

Supporting Information

Dimeric Prenylated C₆-C₃ Compounds from the Stem Bark of *Illicium oligandrum*

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Ministry of Education; Institute of Materia Medica, Peking Union Medical College and Chinese
Academy of Medical Sciences, Beijing 100050, People's Republic of China*

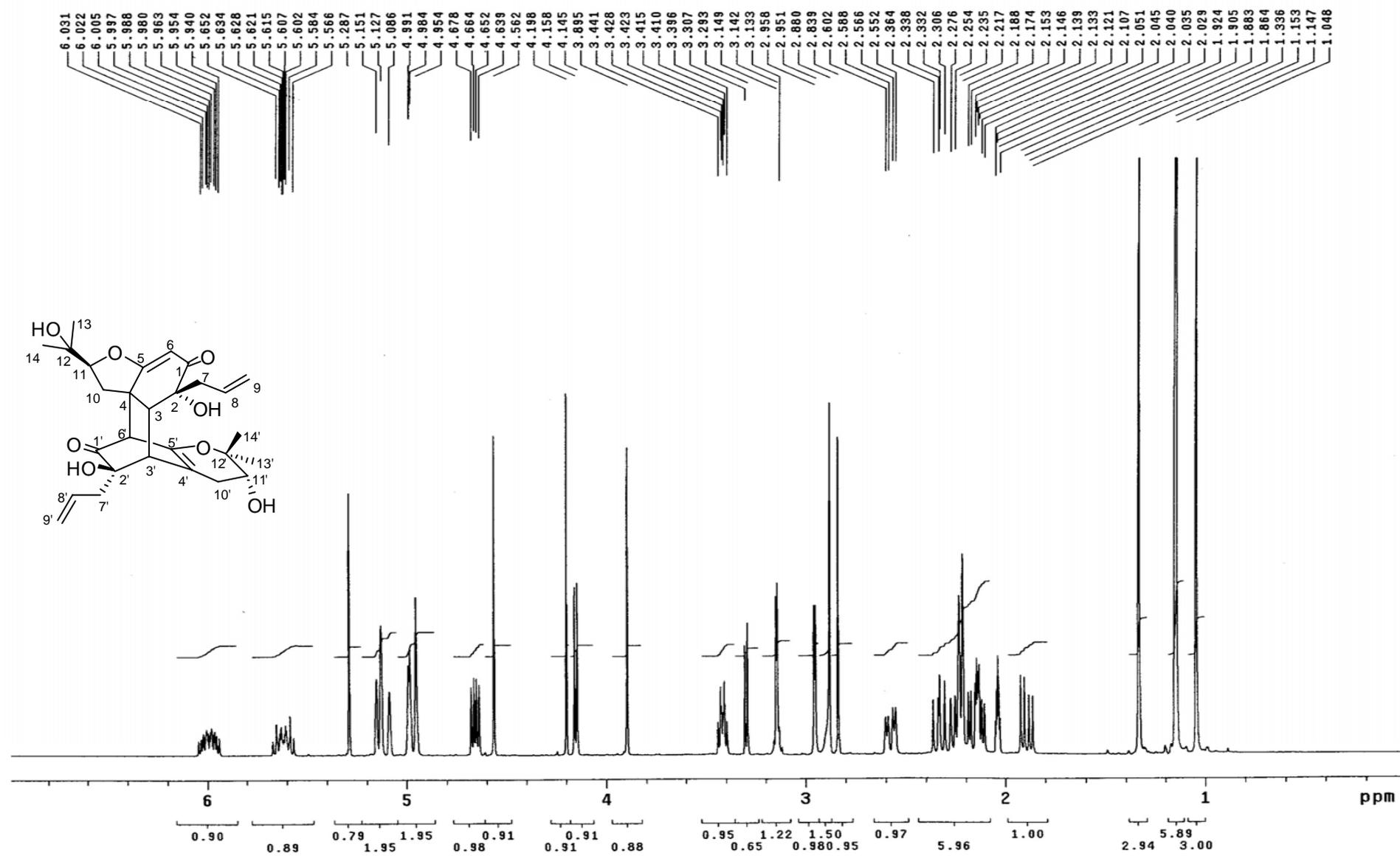
Corresponding author. Tel. 86-10-63165324. Fax: 86-10-63017757

Email address: yushishan@imm.ac.cn

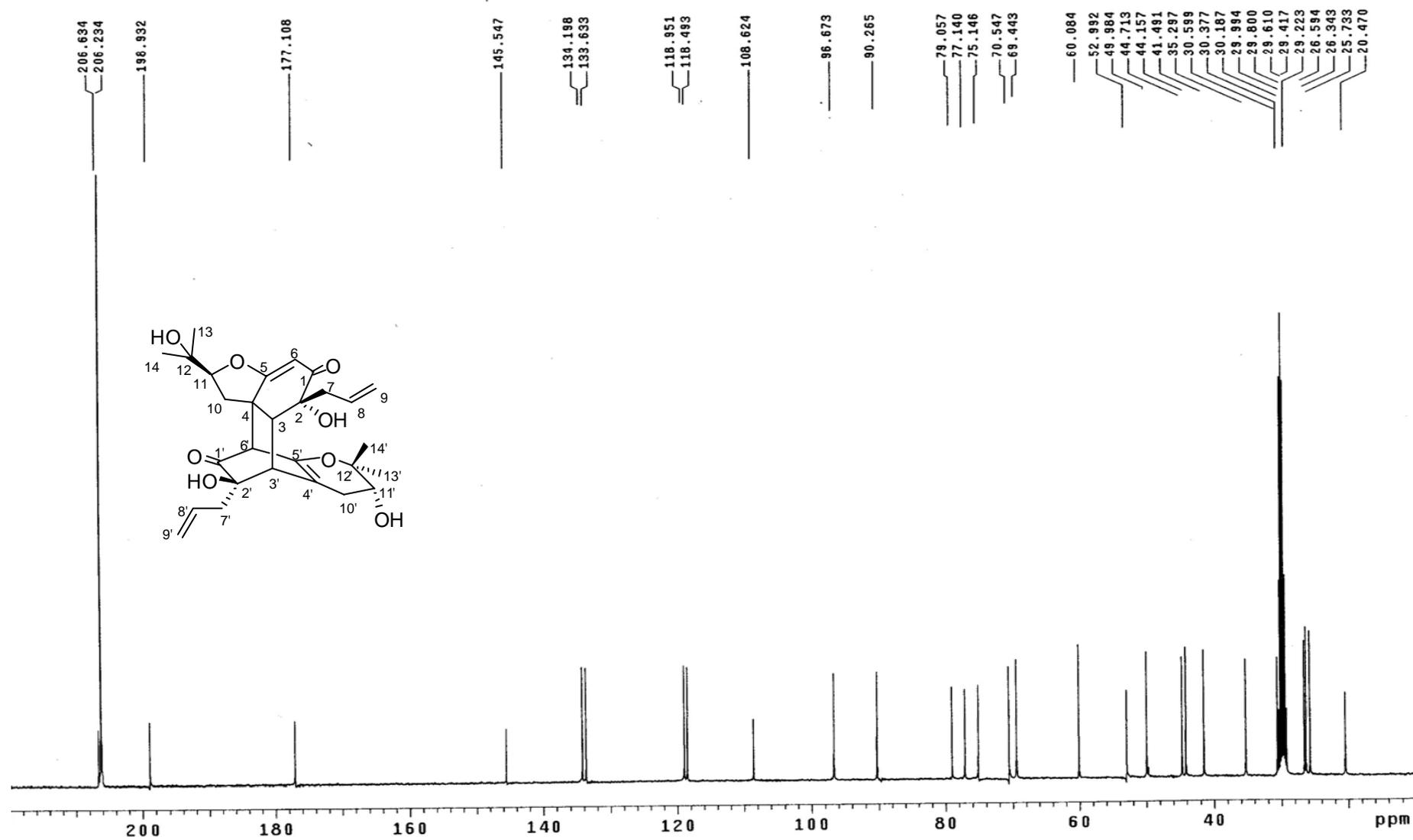
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S1 ^1H NMR spectrum (400 MHz) of compound **1** in acetone- d_6



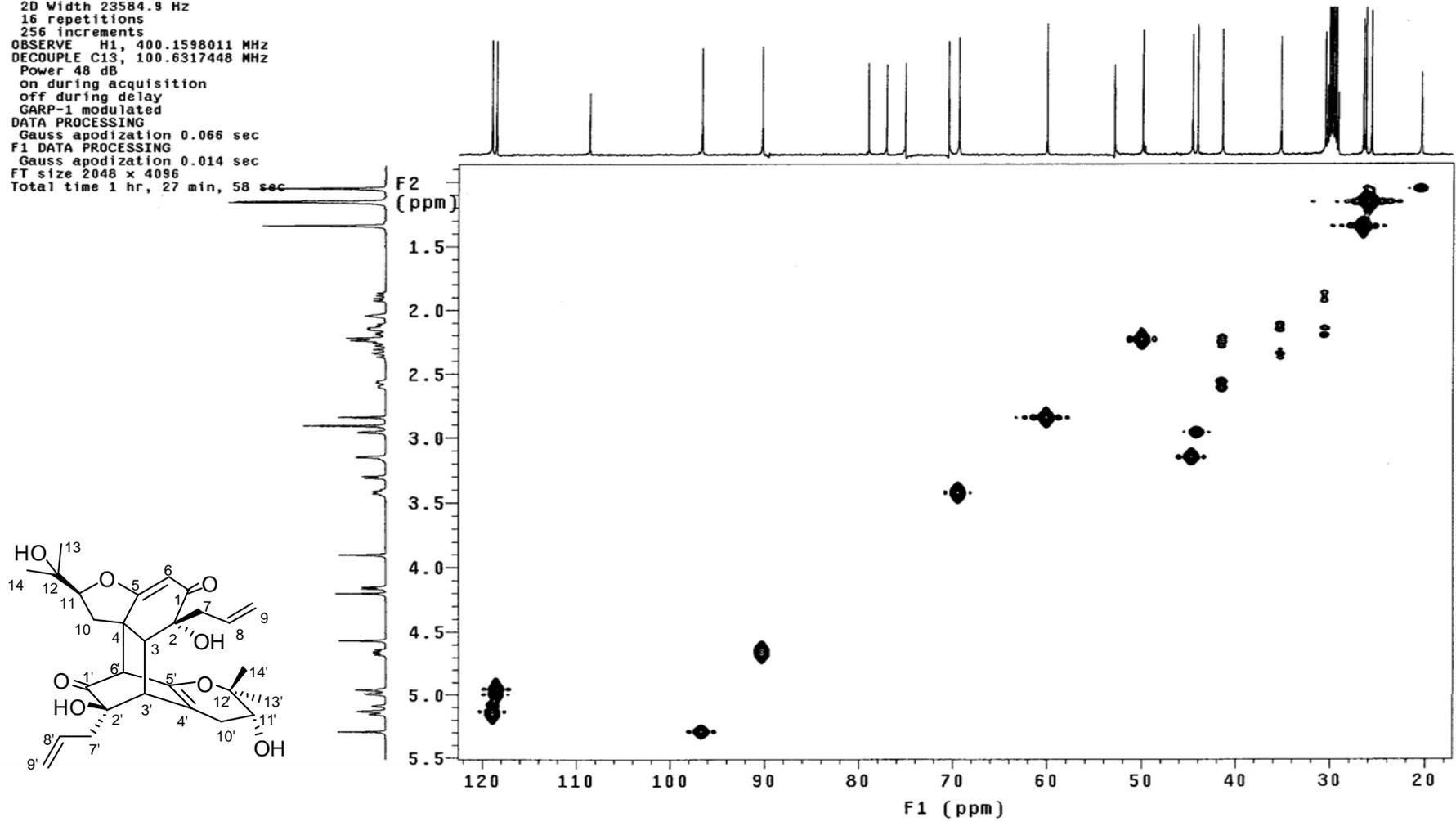
S2 ^{13}C NMR spectrum (100 MHz) of compound **1** in acetone- d_6



S3 HSQC spectrum (400 MHz) of compound 1 in acetone-*d*₆

Solvent: Acetone
 Temp. 25.0 C / 298.1 K
 Mercury-400BB "NMR400"

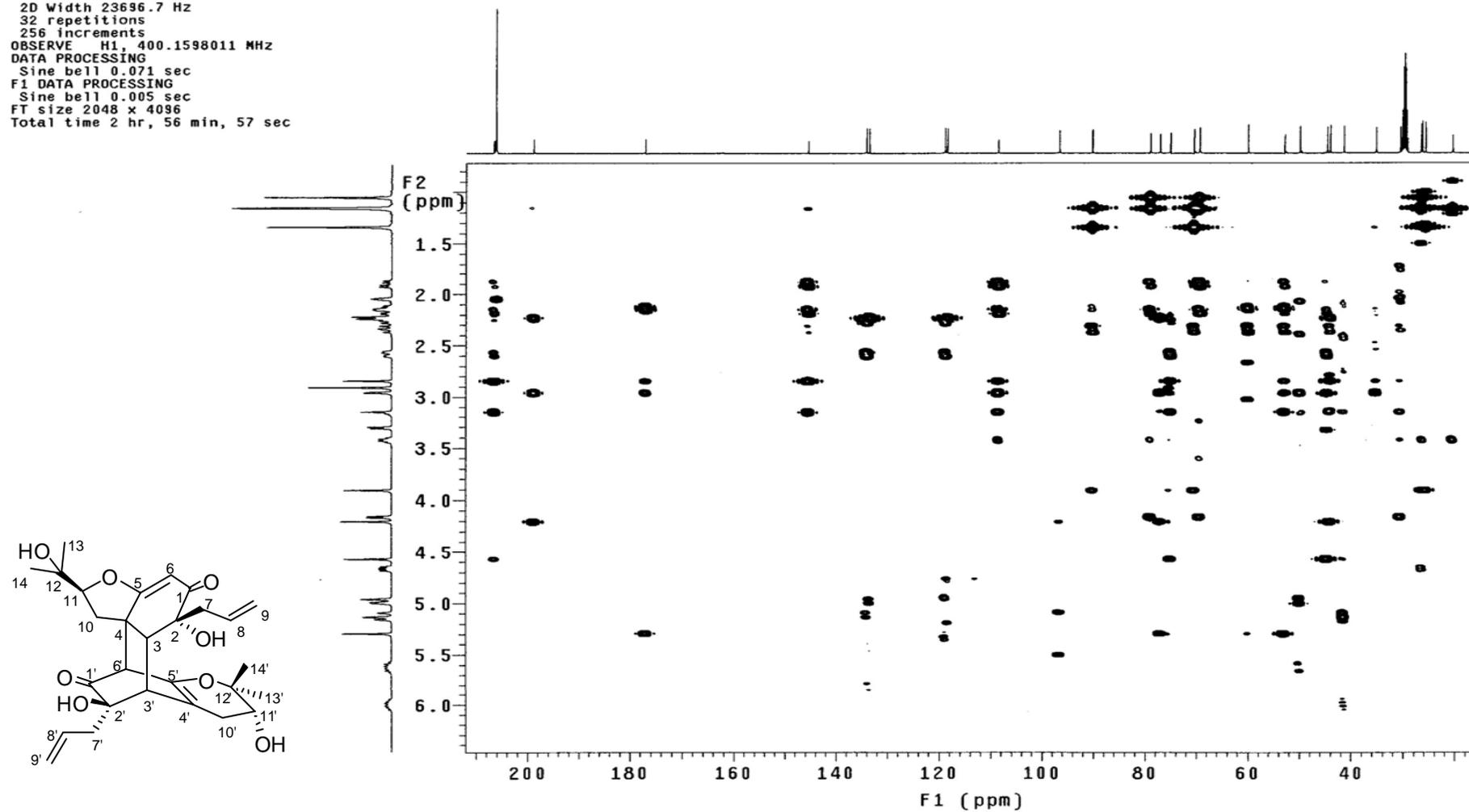
Relax. delay 1.000 sec
 Acq. time 0.143 sec
 Width 3571.4 Hz
 2D Width 23584.9 Hz
 16 repetitions
 256 increments
 OBSERVE H1, 400.1598011 MHz
 DECOUPLE C13, 100.6317448 MHz
 Power 48 dB
 on during acquisition
 off during delay
 GARP-1 modulated
 DATA PROCESSING
 Gauss apodization 0.066 sec
 F1 DATA PROCESSING
 Gauss apodization 0.014 sec
 FT size 2048 x 4096
 Total time 1 hr, 27 min, 58 sec



