

Supporting information

Synthesis and Biological Activity of Novel Bis-indole Inhibitors of Bacterial Transcription Initiation Complex Formation

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¹H NMR spectrum of **10a**

Supervisor Kumar
GKL-003
1H DMSO F:/ skk 6

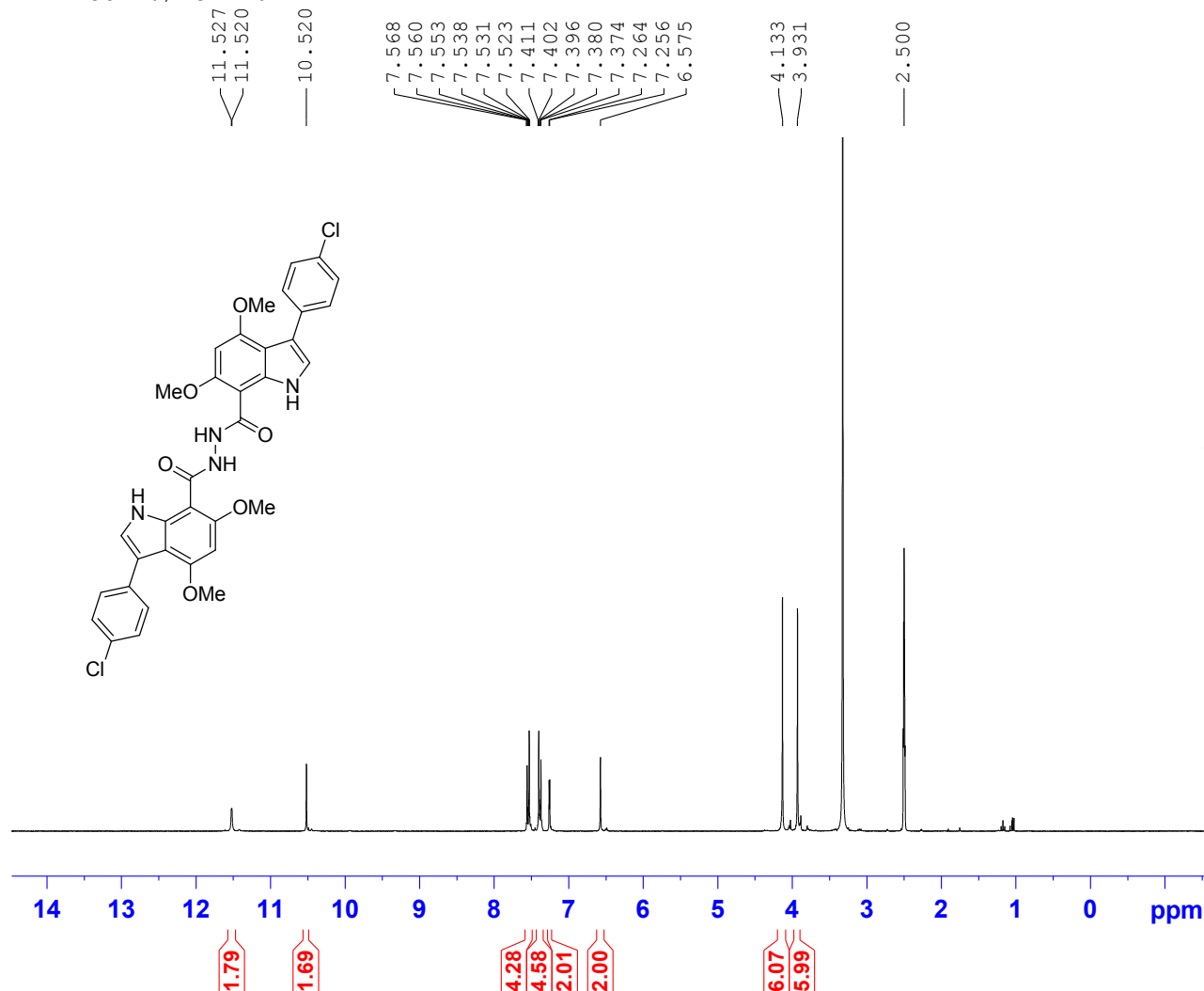


Current Data Parameters
NAME 130309-skk
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20130310
Time_ 0.58
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg
TD 32768
SOLVENT DMSO
NS 16
DS 0
SWH 4801.537 Hz
FIDRES 0.146531 Hz
AQ 3.4122410 sec
RG 128
DW 104.133 usec
DE 10.47 usec
TE 298.0 K
D1 5.00000000 sec
TD0 1

===== CHANNEL f1 =====
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NUC1 1H
P1 14.95 usec
PLW1 8.19999981 W

F2 - Processing parameters
SI 131072
SF 300.1700075 MHz
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SSB 0
LB 0.10 Hz
GB 0
PC 1.00

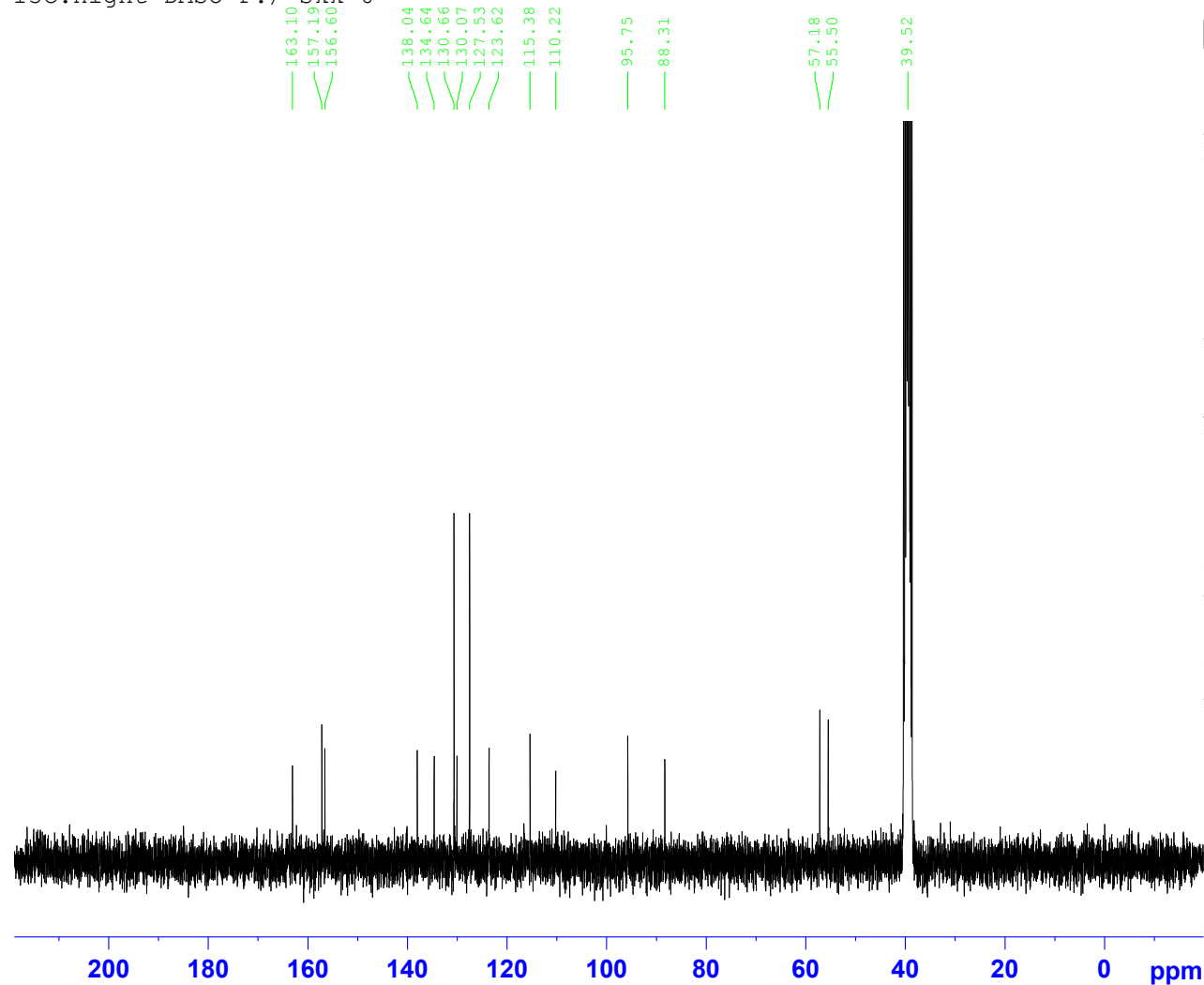


¹³C NMR spectrum of **10a**

Supervisor Kumar

GKL-003

13C.night DMSO F:/ skk 6



Current Data Parameters
NAME 130309-skk
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters
Date_ 20130310
Time_ 1.11
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 6144
DS 2
SWH 18028.846 Hz
FIDRES 0.275098 Hz
AQ 1.8175317 sec
RG 203
DW 27.733 usec
DE 6.80 usec
TE 298.0 K
D1 1.00000000 sec
D11 0.03000000 sec
TD0 24

===== CHANNEL f1 =====
SF01 75.4853543 MHz
NUC1 13C
P1 9.90 usec
PLW1 33.00000000 W

===== CHANNEL f2 =====
SF02 300.1712007 MHz
NUC2 1H
CPDPRG[2] bi_waltz65 256
PCPD2 90.00 usec
PLW2 8.20349979 W
PLW12 0.22635999 W
PLW13 0.18335000 W

F2 - Processing parameters
SI 32768
SF 75.4778431 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

¹H NMR spectrum of **10b**

Supervisor Blackph-br-connhhco

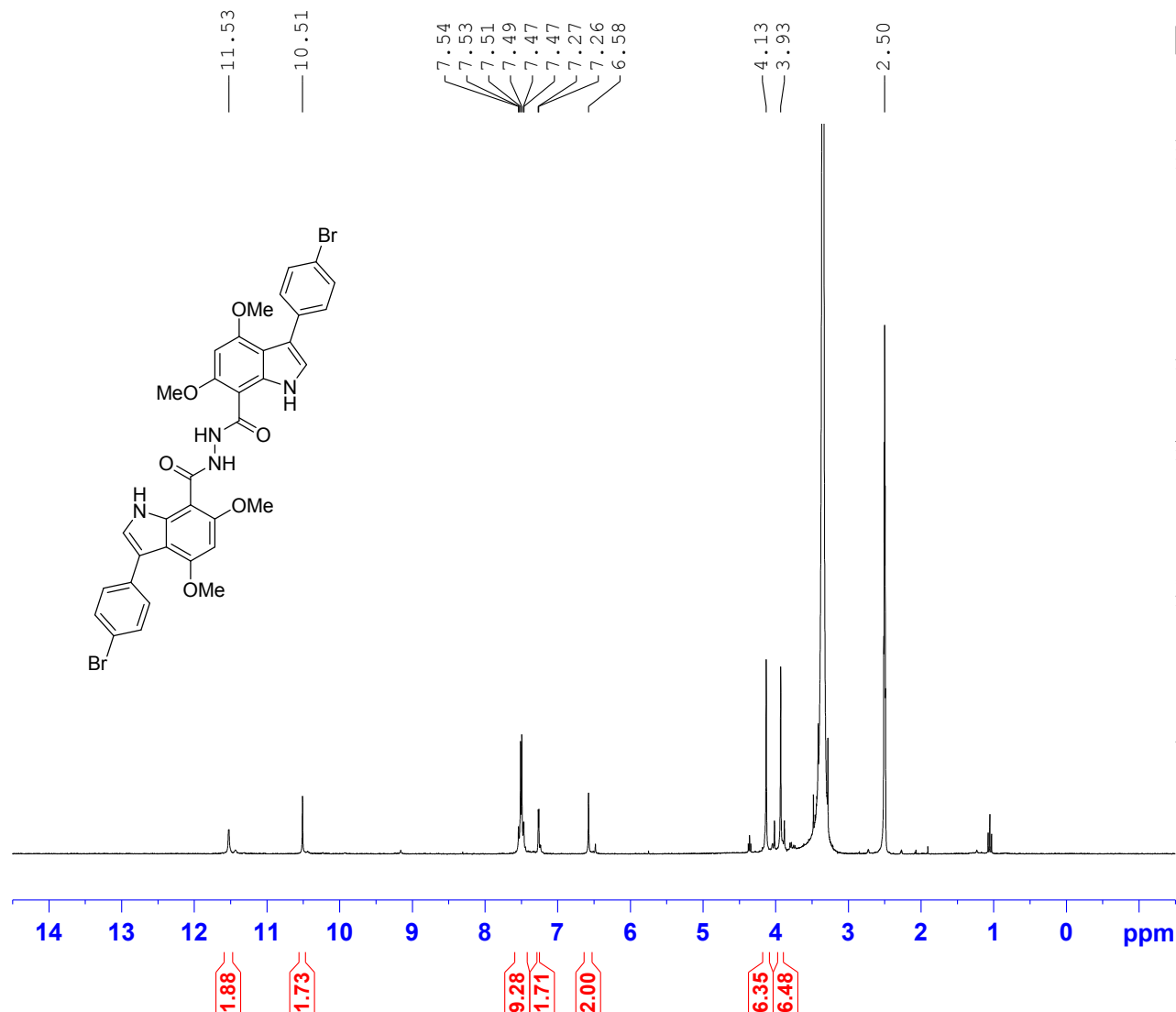


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NAME 100219-hkn
EXPNO 20
PROCNO 1

F2 - Acquisition Parameters
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Time 15.56
INSTRUM dpx1
PROBHD 5 mm QNP 1H/13
PULPROG zg
TD 32768
SOLVENT DMSO
NS 64
DS 2
SWH 6172.839 Hz
FIDRES 0.188380 Hz
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RG 322.5
DW 81.000 usec
DE 12.00 usec
TE 298.2 K
D1 1.50000000 sec
TD0 1

