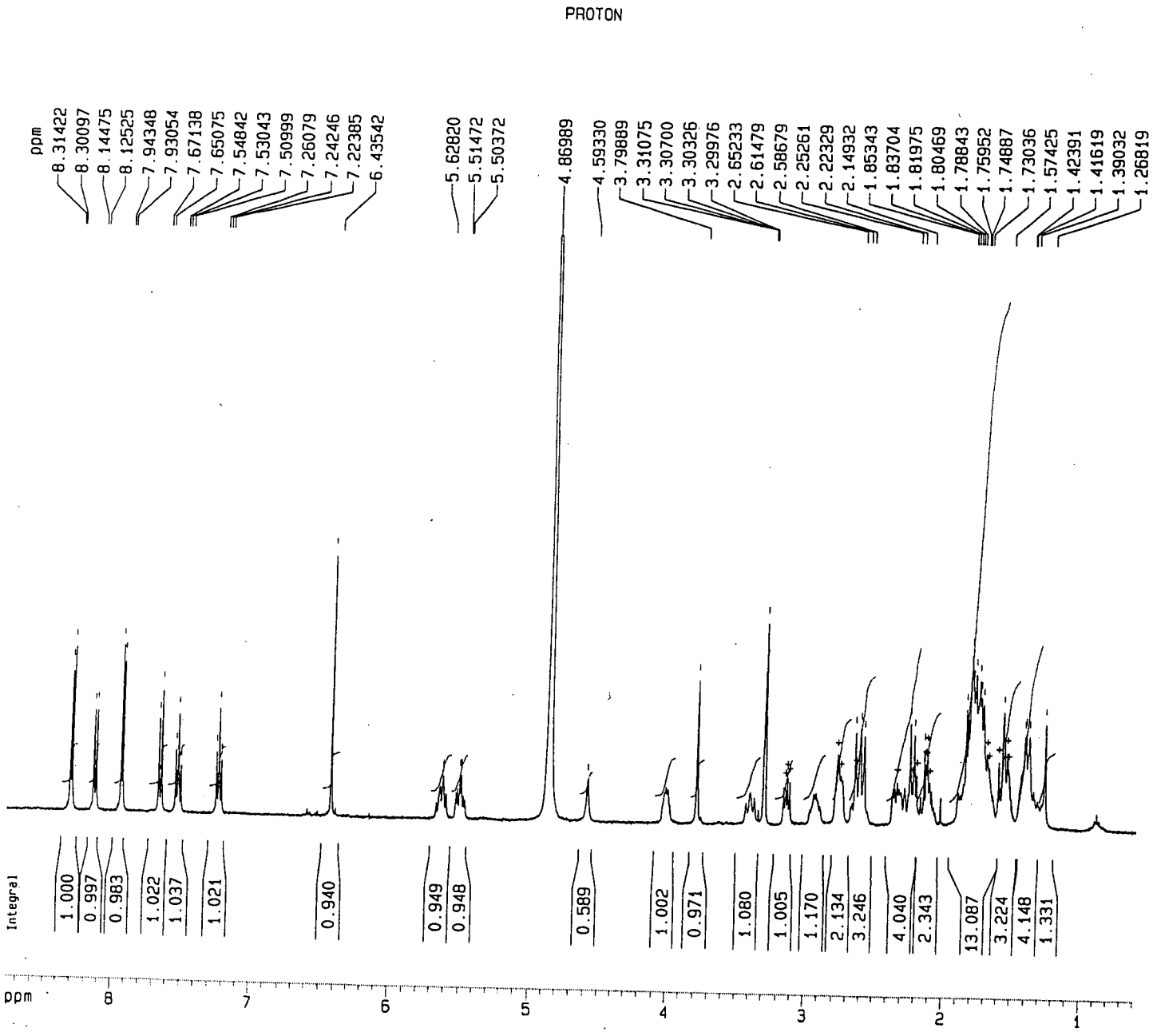
Figure S1. ^{1}H NMR spectrum of **3**



Current Data Parameters

NAME	51-633-2
EXPNO	1
PROCNO	1

F2 - Acquisition Parameters

Date_	500000
Time	16.11
INSTRUM	drx400
PROBHD	3 mm Nalorac
PULPROG	zg30
TD	32768
SOLVENT	CDCl3
NS	16
DS	0
SWH	8250.825 Hz
FIDRES	0.251795 Hz
AQ	1.9857908 sec
RG	90.5
DW	60.600 usec
DE	4.50 usec
TE	300.0 K
D1	1.00000000 sec
P1	10.00 usec
DE	4.50 usec
SFO1	400.1324710 MHz
NUC1	1H
PL1	0.00 dB

F2 - Processing parameters

SI	16384
SF	400.1300092 MHz
WDW	EM
SSB	0
LB	0.30 Hz
GB	0
PC	1.00

1D NMR plot parameters

CX	20.00 cm
F1P	8.771 ppm
F1	3509.47 Hz
F2P	0.595 ppm
F2	238.21 Hz
PPMCM	0.40878 ppm/cm
HZCM	163.56319 Hz/cm

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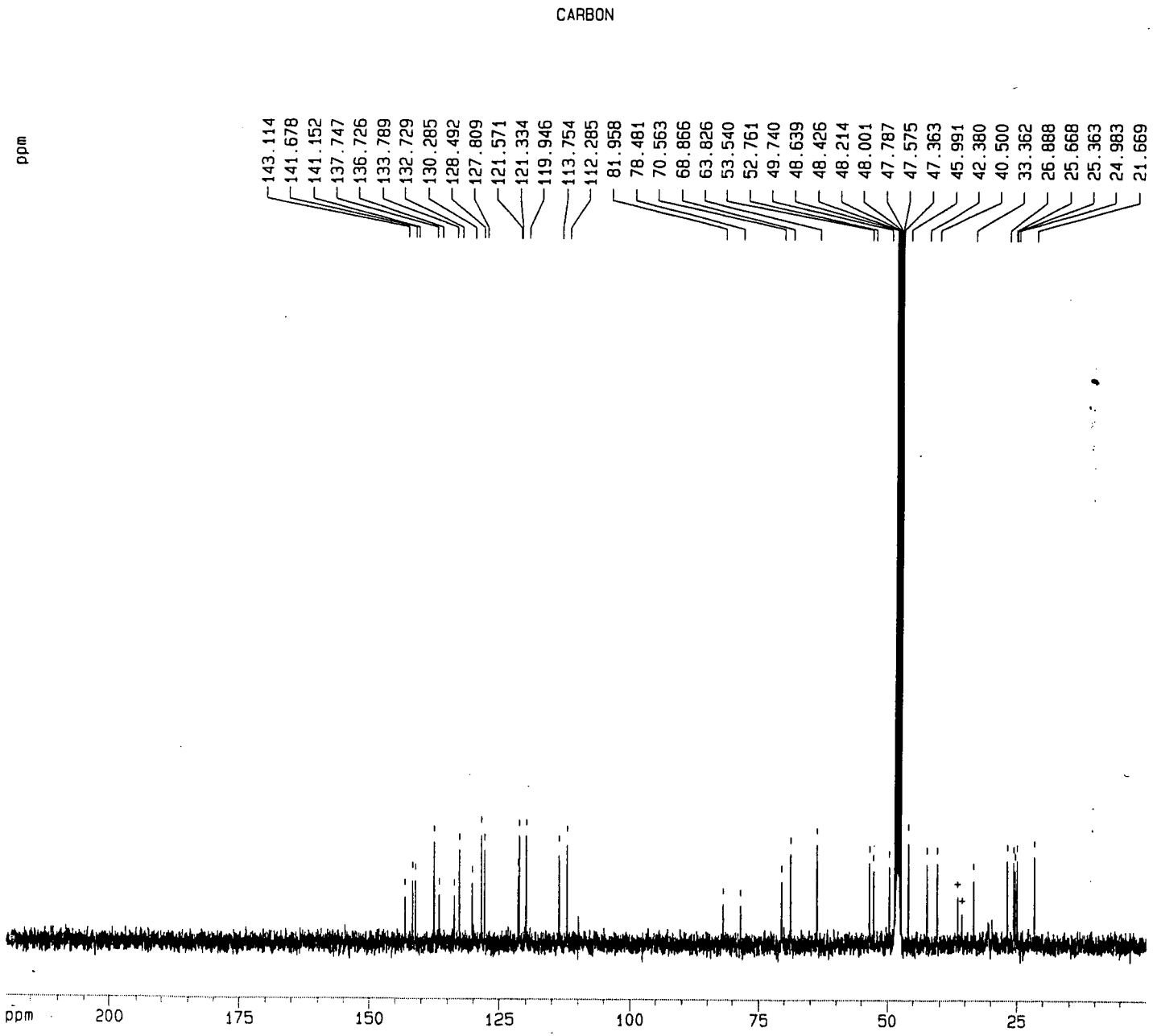
Figure S2. ^{13}C NMR spectrum of **3**.



Current Data Parameters

NAME	51-633-2
EXPNO	2
PROCNO	1

F2 - Acquisition Parameters

Date_	500000
Time	22.07
INSTRUM	drx400
PROBHD	3 mm Nalorac
PULPROG	zgdc30
TD	65536
SOLVENT	CDCl3
NS	12401
DS	2
SWH	22123.895 Hz
FIDRES	0.337584 Hz
AQ	1.4811636 sec
RG	8192
DW	22.600 usec
DE	4.50 usec
TE	300.0 K
D11	0.03000000 sec
PL12	18.00 dB
CPDPRG2	waltz16
PCPD2	100.00 usec
SFO2	400.1316005 MHz
NUC2	1H
PL2	0.00 dB
D1	2.00000000 sec
P1	9.00 usec
DE	4.50 usec
SFO1	100.6237964 MHz
NUC1	13C
PL1	0.00 dB

F2 - Processing parameters

SI	32768
SF	100.6127290 MHz
WDW	EM
SSB	0
LB	1.00 Hz
GB	0
PC	1.40

1D NMR plot parameters

CX	20.00 cm
F1P	219.946 ppm
F1	22129.35 Hz
F2P	0.054 ppm
F2	5.45 Hz
PPMCM	10.99458 ppm/cm
HZCM	1106.19470 Hz/cm

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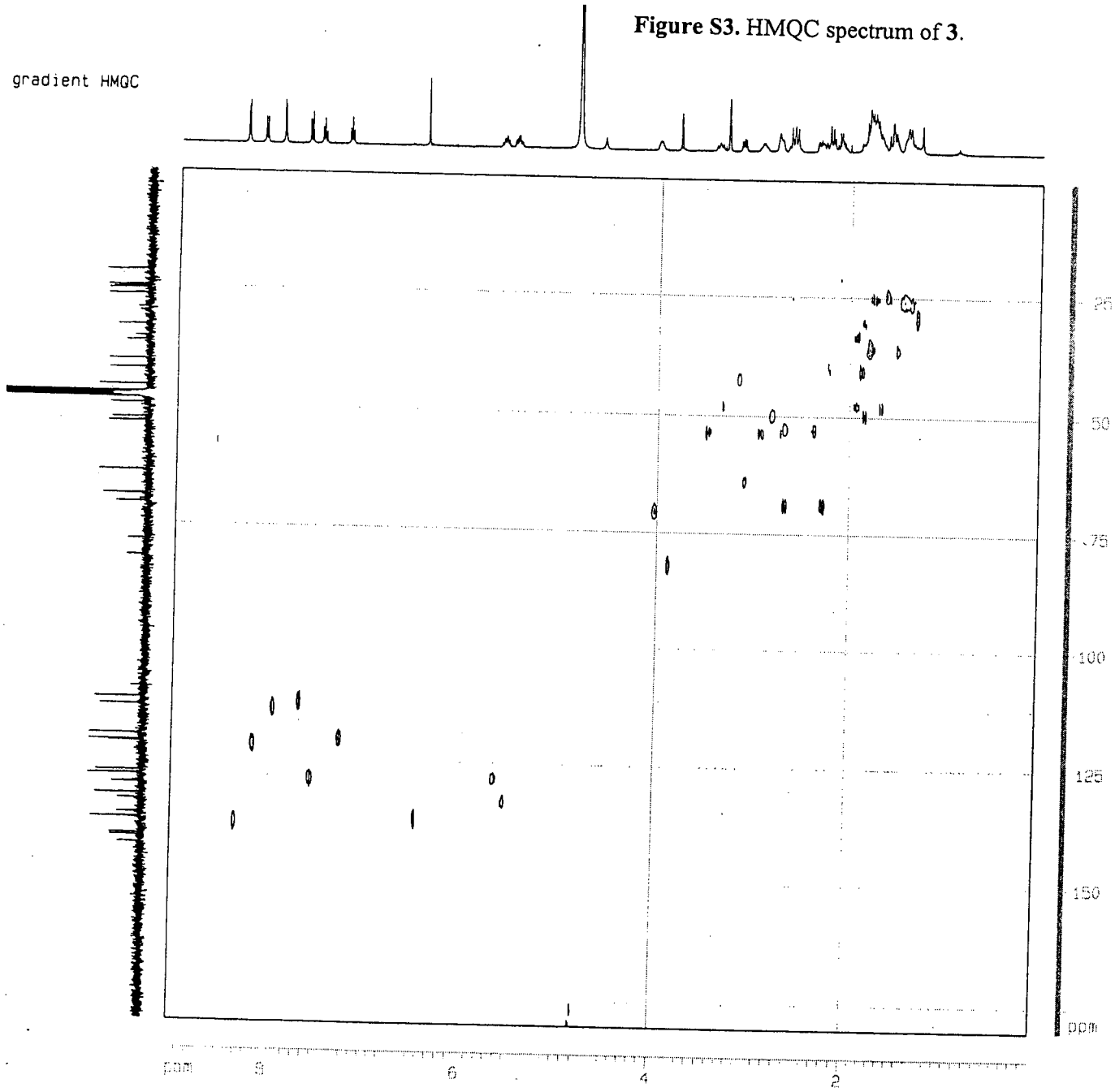
Figure S3. HMQC spectrum of **3**.



