Supporting information

Acetylcholinesterase Inhibitory Meroterpenoids from a Mangrove Endophytic Fungus *Aspergillus* sp. 16-5c

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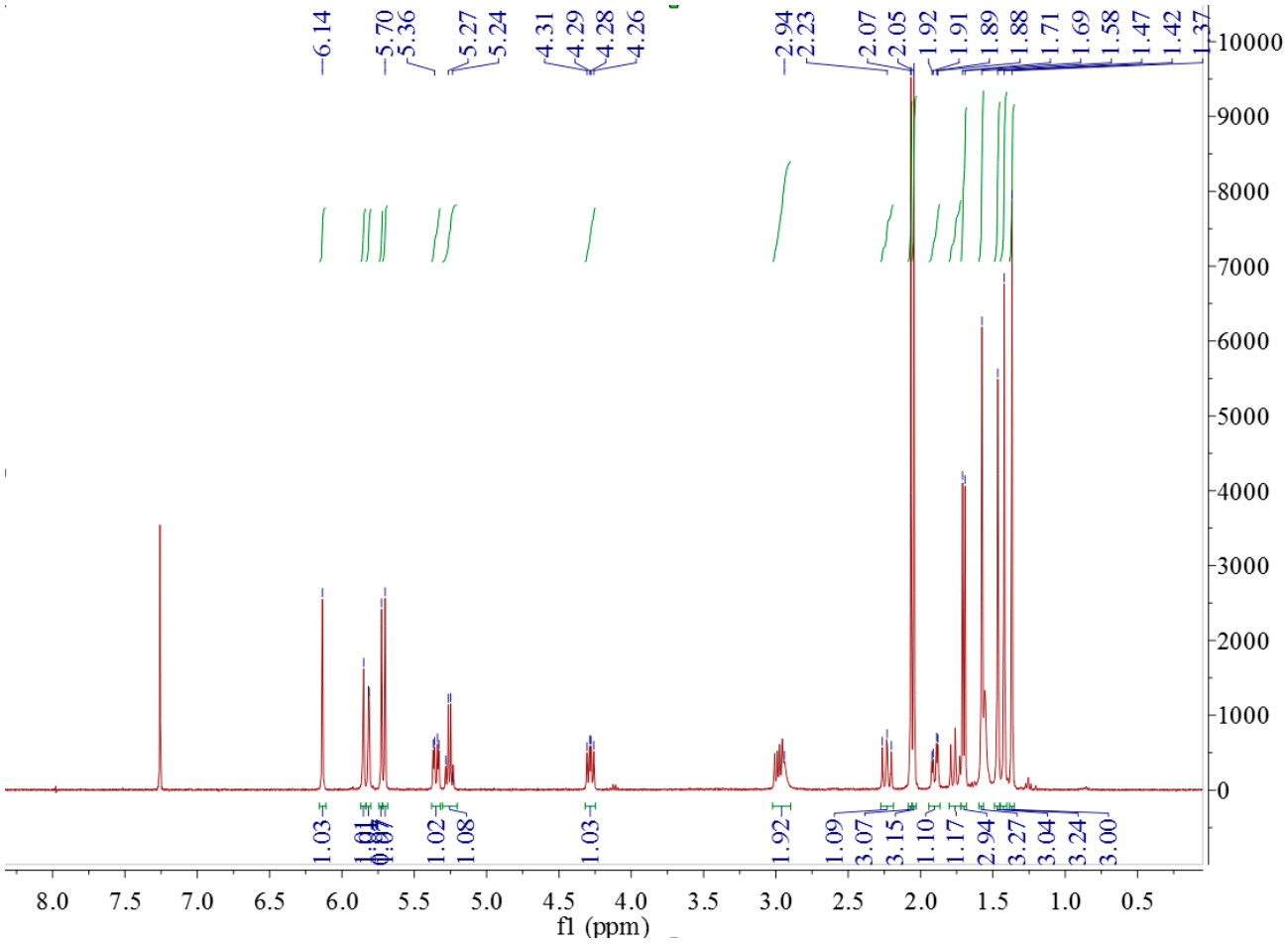
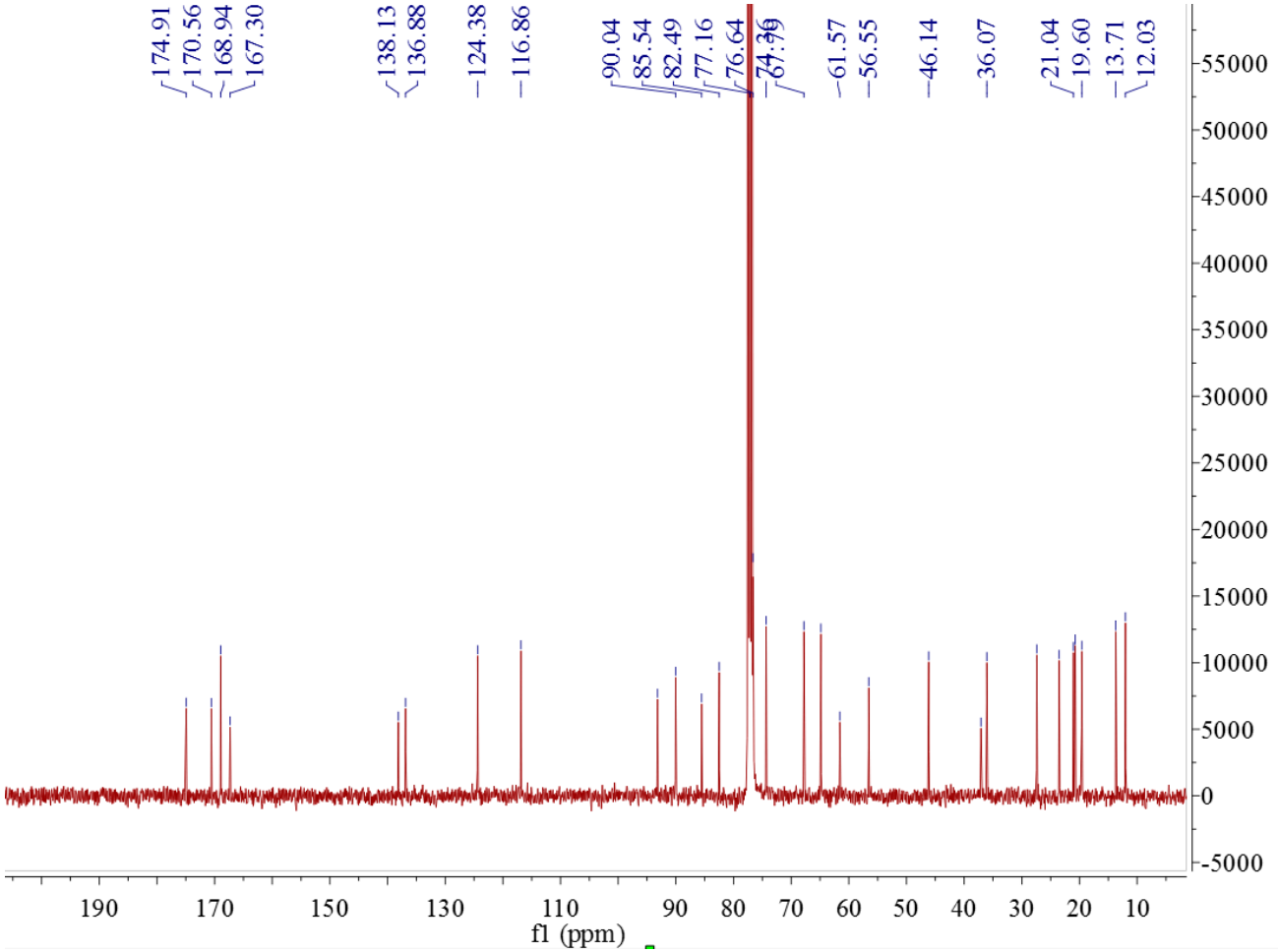
List of Supporting Information

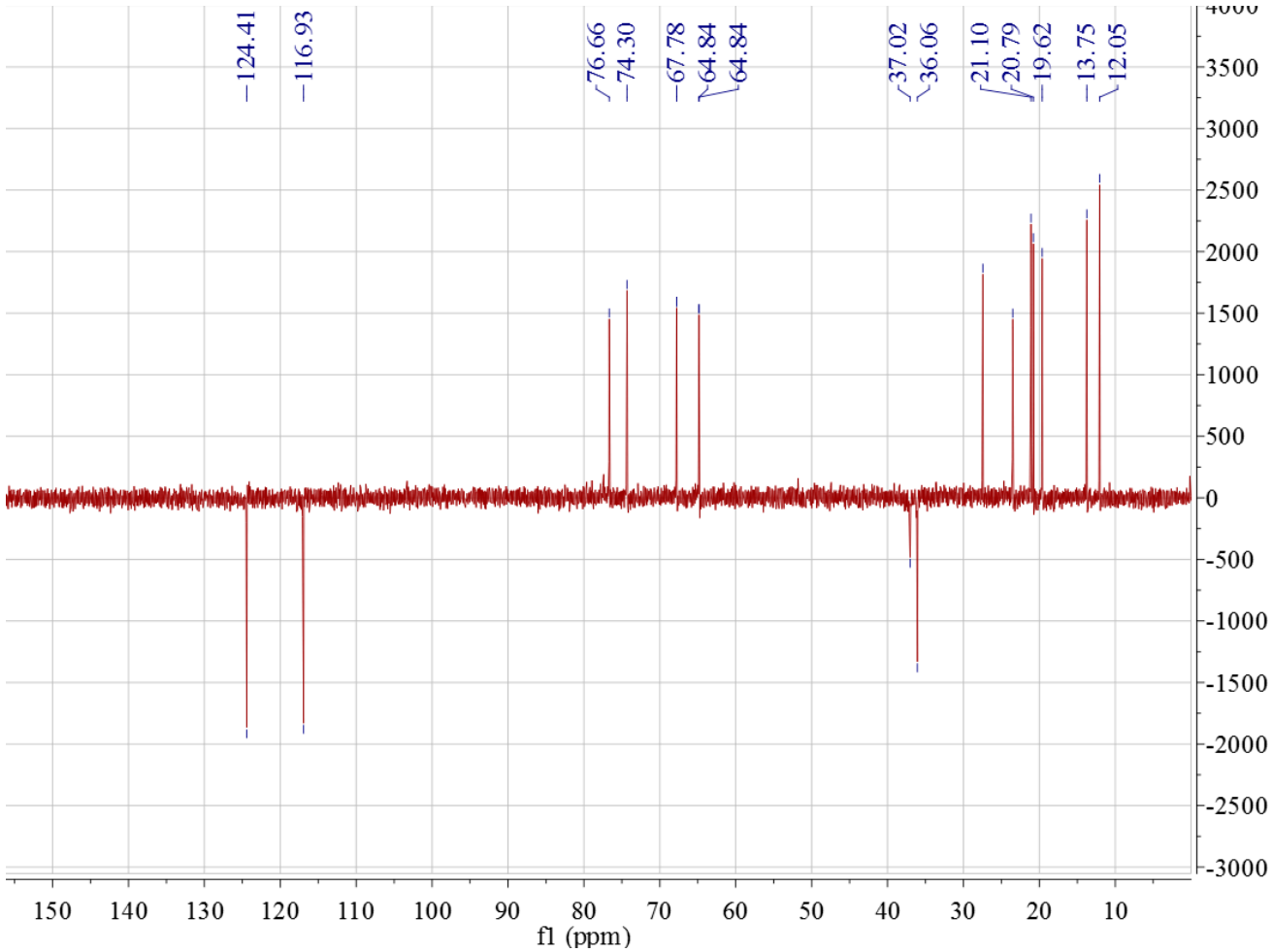
The ^{1}H-NMR (400 MHz) spectrum of Compound 1 in $CDCl_3$



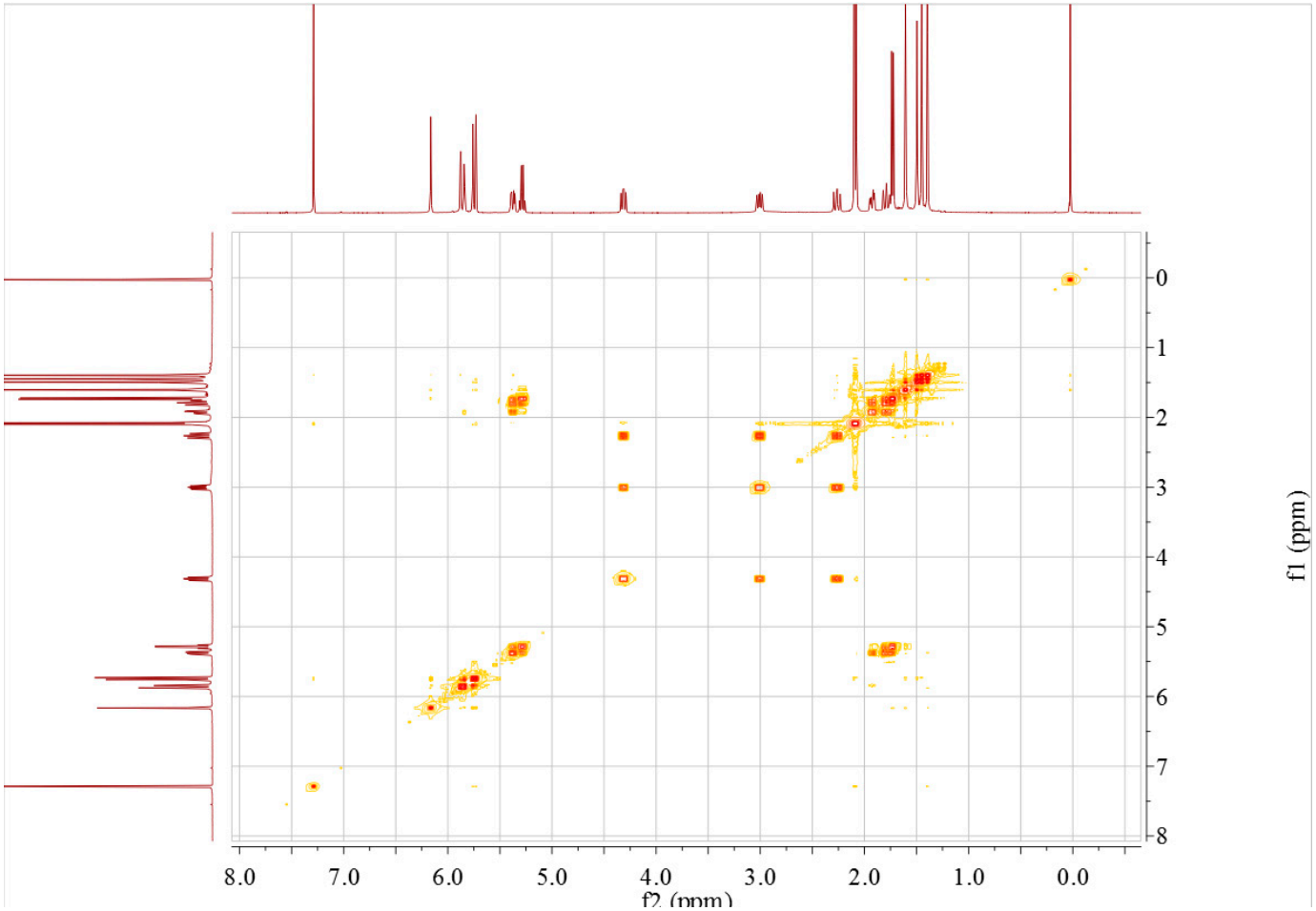
The ^{13}C-NMR (400 MHz) spectrum of Compound 1 in $CDCl_3$