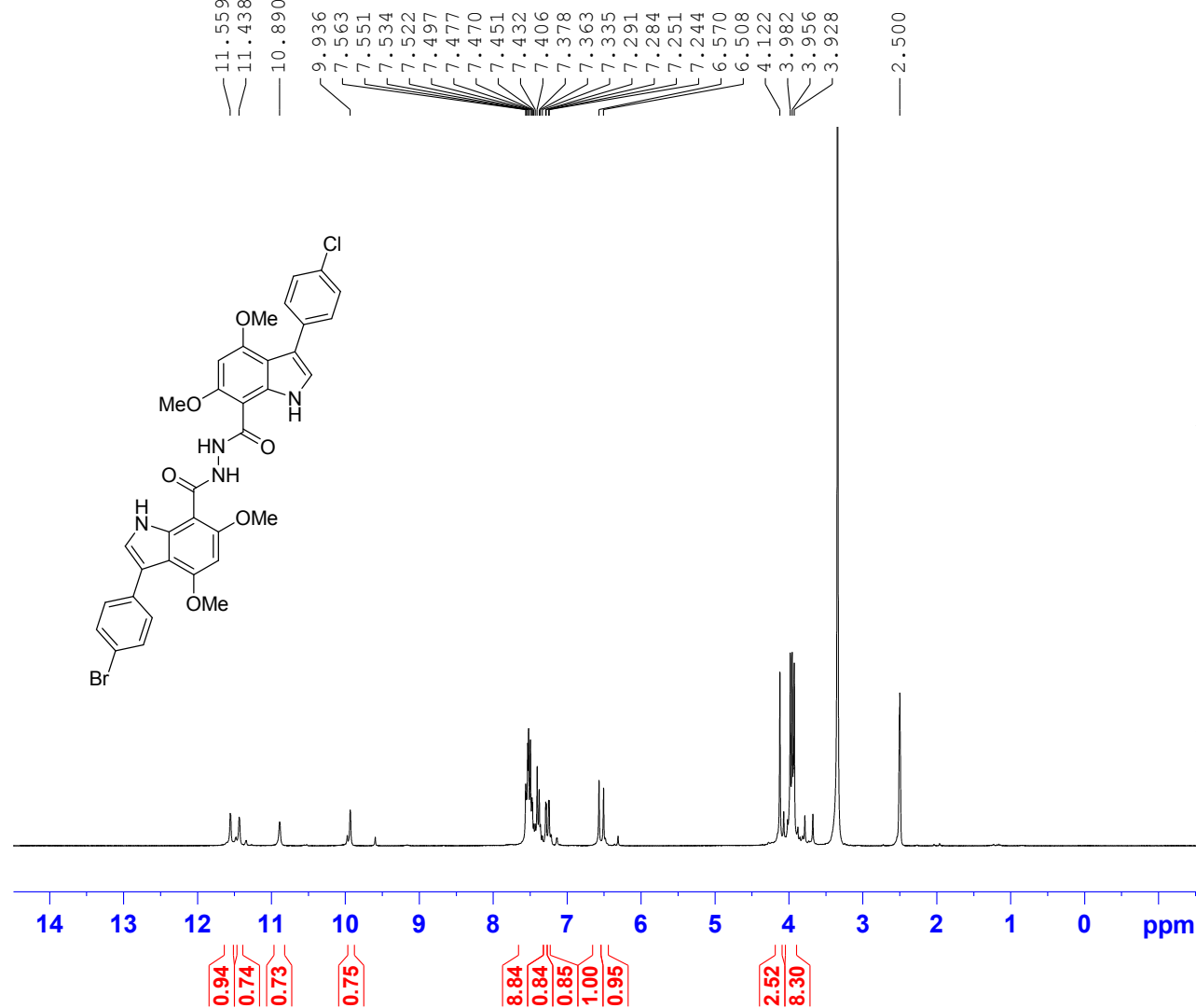
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NUC1 1H
P1 10.10 usec
PL1 -3.00 dB
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F2 - Processing parameters
SI 65536
SF 300.1700067 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



¹H NMR spectrum of **10f**

Supervisor Black
GKL027
1H DMSO F:\ mmi 32



Current Data Parameters
NAME 131231-mmi
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20131231
Time 12.28
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg
TD 32768
SOLVENT DMSO
NS 24
DS 0
SWH 4801.537 Hz
FIDRES 0.146531 Hz
AQ 3.4122410 sec
RG 90.5
DW 104.133 usec
DE 9.44 usec
TE 298.0 K
D1 5.00000000 sec
TD0 1

===== CHANNEL f1 =====
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NUC1 1H
P1 16.56 usec
PLW1 8.19999981 W

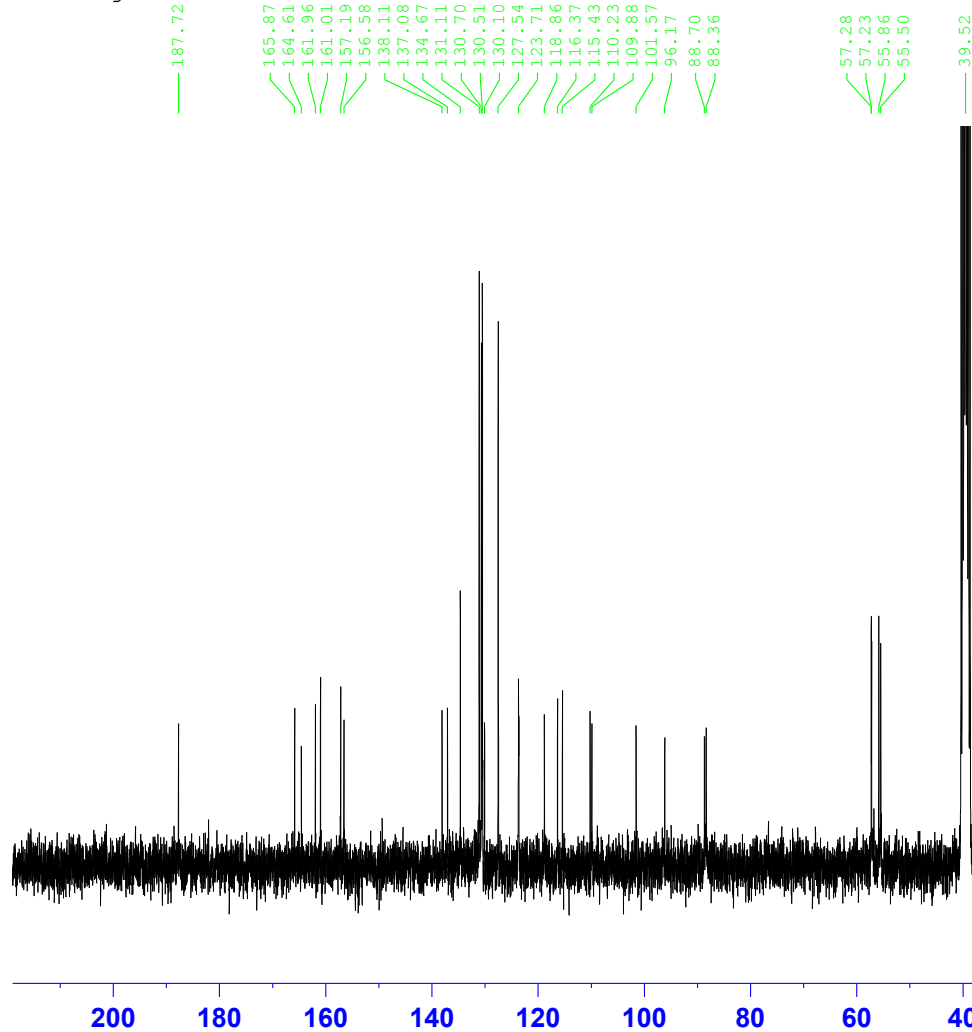
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GB 0
PC 1.00

¹³C NMR spectrum of **10f**

Supervisor Black

GKL027

13C.night DMSO F:\ mmi 32



Current Data Parameters
NAME 131231-mmi
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters
Date_ 20131231
Time_ 12.55
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 3072
DS 2
SWH 18028.846 Hz
FIDRES 0.275098 Hz
AQ 1.8175317 sec
RG 203
DW 27.733 usec
DE 6.80 usec
TE 298.0 K
D1 1.00000000 sec
D11 0.03000000 sec
TD0 6

===== CHANNEL f1 =====
SFO1 75.4853543 MHz
NUC1 13C
P1 9.90 usec
PLW1 33.00000000 W

===== CHANNEL f2 =====
SFO2 300.1712007 MHz
NUC2 1H
CPDPRG2 bi_waltz65_256
PCPD2 90.00 usec
PLW2 8.20349979 W
PLW12 0.27774000 W
PLW13 0.22497000 W

F2 - Processing parameters
SI 32768
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SSB 0
LB 1.00 Hz
GB 0
PC 1.40

¹H NMR spectrum of **11a**

Supervisor Blackph-cl-2nhnh

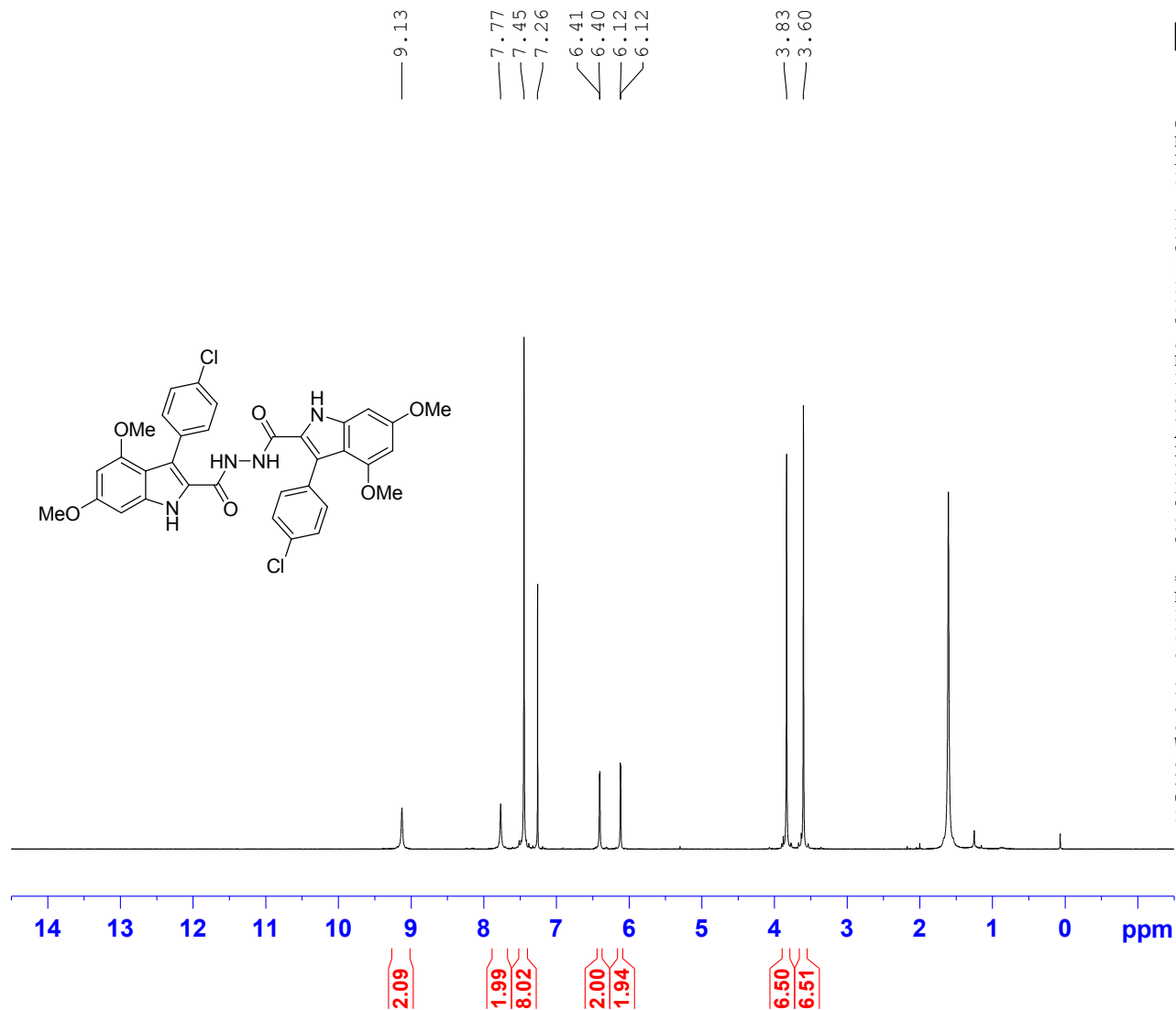


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EXPNO 30
PROCNO 1

F2 - Acquisition Parameters
Date_ 20091221
Time_ 14.25
INSTRUM dpx1
PROBHD 5 mm QNP 1H/13
PULPROG zg
TD 32768
SOLVENT CDCl3
NS 64
DS 2
SWH 6172.839 Hz
FIDRES 0.188380 Hz
AQ 2.6542079 sec
RG 406.4
DW 81.000 usec
DE 12.00 usec
TE 296.2 K
D1 1.5000000 sec
TD0 1

