



JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

J. Am. Chem. Soc., 1998, 120(47), 12232-12236, DOI:[10.1021/ja982277t](https://doi.org/10.1021/ja982277t)

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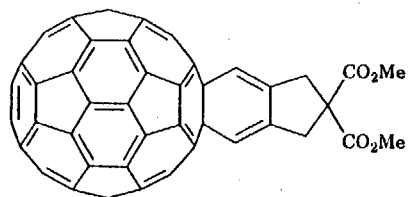
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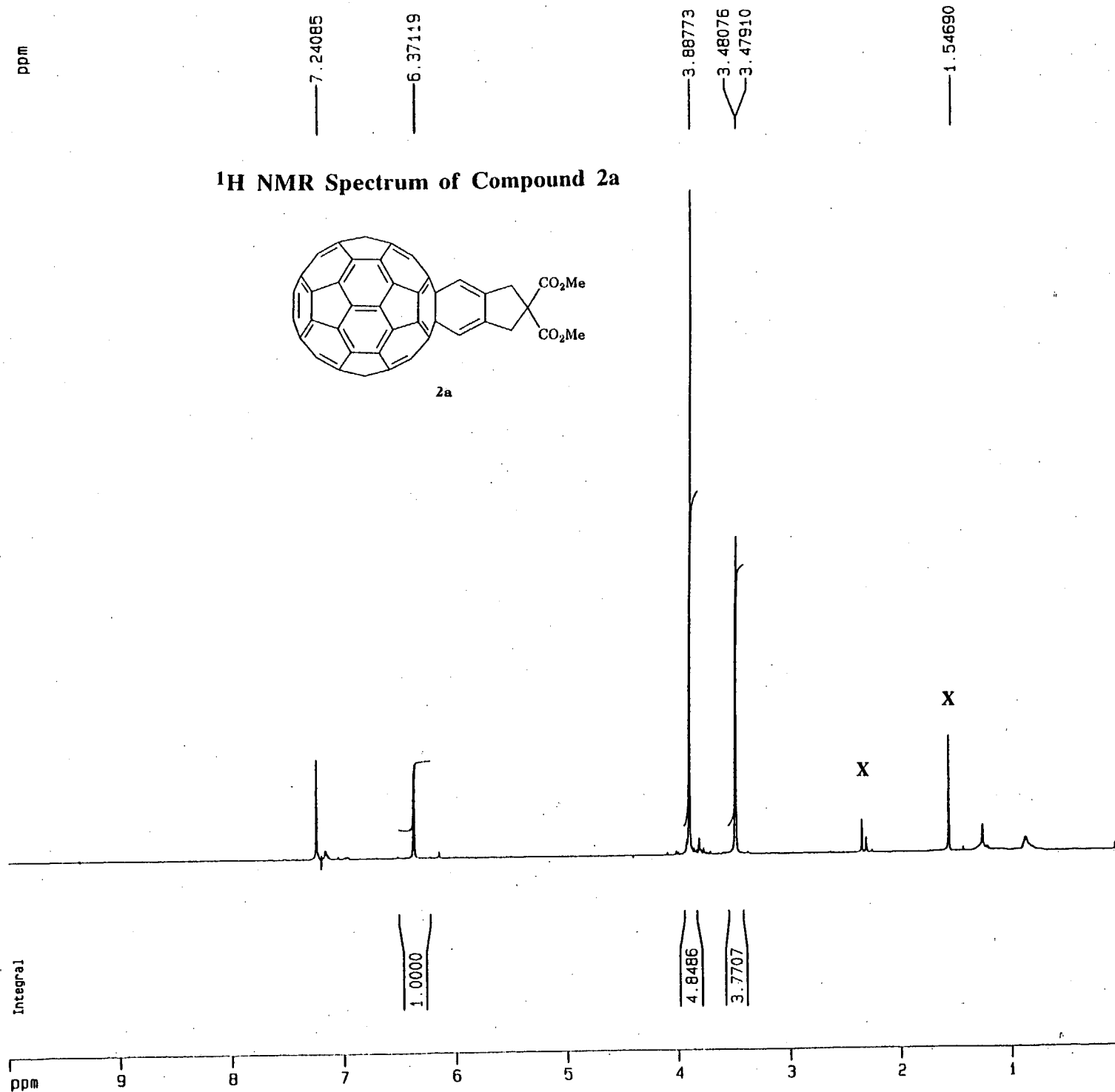
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Experiment Data Parameters
 E KCS-10
 NO 1
 QCHO 1
 Acquisition Parameters
 e 960714
 s 18.41
 TRUM nm600
 KHD 5 mm TXI 13C
 PROG 2g
 16384
 VENT Pyr
 8
 0
 7183.908 Hz
 RES 0.438471 Hz
 1.1403764 sec
 512
 69.600 usec
 4.50 usec
 297.0 K
 1.00000000 sec
 10.00 usec
 4.50 usec
 599.9983187 MHz
 1H
 0.00 dB
 Processing parameters
 16384
 599.9956821 MHz
 no
 0
 0.00 Hz
 0
 1.00
 NMR plot parameters
 20.00 cm
 10.000 ppm
 5999.96 Hz
 0.000 ppm
 0.00 Hz
 0.50000 ppm/cm
 299.99783 Hz/cm