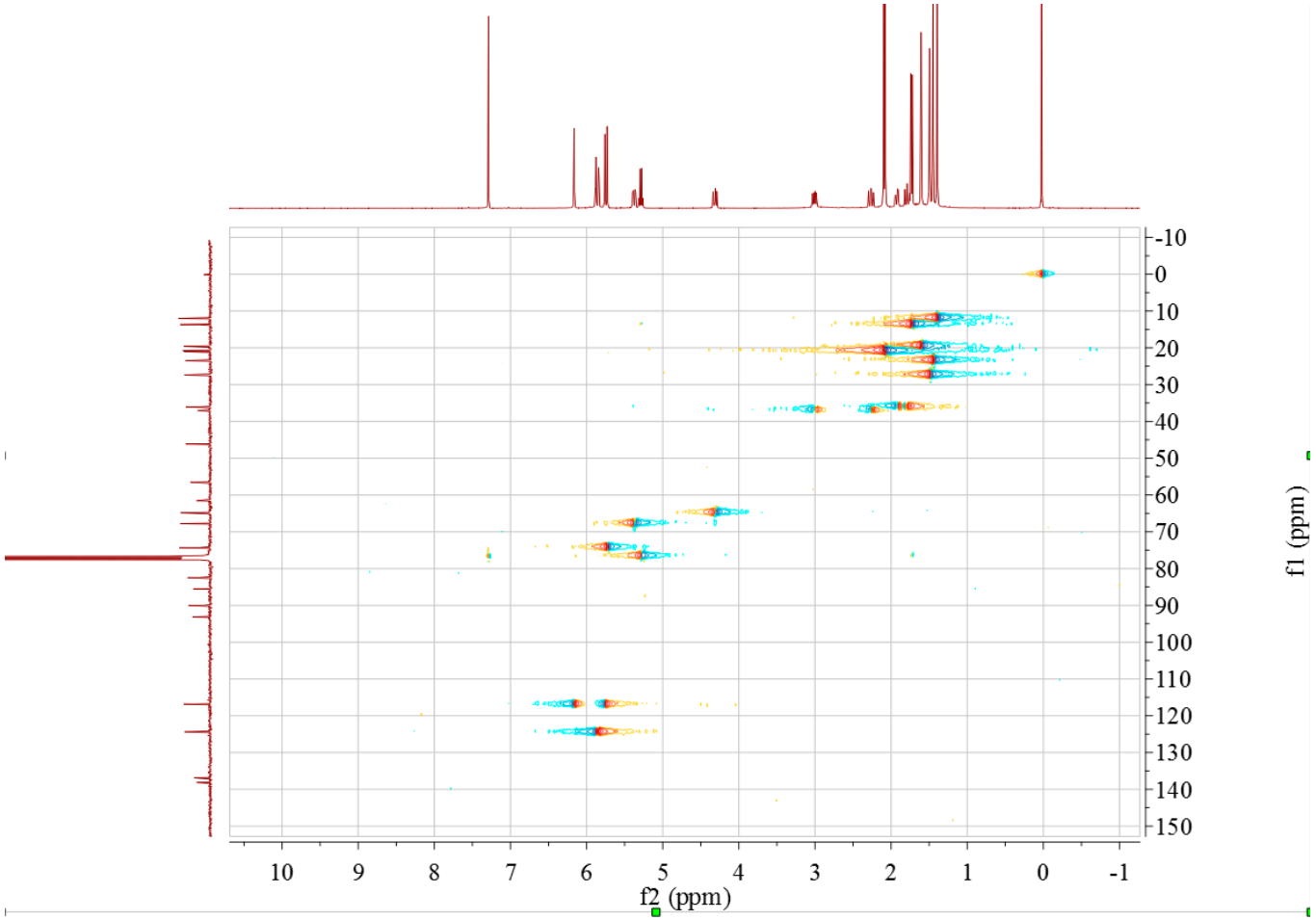
The DEPT-135 (400 MHz) spectrum of Compound 1 in $CDCl_3$



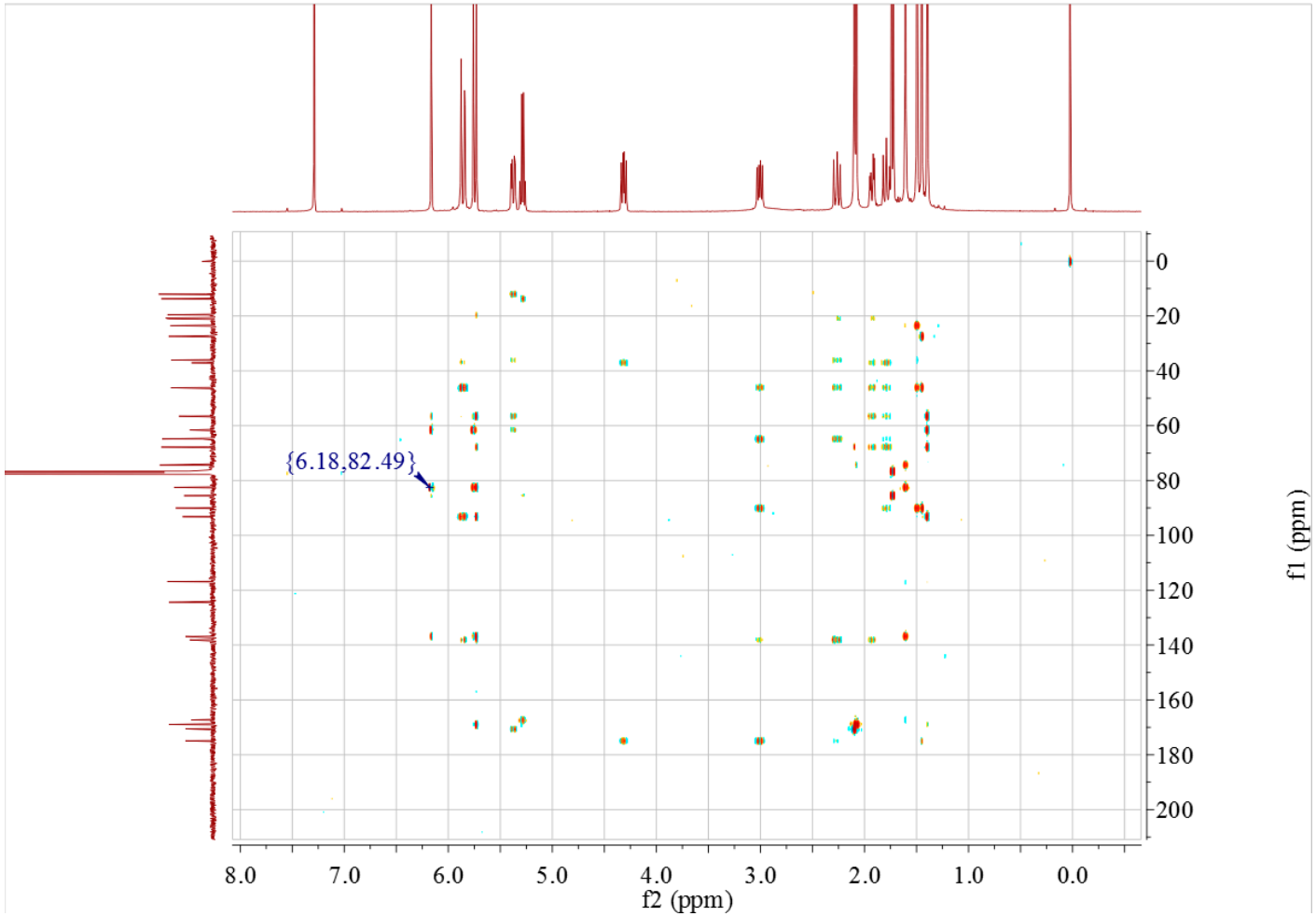
The ^{1}H-^{1}HCOSY (400 MHz) spectrum of Compound 1 in $CDCl_3$



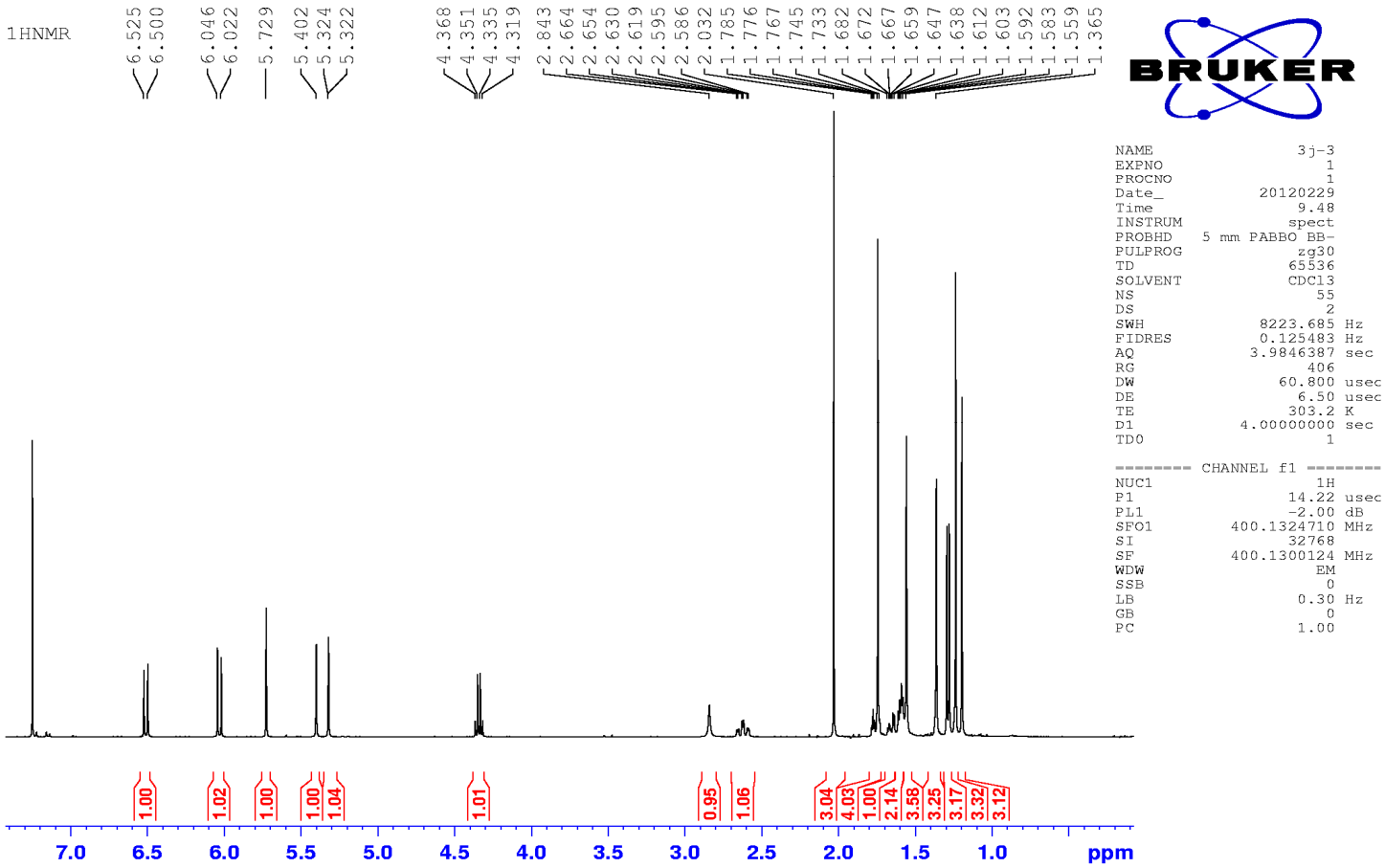
The HSQC (400 MHz) spectrum of Compound 1 in $CDCl_3$



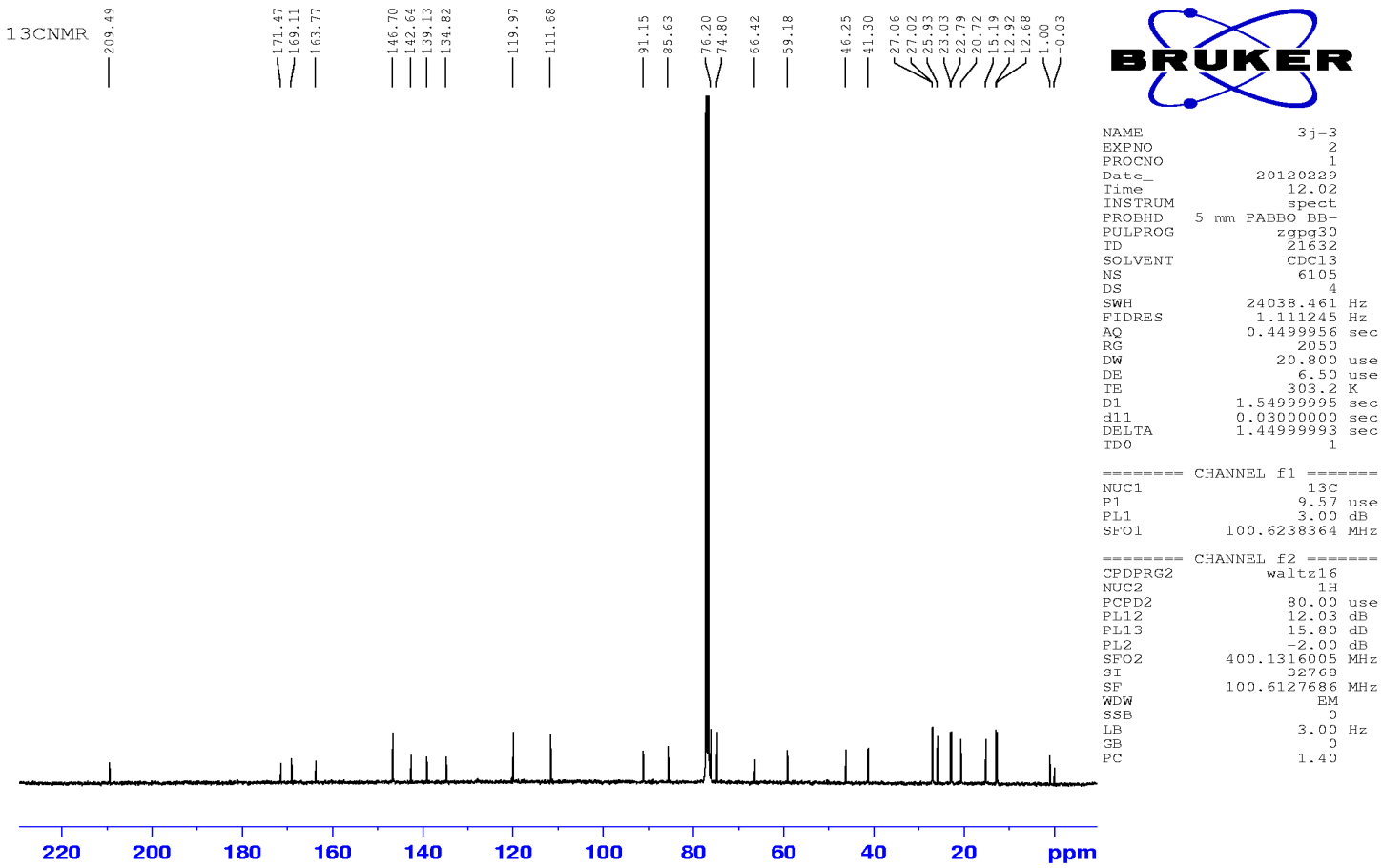
The HMBC (400 MHz) spectrum of Compound 1 in $CDCl_3$