S4 HMBC spectrum (400 MHz) of compound 1 in acetone-*d*₆

Solvent: Acetone
Temp. 25.0 C / 298.1 K
Mercury-400BB "NMR400"

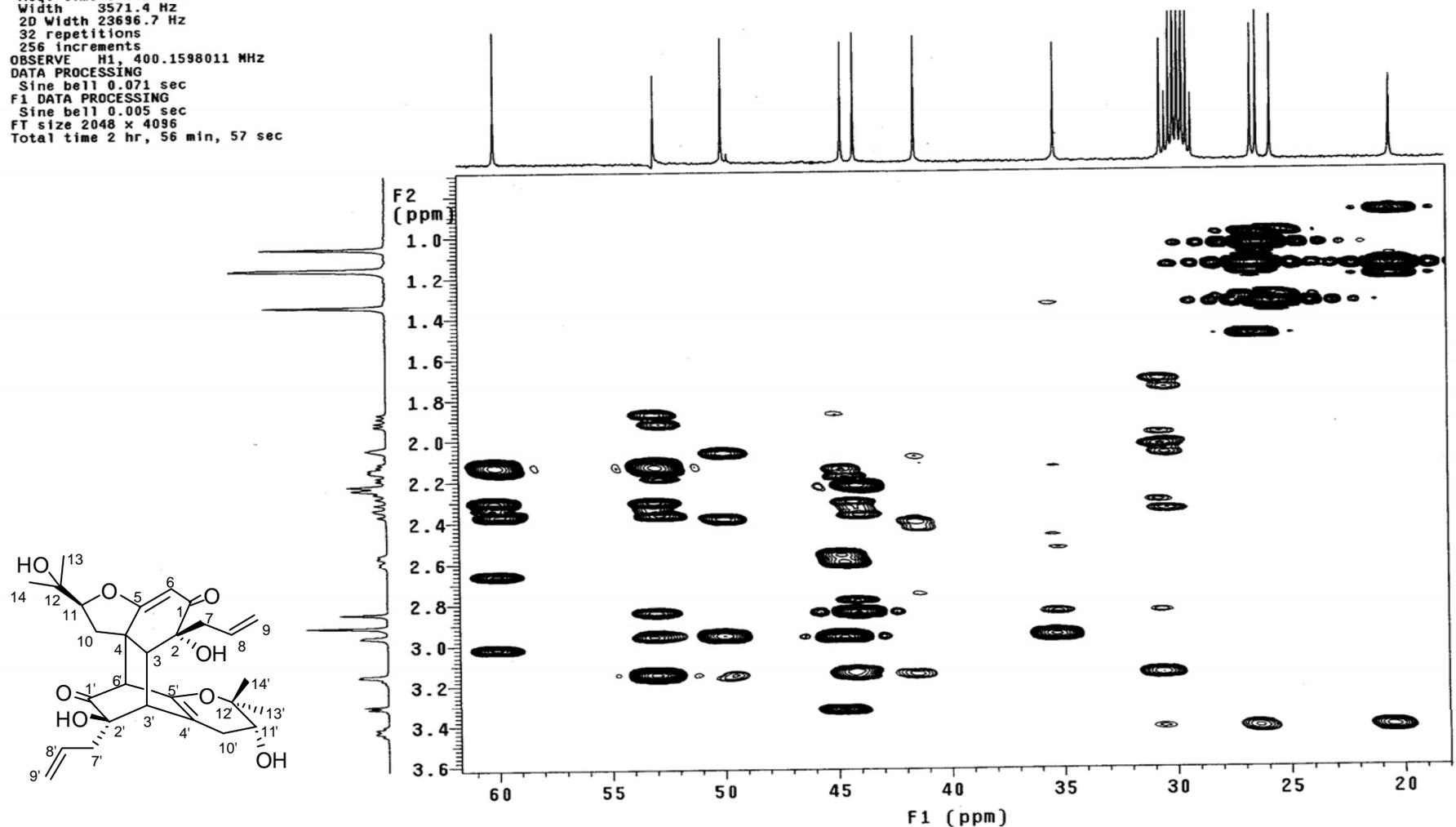
Relax. delay 1.000 sec
Acq. time 0.143 sec
Width 3571.4 Hz
2D Width 23696.7 Hz
32 repetitions
256 increments
OBSERVE H1, 400.1598011 MHz
DATA PROCESSING
Sine bell 0.071 sec
F1 DATA PROCESSING
Sine bell 0.005 sec
FT size 2048 x 4096
Total time 2 hr, 56 min, 57 sec



S4 HMBC spectrum (400 MHz) of compound 1 in acetone-*d*₆

Solvent: Acetone
 Temp. 25.0 C / 298.1 K
 Mercury-400BB "NMR400"

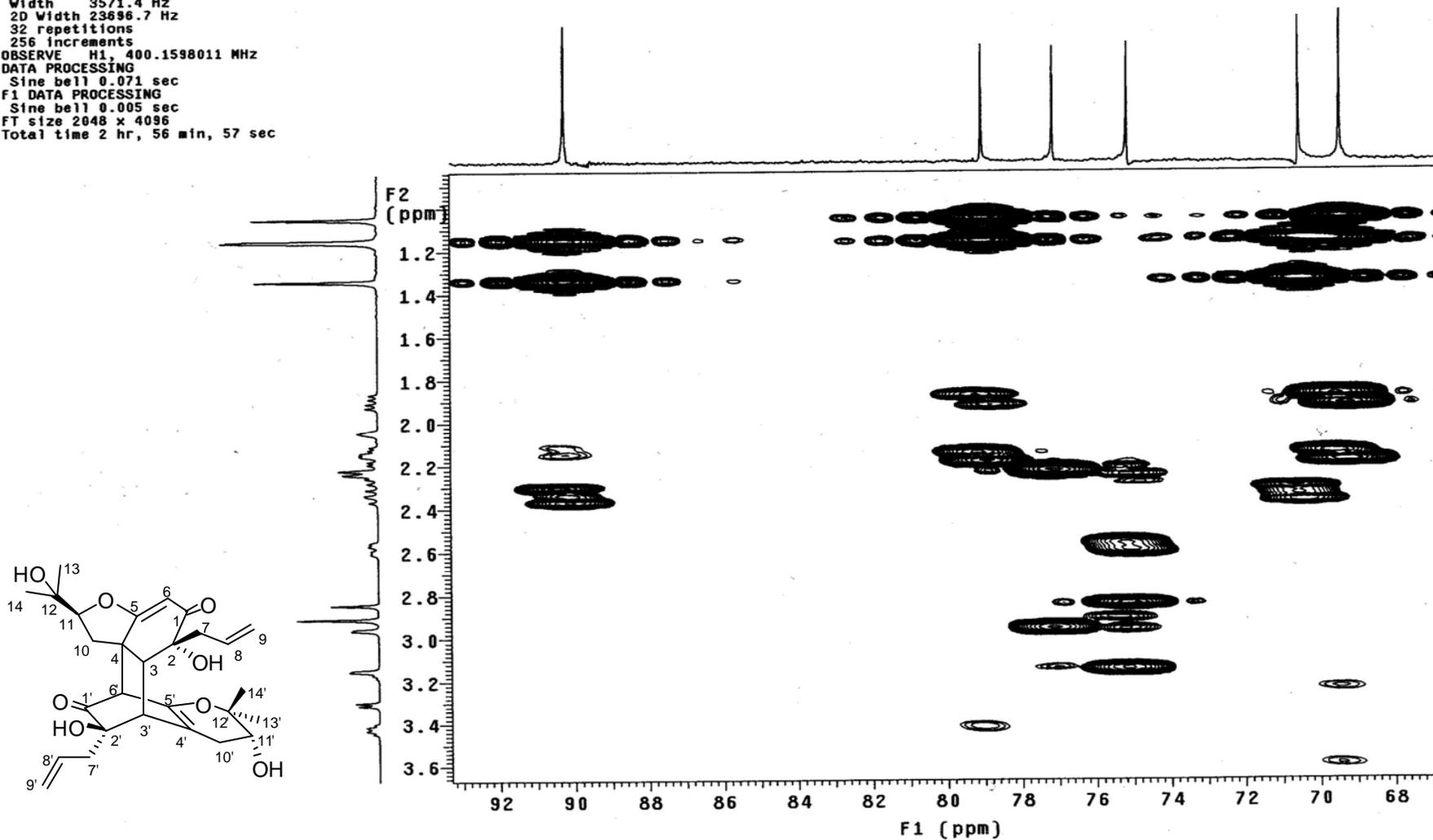
Relax. delay 1.000 sec
 Acq. time 0.143 sec
 Width 3571.4 Hz
 2D Width 23696.7 Hz
 32 repetitions
 256 increments
 OBSERVE H1, 400.1598011 MHz
 DATA PROCESSING
 Sine bell 0.071 sec
 F1 DATA PROCESSING
 Sine bell 0.005 sec
 FT size 2048 x 4096
 Total time 2 hr, 56 min, 57 sec



S4 HMBC spectrum (400 MHz) of compound 1 in acetone-*d*₆

Solvent: Acetone
 Temp. 25.0 C / 298.1 K
 Mercury-400BB "NMR400"

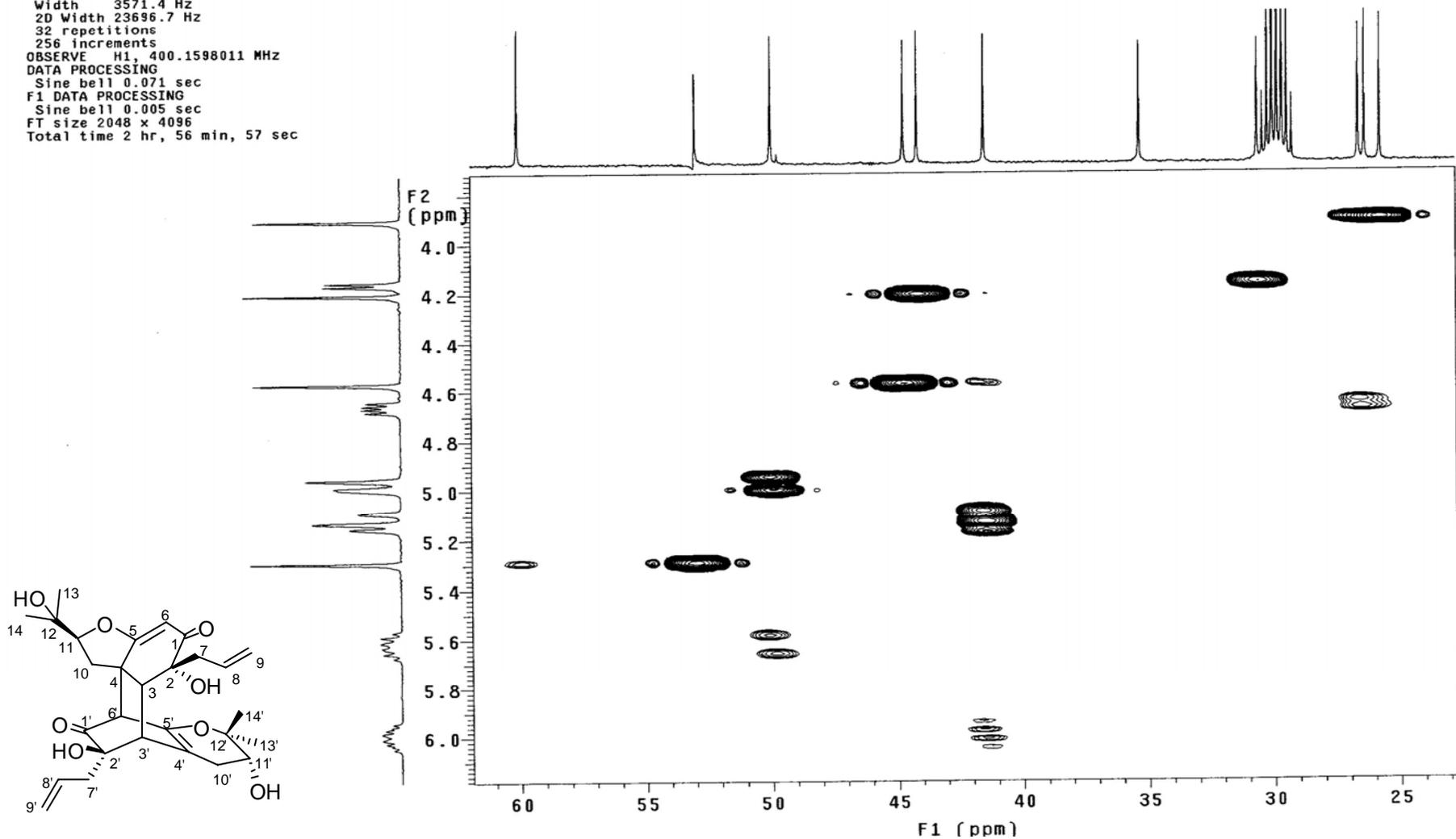
Relax. delay 1.000 sec
 Acq. time 0.143 sec
 Width 3571.4 Hz
 2D Width 23696.7 Hz
 32 repetitions
 256 increments
 OBSERVE H1, 400.1598011 MHz
 DATA PROCESSING
 Sine bell 0.071 sec
 F1 DATA PROCESSING
 Sine bell 0.005 sec
 FT size 2048 x 4096
 Total time 2 hr, 56 min, 57 sec



S4 HMBC spectrum (400 MHz) of compound 1 in acetone-*d*₆

Solvent: Acetone
 Temp. 25.0 C / 298.1 K
 Mercury-400BB "NMR400"

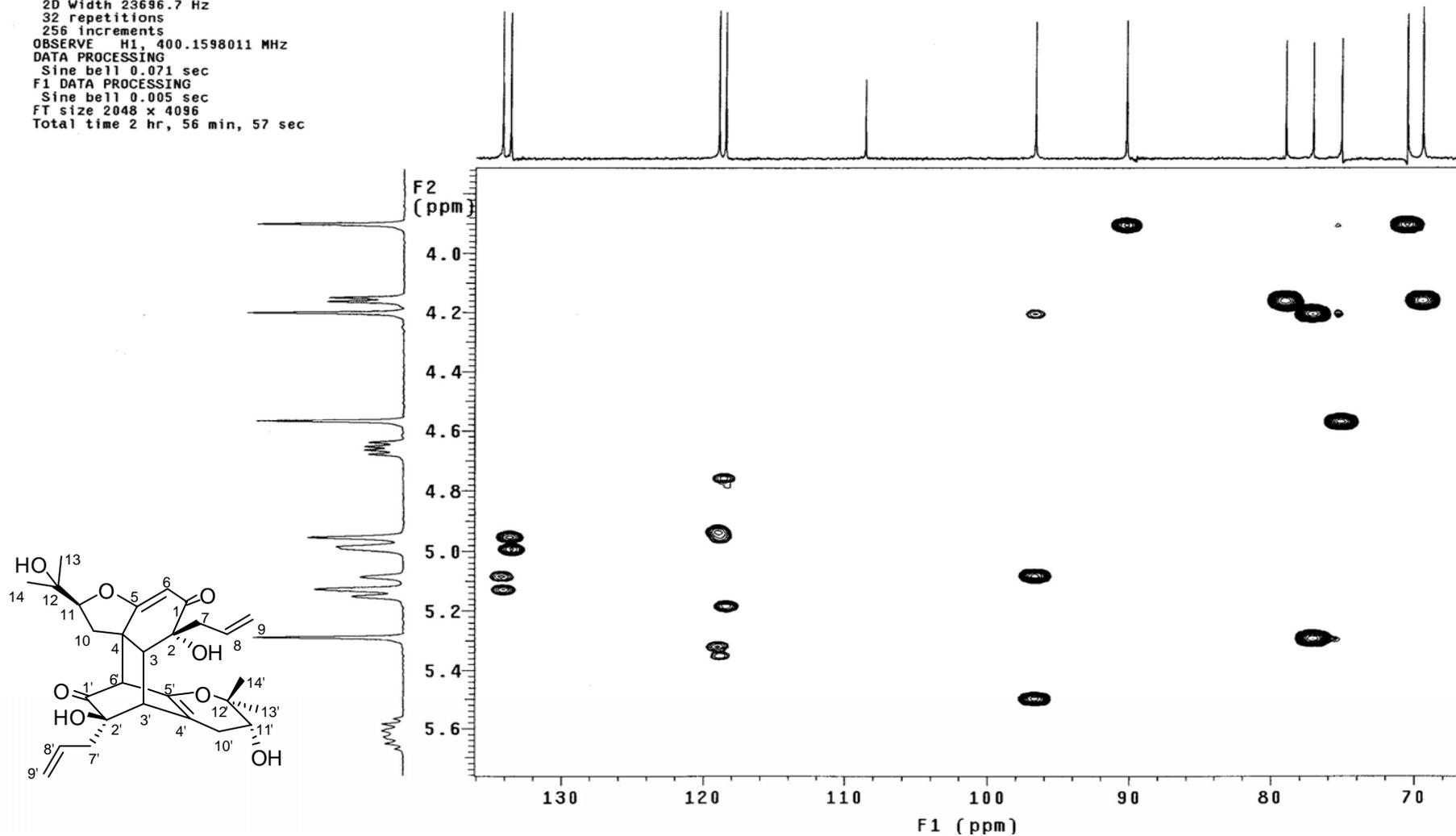
Relax. delay 1.000 sec
 Acq. time 0.143 sec
 Width 3571.4 Hz
 2D Width 23696.7 Hz
 32 repetitions
 256 increments
 OBSERVE H1, 400.1598011 MHz
 DATA PROCESSING
 Sine bell 0.071 sec
 F1 DATA PROCESSING
 Sine bell 0.005 sec
 FT size 2048 x 4096
 Total time 2 hr, 56 min, 57 sec