¹H NMR Spectrum of Compound 2a

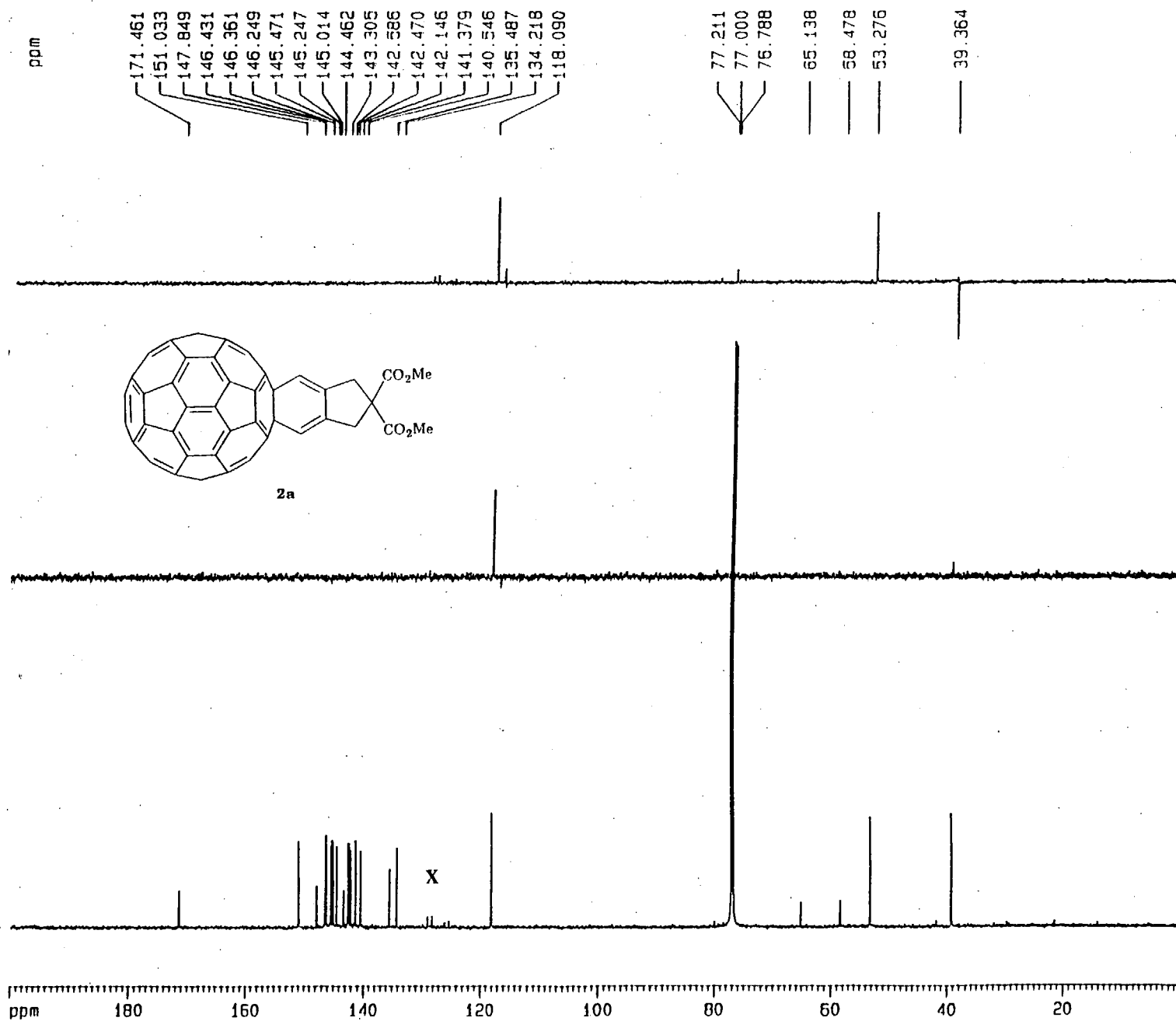


2a

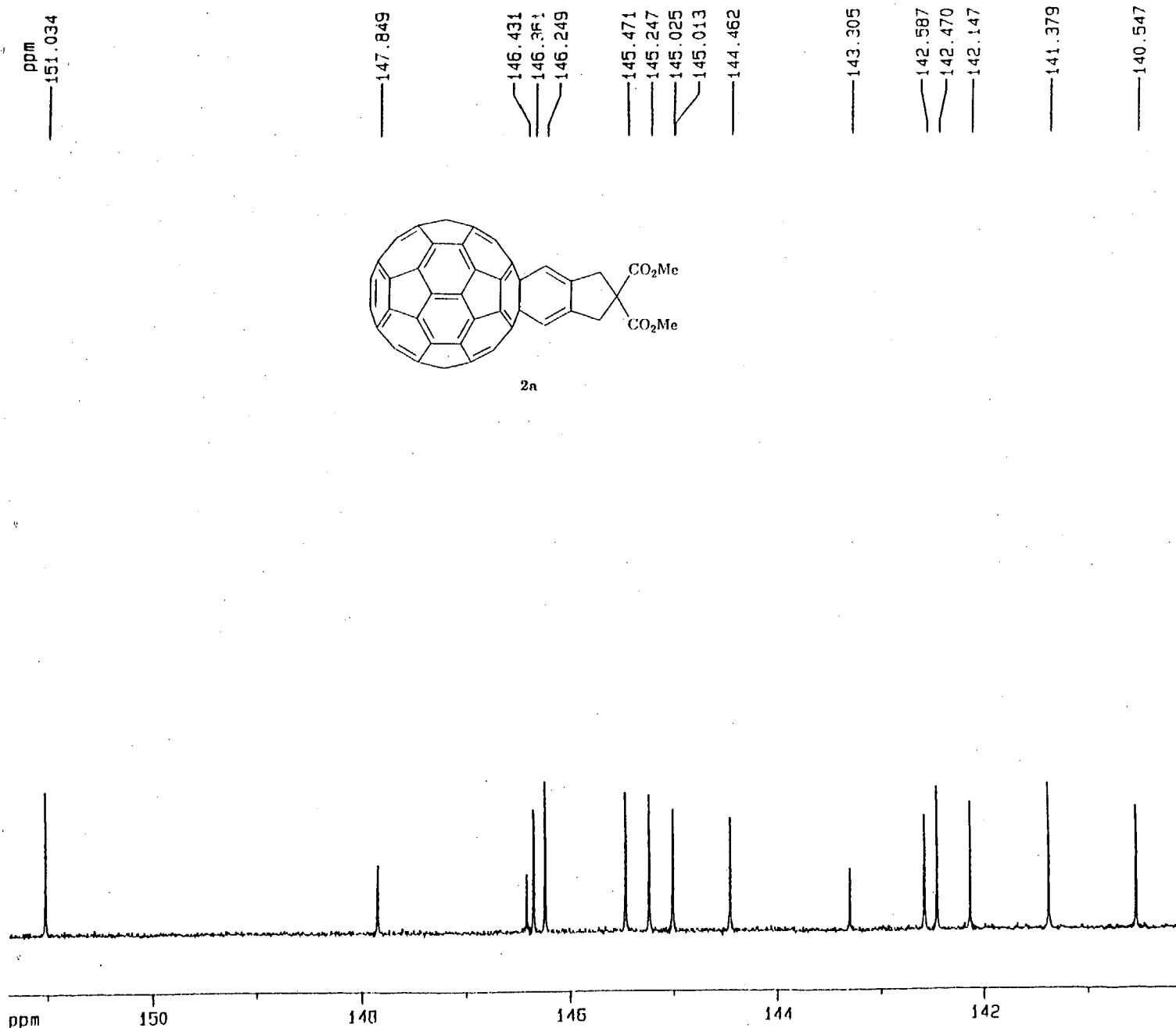


¹³C NMR Spectrum and DEPT of Compound 2a

Experiment Data Parameters
 Name KCS-10
 EX 2
 PR 1
 F2 Acquisition Parameters
 Da 960714
 T1 18.51
 IN nmr600
 PR 5 mm TXI 13C
 PU zgpg
 TD 65536
 SO CDC13
 NS 7548
 OS 0
 SW 45454.547 Hz
 FI 0.693581 Hz
 AQ 0.7209460 sec
 RG 1024
 DW 11.000 usec
 DE 4.50 usec
 TE 300.0 K
 DI 0.00002000 sec
 PL 25.00 dB
 DI 5.00000000 sec
 CP waltz16
 PC 100.00 usec
 SF 599.9978000 MHz
 NU 1H
 PL 120.00 dB
 PL 22.00 dB
 P1 5.40 usec
 DE 4.50 usec
 SF 150.8690338 MHz
 NU 13C
 PL 0.00 dB
 DI 0.03000000 sec
 F2 Processing parameters
 SI 65536
 SF 150.8690338 MHz
 WM EM
 SS 0
 LB 3.00 Hz
 GB 0
 PC 1.40
 ID Plot parameters
 CX 20.00 cm
 FI 200.000 ppm
 F1 30173.81 Hz
 F2 0.000 ppm
 F2 0.00 Hz
 PM 10.00000 ppm/cm
 HZ 1508.69031 Hz/cm



¹³C NMR Spectrum of Compound 2a (Expansion 140-151 ppm)



Experiment Data Parameters
KCS-10
2
1

Acquisition Parameters
960714
18.51
nmr600
5 mm TXI 13C
2000
65536
CDCl3
7548
0
45454.547 Hz
0.693581 Hz
0.7209460 sec
1024
11.000 usec
4.50 usec
300.0 K
0.00002000 sec
25.00 dB
5.00000000 sec
waltz16
100.00 usec
599.9978000 MHz
1H
120.00 dB
22.00 dB
5.40 usec
4.50 usec
150.8638953 MHz
13C
0.00 dB
0.03000000 sec

Processing parameters
65536
150.8690338 MHz
no
0
0.00 Hz
0
1.40

Plot parameters
20.00 cm
151.378 ppm
22838.19 Hz
140.055 ppm
21130.02 Hz
0.56511 ppm/cm
85.40874 Hz/cm

Mass Spectrum (FAB+) of Compound 2a

[Mass Spectrum]

Data : 8329

Sample: SANTU-3 = 928 m/z

Inlet : Direct

Spectrum Type : Regular [MF-Linear]

RT : 0.05 min Scan# : 2

BP : m/z 720.5873 Int. : 56.21

Output m/z range : 310.0000 to 1200.0000

Date : 12-Nov-97 12:13

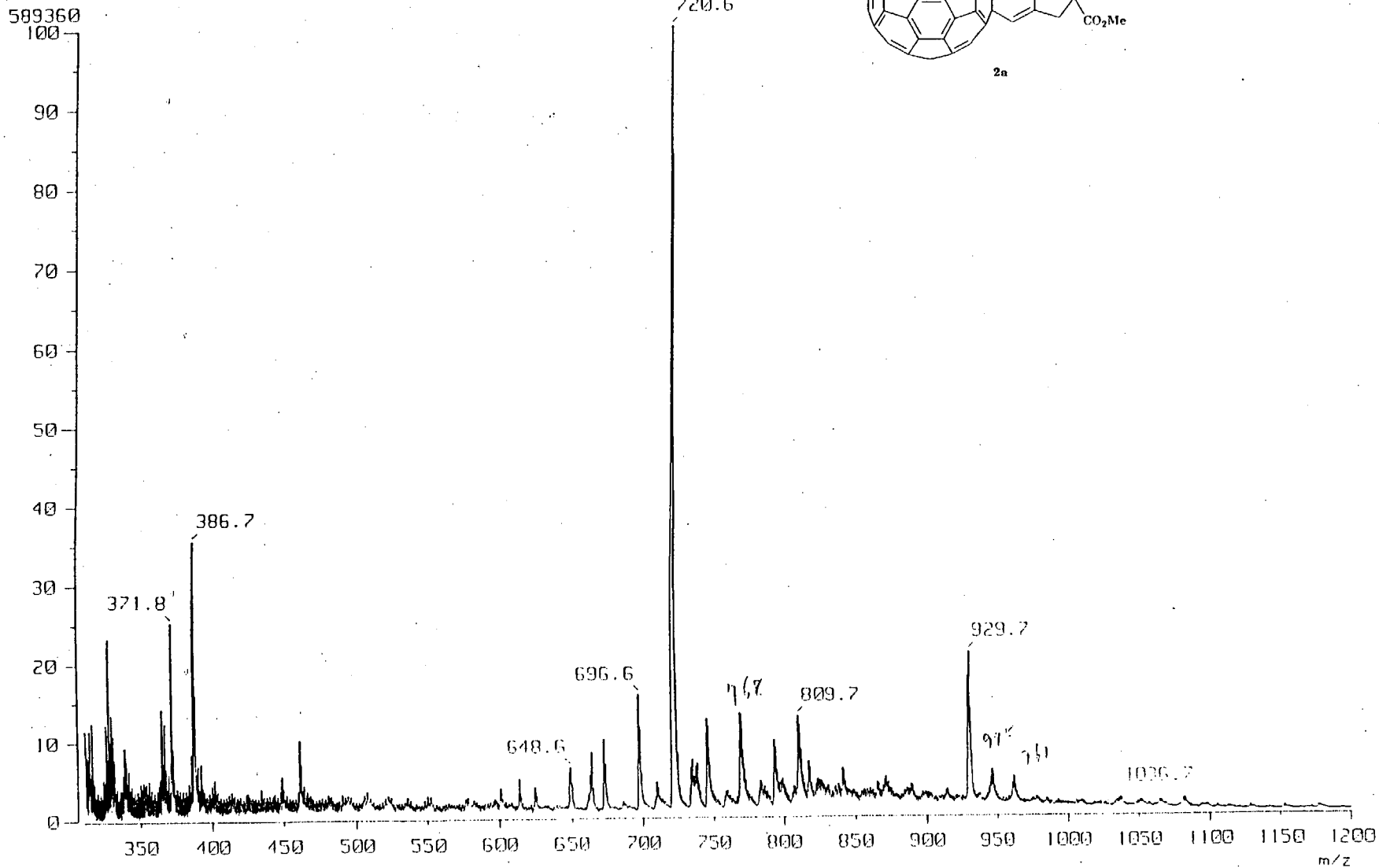
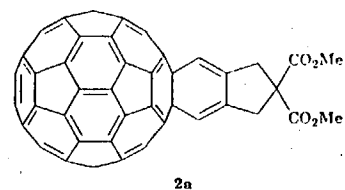
Note : Tsing-Hua Univ. (S.J. Hwang)