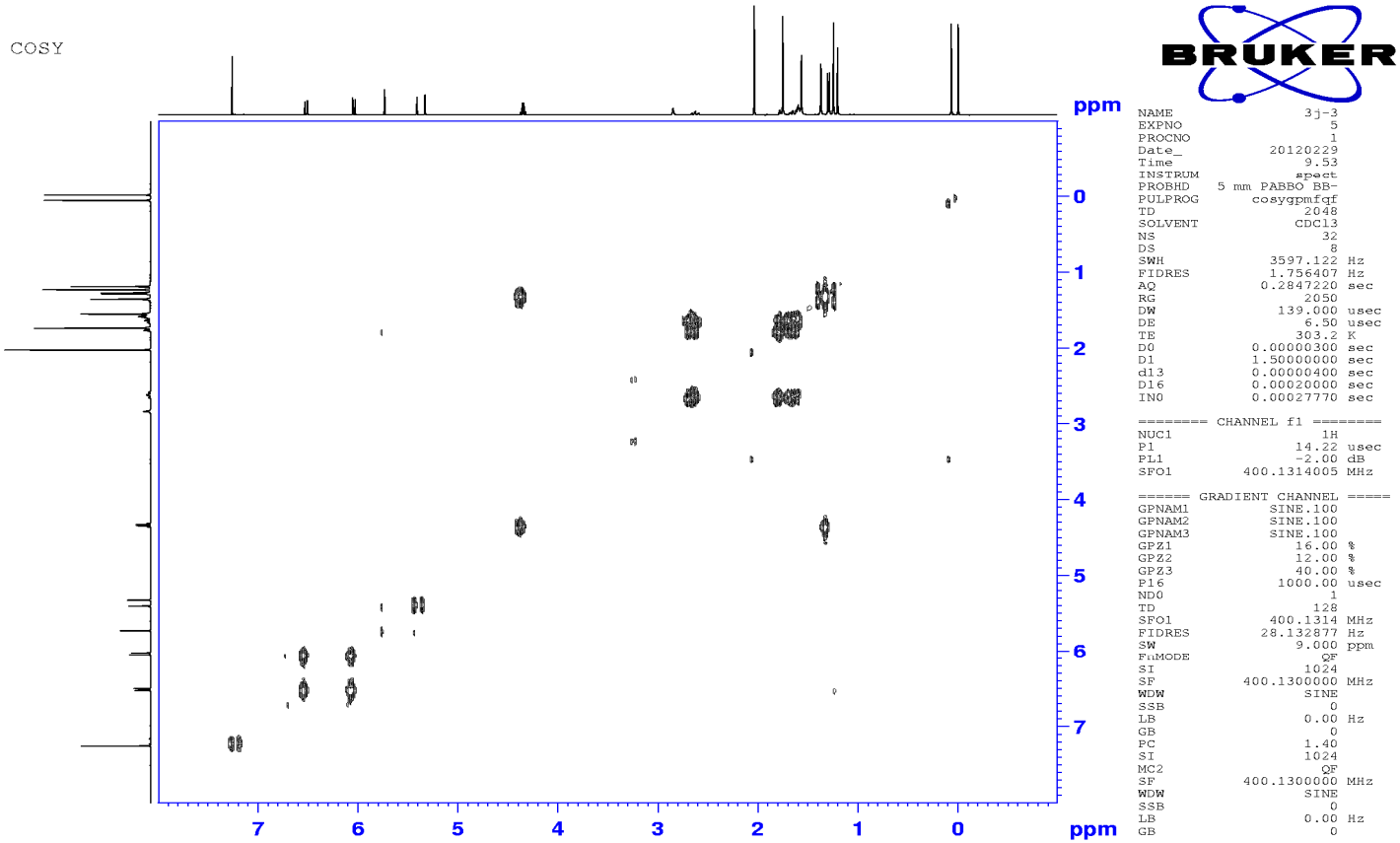
The ^{1}H-NMR (400 MHz) spectrum of Compound 2 in $CDCl_3$



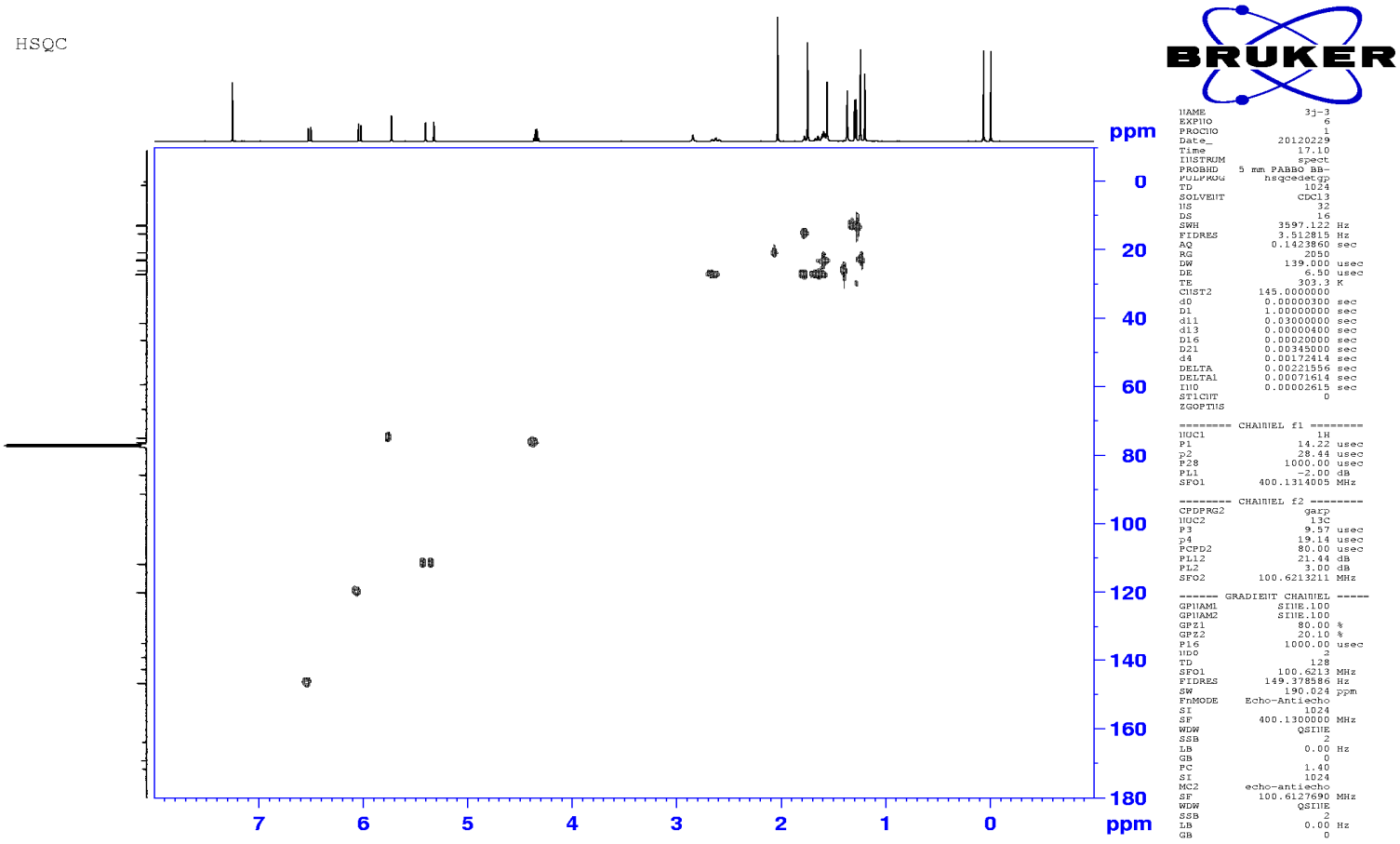
The ^{13}C-NMR (400 MHz) spectrum of Compound 2 in $CDCl_3$



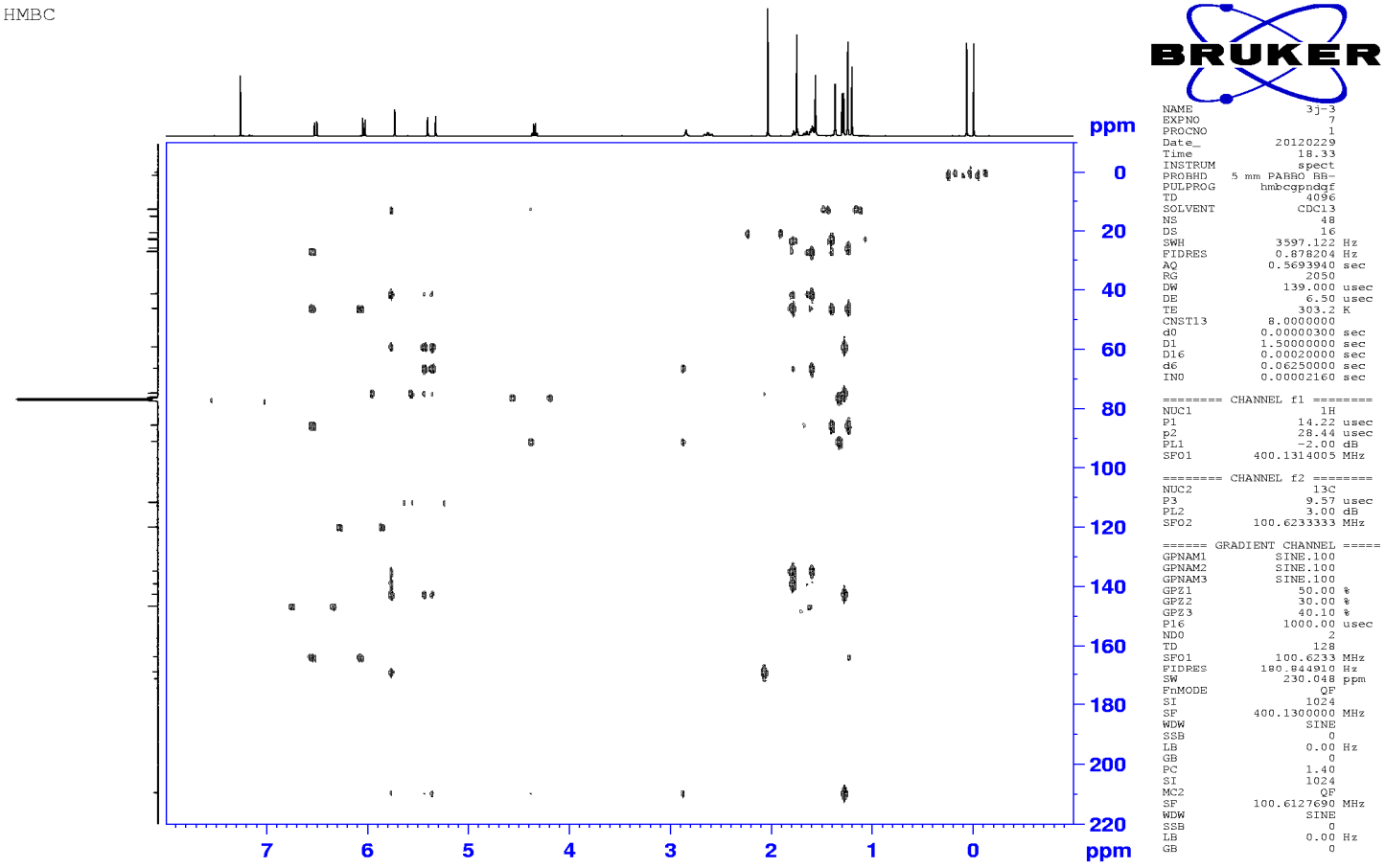
The ^{1}H-^{1}H COSY (400 MHz) spectrum of Compound 2 in $CDCl_3$



The HSQC (400 MHz) spectrum of Compound 2 in $CDCl_3$



The HMBC (400 MHz) spectrum of Compound 2 in $CDCl_3$

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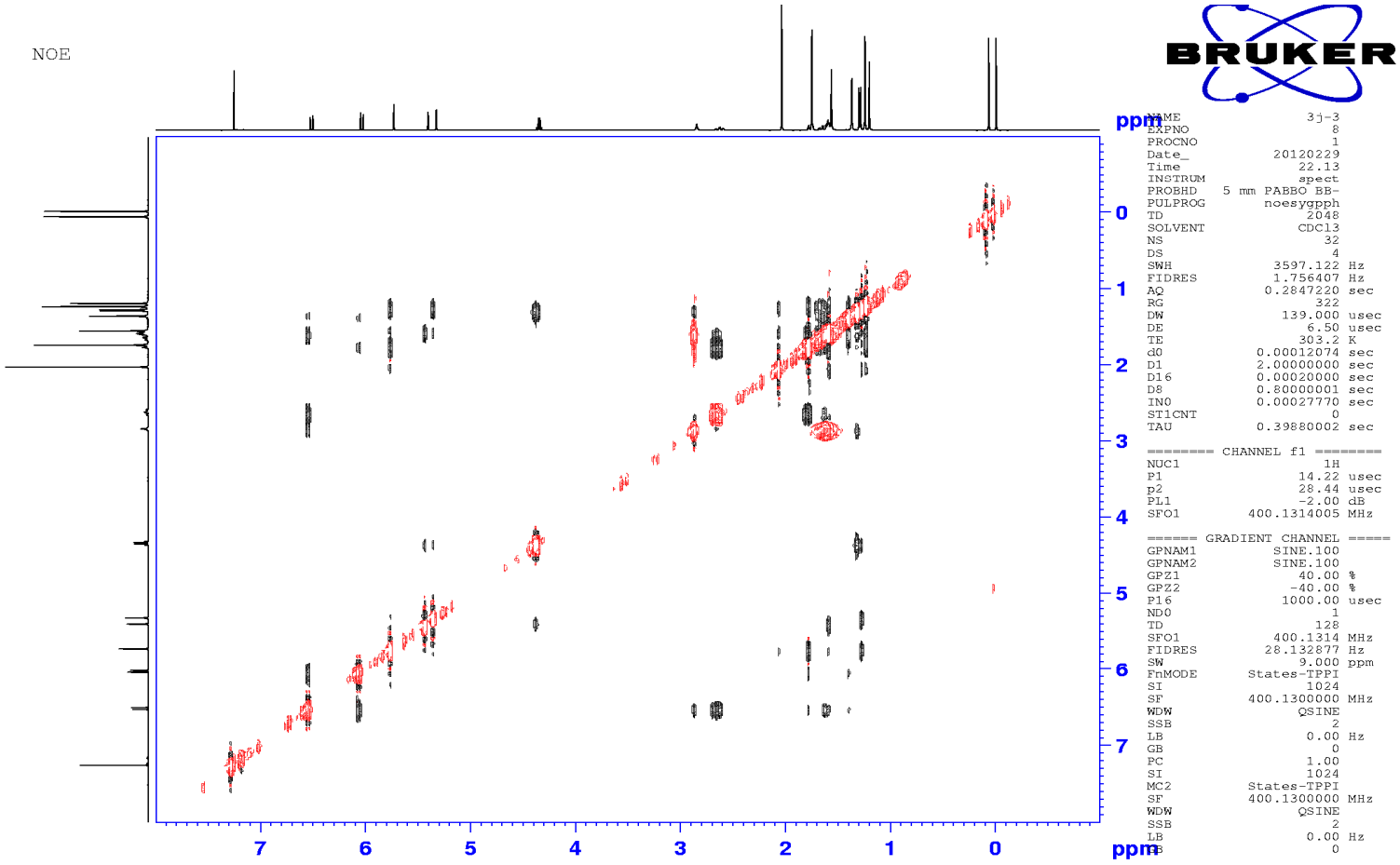
PULPROG      hmbcgpndqf
TD                    4096
SOLVENT             CDCl3
NS                      48
DS                      16
SWH               3597.122 Hz
FIDRES            0.878204 Hz
AQ                0.5693940 sec
RG                    2050
DW                 139.000 usec
DE                   6.50 usec
TE                  303.2 K
CNST13           8.0000000
d0               0.00000300 sec
D1               1.50000000 sec
D16              0.00020000 sec
d6               0.06250000 sec
IN0              0.00002160 sec