Current Data Parameters

NAME	51-633-2
EXPNO	5
PROCNO	1

F2 - Acquisition Parameters

Date_	500000
Time	14.33
INSTRUM	spect
PROBHD	3mm Nalorac Qu
PULPROG	inv4gstp
TD	2048
SOLVENT	MeOH
NS	16
DS	4
SWH	4496.403 Hz
FIDRES	2.195509 Hz
AQ	0.2277876 sec
RG	36780.8
DW	111.200 usec
DE	4.50 usec
TE	300.0 K
P1	12.00 usec
p2	24.0 usec
P3	8.00 usec
p4	16.0 usec
d0	0.0000030 sec
CNST2	145.0000000
d2	0.0034483 sec
d11	0.0300000 sec
d13	0.0000030 sec
d4	0.0017241 sec
D16	0.00010000 sec
P16	1000.00 usec
d20	0.0006241 sec
d21	0.0023443 sec
PL12	21.00 dB
D1	1.00000000 sec
PL2	3.00 dB
SFO2	125.7690572 MHz
NUC2	13C
DE	4.50 usec
SFO1	500.1322506 MHz
NUC1	1H
PL1	3.00 dB
CPDPRG2	garp
* PCPD2	85.00 usec
TN0	0.00001104 sec

F1 - Acquisition parameters

ND0	4
TD	128
SFO1	125.7691 MHz
FIDRES	176.953568 Hz
SW	180.092 ppm

F2 - Processing parameters

SI	1024
SF	500.1299994 MHz
WDW	QSINE
SSB	2
LB	0.00 Hz
GB	0
PC	1.00

F1 - Processing parameters

SI	256
MC2	TPPI
SF	125.7577106 MHz
WDW	QSINE
SSB	2
LB	0.00 Hz
GB	0

2D NMR plot parameters

CX2	15.00 cm
CX1	15.00 cm
F2PLO	8.997 ppm
F2LO	4499.44 Hz
F2PHI	0.006 ppm
F2HI	3.03 Hz
F1PLO	180.281 ppm
F1LO	22671.88 Hz
F1PHI	0.172 ppm
F1HI	21.62 Hz
F2PPMCM	0.50936 ppm/cm
F2HZCM	299.76019 Hz/cm
F1PPMCM	12.00725 ppm/cm
F1HZCM	1510.00378 Hz/cm

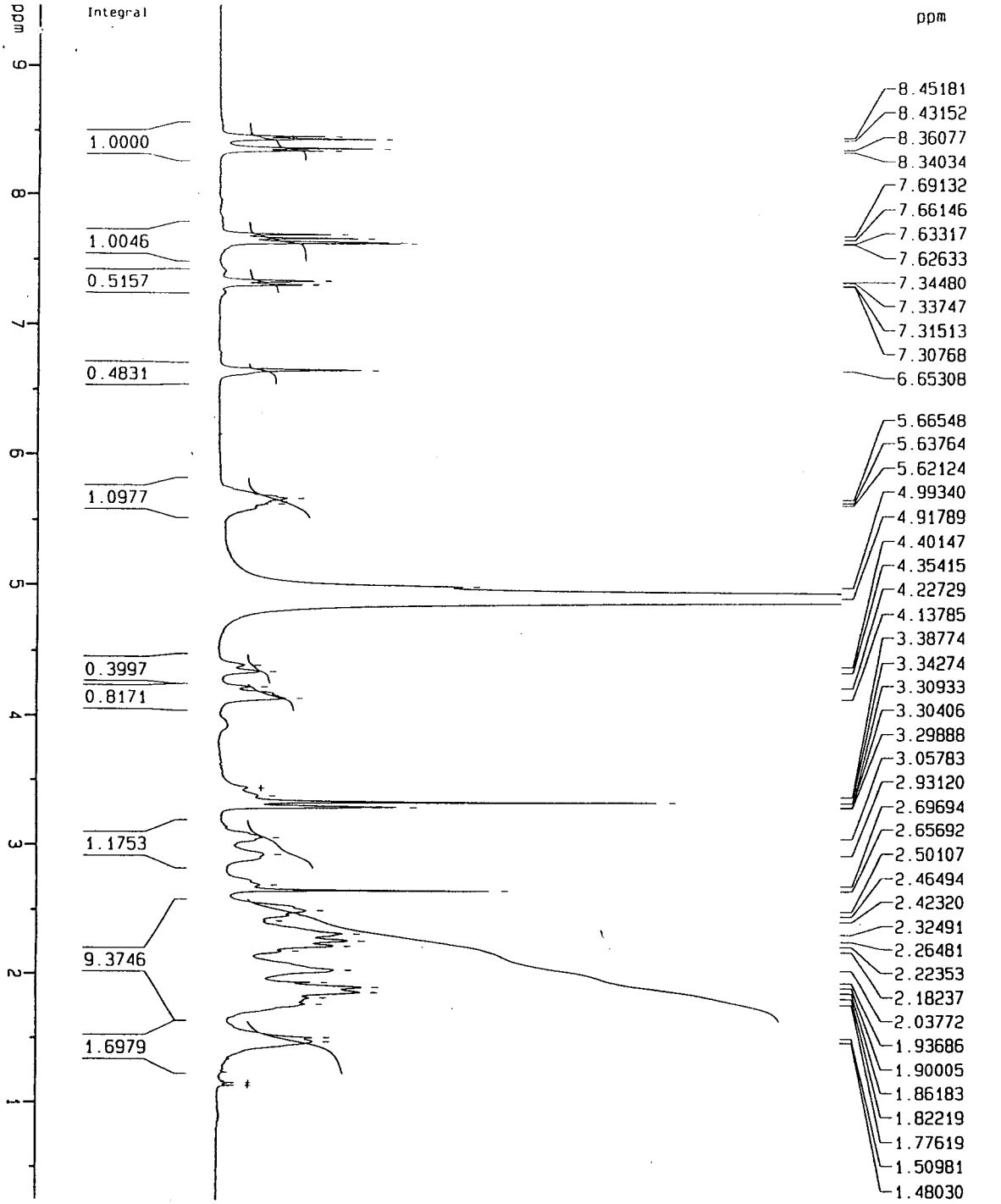


Figure S4. ^{1}H NMR spectrum of **5**.

```
Current Data Parameters
NAME                 51-6368-HPLC-6
EXPNO                             1
PROCNO                            1

F2 - Acquisition Parameters
Date_                        500000
Time                          16.10
INSTRUM                       spect
PROBHD          5 mm Nalorac
PULPROG                       zg30
TD                            32768
SOLVENT                        MeOH
NS                               16
DS                                0
SWH                       6188.119 Hz
FIDRES                    0.188846 Hz
AQ                        2.6477044 sec
RG                              256
DW                           80.800 usec
DE                            4.50 usec
TE                           300.0 K
D1                     1.00000000 sec
P1                           13.50 usec
DE                            4.50 usec
SFO1                   300.1318534 MHz
NUC1                             1H
PL1                          -3.00 dB

F2 - Processing parameters
SI                            16384
SF                     300.1300065 MHz
WDW                             EM
SSB                              0
LB                            0.30 Hz
GB                               0
PC                            1.00

1D NMR plot parameters
CX                           20.00 cm
F1P                           9.472 ppm
F1                         2842.92 Hz
F2P                           0.256 ppm
F2                            76.69 Hz
PPMCM                     0.46084 ppm/cm
HZCM                   138.31163 Hz/cm
```

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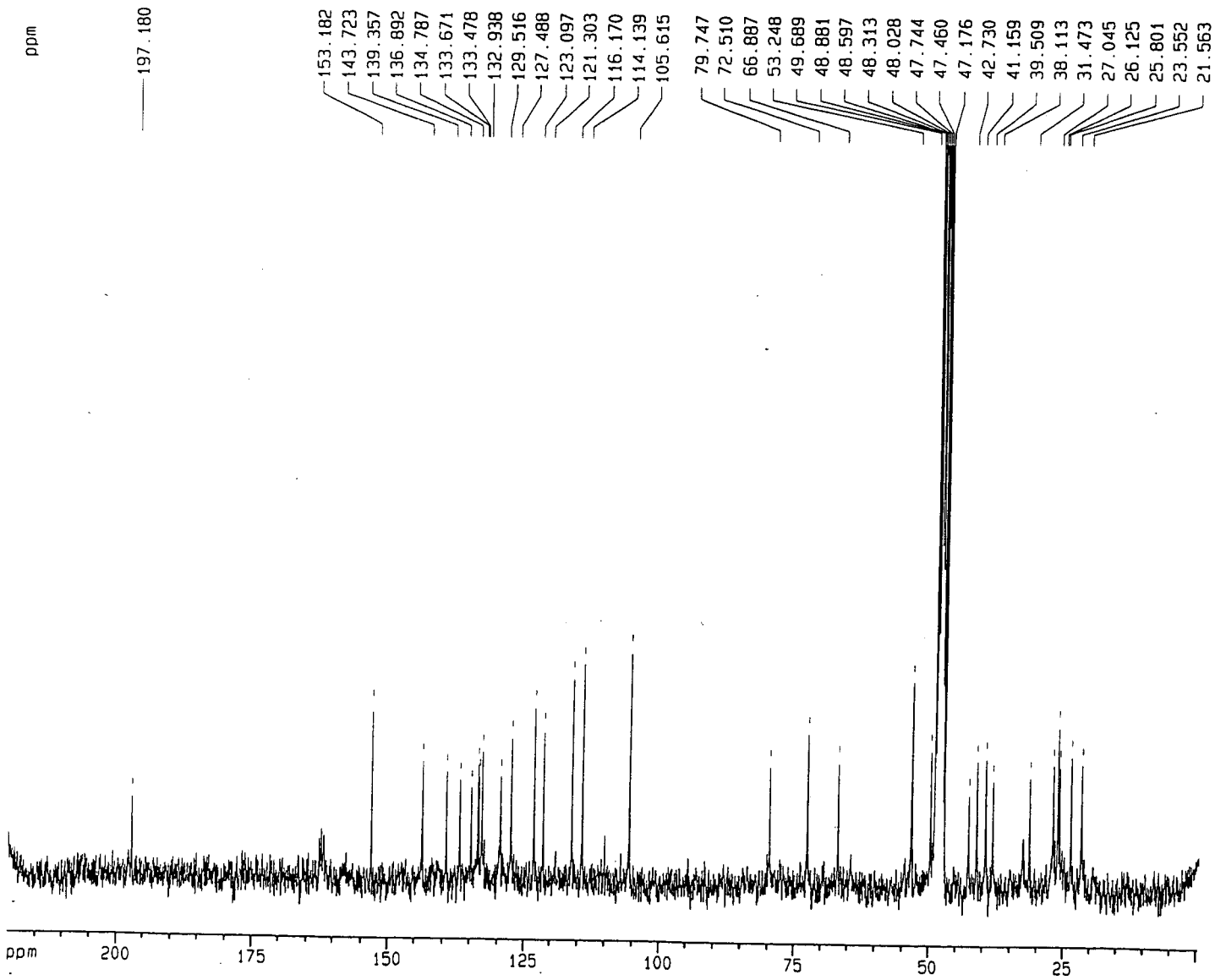
CAR **Figure S5.** ^{13}C NMR spectrum of **5**.