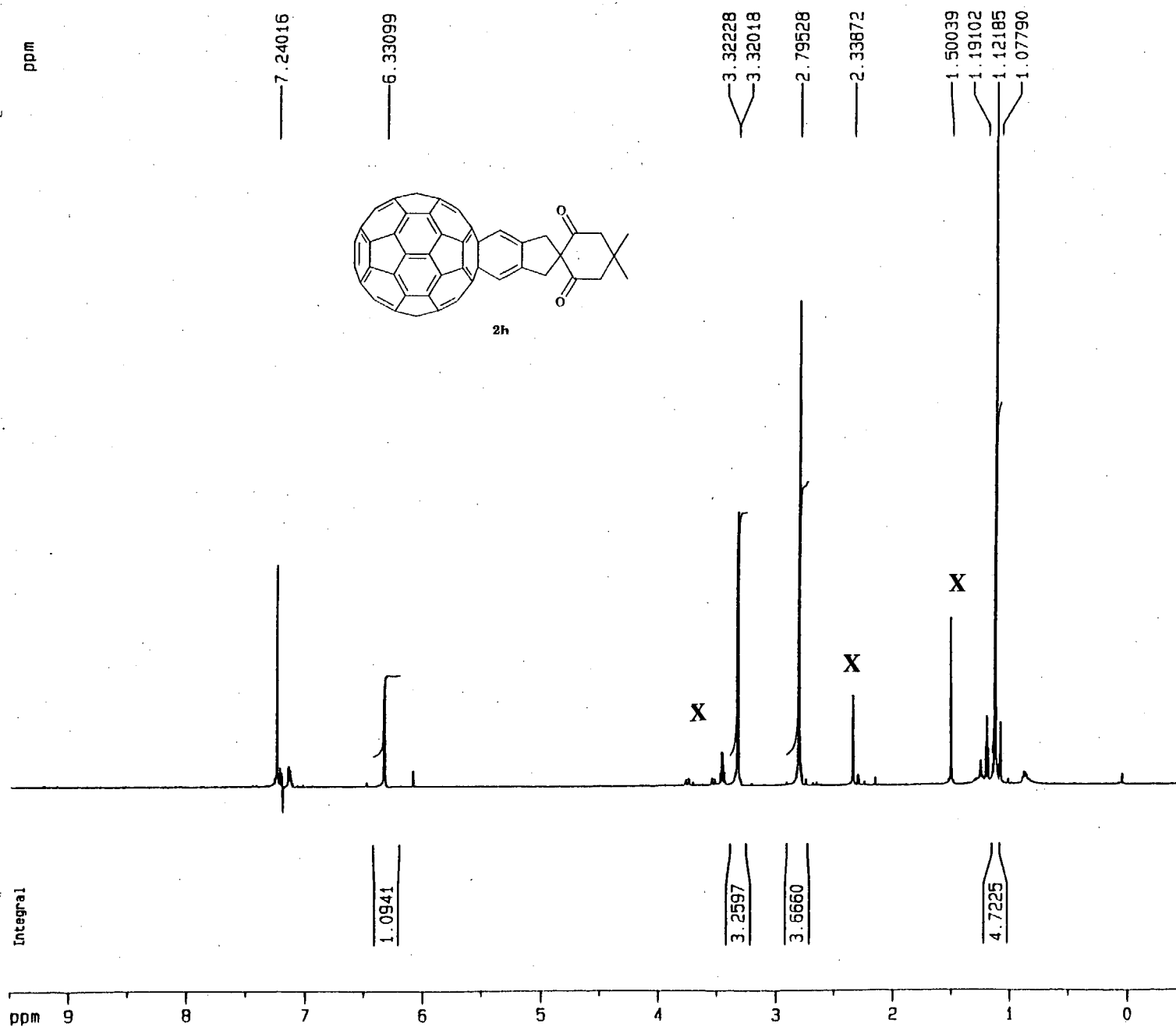
Ion Mode : FAB+

Temp : 0.0 deg.C

Cut Level : 0.00 %

720.6



¹H NMR Spectrum of Compound 2h

Experiment Data Parameters

KCS-15
2
1

Acquisition Parameters

980210
1.58
dms600
5 mm TXI 13C
zgpg
65536
CDC13
6161
0

45454.547 Hz

0.693581 Hz

0.7209460 sec

1024

11.000 usec

4.50 usec

300.0 K

0.00002000 sec

25.00 dB

5.00000000 sec

waltz16

100.00 usec

599.9978000 MHz

1H

120.00 dB

22.00 dB

5.40 usec

4.50 usec

150.8838953 MHz

13C

0.00 dB

0.03000000 sec

Processing parameters

65536

150.8890532 MHz

EM

0

3.00 Hz

0

1.40

MR plot parameters

20.00 cm

220.000 ppm

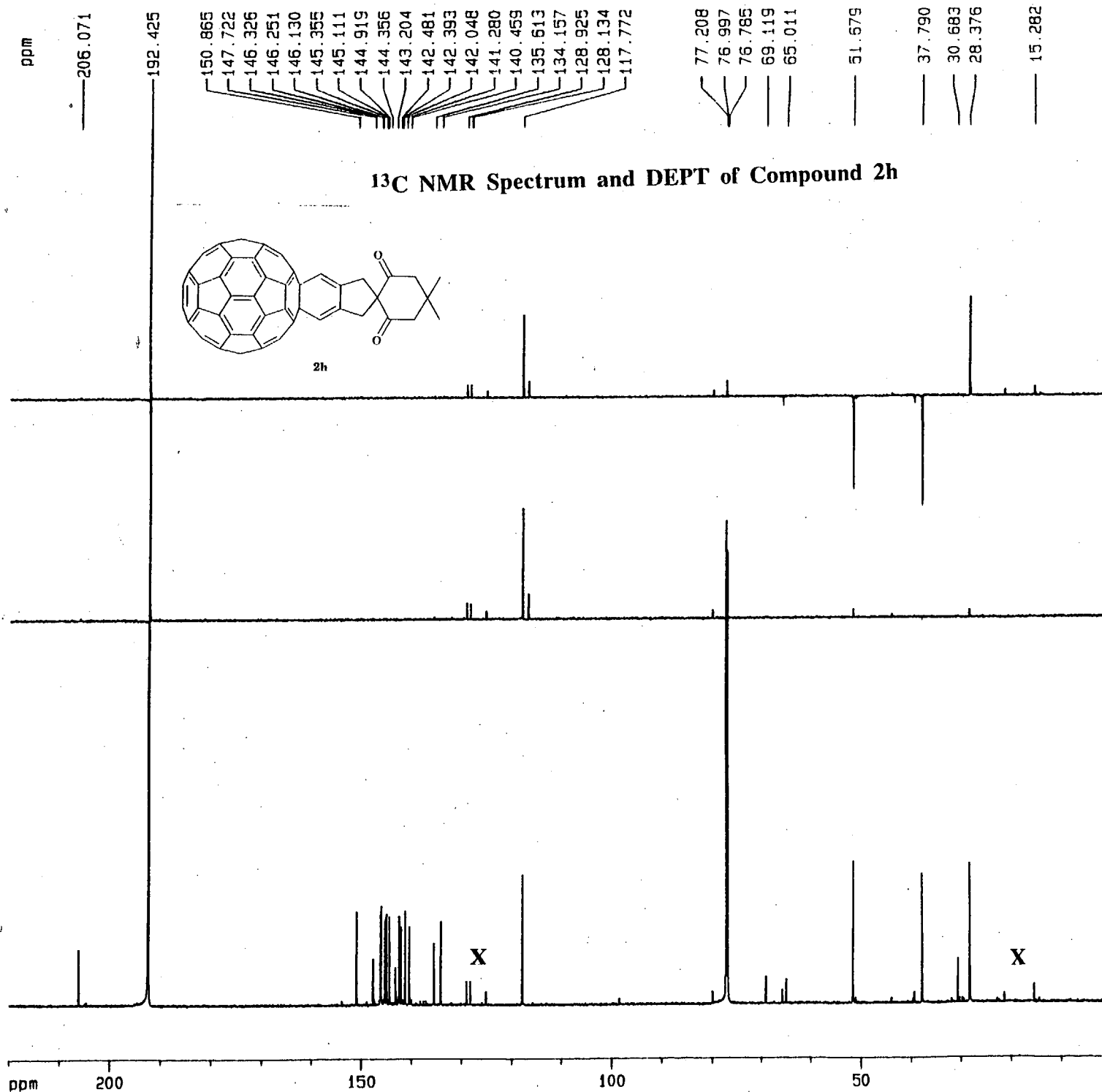
33191.19 Hz

0.000 ppm

0.00 Hz

11.00000 ppm/cm

1659.55957 Hz/cm



Experiment Parameters
 Name KCS-16
 NO 2
 OCNO 1

Acquisition Parameters

980210
 1.59
 TRUM dm600
 BHD 5 mm TXI 13C
 PROG zgpg
 65536
 VENT CDC13
 8161
 0
 45454.547 Hz
 0.693581 Hz
 0.7209460 sec
 1024
 11.000 usec
 4.50 usec
 300.0 K
 0.00002000 sec
 25.00 dB
 5.00000000 sec
 waltz16
 100.00 usec
 599.9978000 MHz
 1H
 120.00 dB
 22.00 dB
 5.40 usec
 4.50 usec
 150.8838953 MHz
 13C
 0.00 dB
 0.03000000 sec

Processing parameters

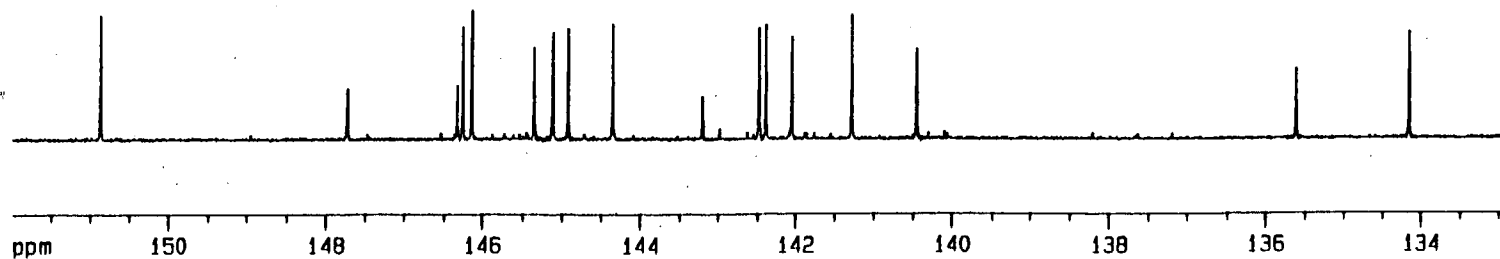
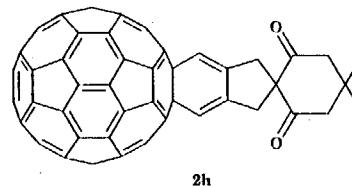
65536
 150.8690532 MHz
 no
 0
 0.00 Hz
 0
 1.40

MR plot parameters

20.00 cm
 151.984 ppm
 22929.74 Hz
 132.740 ppm
 20026.41 Hz
 0.96220 ppm/cm
 145.16656 Hz/cm

ppm
 —150.864
 —147.721
 146.326
 146.249
 146.129
 145.354
 145.110
 144.918
 144.355
 143.203
 142.480
 142.392
 142.047
 141.279
 140.458
 —135.613
 —134.157

¹³C NMR Spectrum of Compound 2h (Expansion 134-151 ppm)



Mass Spectrum (FAB+) of Compound 2h

[Mass Spectrum]

Data : 8767

Date : 12-Feb-98 14:58

Sample: Sanfu-16 = 936 m/z

Note : Tsin-Hua Univ. (S.J. Wang)

Inlet : Direct

Ion Mode : FAB+

Spectrum Type : Regular (MF-Linear)

