

SUPPORTING INFORMATION

Thermal and Lewis Acid Catalyzed Diastereoselective Intramolecular
Diels-Alder Reaction on α,β -Unsaturated Amides Derived from (-)-8-
Amino Menthol

(3R,4aS,6aS,9R,10aR,11aS,11bR)-5-Oxo-3,11b-epoxy-4a,6,6,9-tetramethyl-3,4,4a,11b-tetrahydroisoindolyl-[2,3-a]-perhydro-11,5a-benzoxazine (10). Colorless solid, m.p. 114-116°C (from hexane). $[\alpha]^{25}_D = -22.25$ ($c = 1.0$, CH_2Cl_2). ^1H NMR (δ): 0.91-1.01 (m, 2H); 0.96 (d, 3H, $J = 6.5$ Hz); 1.03 (d, 1H, $J = 11.7$ Hz); 1.08-1.12 (m, 1H); 1.14 (s, 3H); 1.26 (s, 3H); 1.41 (m, 1H); 1.50-1.62 (m, 1H); 1.70-1.76 (m, 2H); 1.72 (s, 3H); 2.04 (m, 1H); 2.38 (dd, 1H, $J_1 = 4.7$ Hz, $J_2 = 11.7$ Hz); 3.60 (dt, 1H, $J_1 = 4.1$ Hz, $J_2 = 10.6$ Hz); 4.96 (dd, 1H, $J_1 = 1.5$ Hz, $J_2 = 4.7$ Hz); 5.16 (s, 1H); 6.41 (dd, 1H, $J_1 = 1.5$ Hz, $J_2 = 5.8$ Hz); 6.55 (d, 1H, $J = 5.8$ Hz). ^{13}C NMR (δ): 20.4; 22.0; 22.7; 24.4; 25.3; 31.2; 34.5; 36.0; 41.3; 51.7; 52.5; 57.4; 77.1; 79.7; 84.1; 90.3; 130.8; 136.1; 177.2. IR (nujol): 1680, 1040 cm^{-1} . MS (m/z , %): 317 (M^+ , 25); 305 (37); 136 (71); 126 (74); 81 (33); 69 (100); 41 (52). Anal. Calcd for $\text{C}_{19}\text{H}_{27}\text{NO}_3$: C, 71.89; H, 8.57; N, 4.41. Found: C, 71.76; H, 8.74; N, 4.52.

(3S,4S,4aS,6aS,9R,10aR,11aS,11bR)-5-Oxo-3,11b-epoxy-4a,6,6,9-tetramethyl-3,4,4a,11b-tetrahydroisoindolyl-[2,3-a]-perhydro-11,5a-benzoxazine (11). Colorless solid, m.p. 98-99°C (from hexane). $[\alpha]^{25}_D = -80.06$ ($c = 1.0$, CH_2Cl_2). ^1H NMR (δ): 0.83-0.96 (m, 2H); 0.94 (d, 3H, $J = 7.1$ Hz); 0.95 (d, 3H, $J = 6.5$ Hz); 1.03-1.19 (m, 1H); 1.25 (s, 3H); 1.35-1.68 (m, 2H); 1.70-1.81 (m, 2H); 1.72 (s, 3H); 2.02 (m, 1H); 2.08 (d, 1H, $J = 3.9$ Hz); 2.52 (m, 1H); 3.61 (dt, 1H, $J_1 = 4.1$ Hz, $J_2 = 10.6$ Hz); 4.86 (dd, 1H, $J_1 = 1.5$ Hz, $J_2 = 4.4$ Hz); 5.10 (s, 1H); 6.33 (dd, 1H, $J_1 = 1.5$ Hz, $J_2 = 5.9$ Hz); 6.66 (d, 1H, $J = 5.9$ Hz). ^{13}C NMR (δ): 17.1; 20.6; 22.0; 24.4; 25.2; 31.2; 34.5; 36.3; 41.1; 51.5; 55.0; 57.7; 77.2; 83.2; 84.5; 89.7; 133.7; 134.0; 173.5. IR (nujol): 1670, 1050 cm^{-1} . MS (m/z , %): 317 (M^+ , 31); 136 (42); 126 (57); 81 (34); 69 (100). Anal. Calcd for $\text{C}_{19}\text{H}_{27}\text{NO}_3$: C, 71.89; H, 8.57; N, 4.41. Found: C, 71.76; H, 8.69; N, 4.51.

(3R,4aS,6aS,9R,10aR,11aS,11bR)-3-Ethyl-6,6,9-trimethyl-5-oxo-3,4,4a,11b-tetrahydroisoindolyl-[2,3-a]-perhydro-11,5a-benzoxazine (16). Colorless solid, m.p. 82-84°C (from hexane). $[\alpha]^{25}_D = -72.77$ ($c = 1.0$, CH_2Cl_2). ^1H NMR (δ): 0.77-0.99 (m, 3H); 0.94 (t, 3H, $J = 7.6$ Hz); 0.95 (d, 3H, $J = 6.8$ Hz); 1.01-1.13 (m, 1H); 1.16 (s, 3H); 1.23-1.52 (m, 4H); 1.68-1.78 (m, 2H); 1.74 (s, 3H); 1.93-2.09 (m, 3H); 2.50-2.57 (m, 2H); 3.36 (dt, 1H, $J_1 = 4.2$ Hz, $J_2 = 10.6$ Hz); 4.60 (dd, 1H, $J_1 = 1.3$ Hz, $J_2 = 6.3$ Hz); 5.74-5.83 (m, 2H). ^{13}C NMR (δ): 11.1; 18.1; 22.0; 23.9; 25.5; 28.6; 29.3; 31.2; 34.5; 36.2; 38.8; 40.5; 41.1; 49.7; 56.7; 76.3; 89.5; 123.8;

135.2; 174.9. IR (nujol): 1680, 1230, 1100 cm^{-1} . MS (m/z , %): 317 (M^+ , 11), 182 (100), 137 (19). Anal. Calcd for $\text{C}_{20}\text{H}_{31}\text{NO}_2$: C, 75.67; H, 9.84; N, 4.41. Found: C, 75.55; H, 9.92; N, 4.31.

(3S,4aR,6aS,9R,10aR,11aS,11bS)-3-Ethyl-6,6,9-trimethyl-5-oxo-

3,4,4a,11b-tetrahydroisoindolyl-[2,3-a]-perhydro-11,5a-benzoxazine

(17). Colorless solid, m.p. 65-66°C (from pentane). $[\alpha]_D^{25} = -32.02$ ($c = 1.2$, CH_2Cl_2). ^1H NMR (δ): 0.87-1.18 (m, 4H); 0.92 (d, 3H, $J = 6.6$ Hz); 0.94 (t, 3H, $J = 7.3$ Hz); 1.22 (s, 3H); 1.24-1.65 (m, 4H); 1.65-1.73 (m, 2H); 1.70 (s, 3H); 1.92-2.01 (m, 3H); 2.44 (m, 1H); 2.80 (m, 1H); 3.43 (dt, 1H, $J_1 = 4.2$ Hz, $J_2 = 10.6$ Hz); 5.05 (d, 1H, $J = 6.5$ Hz); 5.63 (ddd, 1H, $J_1 = 2.2$ Hz, $J_2 = 3.5$ Hz, $J_3 = 10.2$ Hz); 5.86 (dt, 1H, $J_1 = 2.5$ Hz, $J_2 = 10.2$ Hz). ^{13}C NMR (δ): 11.7; 19.8; 22.0; 24.2; 25.5; 27.9; 28.8; 31.2; 34.5; 35.1; 35.5; 40.8; 41.0; 50.3; 57.3; 76.2; 85.5; 121.5; 134.7; 176.6. IR (nujol): 1680, 1140, 1010 cm^{-1} . MS (m/z , %): 317 (M^+ , 13), 182 (100), 137 (16). Anal. Calcd for $\text{C}_{20}\text{H}_{31}\text{NO}_2$: C, 75.67; H, 9.84; N, 4.41. Found: C, 75.77; H, 10.02; N, 4.59.

N-(8-Mentholyl)-(3aR,6R,7aR)-3a,6-epoxy-7a-methyl-3a,6,7,7a-

tetrahydroisoindoline (22). Yield 85%. Colorless solid, m. p. 154-155°C (from hexane). $[\alpha]_D^{25} = +15.65$ ($c = 1.0$, CH_2Cl_2). ^1H NMR (δ): 0.85-1.02 (m, 4H); 0.91 (d, 3H, $J = 6.5$ Hz); 0.96 (s, 6H); 1.20 (s, 3H); 1.35-1.67 (m, 4H); 1.94 (m, 1H); 2.04 (dd, 1H, $J_1 = 4.7$ Hz, $J_2 = 11.4$ Hz); 2.62 (d, 1H, $J = 8.1$ Hz); 3.14 (d, 1H, $J = 12.3$ Hz); 3.15 (d, 1H, $J = 8.1$ Hz); 3.40 (d, 1H, $J = 12.3$ Hz); 3.66 (dt, 1H, $J_1 = 3.9$ Hz, $J_2 = 10.2$ Hz); 4.92 (d, 1H, $J = 4.6$ Hz); 6.35 (s, 2H); 8.42 (s, 1H). ^{13}C NMR (δ): 17.9; 21.6; 22.1; 22.6; 25.8; 31.0; 35.1; 38.7; 44.3; 46.6; 47.6; 48.4; 57.1; 59.4; 72.9; 78.9; 96.4; 134.0; 136.1. IR (nujol): 3100, 1220, 1180 cm^{-1} . CIMS (m/z , %): 306 ($M^+ + 1$, 100); 192 (41); 152 (45). Anal. Calcd for $\text{C}_{19}\text{H}_{31}\text{NO}_2$: C, 74.71; H, 10.23; N, 4.59. Found: C, 74.89; H, 10.42; N, 4.46.

N-(8-Mentholyl)-(3aR,6S,7S,7aR)-3a,6-epoxy-7-methyl-3a,6,7,7a-

tetrahydroisoindoline (23). Yield 94%. Colorless solid, m. p. 106-107°C (from hexane). $[\alpha]_D^{25} = -46.29$ ($c = 1.0$, CH_2Cl_2). ^1H NMR (δ): 0.81 (d, 3H, $J = 7.1$ Hz); 0.86-1.07 (m, 3H); 0.91 (d, 3H, $J = 6.5$ Hz); 0.96 (s, 3H); 1.18 (s, 3H); 1.40-1.51 (m, 2H); 1.52-1.62 (m, 2H); 1.68 (m, 1H); 1.93 (m, 1H); 2.10 (m, 1H); 2.25 (m, 1H); 2.88 (d, 1H, $J = 11.5$ Hz); 3.40-3.47 (m, 2H); 3.65 (dt, 1H, $J_1 = 4.0$ Hz, $J_2 = 10.2$ Hz); 4.79 (dd, 1H, $J_1 = 1.7$ Hz, $J_2 = 4.2$ Hz); 6.27 (dd, 1H, $J_1 = 1.7$ Hz, $J_2 = 5.8$ Hz); 6.45 (d, 1H, $J = 5.8$ Hz); 8.52 (s, 1H). ^{13}C NMR (δ): 16.6; 17.9; 21.3; 22.1; 25.7; 31.0; 35.1; 37.5; 44.3; 47.9; 48.4; 49.9; 51.0; 59.2; 72.8; 83.6; 95.6; 134.0; 137.0. IR (nujol): 3085, 1180 cm^{-1} . CIMS (m/z , %): 306 ($M^+ + 1$, 100); 192 (33); 152 (24). Anal. Calcd for $\text{C}_{19}\text{H}_{31}\text{NO}_2$: C, 74.71; H, 10.23; N, 4.59. Found: C, 74.84; H, 10.12; N, 4.76.

N-(8-Mentholyl)-(3aR,6R,7aS)-6-ethyl-3a,6,7,7a-tetrahydroisoindoline

(26). Colorless solid, m.p. 67-68°C (from hexane). $[\alpha]_D^{25} = -34.26$ ($c = 1.0$, CH_2Cl_2). ^1H NMR (δ): 0.85-1.05 (m, 3H); 0.90 (d, 3H, $J = 6.5$ Hz); 0.91 (t, 3H, $J = 6.7$ Hz);

0.93 (s, 3H); 1.16 (s, 3H); 1.22-1.54 (m, 5H); 1.55-1.60 (m, 1H); 1.63-1.68 (m, 2H); 1.89-1.93 (m, 2H); 2.18-2.47 (m, 2H); 2.52 (m, 1H); 2.73-3.04 (broad, 2H); 3.44 (m, 1H); 3.61 (dt, 1H, $J_1 = 4.0$ Hz, $J_2 = 10.3$ Hz); 5.64 (s, 3H); 8.62 (broad s, 1H). ^{13}C NMR (δ): 11.5; 16.9; 21.9; 22.1; 25.6; 28.7; 31.0; 34.2; 35.0; 35.1; 36.8; 38.5; 44.3; 48.3; 50.4; 52.1; 59.3; 72.9; 126.2; 133.5. IR (nujol): 3120, 1185, 1165, 1020 cm^{-1} . MS (m/z , %): 305 (M^+ , 1); 193 (13); 192 (100). Anal. Calcd for $\text{C}_{20}\text{H}_{35}\text{NO}$: C, 78.63; H, 11.55; N, 4.58. Found: C, 78.79; H, 11.41; N, 4.43.

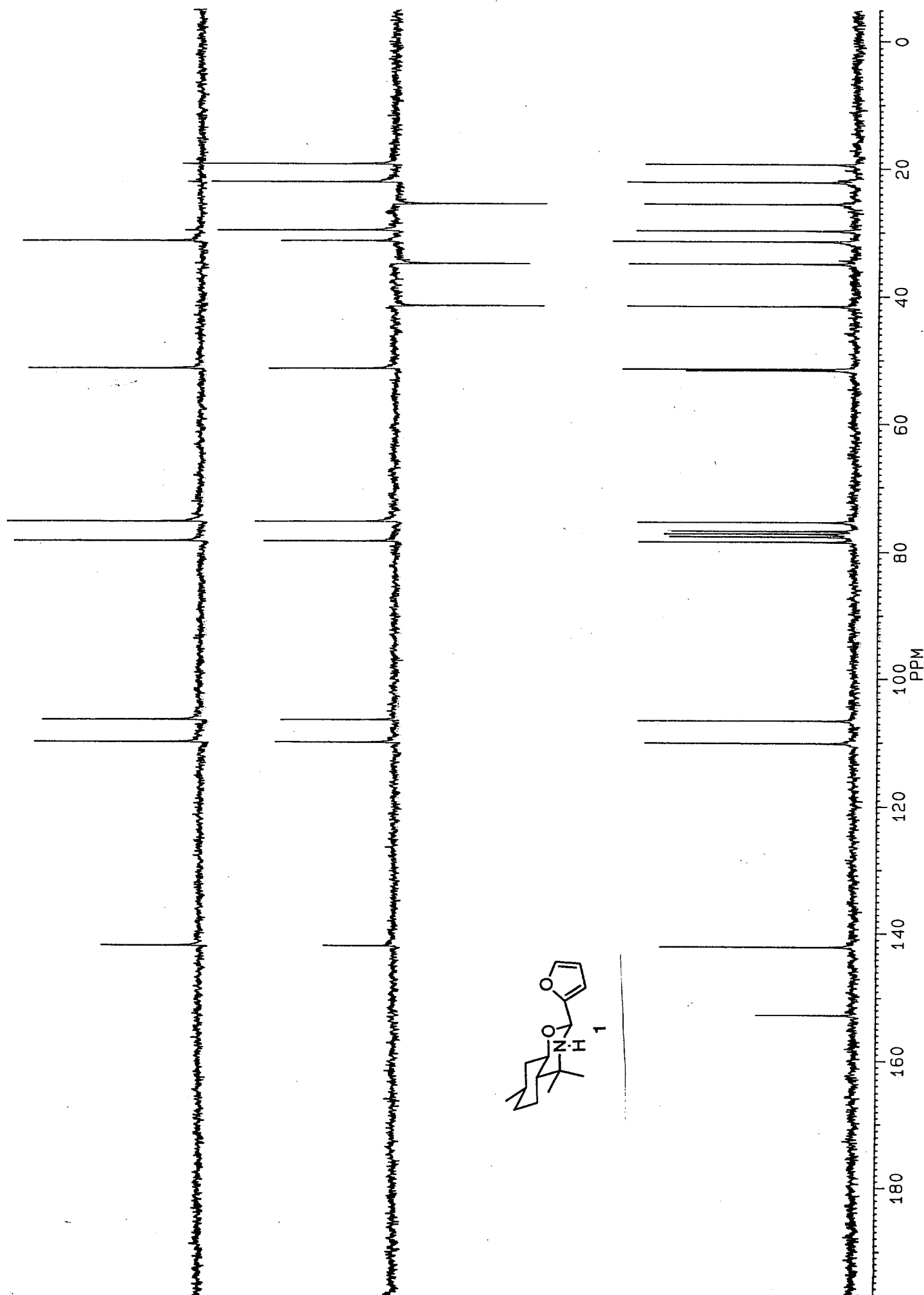
N-(8-Mentholyl)-(3aS,6S,7aR)-6-ethyl-3a,6,7,7a-tetrahydroisoindoline (27). Pale yellow oil. $[\alpha]_D^{25} = +54.83$ ($c = 1.1$, CH_2Cl_2). ^1H NMR (δ): 0.83-1.07 (m, 3H); 0.91 (d, 3H, $J = 6.4$ Hz); 0.92 (t, 3H, $J = 7.0$ Hz); 0.92 (s, 3H); 1.14 (s, 3H); 1.23-1.51 (m, 4H); 1.51-1.68 (m, 2H); 1.74 (m, 2H); 1.90 (m, 2H); 2.00-2.29 (m, 3H); 2.52 (m, 1H); 3.18-3.27 (m, 2H); 3.62 (dt, 1H, $J_1 = 4.0$ Hz, $J_2 = 10.2$ Hz); 5.63 (m, 2H); 7.90-9.20 (broad s, 1H). ^{13}C NMR (δ): 11.2; 17.2; 21.1; 22.2; 25.7; 28.7; 31.0; 33.9; 35.1; 36.7; 38.1; 44.4; 48.5; 49.6; 52.1; 58.7; 72.6; 72.8; 126.0; 133.2. IR (film): 3140, 1190, 1170, 1030 cm^{-1} . MS (m/z , %): 305 (M^+ , 1); 193 (14) 192 (100). Anal. Calcd for $\text{C}_{20}\text{H}_{35}\text{NO}$: C, 78.63; H, 11.55; N, 4.58. Found: C, 78.52; H, 11.46; N, 4.76.

