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## APPENDICES

## APPENDIX A

### MEDIA

The media were prepared by sterilization in autoclave at 121 °C for 15 minutes. pH was adjusted with NaOH or HCl before addition of agar and before sterilization.

#### 1. Malt extract (MEA)

Malt extracts	20	g
Peptone	1	g
Glucose	20	g
Agar	15	g
Distilled water	1000	ml

#### 2. Yeast-malt extract agar (YMA)

Glucose	10	g
Peptone	5	g
Yeast extracts	3	g
Malt extracts	3	g
Agar	15	g
Distilled water	1000	ml

#### 3. Nutrient agar (NA)

Peptone	5	g
Beef extract	3	g
Agar	15	g
Distilled water	1000	ml

#### 4. Potato dextrose agar (PDA)

Potato, peeled and diced	200	g
Glucose	20	g
Agar	15	g
Distilled water	1000	ml

Boil 200 g of peels, dried potato for 1 hr in 1000 ml of distilled water. Filter, and make up the filtrate to one litre. Add the glucose and agar and dissolve by streaming and sterilise by autoclaving at 121 °C for 15 minutes.

APPENDIX B

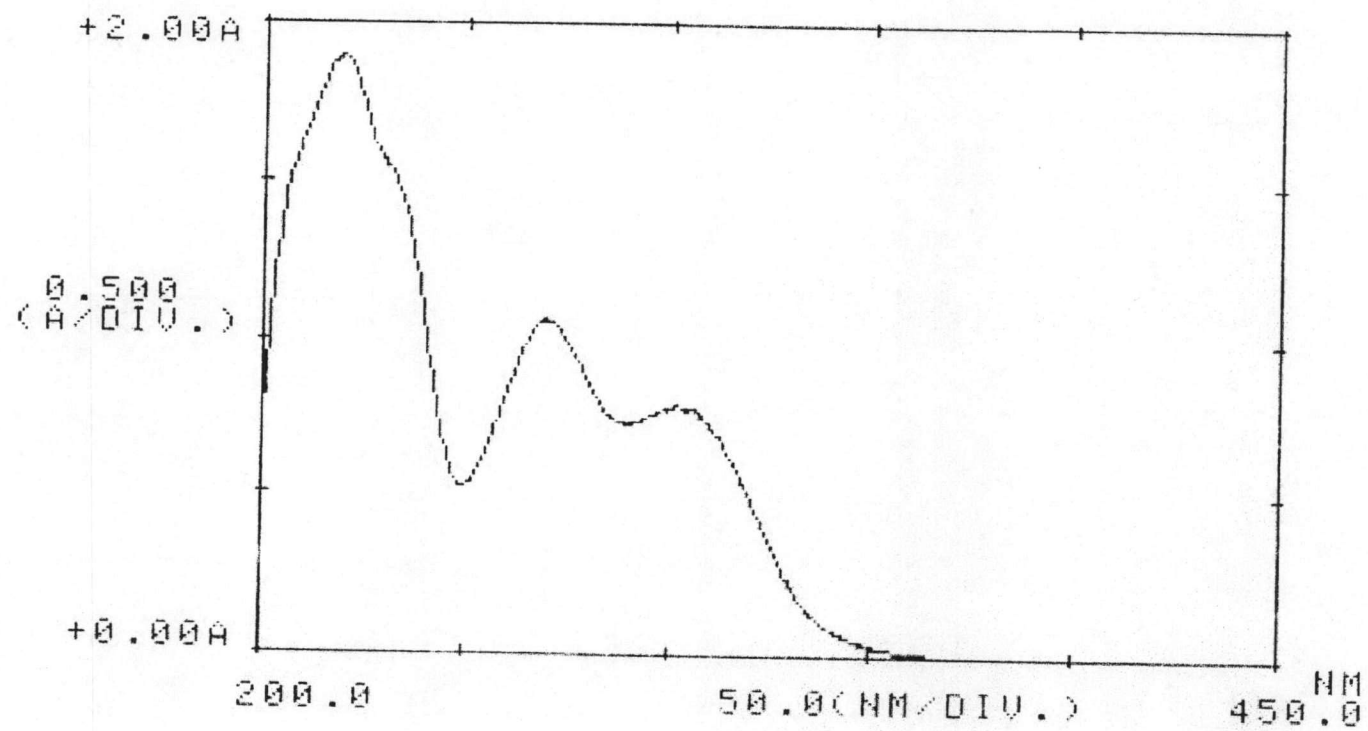


Figure 1 UV spectrum of compound 1



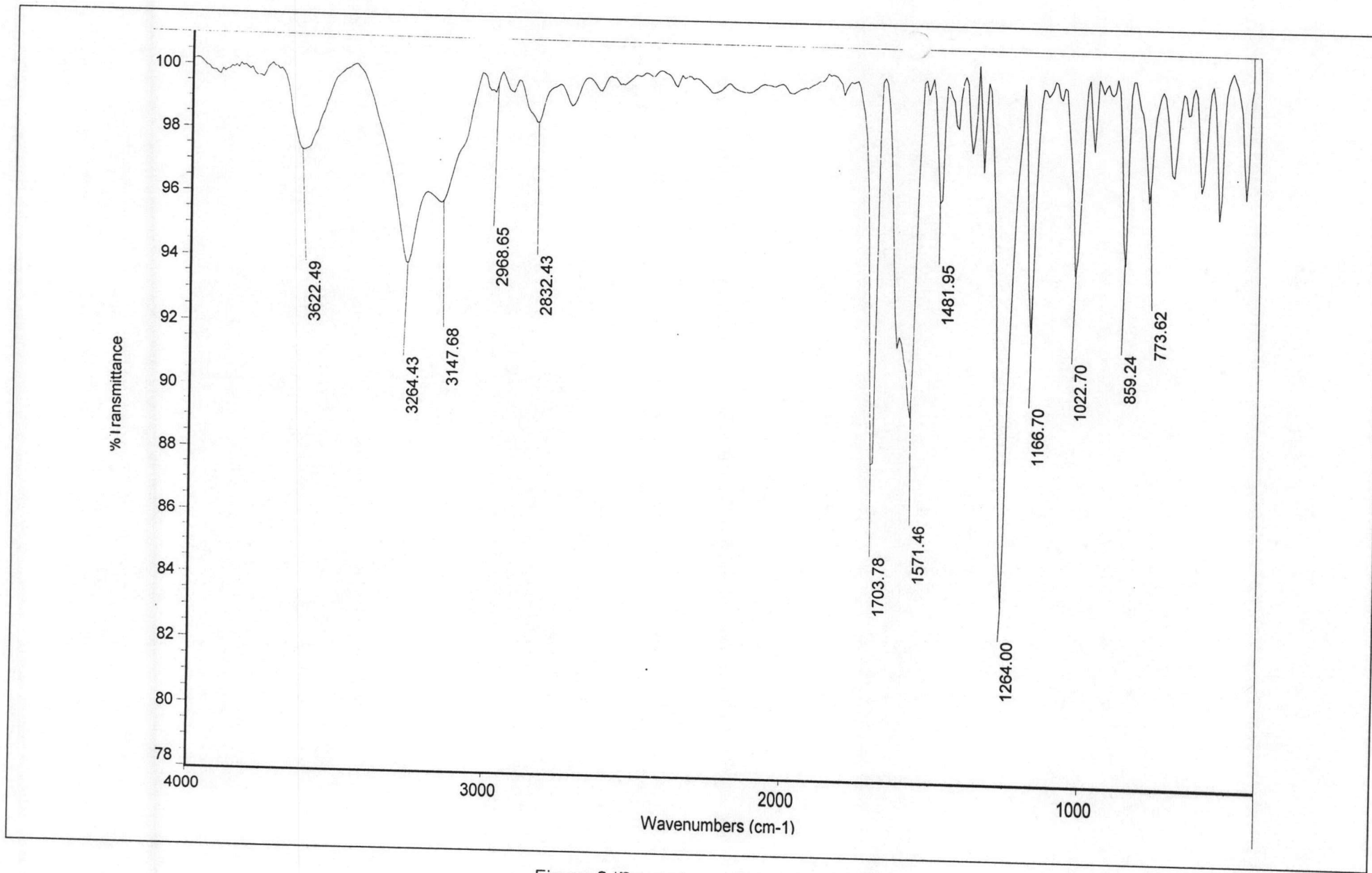


Figure 2 IR spectrum of compound 1

BE 1/200

Data Collected on:  
mercury400-mercury400  
Archive directory:  
/export/home/vnmruser/vnmrsys/data  
Sample directory:  
ta001\_2004-02-04  
File: PROTON\_01

Pulse Sequence: s2pul  
Solvent: CD300  
Temp. 23.0 C / 296.1 K

Relax. delay 1.000 sec  
Pulse 45.0 degrees  
Acq. time 1.995 sec  
Width 6389.8 Hz  
8 repetitions  
OBSERVE H1, 399.8460090 MHz  
DATA PROCESSING  
FT size 32768  
Total time 0 min