RT : 0.05 min

Scan# : 2

Temp : 0.0 deg.C

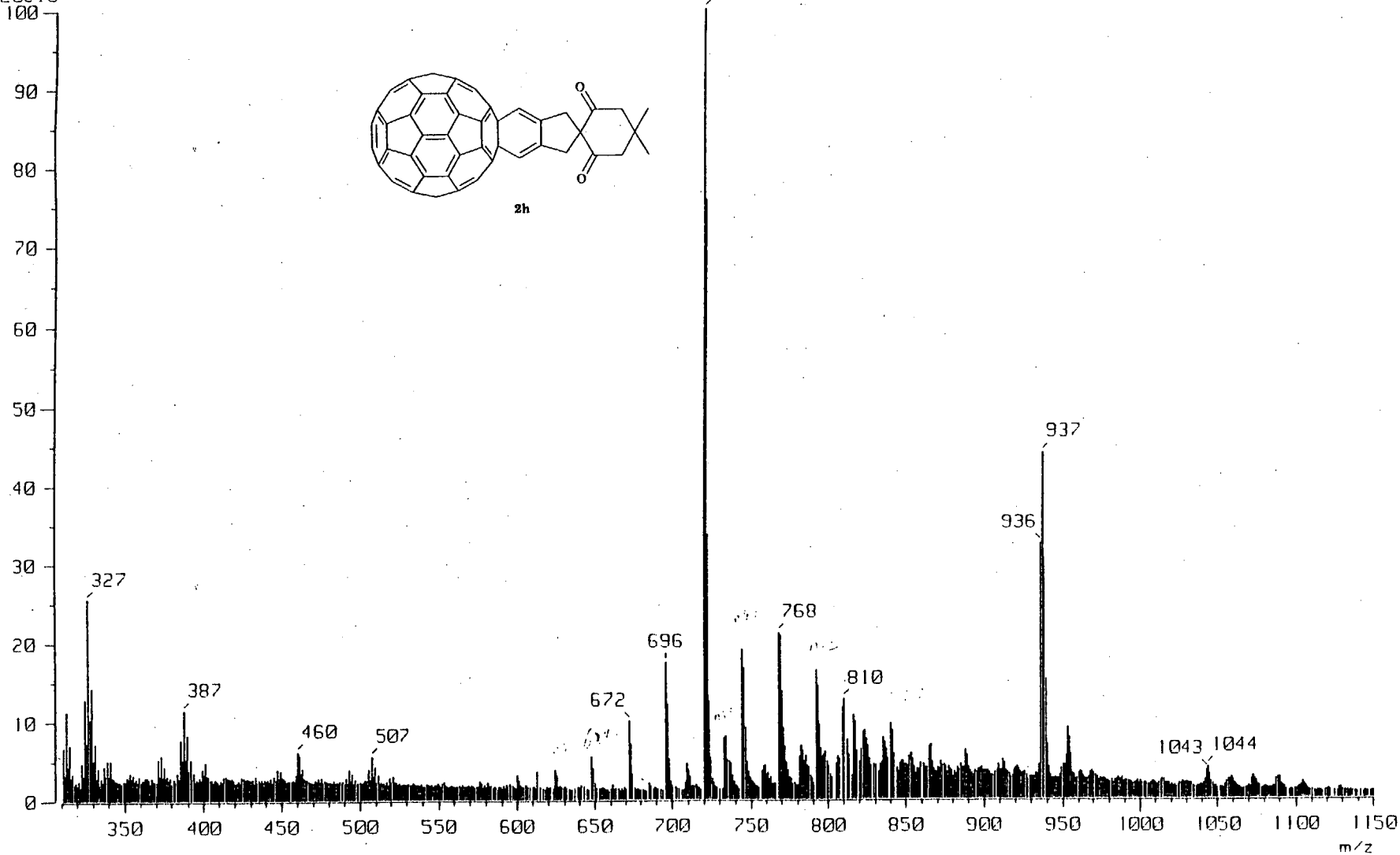
BP : m/z 720.0000

Int. : 87.82

Output m/z range : 310.0000 to 1150.0000

Cut Level : 0.00 %

920816



¹H NMR Spectrum of Compound 5b

ent Data Parameters

KCS-1
1
1

Acquisition Parameters

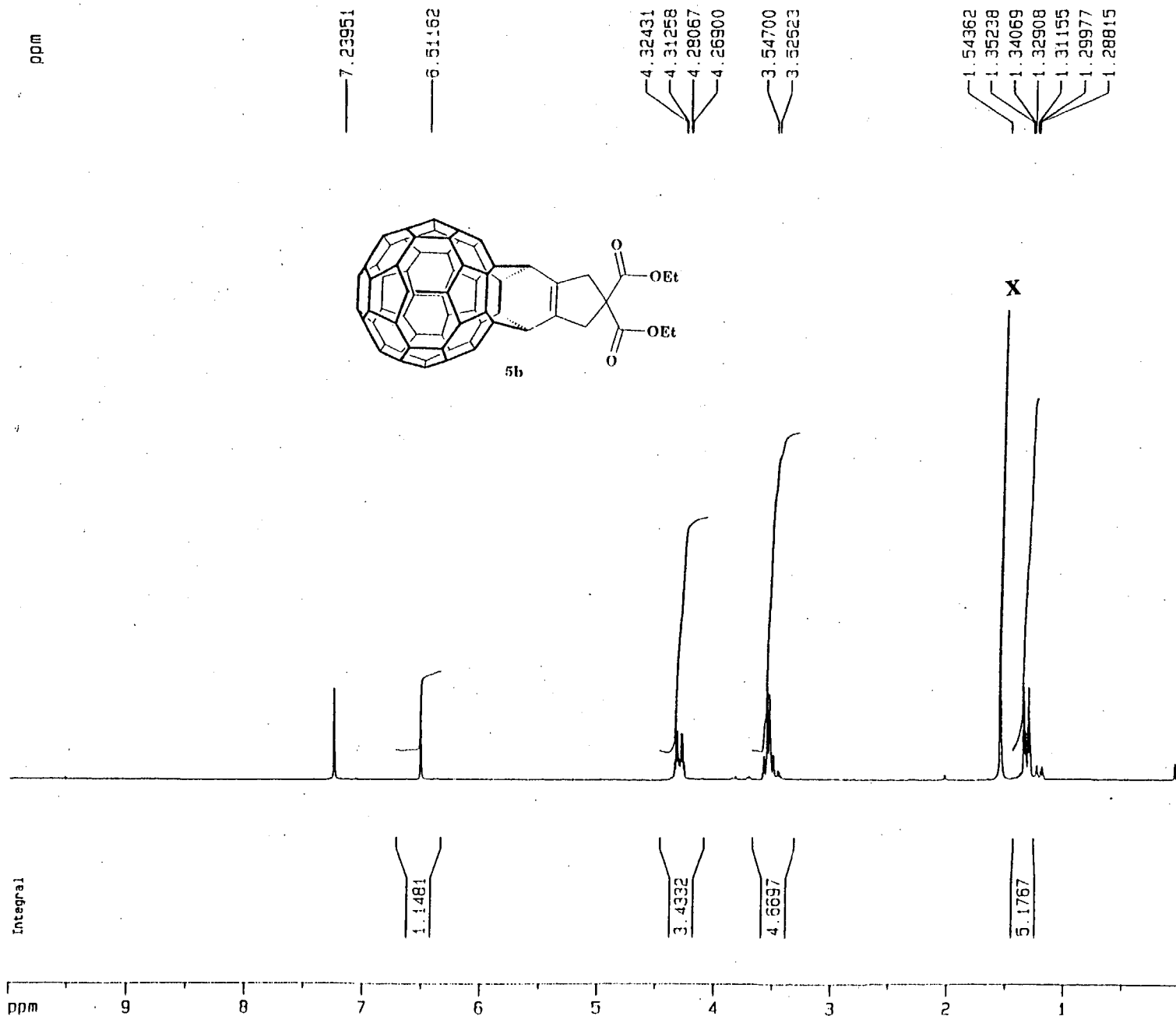
960623
22.10
nmr600
5 mm TXI 13C
zg
16384
Pyr
33
0
7183.908 Hz
0.438471 Hz
1.1403764 sec
1024
69.600 usec
4.50 usec
297.0 K
1.00000000 sec
10.00 usec
4.50 usec
599.9988089 MHz
1H
0.00 dB

Processing parameters

16384
599.9956838 MHz
no
0
0.00 Hz
0
1.00

plot parameters

20.00 cm
10.000 ppm
5999.96 Hz
0.000 ppm
0.00 Hz
0.50000 ppm/cm
299.99783 Hz/cm



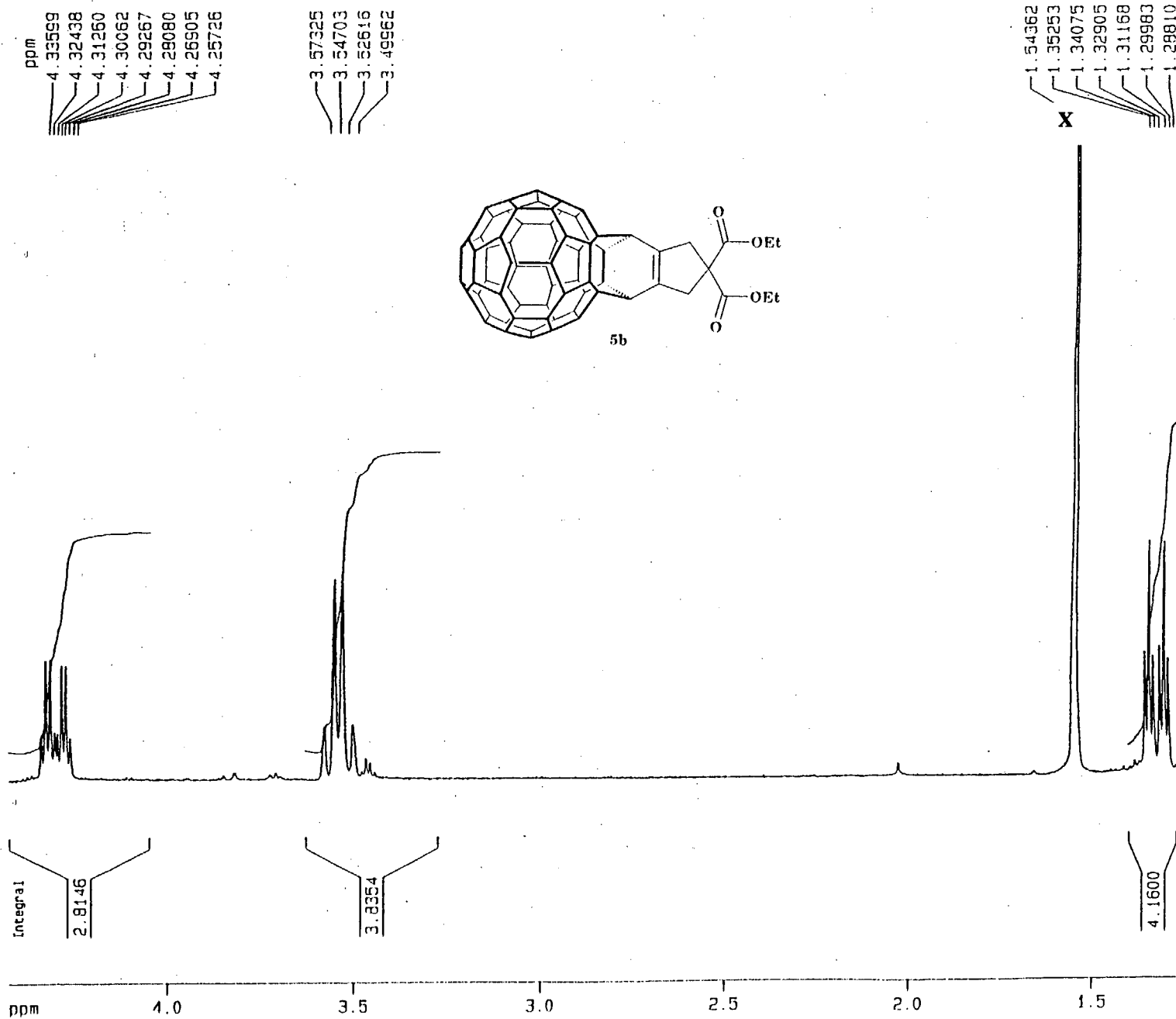
¹H NMR Spectrum of Compound 2a (Expansion 1-4.5 ppm)