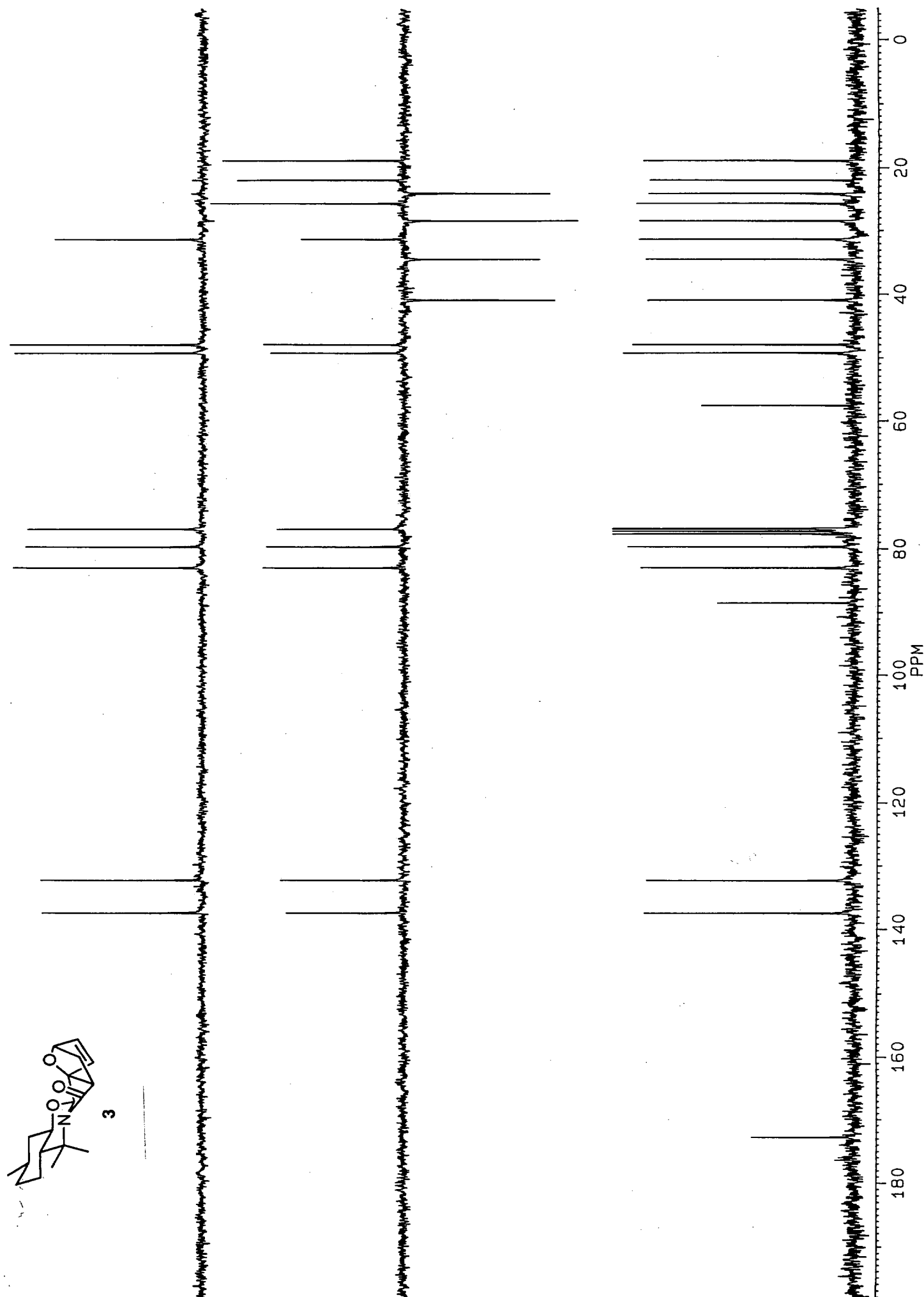
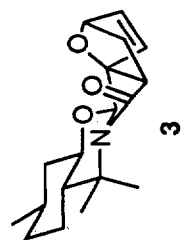
(3aR,6R,7aR)-3a,6-Epoxy-7a-methyl-3a,6,7,7a-tetrahydroisoindoline (ent-28). Yield 66%. Colorless oil. $[\alpha]_D^{25} = +23.16$ ($c = 1.0$, CH_2Cl_2). ^1H NMR, ^{13}C NMR and IR data are coincident with those reported for 28. Anal. Calcd for $\text{C}_9\text{H}_{13}\text{NO}$: C, 71.49; H, 8.67; N, 9.26. Found: C, 71.36; H, 8.82; N, 9.39.

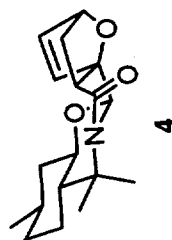
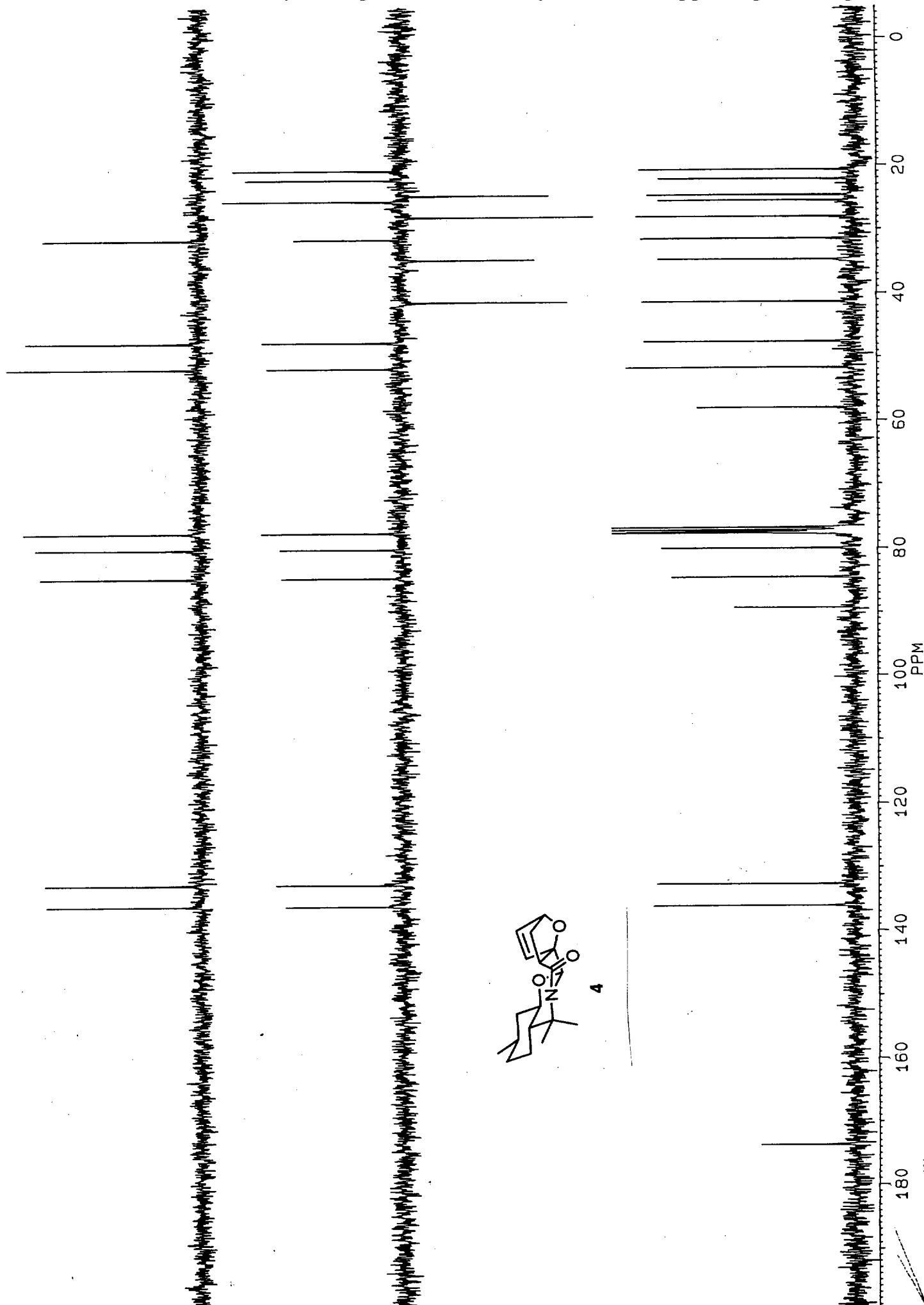
(3aR,6S,7S,7aR)-3a,6-Epoxy-7-methyl-3a,6,7,7a-tetrahydroisoindoline. (ent-29). Yield 73%. Colorless oil. $[\alpha]_D^{25} = -77.82$ ($c = 1.3$, CH_2Cl_2). ^1H NMR, ^{13}C NMR and IR data are coincident with those reported for 29. Anal. Calcd for $\text{C}_9\text{H}_{13}\text{NO}$: C, 71.49; H, 8.67; N, 9.26. Found: C, 71.36; H, 8.52; N, 9.39.

(3aR,6R,7aS)-6-Ethyl-3a,6,7,7a-tetrahydroisoindoline (31). Yield 60%. Pale yellow oil. $[\alpha]_D^{25} = -35.13$ ($c = 0.6$, CH_2Cl_2). ^1H NMR (δ): 0.93 (t, 3H, $J = 7.4$ Hz); 1.15 (q, 1H, $J = 1.9$ Hz); 1.25-1.45 (m, 2H); 1.74 (dt, 1H, $J_1 = 4.5$ Hz, $J_2 = 12.8$ Hz); 2.02 (m, 1H); 2.41 (m, 1H); 2.74-2.84 (m, 2H); 3.04 (d, 1H, $J = 10.4$ Hz); 3.43-3.50 (m, 2H); 5.26 (broad s, 1H) 5.65 (ddd, 1H, $J_1 = 2.8$ Hz, $J_2 = 3.1$ Hz, $J_3 = 10.0$ Hz); 5.73 (d, 1H, $J = 10.0$ Hz). ^{13}C NMR (δ): 11.1; 28.3; 30.9; 35.9; 36.9; 37.9; 49.1; 50.8; 122.9; 134.1. IR (film) 3420, 1270, 1120 cm^{-1} . Anal. Calcd for $\text{C}_{10}\text{H}_{17}\text{N}$: C, 79.41; H, 11.33; N, 9.26. Found: C, 79.30; H, 11.21; N, 9.32.

(3aS,6S,7aR)-6-Ethyl-3a,6,7,7a-tetrahydroisoindoline (ent-31). Yield 58%. Pale yellow oil. $[\alpha]_D^{25} = +36.83$ ($c = 0.6$, CH_2Cl_2). ^1H NMR, ^{13}C NMR and IR data are coincident with those reported for 31. Anal. Calcd for $\text{C}_{10}\text{H}_{17}\text{N}$: C, 79.41; H, 11.33; N, 9.26. Found: C, 79.48; H, 11.46; N, 9.14.





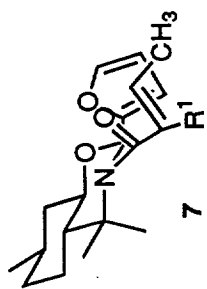
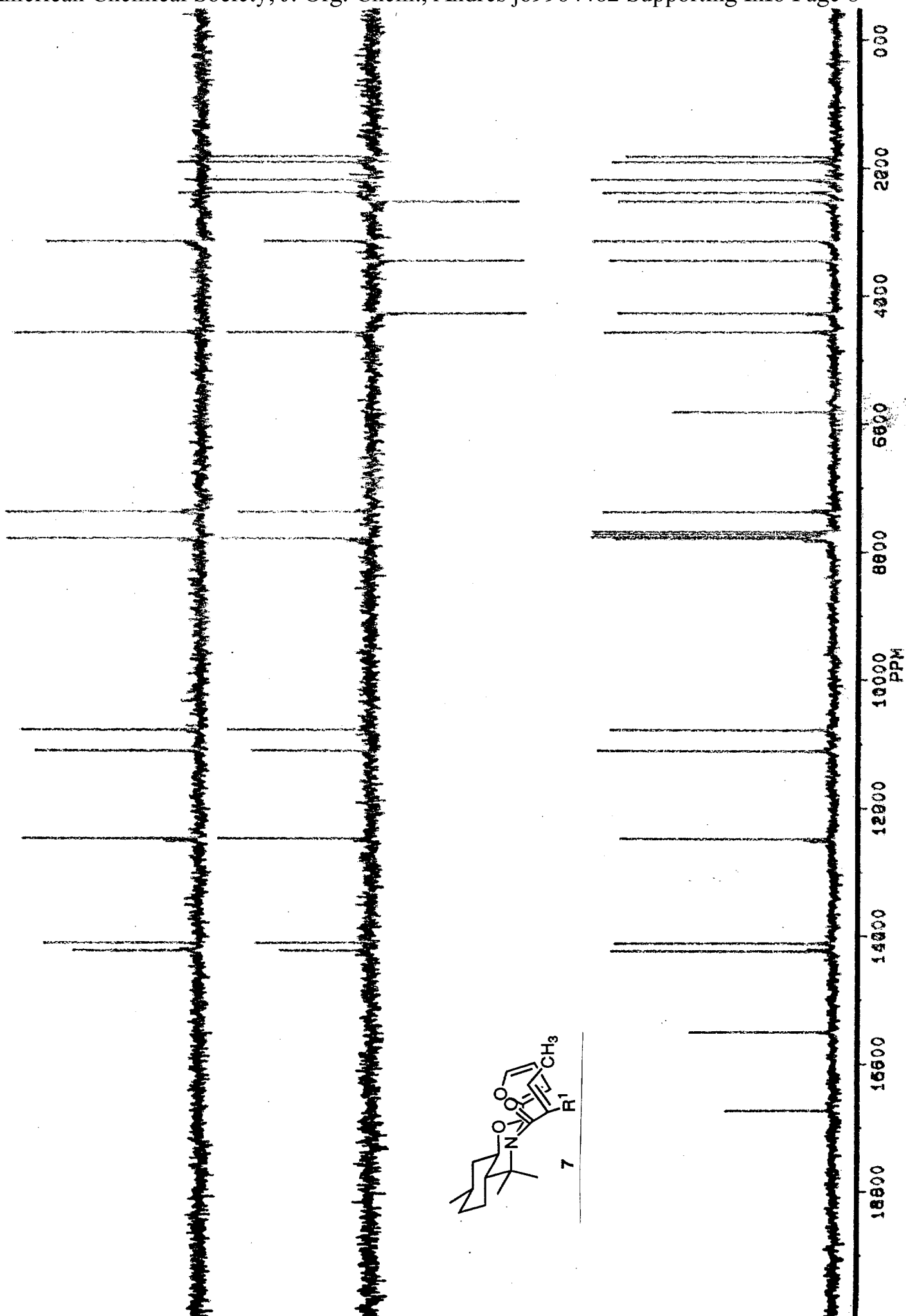


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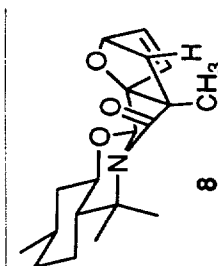
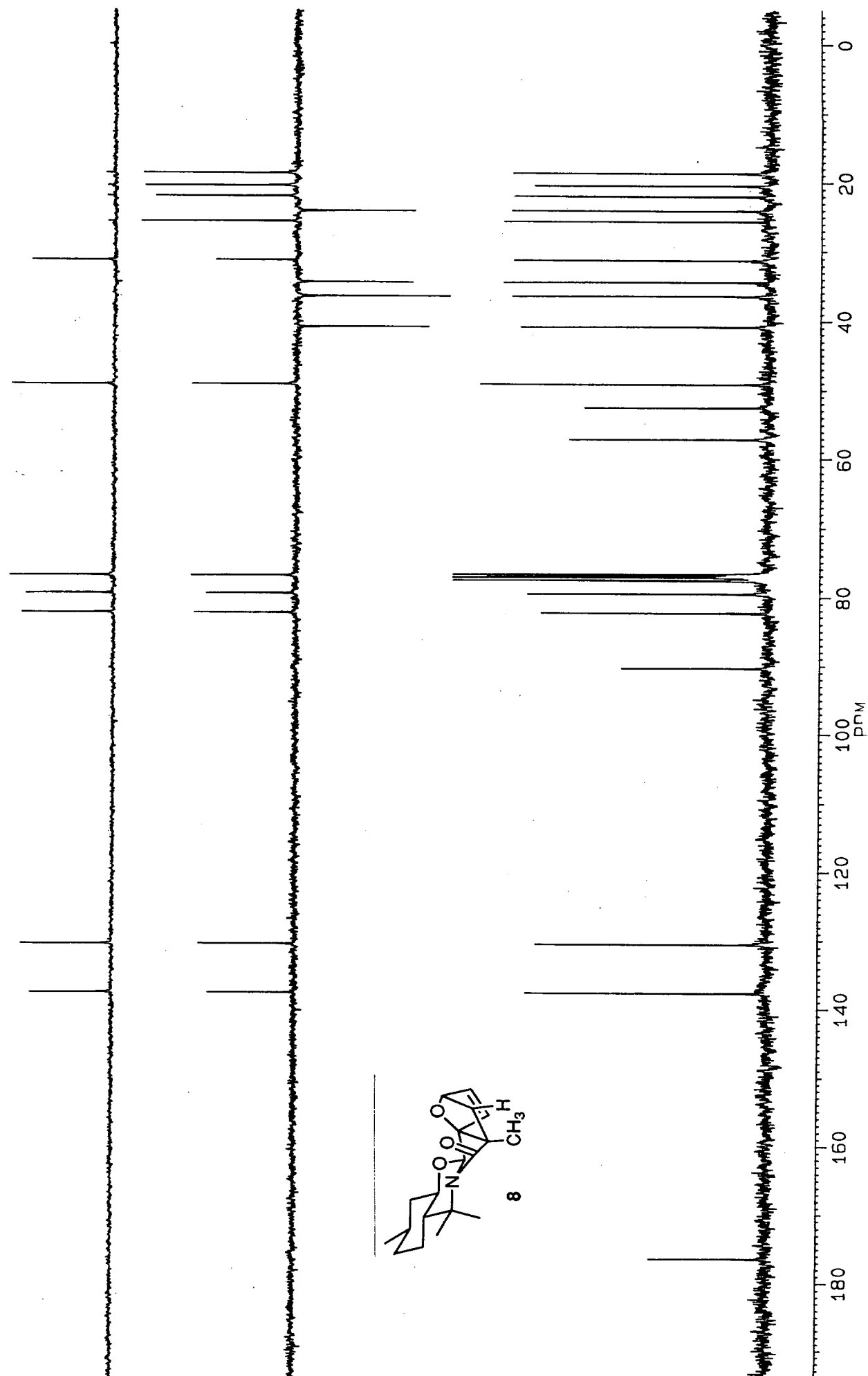


