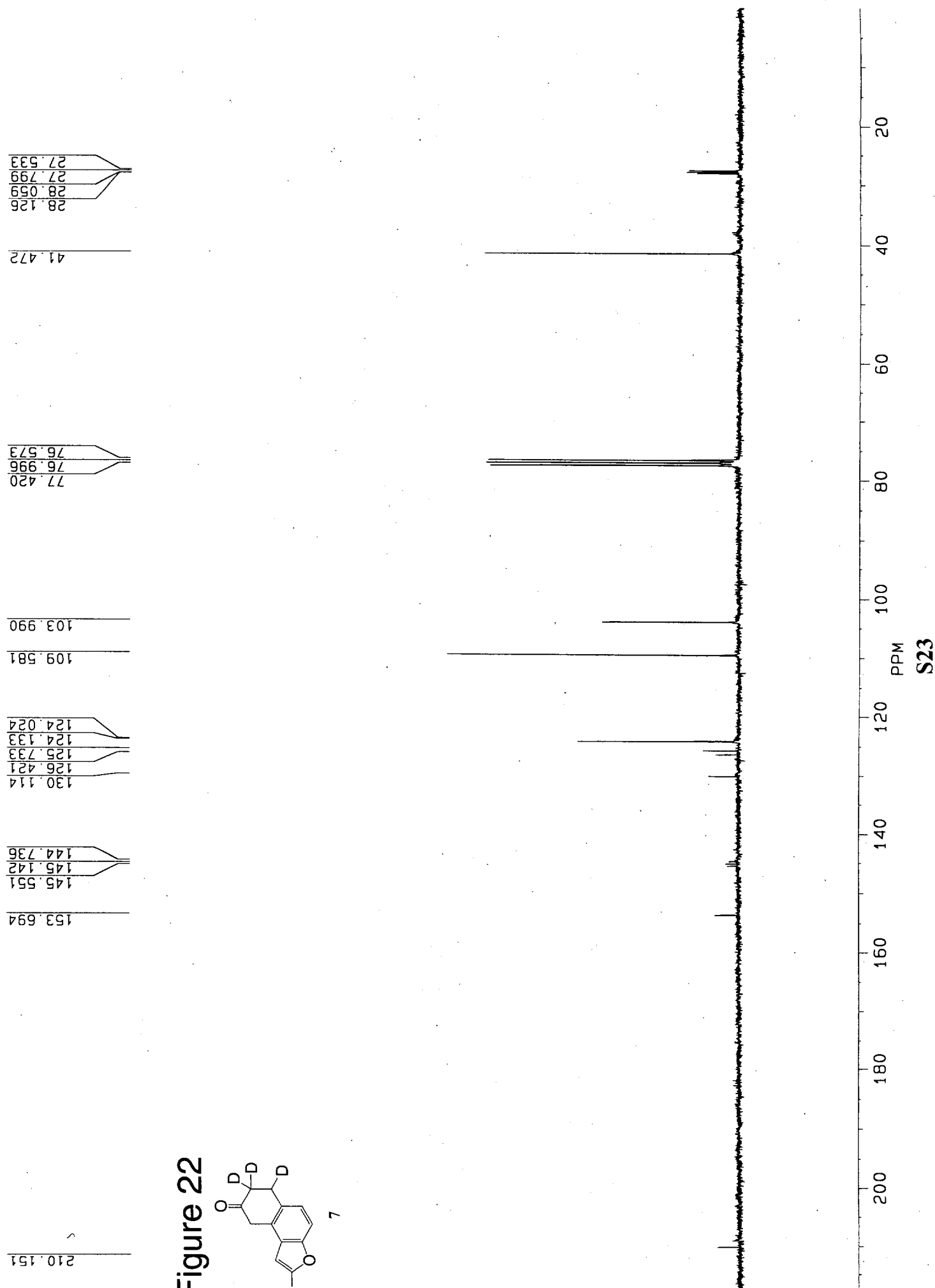


Figure 22