Current Data Parameters

NAME	51-636B-HPLC-6
EXPNO	2
PROCNO	1

F2 - Acquisition Parameters

Date_	500000
Time	19.51
INSTRUM	spect
PROBHD	5 mm Nalorac
PULPROG	zgdc30
TD	32768
SOLVENT	CDCl3
NS	16135
DS	2
SWH	16666.666 Hz
FIDRES	0.508626 Hz
AQ	0.9830900 sec
RG	4597.6
DW	30.000 usec
DE	4.50 usec
TE	300.0 K
D11	0.03000000 sec
PL12	18.00 dB
CPDPRG2	waltz16
PCPD2	90.00 usec
SFO2	300.1312005 MHz
NUC2	1H
PL2	-3.00 dB
D1	3.00000000 sec
P1	6.50 usec
DE	4.50 usec
SFO1	75.4760204 MHz
NUC1	13C
PL1	-3.00 dB

F2 - Processing parameters

SI	16384
SF	75.4677190 MHz
WDW	EM
SSB	0
LB	3.00 Hz
GB	0
PC	1.40

1D NMR plot parameters

CX	20.00 cm
F1P	219.928 ppm
F1	16597.44 Hz
F2P	-0.917 ppm
F2	-69.22 Hz
PPMCM	11.04224 ppm/cm
HZCM	833.33295 Hz/cm

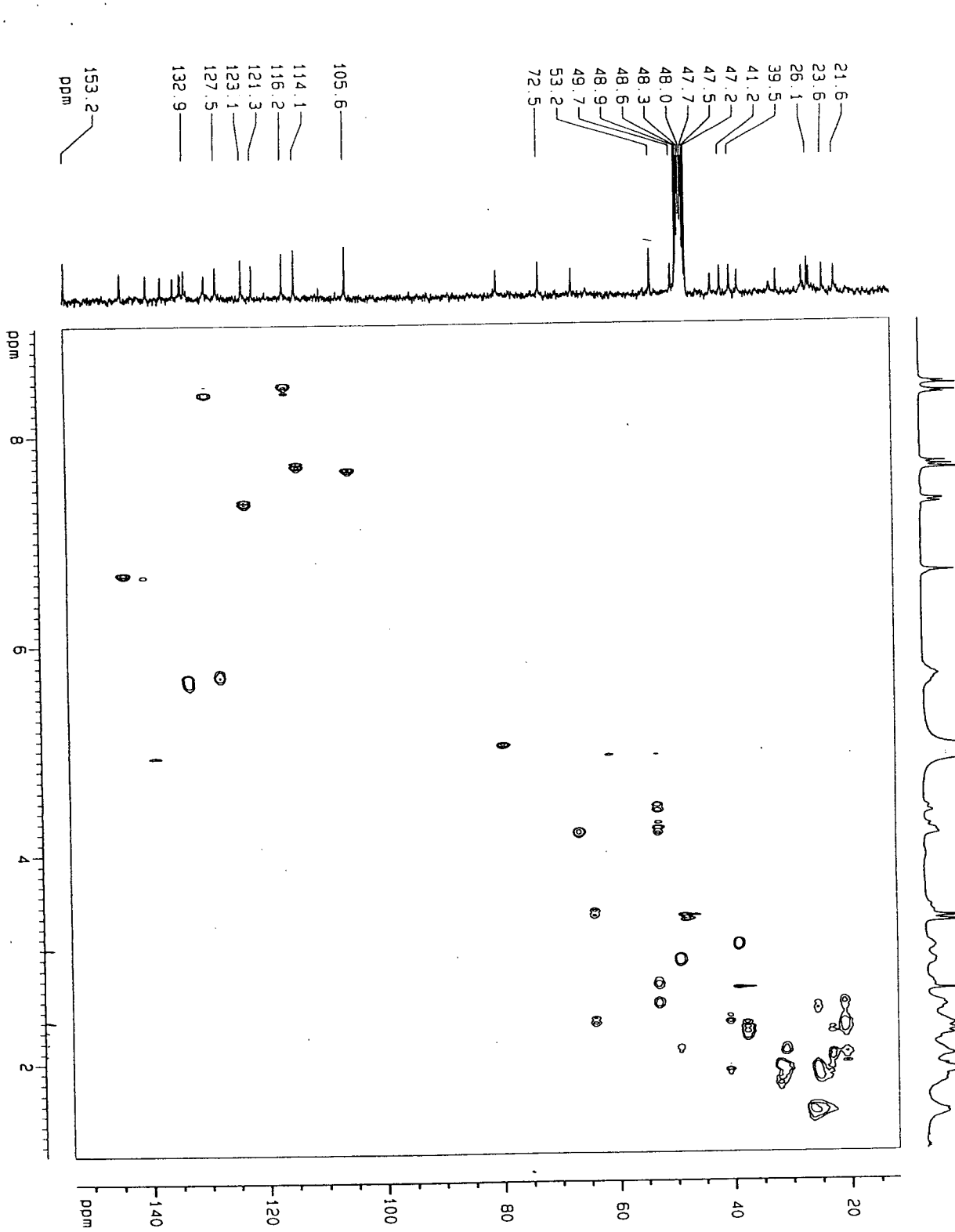


Figure S6. HMQC spectrum of **5**.

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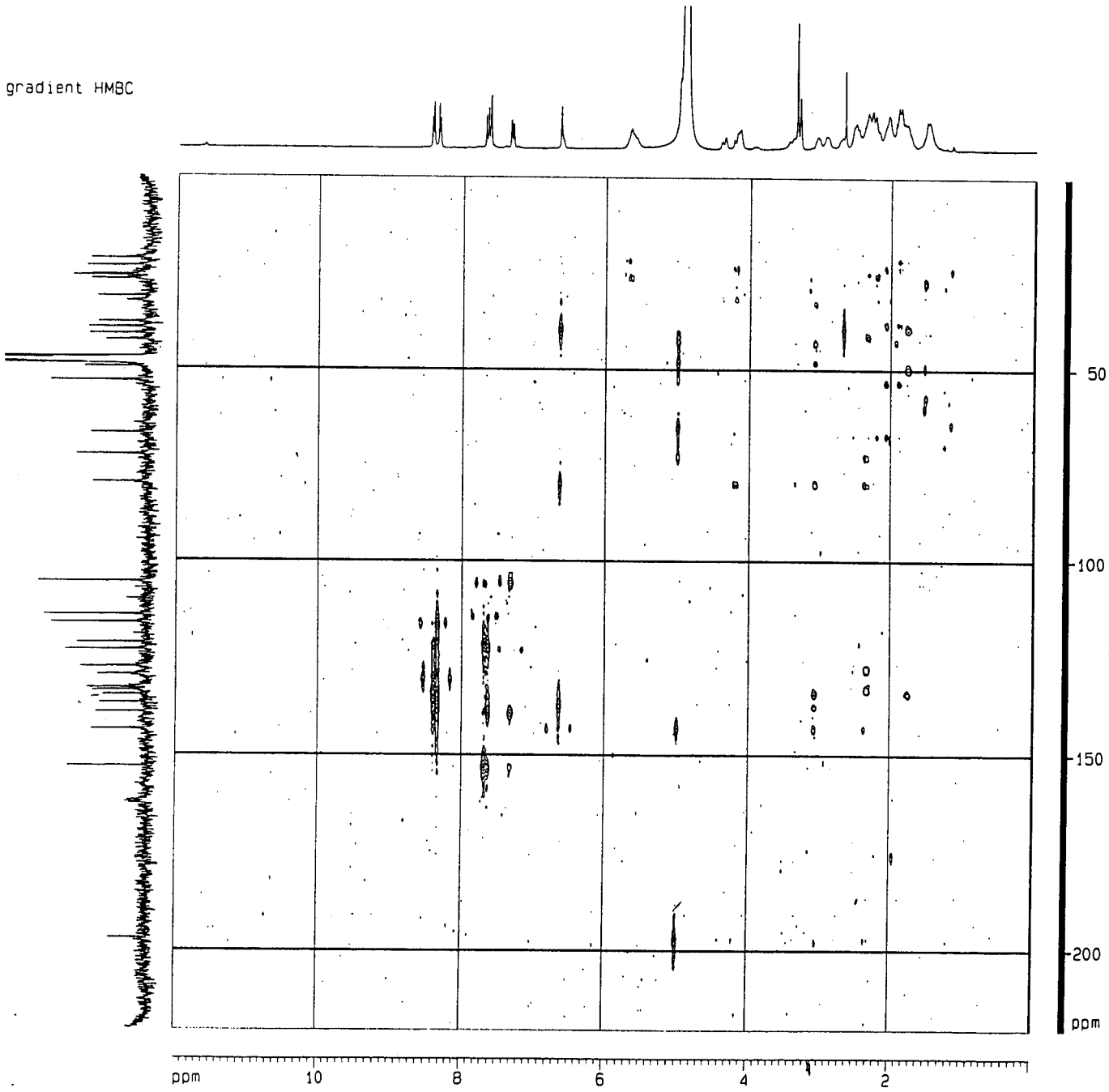
Figure S7. HMBC spectrum of **5**.



Current Data Parameters

NAME	51-6368-HPLC-6
EXPNO	3
PROCNO	1

F2 - Acquisition Parameters

Date_	500000
Time	13 38
INSTRUM	spect
PROBHD	3mm Nalorac Du
PULPROG	inv4gslplrnd
TD	2048
SOLVENT	MeOH
NS	128
DS	8
SWH	6009.615 Hz
FIDRES	2.934382 Hz
AQ	0.1704436 sec
RG	36780.8
DW	83.200 usec
DE	4.50 usec
TE	300.0 K
P1	12.00 usec
p2	24.0 usec
d0	0.0000030 sec
CNST2	145.0000000
d2	0.0034483 sec
d13	0.0000030 sec
D1	1.00000000 sec
P3	8.00 usec
SFO2	125.7715724 MHz
NUC2	13C
PL2	3.00 dB
D6	0.07140000 sec
P16	1000.00 usec
D16	0.00010000 sec
DE	4.50 usec
SFO1	500.1330008 MHz
NUC1	1H
PL1	3.00 dB
IN0	0.00001807 sec

F1 - Acquisition parameters

ND0	2
TD	256
SFO1	125.7716 MHz
FIDRES	108.056709 Hz
SW	219.943 ppm

F2 - Processing parameters

SI	1024
SF	500.1300057 MHz
WDW	QSINE
SSB	0
LB	0.00 Hz
GB	0
PC	1.00

F1 - Processing parameters

SI	256
MC2	QF
SF	125.7577108 MHz
WDW	SINE
SSB	2
LB	0.00 Hz
GB	0

2D NMR plot parameters

CX2	15.00 cm
CX1	15.00 cm
F2PLO	11.997 ppm
F2LO	5999.94 Hz
F2PHI	-0.019 ppm
F2HI	-9.68 Hz
F1PLO	220.207 ppm
F1LO	27692.78 Hz
F1PHI	0.241 ppm
F1HI	30.27 Hz
F2PPMCM	0.80107 ppm/cm
F2HZCM	400.54102 Hz/cm
F1PPMCM	14.66445 ppm/cm
F1HZCM	1844.16748 Hz/cm

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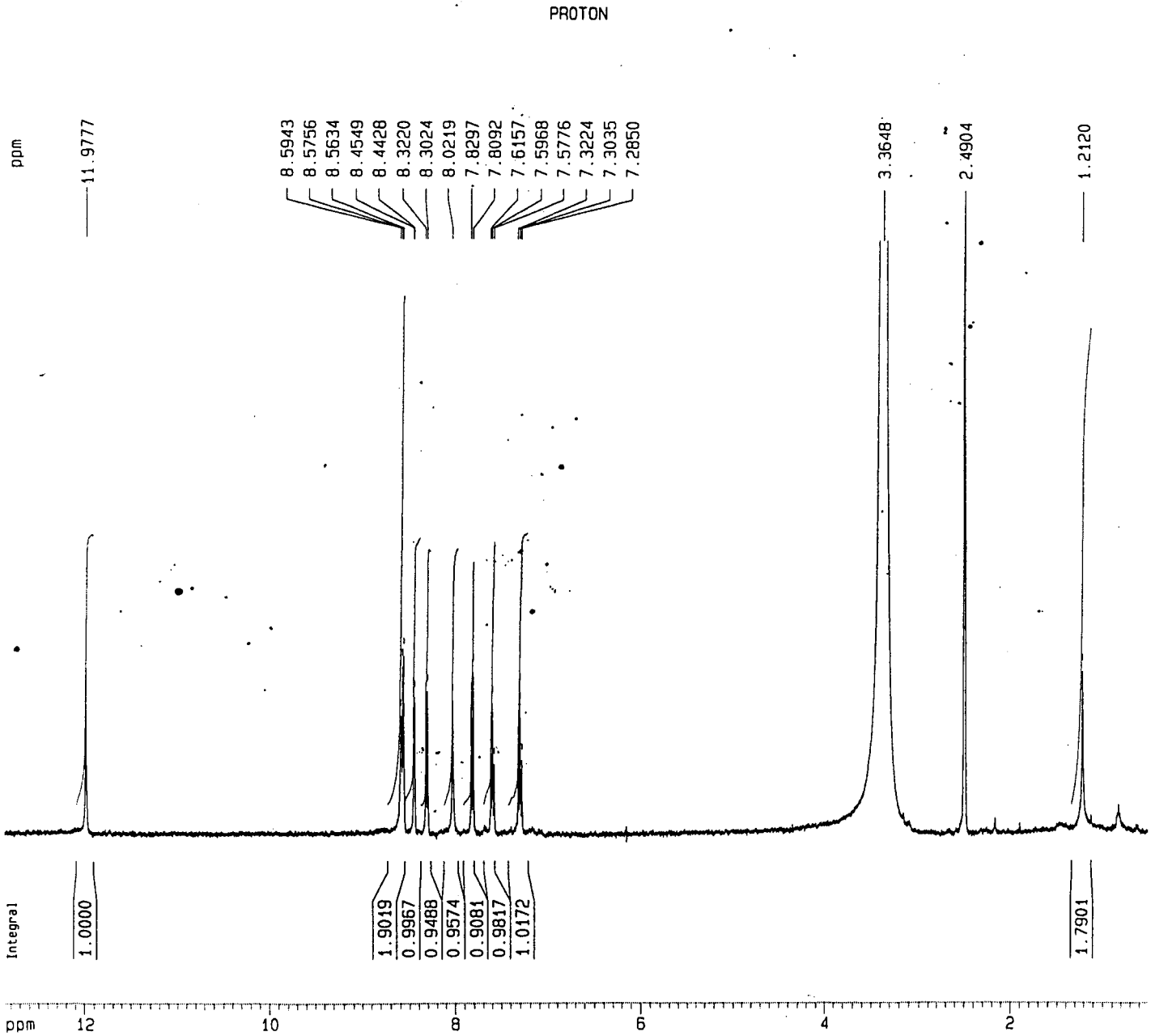
Figure S8. ^{1}H NMR spectrum of **6**.