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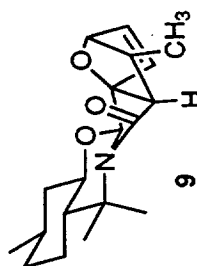
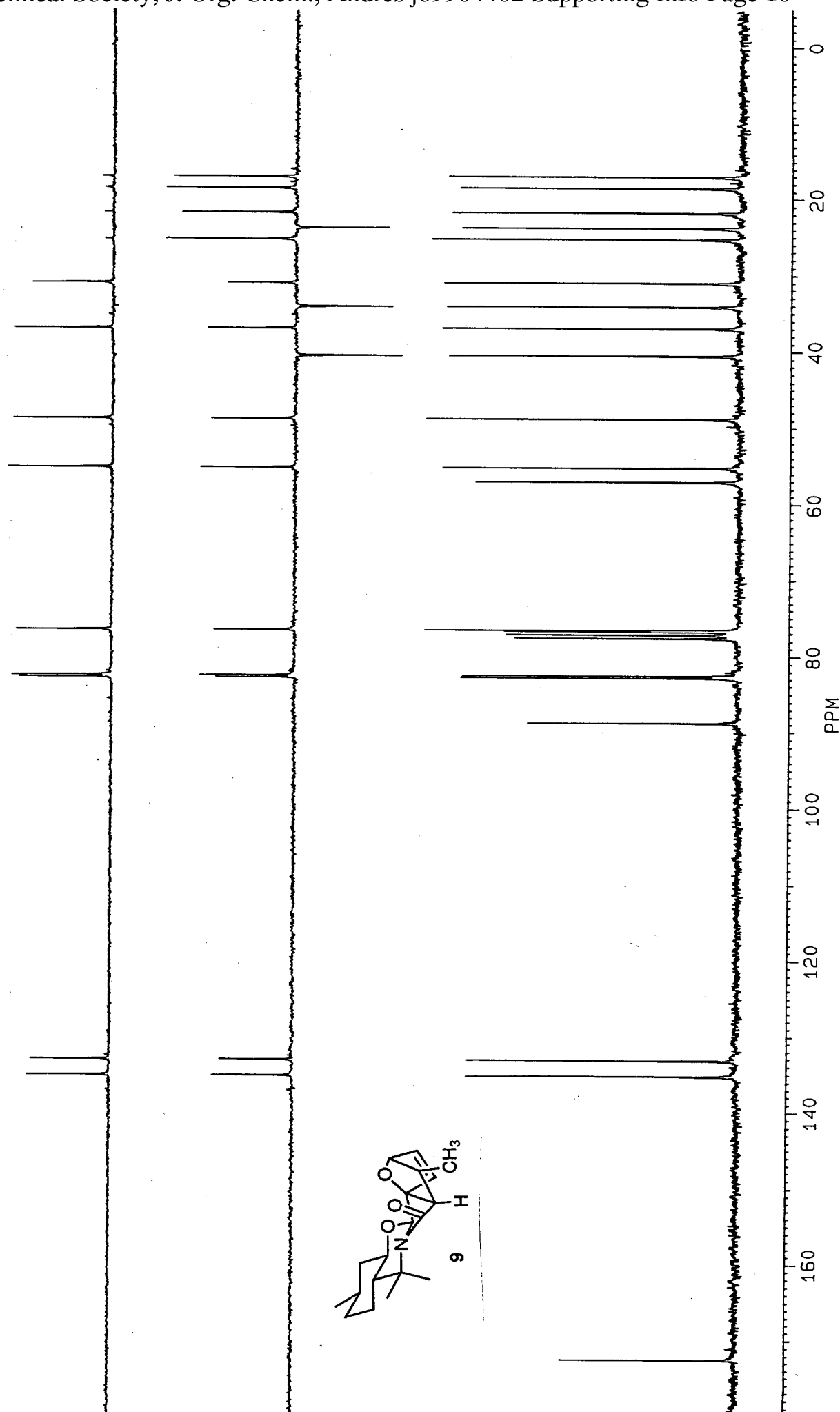




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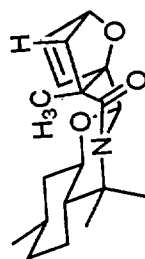
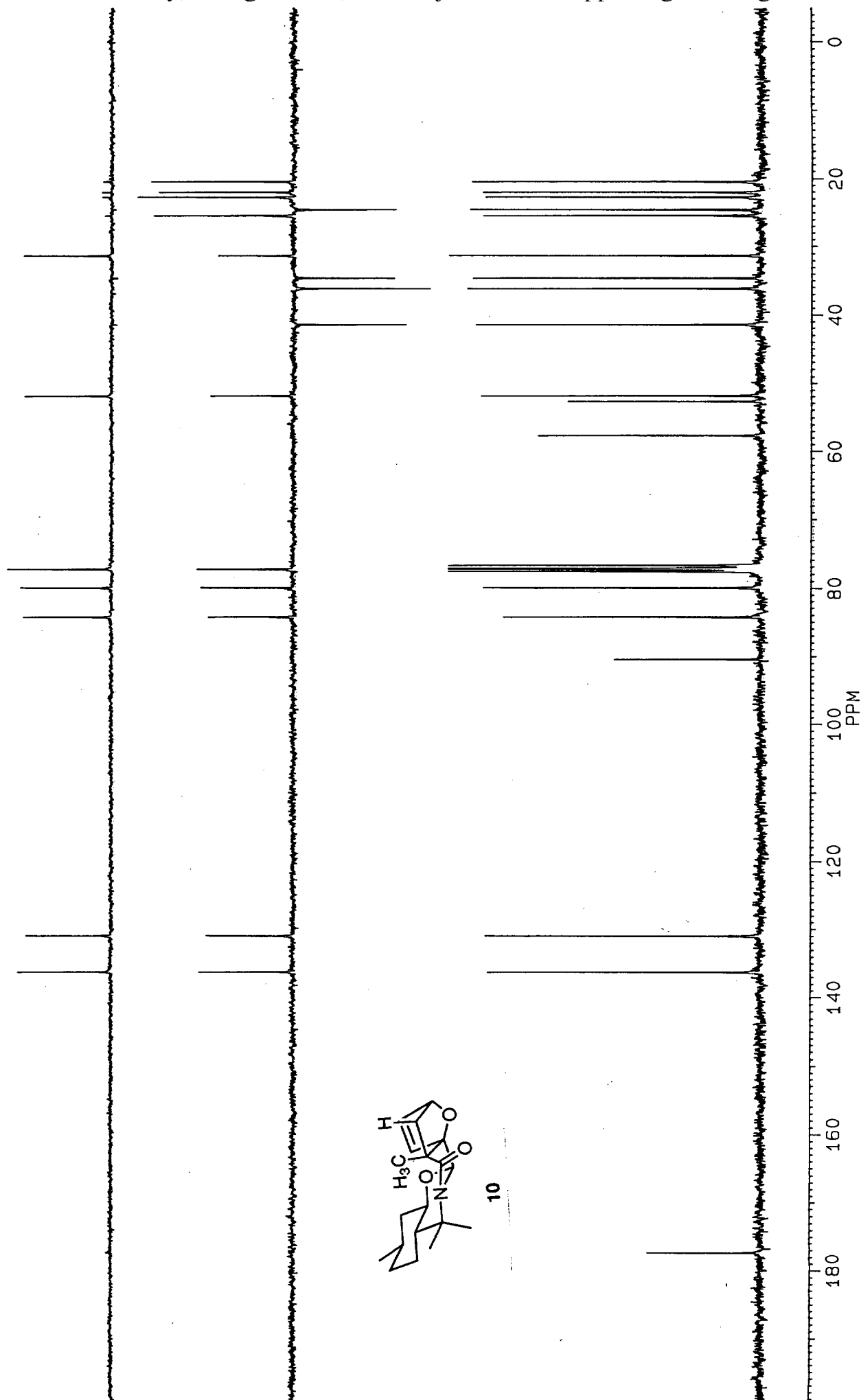


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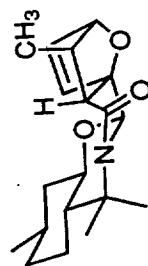
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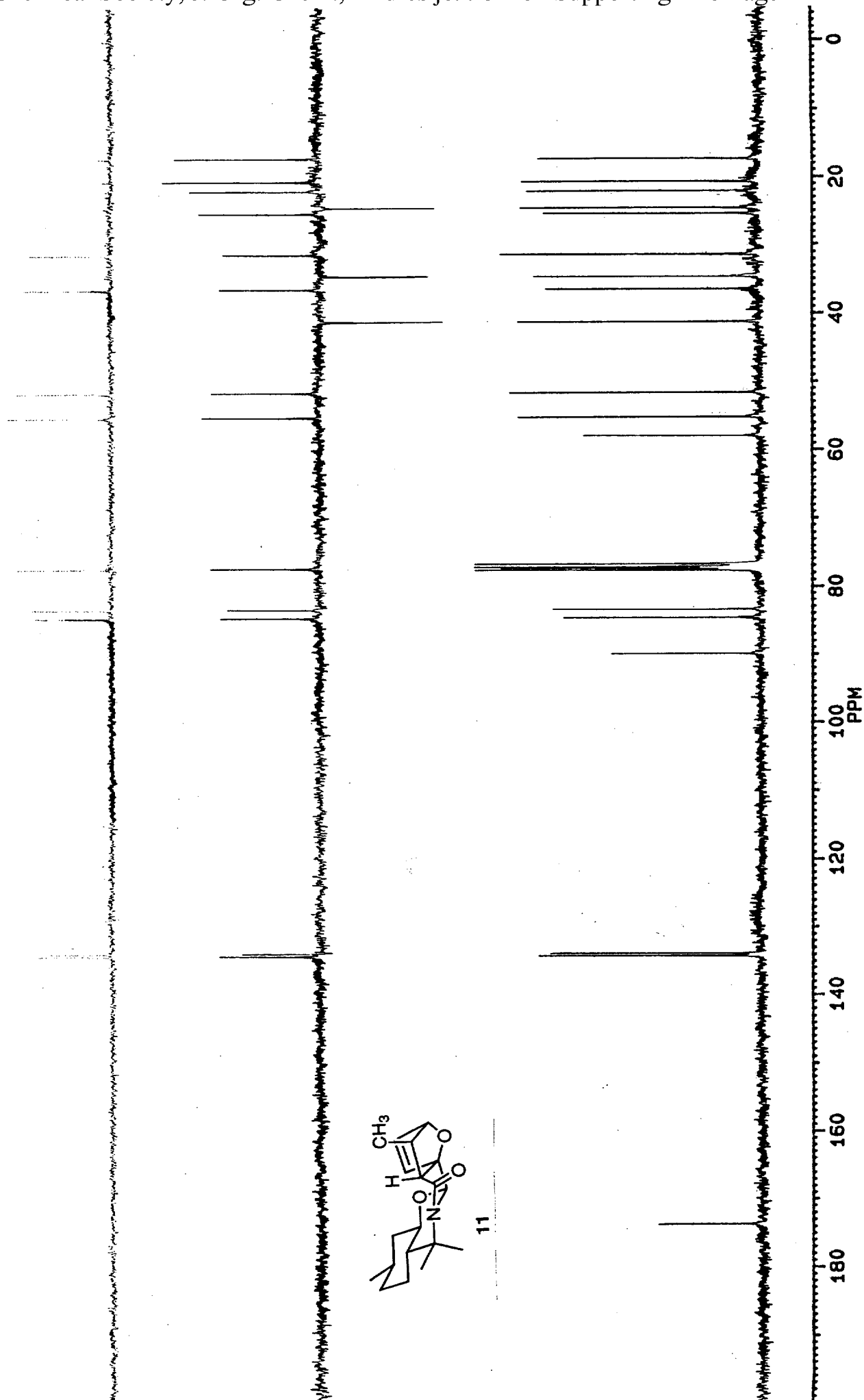


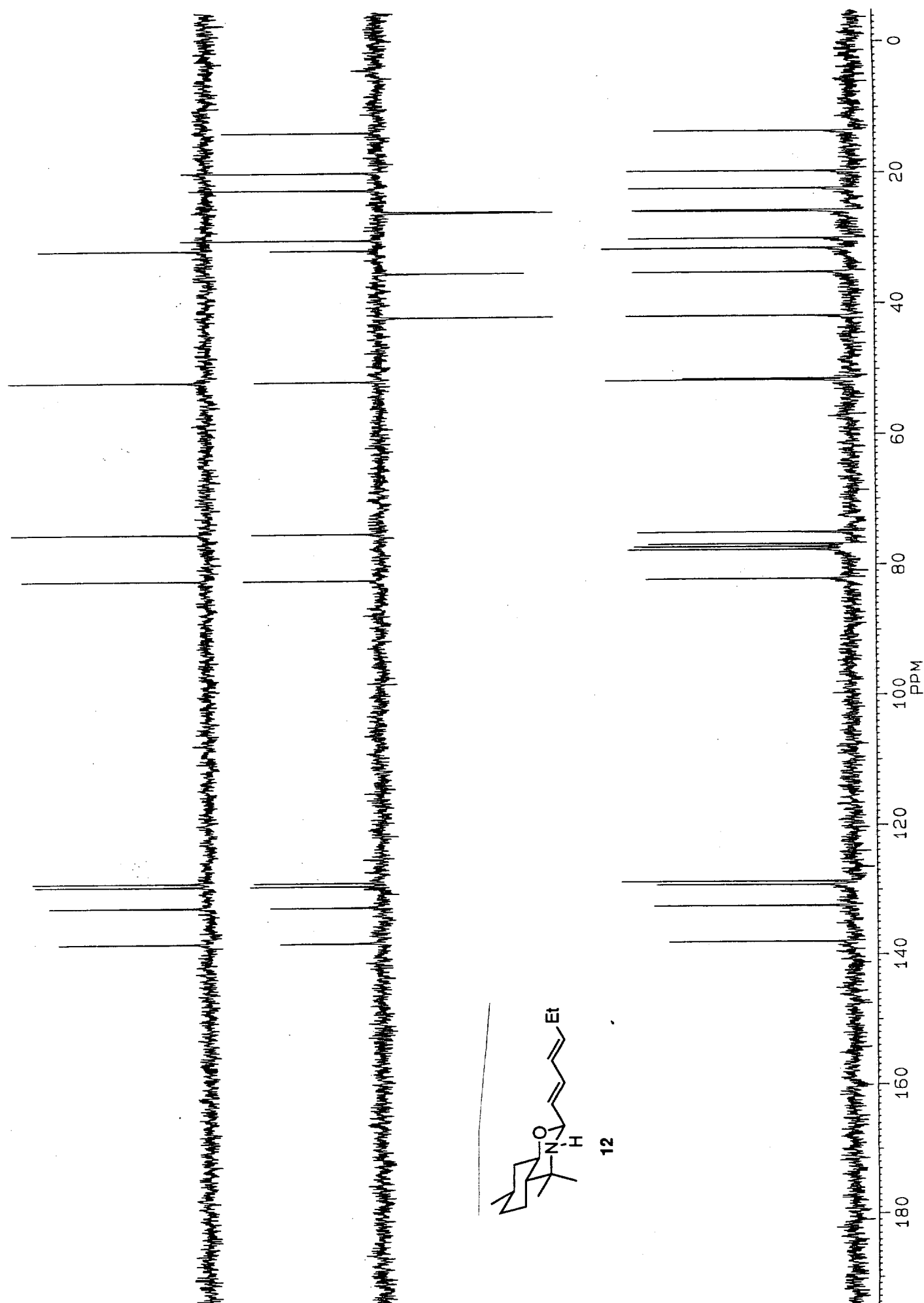
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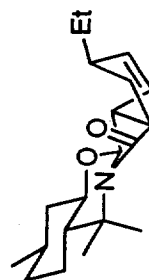
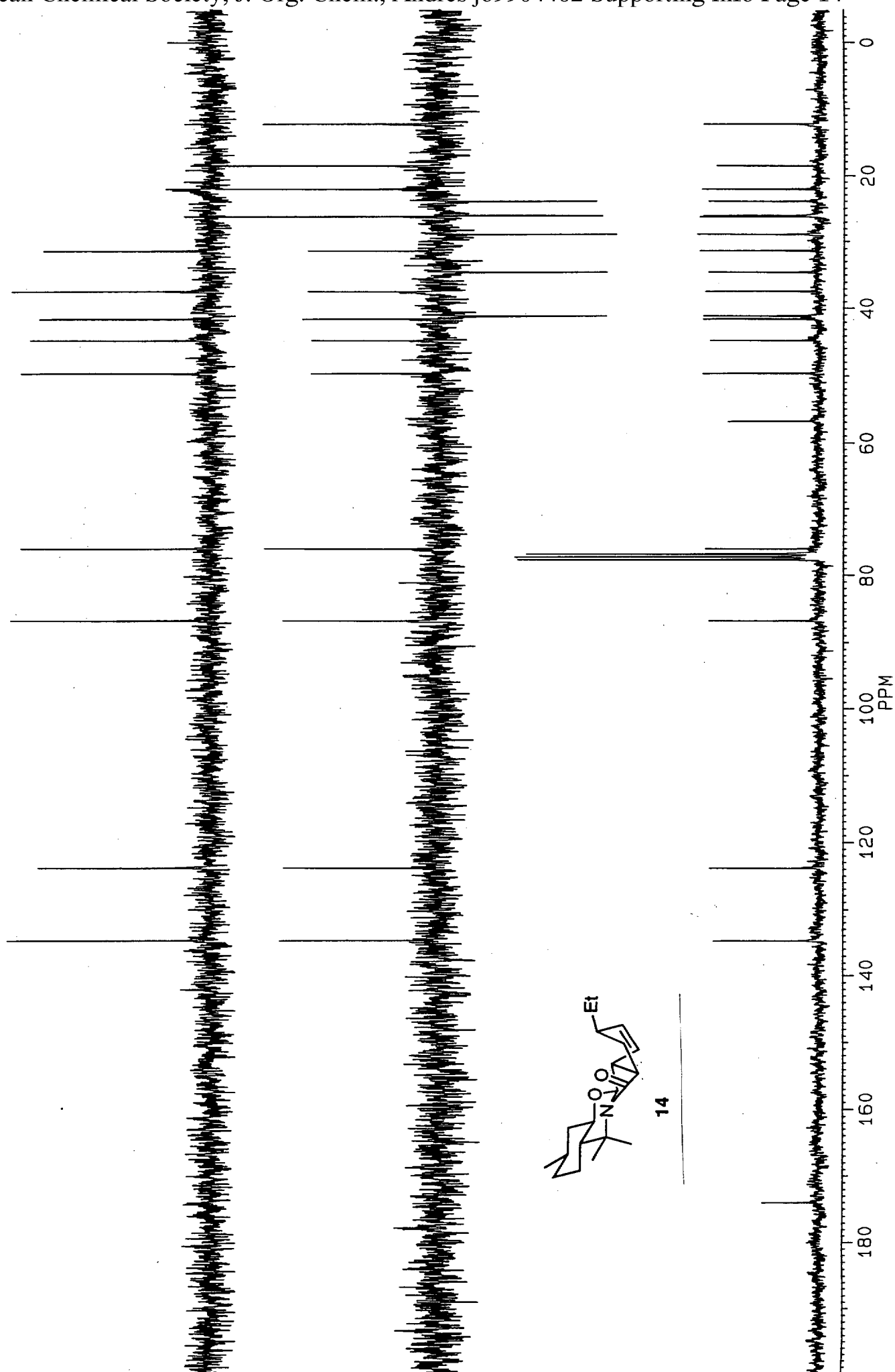