======== CHANNEL f1 ========
NUC1                    1H
P1                   14.22 usec
p2                   28.44 usec
PL1                  -2.00 dB
SFO1          400.1314005 MHz

======== CHANNEL f2 ========
NUC2                   13C
P3                    9.57 usec
PL2                   3.00 dB
SFO2          100.6233333 MHz

====== GRADIENT CHANNEL =====
GPNAM1             SINE.100
GPNAM2             SINE.100
GPNAM3             SINE.100
GPZ1                 50.00 %
GPZ2                 30.00 %
GPZ3                 40.10 %
P16                1000.00 usec
ND0                      2
TD                     128
SFO1            100.6233 MHz
FIDRES          180.844910 Hz
SW                230.048 ppm
FnMODE                  QF
SI                    1024
SF            400.1300000 MHz
WDW                  SINE
SSB                     0
LB                   0.00 Hz
GB                      0
PC                   1.40
SI                    1024
MC2                     QF
SF            100.6127690 MHz
WDW                  SINE
SSB                     0
LB                   0.00 Hz
GB                      0
```

The NOE (400 MHz) spectrum of Compound 2 in $CDCl_3$



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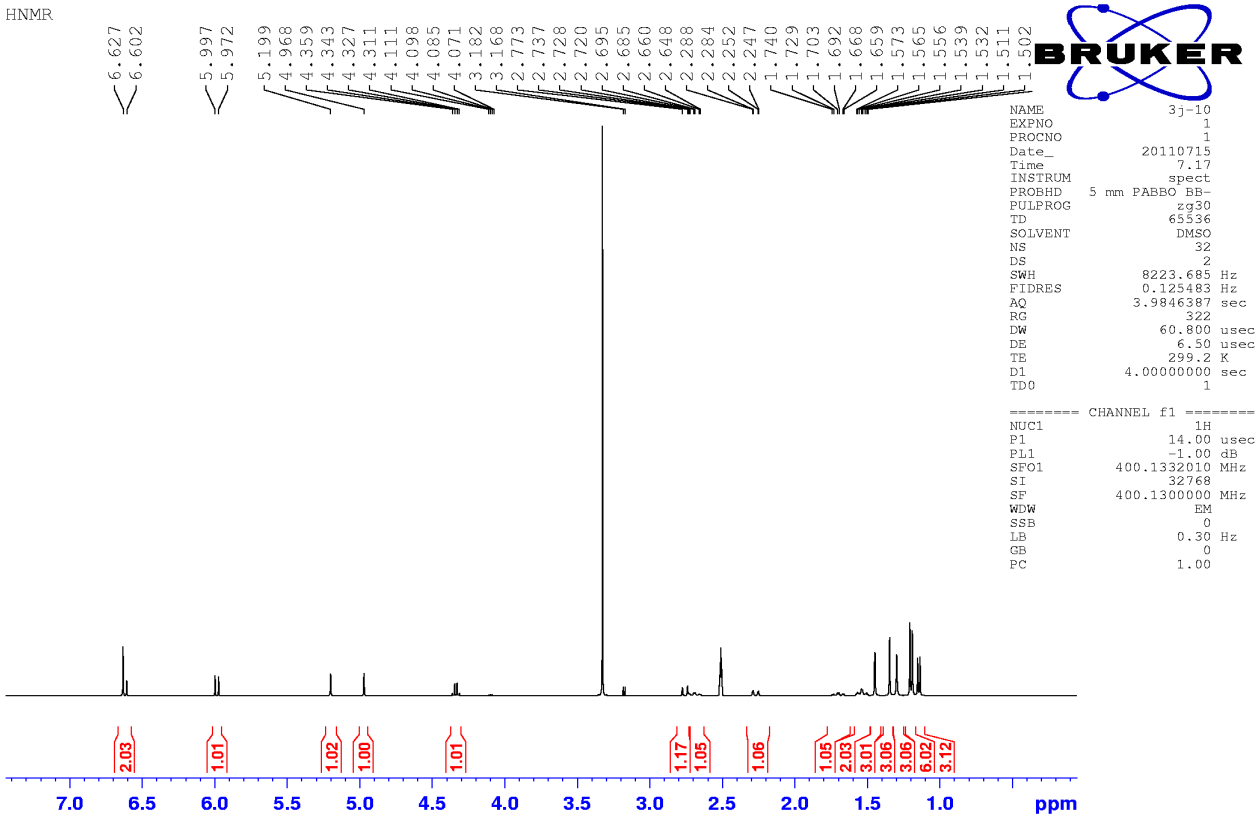
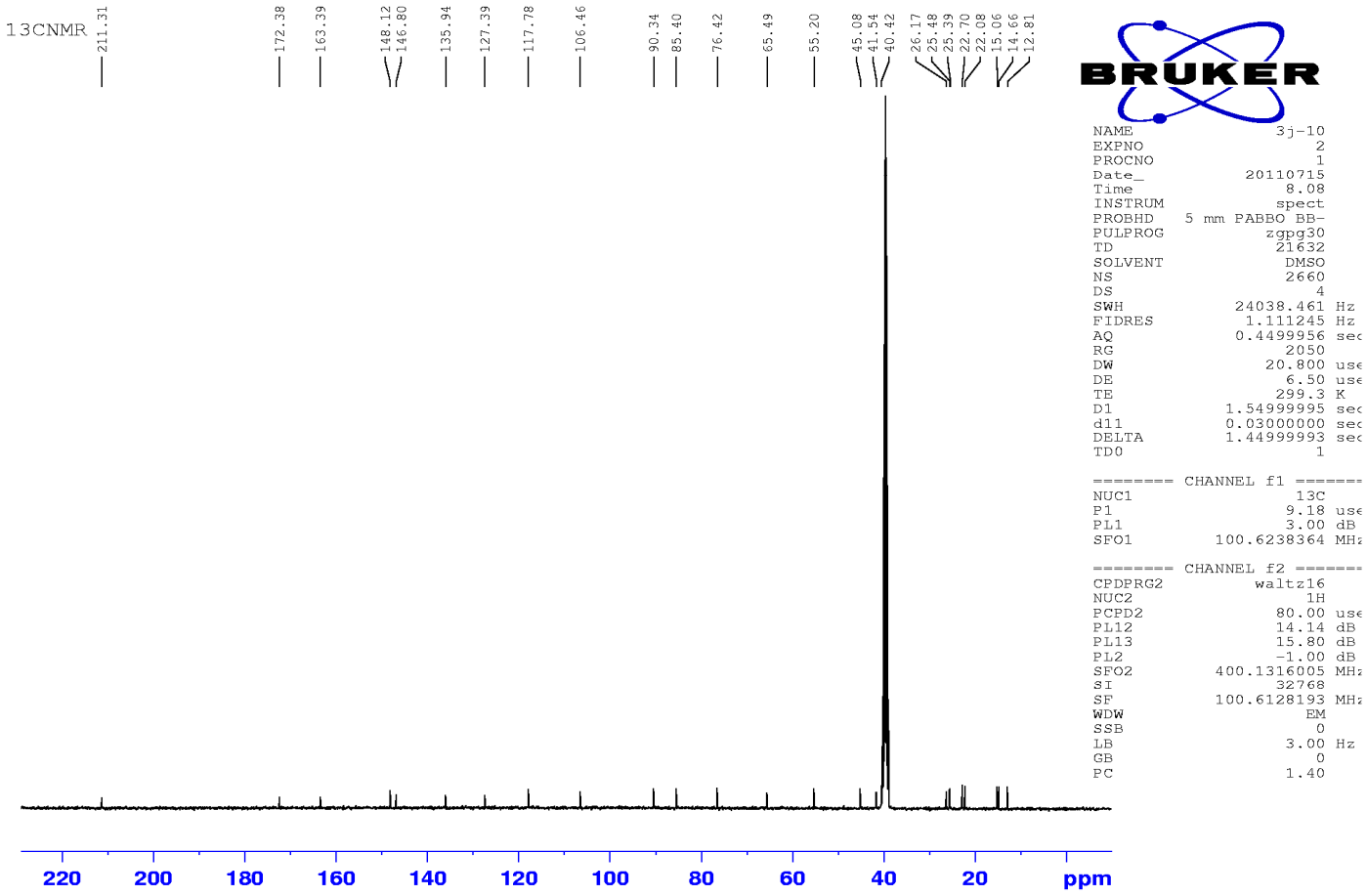
TD	2048
SOLVENT	CDCl3
NS	32
DS	4
SWH	3597.122 Hz
FIDRES	1.756407 Hz
AQ	0.2847220 sec
RG	322
DW	139.000 usec
DE	6.50 usec
TE	303.2 K
d0	0.00012074 sec
D1	2.00000000 sec
D16	0.00020000 sec
D8	0.80000001 sec
IN0	0.00027770 sec
ST1CNT	0
TAU	0.39880002 sec
======== CHANNEL f1 ========	
NUC1	1H
P1	14.22 usec
p2	28.44 usec
PL1	-2.00 dB
SFO1	400.1314005 MHz
====== GRADIENT CHANNEL =====	
GPNAM1	SINE.100
GPNAM2	SINE.100
GPZ1	40.00 %
GPZ2	-40.00 %
P16	1000.00 usec
ND0	1
TD	128
SFO1	400.1314 MHz
FIDRES	28.132877 Hz
SW	9.000 ppm
FnMODE	States-TPPI
SI	1024
SF	400.1300000 MHz
WDW	QSINE
SSB	2
LB	0.00 Hz
GB	0
PC	1.00
SI	1024
MC2	States-TPPI
SF	400.1300000 MHz
WDW	QSINE
SSB	2
LB	0.00 Hz
GB	0