Current Data Parameters

NAME	51-655-7
EXPNO	1
PROCNO	1

F2 - Acquisition Parameters

Date_	500000
Time	21.03
INSTRUM	drx400
PROBHD	3 mm Nalorac
PULPROG	zg30
TD	32768
SOLVENT	CDCl3
NS	16
DS	0
SWH	8250.825 Hz
FIDRES	0.251795 Hz
AQ	1.9857908 sec
RG	114
DW	60.600 usec
DE	4.50 usec
TE	300.0 K
D1	1.00000000 sec
P1	10.00 usec
DE	4.50 usec
SFO1	400.1324710 MHz
NUC1	1H
PL1	0.00 dB

F2 - Processing parameters

SI	16384
SF	400.1300092 MHz
WDW	EM
SSB	0
LB	0.30 Hz
GB	0
PC	1.00

1D NMR plot parameters

CX	20.00 cm
F1P	12.859 ppm
F1	5145.24 Hz
F2P	0.516 ppm
F2	206.54 Hz
PPMCM	0.61714 ppm/cm
HZCM	246.93494 Hz/cm

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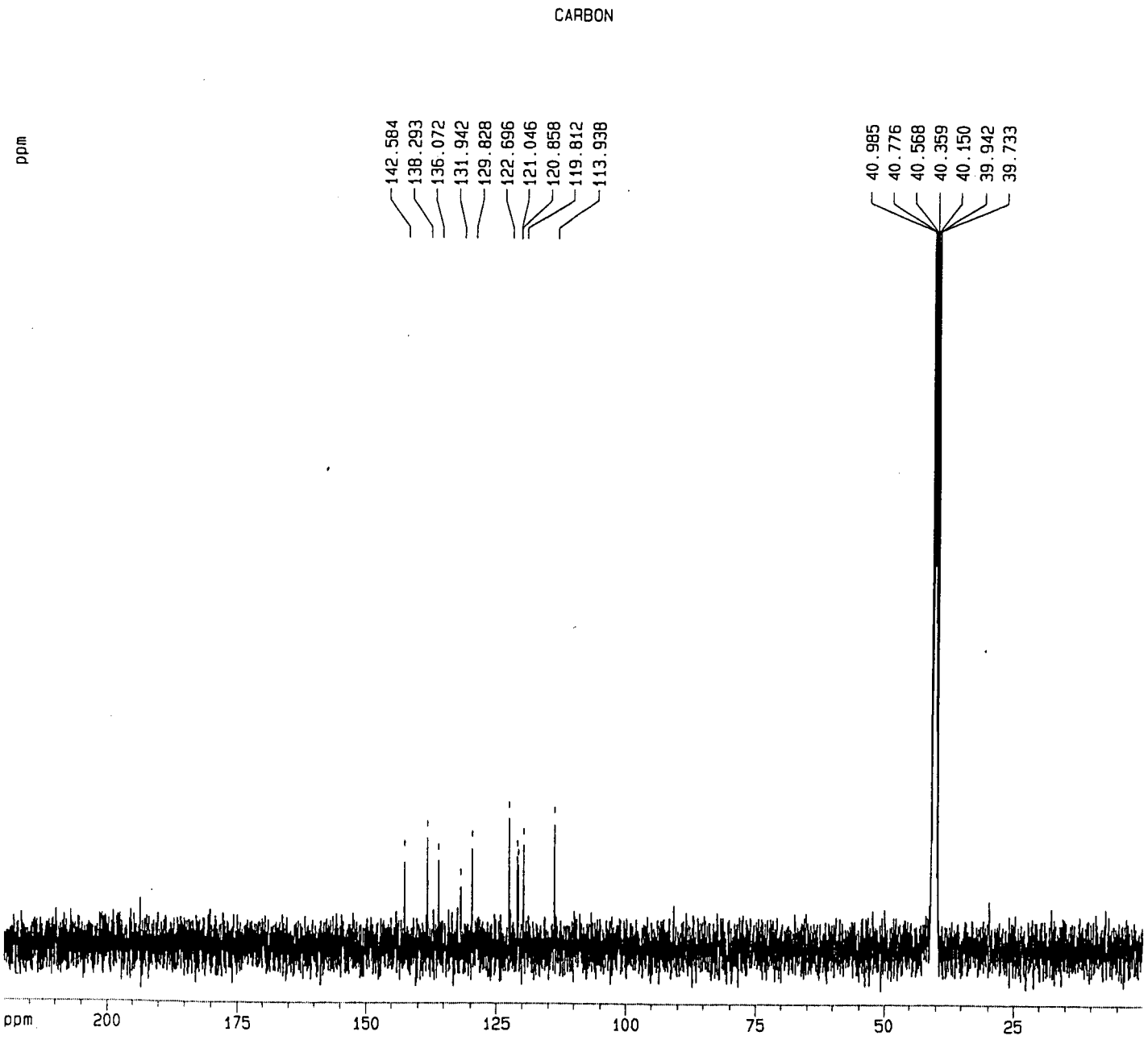
Figure S9. ^{13}C NMR spectrum of **6**.




```
Current Data Parameters
NAME            51-655-7
EXPNO                  2
PROCNO                 1

F2 - Acquisition Parameters
Date_             500000
Time                9.09
INSTRUM           drx400
PROBHD    3 mm Nalorac
PULPROG          zgdc30
TD                65536
SOLVENT           CDCl3
NS                10000
DS                    2
SWH           22123.895 Hz
FIDRES        0.337584 Hz
AQ            1.4811636 sec
RG                 8192
DW               22.600 usec
DE                4.50 usec
TE               300.0 K
d11           0.0300000 sec
PL12             18.00 dB
CPDPRG2         waltz16
PCPD2           100.00 usec
SFO2        400.1316005 MHz
NUC2                1H
PL2               0.00 dB
D1           2.00000000 sec
P1                9.00 usec
DE                4.50 usec
SFO1        100.6237964 MHz
NUC1                13C
PL1               0.00 dB

F2 - Processing parameters
SI                32768
SF          100.6127290 MHz
WDW                  EM
SSB                   0
LB                 1.00 Hz
GB                    0
PC                 1.40

1D NMR plot parameters
CX                20.00 cm
F1P              219.946 ppm
F1             22129.35 Hz
F2P                0.054 ppm
F2                 5.45 Hz
PPMCM          10.99458 ppm/cm
HZCM         1106.19470 Hz/cm
```

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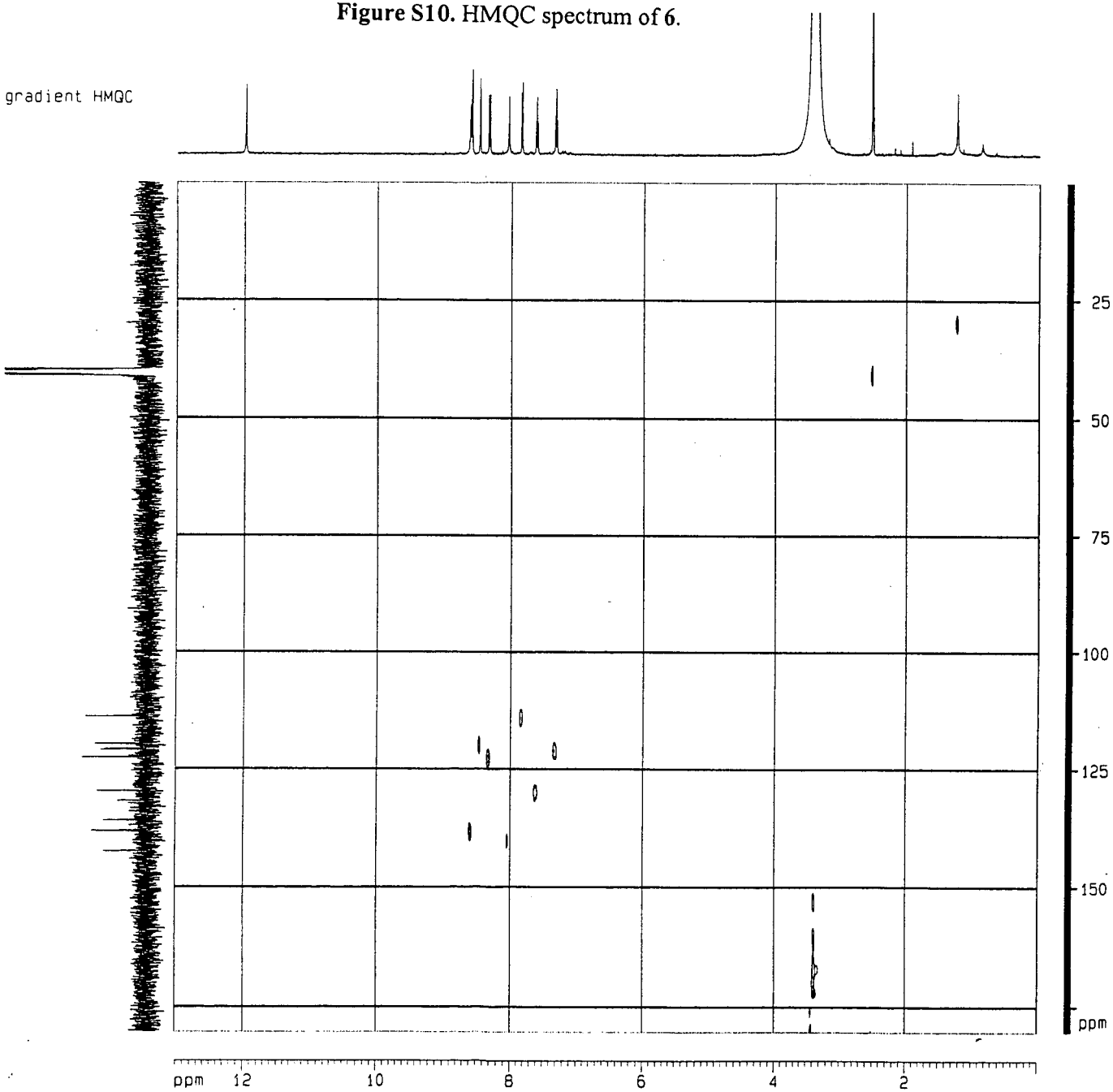
Figure S10. HMQC spectrum of **6**.



Current Data Parameters

NAME	51-655-7
EXPNO	4
PROCNO	1

F2 - Acquisition Parameters

Date_	500000
Time	11.14
INSTRUM	spect
PROBHD	3mm Nalorac Du
PULPROG	inv4gstp
TD	2048
SOLVENT	DMSO
NS	128
DS	4
SWH	6510.417 Hz
FIDRES	3.178914 Hz
AQ	0.1573384 sec
RG	32768
DW	76.800 usec
DE	4.50 usec
TE	300.0 K
P1	12.00 usec
p2	24.0 usec
P3	8.00 usec
p4	16.0 usec
d0	0.0000030 sec
CNST2	145.0000000
d2	0.0034483 sec
d11	0.0300000 sec
d13	0.0000030 sec
d4	0.0017241 sec
D16	0.00010000 sec
P16	1000.00 usec
d20	0.0006241 sec
d21	0.0023443 sec
PL12	21.00 dB
D1	1.00000000 sec
PL2	3.00 dB
SFO2	125.7690572 MHz
NUC2	13C
DE	4.50 usec
SFO1	500.1332508 MHz
NUC1	1H
PL1	3.00 dB
CPDPRG2	garp
PCPD2	65.00 usec
IN0	0.00001104 sec

F1 - Acquisition parameters

ND0	4
TD	128
SFO1	125.7691 MHz
FIDRES	176.953568 Hz
SW	180.092 ppm

F2 - Processing parameters

SI	1024
SF	500.1299994 MHz
WDW	GSINE
SSB	2
LB	0.00 Hz
GB	0
PC	1.00

F1 - Processing parameters

SI	256
MC2	IPR1
SF	125.7577106 MHz
WDW	GSINE
SSB	2
LB	0.00 Hz
GB	0

2D NMR plot parameters

CX2	15.00 cm
CX1	15.00 cm
F2PLO	13.010 ppm
F2LO	6506.70 Hz
F2PHI	-0.007 ppm
F2HI	-3.72 Hz
F1PLO	180.281 ppm
F1LO	22671.68 Hz
F1PHI	0.172 ppm
F1HI	21.62 Hz
F2PPMCM	0.86783 ppm/cm
F2HZCM	434.02717 Hz/cm
F1PPMCM	12.00725 ppm/cm
F1HZCM	1510.00378 Hz/cm