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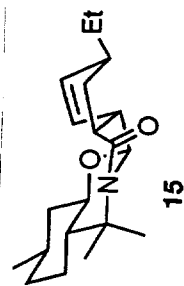
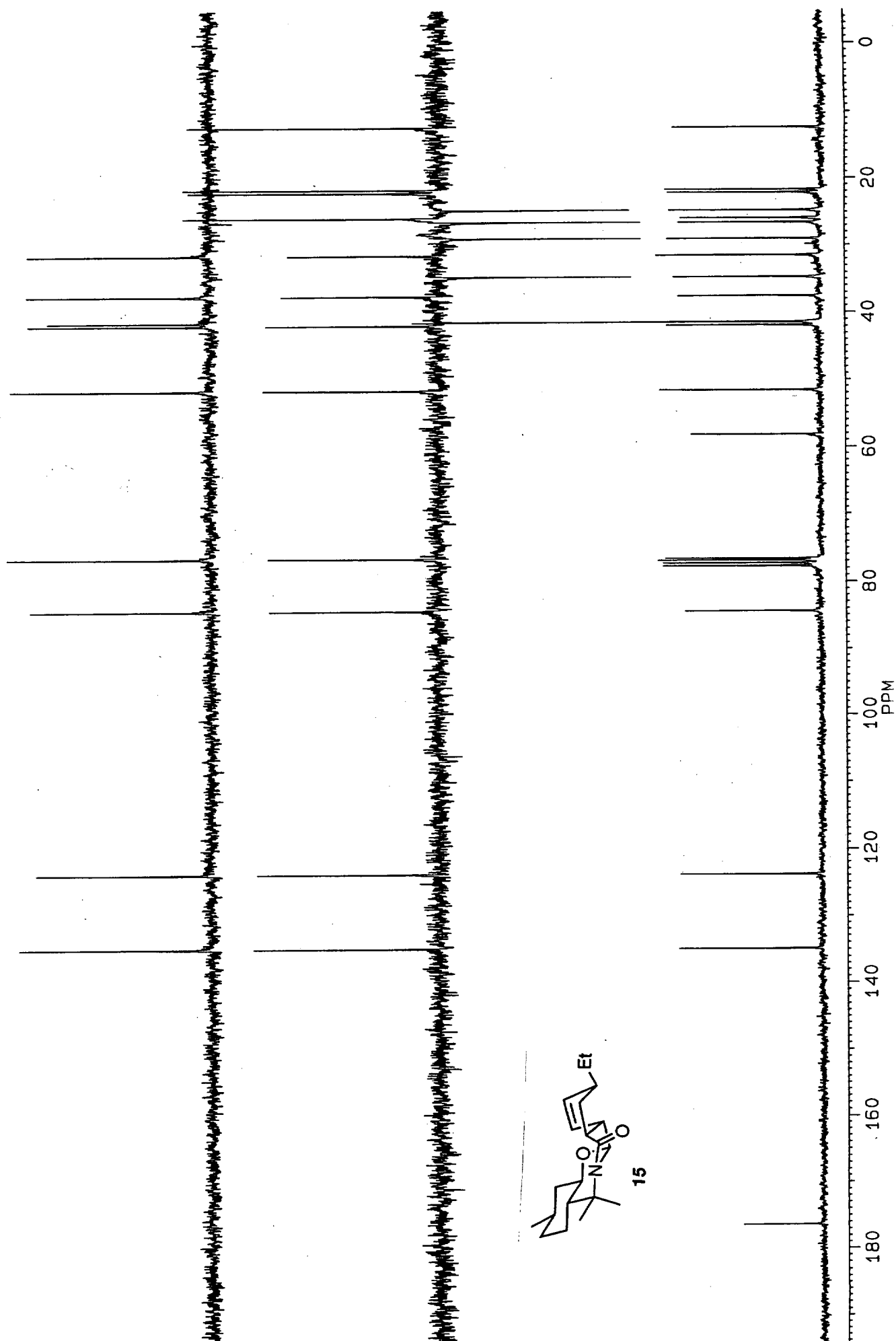


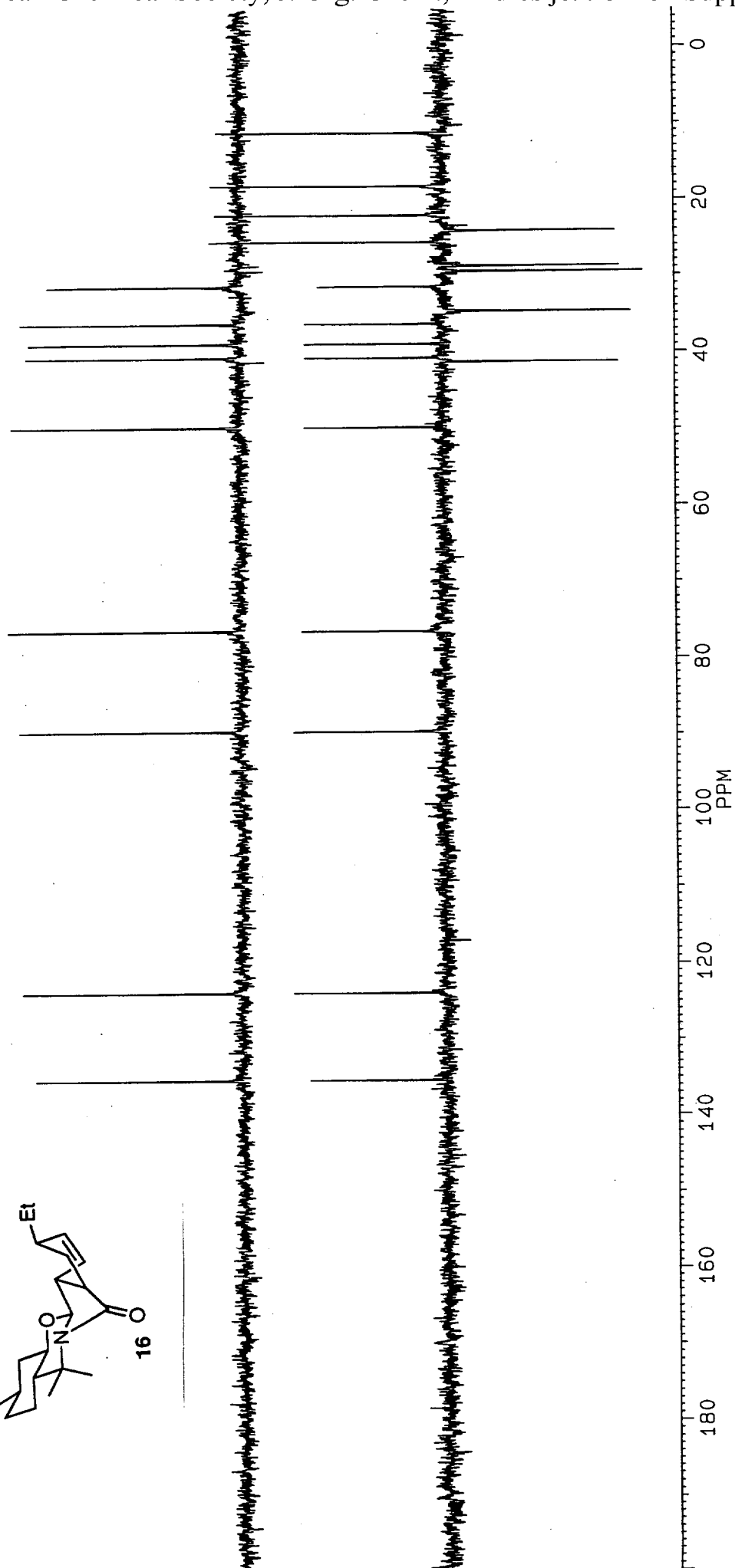
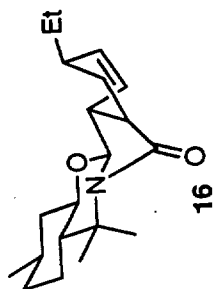
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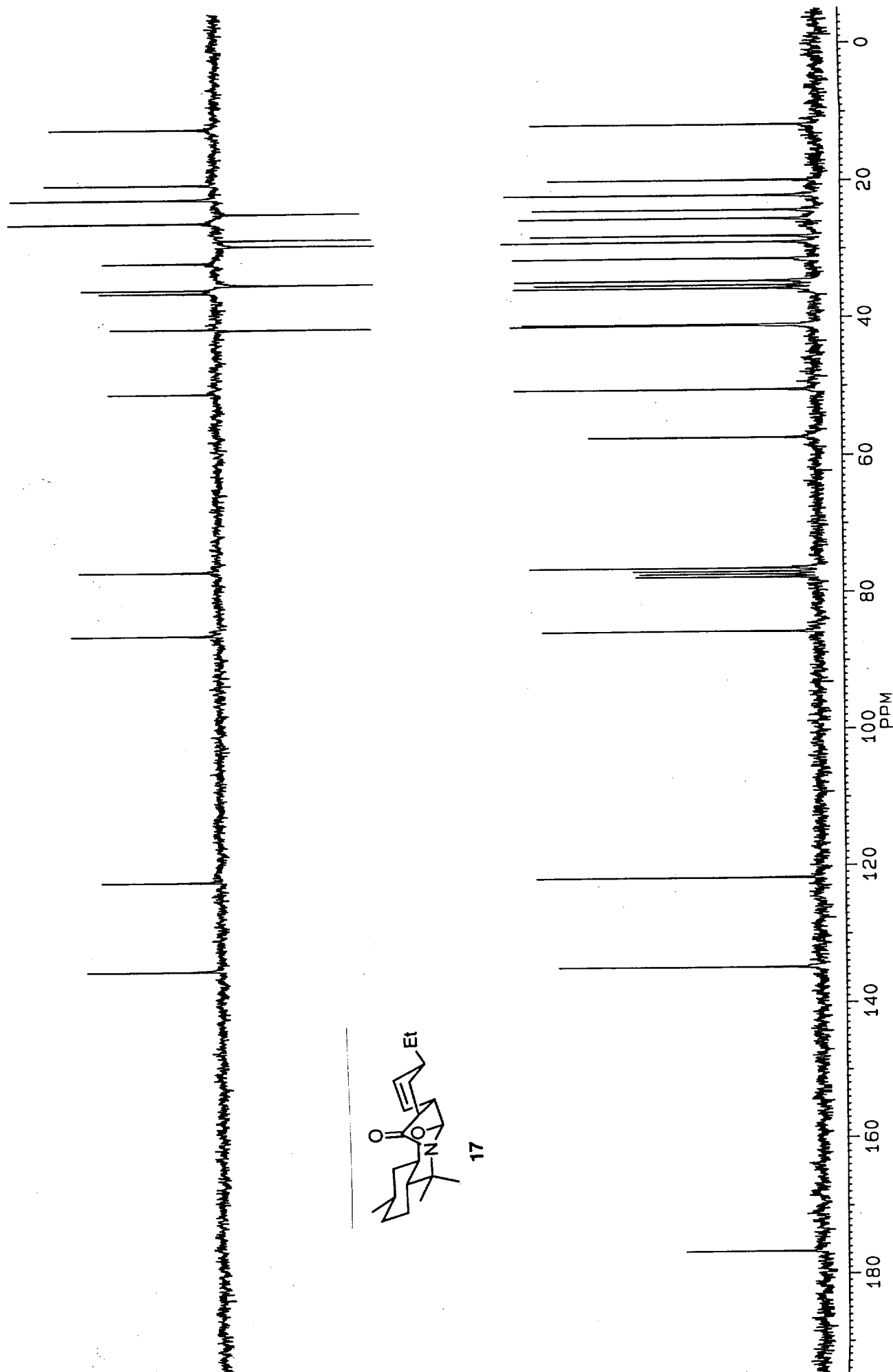


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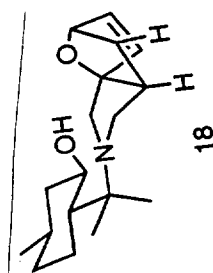
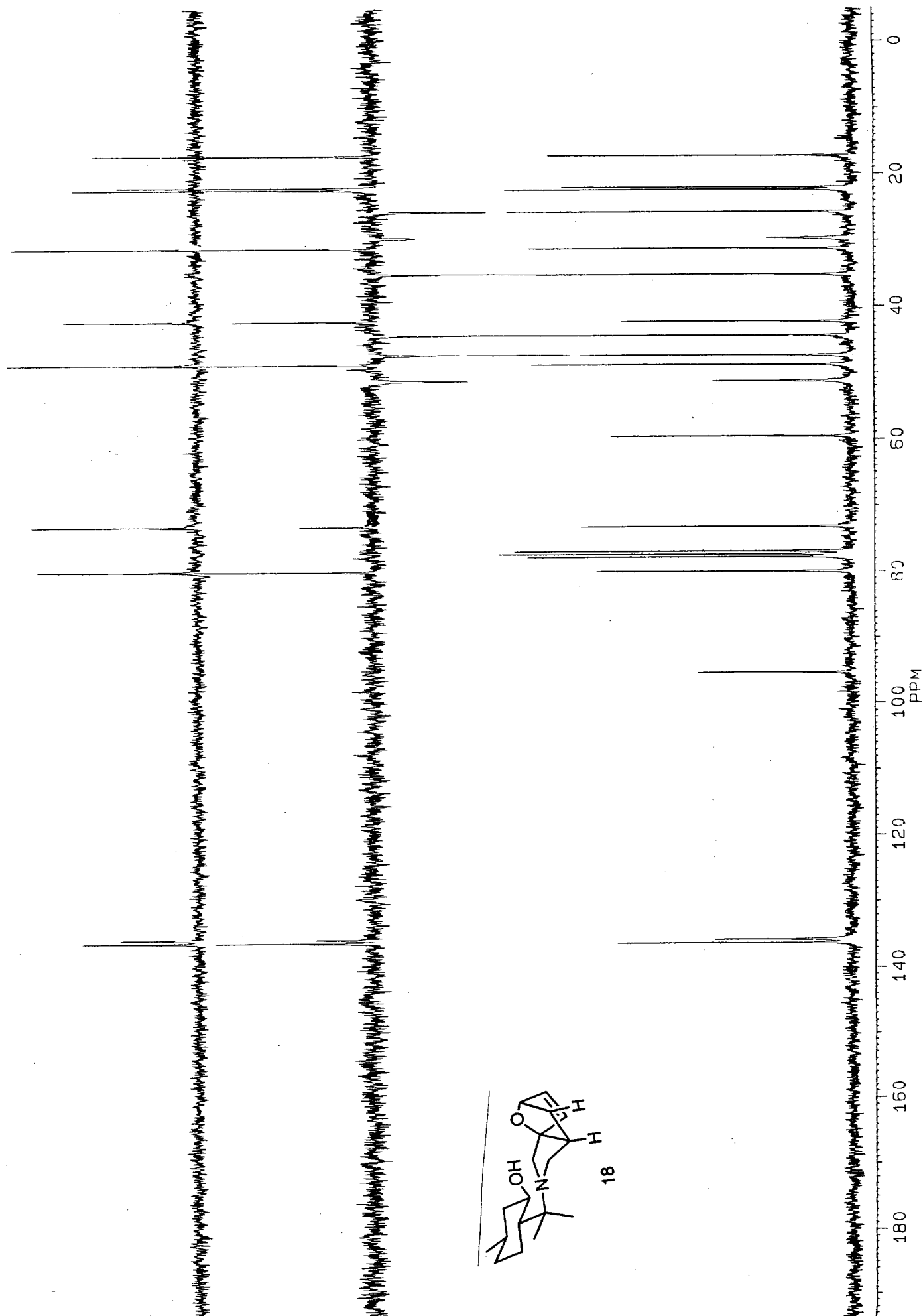
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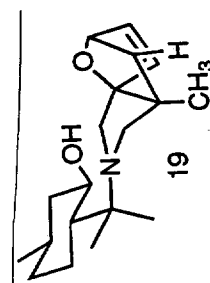
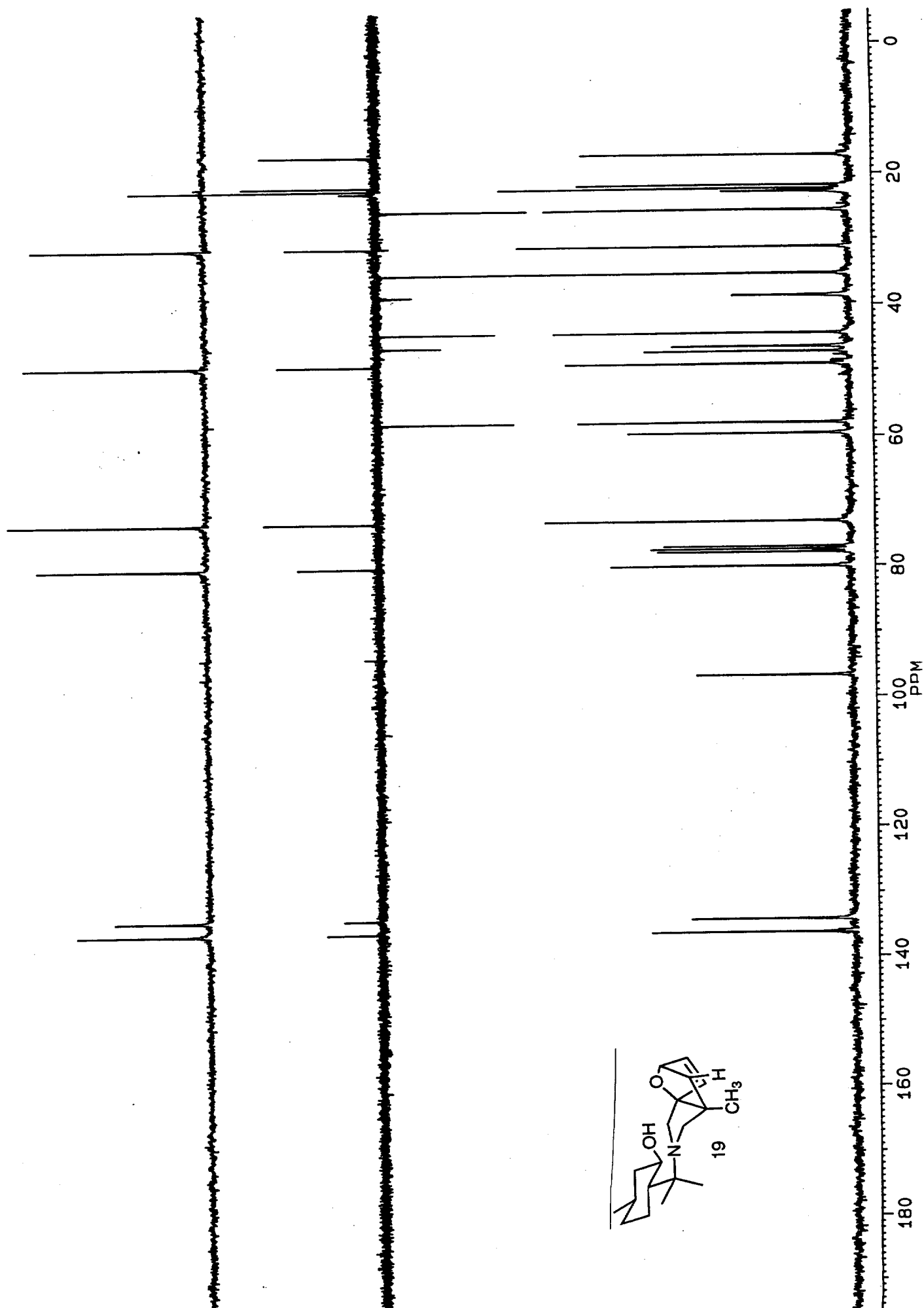