S4 HMBC spectrum (400 MHz) of compound 1 in acetone-*d*₆

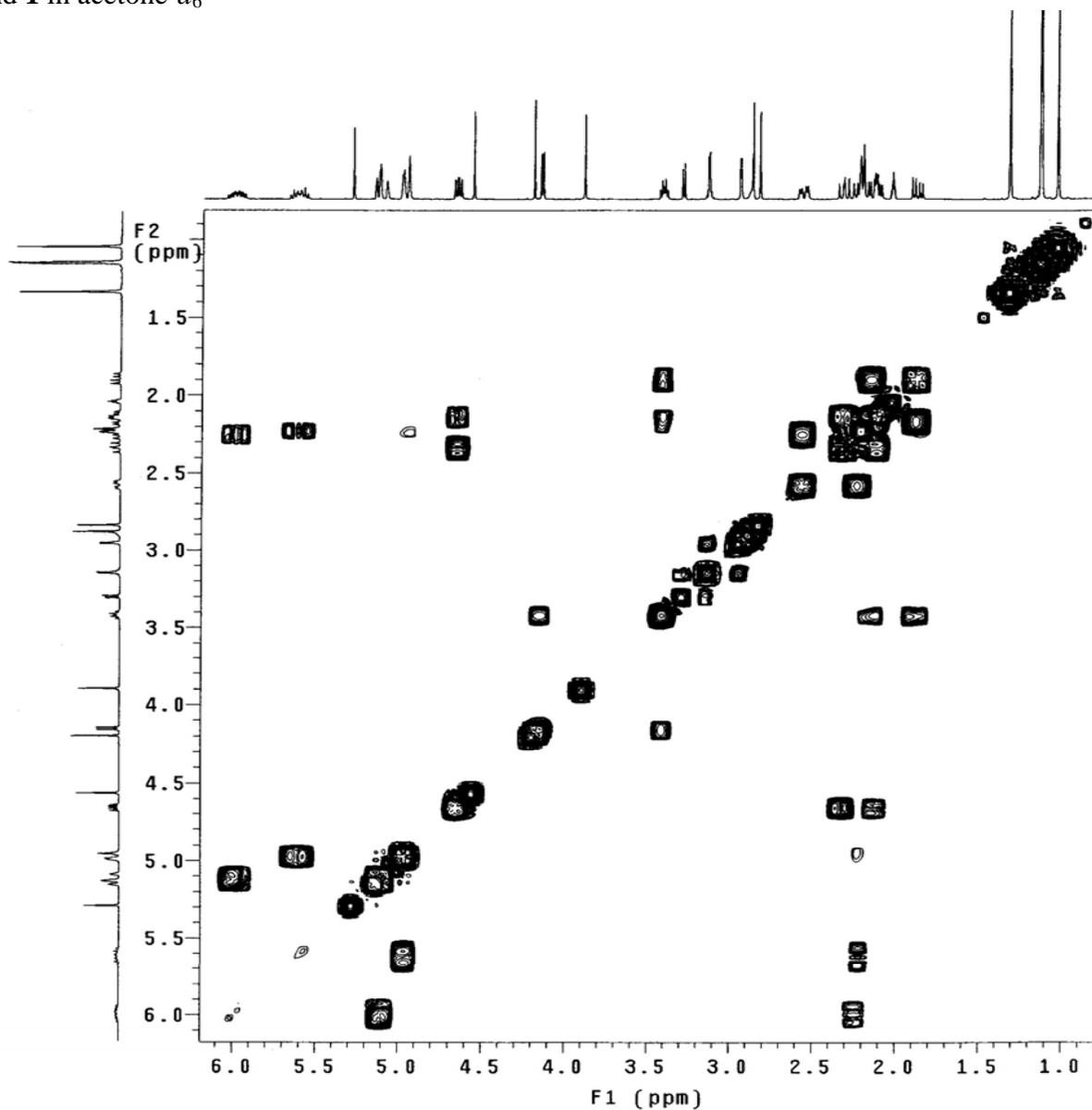
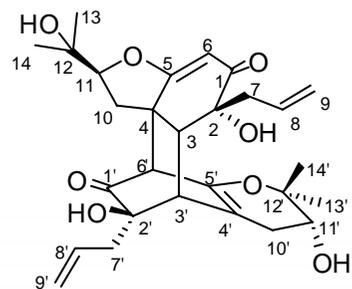
Solvent: Acetone
 Temp. 25.0 C / 298.1 K
 Mercury-400BB "NMR400"

Relax. delay 1.000 sec
 Acq. time 0.143 sec
 Width 3571.4 Hz
 2D Width 23696.7 Hz
 32 repetitions
 256 increments
 OBSERVE H1, 400.1598011 MHz
 DATA PROCESSING
 Sine bell 0.071 sec
 F1 DATA PROCESSING
 Sine bell 0.005 sec
 FT size 2048 x 4096
 Total time 2 hr, 56 min, 57 sec

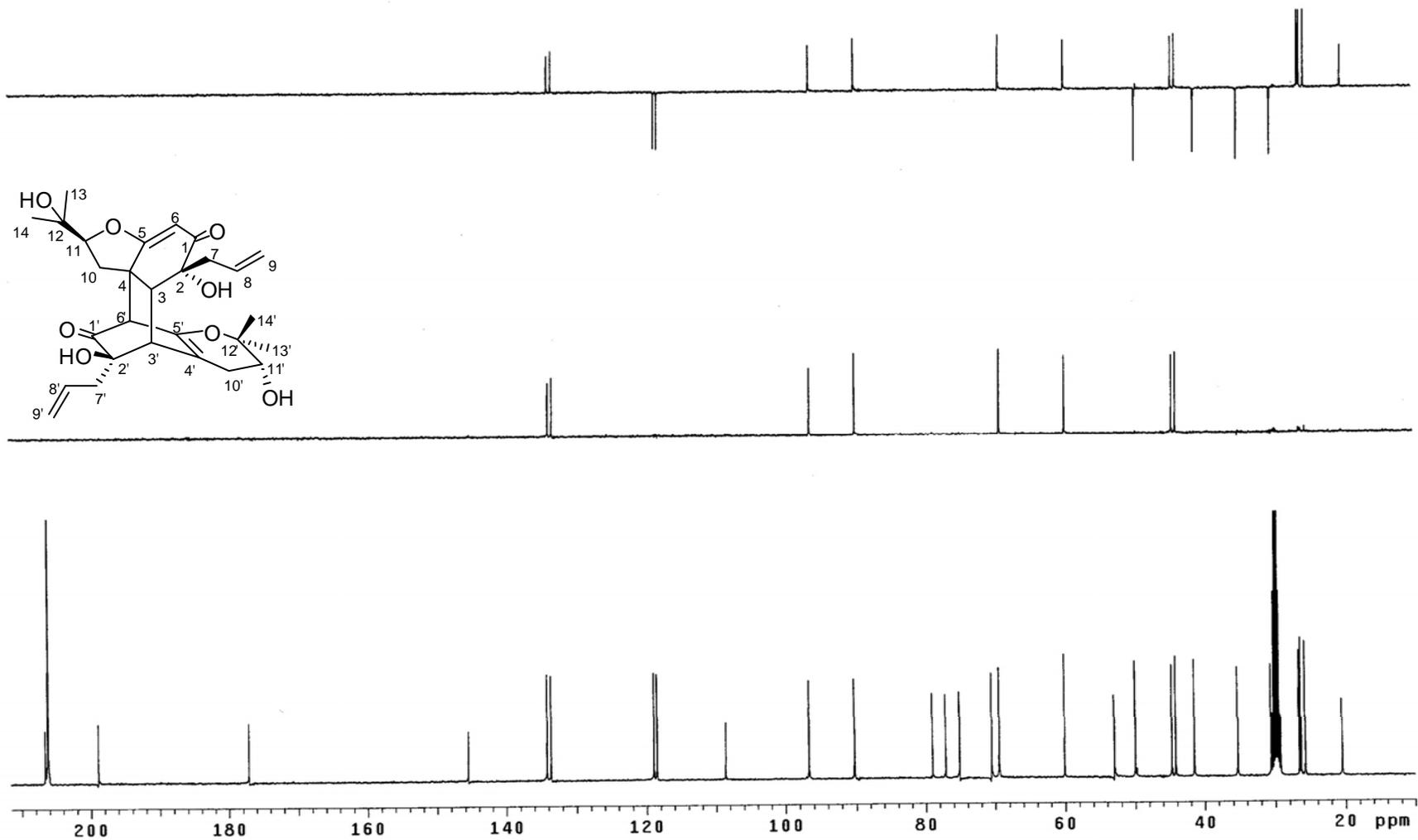


S5 gCOSY spectrum (400 MHz) of compound 1 in acetone-*d*₆

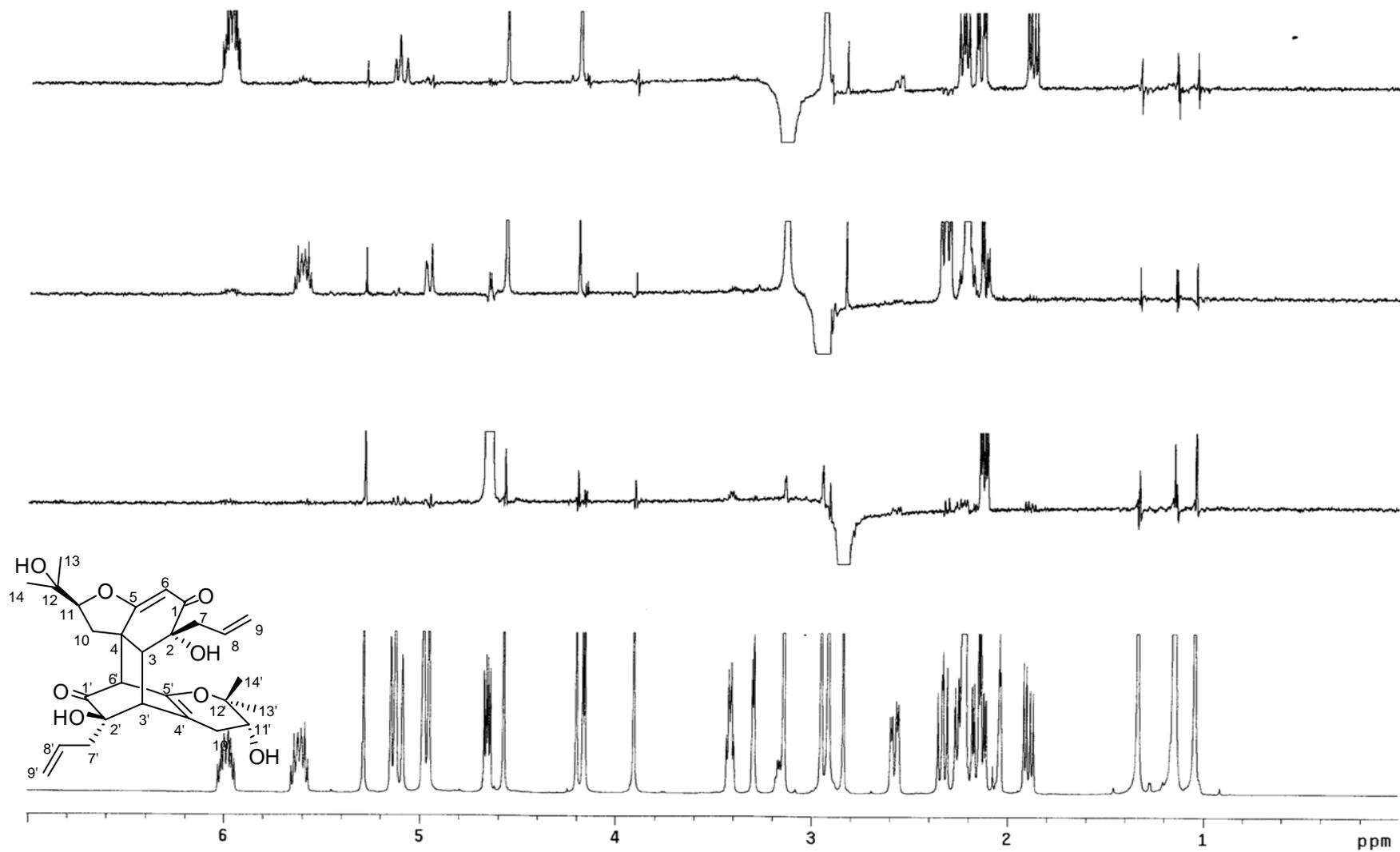
Solvent: acetone
 Temp. 25.0 C / 298.1 K
 Mercury-400BB "NMR400"
 Relax. delay 1.000 sec
 Acq. time 0.155 sec
 Width 3301.4 Hz
 2D Width 3301.4 Hz
 8 repetitions
 128 increments
 OBSERVE H1, 400.1598012 MHz
 DATA PROCESSING
 Sq. sine bell 0.043 sec
 F1 DATA PROCESSING
 Sq. sine bell 0.021 sec
 FT size 2048 x 2048
 Total time 21 min, 40 sec



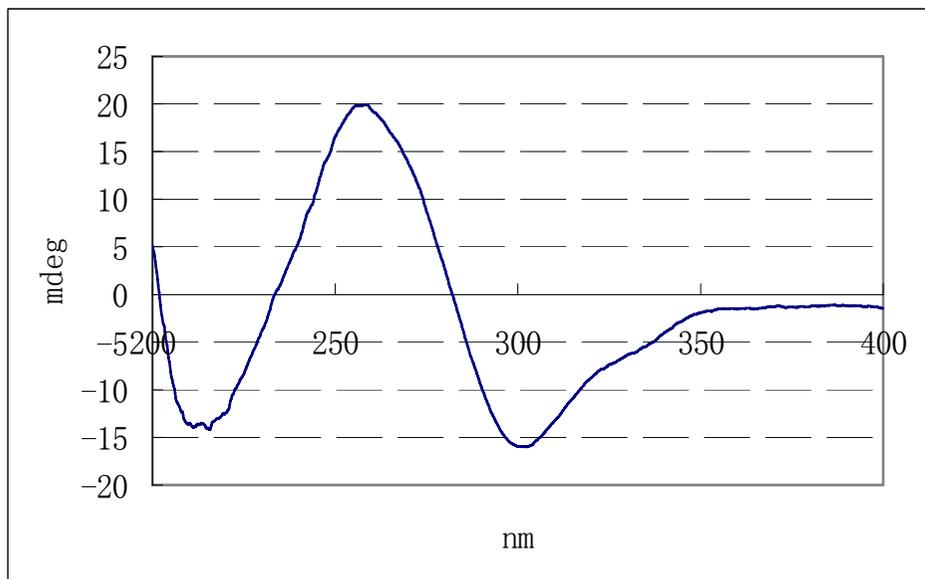
S6 DEPT spectrum (400 MHz) of compound **1** in acetone-*d*₆