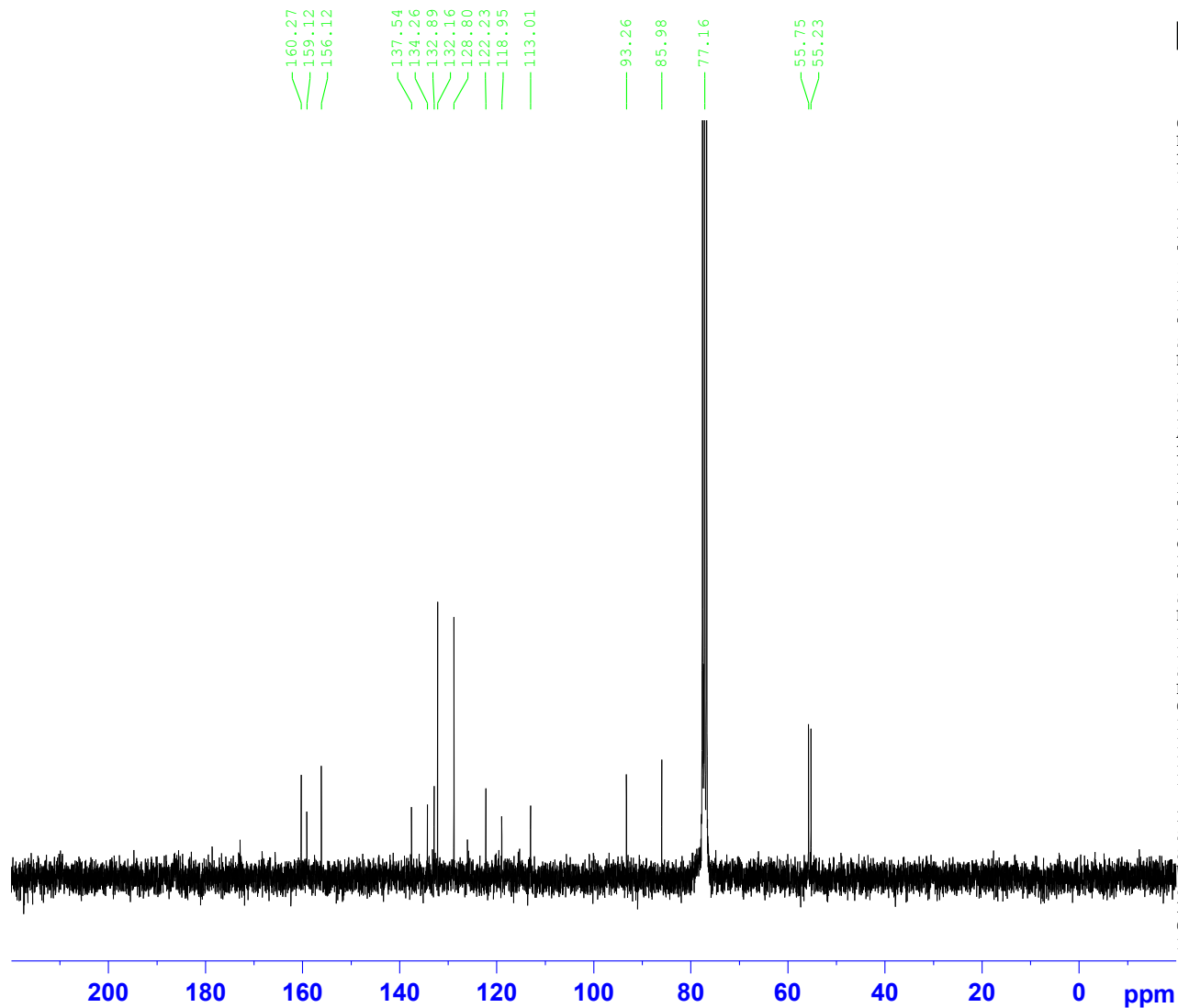
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PL1 -3.00 dB
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F2 - Processing parameters
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WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



¹³C NMR spectrum of **11a**

Supervisor Blackph-cl-2nhnh



Current Data Parameters
NAME 091221-hkn
EXPNO 41
PROCNO 1

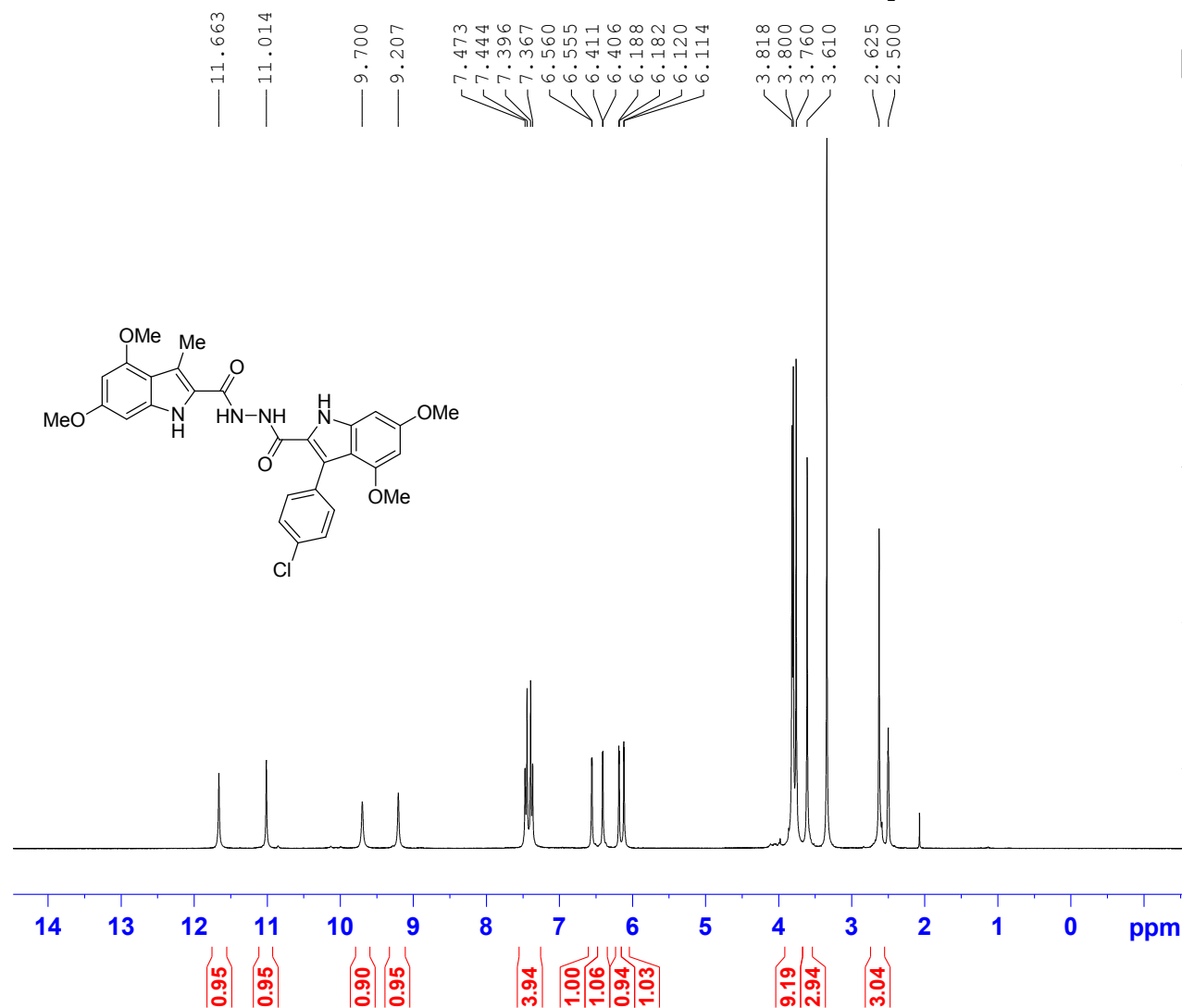
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Date_ 20091221
Time_ 19.28
INSTRUM dpx1
PROBHD 5 mm QNP 1H/13
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 5120
DS 2
SWH 23809.523 Hz
FIDRES 0.363304 Hz
AQ 1.3762560 sec
RG 16384
DW 21.000 usec
DE 25.00 usec
TE 296.2 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
TD0 1
SFO1 75.4873094 MHz
NUC1 13C
P1 7.50 usec
PLW1 -1.00000000 W
SFO2 300.1715008 MHz
NUC2 1H
CPDPRG[2] waltz16
PCPD2 105.00 usec
PLW2 -1.00000000 W
PLW12 -1.00000000 W
PLW13 -1.00000000 W

F2 - Processing parameters
SI 32768
SF 75.4777980 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

¹H NMR spectrum of **11b**

Supervisor Black

3-CH3-2-CONHNH2 + 3-(4-ClPh)-2-COCCl3 decreased amount of hydrazide



Current Data Parameters
NAME 120315-mm1
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date 20120315
Time 13.36
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg
TD 32768
SOLVENT DMSO
NS 24
DS 0
SWH 4801.537 Hz
FIDRES 0.146531 Hz
AQ 3.4122410 sec
RG 80.6
DW 104.133 usec
DE 10.47 usec
TE 298.3 K
D1 5.00000000 sec
TD0 1

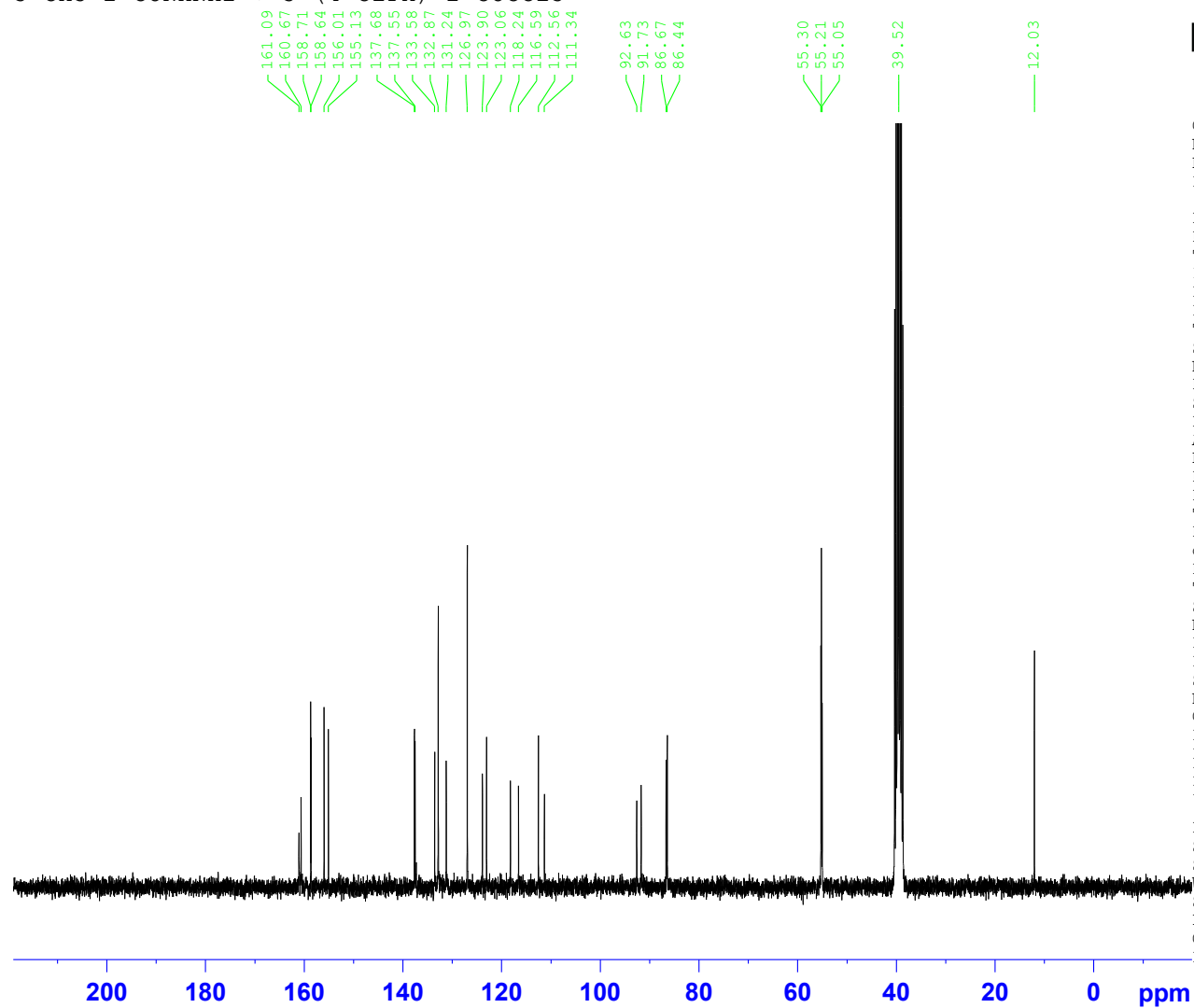
===== CHANNEL f1 =====
NUC1 1H
P1 14.95 usec
PLW1 8.19999981 W
SFO1 300.1719511 MHz

F2 - Processing parameters
SI 131072
SF 300.1700061 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00