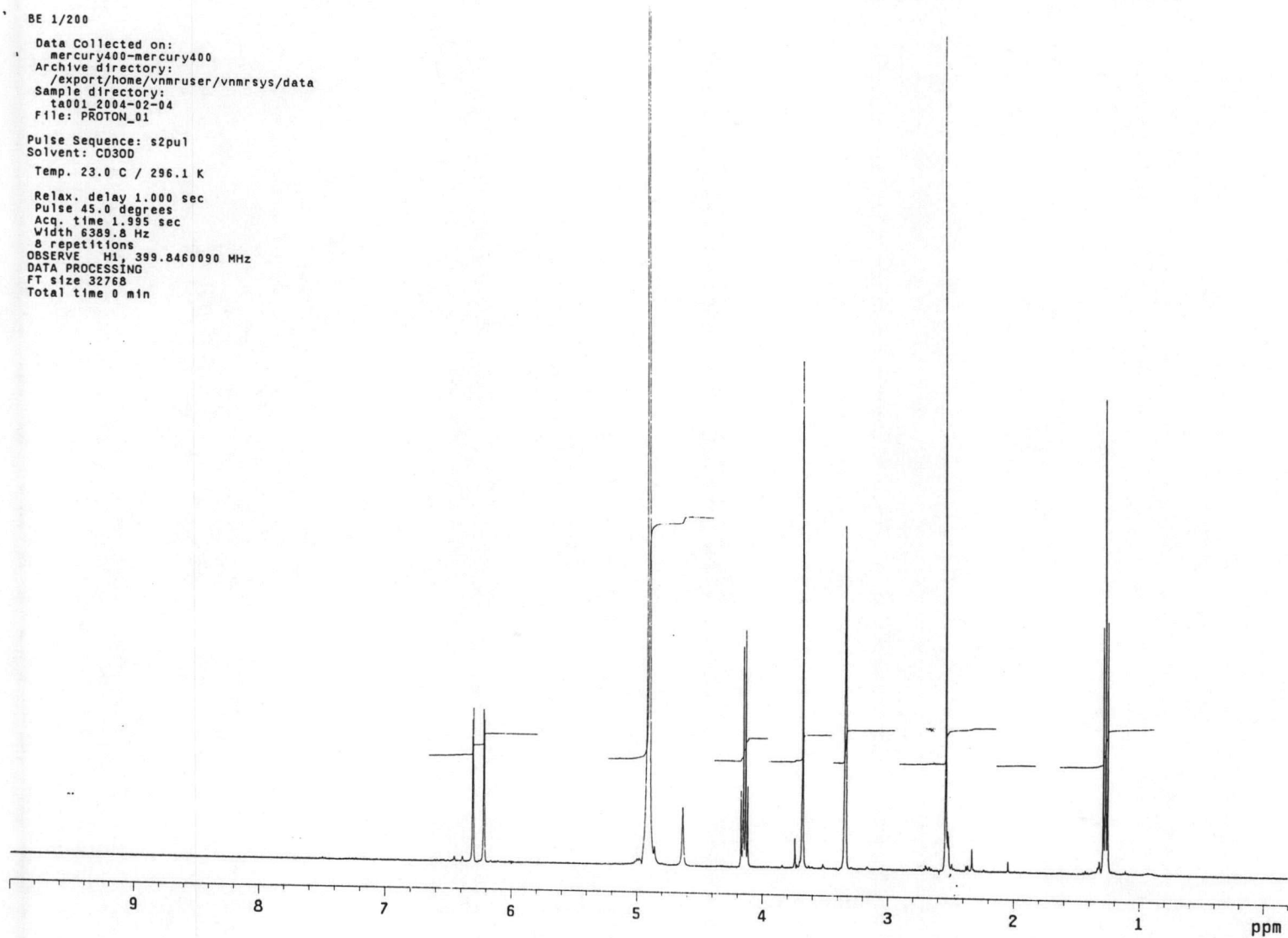


Figure 3 <sup>1</sup>H-NMR spectrum of compound 1

Pulse Sequence: s2pul  
Solvent: CD3OD  
Temp. 19.4 C / 292.6 K  
Relax. delay 1.000 sec  
Pulse 45.0 degrees  
Acq. time 1.199 sec  
Width 25125.6 Hz  
10000 repetitions  
OBSERVE C13, 100.5413589 MHz  
DECOUPLE H1, 399.8479898 MHz  
Power 30 dB  
continuously on  
WALTZ-16 modulated  
DATA PROCESSING  
Line broadening 1.0 Hz  
FT size 65536  
Total time 6 hr, 21 min