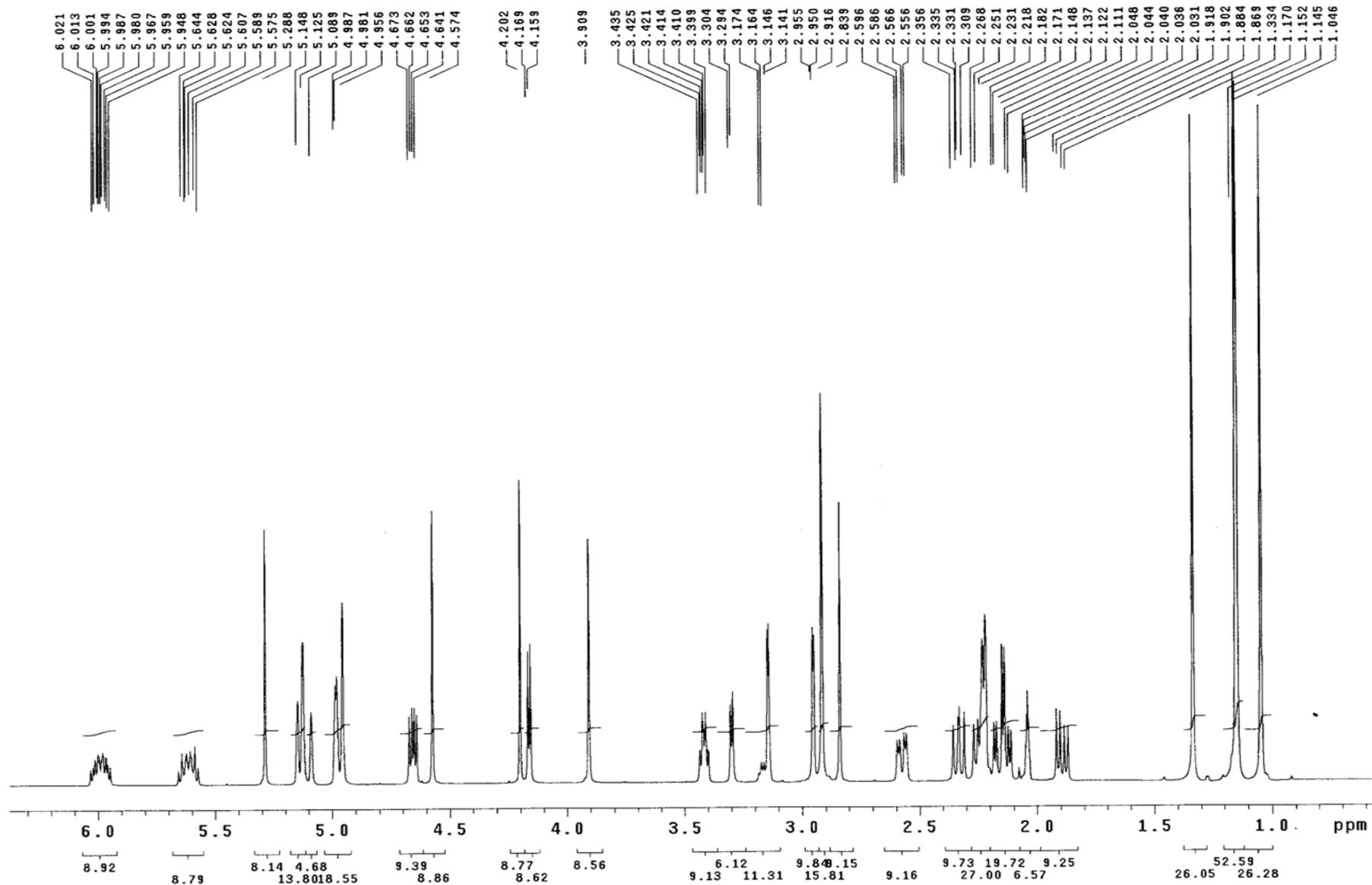
S7 Deference NOE spectrum (400 MHz) of compound 1



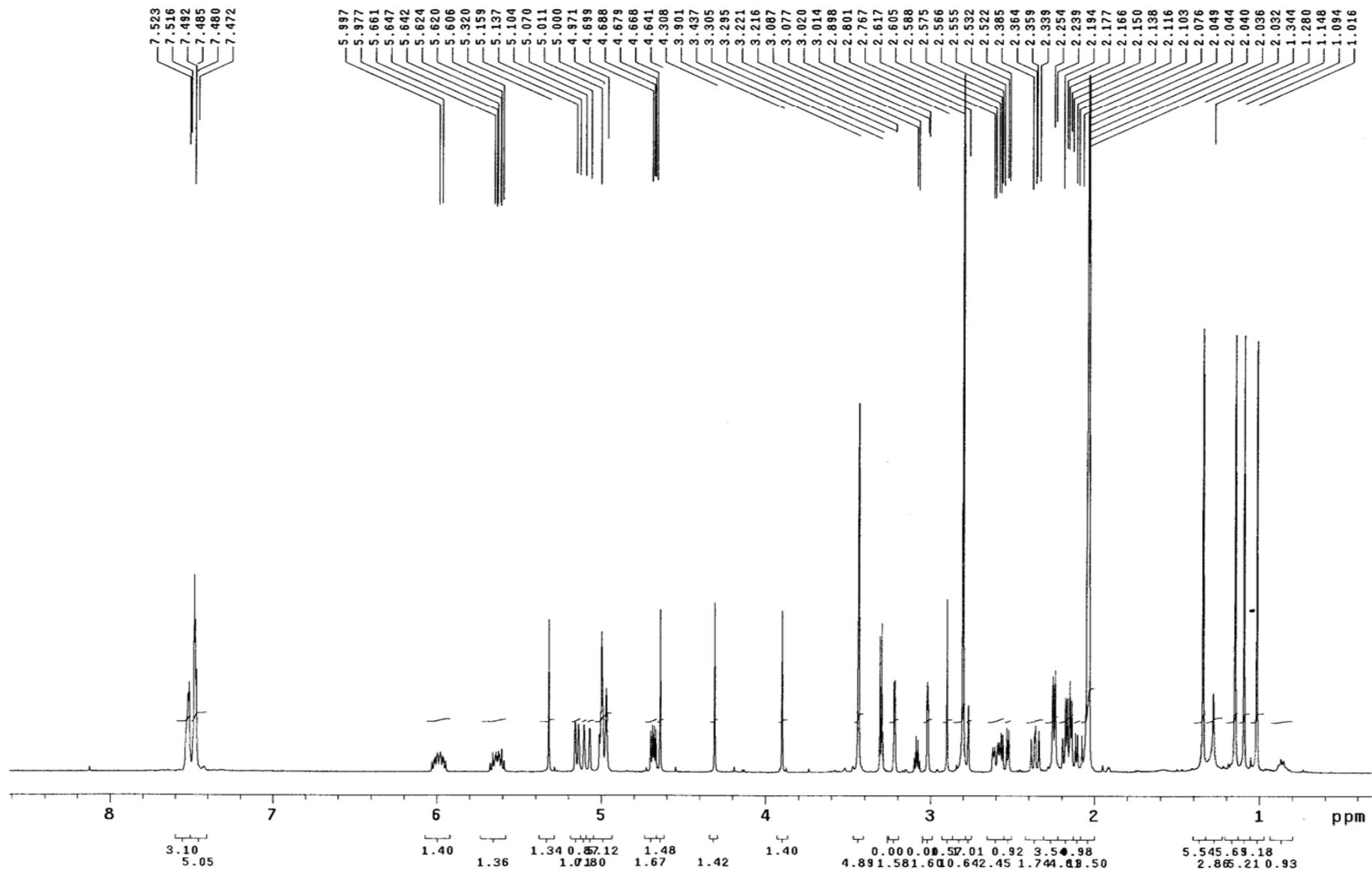
S8 CD spectrum of compound **1** in MeOH



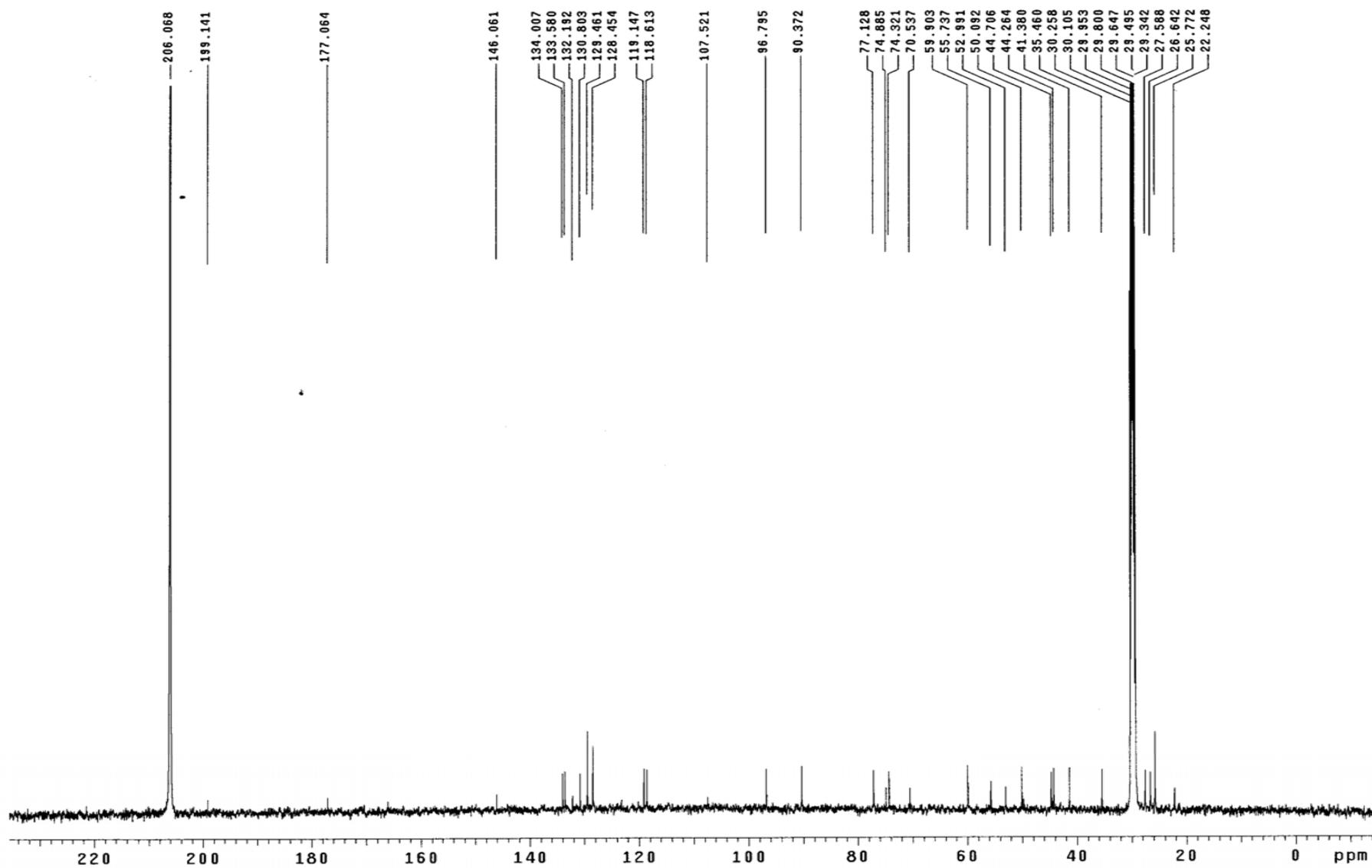
S9 ^1H NMR spectrum (500 MHz) of compound **1** in acetone- d_6



S10 ^1H NMR spectrum (500 MHz) of (*S*)-MTPA ester (**1b**) in acetone- d_6



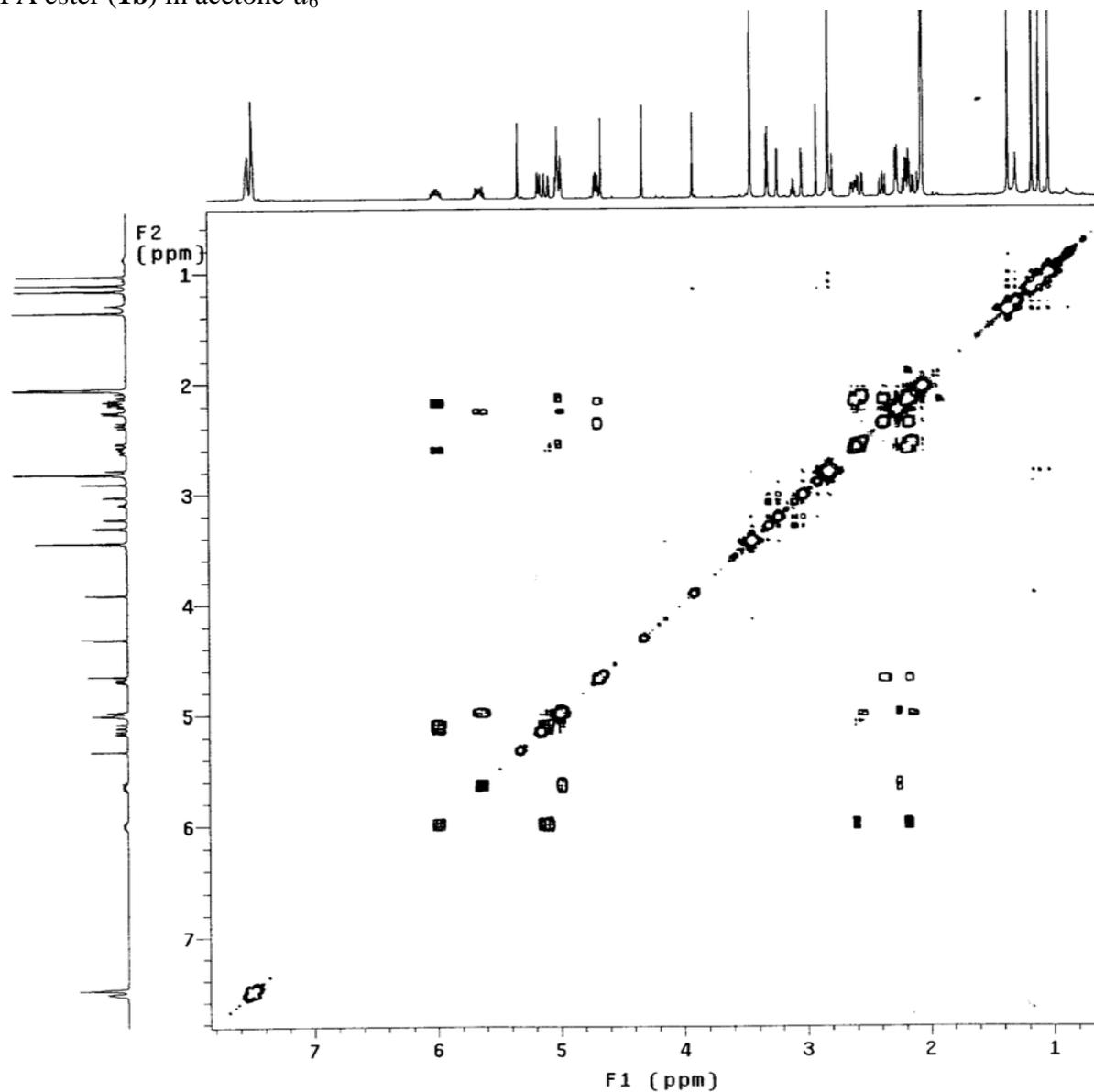
S11 ^{13}C NMR spectrum (125 MHz) of (*S*)-MTPA ester (**1b**) in acetone- d_6



S12 gCOSY spectrum (500 MHz) of (*S*)-MTPA ester (**1b**) in acetone-*d*₆

Solvent: Acetone
Temp. 25.0 C / 298.1 K
INNOVA-500 "IMM-501"