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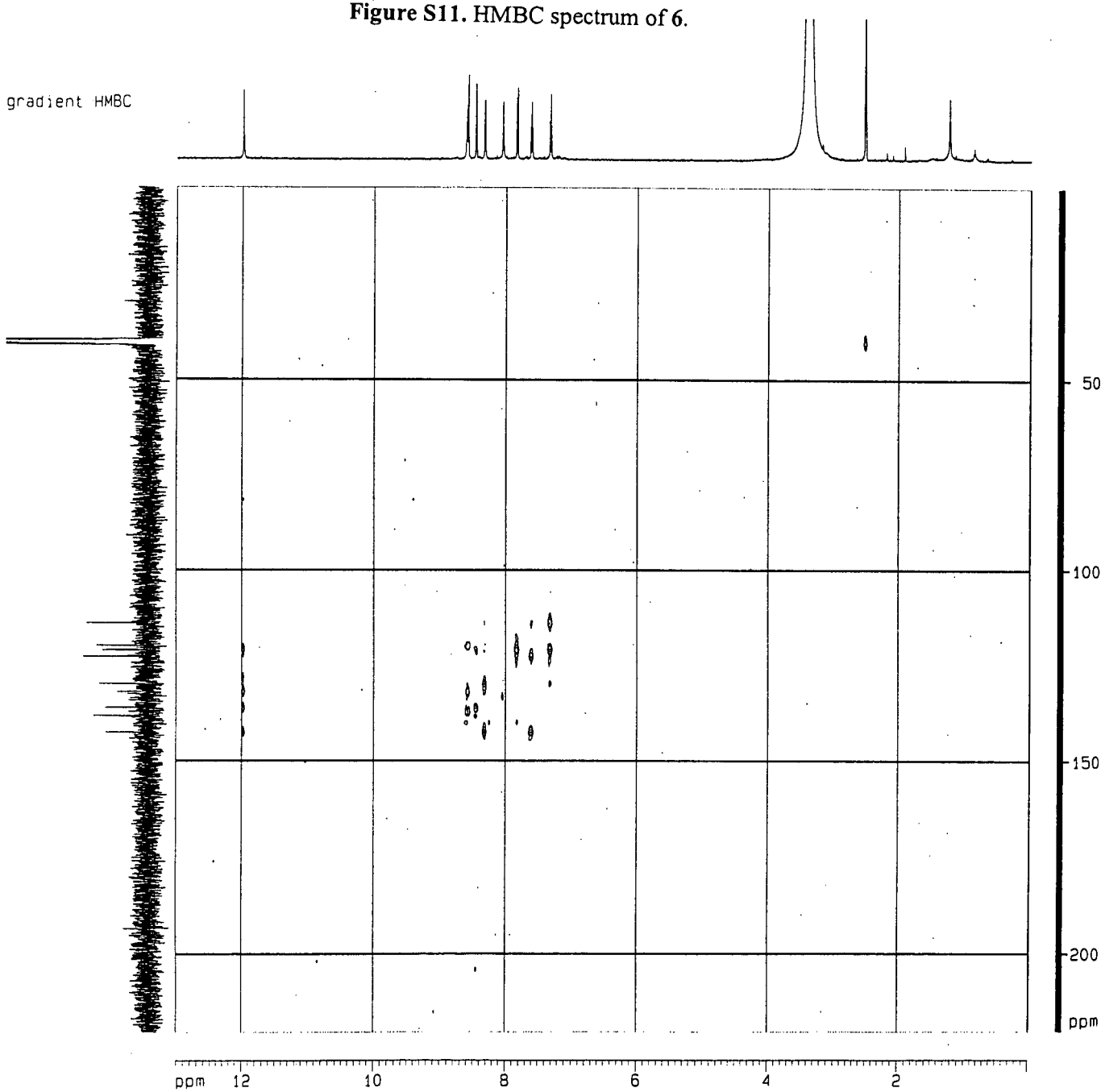
Figure S11. HMBC spectrum of **6**.



Current Data Parameters

NAME	51-655-7
EXPNO	5
PROCNO	1

F2 - Acquisition Parameters

Date_	500000
Time	12.05
INSTRUM	spect
PROBHD	3mm Nalorac Du
PULPROG	inv4gslplrnd
TD	2048
SOLVENT	DMSO
NS	200
DS	8
SWH	6510.417 Hz
FIDRES	3.178914 Hz
AQ	0.1573364 sec
RG	36780.8
DW	76.800 usec
DE	4.50 usec
TE	300.0 K
P1	12.00 usec
p2	24.0 usec
d0	0.0000030 sec
CNST2	145.0000000
d2	0.0034483 sec
d13	0.0000030 sec
D1	1.00000000 sec
P3	8.00 usec
SFO2	125.7715724 MHz
NUC2	13C
PL2	3.00 dB
D6	0.05000000 sec
P16	1000.00 usec
D16	0.00010000 sec
DE	4.50 usec
SFO1	500.1332508 MHz
NUC1	1H
PL1	3.00 dB
IN0	0.00001807 sec

F1 - Acquisition parameters

ND0	2
TD	256
SFO1	125.7716 MHz
FIDRES	108.056709 Hz
SW	219.943 ppm

F2 - Processing parameters

SI	1024
SF	500.1300007 MHz
WDW	QSINE
SSB	0
LB	0.00 Hz
GB	0
PC	1.40

F1 - Processing parameters

SI	256
MC2	QF
SF	125.7577360 MHz
WDW	SINE
SSB	2
LB	0.00 Hz
GB	0

2D NMR plot parameters

CX2	15.00 cm
CX1	15.00 cm
F2PLO	13.007 ppm
F2LO	6505.40 Hz
F2PHI	-0.010 ppm
F2HI	-5.02 Hz
F1PLO	220.007 ppm
F1LO	27667.63 Hz
F1PHI	0.041 ppm
F1HI	5.12 Hz
F2PPMCM	0.86793 ppm/cm
F2HZCM	434.22777 Hz/cm
F1PPMCM	14.56445 ppm/cm
F1HZCM	1844.16795 Hz/cm

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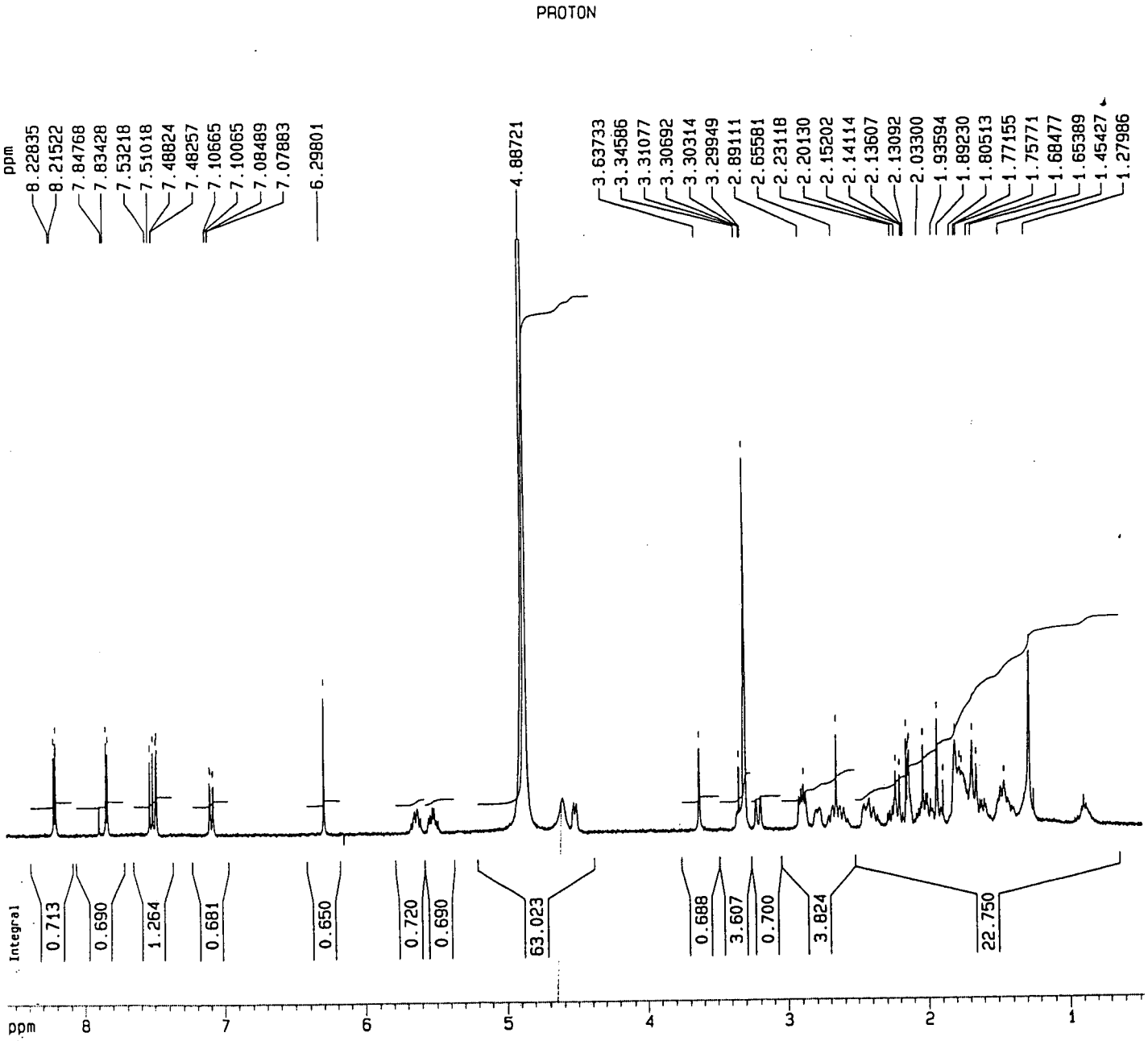
Figure S12. ^{1}H NMR spectrum of **7**.

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Current Data Parameters
NAME            51-7223
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_            500000
Time              22.21
INSTRUM           drx400
PROBHD     3 mm Nalorac
PULPROG            zg30
TD                32768
SOLVENT           CDCl3
NS                   16
DS                    0
SWH            8250.825 Hz
FIDRES         0.251795 Hz
AQ           1.9857908 sec
RG                 90.5
DW               60.600 usec
DE                4.50 usec
TE               300.0 K
D1           1.00000000 sec
P1               10.00 usec
DE                4.50 usec
SFO1        400.1324710 MHz
NUC1                1H
PL1               0.00 dB

F2 - Processing parameters
SI                16384
SF          400.1300092 MHz
WDW                 EM
SSB                  0
LB                0.30 Hz
GB                   0
PC                1.00