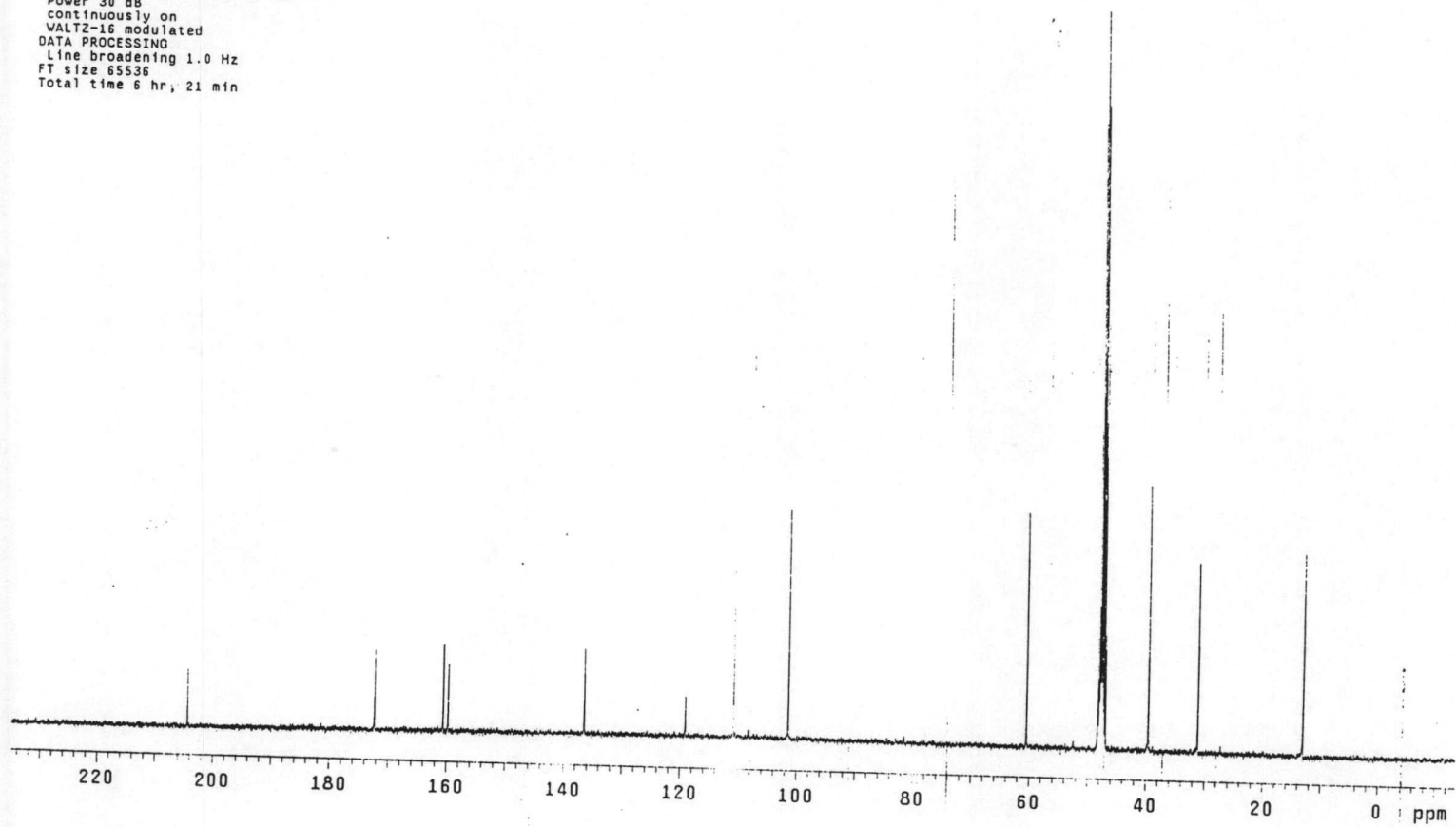


Figure 4  $^{13}\text{C}$ -NMR spectrum of compound 1

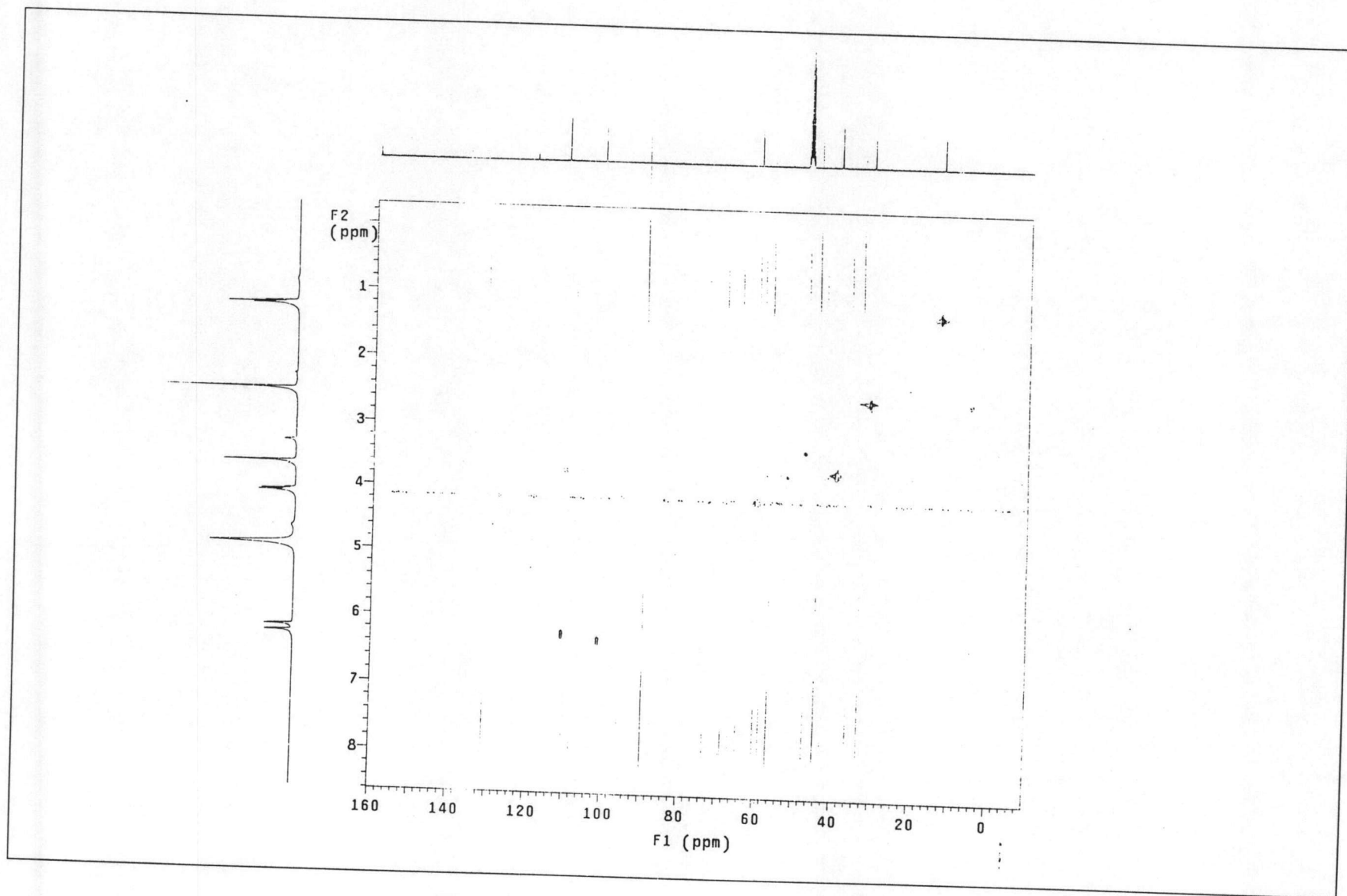


Figure 5 HSQC spectrum of compound 1



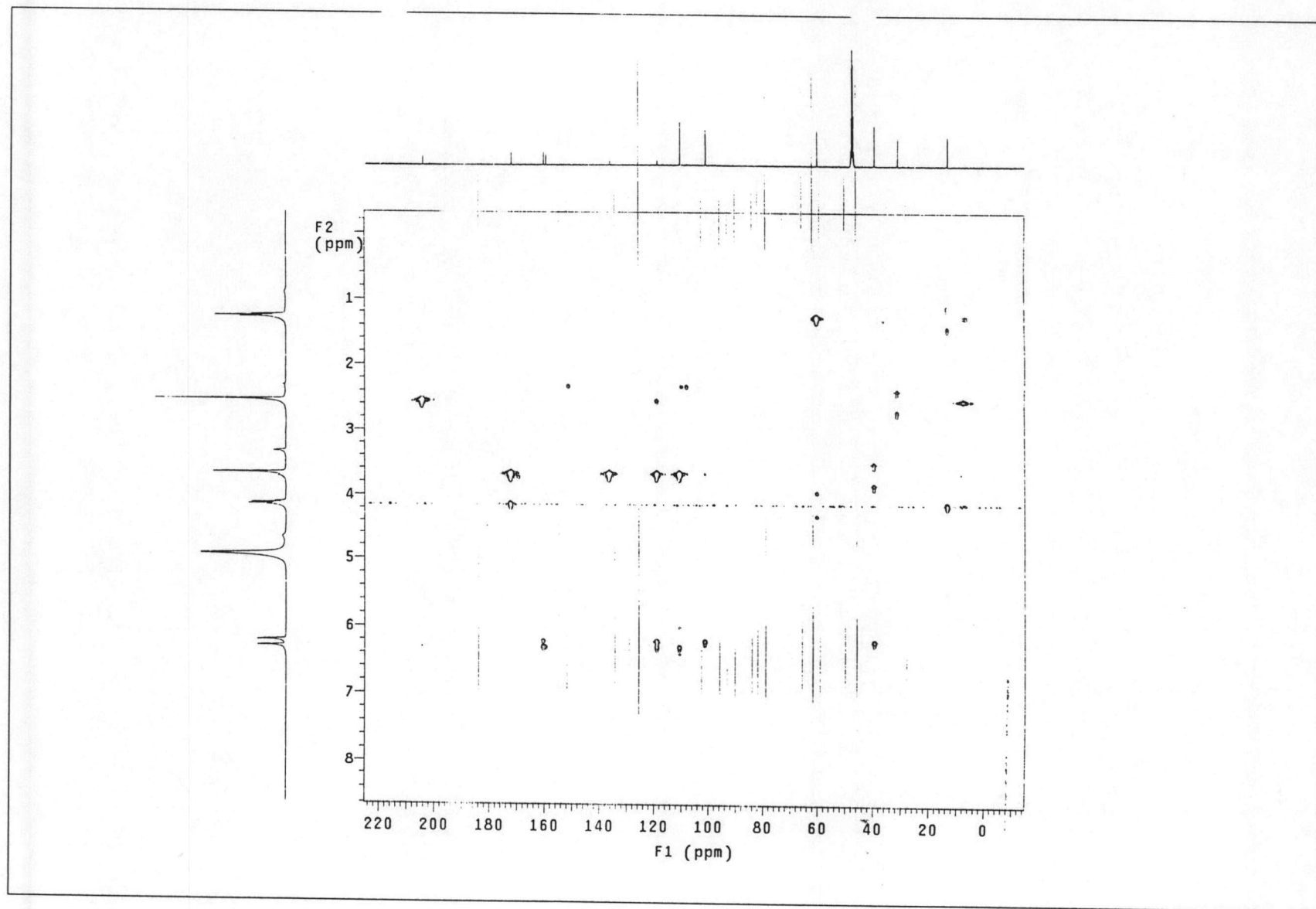


Figure 6 HMBC spectrum of compound 1

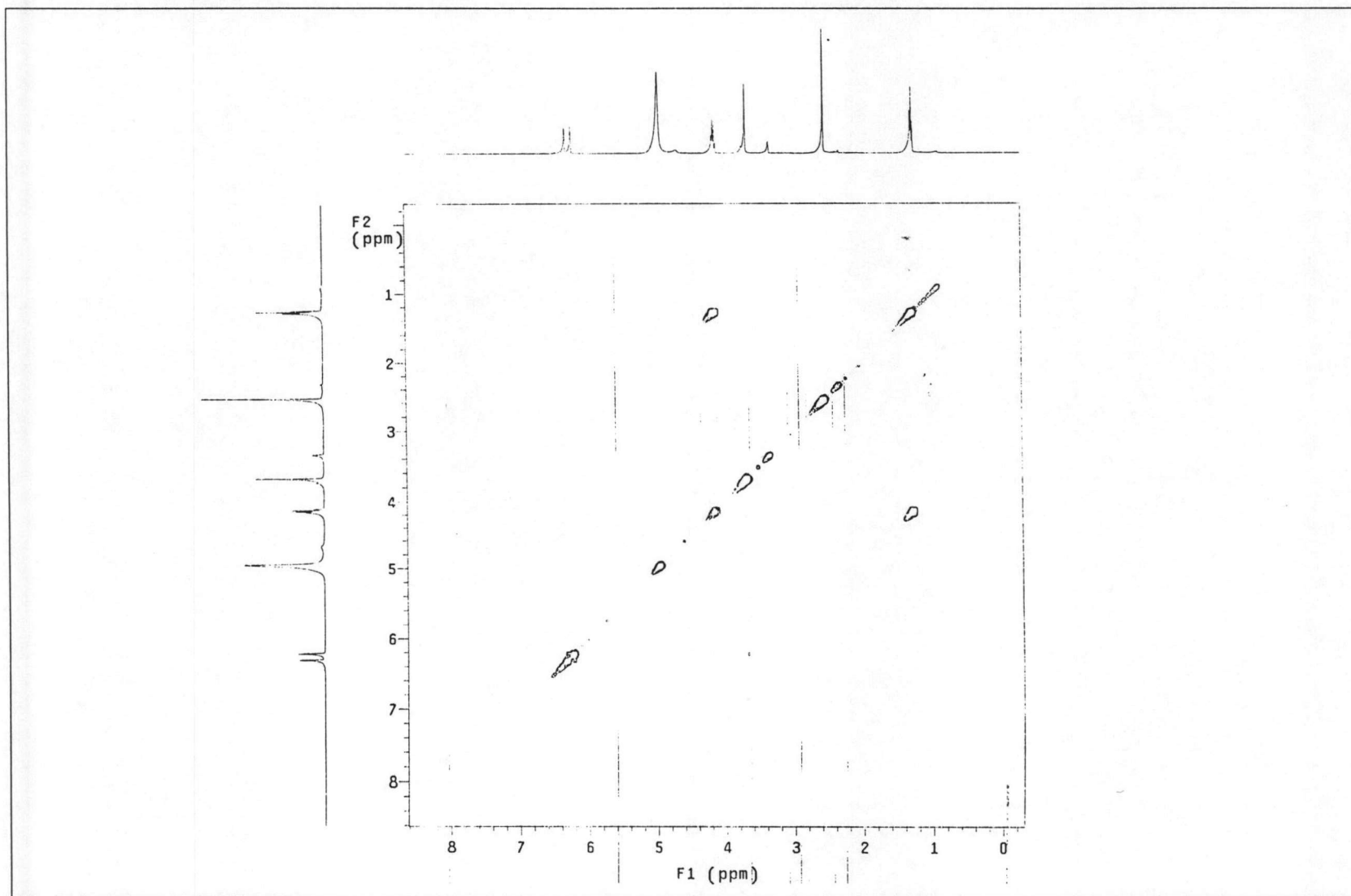


Figure 7 COSY spectrum of compound 1

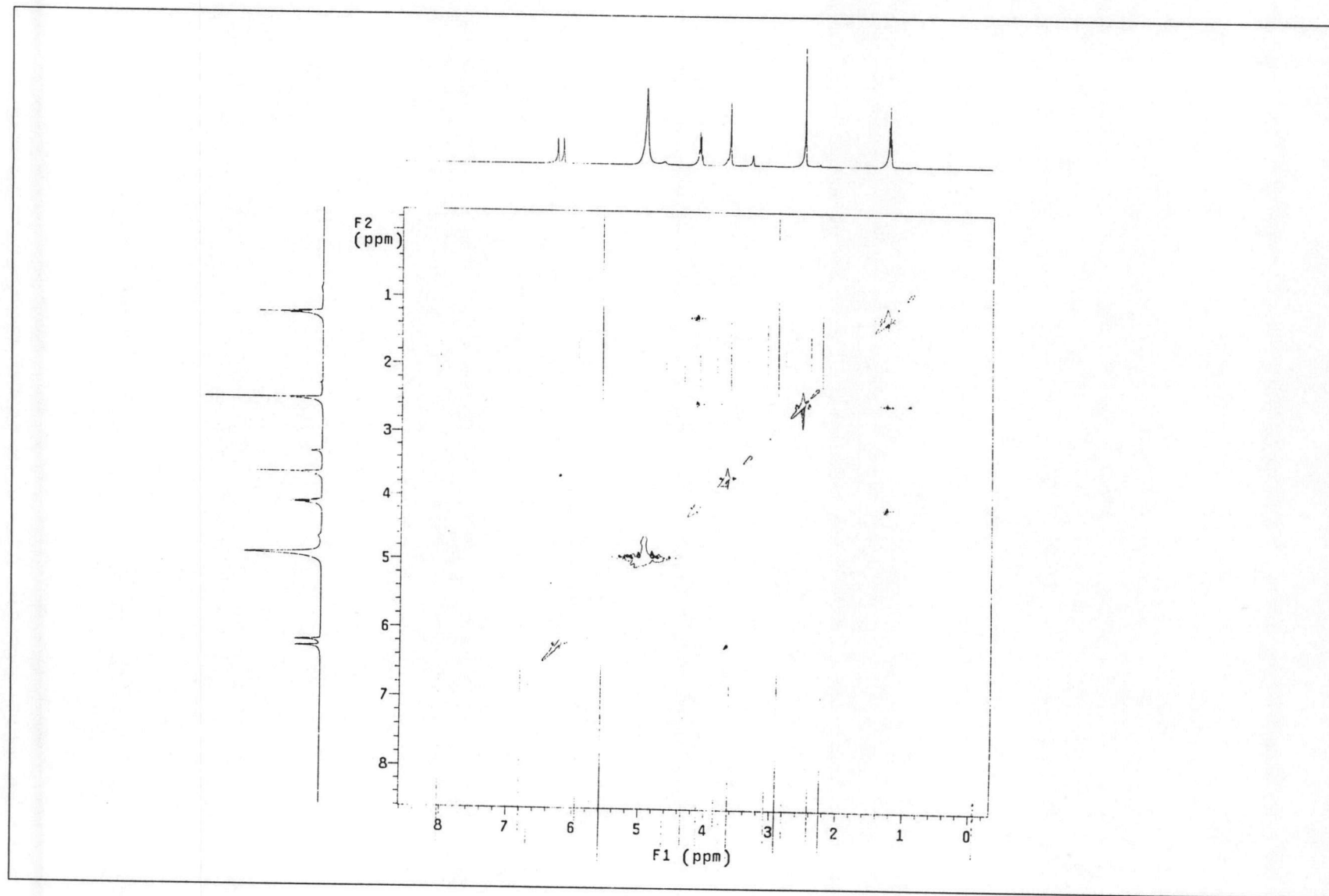
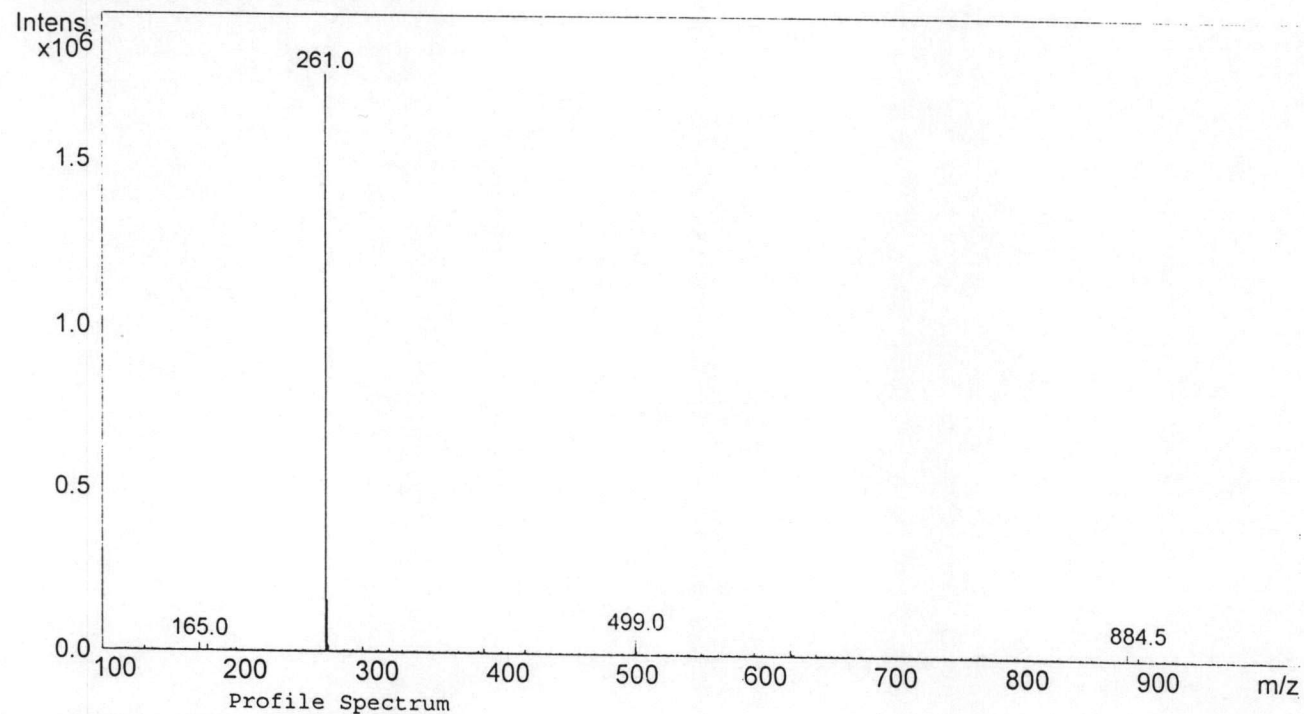


Figure 8 NOESY spectrum of compound 1

Profile Spectrum, No.: 1, Time: 0 min