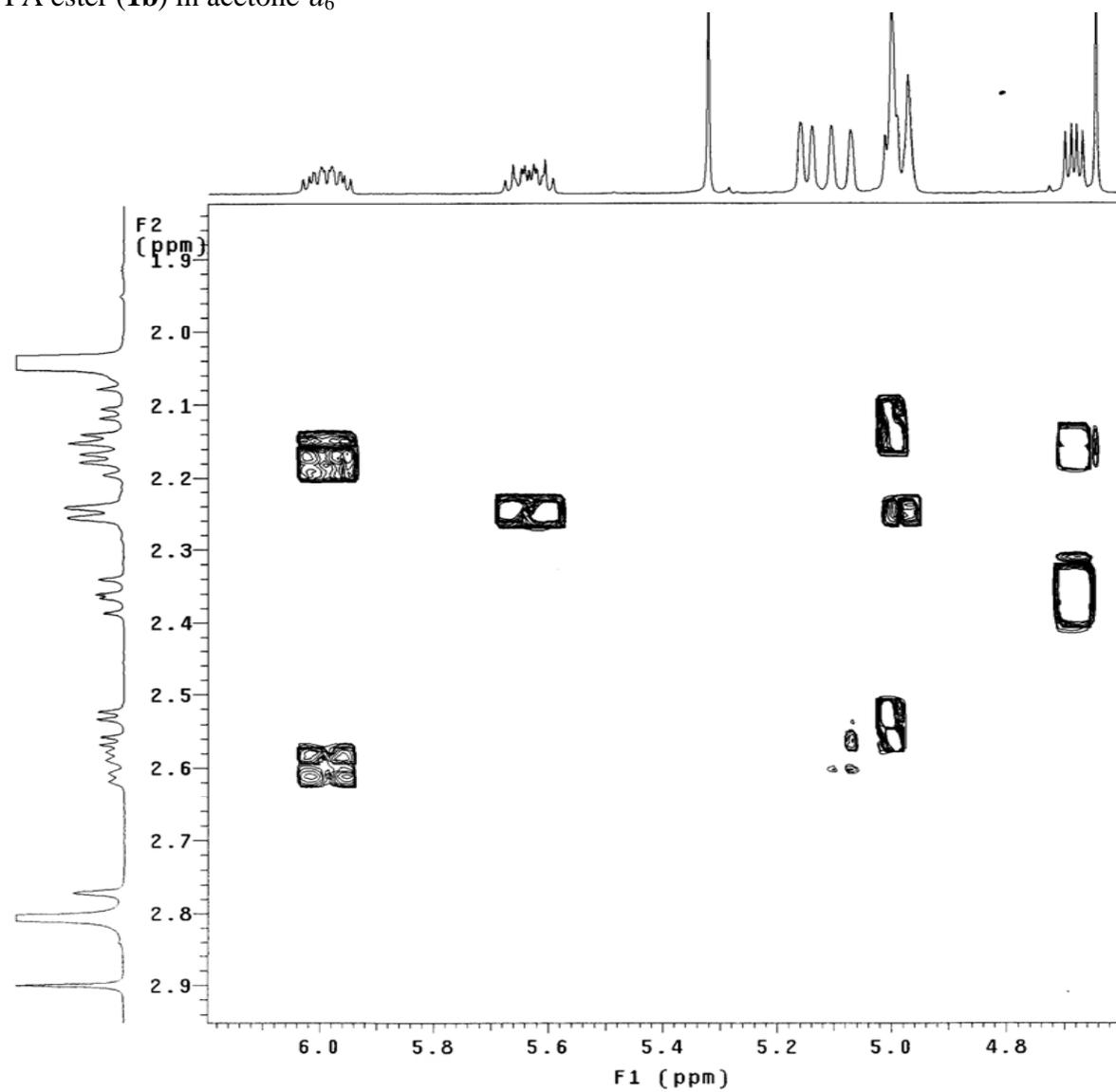
Relax. delay 1.000 sec
Acq. time 0.247 sec
Width 4149.4 Hz
2D Width 4149.4 Hz
2 repetitions
256 increments
OBSERVE H1, 499.7728089 MHz
DATA PROCESSING
Sine bell 0.123 sec
F1 DATA PROCESSING
Sine bell 0.031 sec
FT size 2048 x 2048
Total time 11 min, 20 sec



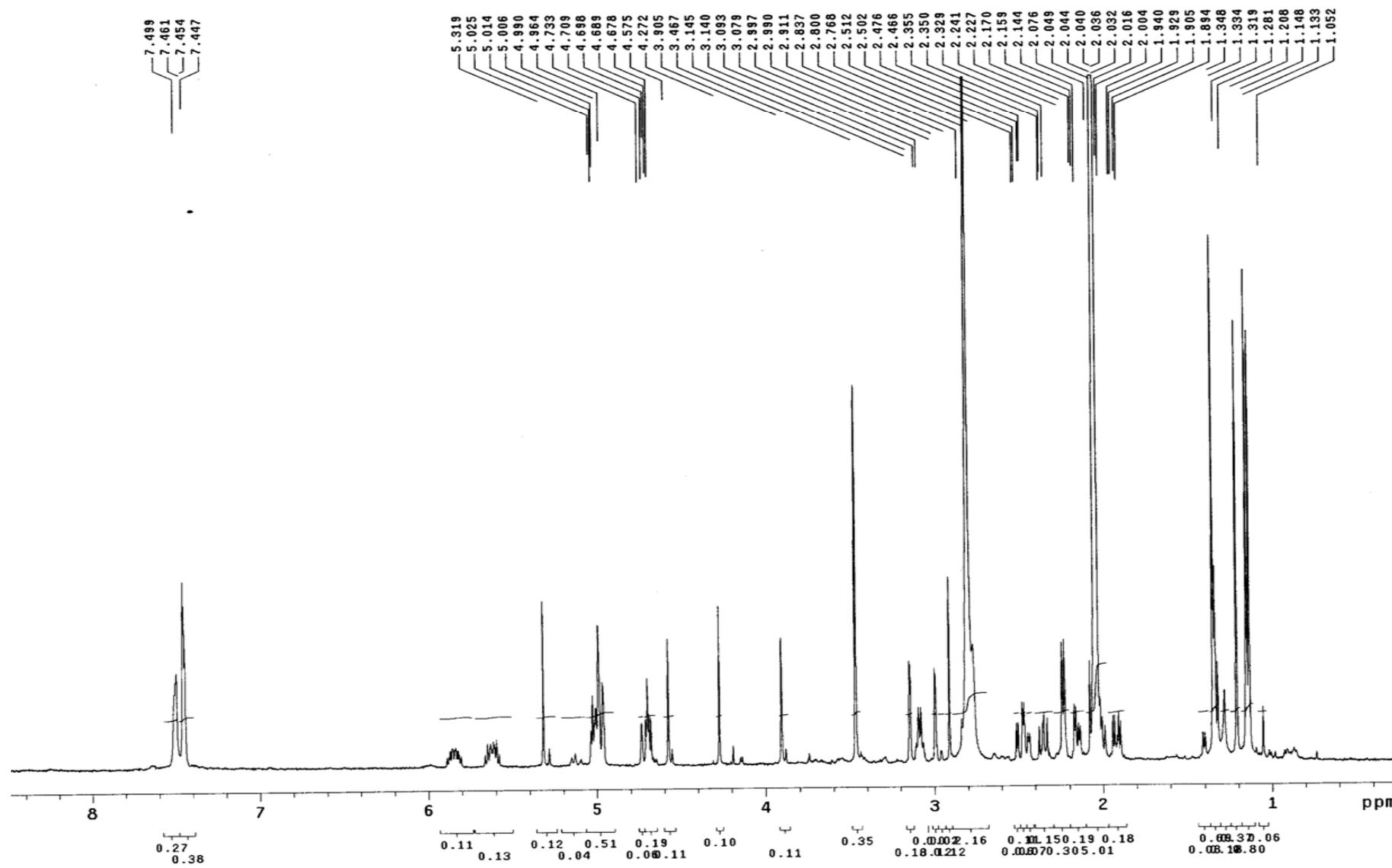
S12 gCOSY spectrum (500 MHz) of (*S*)-MTPA ester (**1b**) in acetone-*d*₆

Solvent: Acetone
Temp. 25.0 C / 298.1 K
INOVA-500 "IMM-501"

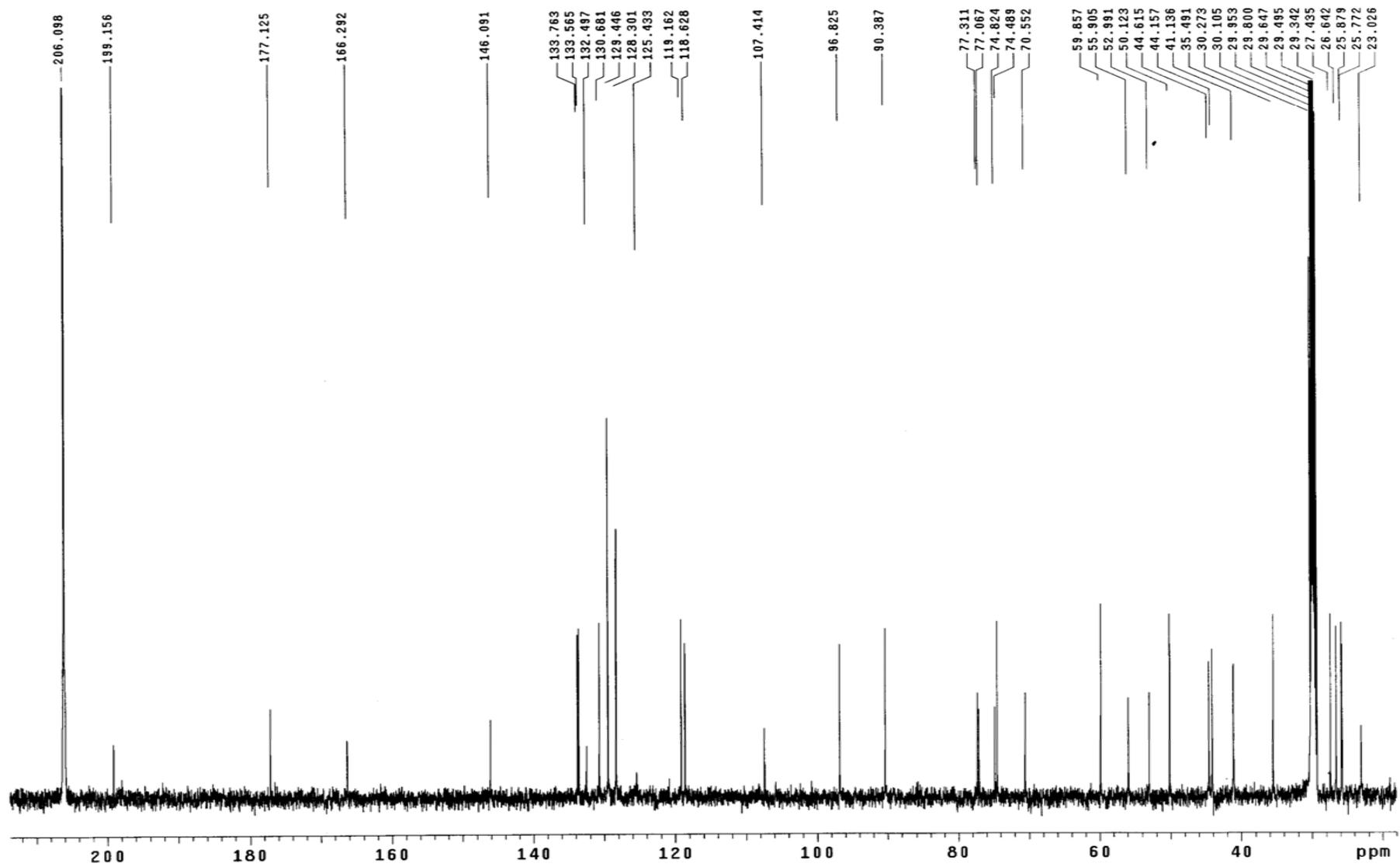
Relax. delay 1.000 sec
Acq. time 0.247 sec
Width 4149.4 Hz
2D Width 4149.4 Hz
2 repetitions
256 increments
OBSERVE H1, 499.7728089 MHz
DATA PROCESSING
Sine bell 0.123 sec
F1 DATA PROCESSING
Sine bell 0.031 sec
FT size 2048 x 2048
Total time 11 min, 20 sec



S13 ^1H NMR spectrum (500 MHz) of (*R*)-MTPA ester (**1a**) in acetone- d_6



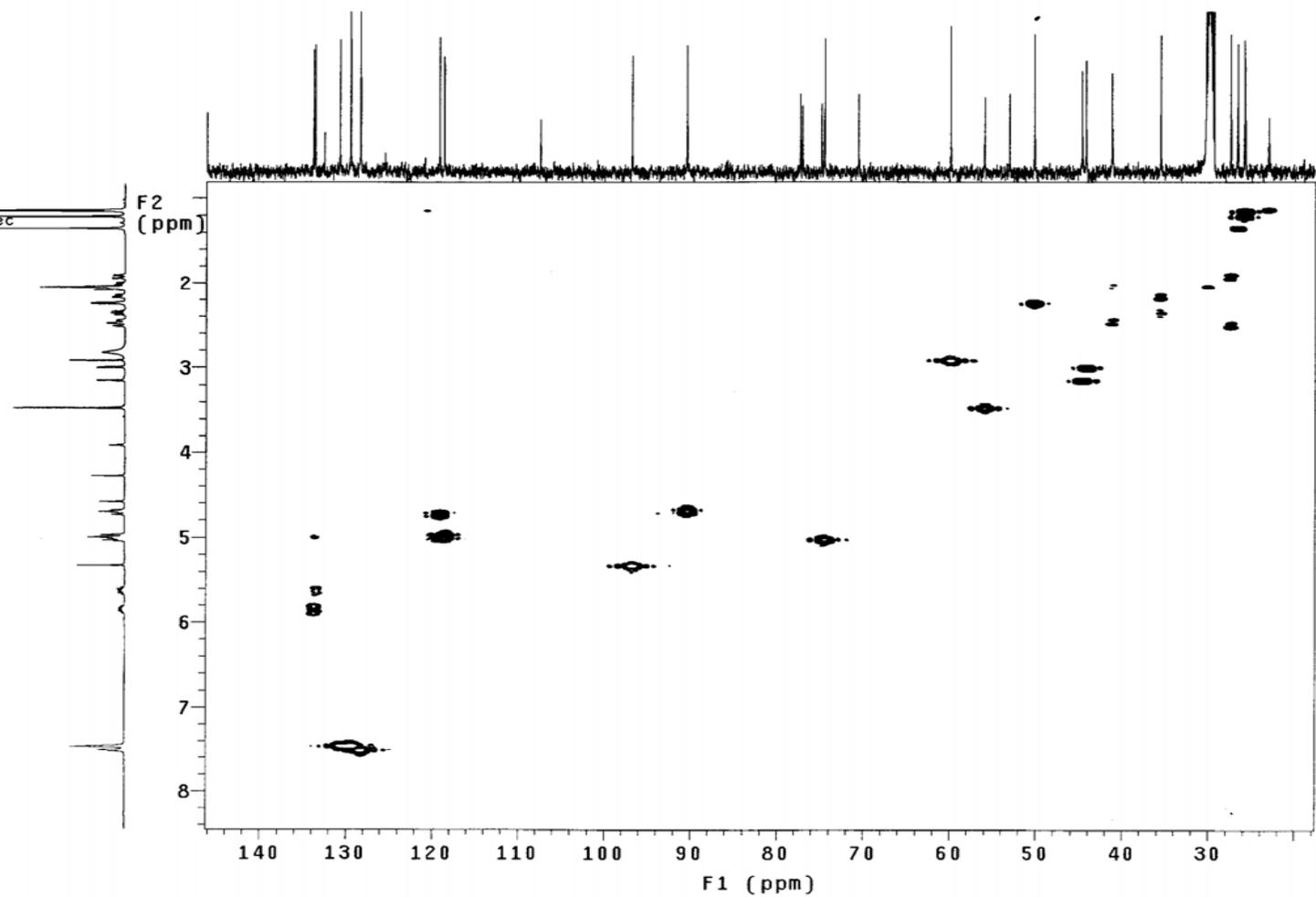
S14 ^{13}C NMR spectrum (125 MHz) of (*R*)-MTPA ester (**1a**) in acetone- d_6