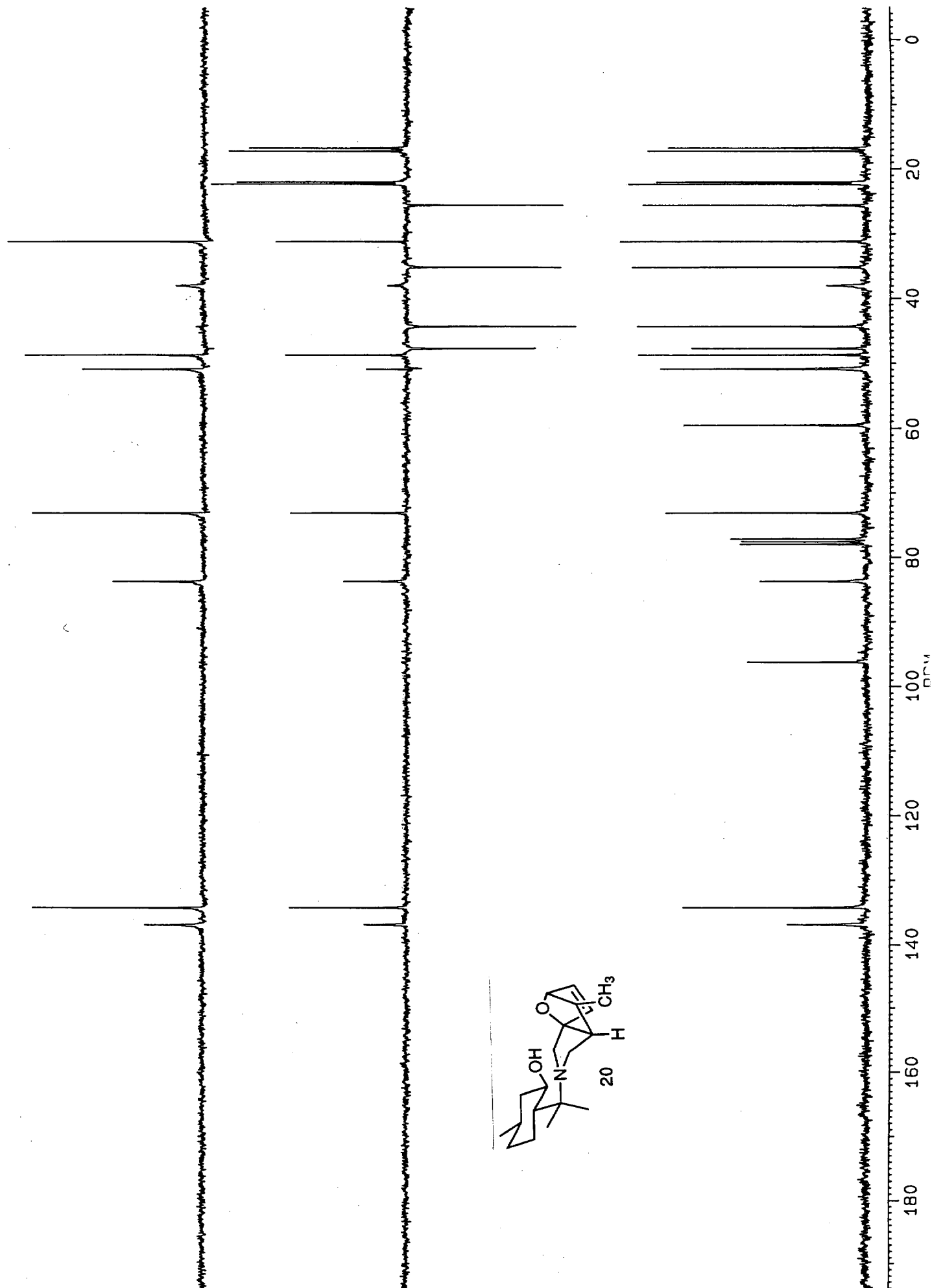




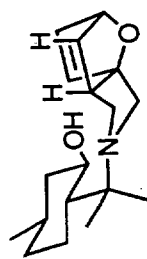
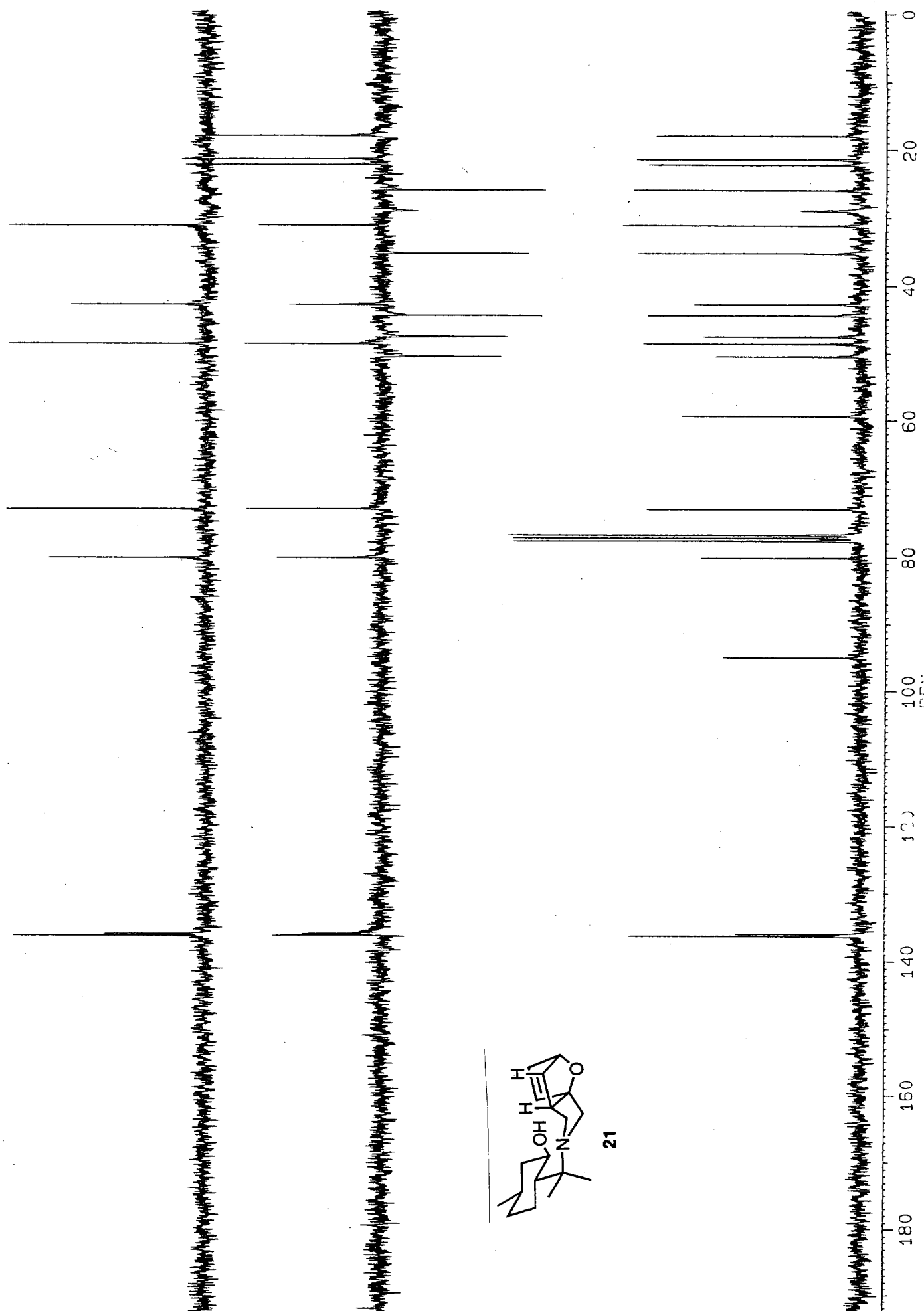
JN48JND1





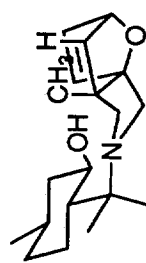
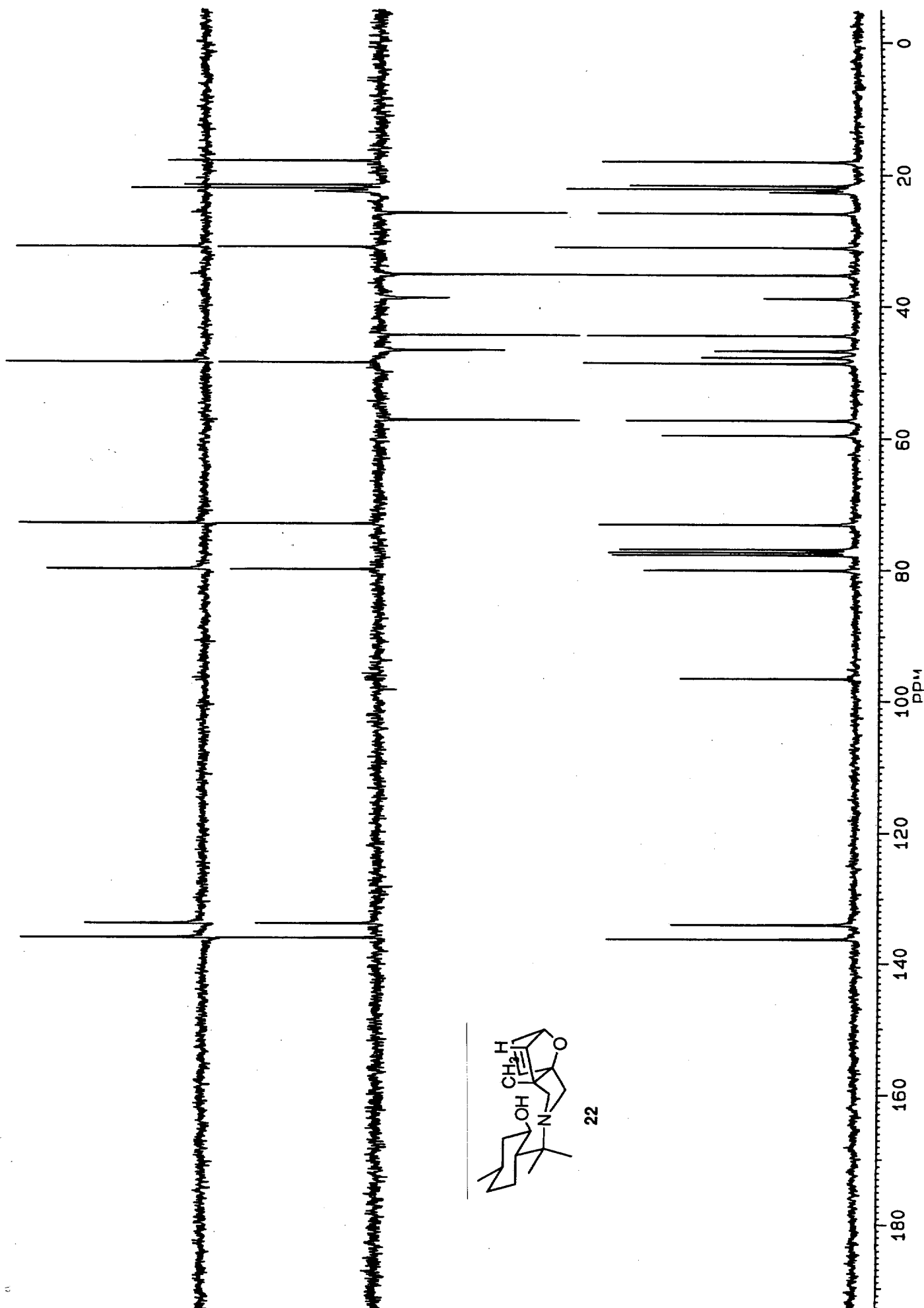