¹³C NMR spectrum of **11b**

Supervisor Black

3-CH3-2-CONHNNH2 + 3-(4-ClPh)-2-COCCl3



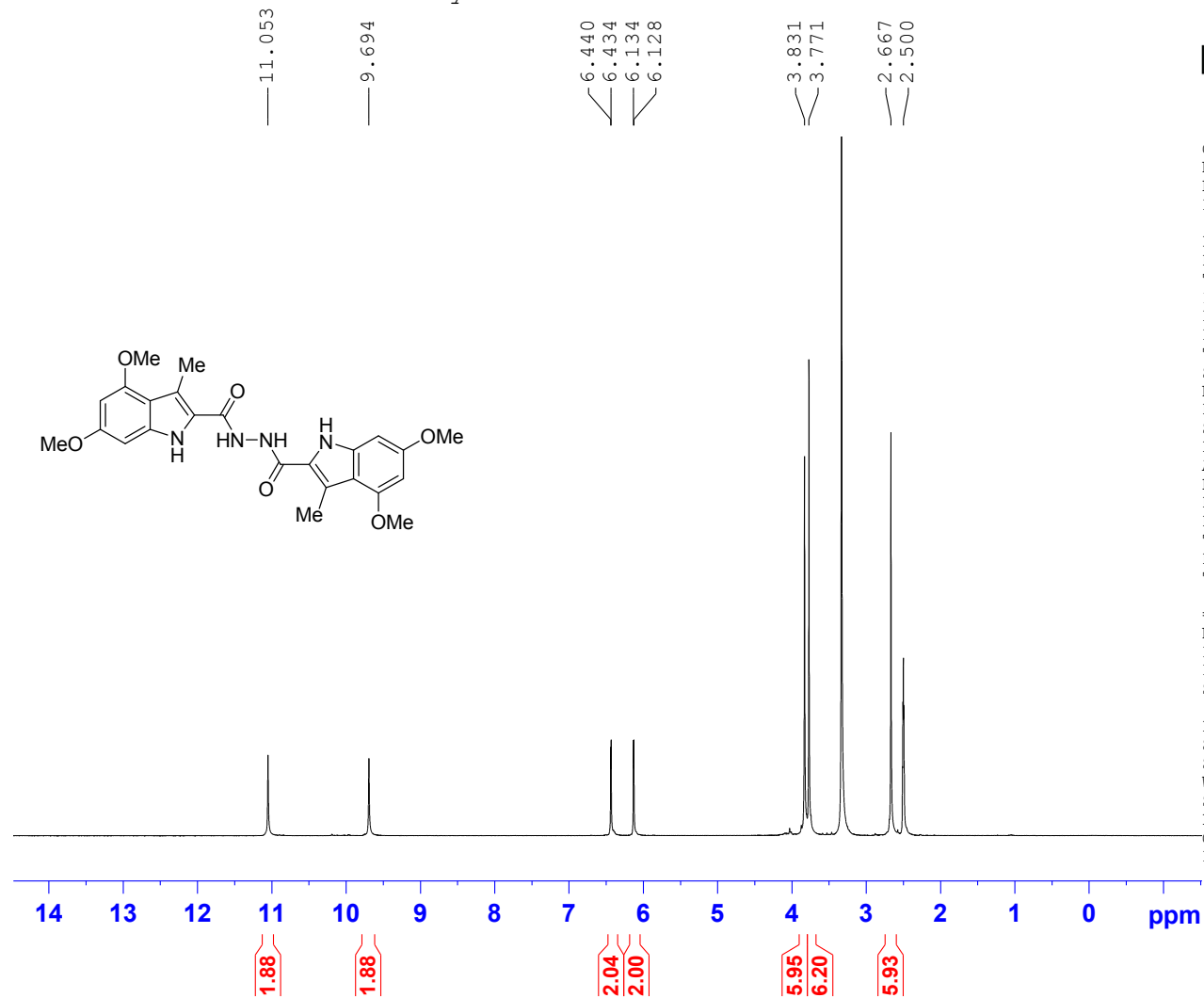
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NAME 120315-mm1
EXPNO 3
PROCNO 1

F2 - Acquisition Parameters
Date_ 20120316
Time_ 7.17
INSTRUM spect
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PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 2048
DS 2
SWH 18028.846 Hz
FIDRES 0.275098 Hz
AQ 1.8175317 sec
RG 203
DW 27.733 usec
DE 6.80 usec
TE 298.3 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
TD0 4
SFO1 75.4853543 MHz
NUC1 13C
P1 9.90 usec
PLW1 33.00000000 W
SFO2 300.1712007 MHz
NUC2 1H
CPDPRG[2 bi_waltz65_256
PCPD2 90.00 usec
PLW2 8.20349979 W
PLW12 0.22635999 W
PLW13 0.18335000 W

F2 - Processing parameters
SI 32768
SF 75.4778419 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

¹H NMR spectrum of **11c**

Supervisor Black
3-CH3-2-CONHNHCO-2-3-CH3 re-synthesized



Current Data Parameters
NAME 120330-mmi
EXPNO 2
PROCNO 1

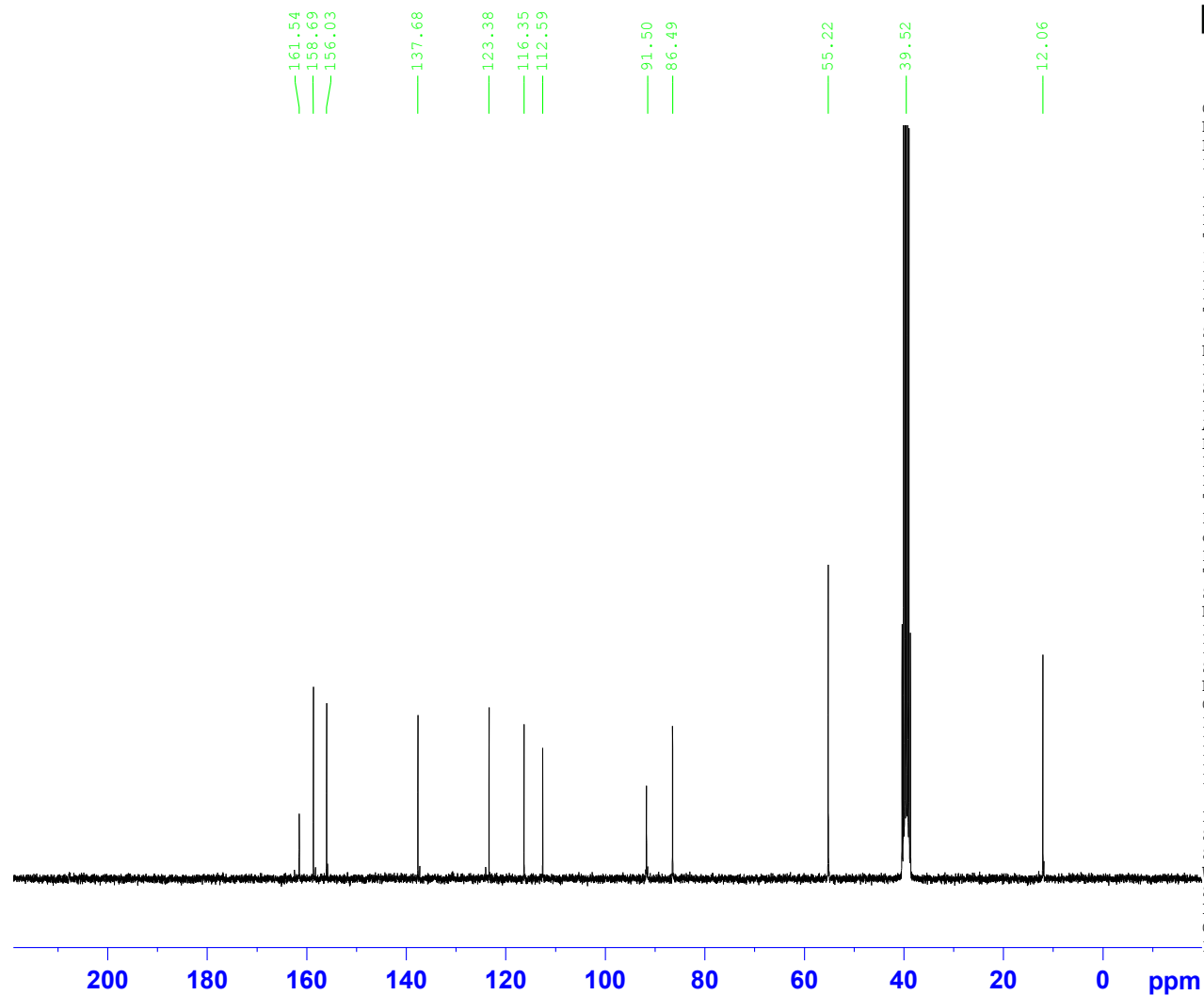
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Date_ 20120330
Time_ 20.13
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg
TD 32768
SOLVENT DMSO
NS 24
DS 0
SWH 4801.537 Hz
FIDRES 0.146531 Hz
AQ 3.4122410 sec
RG 90.5
DW 104.133 usec
DE 10.47 usec
TE 298.3 K
D1 5.00000000 sec
TD0 1

===== CHANNEL f1 =====
NUC1 1H
P1 14.95 usec
PLW1 8.1999981 W
SFO1 300.1719511 MHz

F2 - Processing parameters
SI 131072
SF 300.1700060 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00

¹³C NMR spectrum of **11c**

Supervisor Black
4,6-dimethoxy-3-methylindole based 2-CO-NH-NH-CO-2' dimer



Current Data Parameters
NAME 120113-mm1
EXPNO 4
PROCNO 1

F2 - Acquisition Parameters
Date_ 20120114
Time_ 9.01
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 2048
DS 2
SWH 18028.846 Hz
FIDRES 0.275098 Hz
AQ 1.8175317 sec
RG 203
DW 27.733 usec
DE 6.80 usec
TE 298.3 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
TD0 4
SFO1 75.4853543 MHz
NUC1 13C
P1 9.90 usec
PLW1 33.00000000 W
SFO2 300.1712007 MHz
NUC2 1H
CPDPRG[2] bi_waltz65 256
PCPD2 90.00 usec
PLW2 8.20349979 W
PLW12 0.22635999 W
PLW13 0.18335000 W

F2 - Processing parameters
SI 32768
SF 75.4778417 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

¹H NMR spectrum of **12a**

Supervisor Black
GKL032
1H DMSO F:\\ mmi 37

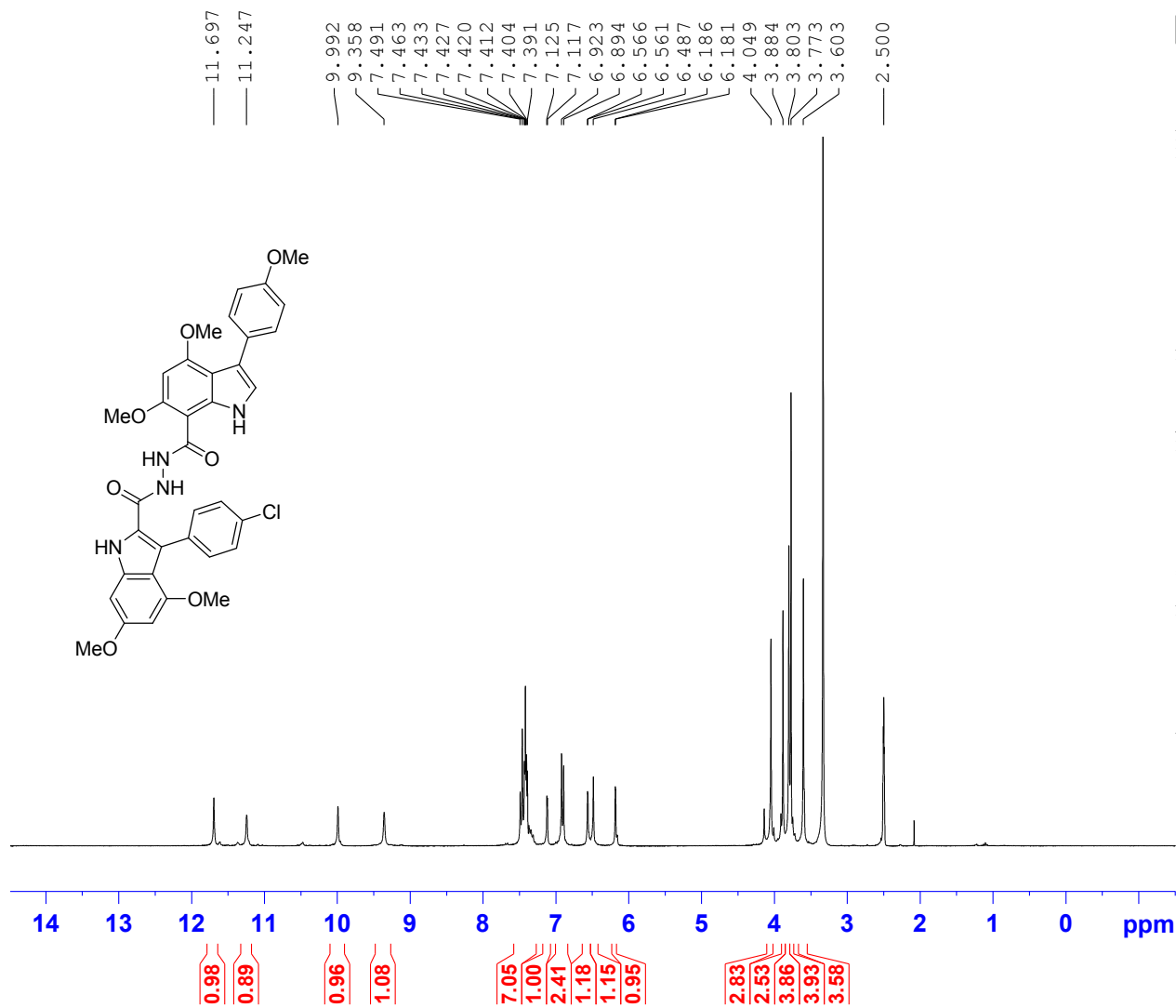


Current Data Parameters
NAME 131231-mmi
EXPNO 11
PROCNO 1

F2 - Acquisition Parameters
Date_ 20140101
Time 1.27
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg
TD 32768
SOLVENT DMSO
NS 24
DS 0
SWH 4801.537 Hz
FIDRES 0.146531 Hz
AQ 3.4122410 sec
RG 90.5
DW 104.133 usec
DE 9.44 usec
TE 298.0 K
D1 5.00000000 sec
TD0 1

===== CHANNEL f1 =====
SFO1 300.1719511 MHz
NUC1 1H
P1 16.56 usec
PLW1 8.19999981 W

F2 - Processing parameters
SI 131072
SF 300.1700024 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00