S15 HSQC spectrum (500 MHz) of (*R*)-MTPA ester (**1a**) in acetone-*d*₆

Solvent: Acetone
Temp. 25.0 C / 298.1 K
User: 1-14-87
File: HSQCCD3C0CD30418-TI8-41S
INOVA-500 "IMM-501"

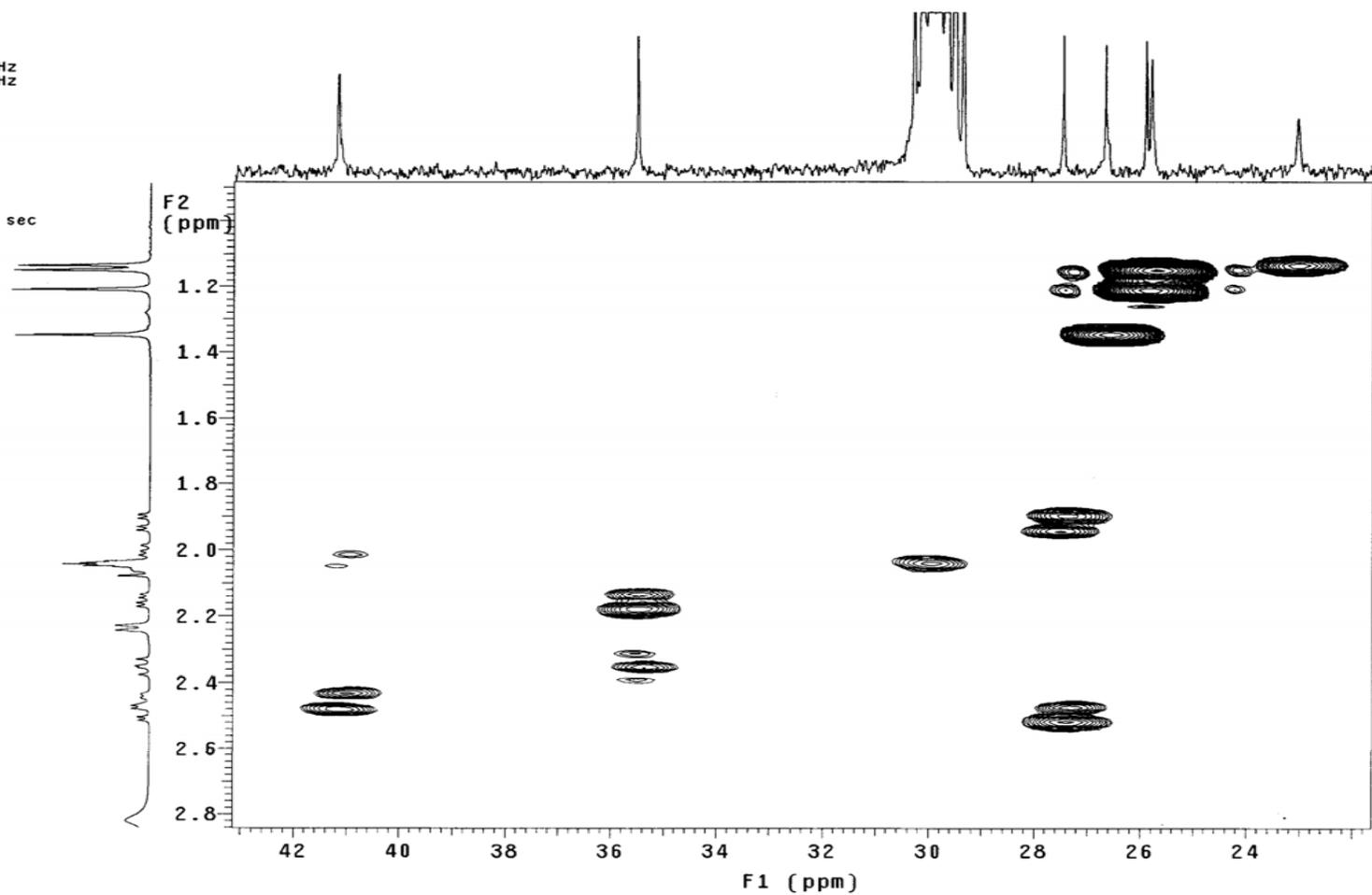
Relax. delay 1.000 sec
Acq. time 0.234 sec
Width 4369.4 Hz
2D Width 25624.6 Hz
32 repetitions
256 increments
OBSERVE H1, 499.7728089 MHz
DECOUPLE C13, 125.6822004 MHz
Power 48 dB
on during acquisition
off during delay
GARP-1 modulated
DATA PROCESSING
Sine bell 0.038 sec
F1 DATA PROCESSING
Sine bell 0.005 sec
FT size 2048 x 4096
Total time 2 hr, 59 min, 15 sec



S15 HSQC spectrum (500 MHz) of (*R*)-MTPA ester (**1a**) in acetone-*d*₆

Solvent: Acetone
Temp. 25.0 C / 298.1 K
User: 1-14-87
File: HSQCCD3C0CD30418-TIB-41S
INNOVA-500 "IMM-501"

Relax. delay 1.000 sec
Acq. time 0.234 sec
Width 4369.4 Hz
2D Width 25624.6 Hz
32 repetitions
256 increments
OBSERVE H1, 499.7728089 MHz
DECOUPLE C13, 125.6822004 MHz
Power 48 dB
on during acquisition
off during delay
GARP-1 modulated
DATA PROCESSING
Sine bell 0.038 sec
F1 DATA PROCESSING
Sine bell 0.005 sec
FT size 2048 x 4096
Total time 2 hr, 59 min, 15 sec



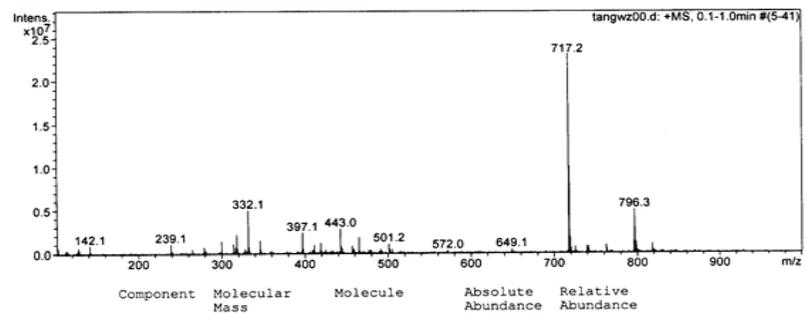
S16 ESI MS spectrum of (S)-MTPA ester (1b)

Single Mass Spectrum Deconvolution Report

Analysis Name: tangwz00.d **Instrument:** LC-MSD-Trap-SL **Print Date:** 3/15/2007 11:12:38 AM
Method: TEST.MS **Operator:** Administrator **Acq. Date:** 3/15/2007 10:57:41 AM
Sample Name: TIB-41a
Analysis Info:

Acquisition Parameter:

Mass Range Mode	Std/Normal	Trap Drive	58.2	Scan Begin	100 m/z
Ion Polarity	Positive	Octopole RF Amplitude	150.0 Vpp	Scan End	1000 m/z
Ion Source Type	ESI	Capillary Exit	117.3 Volt	Averages	5 Spectra
Dry Temp (Set)	325 °C	Skimmer	40.0 Volt	Max. Accu Time	300000 µs
Nebulizer (Set)	15.00 psi	Oct 1 DC	12.00 Volt	ICC Target	-1
Dry Gas (Set)	6.00 l/min	Oct 2 DC	2.00 Volt	Charge Control	on



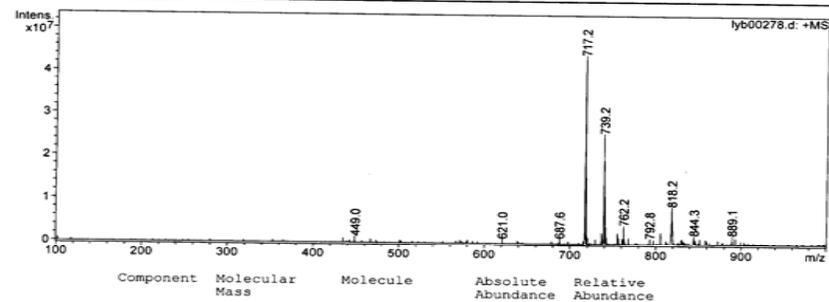
S17 ESI MS spectrum of (R)-MTPA ester (1a)

Single Mass Spectrum Deconvolution Report

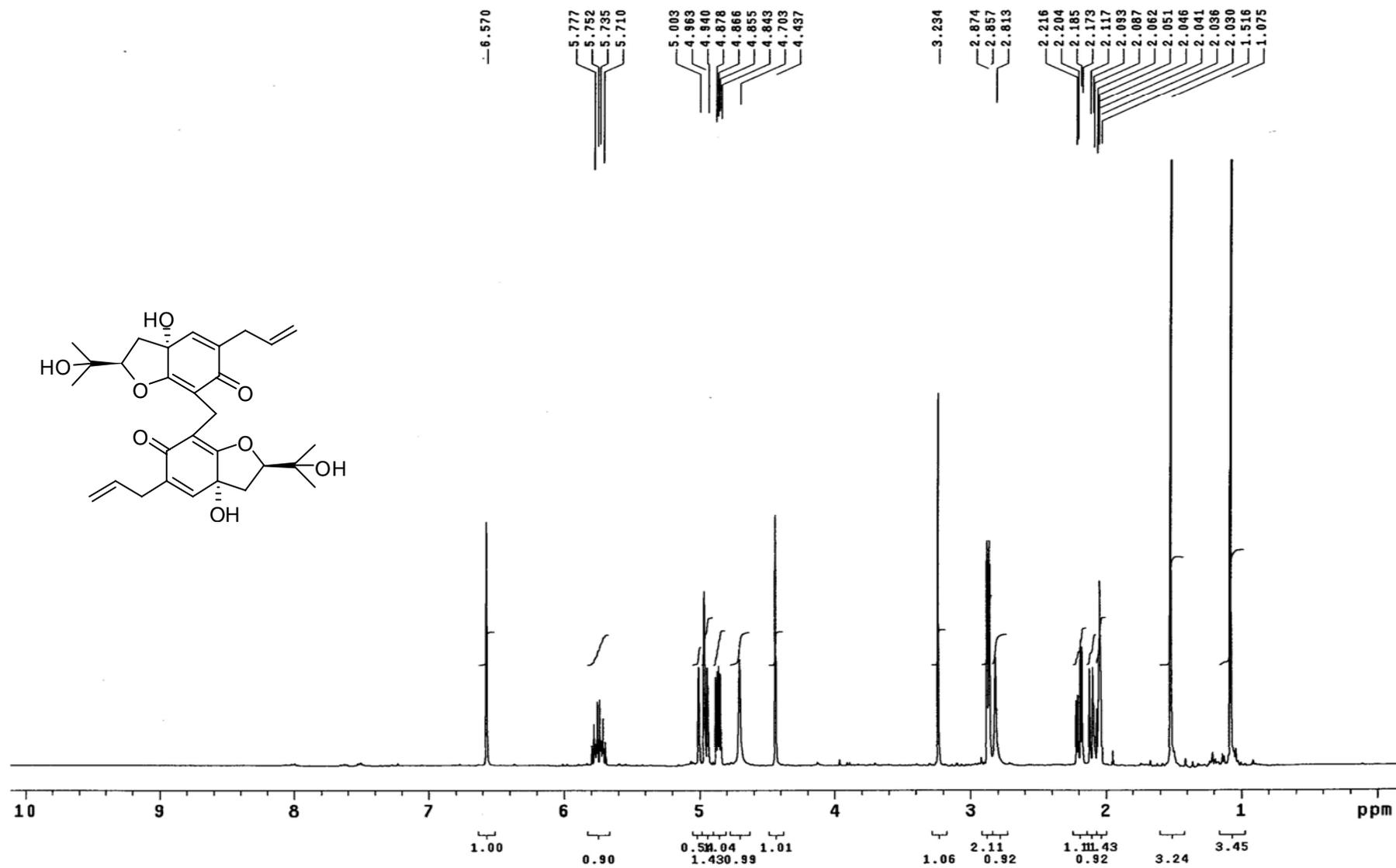
Analysis Name: lyb00278.d **Instrument:** LC-MSD-Trap-SL **Print Date:** 4/18/2007 2:00:27 PM
Method: TEST.MS **Operator:** Administrator **Acq. Date:** 4/17/2007 1:59:16 PM
Sample Name: H-4
Analysis Info:

Acquisition Parameter:

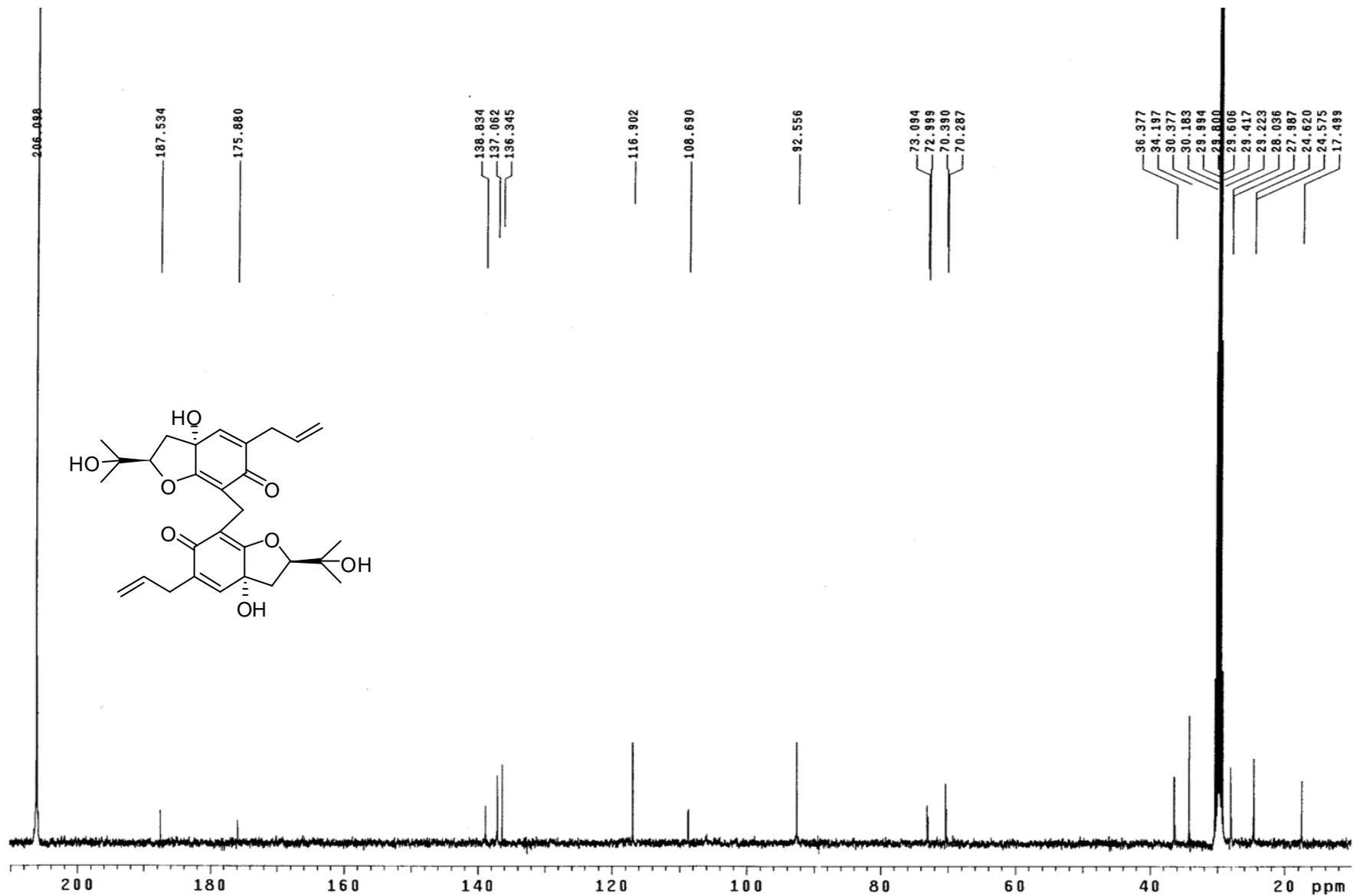
Mass Range Mode	Std/Normal	Trap Drive	80.1	Scan Begin	100 m/z
Ion Polarity	Positive	Octopole RF Amplitude	153.2 Vpp	Scan End	1000 m/z
Ion Source Type	ESI	Capillary Exit	128.5 Volt	Averages	5 Spectra
Dry Temp (Set)	325 °C	Skimmer	40.0 Volt	Max. Accu Time	300000 µs
Nebulizer (Set)	15.00 psi	Oct 1 DC	12.00 Volt	ICC Target	30000
Dry Gas (Set)	6.00 l/min	Oct 2 DC	2.70 Volt	Charge Control	on