1D NMR plot parameters
CX               20.00 cm
F1P               8.568 ppm
F1             3428.35 Hz
F2P               0.475 ppm
F2              190.12 Hz
PPMCM          0.40465 ppm/cm
HZCM         161.91177 Hz/cm
```

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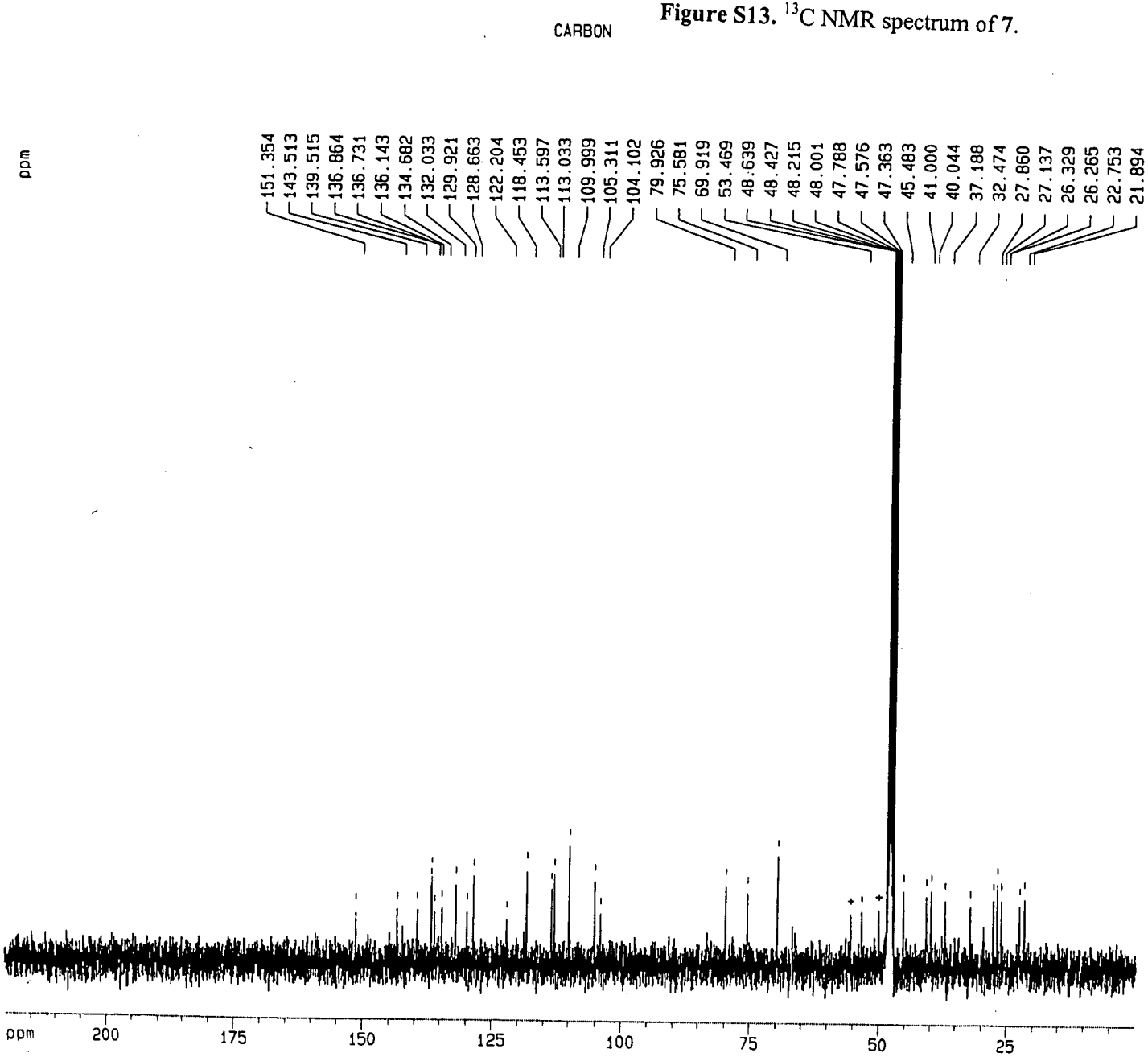
Figure S13. ^{13}C NMR spectrum of **7**.



Current Data Parameters

NAME	51-7223
EXPNO	2
PROCNO	1

F2 - Acquisition Parameters

Date_	500000
Time	22.26
INSTRUM	drx400
PROBHD	3 mm Nalorac
PULPROG	zgdc30
TD	65536
SOLVENT	CDCl3
NS	12000
DS	2
SWH	22123.895 Hz
FIDRES	0.337584 Hz
AQ	1.4811636 sec
RG	9195.2
DW	22.600 usec
DE	4.50 usec
TE	300.0 K
D11	0.03000000 sec
PL12	18.00 dB
CPDPRG2	waltz16
PCPD2	100.00 usec
SFO2	400.1316005 MHz
NUC2	1H
PL2	0.00 dB
D1	2.00000000 sec
P1	9.00 usec
DE	4.50 usec
SFO1	100.6237964 MHz
NUC1	13C
PL1	0.00 dB

F2 - Processing parameters

SI	32768
SF	100.6127290 MHz
WDW	EM
SSB	0
LB	1.00 Hz
GB	0
PC	1.40

1D NMR plot parameters

CX	20.00 cm
F1P	219.946 ppm
F1	22129.35 Hz
F2P	0.054 ppm
F2	5.45 Hz
PPMCM	10.99458 ppm/cm
HZCM	1106.19470 Hz/cm

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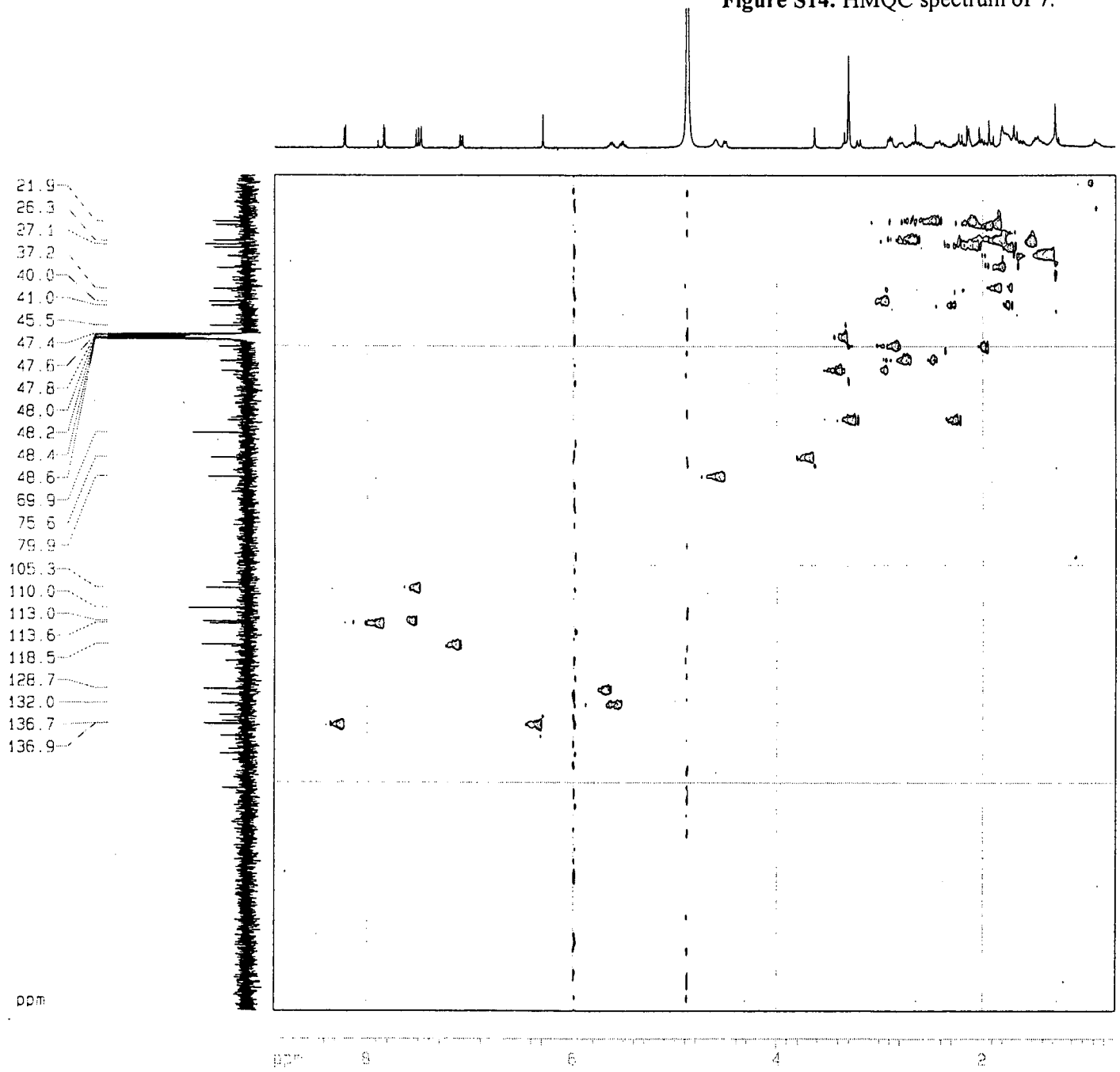
Figure S14. HMQC spectrum of **7**.



HMQC

Current Data Parameters

NAME	51-7223
EXPNO	4
PROCNO	1

F2 - Acquisition Parameters

Date_	500000
Time	21.57
INSTRUM	drx400
PROBHD	3 mm Nalorac
PULPROG	invdto
TD	2048
SOLVENT	MeOH
NS	64
DS	16
SWH	4807.692 Hz
FIDRES	2.347506 Hz
AQ	0.2130420 sec
RG	1625.5
DW	104.000 usec
DE	4.50 usec
TE	300.0 K
D1	2.00000000 sec
P1	10.00 usec
D2	0.00345000 sec
PL2	0.00 dB
P2	20.00 usec
P4	16.00 usec
SFO2	100.6237964 MHz
NUC2	13C
D7	0.34999999 sec
P3	8.00 usec
D0	0.00000300 sec
PL12	19.00 dB
DE	4.50 usec
SFO1	400.1324008 MHz
NUC1	1H
PL1	0.00 dB
CPDPRG2	garp
PCPD2	65.00 usec
IN0	0.00001129 sec

F1 - Acquisition parameters

ND0	4
TD	227
SFO1	100.6203 MHz
FIDRES	97.517448 Hz
SW	220.000 ppm

F2 - Processing parameters

SI	2048
SF	400.1300031 MHz
WDW	QSINE
SSB	2
LB	0.00 Hz
GB	0
PC	1.00

F1 - Processing parameters

SI	512
MC2	TPPI
SF	100.6092092 MHz
WDW	SINE
SSB	2
LB	0.00 Hz
GB	0

2D NMR plot parameters

CX2	15.00 cm
CX1	15.00 cm
F2PLO	8.891 ppm
F2LO	3557.38 Hz
F2PHI	0.689 ppm
F2HI	275.57 Hz
F1PLO	202.381 ppm
F1LO	20361.38 Hz