JN48JND2

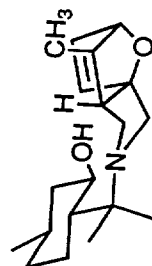


21

JN3JND1 TUB0 4

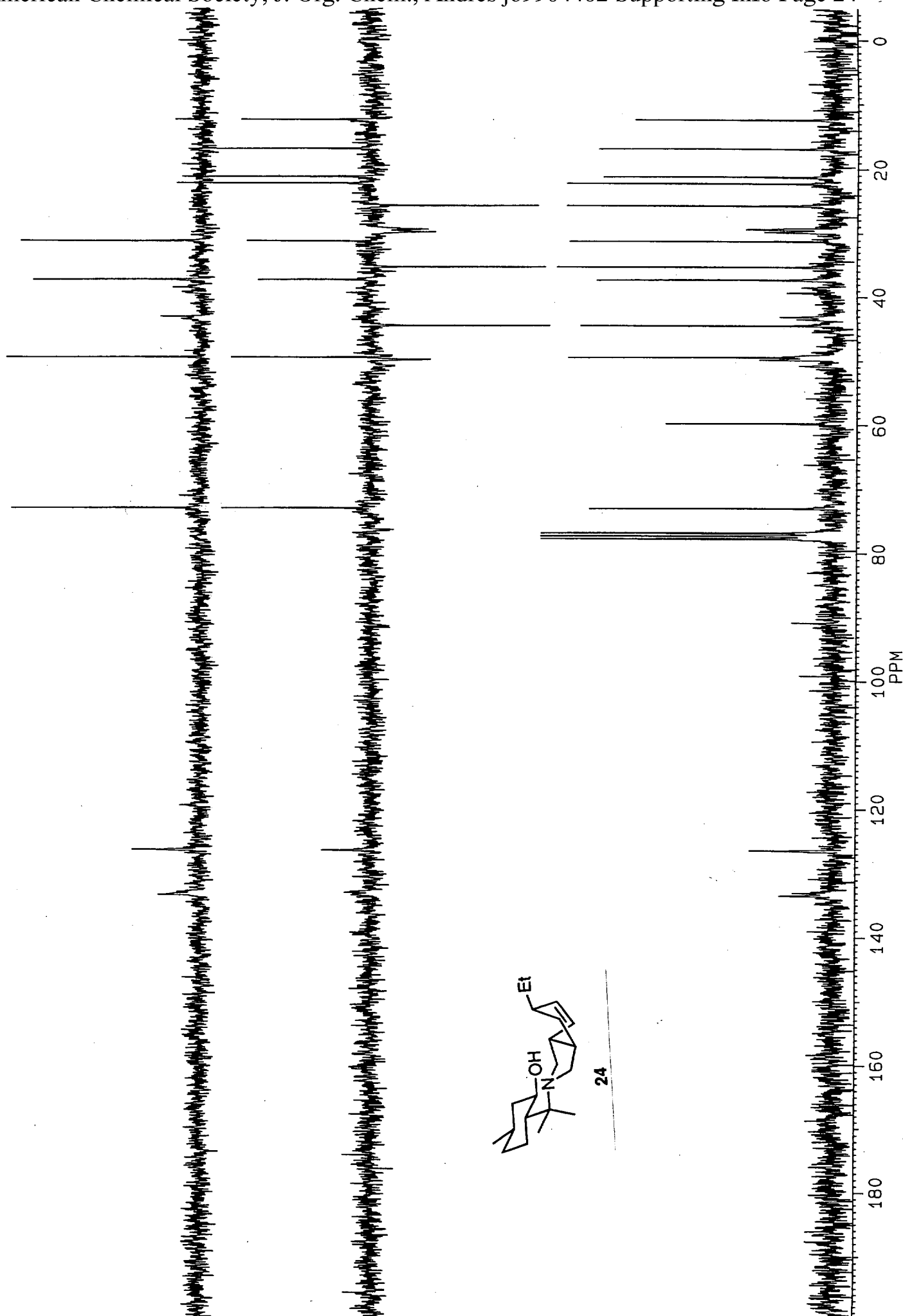


22



23

JN25JND1 C7AMINOAL.2^u

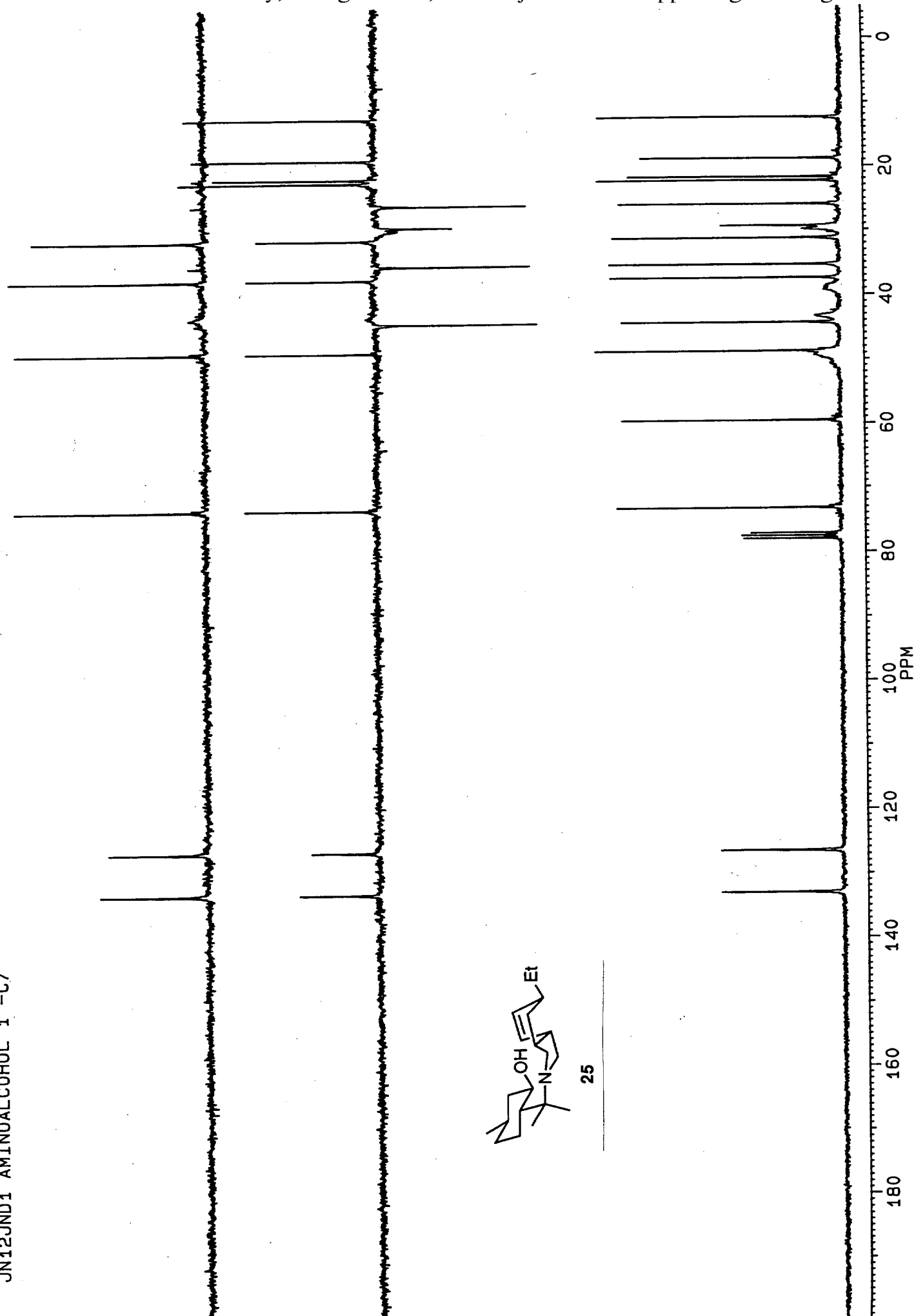


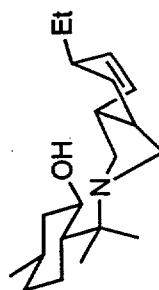
24

JN12JND1 AMINOALCOHOL 1 -C7

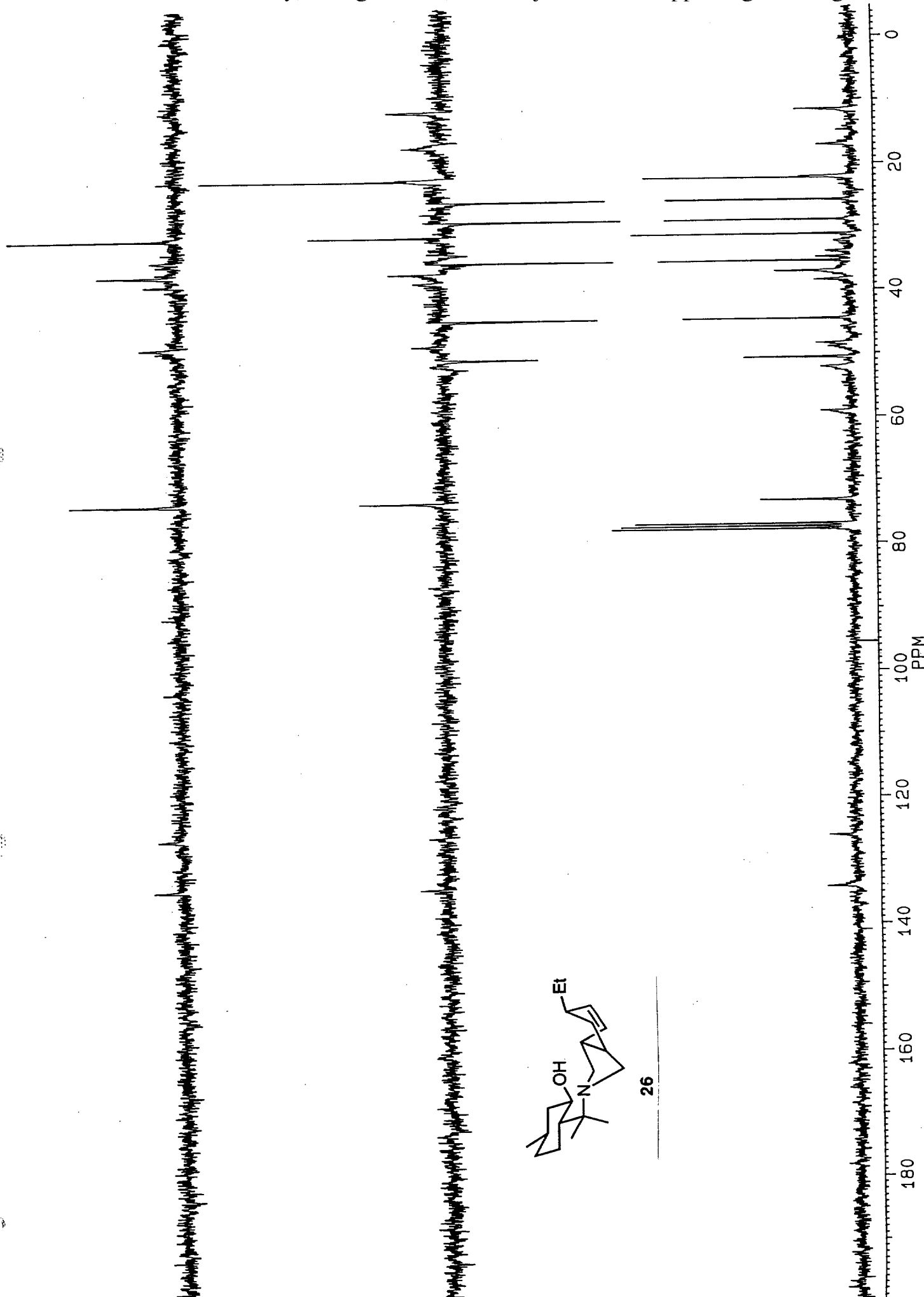


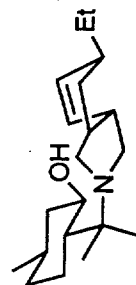
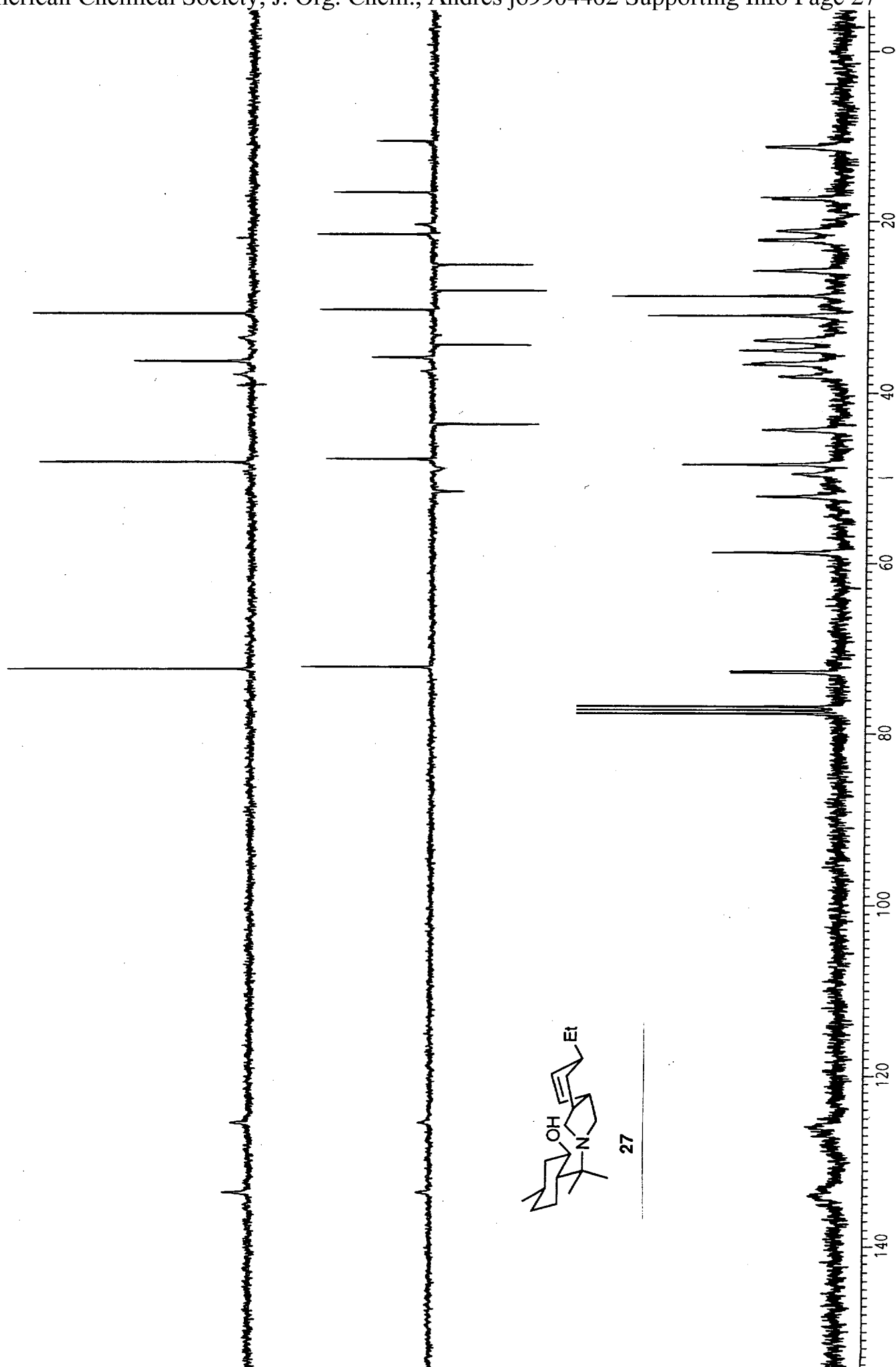
25



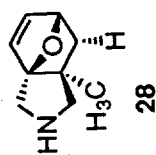
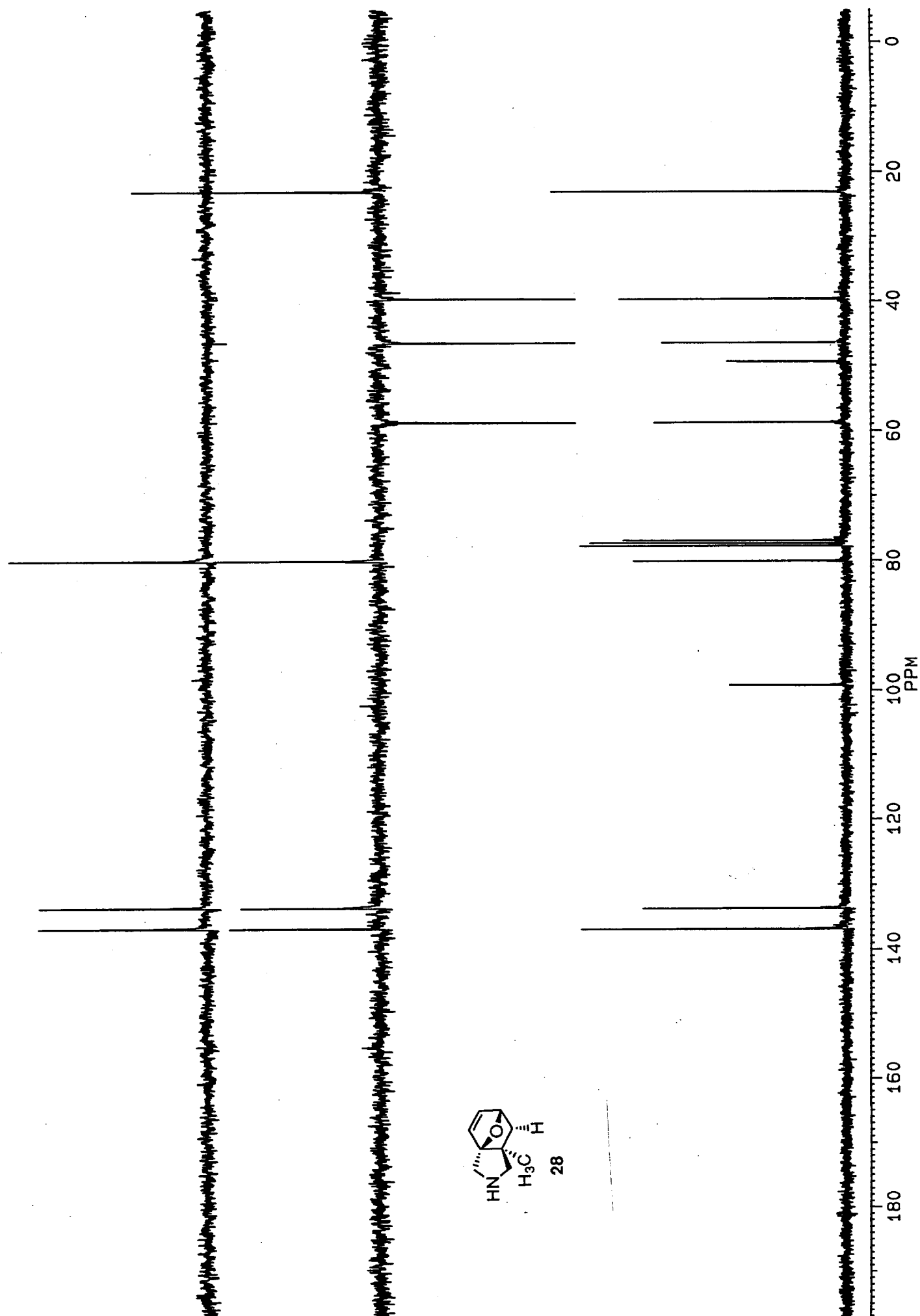


26

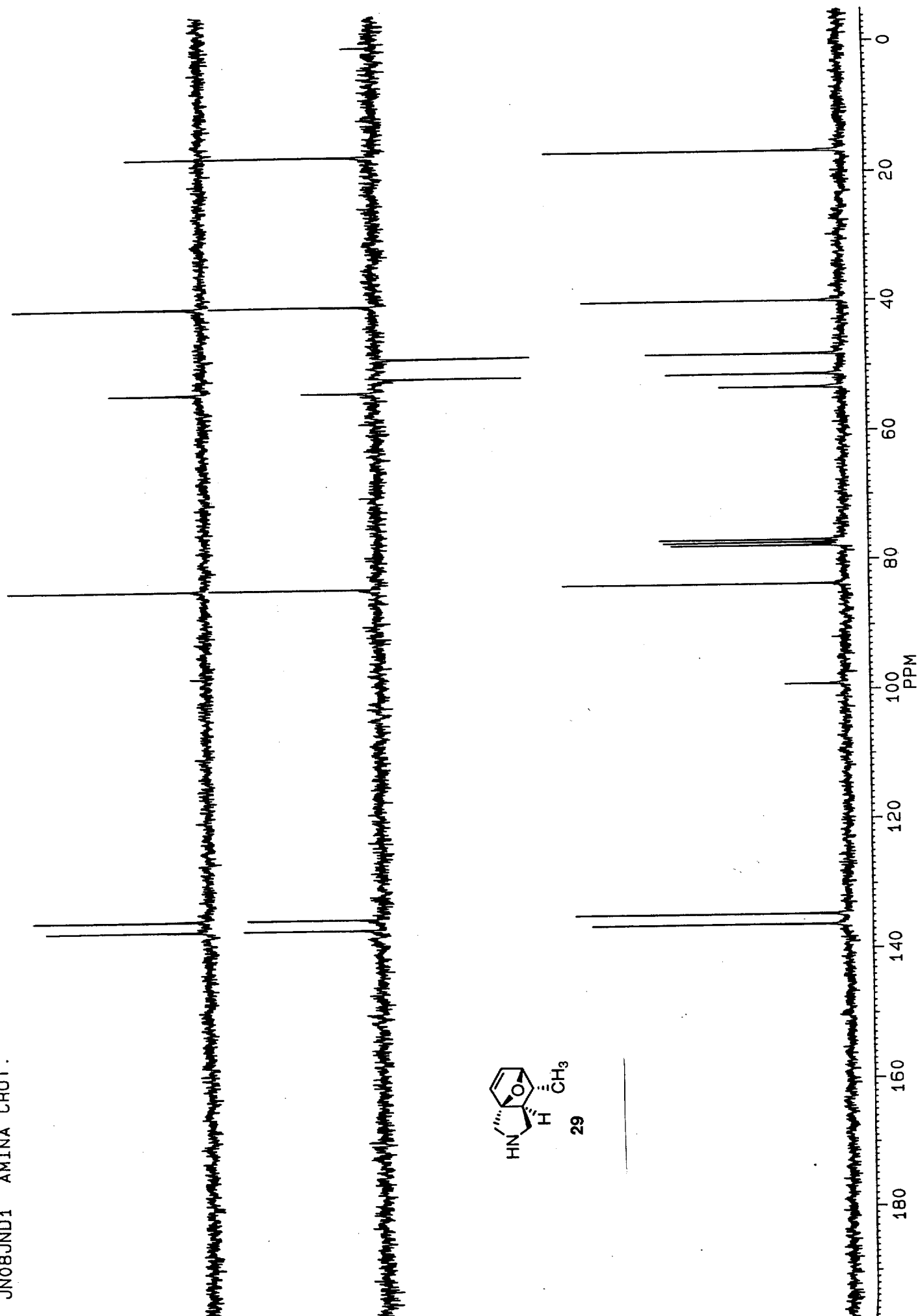
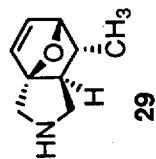