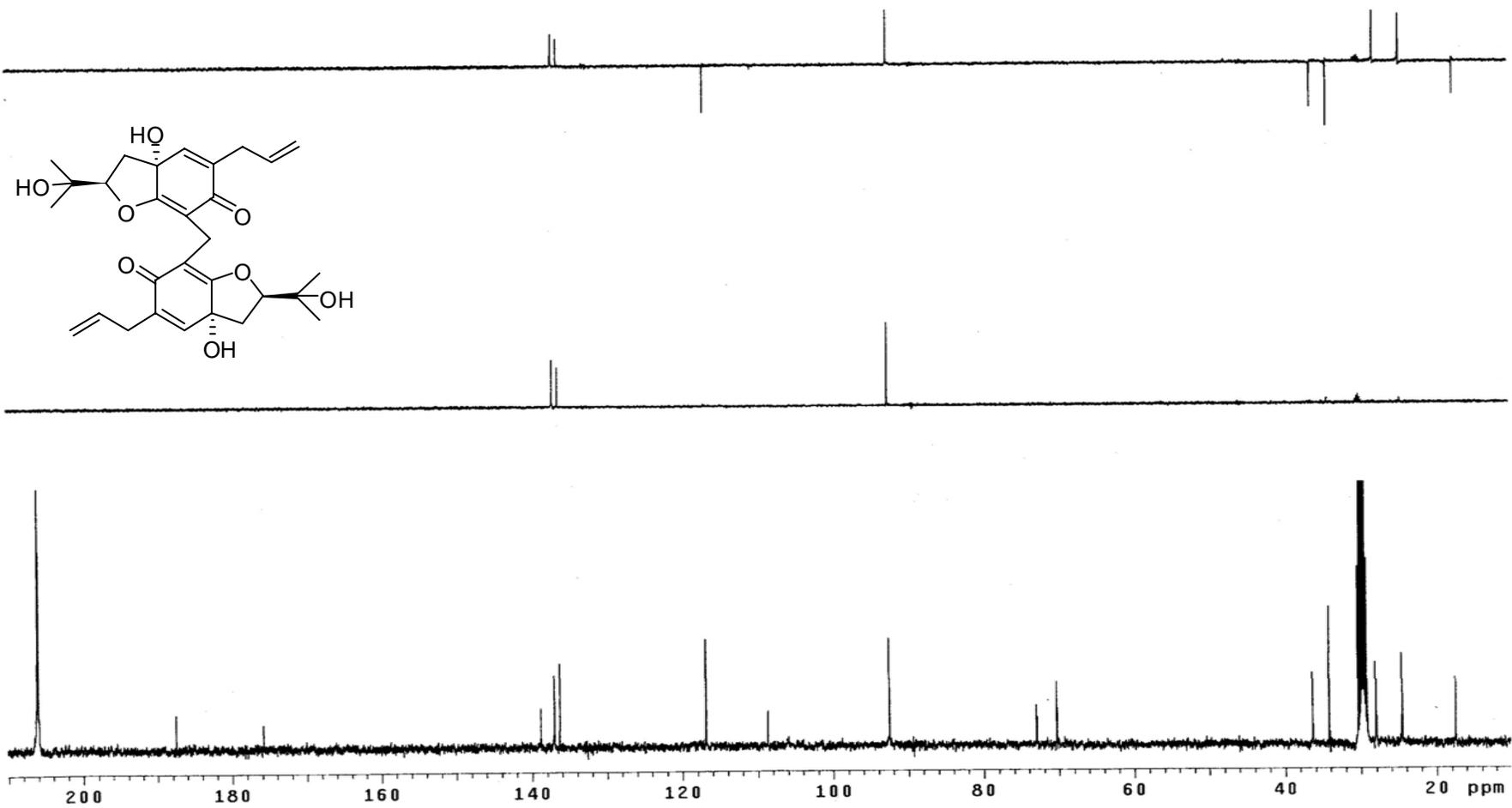
S18 ^1H NMR spectrum (400 MHz) of compound **2** in acetone d_6



S19 ^{13}C NMR spectrum (100 MHz) of compound **2** in acetone d_6



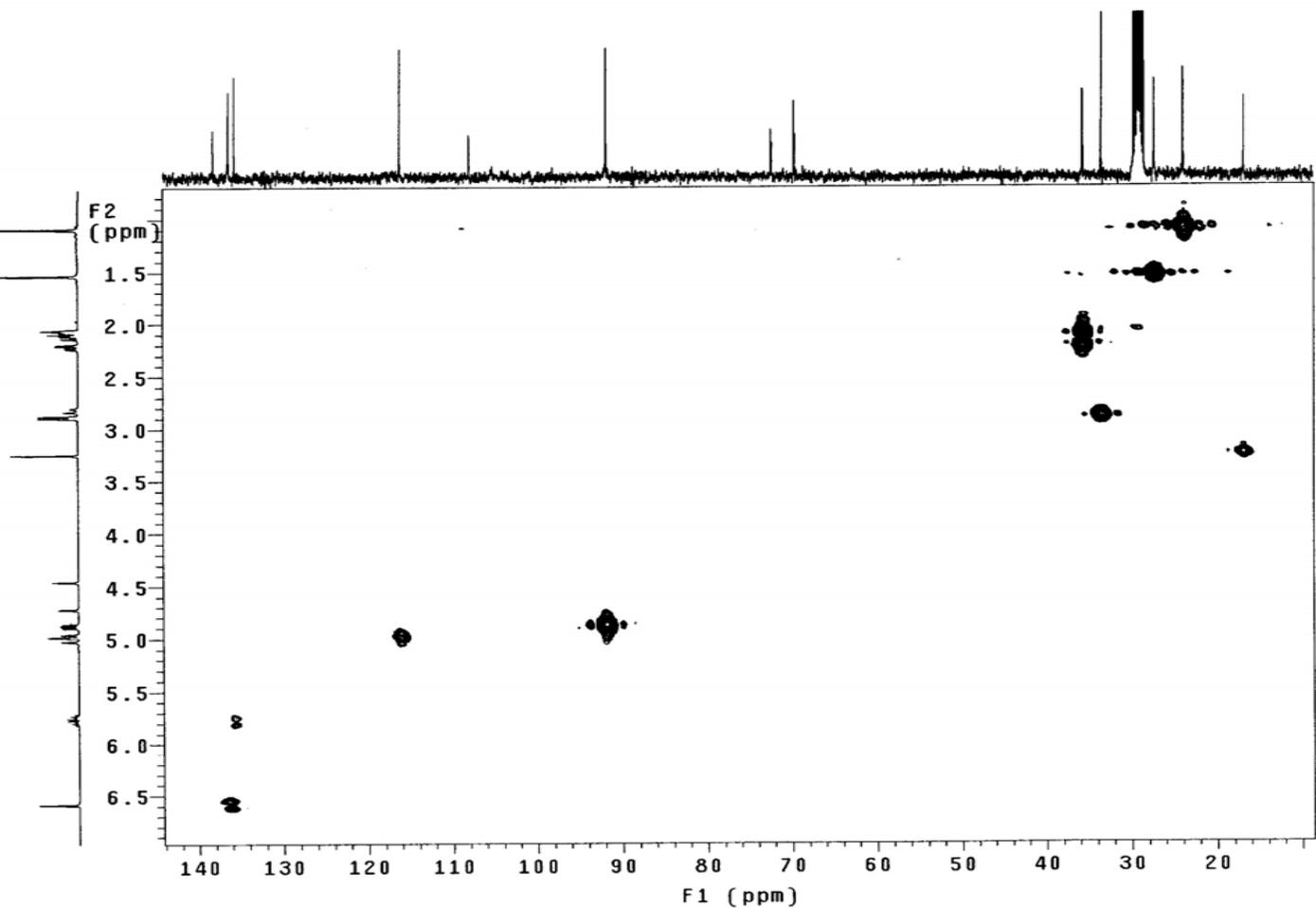
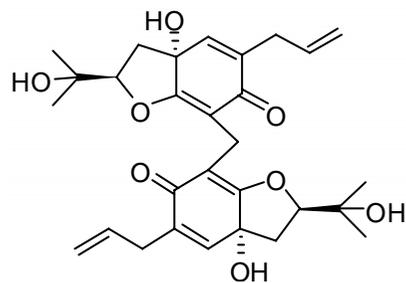
S20 DEPT spectrum (400 MHz) of compound **2** in acetone d_6



S21 HSQC spectrum (400 MHz) of compound 2 in acetone-*d*₆

Solvent: acetone
Temp. 25.0 C / 298.1 K
Mercury-400BB "NMR400"

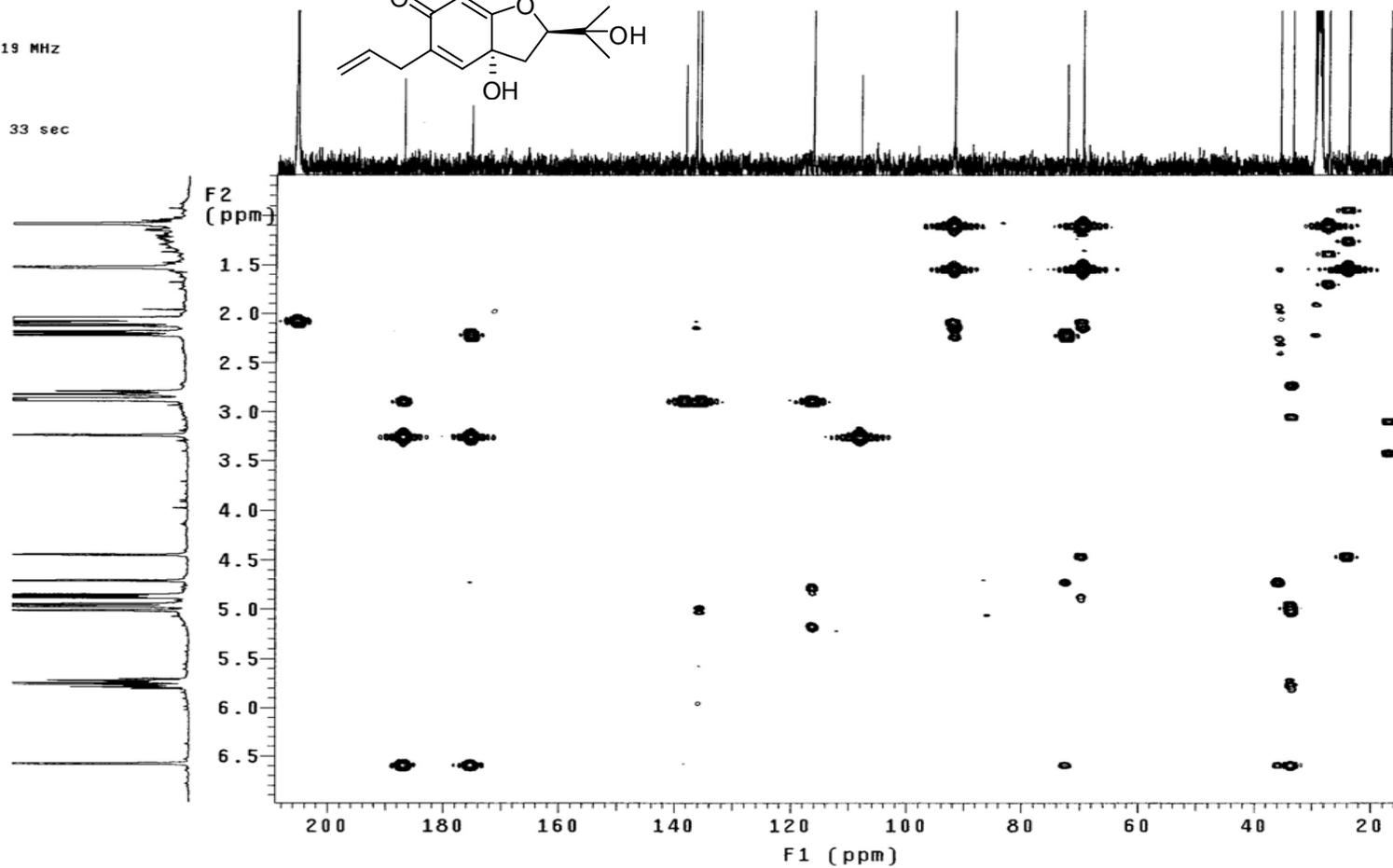
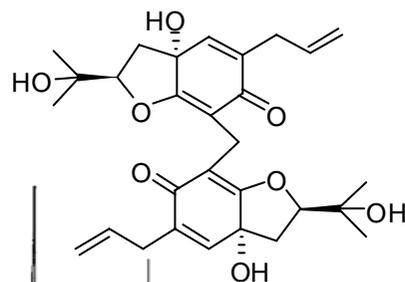
Relax. delay 1.000 sec
Acq. time 0.134 sec
Width 3816.8 Hz
2D Width 27173.9 Hz
16 repetitions
200 increments
OBSERVE H1, 400.1597965 MHz
DECOUPLE C13, 100.6302988 MHz
Power 48 dB
on during acquisition
off during delay
GARP-1 modulated
DATA PROCESSING
Gauss apodization 0.062 sec
F1 DATA PROCESSING
Gauss apodization 0.014 sec
FT size 1024 x 2048
Total time 1 hr, 7 min, 19 sec