Cur Data Parameters
 NAY KCS-1
 EXA 1
 PRM 1

F2: Acquisition Parameters
 Del 960623
 T1 22.10
 INE nmr600
 PRM 5 mm TXI 13C
 PULP zq
 TD 16384
 SOLT Pyr
 NS 33
 DS 0
 SW 7183.908 Hz
 FID 0.438471 Hz
 AQ 1.1403764 sec
 RG 1024
 DW 69.600 usec
 DE 4.50 usec
 TE 297.0 K
 D1 1.00000000 sec
 P1 10.00 usec
 DE 4.50 usec
 SFO 599.9988089 MHz
 NUC ¹H
 PL1 0.00 dB

F2: Processing parameters
 SI 16384
 SF 599.9956838 MHz
 MDW 6M
 SSB 0
 LB -1.00 Hz
 GB 0.5
 PC 1.00

Plot parameters
 CX 20.00 cm
 FIP 4.425 ppm
 F1 2654.97 Hz
 F2 1.268 ppm
 F2 760.78 Hz
 PPM 0.15785 ppm/cm
 VC 94.70972 Hz/cm



¹³C NMR Spectrum and DEPT of Compound 5b

Experiment Data Parameters
KCS-1
2
1

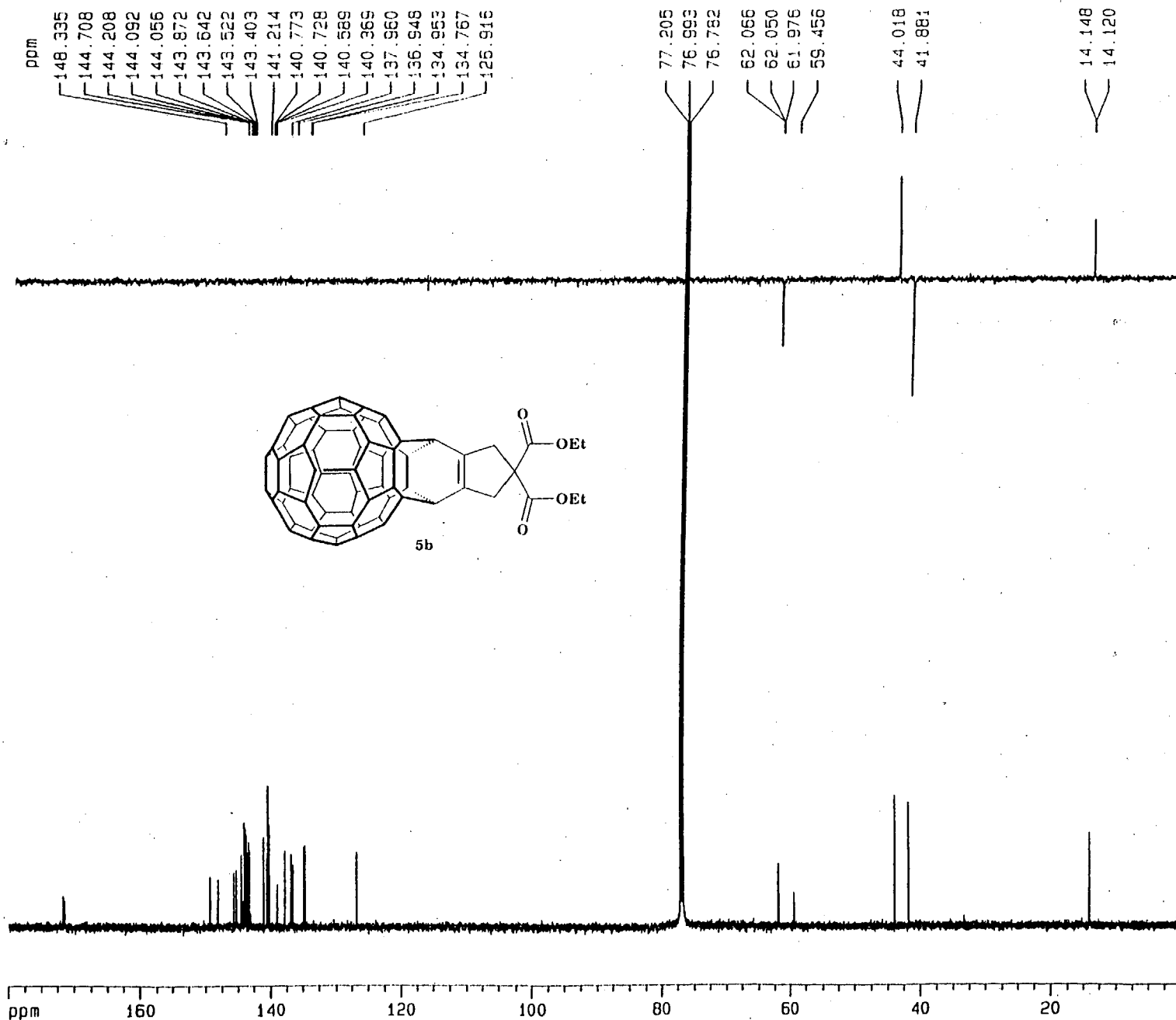
Acquisition Parameters
960623
22.15
nmr600
5 mm TXI 13C
Zgpg
65536
CDC13
111628
0

45454.547 Hz
0.693581 Hz
0.7209460 sec
1024
11.000 usec
4.50 usec
300.0 K
0.00002000 sec
25.00 dB
5.00000000 sec

waltz16
100.00 usec
599.9978000 MHz
1H
120.00 dB
22.00 dB
5.40 usec
4.50 usec
150.8838953 MHz
13C
0.00 dB
0.03000000 sec

Processing parameters
32768
150.8690310 MHz
no
0
0.00 Hz
0
1.40

IR plot parameters
20.00 cm
180.000 ppm
27156.43 Hz
0.000 ppm
0.00 Hz
9.00000 ppm/cm
1357.82129 Hz/cm



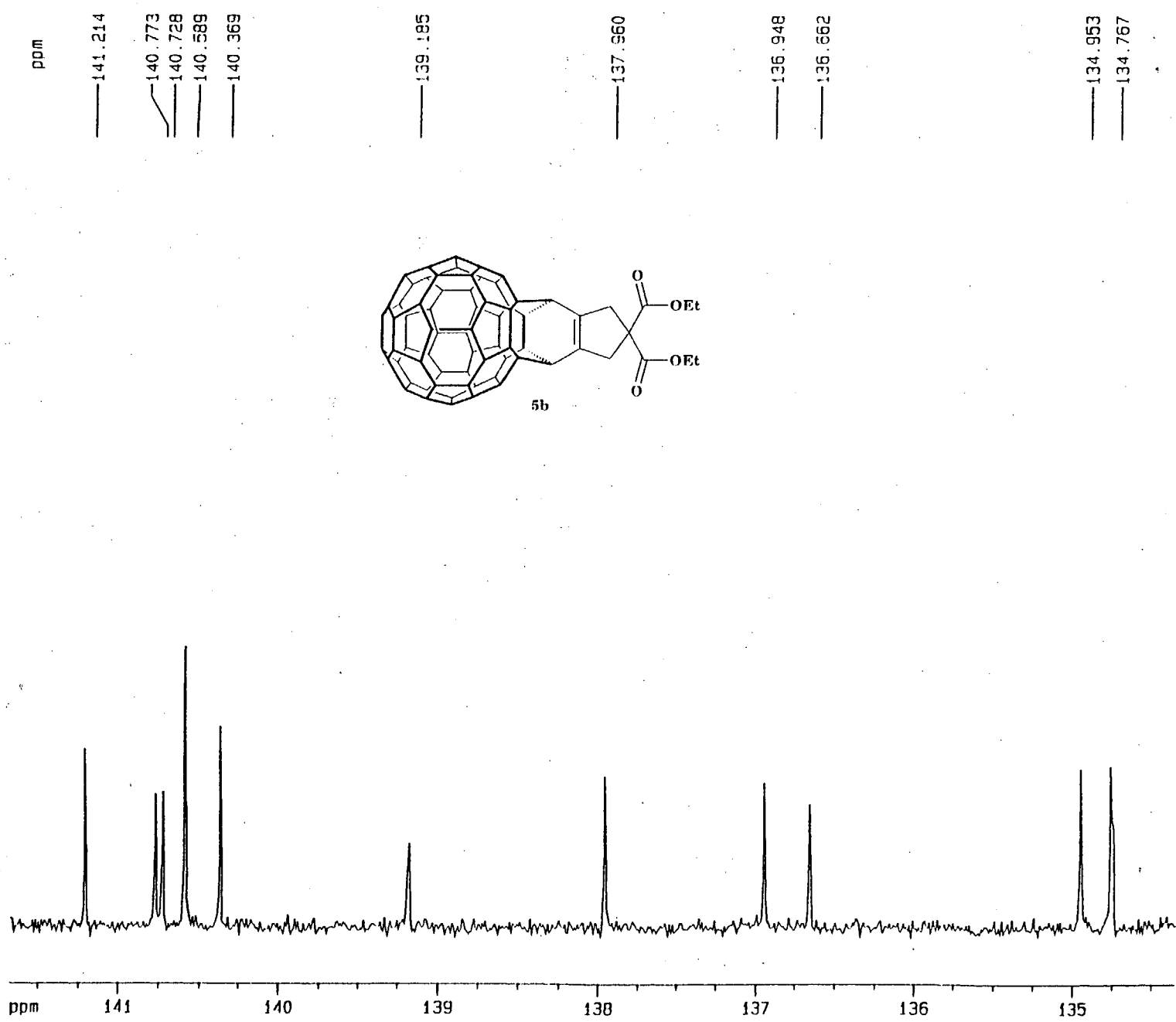
¹³C NMR Spectrum of Compound 5b (Expansion 134-142 ppm)