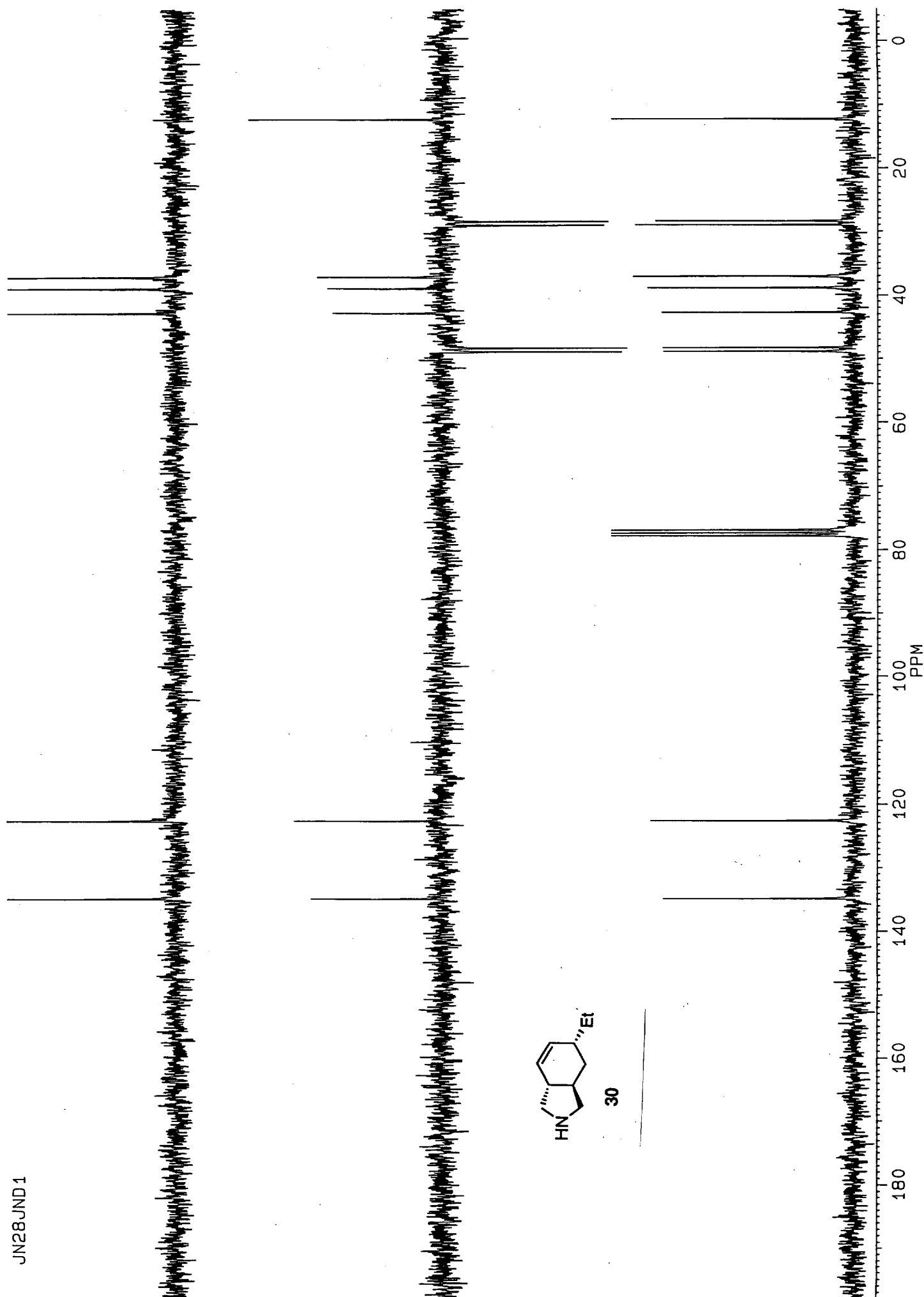
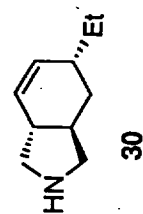
27

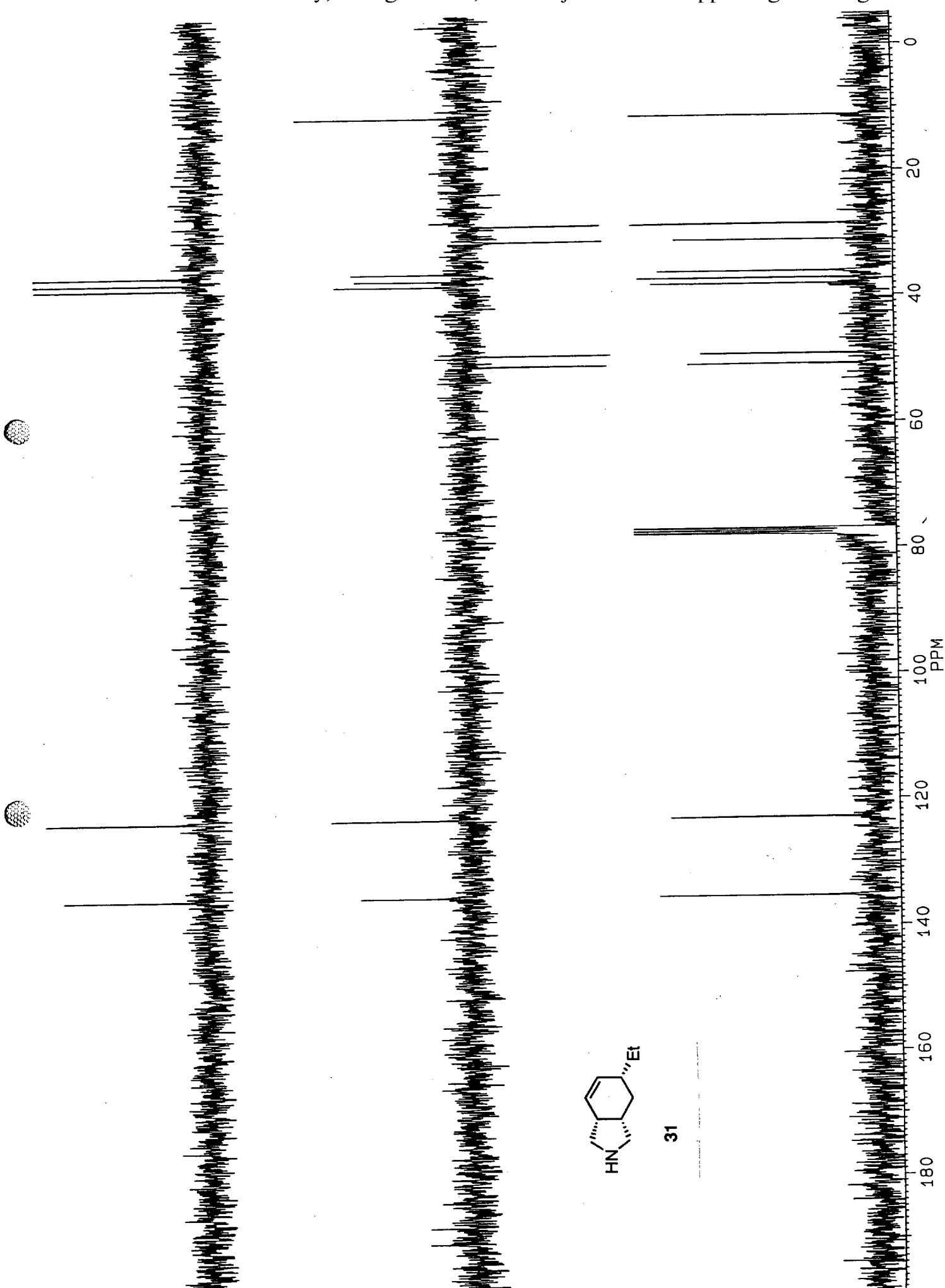


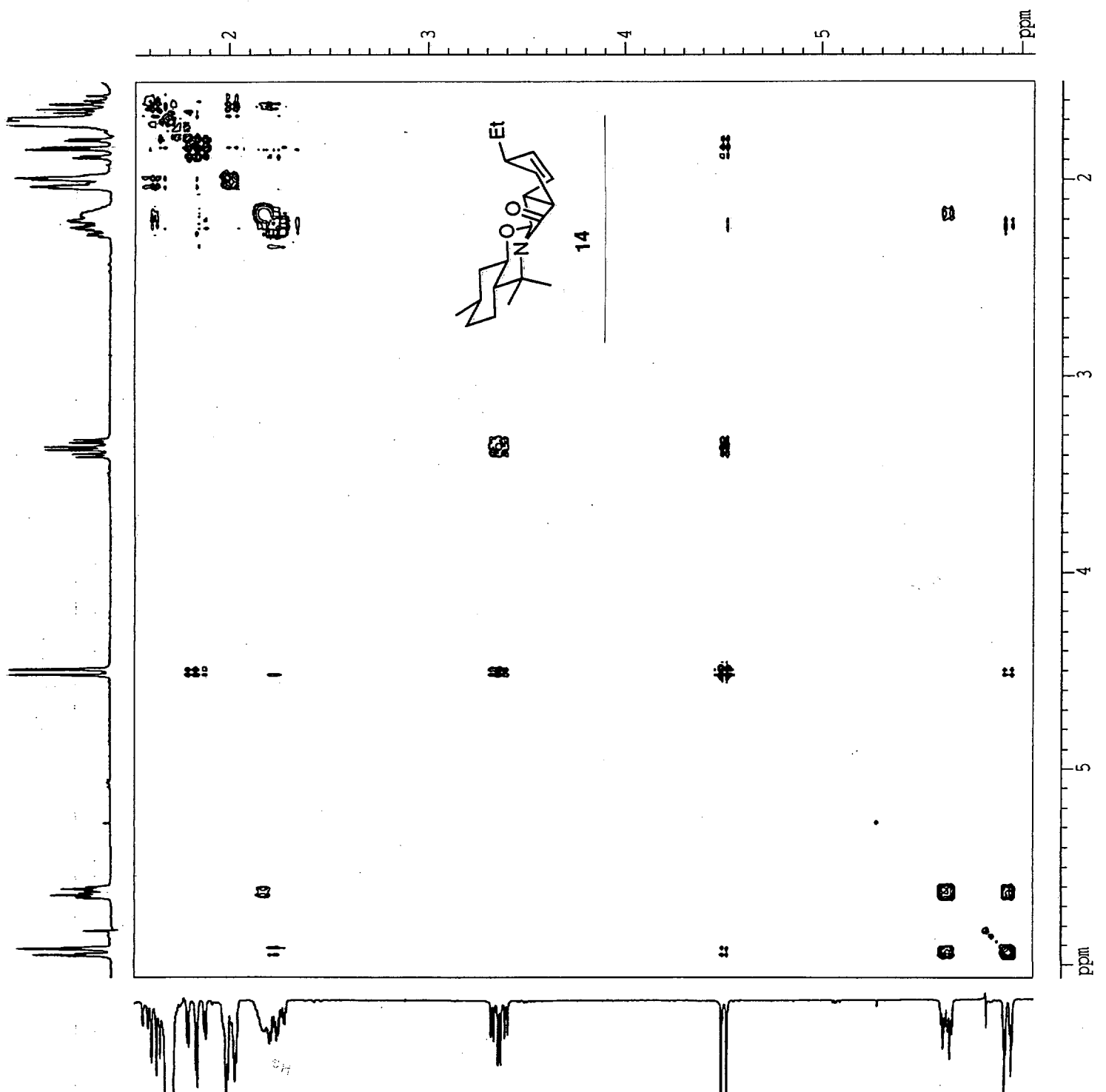
JN08JND1 AMINA CROT.



JN28JND1







Current Data Parameters
 NAME noesy-JN1
 EXPNO 2
 PROCNO 1

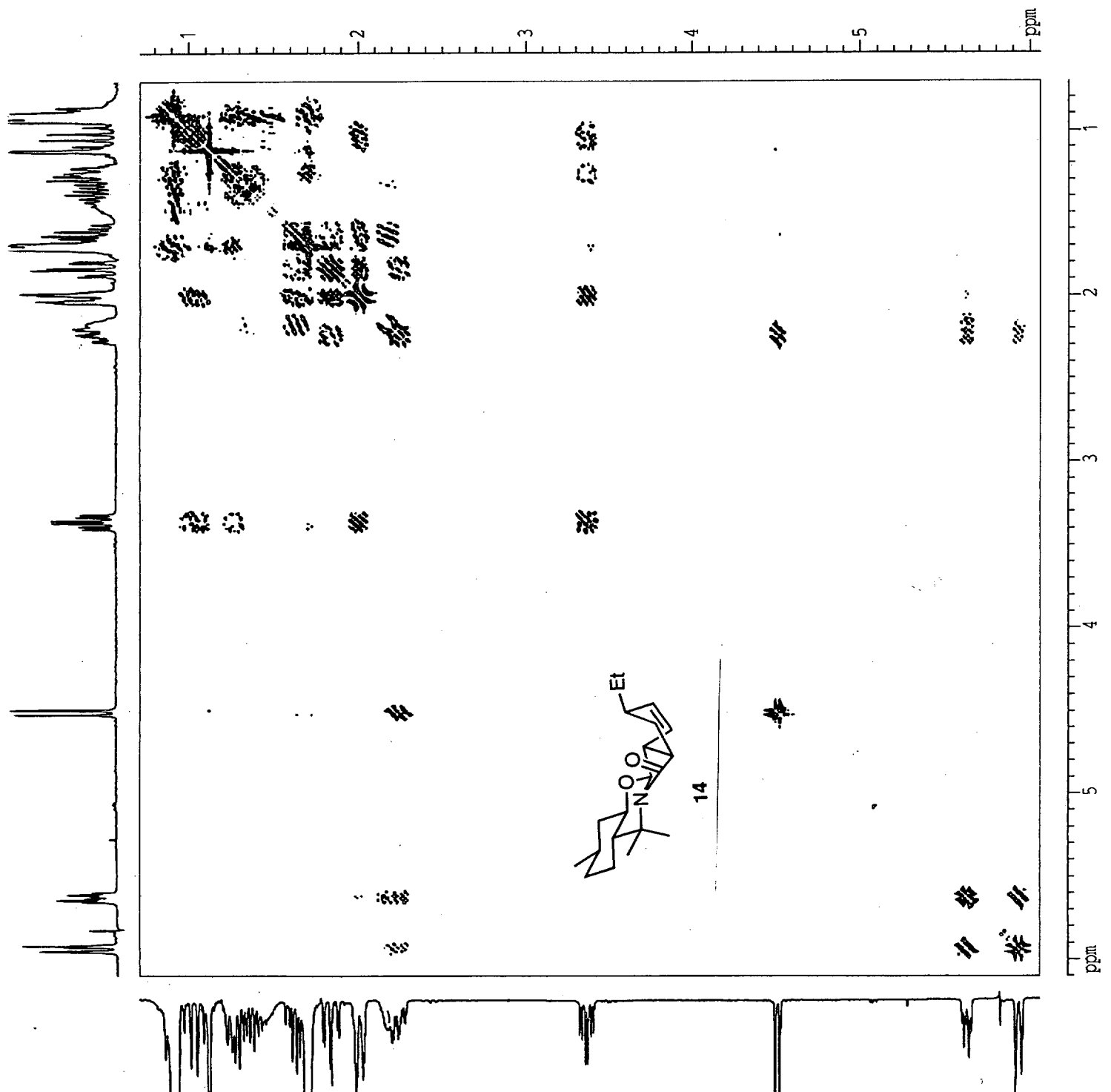
F2 - Acquisition Parameters
 Date 950108
 Time 12.13
 PULPROG noesytp
 SOLVENT CDCl3
 AQ 0.2703560 sec
 FIDRES 1.849550 Hz
 DQ 264.0 usec
 RG 256
 NUCLEUS ^1H
 DI 4.0000000 sec
 FI 6.7 usec
 D0 0.0000030 sec
 D8 3.0000000 sec
 DE 330.0 usec
 SF01 300.1343639 MHz
 SWH 1893.94 Hz
 TD 1024
 NS 8
 DS 2
 IN0 0.0002640 sec

F1 - Acquisition parameters
 ND0 2
 TD 512
 SF01 300.1344 MHz
 FIDRES 3.690098 Hz
 SW 6.310 ppm

F2 - Processing parameters
 SI 512
 SF 300.1333668 MHz
 WDW SINE
 SSB 2
 LB 0.00 Hz
 GB 0
 PC 1.00

F1 - Processing parameters
 SI 512
 MC2 TPPI
 SF 300.1333668 MHz
 WDW SINE
 SSB 2
 LB 0.00 Hz
 GB 0

2D NMR plot parameters
 CX2 16.00 cm
 CX1 16.00 cm
 F2PLO 6.063 ppm
 F2LO 1819.83 Hz
 F2PHI 1.503 ppm
 F2HI 451.16 Hz
 F1PLO 6.063 ppm
 F1LO 1819.80 Hz
 F1PHI 1.528 ppm
 F1HI 458.54 Hz
 F2PPMCM 0.28501 ppm/cm
 F2HZCM 85.54169 Hz/cm
 F1PPMCM 0.28347 ppm/cm
 F1HZCM 85.07925 Hz/cm