MS Peak List (Profile Spectrum):

Mass	Intensity	Width	Mass	Intensity	Width	Mass	Intensity	Width
165.0	24465	0.19	262.0	153076	0.19	876.1	29866	0.13
261.0	1760534	0.19	499.0	56234	0.25	884.5	36005	0.13

End of report

Figure 9 LC-MS of compound 1



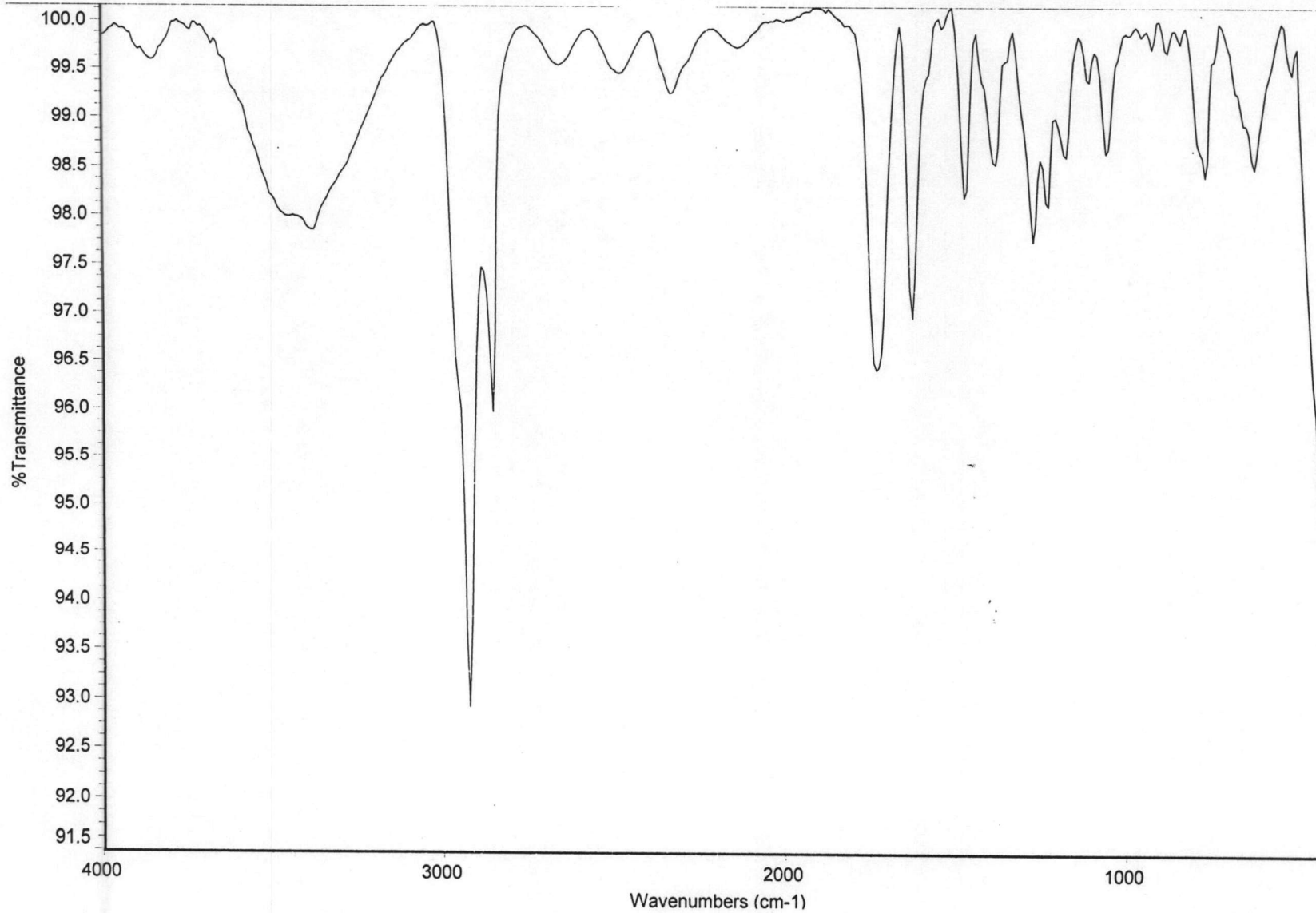


Figure 10 IR spectrum of compound 2

skpu44 ron Me27  
Data Collected on:  
mercury400-mercury400  
Archive directory:  
/export/home/vnmruser/vnmrsys/data  
Sample directory:  
skp044\_2004-08-22  
File: PROTON\_01