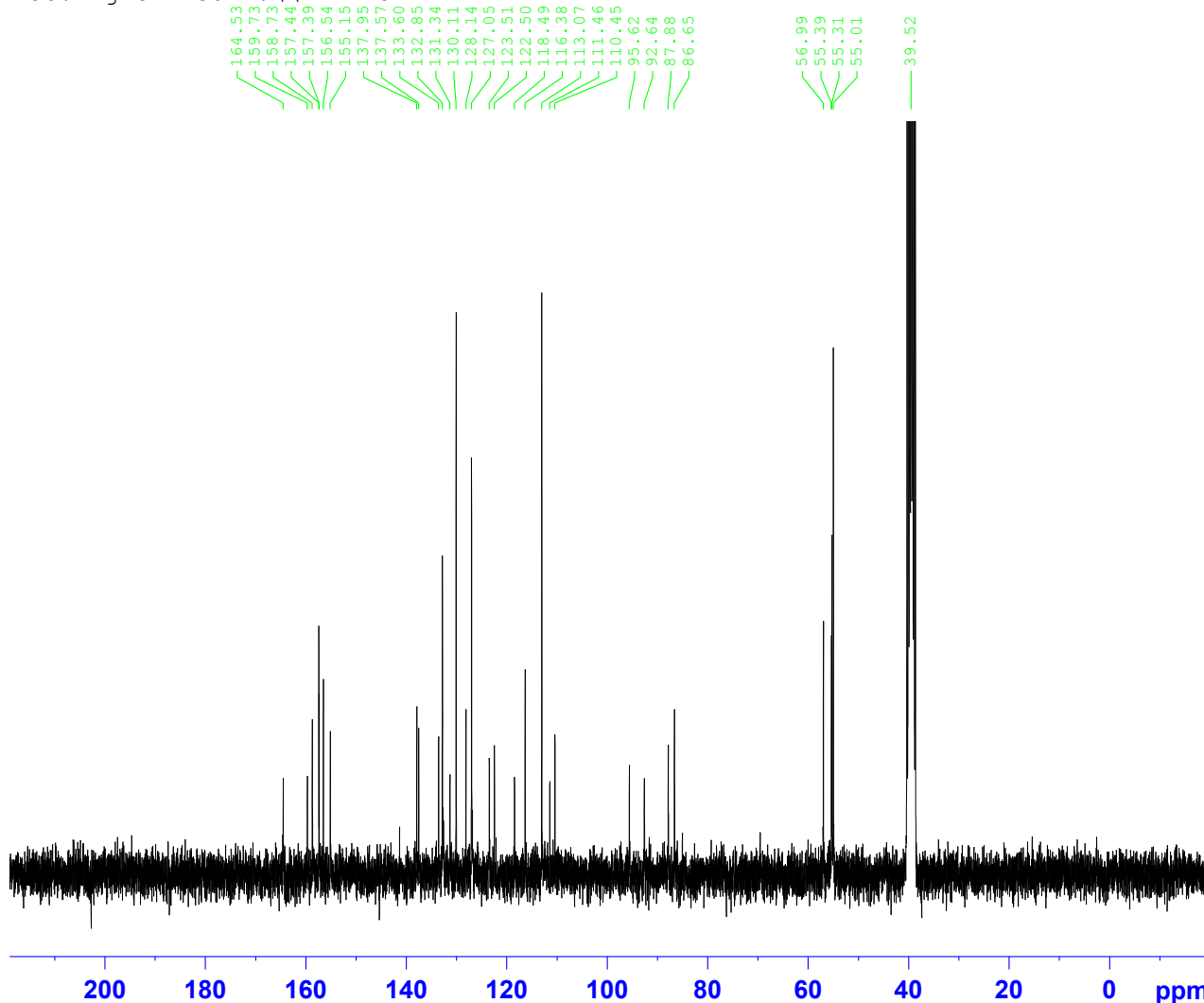


¹³C NMR spectrum of **12a**

Supervisor Black

GKL032

13C.night DMSO F:\ mmi 37



Current Data Parameters
NAME 131231-mm1
EXPNO 12
PROCNO 1

F2 - Acquisition Parameters
Date_ 20140101
Time 1.54
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 3072
DS 2
SWH 18028.846 Hz
FIDRES 0.275098 Hz
AQ 1.8175317 sec
RG 203
DW 27.733 usec
DE 6.80 usec
TE 298.0 K
D1 1.00000000 sec
D11 0.03000000 sec
TD0 6

===== CHANNEL f1 =====
SFO1 75.4853543 MHz
NUC1 13C
P1 9.90 usec
PLW1 33.00000000 W

===== CHANNEL f2 =====
SFO2 300.1712007 MHz
NUC2 1H
CPDPRG[2 bi_waltz65_256
PCPD2 90.00 usec
PLW2 8.20349979 W
PLW12 0.27774000 W
PLW13 0.22497000 W

F2 - Processing parameters
SI 32768
SF 75.4778419 MHz
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LB 1.00 Hz
GB 0
PC 1.40

¹H NMR spectrum of **12b**

Supervisor Black
GKL033
1H DMSO F:\ mmi 41

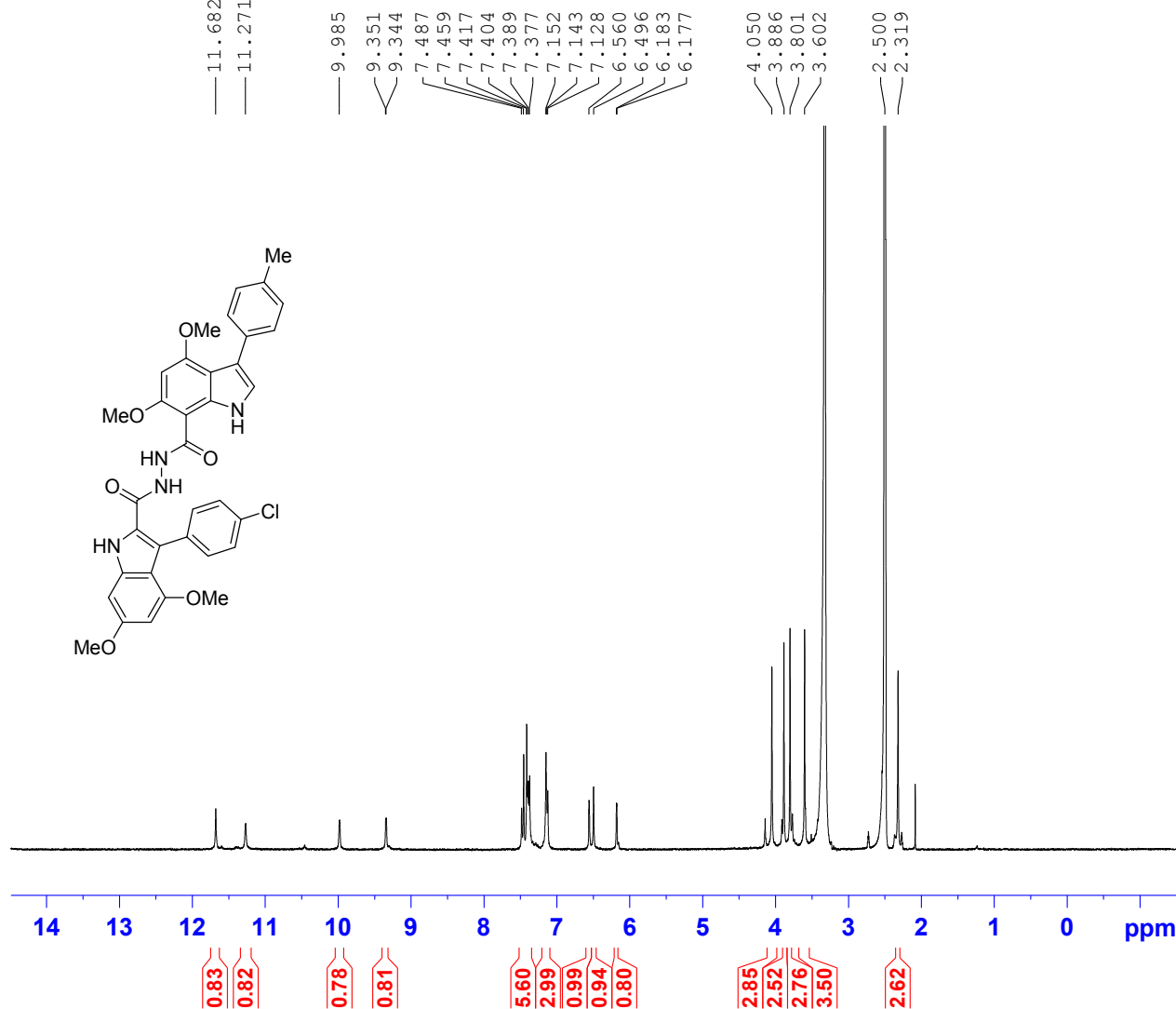
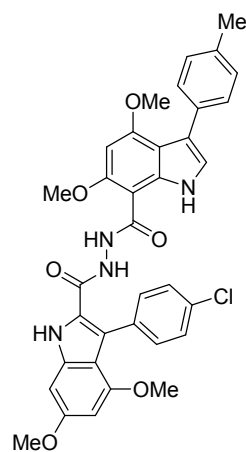


Current Data Parameters
NAME 140101-mmi
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20140101
Time_ 19.45
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg
TD 32768
SOLVENT DMSO
NS 128
DS 0
SWH 4801.537 Hz
FIDRES 0.146531 Hz
AQ 3.4122410 sec
RG 203
DW 104.133 usec
DE 9.44 usec
TE 298.0 K
D1 5.0000000 sec
TD0 1

===== CHANNEL f1 =====
SFO1 300.1719511 MHz
NUC1 1H
P1 16.56 usec
PLW1 8.19999981 W

F2 - Processing parameters
SI 131072
SF 300.1700024 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00



¹H NMR spectrum of **12c**

Supervisor Black
GKL034
1H DMSO F:\ mmi 39

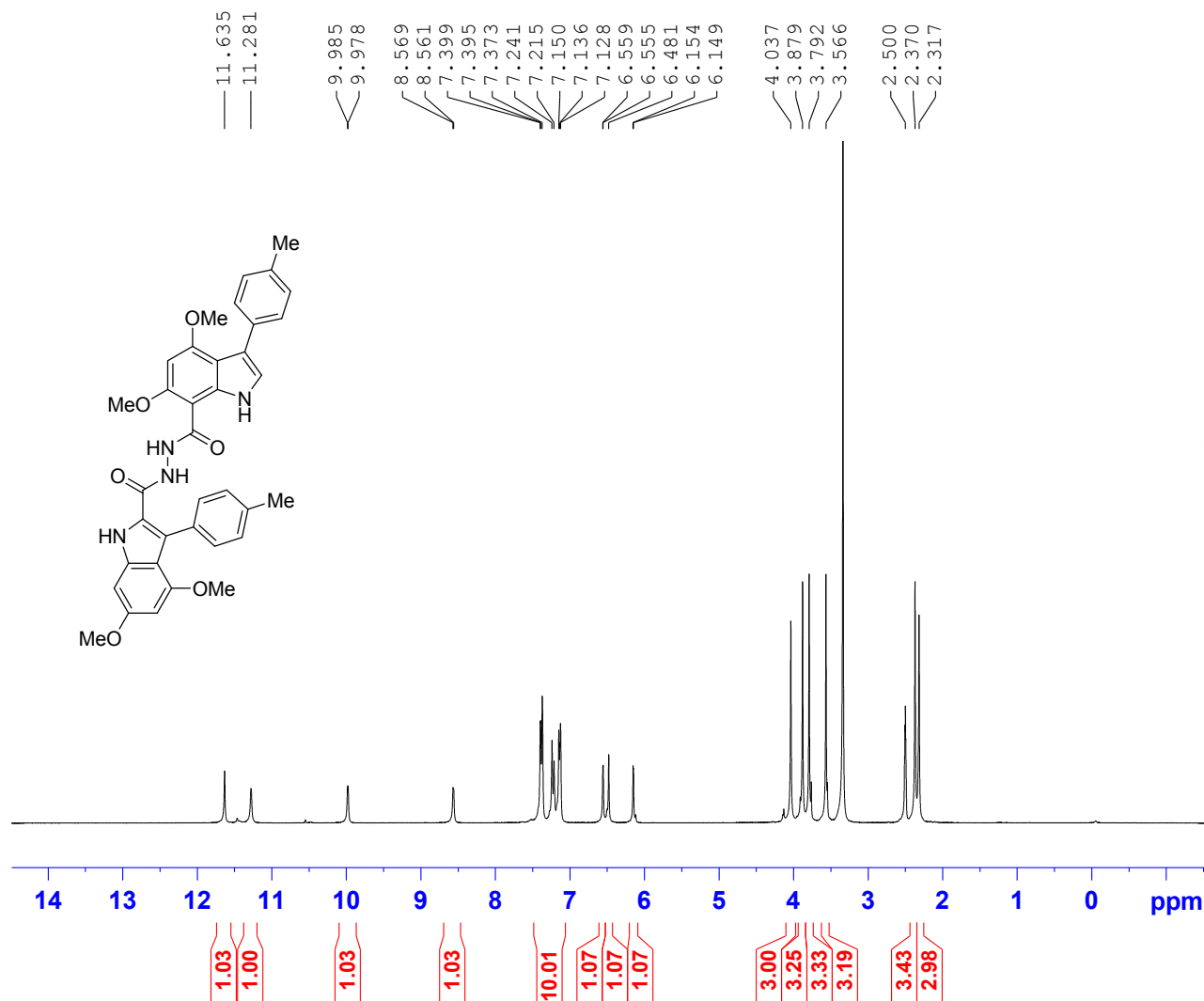


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EXPNO 15
PROCNO 1

F2 - Acquisition Parameters
Date_ 20140101
Time 6.39
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg
TD 32768
SOLVENT DMSO
NS 24
DS 0
SWH 4801.537 Hz
FIDRES 0.146531 Hz
AQ 3.4122410 sec
RG 80.6
DW 104.133 usec
DE 9.44 usec
TE 298.0 K
D1 5.00000000 sec
TD0 1

===== CHANNEL f1 =====
SFO1 300.1719511 MHz
NUC1 1H
P1 16.56 usec
PLW1 8.19999981 W

F2 - Processing parameters
SI 131072
SF 300.1700025 MHz
WDW EM
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LB 0.10 Hz
GB 0
PC 1.00