The ^{1}H-NMR (400 MHz) spectrum of Compound 3 in $CDCl_3$



The ^{13}C-NMR (400 MHz) spectrum of Compound 3 in $CDCl_3$



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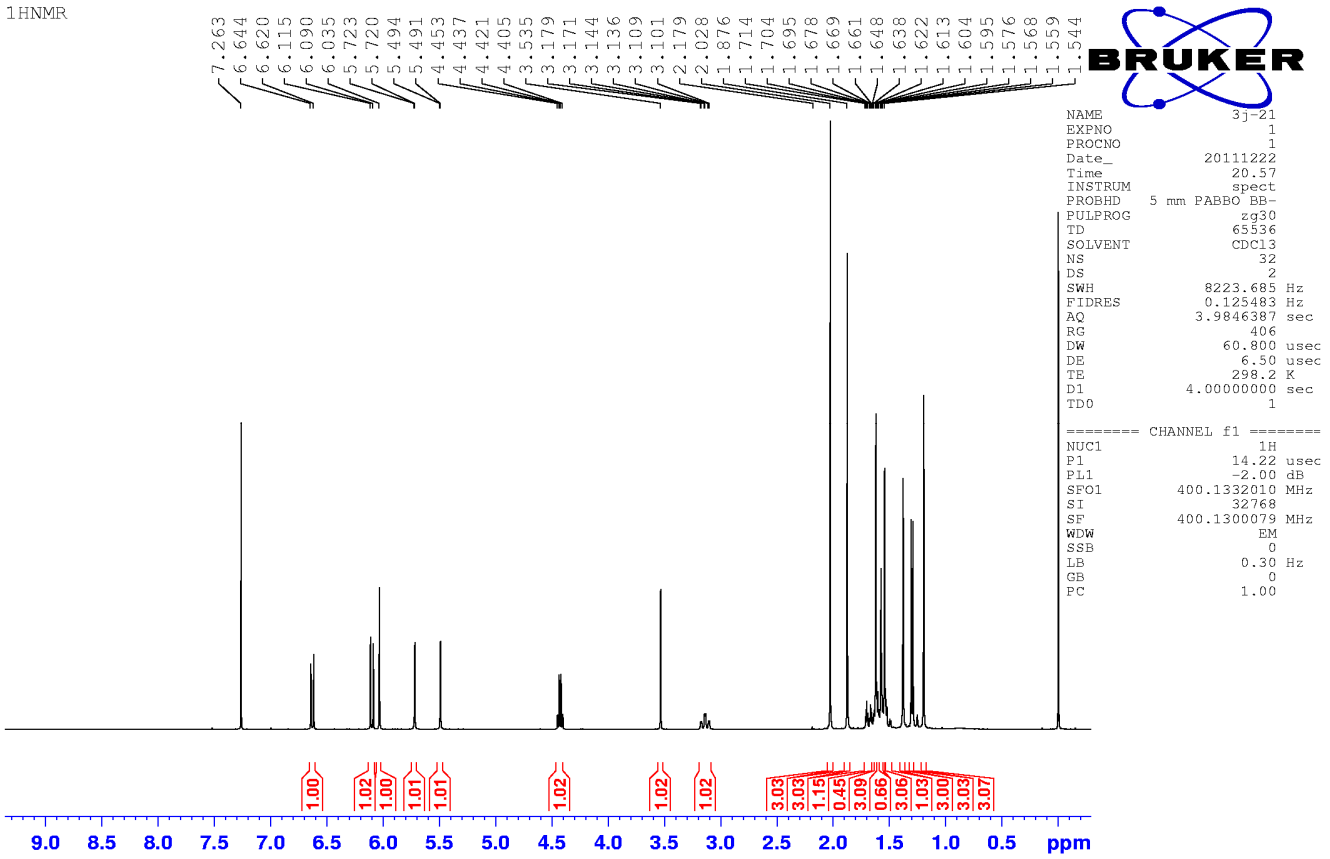
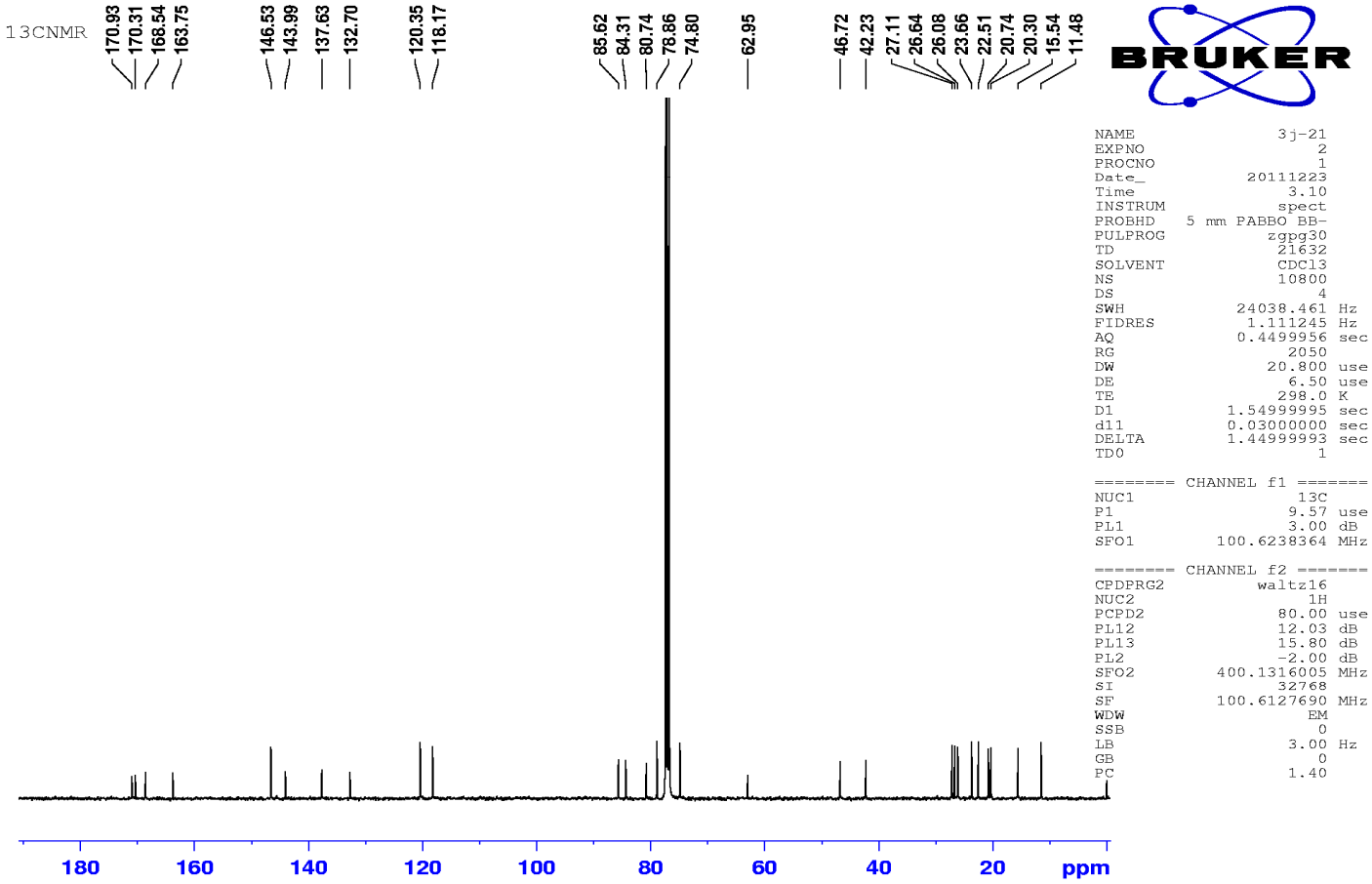
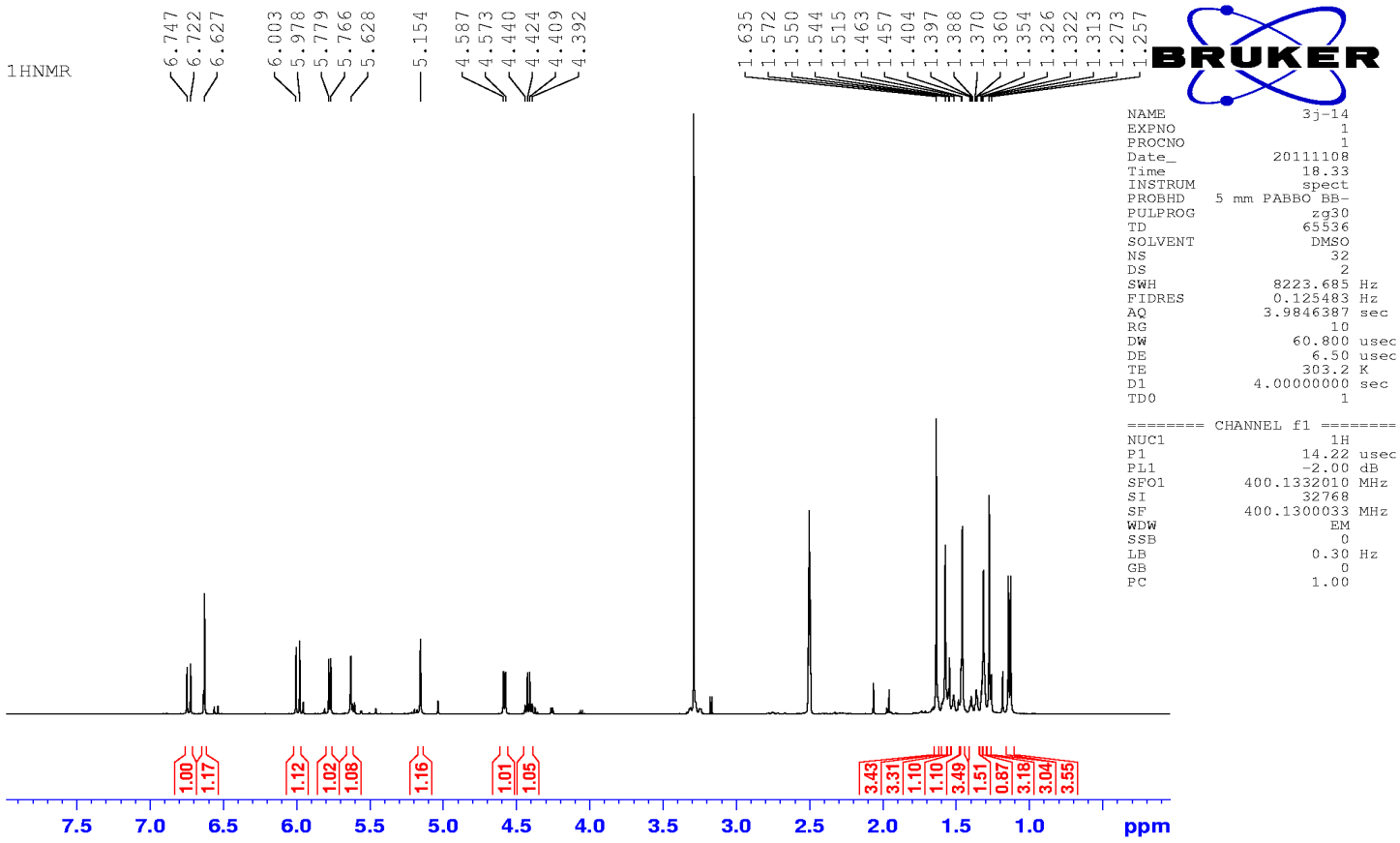


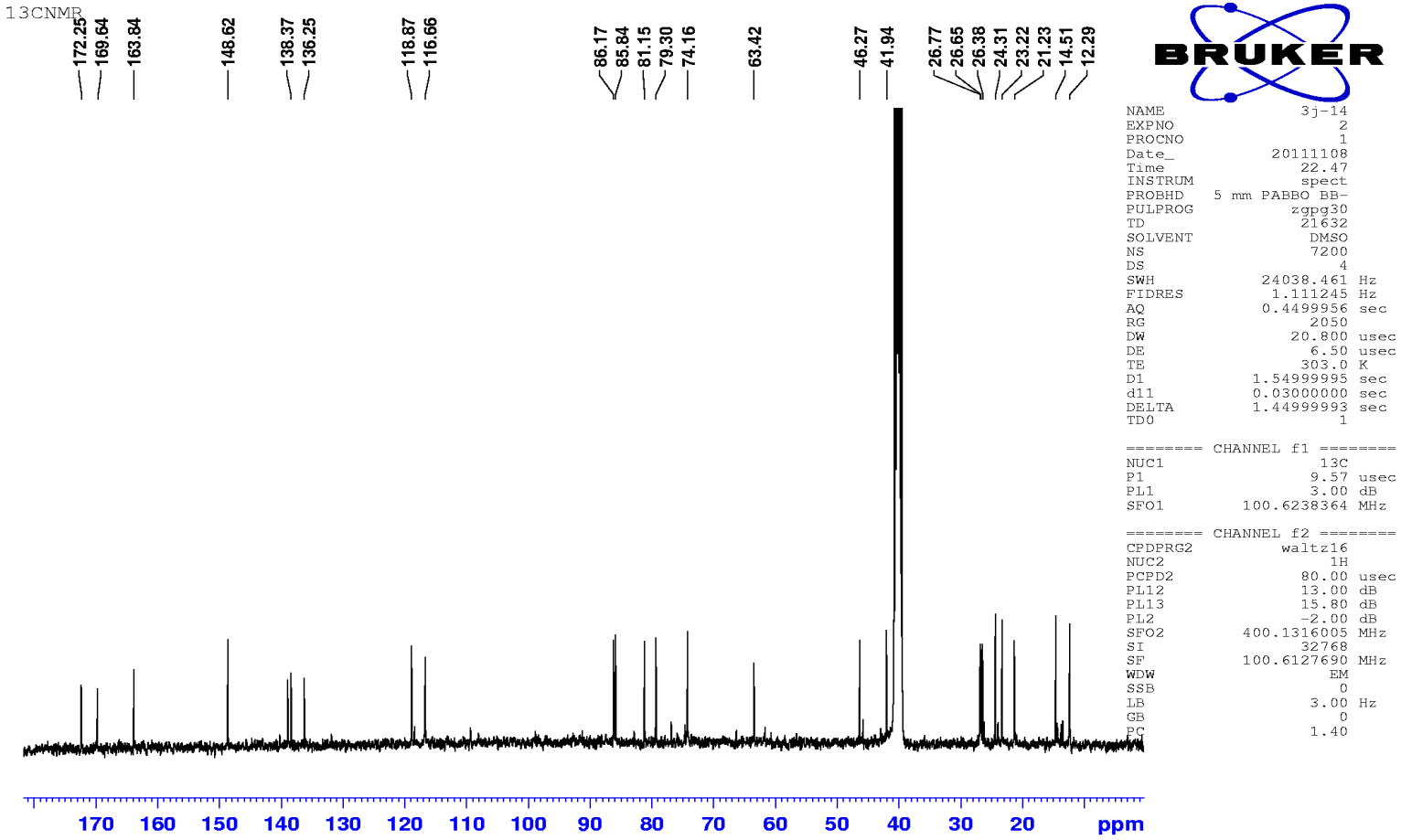
The ^{13}C-NMR (400 MHz) spectrum of Compound 4 in $CDCl_3$



The ^{1}H-NMR (400 MHz) spectrum of Compound 5 in DMSO



The ^{13}C-NMR (400 MHz) spectrum of Compound 5 in DMSO



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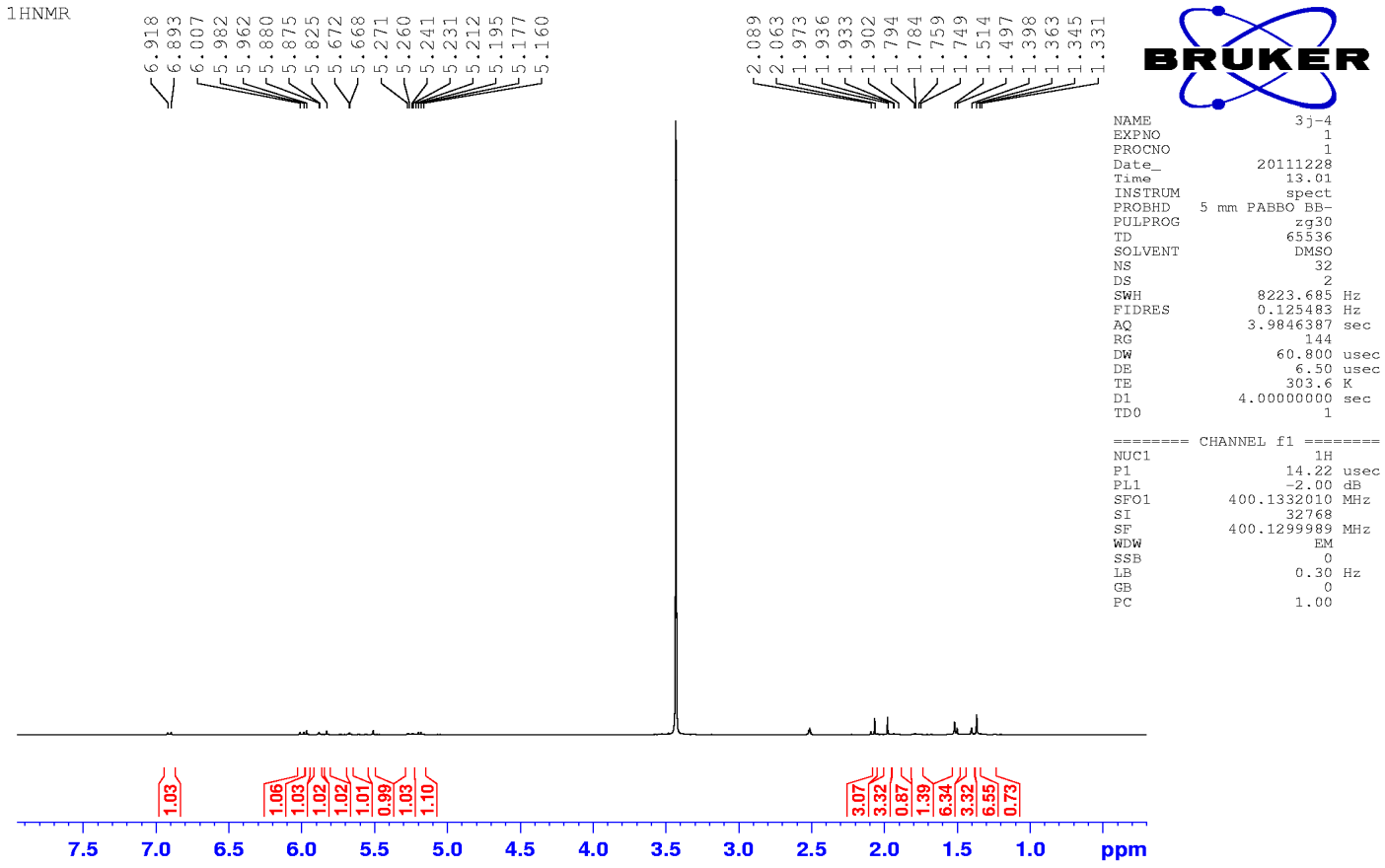
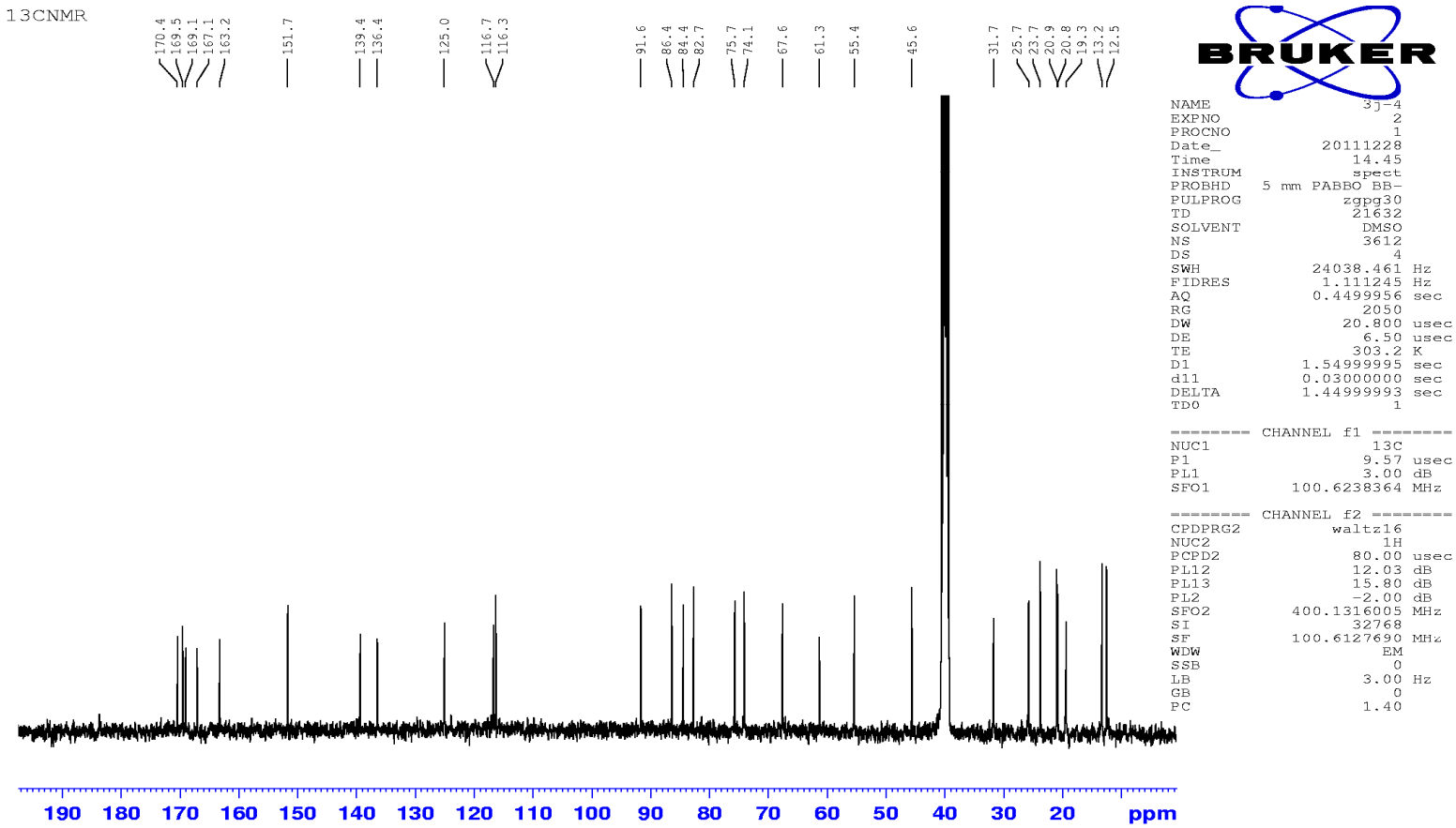
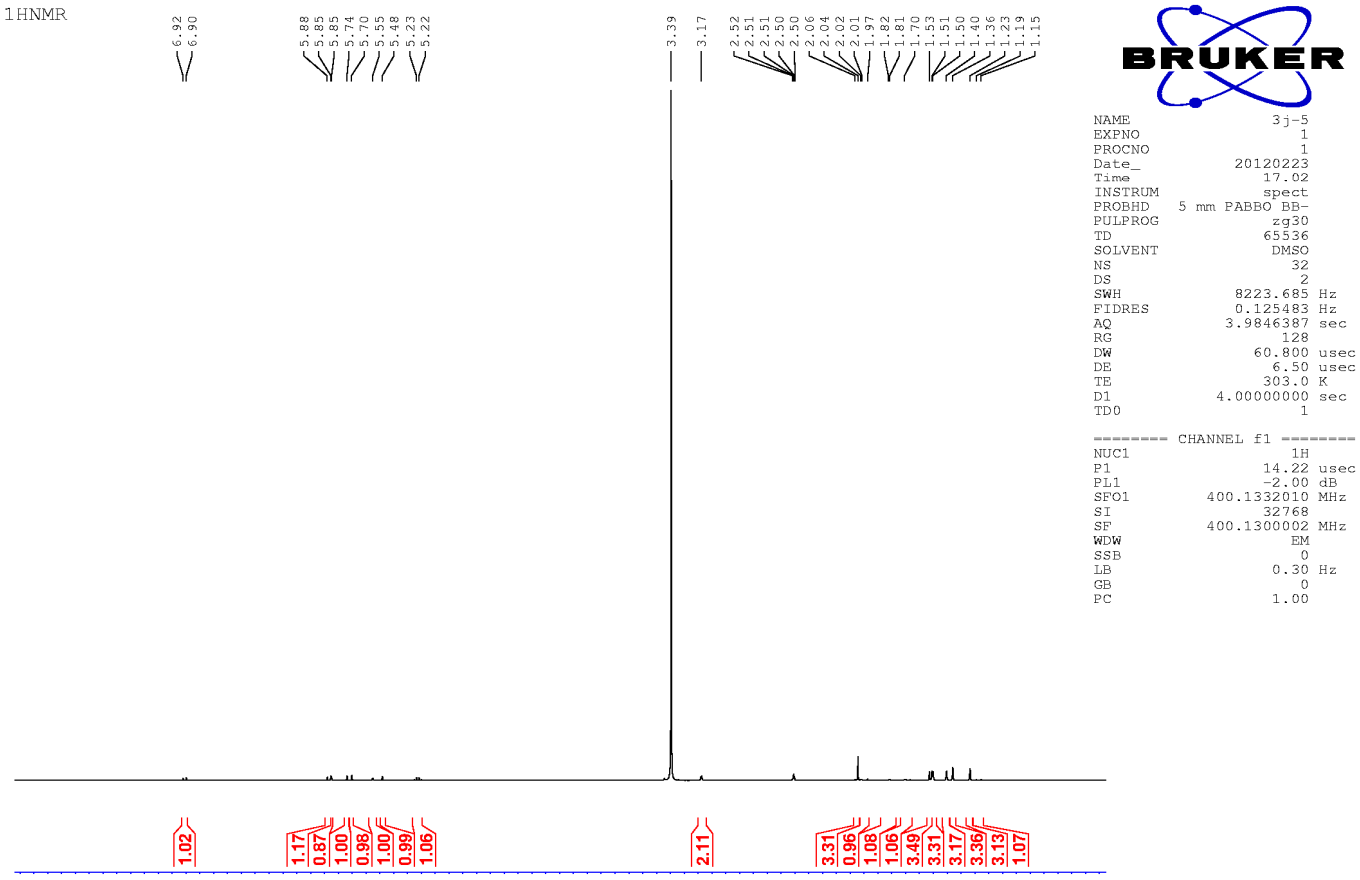


The ^{13}C NMR (400 MHz) spectrum of Compound 6 in DMSO



The ^{1}H-NMR (400 MHz) spectrum of Compound 7 in DMSO



BRUKER

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PROCNO	1
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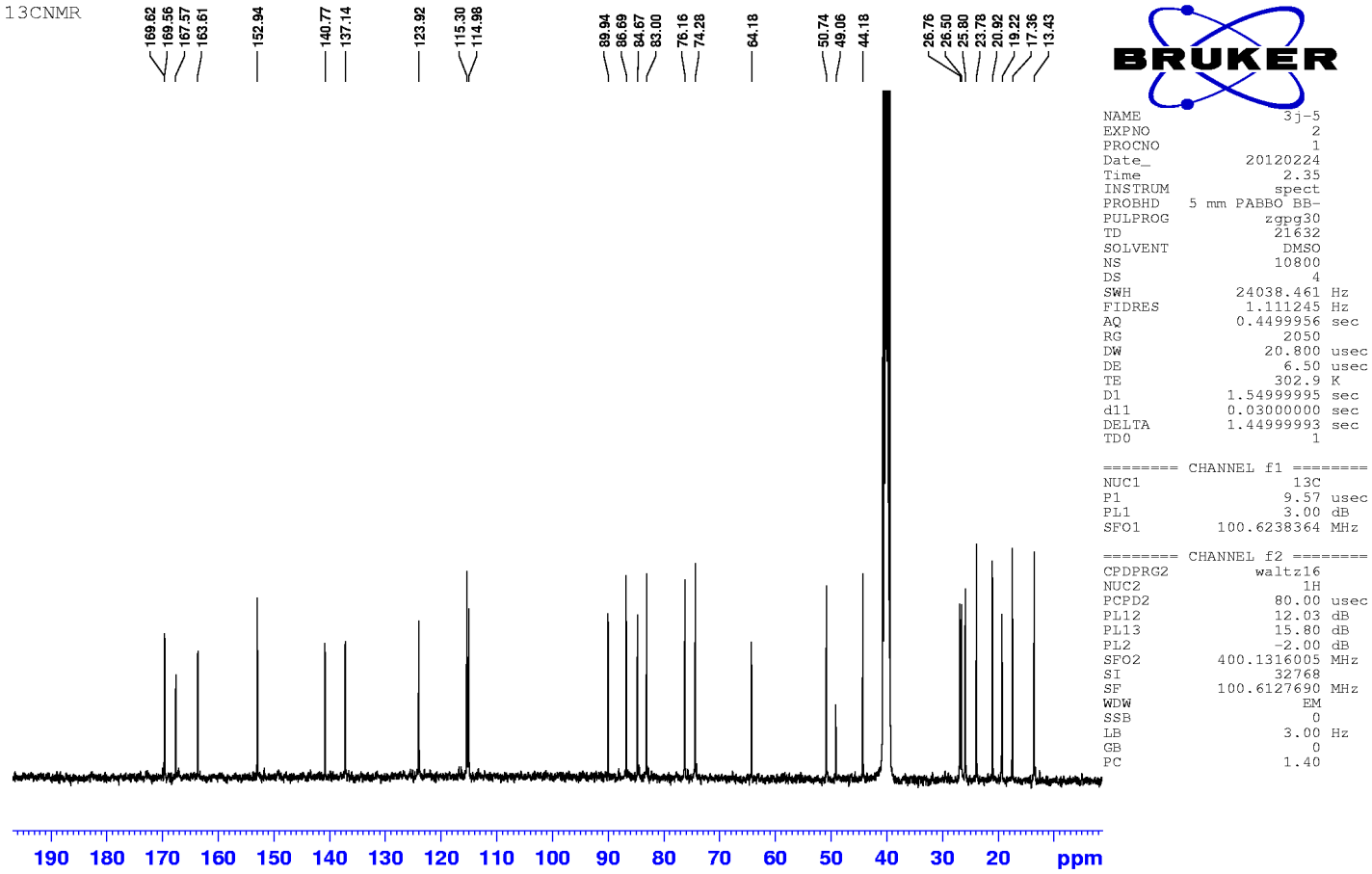