Pulse Sequence: s2pu1  
Solvent: DMSO

Relax. delay 1.000 sec  
Pulse 45.0 degrees  
Acq. time 1.997 sec  
Width 5633.8 Hz  
8 repetitions  
OBSERVE H1, 399.8463329 MHz  
DATA PROCESSING  
FT size 32768  
Total time 0 min

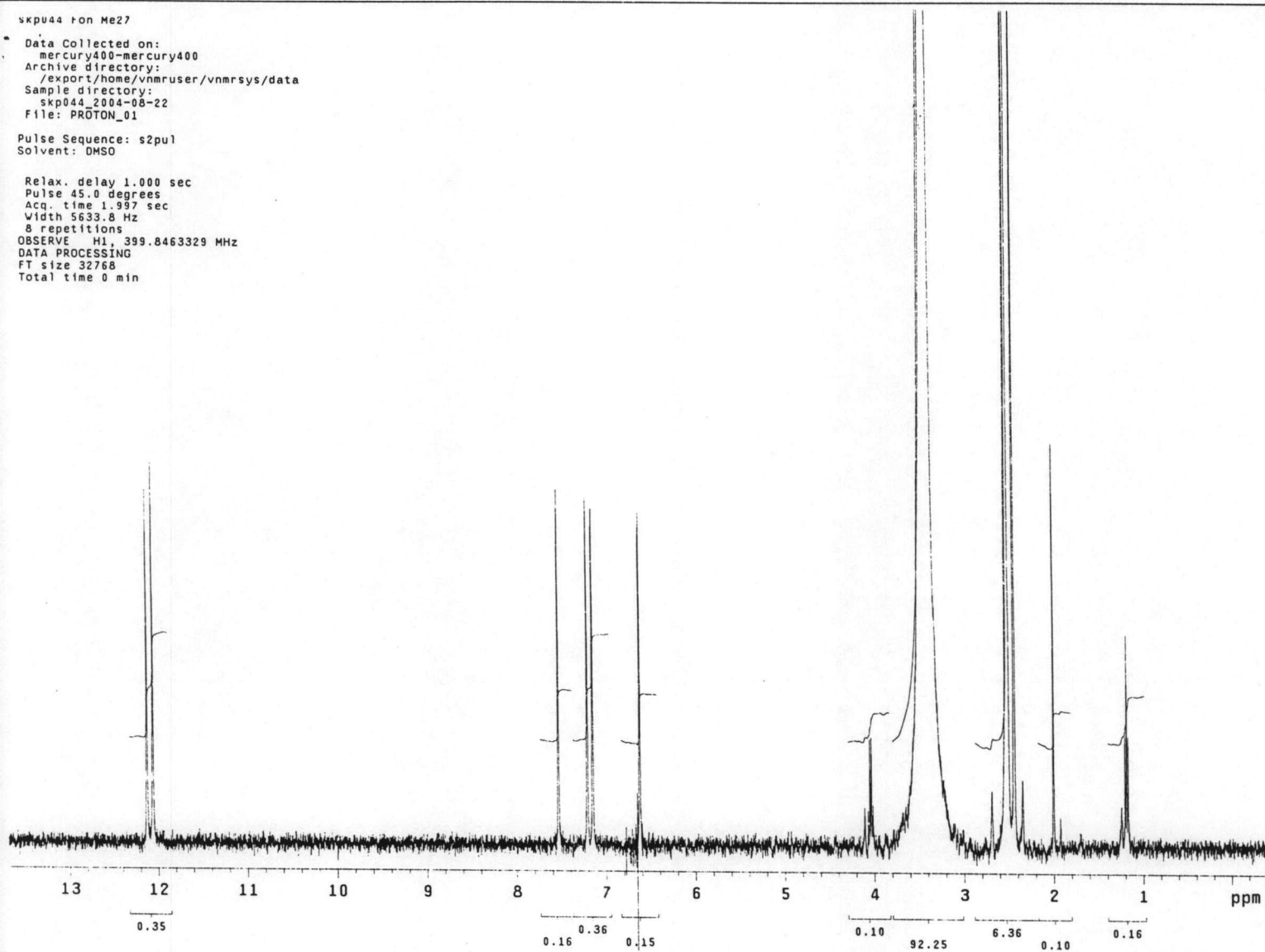


Figure 11 <sup>1</sup>H-NMR spectrum of compound 2

File: gHMBC\_01  
Pulse Sequence: gHMBC  
Solvent: DMSO  
Relax. delay 1.000 sec  
Acq. time 0.150 sec  
Width 5656.1 Hz  
2D Width 24154.6 Hz  
8 repetitions  
400 increments  
OBSERVE HI 399.8463329 MHz  
DATA PROCESSING  
Sine bell 0.075 sec  
F1 DATA PROCESSING  
Sine bell 0.008 sec  
FT size 2048 x 2048  
Total time 1 hr, 10 min