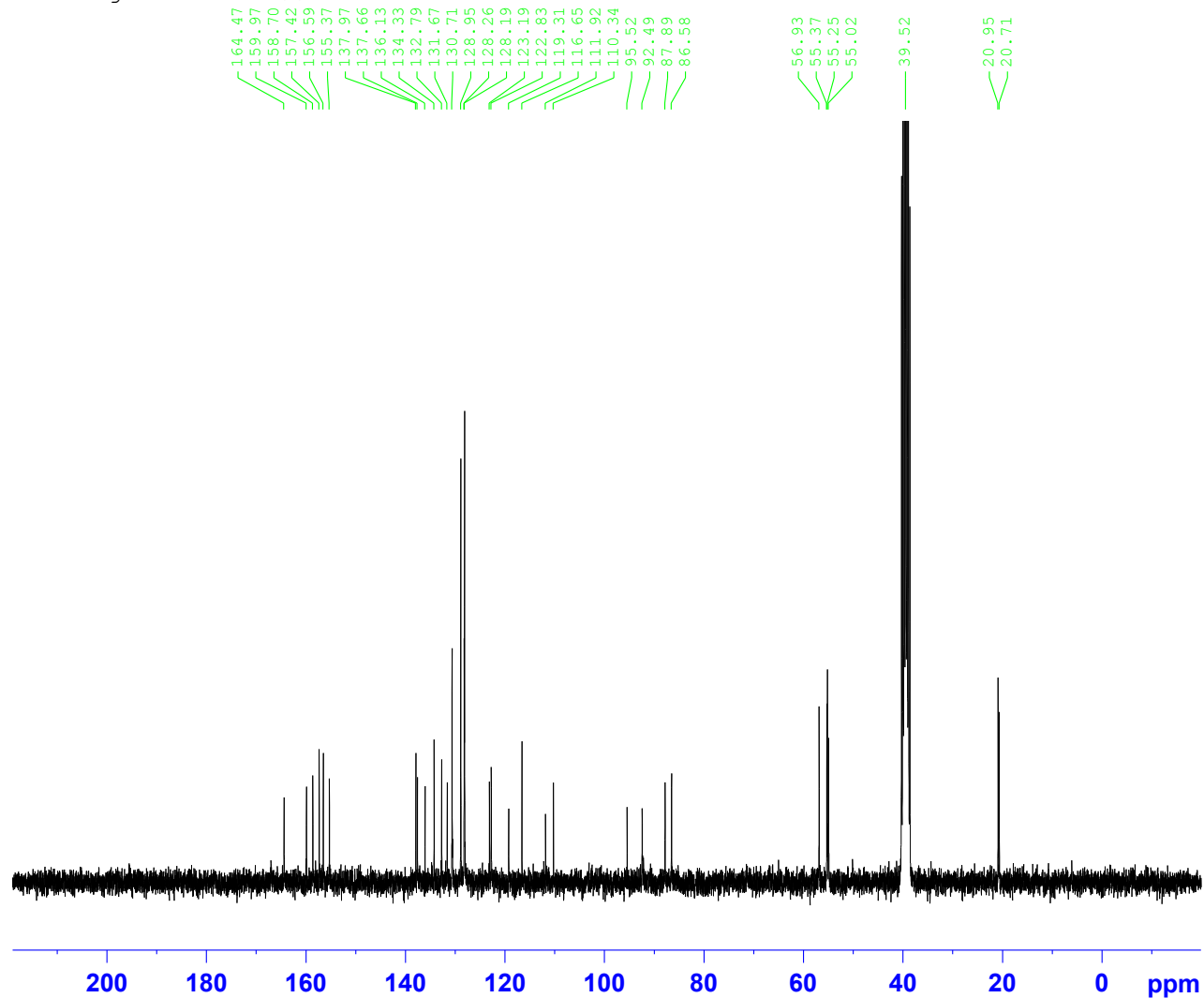


¹³C NMR spectrum of **12c**

Supervisor Black

GKL034

13C.night DMSO F:\ mmi 39



Current Data Parameters
NAME 131231-mmi
EXPNO 16
PROCNO 1

F2 - Acquisition Parameters
Date_ 20140101
Time 7.05
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 3072
DS 2
SWH 18028.846 Hz
FIDRES 0.275098 Hz
AQ 1.8175317 sec
RG 203
DW 27.733 usec
DE 6.80 usec
TE 298.0 K
D1 1.00000000 sec
D11 0.03000000 sec
TD0 6

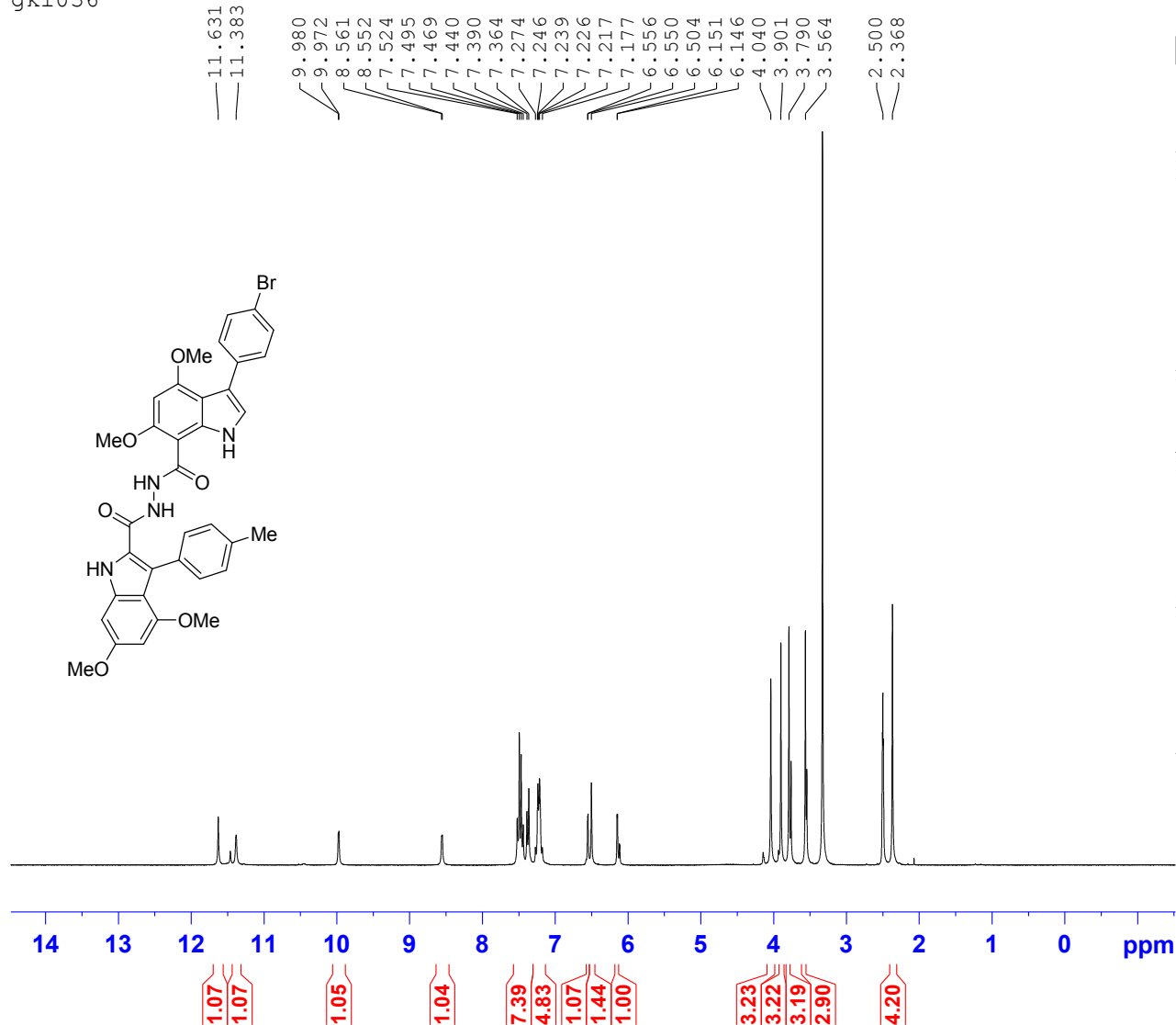
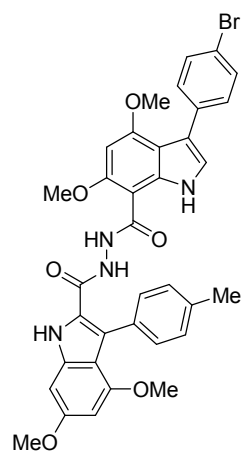
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SFO1 75.4853543 MHz
NUC1 13C
P1 9.90 usec
PLW1 33.00000000 W

===== CHANNEL f2 =====
SFO2 300.1712007 MHz
NUC2 1H
CPDPRG[2] bi_waltz65 256
PCPD2 90.00 usec
PLW2 8.20349979 W
PLW12 0.27774000 W
PLW13 0.22497000 W

F2 - Processing parameters
SI 32768
SF 75.4778419 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

¹H NMR spectrum of **12e**

Supervisor Kumar
gkl036



Current Data Parameters
NAME 111007-rvd
EXPNO 11
PROCNO 1

F2 - Acquisition Parameters
Date_ 20111008
Time_ 5.53
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg
TD 32768
SOLVENT DMSO
NS 8
DS 0
SWH 4801.537 Hz
FIDRES 0.146531 Hz
AQ 3.4122410 sec
RG 90.5
DW 104.133 usec
DE 10.47 usec
TE 298.3 K
D1 5.00000000 sec
TD0 1

===== CHANNEL f1 =====
NUC1 1H
P1 14.95 usec
PLW1 8.19999981 W
SFO1 300.1719511 MHz

F2 - Processing parameters
SI 131072
SF 300.1700060 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00

¹³C NMR spectrum of **12e**

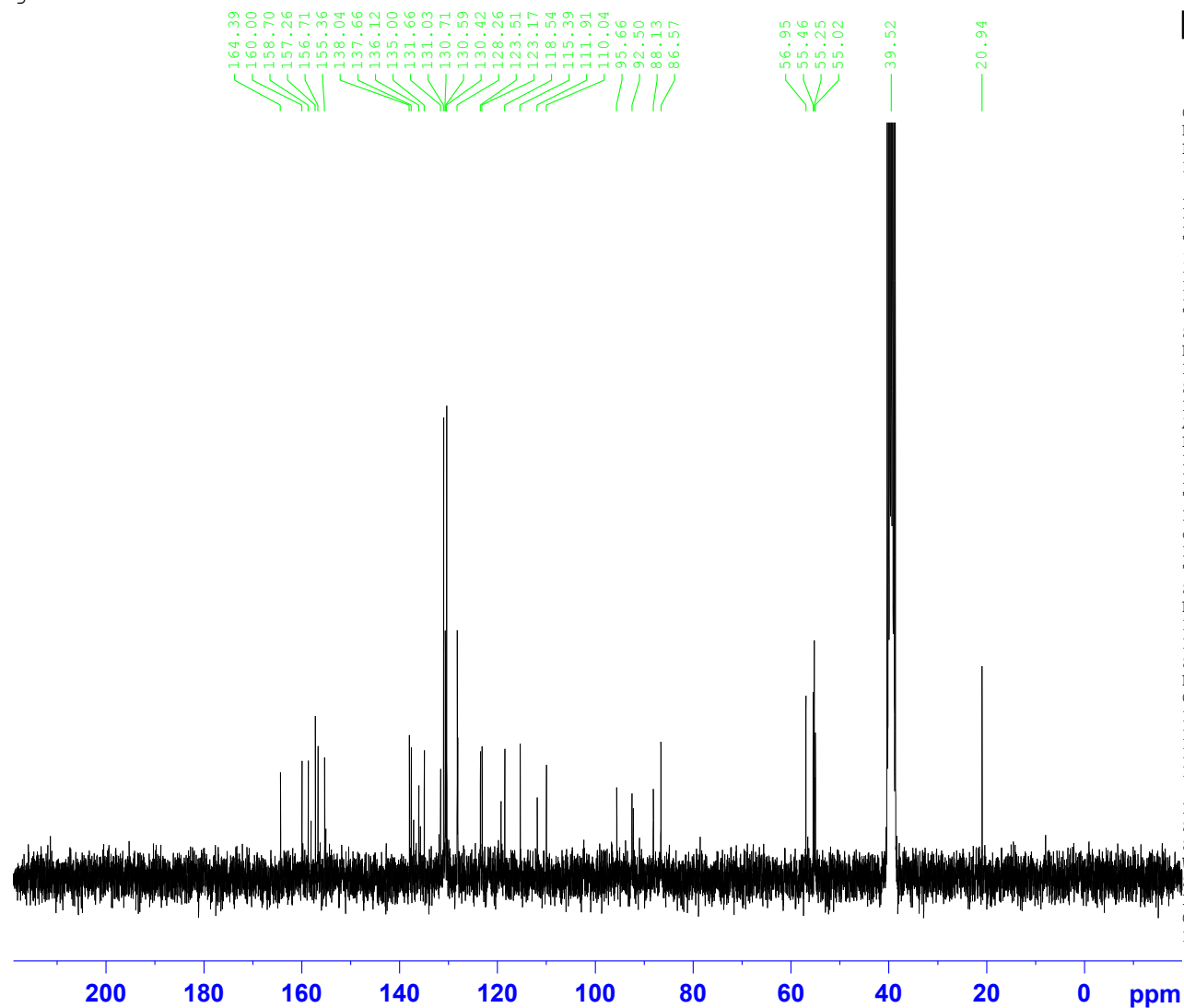
Supervisor Kumar
gkl036



Current Data Parameters
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EXPNO 12
PROCNO 1