Int Data Parameters
KCS-1
2
1

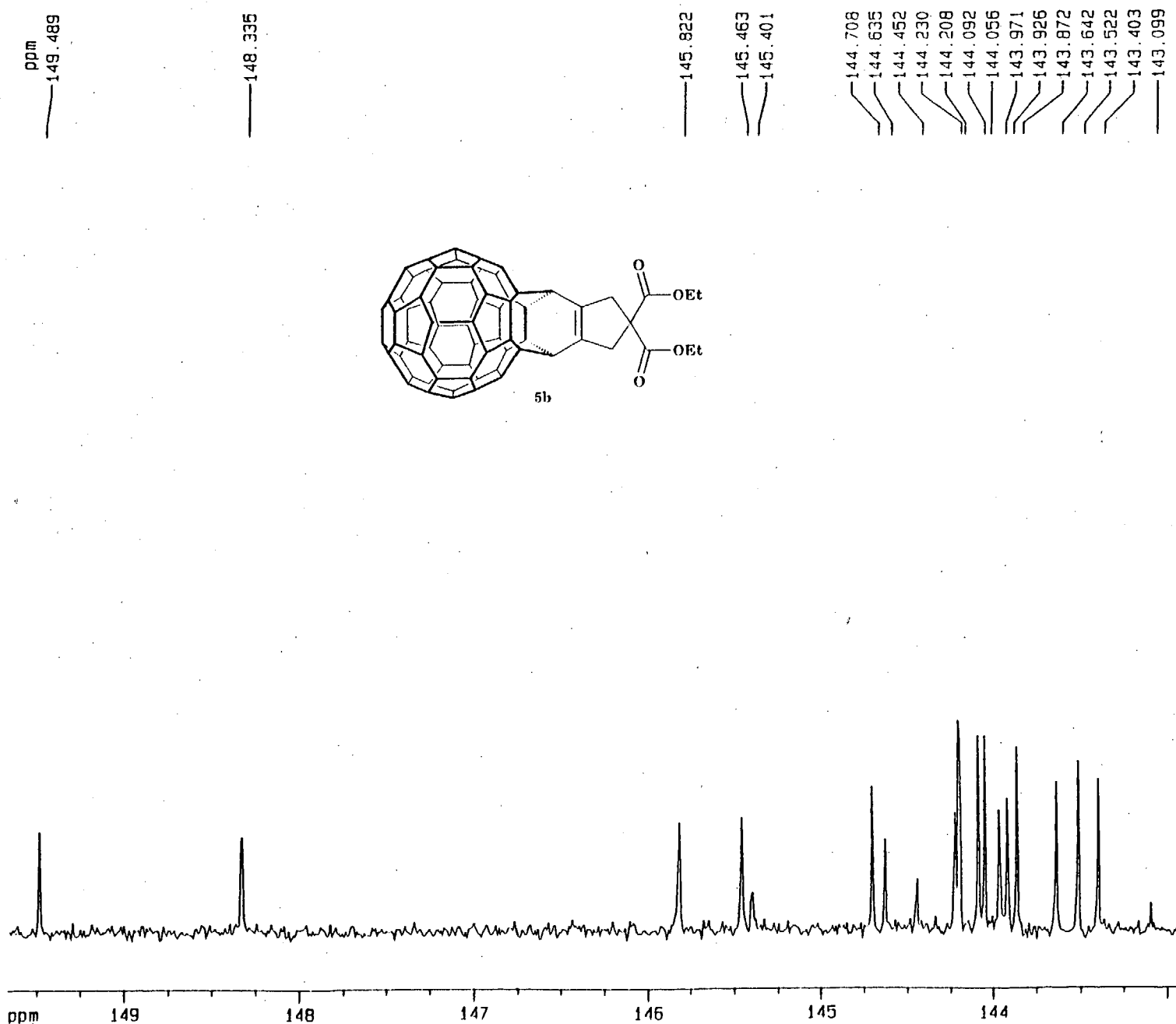
Acquisition Parameters
960623
22.15
nmr600
5 mm TXI 13C
zgpg
65536
CDC13
111628
0
45454.547 Hz
0.693581 Hz
0.7209460 sec
1024
11.000 usec
4.50 usec
300.0 K
0.00002000 sec
25.00 dB
5.00000000 sec
waltz16
100.00 usec
599.9978000 MHz
1H
120.00 dB
22.00 dB
5.40 usec
4.50 usec
150.8638953 MHz
13C
0.00 dB
0.03000000 sec

Processing parameters
SI 32768
SF 150.8690310 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 1.40

Plot parameters
CX 20.00 cm
F1 141.678 ppm
F2 21374.86 Hz
F3 134.351 ppm
F4 20269.47 Hz
PPH 0.36634 ppm/cm
HZC 55.26969 Hz/cm



¹³C NMR Spectrum of Compound 5b (Expansion 142-150 ppm)



int Data Parameters
KCS-1
2
1

Acquisition Parameters
960623
22.15
nmr600
5 mm TXI 13C
zgpg
65536
COC13
111628
0
45454.547 Hz
0.693581 Hz
0.7209460 sec
1024
11.000 usec
4.50 usec
300.0 K
0.00002000 sec
25.00 dB
5.00000000 sec
waltz16
100.00 usec
599.9978000 MHz
1H
120.00 dB
22.00 dB
5.40 usec
4.50 usec
150.8838953 MHz
13C
0.00 dB
0.03000000 sec

processing parameters
SI 32768
SF 150.8690310 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 1.40

plot parameters
CX 20.00 cm
F1 149.664 ppm
F1 22579.66 Hz
F2 142.917 ppm
F2 21561.74 Hz
PF 0.33735 ppm/cm
HZ 50.89585 Hz/cm

Mass Spectrum (FAB+) of Compound 5b

[Mass Spectrum]

Data : 8323

Sample: SANTU-7 = 956 m/z

Inlet : Direct

Spectrum Type : Regular [MF-Linear]

RT : 0.05 min Scan# : 2

BP : m/z 720.5517 Int. : 74.93

Output m/z range : 310.0000 to 1200.0000

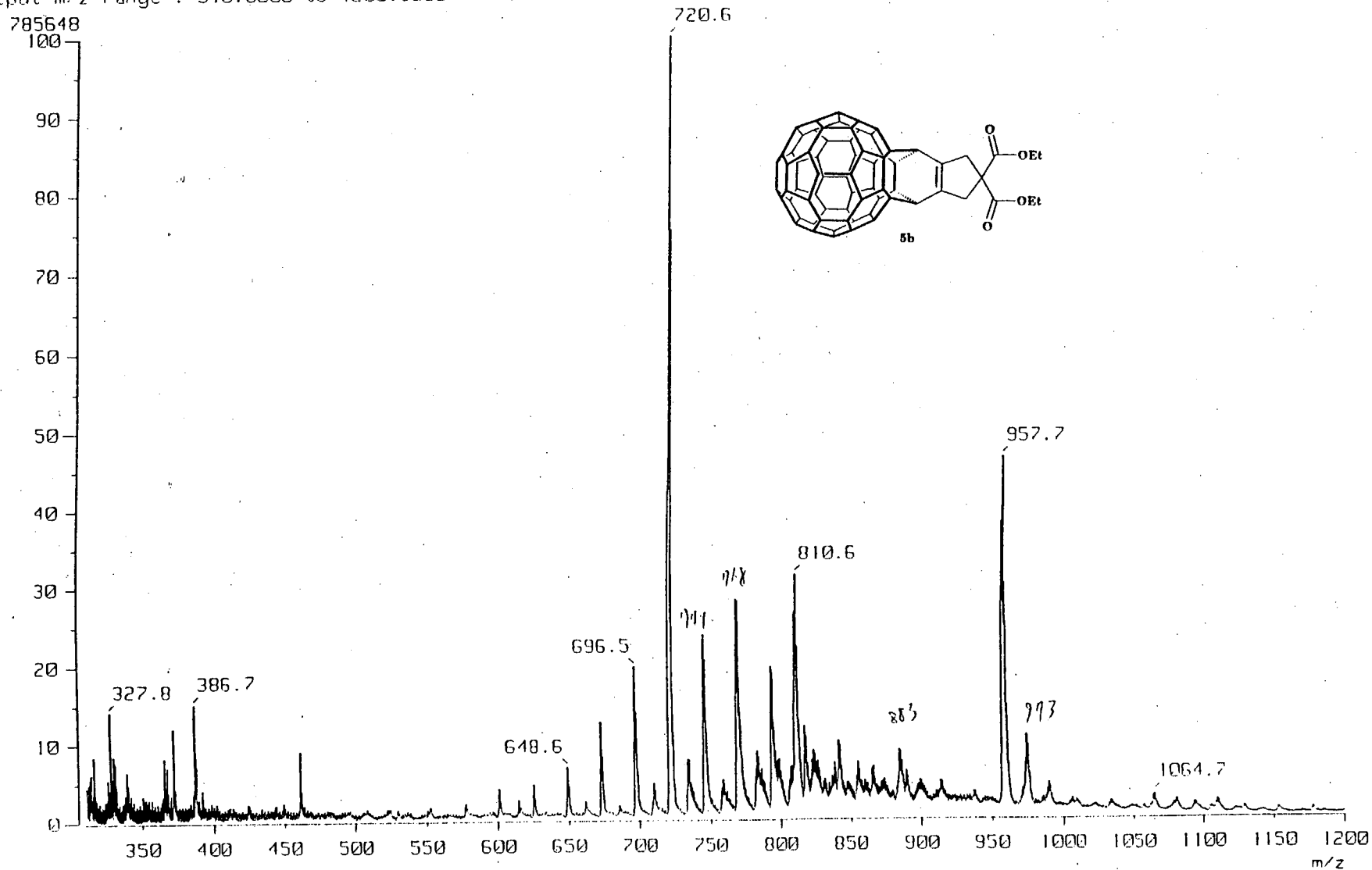
Date : 17-Nov-97 10:00

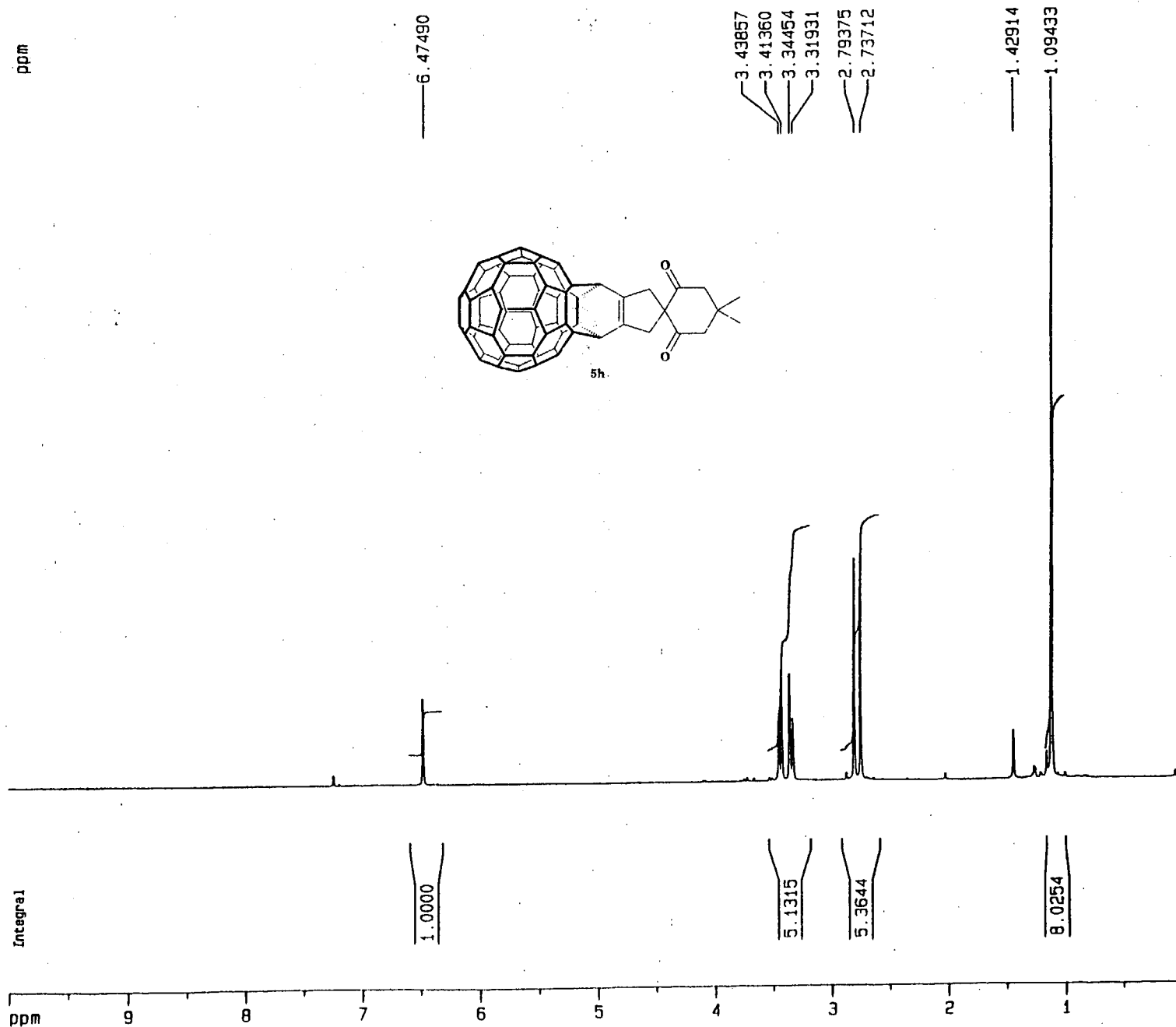
Note : Tsin-Hua Univ. (S.J. Wang)