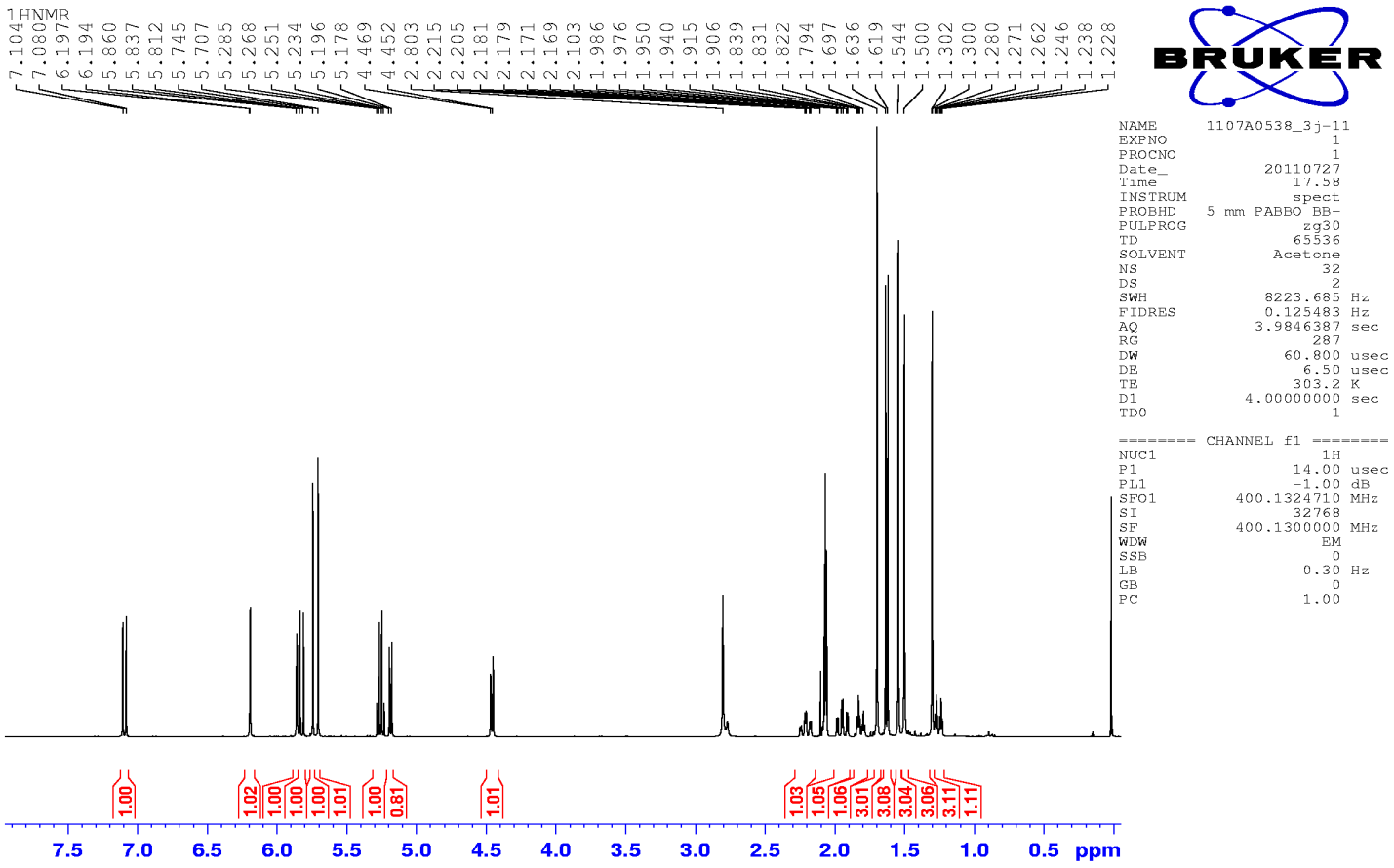
PULPROG	zg30
TD	65536
SOLVENT	DMSO
NS	32
DS	2
SWH	8223.685 Hz
FIDRES	0.125483 Hz
AQ	3.9846387 sec
RG	128
DW	60.800 usec
DE	6.50 usec
TE	303.0 K
D1	4.00000000 sec
TD0	1
======== CHANNEL f1 ========	
NUC1	1H
P1	14.22 usec
PL1	-2.00 dB
SFO1	400.1332010 MHz
SI	32768
SF	400.1300002 MHz
WDW	EM
SSB	0
LB	0.30 Hz
GB	0
PC	1.00

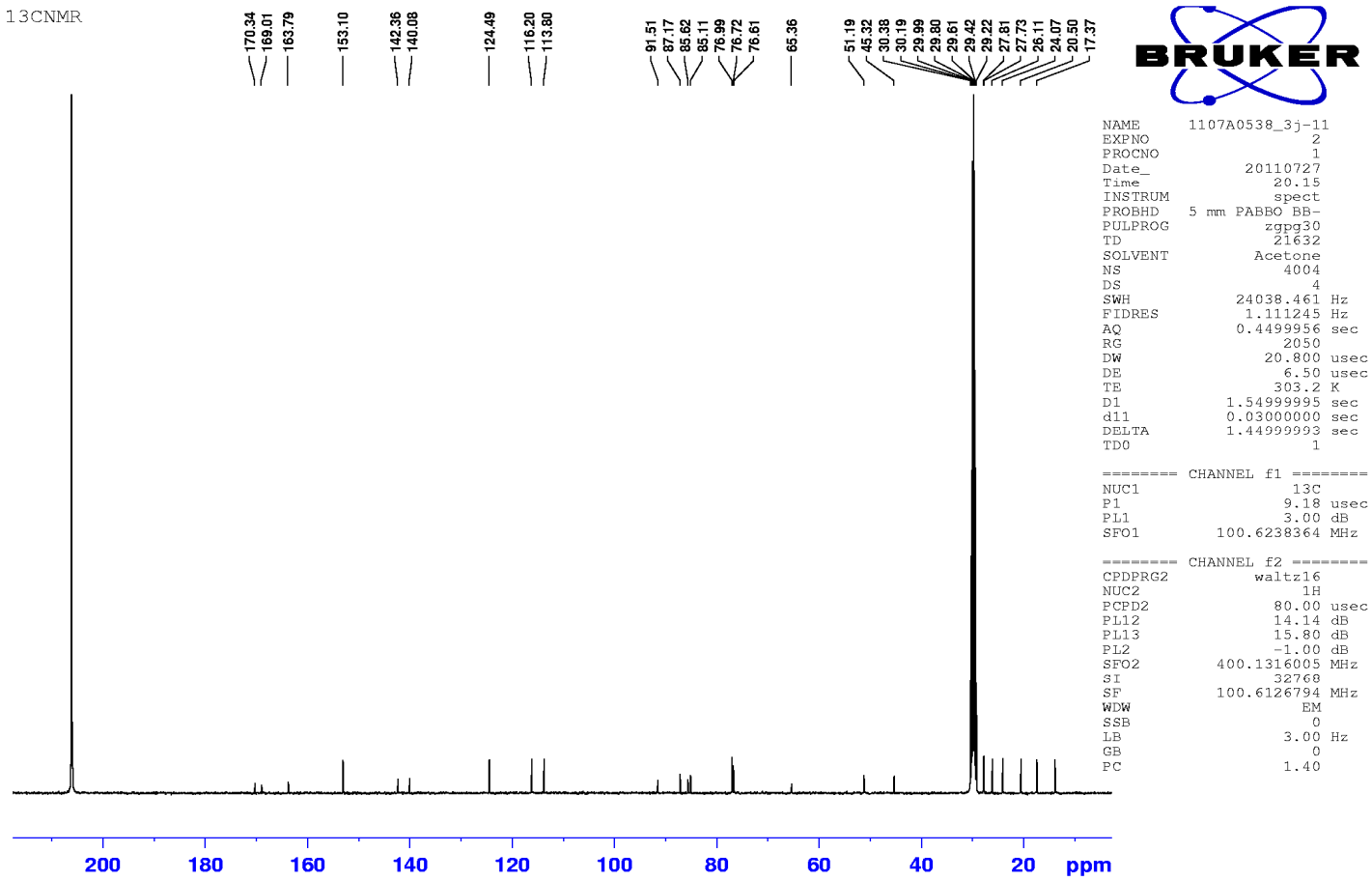
The ^{13}C-NMR (400 MHz) spectrum of Compound 7 in DMSO



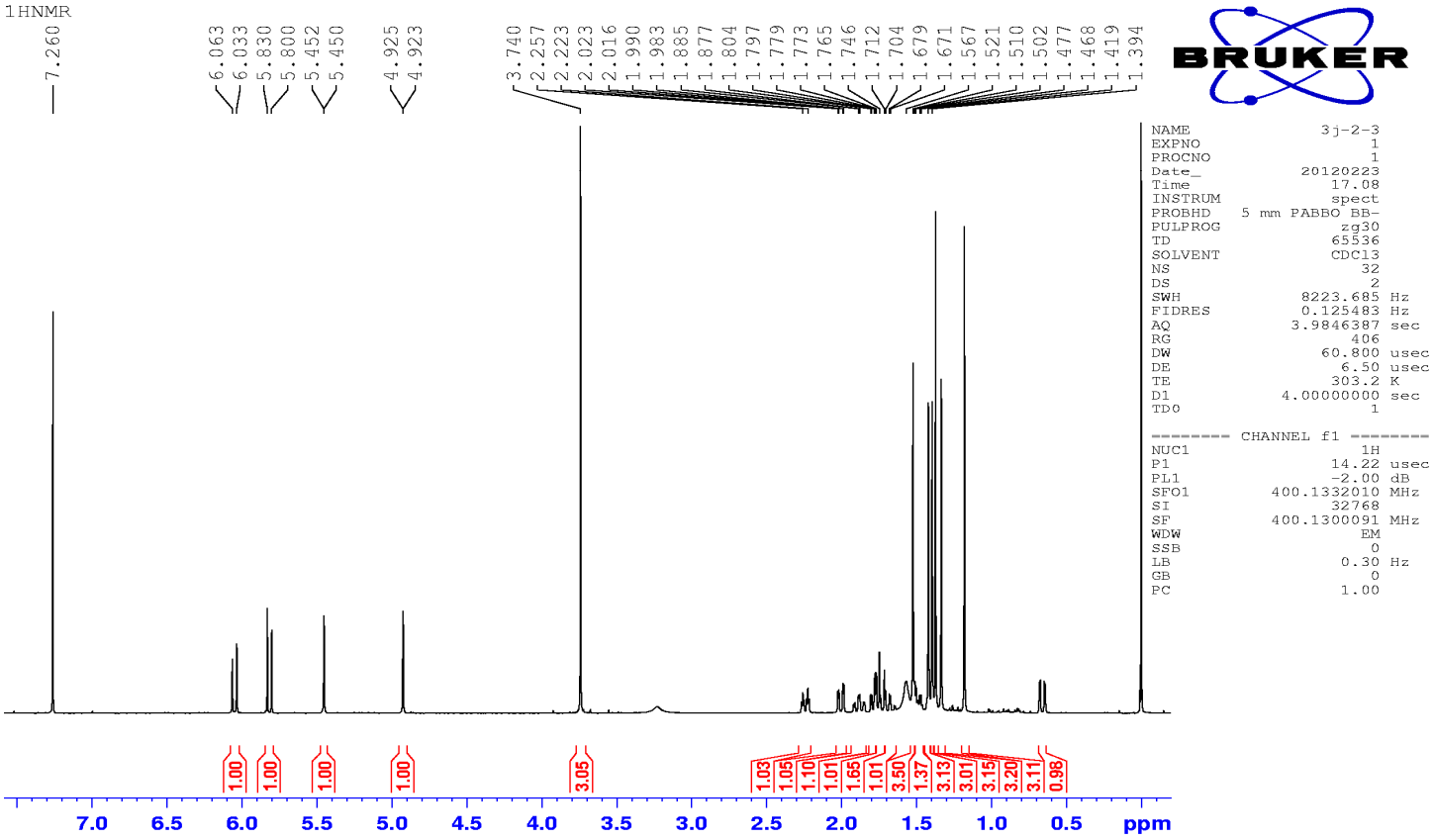
The ^{1}H-NMR (400 MHz) spectrum of Compound 8 in Acetone-d_6



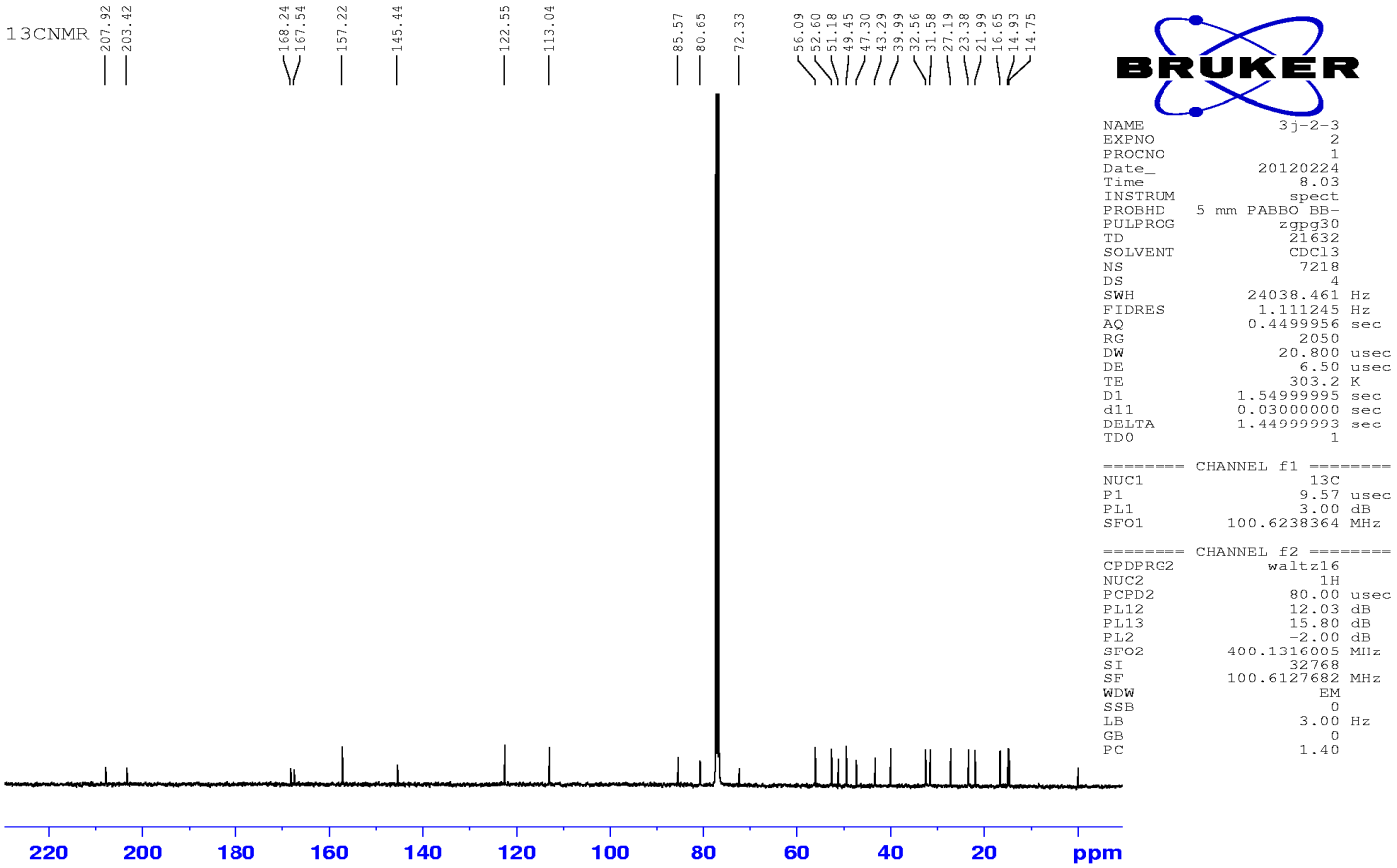
The ^{13}C-NMR (400 MHz) spectrum of Compound 8 in Acetone-d_6



The ^{1}H-NMR (400 MHz) spectrum of Compound 9 in $CDCl_3$



The ^{13}C-NMR (400 MHz) spectrum of Compound 9 in $CDCl_3$



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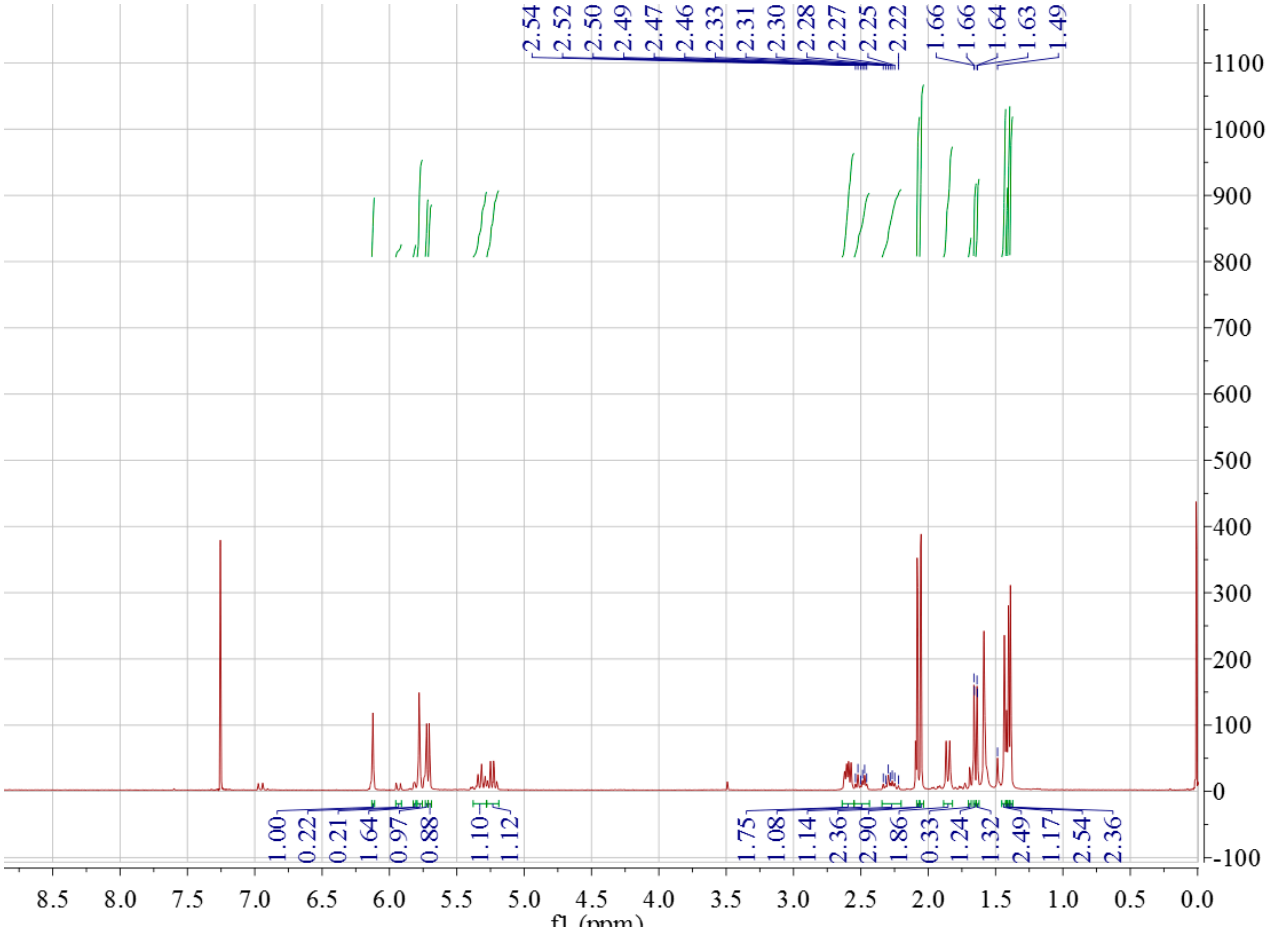
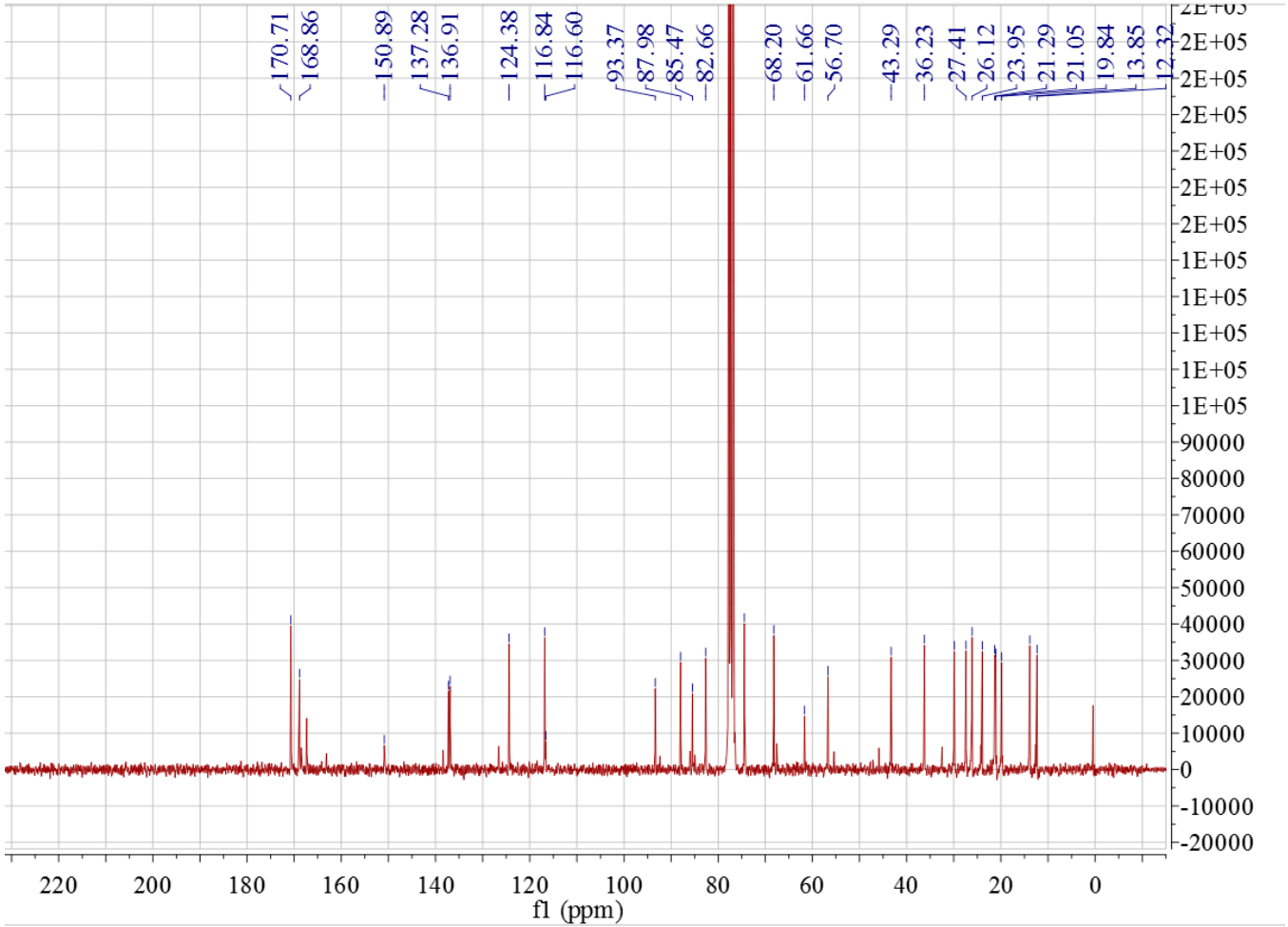
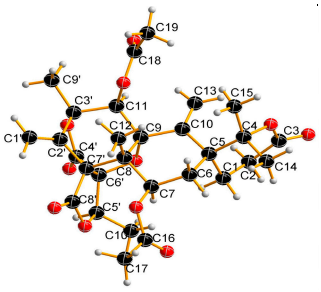


The ^{13}C-NMR (400 MHz) spectrum of Compound 10 in $CDCl_3$