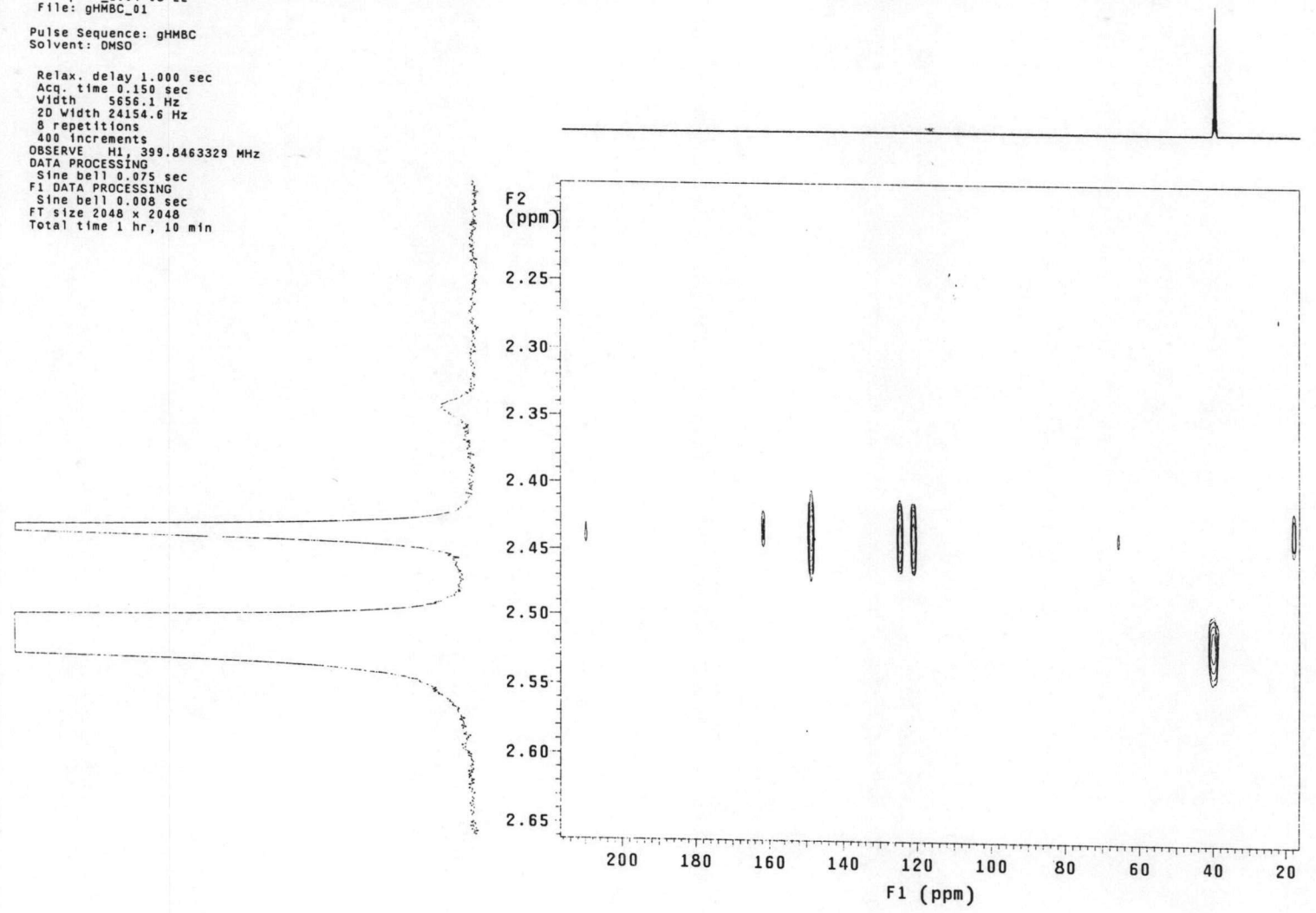


Figure 13 HMBC correlation of compound 2

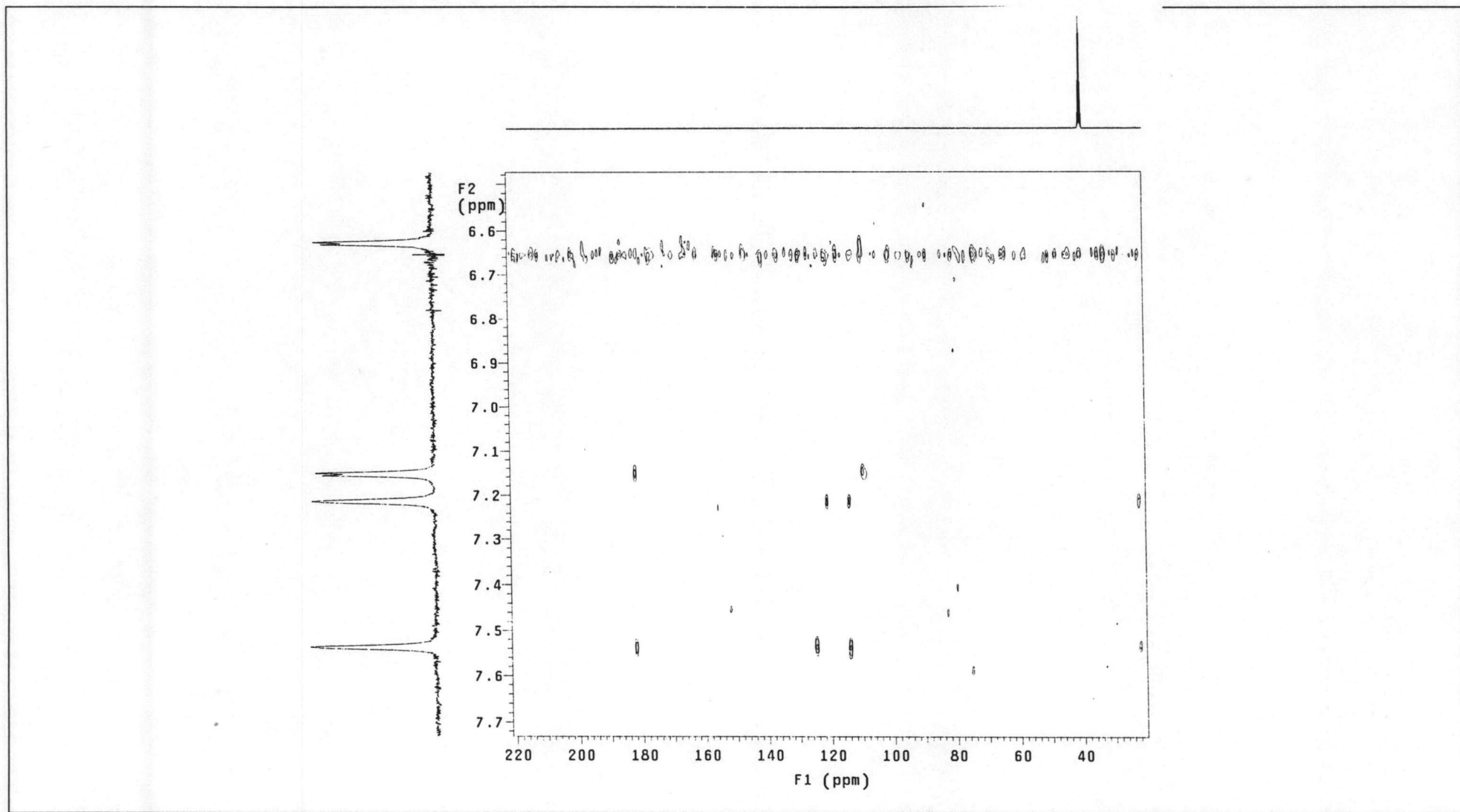


Figure 13(continued) HMBC correlation of compound 2

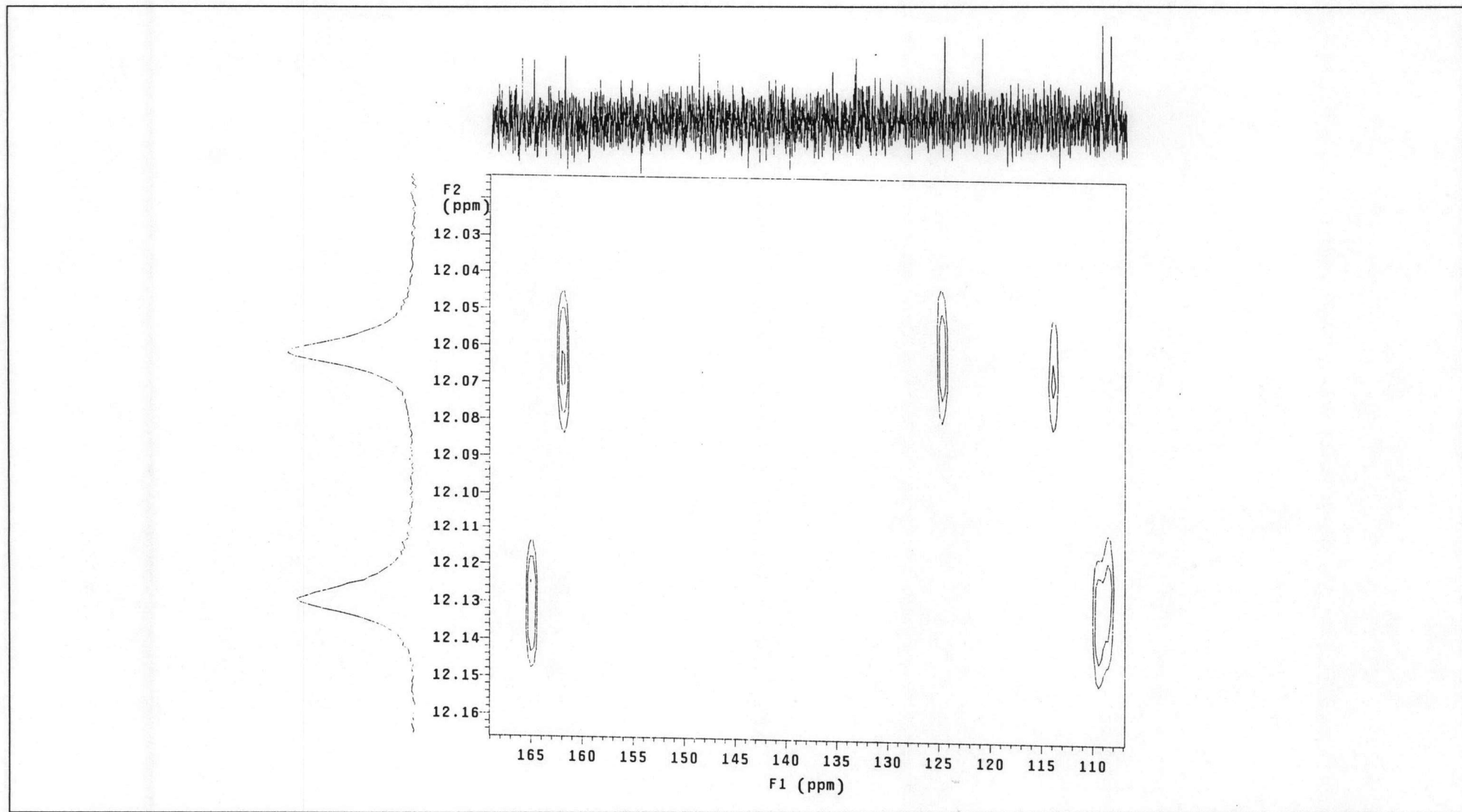


Figure 13(continued) HMBC correlation of compound 2



```

* skp050 Fon Me27
exp2 CARBON
SAMPLE
date Aug 28 2004 temp SPECIAL
solvent DMSO gain not used
file /export/home/~ spin not used
vnmruser/vnmrsys/d- hst 0.000
ata/skp050_2004-08- pw90 24.250
-28/CARBON_01.fid alfa 20.000
ACQUISITION
sw 25125.6 f1 FLAGS
at 1.199 in n
np 60270 dp n
fb 13800 hs y
bs 84 nn
d1 1.000 lb PROCESSING
nt 30000 fn not used
ct 30000 DISPLAY
TRANSMITTER sp -201.1
tn C13 wp 21113.7
sfrq 100.552 rfl 1503.3
tof 1574.2 rfp 0
tpwr 60 rp 168.5
pw 12.125 lp -271.4
DECOUPLER H1 wc PLOT
dn 0 sc 250
dm yyy vs 0
dmm w th 1537
dpwr 30 ai no ph 17
dmf 9376