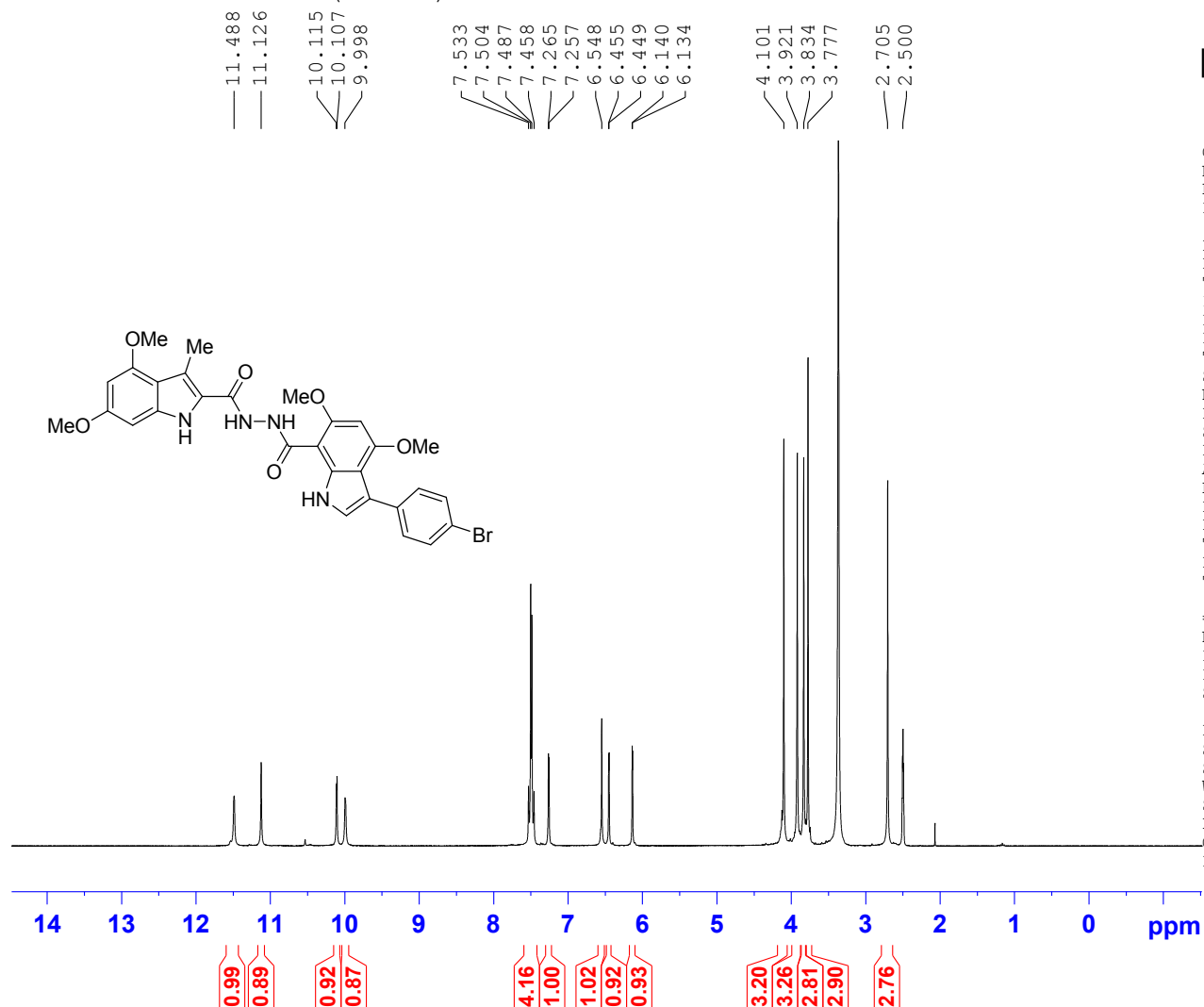
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Date_ 20111008
Time_ 6.28
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 2048
DS 2
SWH 18028.846 Hz
FIDRES 0.275098 Hz
AQ 1.8175317 sec
RG 203
DW 27.733 usec
DE 6.80 usec
TE 298.3 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
TD0 4
SFO1 75.4853543 MHz
NUC1 13C
P1 9.90 usec
PLW1 33.00000000 W
SFO2 300.1712007 MHz
NUC2 1H
CPDPRG[2] bi_waltz65_256
PCPD2 90.00 usec
PLW2 8.20349979 W
PLW12 0.22635999 W
PLW13 0.18335000 W

F2 - Processing parameters
SI 32768
SF 75.4778431 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40



¹H NMR spectrum of **12f**

Supervisor Black
3-CH3-2-CONHNHCO-7-3- (4-BrPh)



Current Data Parameters
NAME 120301-mm
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20120301
Time_ 15.28
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg
TD 32768
SOLVENT DMSO
NS 8
DS 0
SWH 4801.537 Hz
FIDRES 0.146531 Hz
AQ 3.4122410 sec
RG 50.8
DW 104.133 usec
DE 10.47 usec
TE 298.3 K
D1 5.00000000 sec
TDO 1

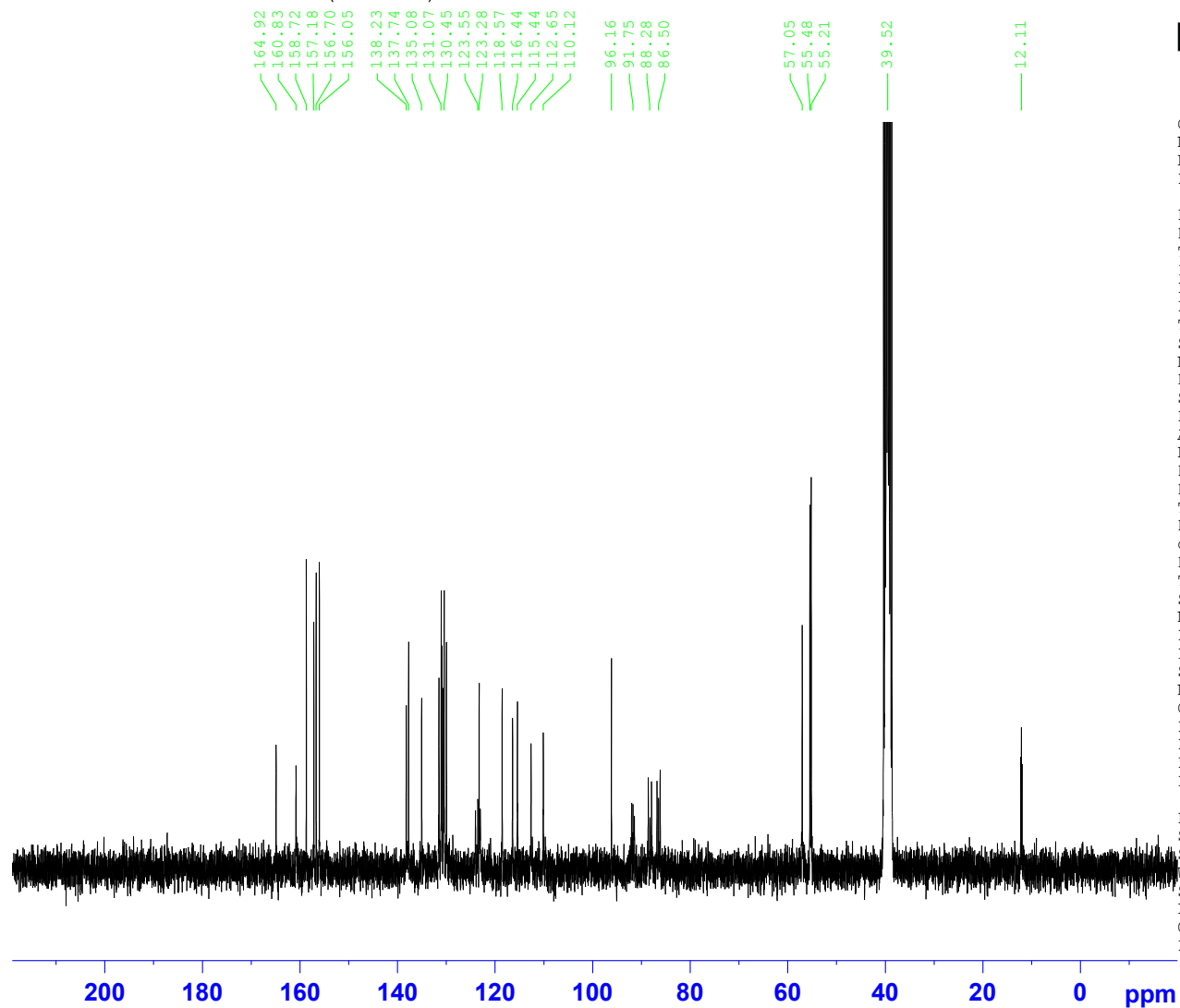
===== CHANNEL f1 =====
NUC1 1H
P1 14.95 usec
PLW1 8.19999981 W
SFO1 300.1719511 MHz

F2 - Processing parameters
SI 131072
SF 300.1700062 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00

¹³C NMR spectrum of **12f**

Supervisor Black

3-CH3-2-CONHNHCO-7-3- (4-BrPh)



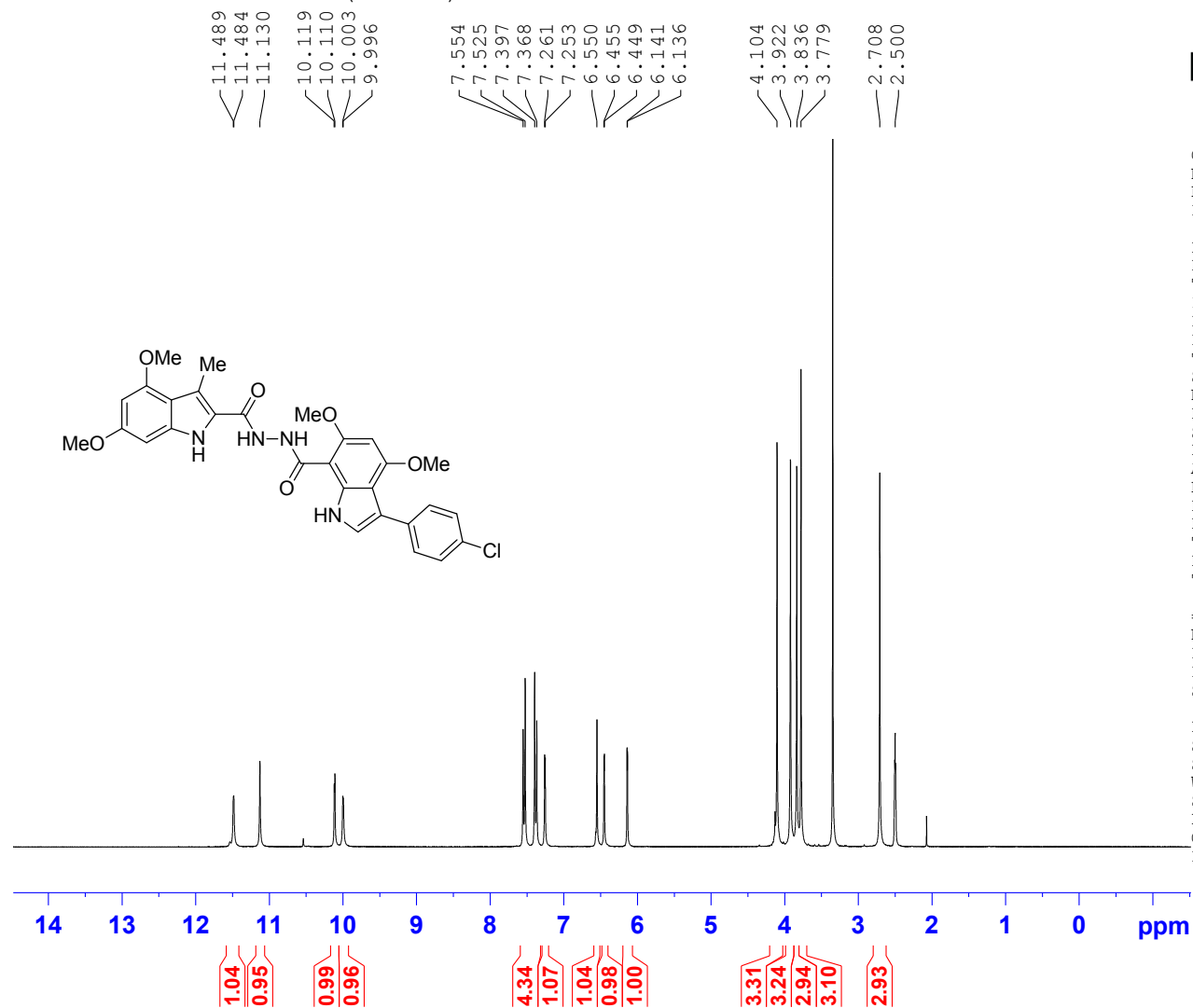
Current Data Parameters
NAME 120229-mm1
EXPNO 4
PROCNO 1

F2 - Acquisition Parameters
Date_ 20120301
Time_ 3.46
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 1536
DS 2
SWH 18028.846 Hz
FIDRES 0.275098 Hz
AQ 1.8175317 sec
RG 203
DW 27.733 usec
DE 6.80 usec
TE 298.3 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
TD0 4
SFO1 75.4853543 MHz
NUC1 13C
P1 9.90 usec
PLW1 33.00000000 W
SFO2 300.1712007 MHz
NUC2 1H
CPDPRG[2 bi_waltz65 256
PCPD2 90.00 usec
PLW2 8.20349979 W
PLW12 0.22635999 W
PLW13 0.18335000 W

F2 - Processing parameters
SI 32768
SF 75.4778410 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

¹H NMR spectrum of **12g**

Supervisor Black
3-CH3-2-CONHNHCO-7'-3-(4-ClPh)