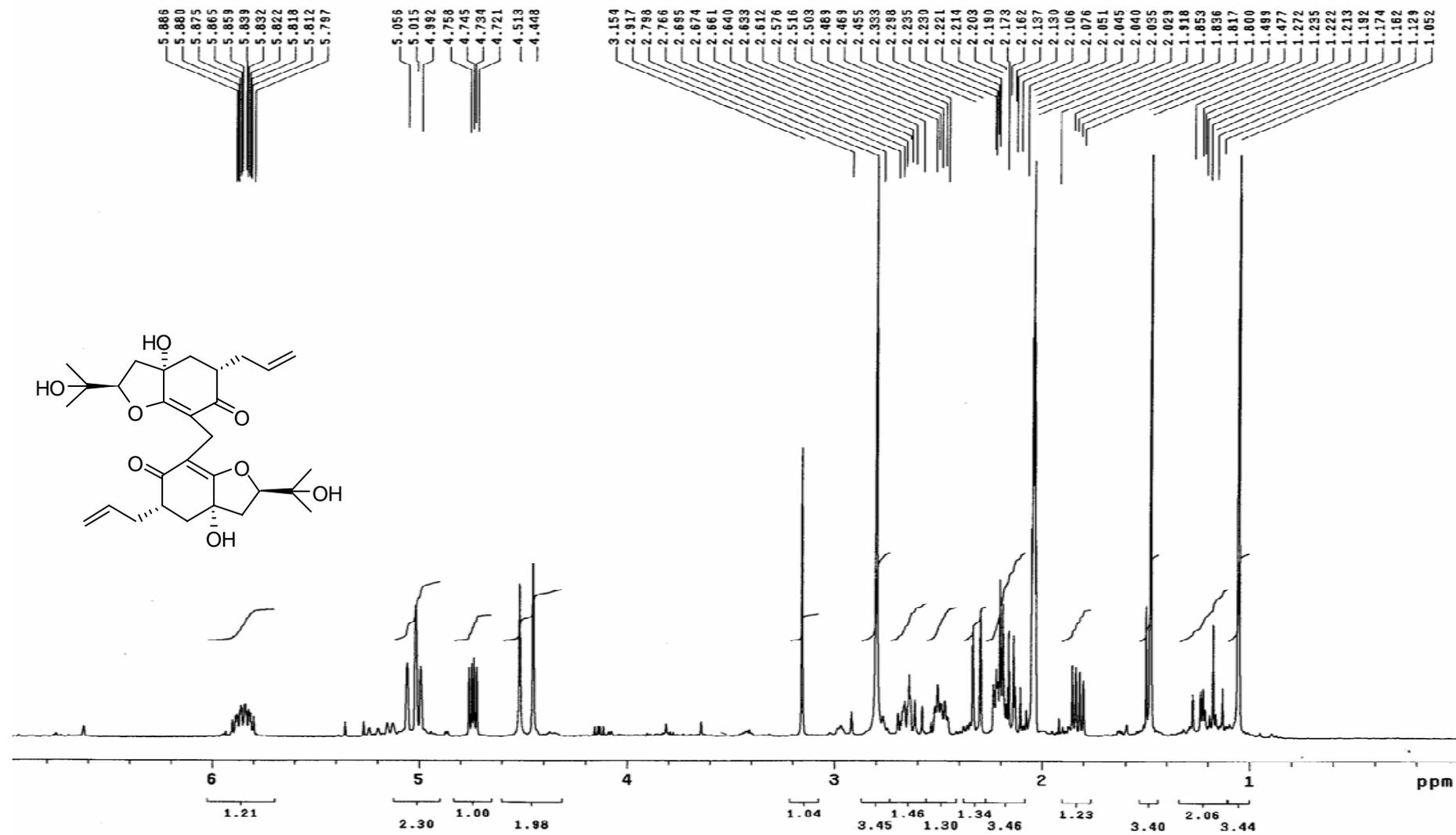
S22 HMBC spectrum (400 MHz) of compound 2 in acetone-*d*₆

Solvent: acetone
Temp. 25.0 C / 298.1 K
File: 0102
Mercury-400BB "NMR400"

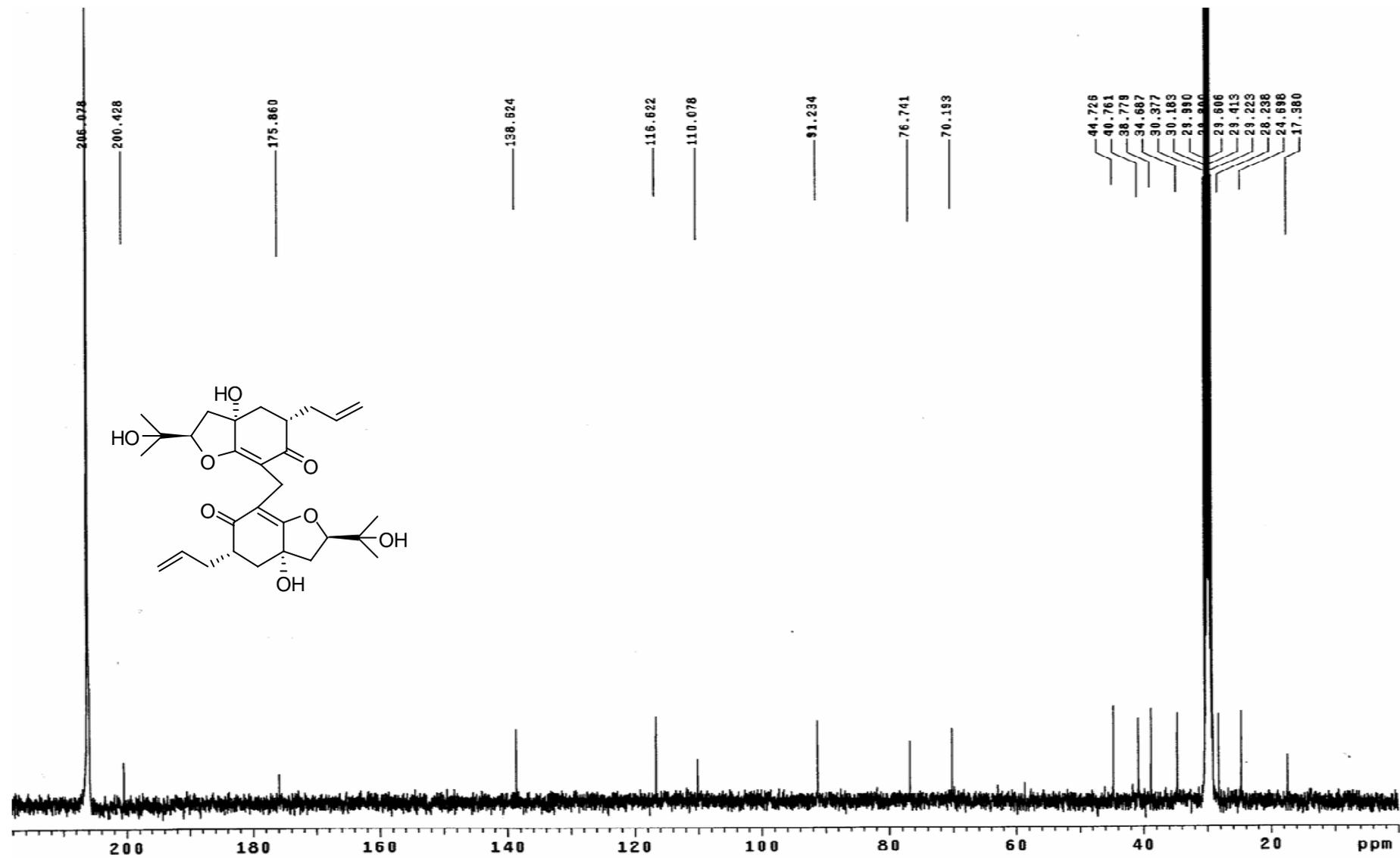
Relax. delay 1.000 sec
Acq. time 0.213 sec
Width 9615.4 Hz
2D Width 24154.6 Hz
32 repetitions
256 increments
OBSERVE H1, 400.1597919 MHz
DATA PROCESSING
Sine bell 0.054 sec
F1 DATA PROCESSING
Sine bell 0.005 sec
FT size 2048 x 4096
Total time 3 hr, 5 min, 33 sec



S24 ^1H NMR spectrum (400 MHz) of compound **3** acetone- d_6



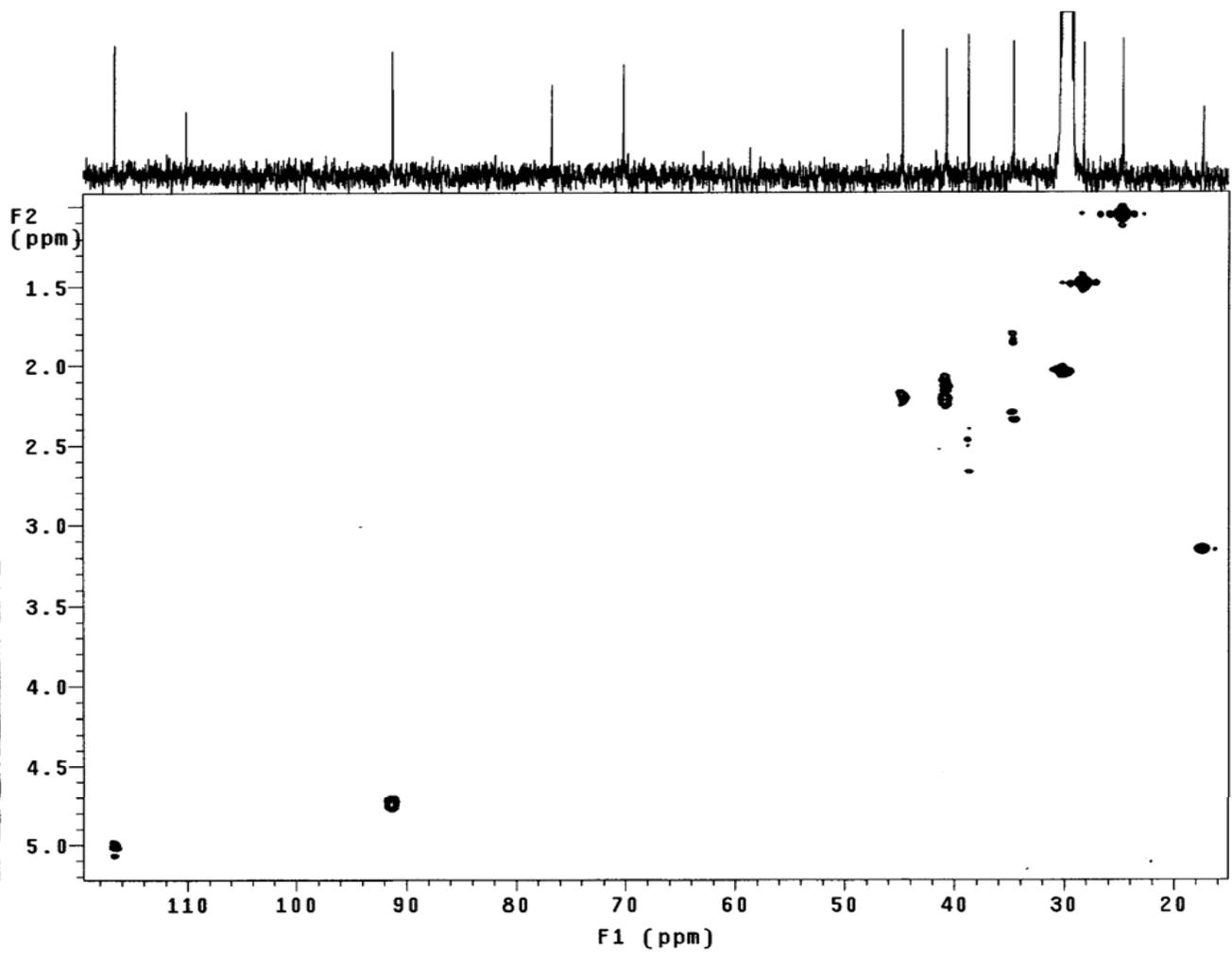
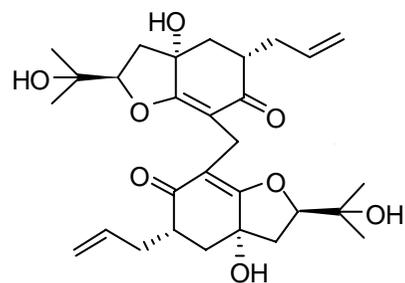
S25 ^{13}C NMR spectrum (100 MHz) of compound **3** in acetone- d_6



S26 HSQC spectrum (400 MHz) of compound 3 in acetone-*d*₆

Solvent: acetone
Temp. 25.0 C / 298.1 K
Sample #9
Mercury-400BB "NMR400"

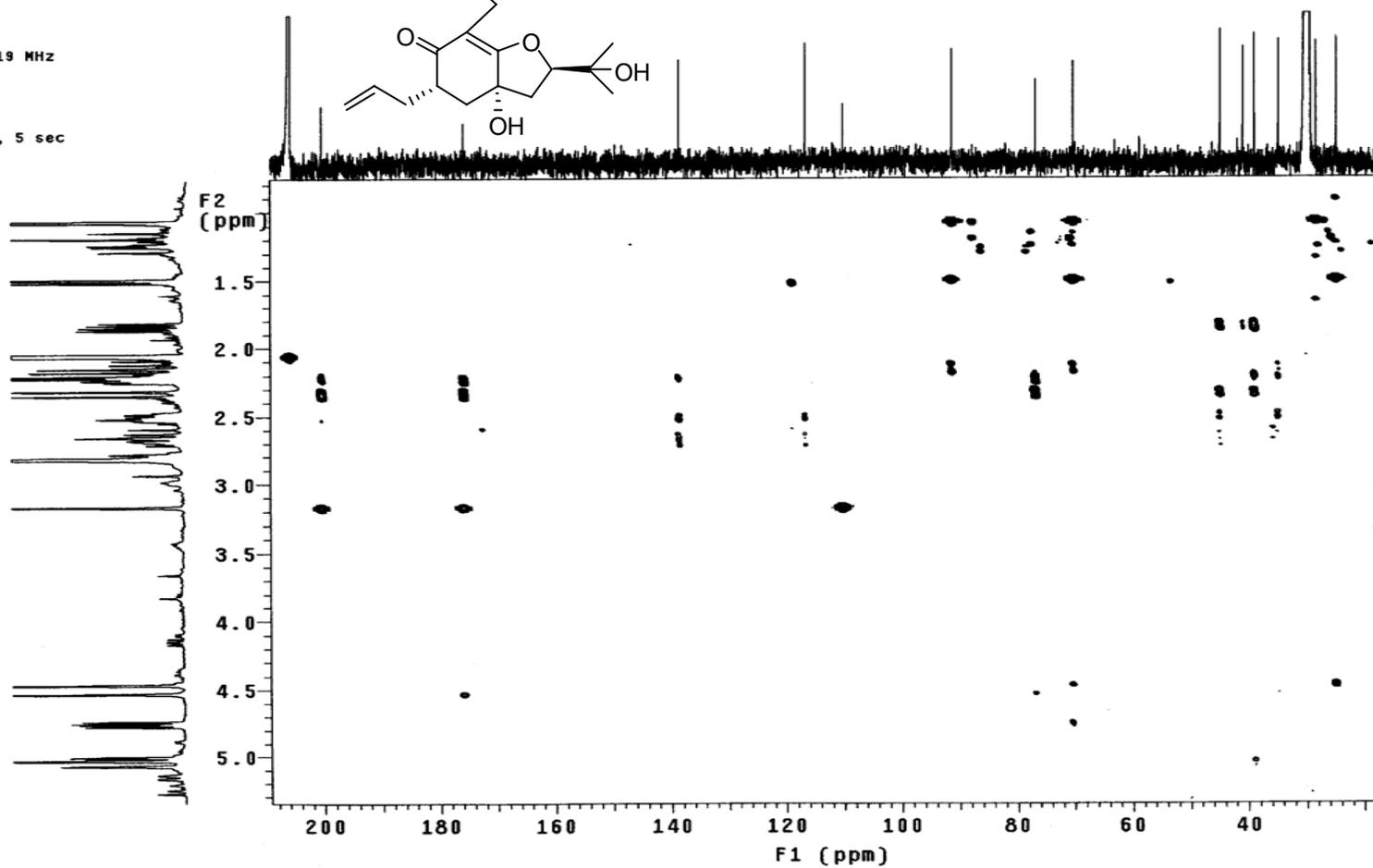
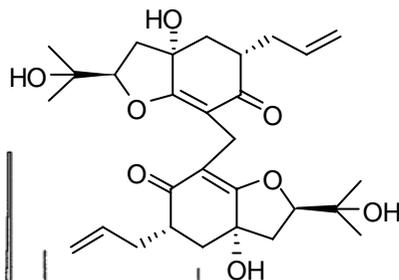
Relax. delay 1.000 sec
Acq. time 0.152 sec
Width 3373.8 Hz
2D Width 16077.2 Hz
16 repetitions
200 increments
OBSERVE H1, 400.1598013 MHz
DECOUPLE C13, 100.6282078 MHz
Power 48 dB
on during acquisition
off during delay
GARP-1 modulated
DATA PROCESSING
Gauss apodization 0.070 sec
F1 DATA PROCESSING
Gauss apodization 0.014 sec
FT size 2048 x 4096
Total time 1 hr, 8 min, 24 sec



S27 HMBC spectrum (400 MHz) of compound 3 in acetone-*d*₆

Solvent: acetone
Temp. 25.0 C / 298.1 K
File: 0502
Mercury-400BB "NMR400"

Relax. delay 1.000 sec
Acq. time 0.213 sec
Width 9615.4 Hz
2D Width 24154.6 Hz
64 repetitions
400 increments
OBSERVE H1, 400.1597919 MHz
DATA PROCESSING
Sine bell 0.107 sec
F1 DATA PROCESSING
Sine bell 0.008 sec
FT size 4096 x 2048
Total time 9 hr, 39 min, 5 sec



S28 CD spectra of compound **3** and illifunone D in MeOH