```

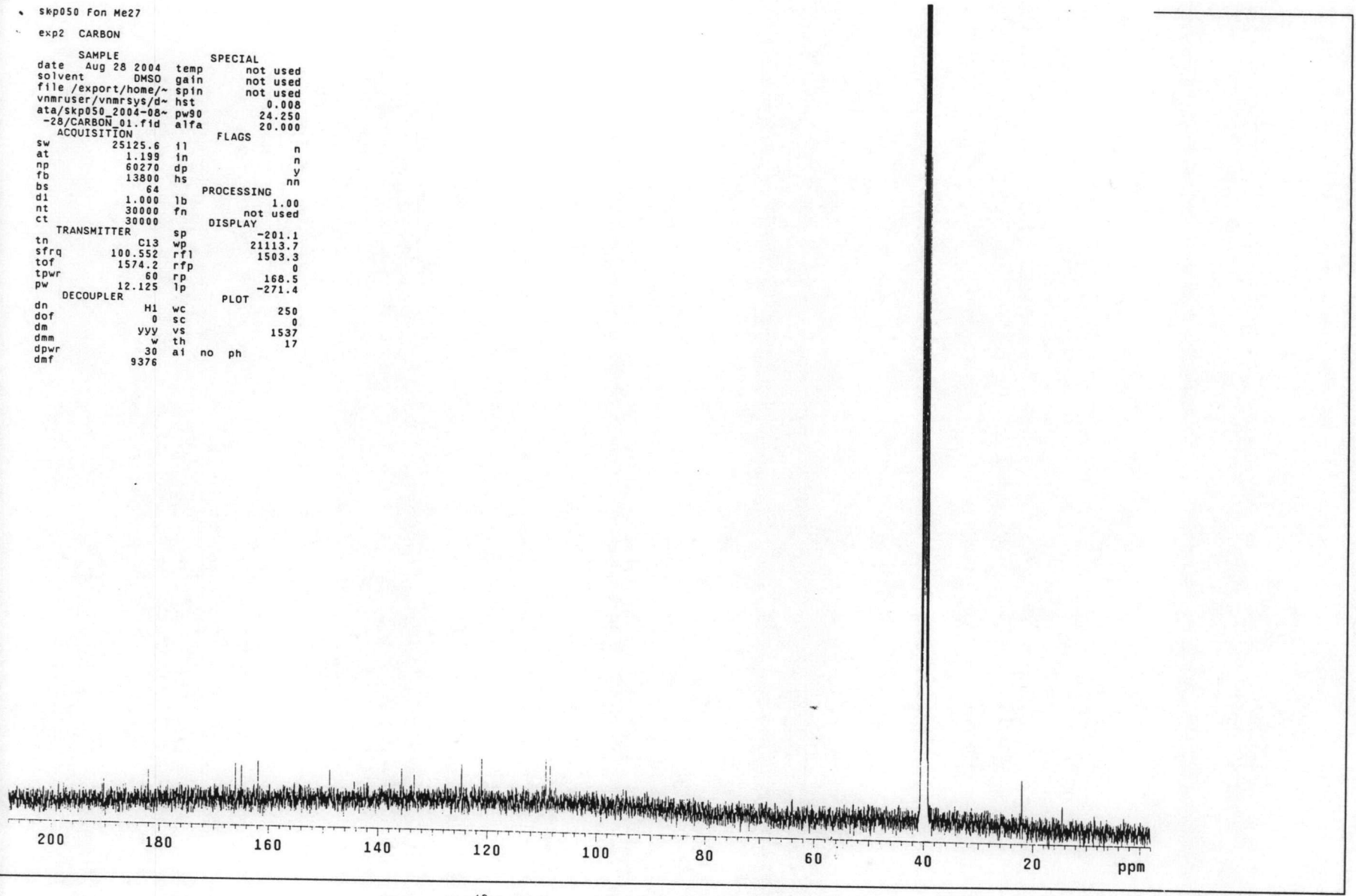


Figure 12  $^{13}\text{C}$ -NMR spectrum of compound 2

skp044\_2004-08-22  
File: gHSQC\_01

Pulse Sequence: gHSQC  
Solvent: DMSO

Relax. delay 1.000 sec  
Acq. time 0.150 sec  
Width 5656.1 Hz  
2D Width 17094.0 Hz  
4 repetitions  
2 x 128 increments  
OBSERVE H1, 399.8463329 MHz  
DECOUPLE C13, 100.5489810 MHz  
Power 53 dB  
on during acquisition  
off during delay  
GARP-1 modulated  
DATA PROCESSING  
Gauss apodization 0.069 sec  
F1 DATA PROCESSING  
Gauss apodization 0.014 sec  
FT size 2048 x 2048  
Total time 23 min