F1PHI	11.149 ppm
F1HI	1121.68 Hz
F2PPMCM	0.54679 ppm/cm
F2HZCM	218.78757 Hz/cm
F1PPMCM	12.74880 ppm/cm
F1HZCM	1282.64648 Hz/cm

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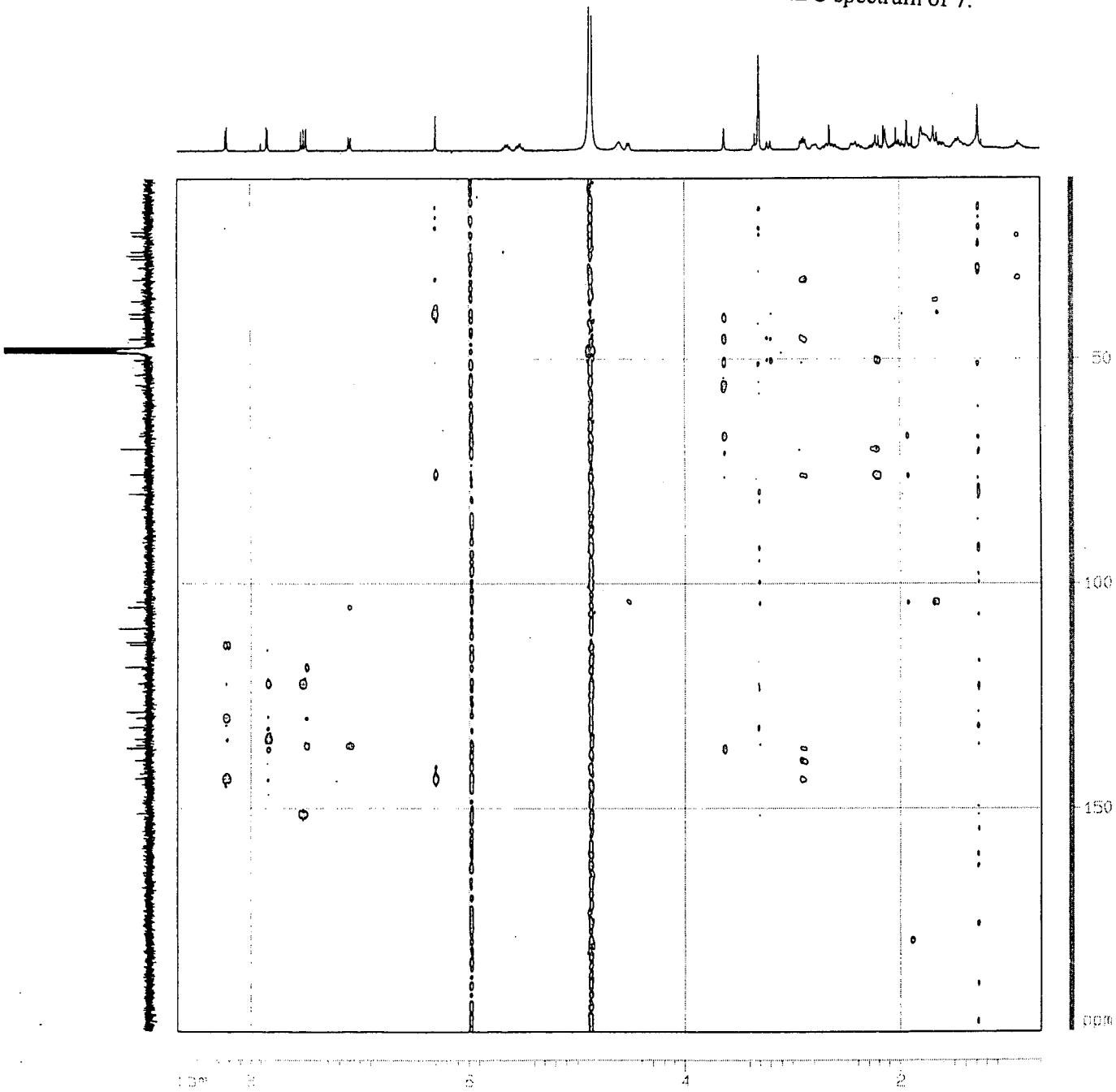
Figure S15. HMBC spectrum of **7**.



HMBC

Current Data Parameters

NAME	51-7223
EXPNO	5
PROCNO	1

F2 - Acquisition Parameters

Date_	500000
Time	22.25
INSTRUM	drx400
PROBHD	3 mm Nalorac
PULPROG	inv4ipirnd
TD	2048
SOLVENT	DMSO
NS	64
DS	16
SWH	4807.692 Hz
FIDRES	2.347506 Hz
AQ	0.2130420 sec
RG	128
DW	104.000 usec
DE	4.50 usec
TE	300.0 K
D1	2.00000000 sec
P1	10.00 usec
D2	0.00345000 sec
P3	8.00 usec
SFO2	100.6237964 MHz
NUC2	13C
PL2	0.00 dB
D6	0.05000000 sec
D0	0.00000300 sec
P2	20.00 usec
DE	4.50 usec
SFO1	400.1324008 MHz
NUC1	1H
PL1	0.00 dB
IN0	0.00002259 sec

F1 - Acquisition parameters

ND0	2
TD	241
SFO1	100.6238 MHz
FIDRES	91.850235 Hz
SW	219.987 ppm

F2 - Processing parameters

SI	2048
SF	400.1300079 MHz
WDW	QSINE
SSB	0
LB	0.00 Hz
GB	0
PC	1.40

F1 - Processing parameters

SI	512
MC2	QF
SF	100.6127296 MHz
WDW	SINE
SSB	2
LB	0.00 Hz
GB	0

2D NMR plot parameters

CX2	15.00 cm
CX1	15.00 cm
F2PLO	8.673 ppm
F2LO	3470.40 Hz
F2PHI	0.594 ppm
F2HI	277.80 Hz
F1PLO	199.374 ppm
F1LO	20059.56 Hz
F1PHI	9.872 ppm
F1HI	993.28 Hz
F2PPMCM	0.53193 ppm/cm
F2HZCM	212.84055 Hz/cm
F1PPMCM	12.63344 ppm/cm
F1HZCM	1271.08533 Hz/cm

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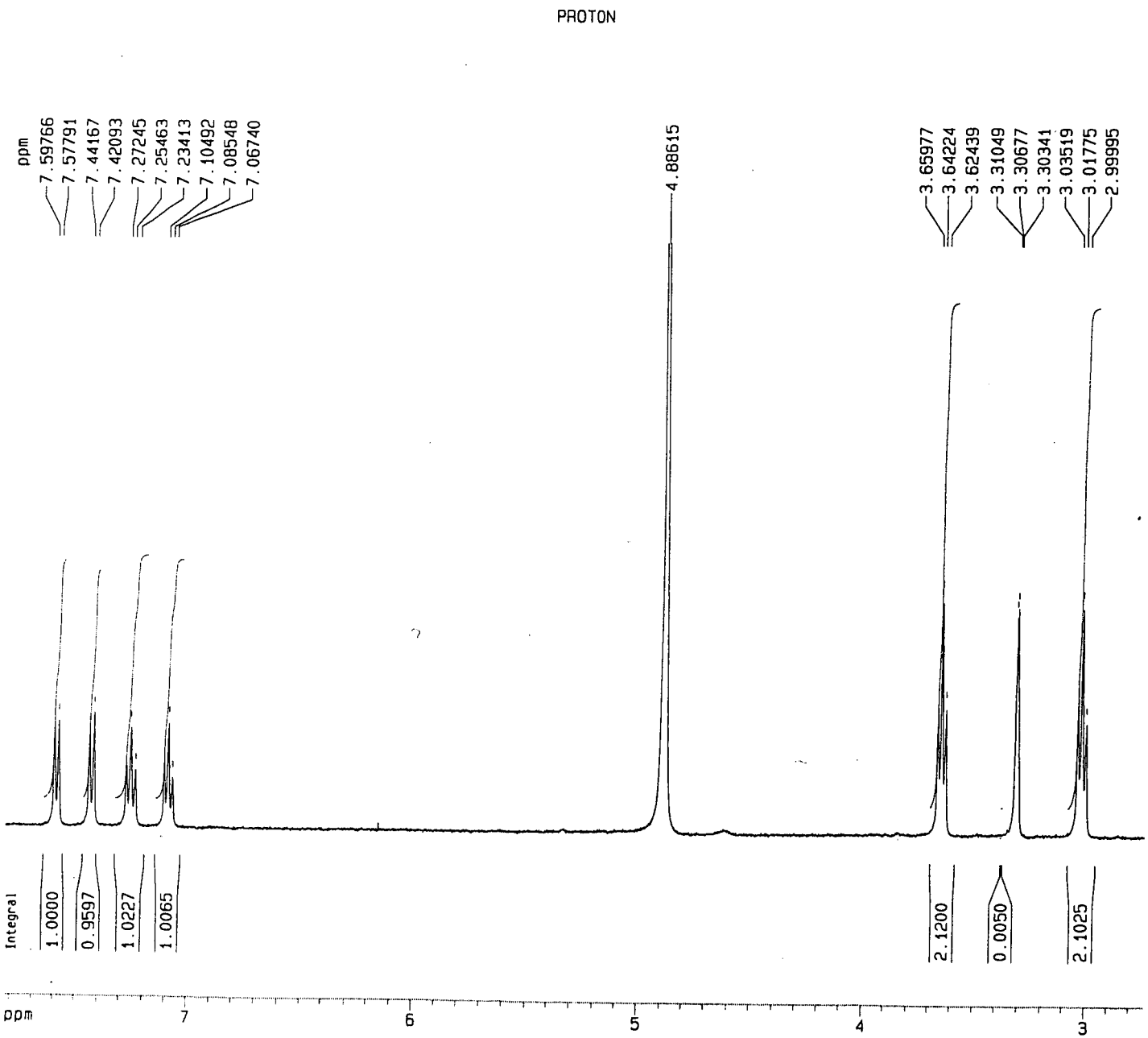
Figure S16. ^{1}H NMR spectrum of **8**.



Current Data Parameters

NAME	51-UL-4
EXPNO	1
PROCNO	1

F2 - Acquisition Parameters

Date_	500000
Time	19.11
INSTRUM	drx400
PROBHD	3 mm Nalorac
PULPROG	zg30
TD	32768
SOLVENT	MeOH
NS	16
DS	0
SWH	8250.825 Hz
FIDRES	0.251795 Hz
AQ	1.9857908 sec
RG	90.5
DW	60.600 usec
DE	4.50 usec
TE	300.0 K
D1	1.00000000 sec
P1	10.00 usec
DE	4.50 usec
SFO1	400.1324710 MHz
NUC1	1H
PL1	0.00 dB

F2 - Processing parameters

SI	16384
SF	400.1300092 MHz
WDW	EM
SSB	0
LB	0.30 Hz
GB	0
PC	1.00

1D NMR plot parameters

CX	20.00 cm
F1P	7.817 ppm
F1	3127.94 Hz
F2P	2.735 ppm
F2	1094.22 Hz
PPMCM	0.25413 ppm/cm
HZCM	101.68583 Hz/cm

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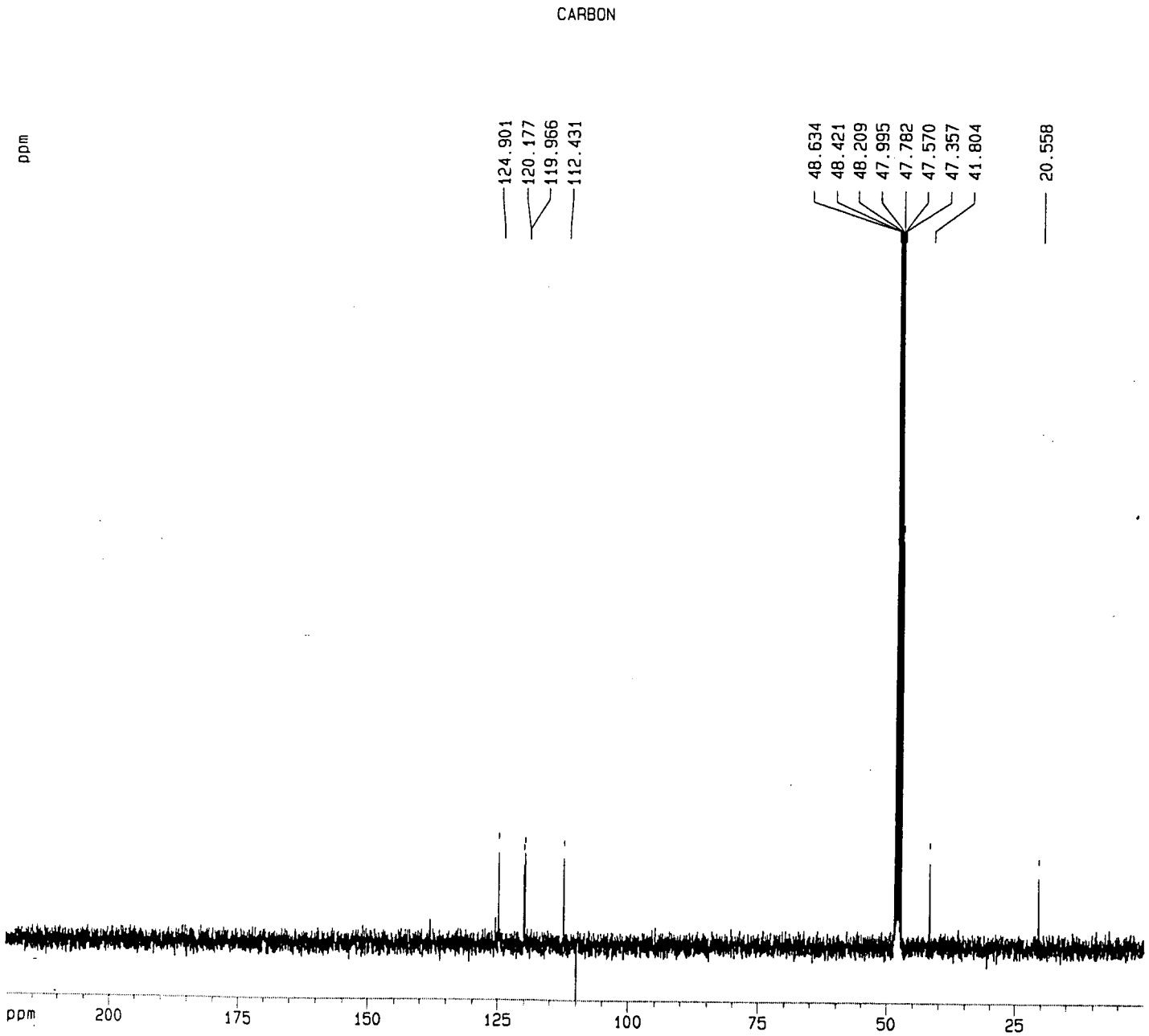
Figure S17. ^{13}C NMR spectrum of **8**.