Current Data Parameters
NAME noesy-JN1
EXPNO 3
PROCNO 1

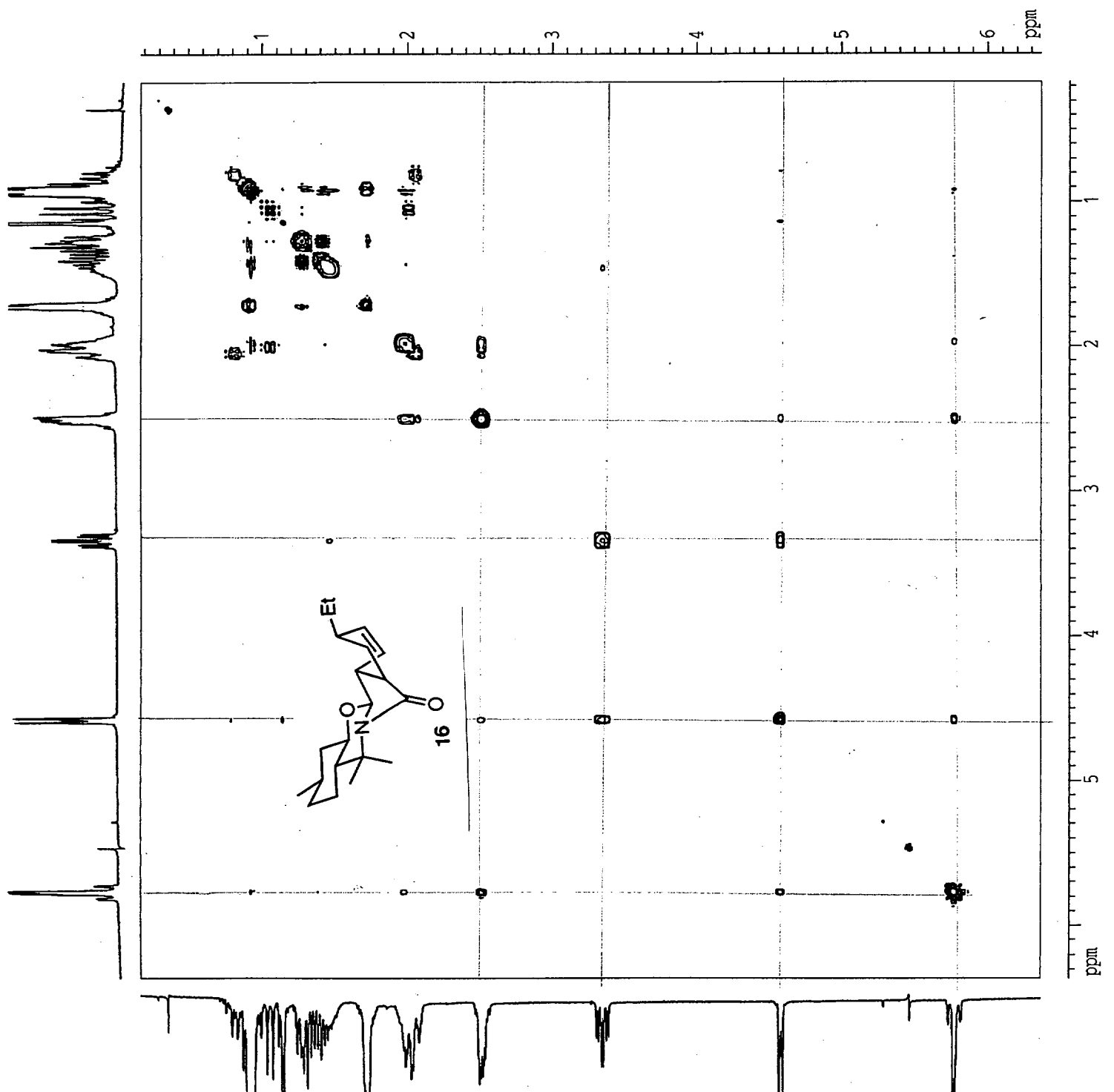
F2 - Acquisition Parameters
Date 950108
Time 20.34
PULPROG cosy
SOLVENT CDCl₃
AQ 0.2703560 sec
FIDRES 1.849550 Hz
DQ 264.0 usec
RG 256
NUCLEUS ¹H
D1 4.0000000 sec
F1 6.7 usec
D0 0.0000030 sec
P0 5.5 usec
DE 330.0 usec
SFO1 300.1343839 MHz
SWH 1893.94 Hz
TD 1024
NS 4
DS 2
IN0 0.0005280 sec

F1 - Acquisition parameters
ND0 1
TD 256
SFO1 300.1344 MHz
FIDRES 7.398195 Hz
SW 6.310 ppm

F2 - Processing parameters
SI 512
SF 300.1333668 MHz
WDW SINE
SSB 0
LB 0.00 Hz
GB 0
PC 1.00

F1 - Processing parameters
SI 512
MC2 OF
SF 300.1333668 MHz
WDW SINE
SSB 0
LB 0.00 Hz
GB 0

2D NMR plot parameters
CX2 16.00 cm
CX1 16.00 cm
F2PLO 6.100 ppm
F2LO 1830.92 Hz
F2PHI 0.702 ppm
F2HI 210.72 Hz
F1PLO 6.063 ppm
F1LO 1819.80 Hz
F1PHI 0.714 ppm
F1HI 214.40 Hz
F2PPCM 0.33739 ppm/cm
F2HCM 101.26286 Hz/cm
F1PPCM 0.33431 ppm/cm
F1HCM 100.33802 Hz/cm



Current Data Parameters

NAME noesy-2D
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters

Date 950110
Time 5.05
PULPROG noesytp
SOLVENT CDCl3
AQ 0.2754760 sec
FIDRES 1.815172 Hz
DM 269.0 usec
RG 512
NUCLEUS 1H
D1 3.0000000 sec
P1 6.8 usec
D0 0.0000030 sec
D8 3.0000000 sec
DE 336.3 usec
SFO1 300.1343472 MHz
SWH 1858.74 Hz
TD 1024
NS 8
DS 2
IN0 0.0002690 sec

F1 - Acquisition parameters

ND0 2
TD 256
SFO1 300.1343 MHz
FIDRES 7.260672 Hz
SW 6.193 ppm

F2 - Processing parameters

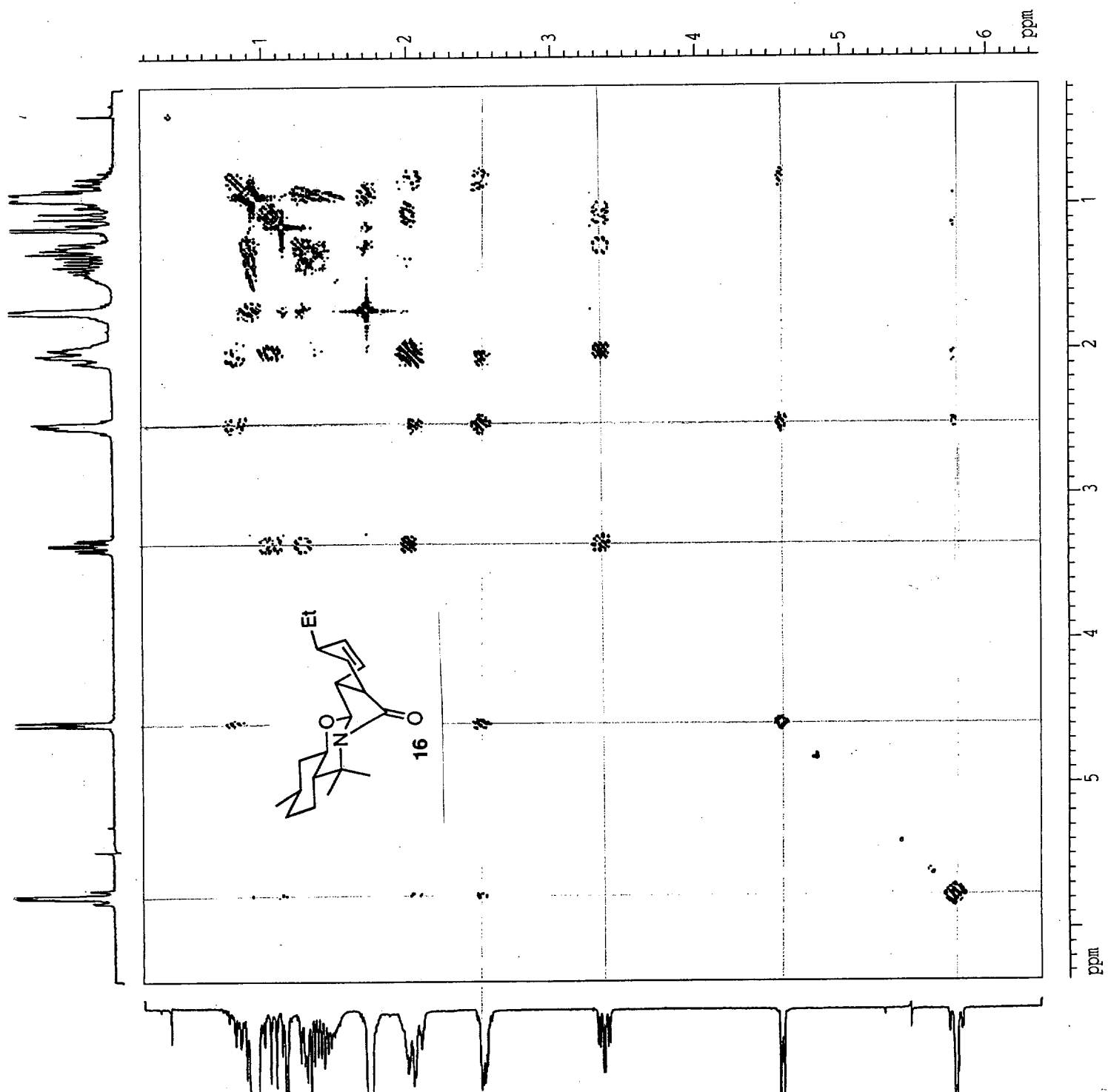
SI 512
SF 300.1333668 MHz
WDW SINE
SSB 2
LB 0.00 Hz
GB 0
PC 1.00

F1 - Processing parameters

SI 512
MC2 TPPI
SF 300.1333668 MHz
WDW SINE
SSB 2
LB 0.00 Hz
GB 0

2D NMR plot parameters

CX2 16.00 cm
CX1 16.00 cm
F2FLO 6.363 ppm
F2LO 1909.85 Hz
F2PHI 0.170 ppm
F2HT 51.12 Hz
F1FLO 6.363 ppm
F1LO 1909.77 Hz
F1PHI 0.170 ppm
F1HT 51.03 Hz
F2PPMCM 0.38706 ppm/cm
F2HECM 116.17100 Hz/cm
F1PPMCM 0.38706 ppm/cm
F1HECM 116.17075 Hz/cm



Current Data Parameters
NAME noesy-jn2
EXPNO 3
PROCNO 1

F2 - Acquisition Parameters
Date 950109
Time 21:50
PULPROG cosy
SOLVENT CDCl3
AQ 0.2754760 sec
FIDRES 1.815172 Hz
DQ 269.0 usec
RG 512
NUCLEUS 1H
D1 4.0000000 sec
P1 6.8 usec
D0 0.0000030 sec
P0 5.5 usec
DE 336.3 usec
SFO1 300.134372 MHz
SWH 1858.74 Hz
TD 1024
NS 4
DS 2
IN0 0.0005380 sec

F1 - Acquisition Parameters
ND0 1
TD 256
SFO1 300.1343 MHz
FIDRES 7.280672 Hz
SW 6.193 ppm

F2 - Processing parameters
SI 512
SF 300.1333668 MHz
WDW SINE
SSB 0
LB 0.00 Hz
GB 0
PC 1.00

F1 - Processing parameters
SI 512
SF 300.1333668 MHz
WDW SINE
SSB 0
LB 0.00 Hz
GB 0

2D NMR plot parameters
CX2 16.00 cm
CX1 16.00 cm
F2FLO 6.363 ppm
F2LO 1909.85 Hz
F2PHI 0.170 ppm
F2HI 51.12 Hz
F1FLO 6.363 ppm
F1LO 1909.77 Hz
F1PHI 0.170 ppm
F1HI 51.03 Hz
F2FPMCH 0.38706 ppm/cm
F2HECH 116.17100 Hz/cm
F1FPMCH 0.38706 ppm/cm
F1HECH 116.17075 Hz/cm

Current Data Parameters
 NAME
 EXPNO 3
 PROCNO 1

F2 - Acquisition Parameters

Date 950228
 Time 20.51
 PULPROG cosy
 SOLVENT CDCl3
 AQ 0.2652360 sec
 FIDRES 1.885256 Hz
 DQ 259.0 usec
 RG 256
 NUCLEUS 1H
 DI 6.0000000 sec
 P1 6.7 usec
 D0 0.0000030 sec
 F0 3.0 usec
 DS 323.8 usec
 SFO1 300.1343014 MHz
 SWH 1930.50 Hz
 TD 1024
 NS 4
 DS 2
 IN0 0.0005180 sec

F1 - Acquisition Parameters

ND0 1
 TD 256
 SFO1 300.1343 MHz
 FIDRES 7.540992 Hz
 SW 6.432 ppm

F2 - Processing parameters

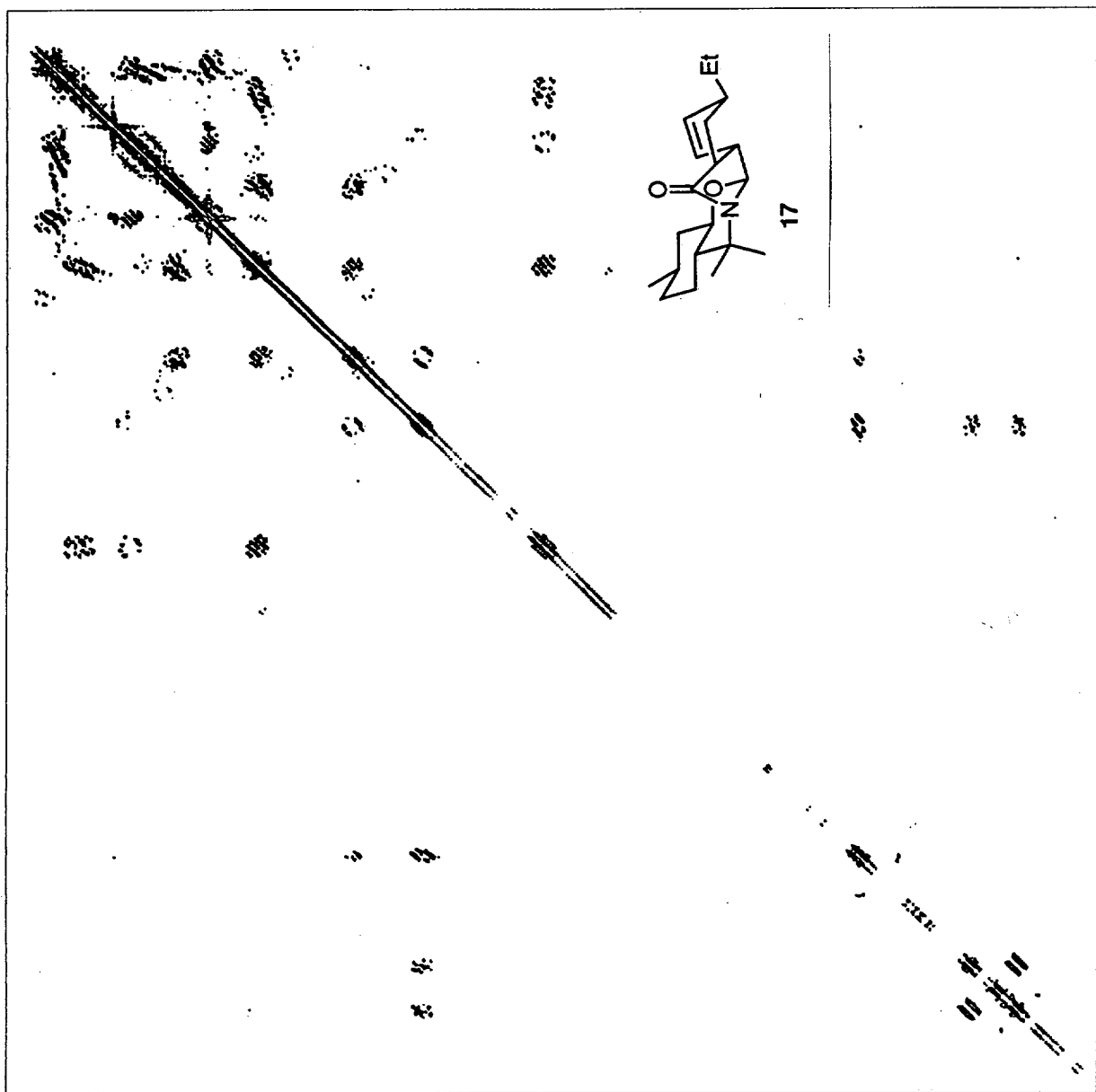
SI 512
 SF 300.1333668 MHz
 WDW SINE
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.00

F1 - Processing parameters

SI 512
 MC2 OF
 SF 300.1333668 MHz
 WDW SINE
 SSB 0
 LB 0.00 Hz
 GB 0

2D NMR plot parameters

CX2 16.00 cm
 CX1 16.00 cm
 F2PLO 6.280 ppm
 F2LO 1884.86 Hz
 F2PHI 0.589 ppm
 F2HI 176.82 Hz
 F1LO 6.255 ppm
 F1LO 1877.22 Hz
 F1PHI 0.652 ppm
 F1HI 195.58 Hz
 F2PPMCM 0.35568 ppm/cm
 F2HZCM 106.75261 Hz/cm
 F1PPMCM 0.35019 ppm/cm
 F1HZCM 105.10257 Hz/cm



Current Data Parameters
NAME JNTZ
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters
Date 950228
Time 12.30
PULPROG noesytp
SOLVENT CDCl3
AQ 0.2652360 sec
FIDRES 1.885256 Hz
RG 259.0 usec
RG 256
NUCLEUS 1H
D1 6.0000000 sec
F1 6.7 usec
D0 0.0000030 sec
D8 1.0000000 sec
DS 323.8 usec
SFO1 300.134014 MHz
SWH 1930.50 Hz
TD 1024
NS 8
DS 2
IN0 0.0002590 sec

F1 - Acquisition Parameters
ND0 2
TD 512
SFO1 300.1343 MHz
FIDRES 3.770496 Hz
SW 6.432 ppm

F2 - Processing Parameters
SI 512
SF 300.1333668 MHz
WDW SINE
SSB 2
LB 0.00 Hz
GB 0
PC 1.00

F1 - Processing Parameters
SI 512
WC2 TPPI
SF 300.1333668 MHz
WDW SINE
SSB 2
LB 0.00 Hz
GB 0

2D NMR plot parameters
CX2 16.00 cm
CX1 16.00 cm
F2FLO 6.280 ppm
F2LO 1884.86 Hz
F2PHI 0.551 ppm
F2HT 165.51 Hz
F1FLO 6.255 ppm
F1LO 1877.22 Hz
F1PHI 0.539 ppm
F1HT 161.65 Hz
F2PPMCM 0.35804 ppm/cm
F2HZCM 107.45957 Hz/cm
F1PPMCM 0.35725 ppm/cm
F1HZCM 107.22348 Hz/cm