Ion Mode : FAB+

Temp : 0.0 deg.C

Cut Level : 0.00 %



¹H NMR Spectrum of Compound 5h

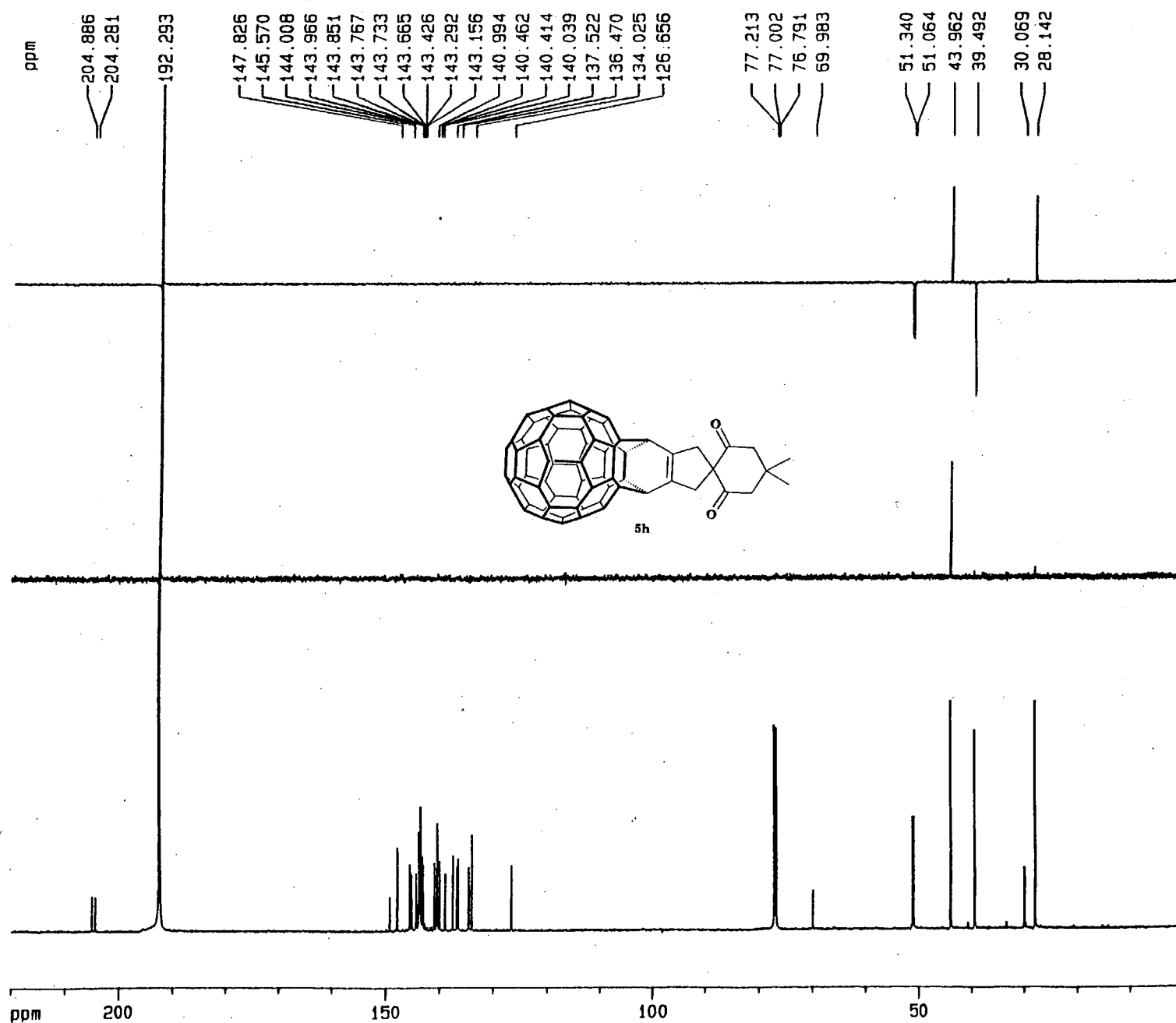
¹³C NMR Spectrum and DEPT of Compound 5h

Current Data Parameters
NAME KCS-6
PNO 2
KCNNO 1

Acquisition Parameters
Date 960702
Time 23.29
STRUM nmr600
PDBD 5 mm TXI 13C
LPROG zgpg
F6536
LVENT CDC13
18432
0
H 45454.547 Hz
PRES 0.693581 Hz
0.7209460 sec
1024
11.000 usec
4.50 usec
300.0 K
0.00002000 sec
25.00 dB
5.00000000 sec
DPR62 waltz16
PD2 100.00 usec
D2 599.9978000 MHz
1H
120.00 dB
22.00 dB
5.40 usec
4.50 usec
11 150.8838953 MHz
13C
0.00 dB
0.03000000 sec

Processing parameters
32768
150.8690726 MHz
EM
0
3.00 Hz
0
1.40

NMR plot parameters
20.00 cm
220.000 ppm
33191.20 Hz
0.000 ppm
0.00 Hz
11.00000 ppm/cm
1659.55981 Hz/cm



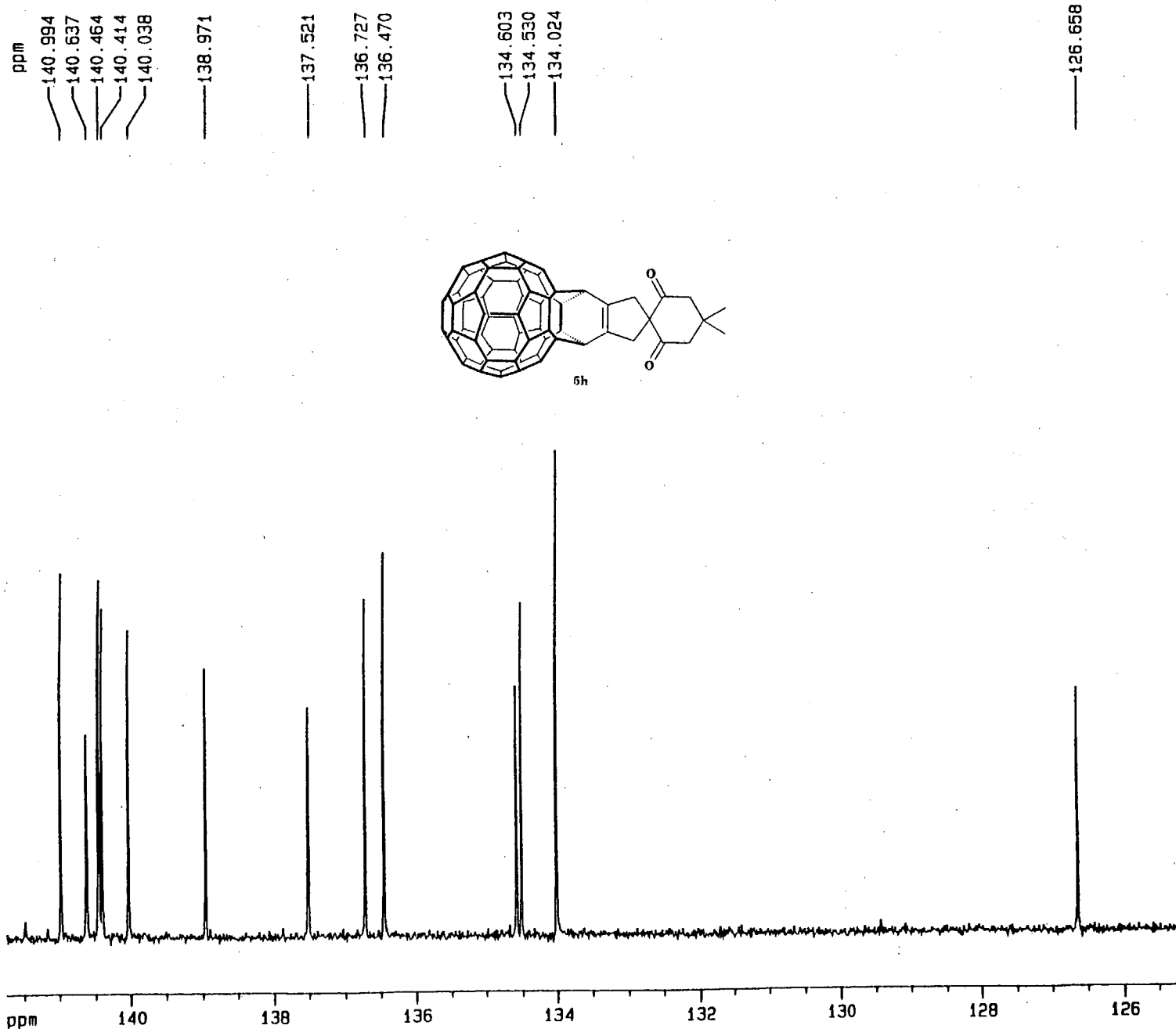
^{13}C NMR Spectrum of Compound 5h (Expansion 126-142 ppm)