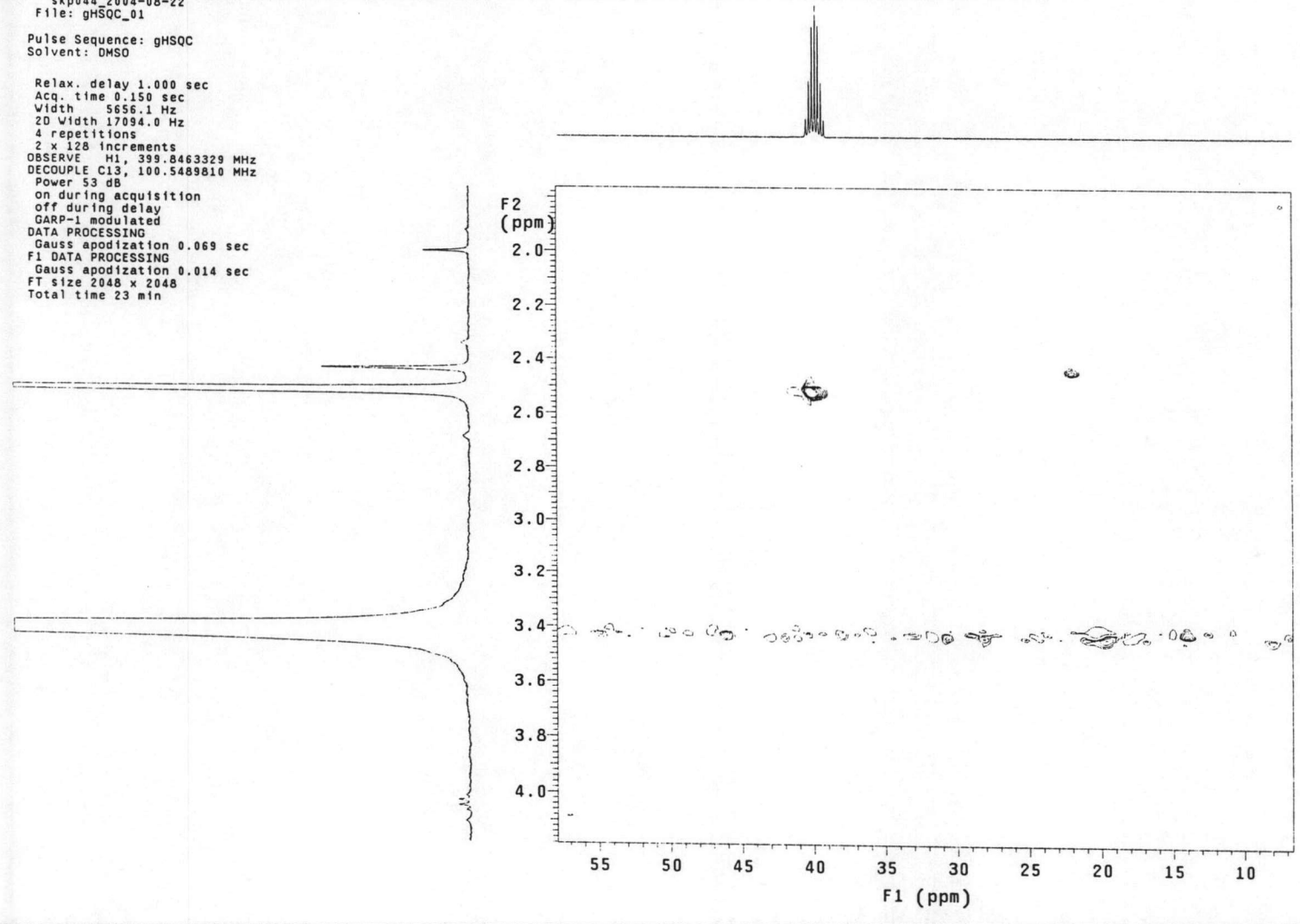


Figure 14 HSQC correlation of compound 2

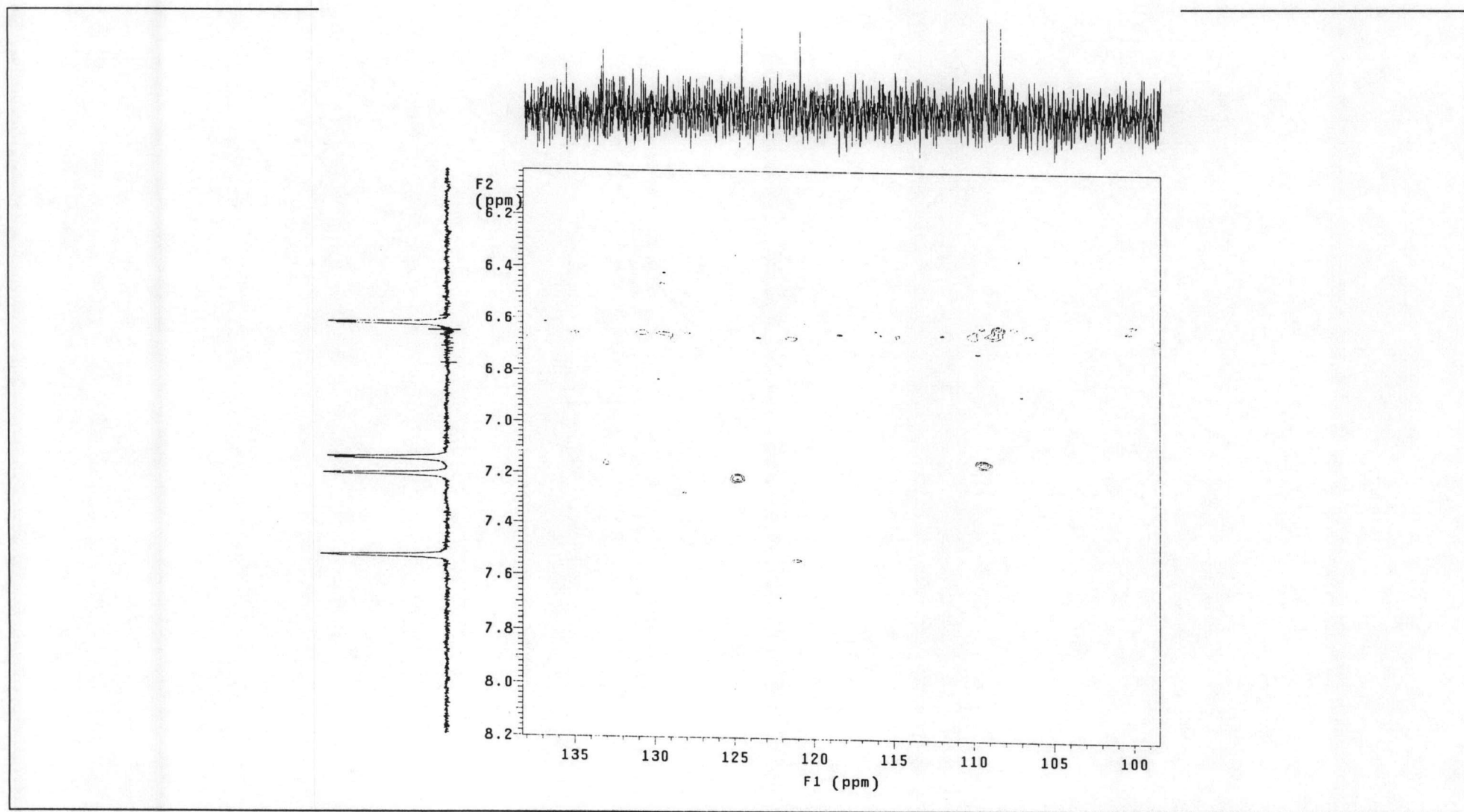


Figure 14 (continued) HSQC correlation of compound 2

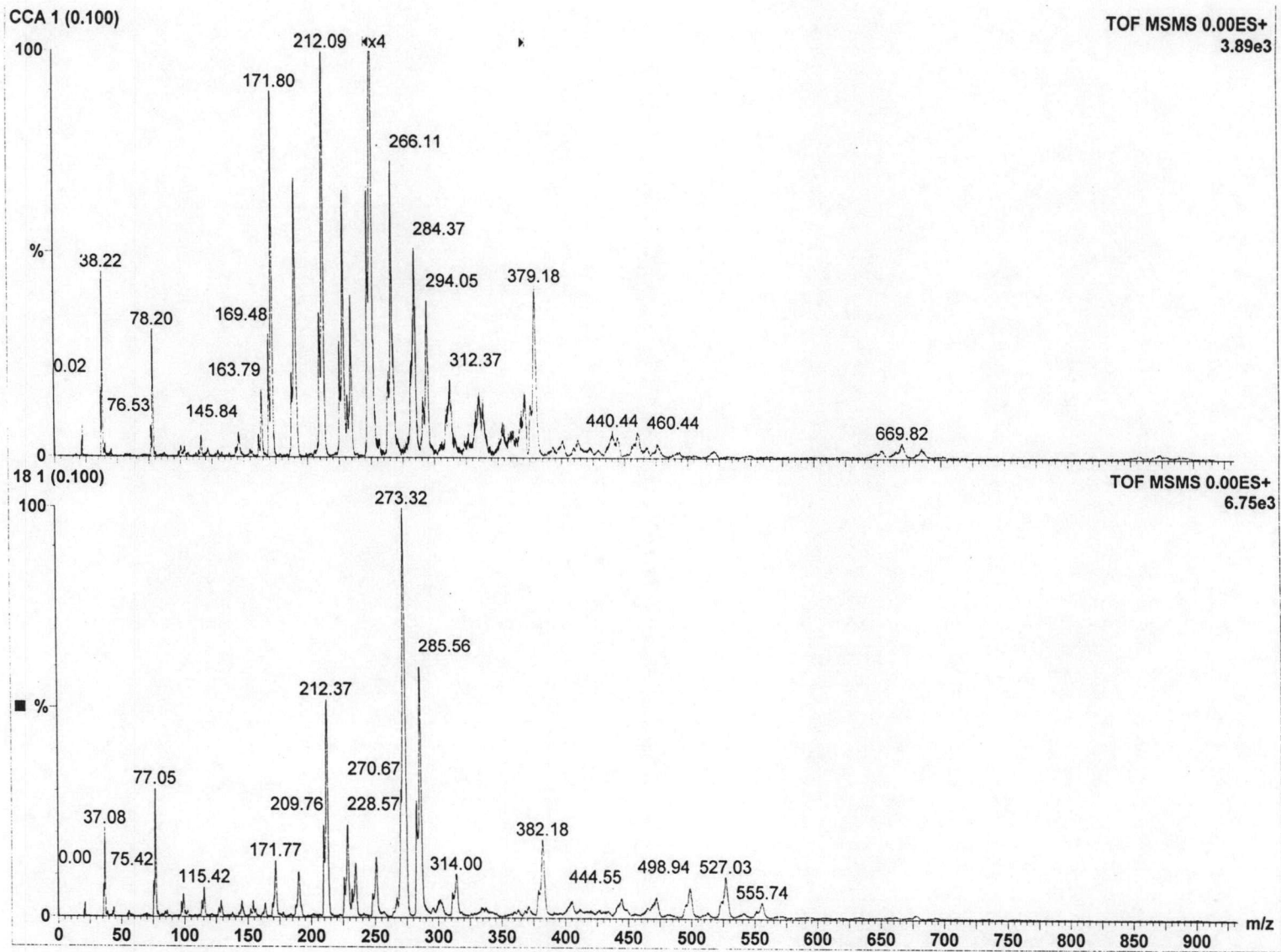


Figure 15 MS-MS of compound 2

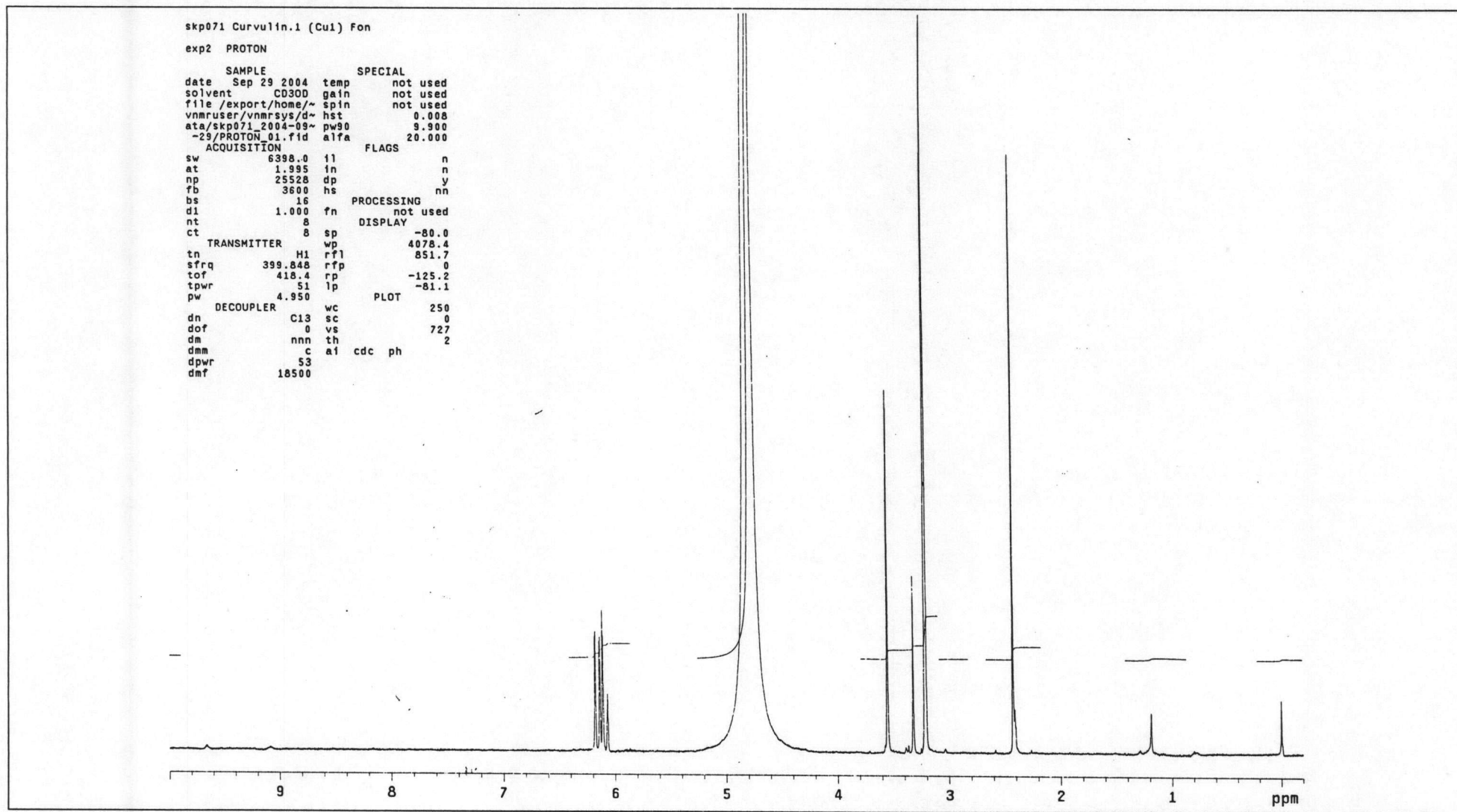


Figure 16  $^1\text{H}$ -NMR spectrum of compound 3



## BIOGRAPHY

Name Miss Monthika Pothavorn

Date of Birth August 30, 1979

Place of Birth Nakorn Sawan Province

Institution attended

- King Mongkut's University of Technology Thonburi, 1996-1999  
Bachelor degree of Science (Microbiology)
- Chulalongkorn University, 2000-2004  
Master degree of Science (Biotechnology)