```
Current Data Parameters
NAME            51-UL-4
EXPNO                 2
PROCNO                1

F2 - Acquisition Parameters
Date_            500000
Time              19.35
INSTRUM          drx400
PROBHD    3 mm Nalorac
PULPROG          zgdc30
TD                65536
SOLVENT           CDCl3
NS                 3030
DS                    2
SWH           22123.895 Hz
FIDRES         0.337584 Hz
AQ            1.4811636 sec
RG                 8192
DW               22.600 usec
DE                4.50 usec
TE               300.0 K
D11          0.03000000 sec
PL12             18.00 dB
CPDPRG2         waltz16
PCPD2           100.00 usec
SFO2        400.1316005 MHz
NUC2                1H
PL2               0.00 dB
D1           2.00000000 sec
P1                9.00 usec
DE                4.50 usec
SFO1        100.6237964 MHz
NUC1                13C
PL1               0.00 dB

F2 - Processing parameters
SI                32768
SF          100.6127290 MHz
WDW                  EM
SSB                   0
LB                 1.00 Hz
GB                    0
PC                 1.40

1D NMR plot parameters
CX               20.00 cm
F1P             219.946 ppm
F1            22129.35 Hz
F2P               0.054 ppm
F2                 5.45 Hz
PPMCM          10.99458 ppm/cm
HZCM        1106.19470 Hz/cm
```

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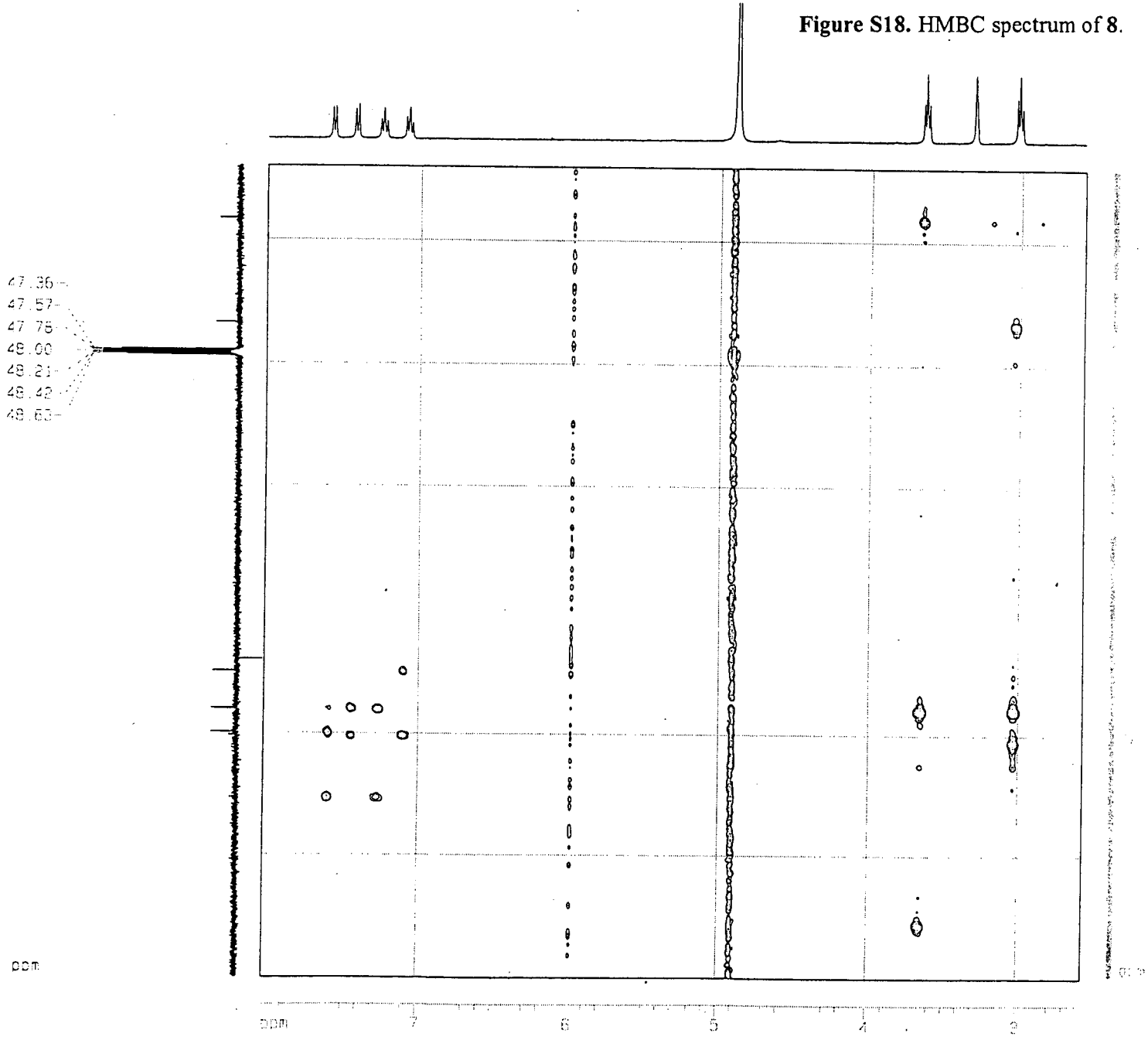
Figure S18. HMBC spectrum of **8**.



HMBC

Current Data Parameters

NAME	51-UL-4
EXPNO	5
PROCNO	1

F2 - Acquisition Parameters

Date_	500000
Time	21.50
INSTRUM	drx400
PROBHD	3 mm Nalorac
PULPROG	inv4ln
TD	2048
SOLVENT	MeOH
NS	64
DS	16
SWH	4807.692 Hz
FIDRES	2.347506 Hz
AQ	0.2130420 sec
RG	128
DW	104.000 usec
DE	4.50 usec
TE	300.0 K
D1	2.00000000 sec
P1	10.00 usec
D2	0.00345000 sec
P3	8.00 usec
SFO2	100.6237964 MHz
NUC2	13C
PL2	0.00 dB
D6	0.05000000 sec
D0	0.00000300 sec
P2	20.00 usec
DE	4.50 usec
SFO1	400.1324008 MHz
NUC1	1H
PL1	0.00 dB
IN0	0.00002259 sec

F1 - Acquisition parameters

ND0	2
TD	254
SFO1	100.6238 MHz
FIDRES	87.149239 Hz
SW	219.987 ppm

F2 - Processing parameters

SI	2048
SF	400.1300031 MHz
WDW	QSINE
SSB	0
LB	0.00 Hz
GB	0
PC	1.00

F1 - Processing parameters

SI	512
MC2	QF
SF	100.6127296 MHz
WDW	SINE
SSB	2
LB	0.00 Hz
GB	0

2D NMR plot parameters

CX2	15.00 cm
CX1	15.00 cm
F2PLO	8.022 ppm
F2LO	3209.95 Hz
F2PHI	2.572 ppm
F2HI	1029.12 Hz
F1PLO	174.881 ppm
F1LO	17595.21 Hz
F1PHI	9.872 ppm
F1HI	993.28 Hz
F2PPMCM	0.36335 ppm/cm
F2HZCM	145.38887 Hz/cm
F1PPMCM	11.00055 ppm/cm
F1HZCM	1106.79529 Hz/cm

X-ray data for compound **3**

Table 1. Crystal data and structure refinement for UIC0204

Empirical formula	$2(C_{36}H_{46}N_4O_2)\cdot CH_3OH$
Formula weight	582.79
Temperature	150(2) K
Wavelength	0.71073 A
Crystal system, space group	Monoclinic, $P2_12_12_1$, No. 19
Unit cell dimensions	a = 10.2728(1)Å b = 15.6215(2)Å c = 39.9081(6)Å
Volume	6404.3(1)$Å^3$
Z, Calculated density	8, 1.209 Mg/m^3
Absorption coefficient	0.076 mm^{-1}
F(000)	2520
Crystal size	0.06 × 0.09 × 0.45 mm
θ range for data collection	3.00 to 22.45°
Limiting indices	$-11\leq h\leq 11$, $-16\leq k\leq 16$, $-42\leq l\leq 42$
Reflections collected/unique	8250
Completeness to θ = 22.45	99.4%
Max. and min. transmission	1.000 and 1.270
Refinement method	Full-matrix least-squares on F^2
Data / restraints / parameters	8250 / 0 / 782
Goodness-of-fit on F^2	1.023
Final R indices [I>2σ(I)]	R1 = 0.0400, wR2 = 0.0839
R indices (all data)	R1 = 0.0577, wR2 = 0.0904
Absolute structure parameter	-.5(10)
Extinction coefficient	0.0037(3)
Largest diff. peak and hole	0.131 and -.131 $e.Å^{-3}$

X-ray data for compound 3

Table 2. Atomic coordinates ($\times 10^4$) and equivalent isotropic displacement parameters ($Å^2 \times 10^3$) for UIC0204. U(eq) is defined as one third of the trace of the orthogonalized Uij tensor.

	x	y	z	U(eq)
C(1)	11393(2)	11015(2)	3124(1)	38(1)
N(2)	10481(2)	10864(1)	3369(1)	43(1)
C(3)	9844(3)	11626(2)	3437(1)	48(1)
C(4)	8820(3)	11772(2)	3658(1)	63(1)
C(5)	8370(3)	12612(3)	3680(1)	80(1)
C(6)	8911(4)	13270(3)	3491(1)	82(1)
C(7)	9897(3)	13112(2)	3275(1)	66(1)
C(8)	10392(3)	12282(2)	3243(1)	51(1)
C(9)	11369(3)	11889(2)	3036(1)	44(1)
C(10)	12200(3)	12175(2)	2788(1)	55(1)
C(11)	12967(3)	11581(2)	2634(1)	55(1)
N(12)	13002(2)	10741(2)	2711(1)	47(1)
C(13)	12253(2)	10451(2)	2963(1)	37(1)
C(14)	12473(2)	9547(2)	3062(1)	35(1)
C(15)	12730(2)	9343(2)	3380(1)	36(1)
C(16)	13168(2)	8475(2)	3500(1)	35(1)
O(16)	14055(2)	8608(1)	3775(1)	41(1)
C(17)	13945(2)	8001(2)	3218(1)	35(1)
C(18)	13581(2)	8196(2)	2846(1)	35(1)
C(19)	12452(2)	8856(2)	2798(1)	38(1)
C(20)	11086(2)	8457(2)	2791(1)	42(1)
C(21)	11010(3)	7601(2)	2611(1)	47(1)
N(22)	11992(2)	7025(1)	2751(1)	42(1)
C(23)	13265(2)	7361(2)	2662(1)	41(1)
C(24)	14854(2)	8564(2)	2701(1)	39(1)
C(25)	15642(2)	8872(2)	3000(1)	37(1)
C(26)	17064(2)	9028(2)	2916(1)	42(1)
C(27)	17858(3)	9504(2)	3177(1)	47(1)
C(28)	18045(3)	9071(2)	3515(1)	50(1)
O(28)	19104(2)	9541(2)	3668(1)	70(1)
C(29)	18383(2)	8131(2)	3503(1)	52(1)
C(30)	17253(2)	7504(2)	3544(1)	50(1)
C(31)	16217(2)	7452(2)	3271(1)	44(1)
N(32)	15359(2)	8210(1)	3264(1)	35(1)
C(33)	12059(2)	7914(2)	3632(1)	43(1)
C(34)	12506(2)	7137(2)	3838(1)	48(1)
C(35)	11387(3)	6551(2)	3922(1)	55(1)
C(36)	10904(3)	5937(2)	3733(1)	60(1)
C(37)	11322(3)	5703(2)	3385(1)	58(1)
C(38)	10262(3)	5903(2)	3130(1)	61(1)
C(39)	10596(3)	5717(2)	2764(1)	61(1)
C(40)	11843(3)	6141(2)	2639(1)	55(1)
C(51)	12025(2)	12233(2)	4078(1)	38(1)
N(52)	12777(2)	11596(1)	3937(1)	42(1)
C(53)	13606(3)	11959(2)	3704(1)	45(1)
C(54)	14553(3)	11561(2)	3508(1)	53(1)
C(55)	15244(3)	12076(2)	3289(1)	61(1)
C(56)	15004(3)	12944(3)	3266(1)	68(1)
C(57)	14066(3)	13342(2)	3458(1)	59(1)
C(58)	13354(3)	12838(2)	3684(1)	48(1)

C(59)	12337(3)	13014(2)	3927(1)	42(1)
C(60)	11683(3)	13748(2)	4031(1)	50(1)
C(61)	10781(3)	13653(2)	4285(1)	49(1)
N(62)	10506(2)	12908(2)	4438(1)	45(1)
C(63)	11112(2)	12192(2)	4338(1)	39(1)
C(64)	10756(2)	11400(2)	4520(1)	38(1)
C(65)	10462(2)	10663(2)	4366(1)	38(1)
C(66)	10026(2)	9863(2)	4544(1)	37(1)
O(66)	9162(2)	9392(1)	4328(1)	42(1)
C(67)	9252(2)	10077(2)	4872(1)	37(1)
C(68)	9568(2)	10950(2)	5045(1)	39(1)
C(69)	10730(2)	11448(2)	4896(1)	39(1)
C(70)	12064(3)	11217(2)	5041(1)	45(1)
C(71)	12038(3)	11086(2)	5418(1)	50(1)
N(72)	11045(2)	10441(1)	5493(1)	47(1)
C(73)	9771(3)	10816(2)	5421(1)	48(1)
C(74)	8315(2)	11473(2)	4989(1)	52(1)
C(75)	7540(2)	11002(2)	4725(1)	40(1)
C(76)	6123(2)	11272(2)	4726(1)	48(1)
C(77)	5295(3)	11027(2)	4430(1)	46(1)
C(78)	5087(2)	10084(2)	4374(1)	47(1)
O(78)	3999(2)	10042(1)	4143(1)	60(1)
C(79)	4778(2)	9574(2)	4689(1)	56(1)
C(80)	5905(2)	9119(2)	4861(1)	58(1)
C(81)	6985(2)	9633(2)	5029(1)	48(1)
N(82)	7831(2)	10081(1)	4786(1)	37(1)
C(83)	11187(2)	9278(2)	4620(1)	41(1)
C(84)	10848(2)	8363(2)	4729(1)	46(1)
C(85)	12031(3)	7903(2)	4862(1)	56(1)
C(86)	12455(3)	7916(2)	5176(1)	63(1)
C(87)	11890(3)	8393(2)	5466(1)	66(1)
C(88)	12863(3)	9058(2)	5604(1)	72(1)
C(89)	12388(3)	9611(2)	5893(1)	72(1)
C(90)	11130(3)	10088(2)	5832(1)	61(1)
O(91)	14572(2)	10318(2)	2146(1)	83(1)
C(91)	13614(4)	10148(2)	1901(1)	90(1)

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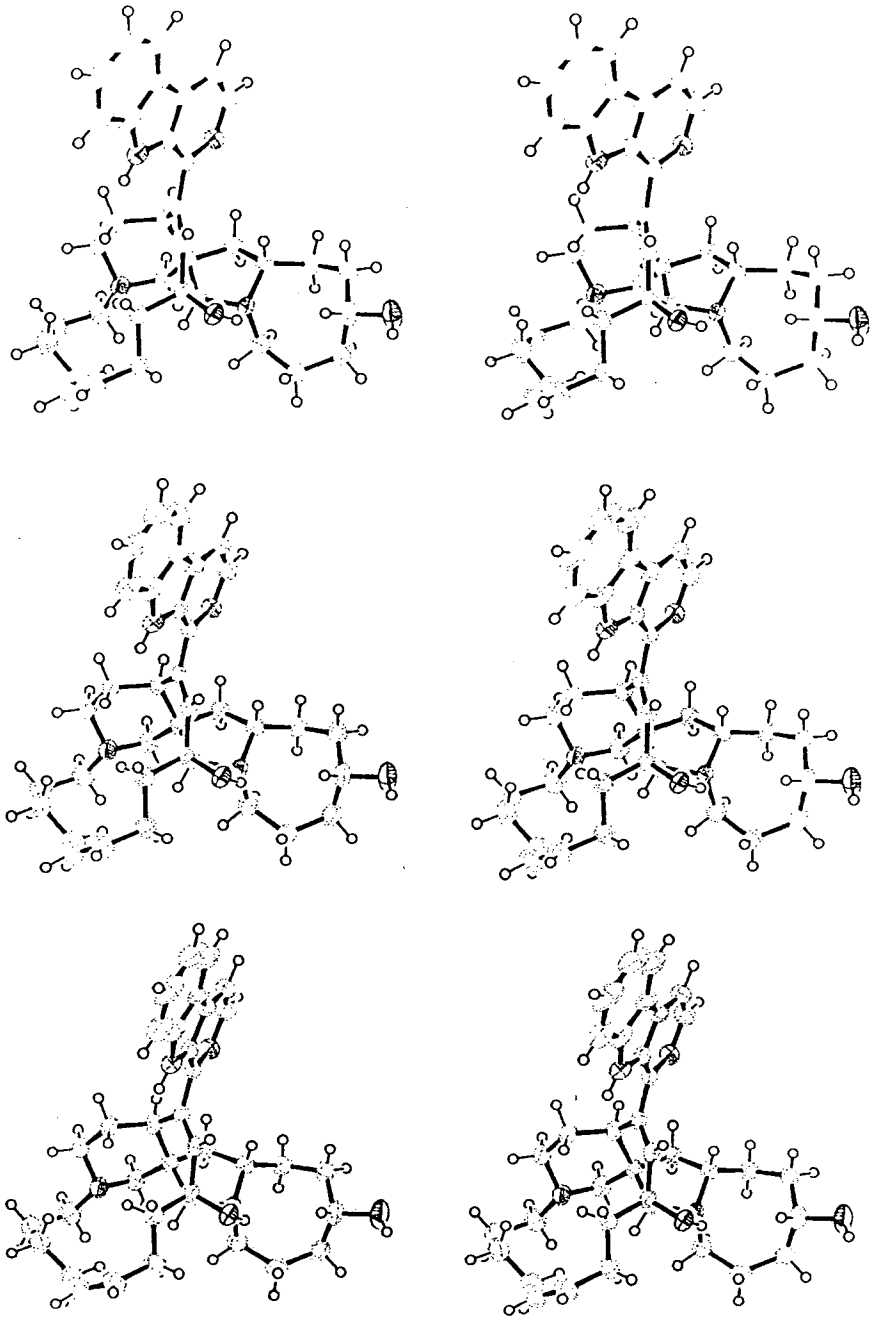
X-ray data for compound 3



X-ray data for compound 3

Table 8. Hydrogen bonding in UIC0204 (Å and º)

Donor-H...Acceptor [sym]	D - H	H...A	D...A	D-H...A
N(2) -H(2) ...O(28)[2]	0.88	1.9753	2.774(3)	150.2
O(16)-H(16) ...N(32)[0]	0.84	1.9248	2.517(2)	126.6
O(28)-H(28B)...O(66)[1]	0.84	1.8108	2.647(3)	173.3
N(52)-H(52) ...O(78)[1]	0.88	2.1311	2.854(3)	138.9
O(66)-H(66) ...N(82)[0]	0.84	1.9319	2.524(3)	126.5
O(78)-H(78B)...O(16)[2]	0.84	1.8419	2.680(3)	175.4
O(91)-H(91) ...N(12)[3]	0.84	2.0362	2.850(3)	163.0

[1] -1+x,y,z
[2] 1+x,y,z
[3] 1-x,-1/2+y,1/2-z