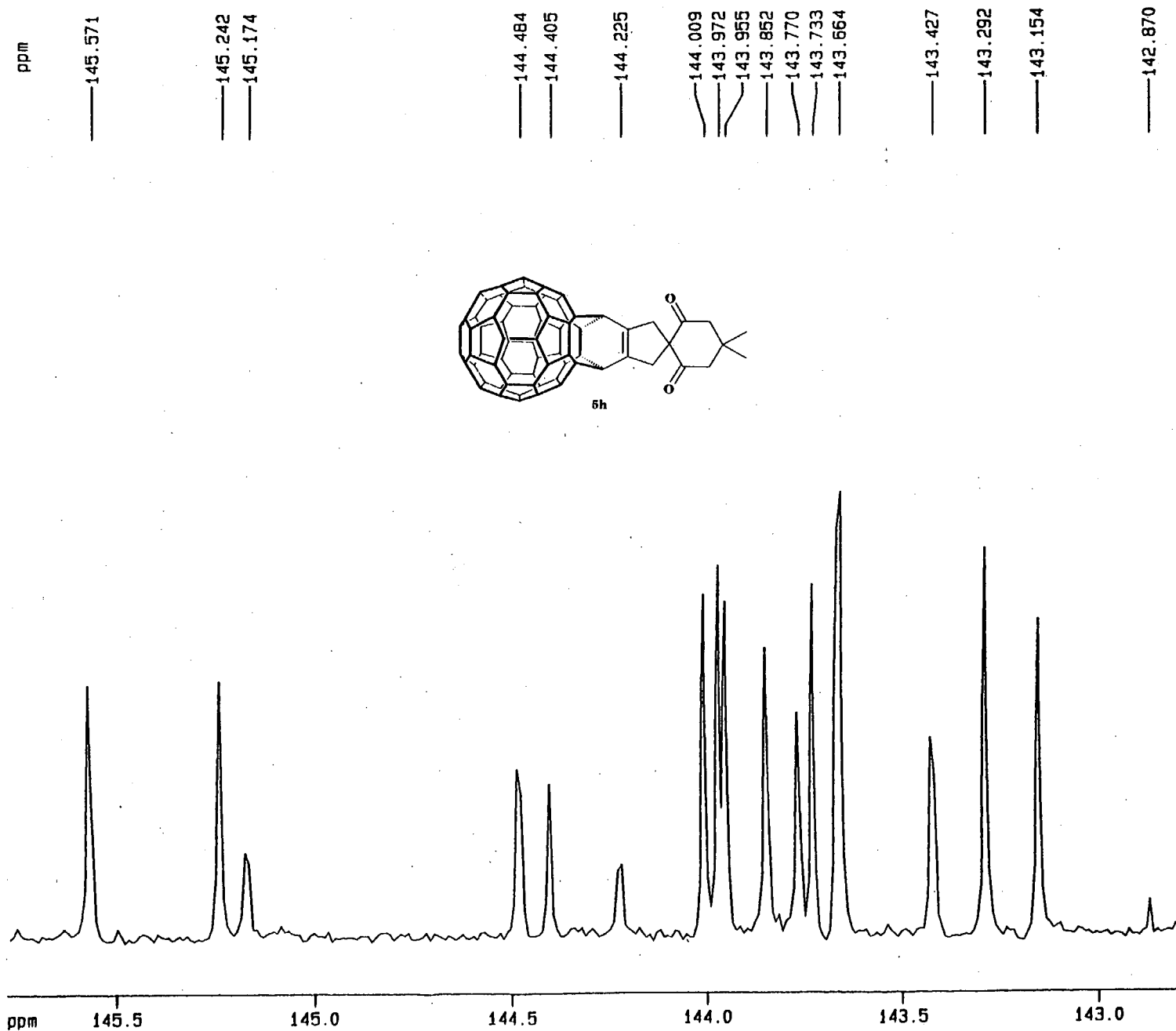
Current Data Parameters
NAME KCS-6
PNO 2
OCNO 1

Acquisition Parameters
Date_ 960702
Time 23.29
STRUM nm600
OBHD 5 mm TXI 13C
LPROG zgpg
65536
LVENT CDC13
16432
0
H 45454.547 Hz
DRES 0.693581 Hz
0.7209460 sec
1024
11.000 usec
4.50 usec
300.0 K
0.00002000 sec
25.00 dB
5.00000000 sec
DPRG2 waltz16
PD2 100.00 usec
93 599.9978000 MHz
92 1H
91 120.00 dB
12 22.00 dB
5.40 usec
4.50 usec
91 150.8838953 MHz
90 13C
89 0.00 dB
88 0.03000000 sec

Processing parameters
32768
150.8690726 MHz
no
0
0.00 Hz
0
1.40

NMR plot parameters
20.00 cm
141.746 ppm
21385.14 Hz
125.141 ppm
18879.93 Hz
0.83026 ppm/cm
125.26080 Hz/cm



¹³C NMR Spectrum of Compound 5h (Expansion 142-145 ppm)

Experiment Data Parameters

PCNO KCS-6

PCNO 2

PCNO 1

Acquisition Parameters

PCNO 960702

PCNO 23.29

PCNO nm600

PCNO 5 mm TXI 13C

PCNO zppg

PCNO 65536

PCNO CDC13

PCNO 18432

PCNO 0

PCNO 45454.547 Hz

PCNO 0.693581 Hz

PCNO 0.7209460 sec

PCNO 1024

PCNO 11.000 usec

PCNO 4.50 usec

PCNO 300.0 K

PCNO 0.00002000 sec

PCNO 25.00 dB

PCNO 5.00000000 sec

PCNO wait116

PCNO 100.00 usec

PCNO 599.9978000 MHz

PCNO 1H

PCNO 120.00 dB

PCNO 22.00 dB

PCNO 5.40 usec

PCNO 4.50 usec

PCNO 150.8838953 MHz

PCNO 13C

PCNO 0.00 dB

PCNO 0.03000000 sec

Processing parameters

PCNO 32768

PCNO 150.8690726 MHz

PCNO no

PCNO 0

PCNO 0.00 Hz

PCNO 0

PCNO 1.40

NMR plot parameters

PCNO 20.00 cm

PCNO 145.781 ppm

PCNO 21993.80 Hz

PCNO 142.776 ppm

PCNO 21540.42 Hz

PCNO 0.15026 ppm/cm

PCNO 22.66915 Hz/cm

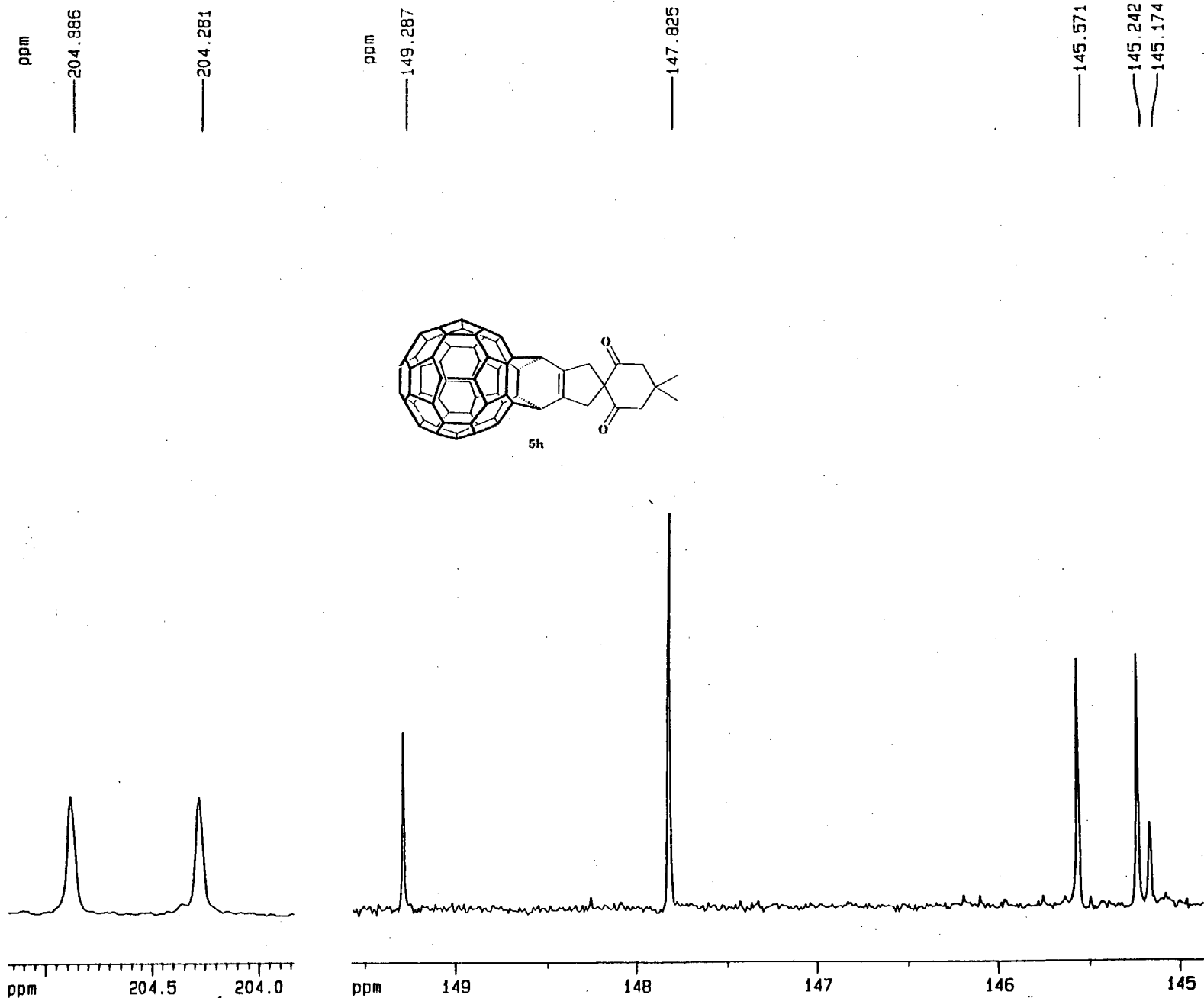
^{13}C NMR Spectrum of Compound 5h (Expansion 145-150, 204-205 ppm)

Print Data Parameters
NAME KCS-6
P2NO 2
DCNO 1

Acquisition Parameters
Date 960702
Time 23.29
PSTRUM nmr600
DBHD 5 mm TXI 13C
LPROG zgpg
65536
LVENT CDC13
18432
0
H 45454.547 Hz
DRES 0.693581 Hz
0.7208460 sec
1024
11.000 usec
4.50 usec
300.0 K
0.00002000 sec
25.00 dB
5.00000000 sec
PRG2 waltz16
D2 100.00 usec
D2 599.9978000 MHz
D3 1H
D3 120.00 dB
D3 22.00 dB
D3 5.40 usec
D3 4.50 usec
D1 150.8838953 MHz
D1 13C
D1 0.00 dB
0.03000000 sec

Processing parameters
32768
150.8690726 MHz
EM
0
3.00 Hz
0
1.40

NMR plot parameters
5.00 cm
205.181 ppm
30955.48 Hz
203.836 ppm
30752.62 Hz
0.26890 ppm/cm
40.56863 Hz/cm



[Mass Spectrum]

Data : 8419

Sample: SANTV 8 = 936 m/z

Inlet : Direct

Spectrum Type : Regular [MF-Linear]

RT : 0.55 min Scan# : 7

BP : m/z 936.3555 Int. : 91.15

Output m/z range : 0.0000 to 1300.0000

Date : 28-Nov-97 15:28

Note : Tsin-Hua Univ. (S.J. Wang)

Ion Mode : DCI-

Temp : 23.6 deg.C

Cut Level : 0.00 %