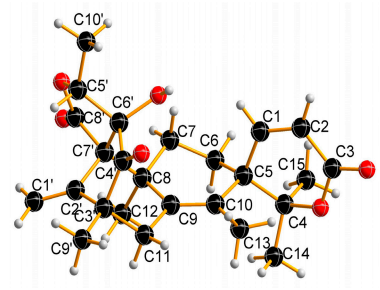


X-ray Crystallographic

Perspective ORTEP drawings for Compounds **1,3,7,8, 9**



1



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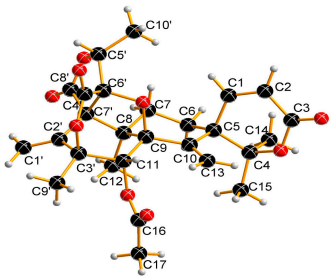

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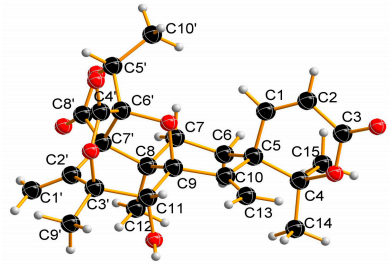

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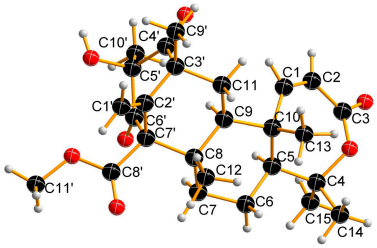
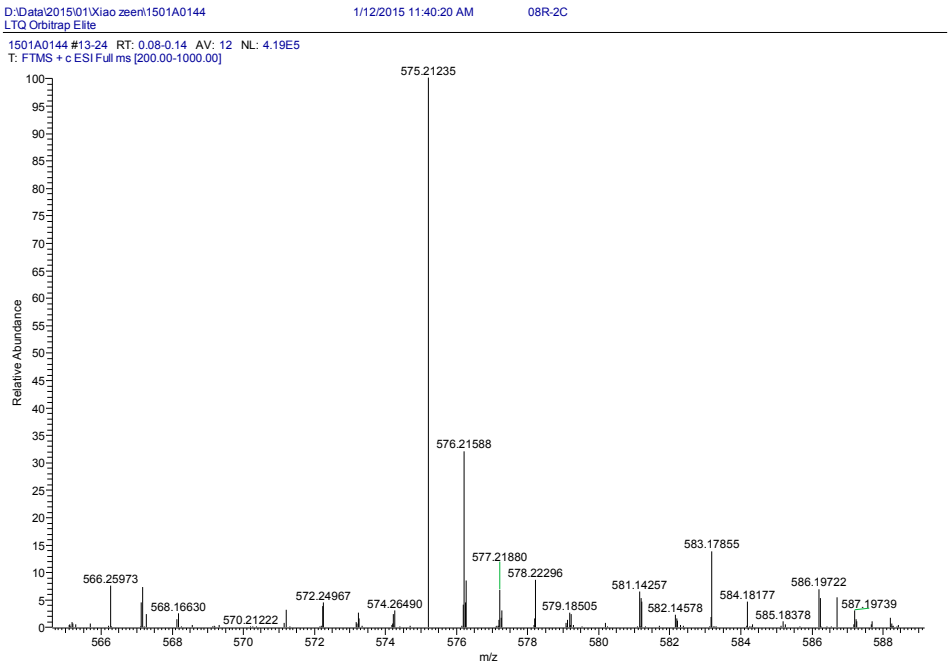
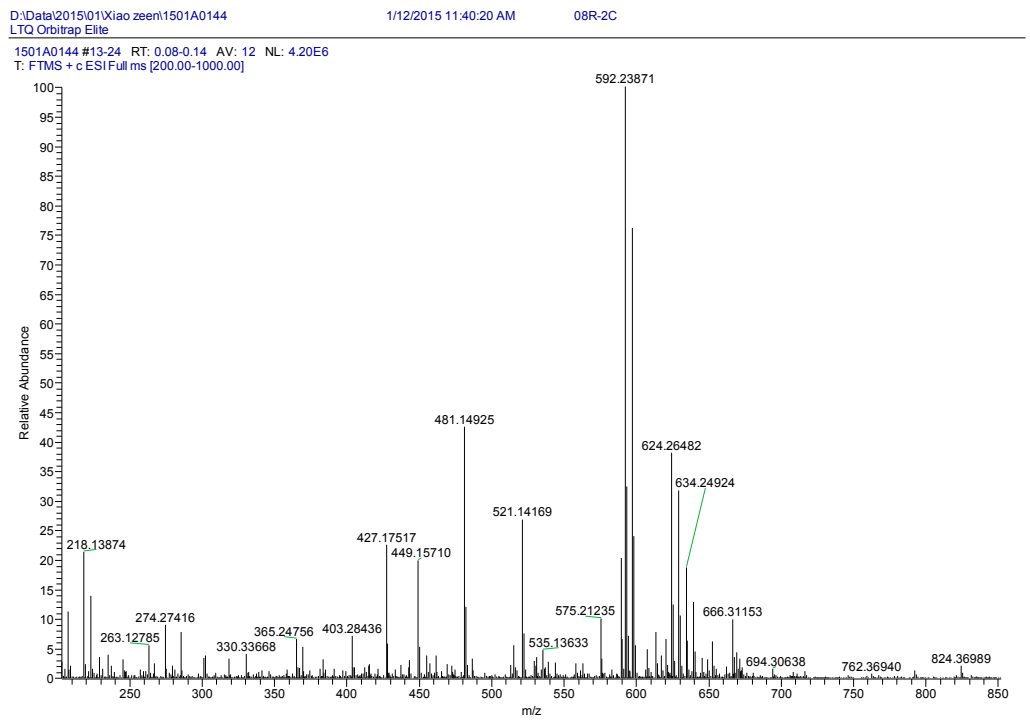


9

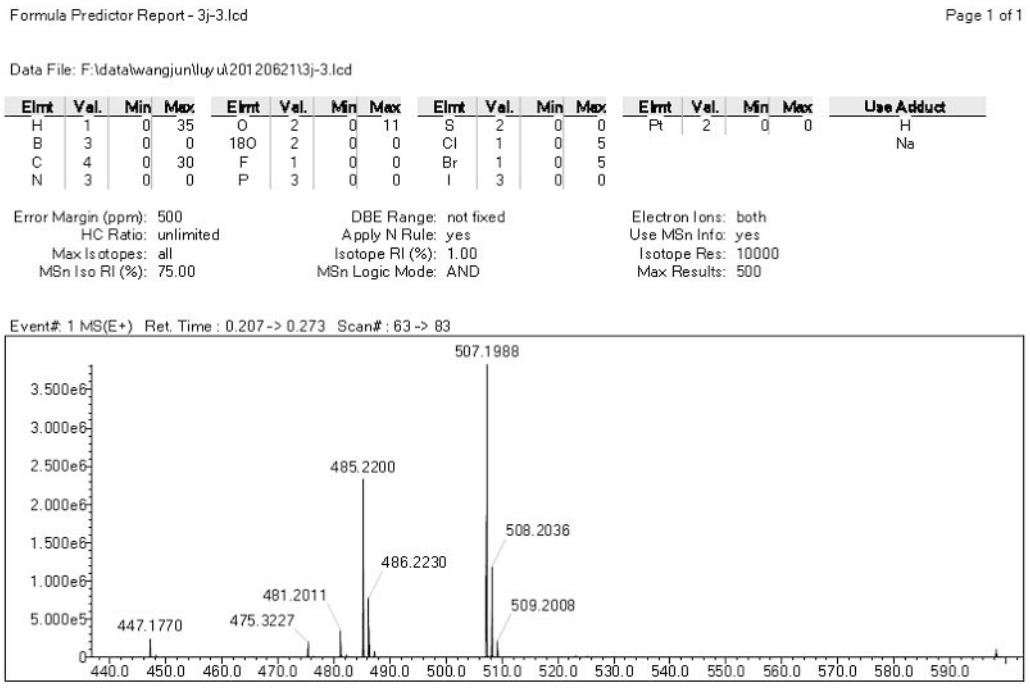
The ESIMS of Compound 1



The HRESIMS of Compound 1

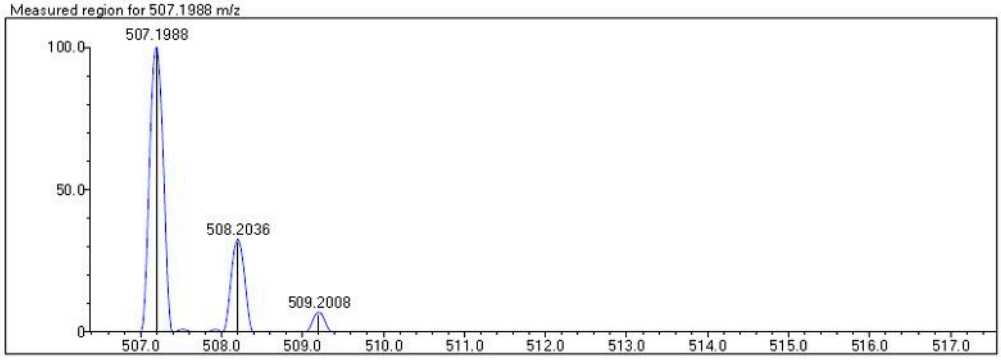


The ESIMS of Compound 2

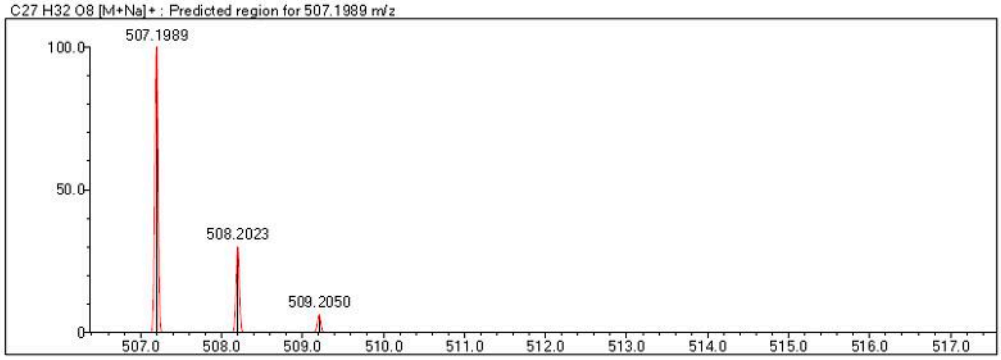


The HRESIMS of Compound 2

Measured region for 507.1988 m/z



C27 H32 O8 [M+Na]+ : Predicted region for 507.1989 m/z



Rank	Score	Formula (M)	Ion	Meas. m/z	Pred. m/z	Df. (mDa)	Df. (ppm)	Iso	DBE
1	71.25	C27 H32 O8	[M+Na]+	507.1988	507.1989	-0.1	-0.20	71.25	12.0