Current Data Parameters
NAME 120217-mm1
EXPNO 8
PROCNO 1

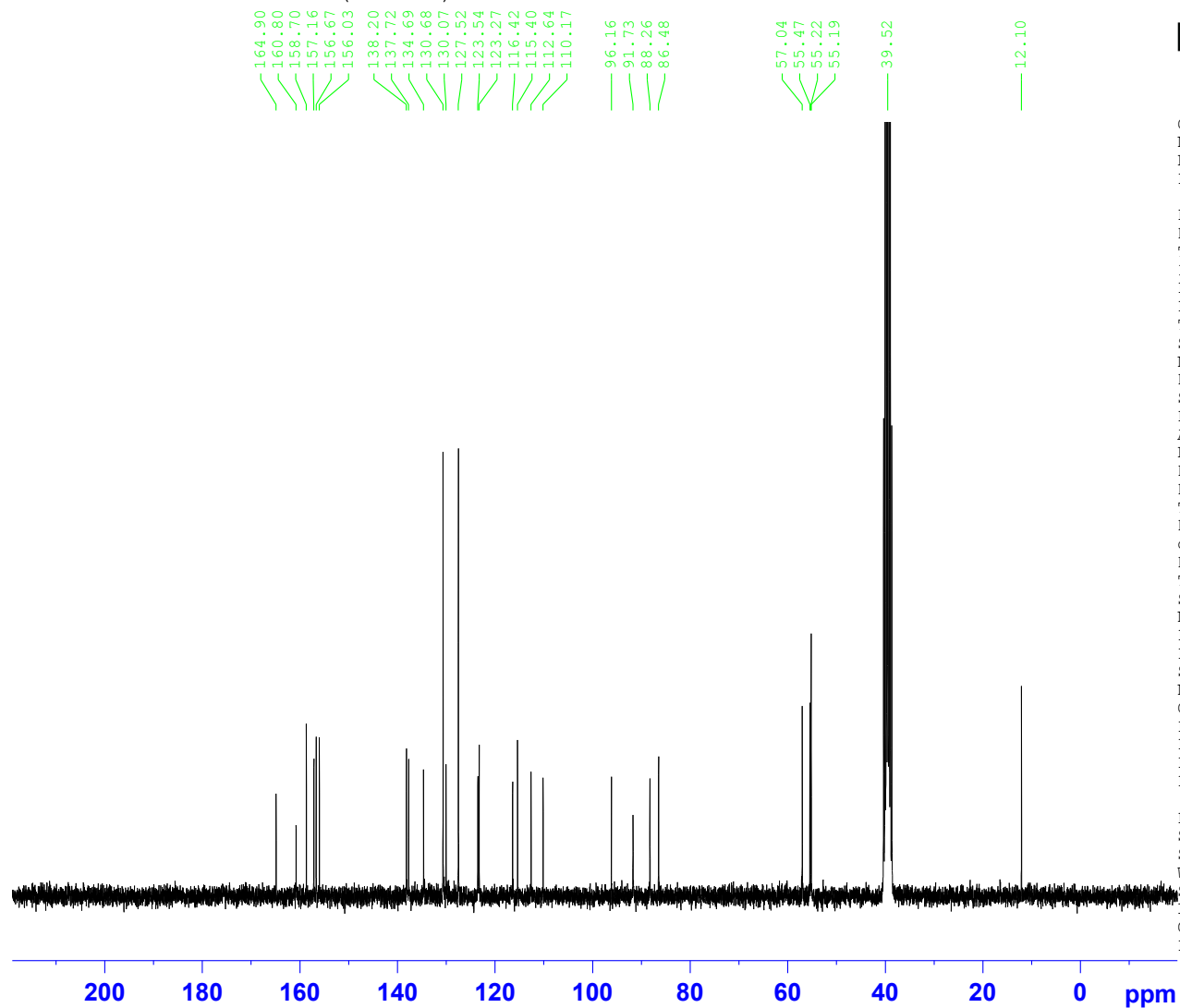
F2 - Acquisition Parameters
Date_ 20120218
Time_ 0.27
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg
TD 32768
SOLVENT DMSO
NS 8
DS 0
SWH 4801.537 Hz
FIDRES 0.146531 Hz
AQ 3.4122410 sec
RG 57
DW 104.133 usec
DE 10.47 usec
TE 298.3 K
D1 5.00000000 sec
TD0 1

===== CHANNEL f1 =====
NUC1 1H
P1 14.95 usec
PLW1 8.19999981 W
SFO1 300.1719511 MHz

F2 - Processing parameters
SI 131072
SF 300.1700060 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00

¹³C NMR spectrum of **12g**

Supervisor Black
3-CH3-2-CONHNHCO-7'-3-(4-ClPh)



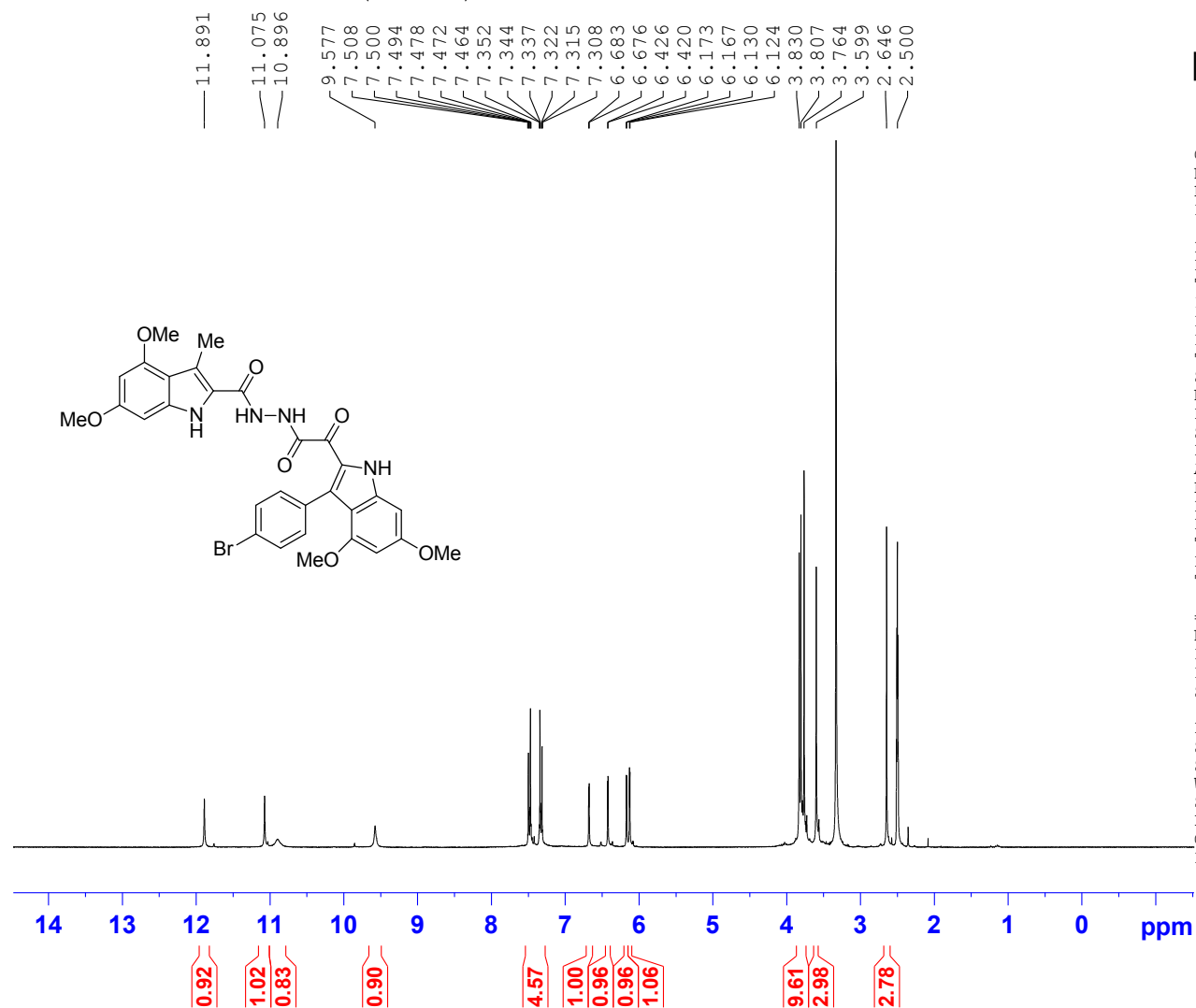
Current Data Parameters
NAME 120217-mm1
EXPNO 6
PROCNO 1

F2 - Acquisition Parameters
Date_ 20120217
Time_ 23.22
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 1024
DS 2
SWH 18028.846 Hz
FIDRES 0.275098 Hz
AQ 1.8175317 sec
RG 203
DW 27.733 usec
DE 6.80 usec
TE 298.3 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
TD0 4
SFO1 75.4853543 MHz
NUC1 13C
P1 9.90 usec
PLW1 33.00000000 W
SFO2 300.1712007 MHz
NUC2 1H
CPDPRG[2 bi_waltz65 256
PCPD2 90.00 usec
PLW2 8.20349979 W
PLW12 0.22635999 W
PLW13 0.18335000 W

F2 - Processing parameters
SI 32768
SF 75.4778422 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

¹H NMR spectrum of **13**

Supervisor Black
3-CH3-2-CONHNHCOCO-2-3- (4-BrPh)



Current Data Parameters
NAME 120312-mm1
EXPNO 9
PROCNO 1

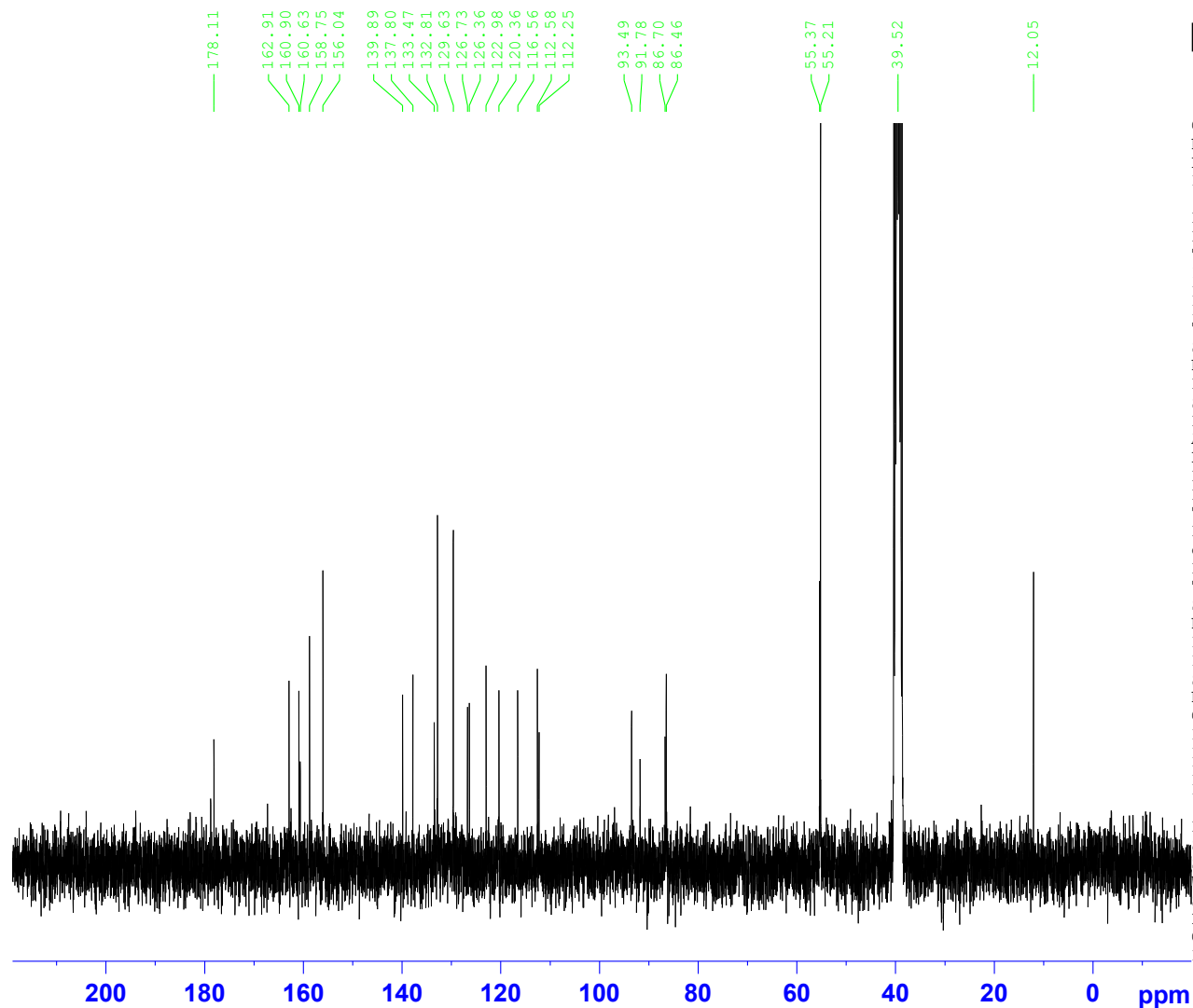
F2 - Acquisition Parameters
Date_ 20120312
Time_ 20.44
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg
TD 32768
SOLVENT DMSO
NS 8
DS 0
SWH 4801.537 Hz
FIDRES 0.146531 Hz
AQ 3.4122410 sec
RG 114
DW 104.133 usec
DE 10.47 usec
TE 298.3 K
D1 5.00000000 sec
TD0 1

===== CHANNEL f1 =====
NUC1 1H
P1 14.95 usec
PLW1 8.19999981 W
SFO1 300.1719511 MHz

F2 - Processing parameters
SI 131072
SF 300.1700060 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00

¹³C NMR spectrum of **13**

Supervisor Black
3-CH3-2-CONHNHCOCO-2-3- (4-BrPh)



Current Data Parameters
NAME 120312-mm1
EXPNO 7
PROCNO 1

F2 - Acquisition Parameters
Date_ 20120312
Time_ 18.50
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 2048
DS 2
SWH 18028.846 Hz
FIDRES 0.275098 Hz
AQ 1.8175317 sec
RG 203
DW 27.733 usec
DE 6.80 usec
TE 298.3 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
TD0 4
SFO1 75.4853543 MHz
NUC1 13C
P1 9.90 usec
PLW1 33.00000000 W
SFO2 300.1712007 MHz
NUC2 1H
CPDPRG[2 bi_waltz65_256
PCPD2 90.00 usec
PLW2 8.20349979 W
PLW12 0.22635999 W
PLW13 0.18335000 W

F2 - Processing parameters
SI 32768
SF 75.4778426 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

¹H NMR spectrum of **14b**

Supervisor Kumar
gkl038

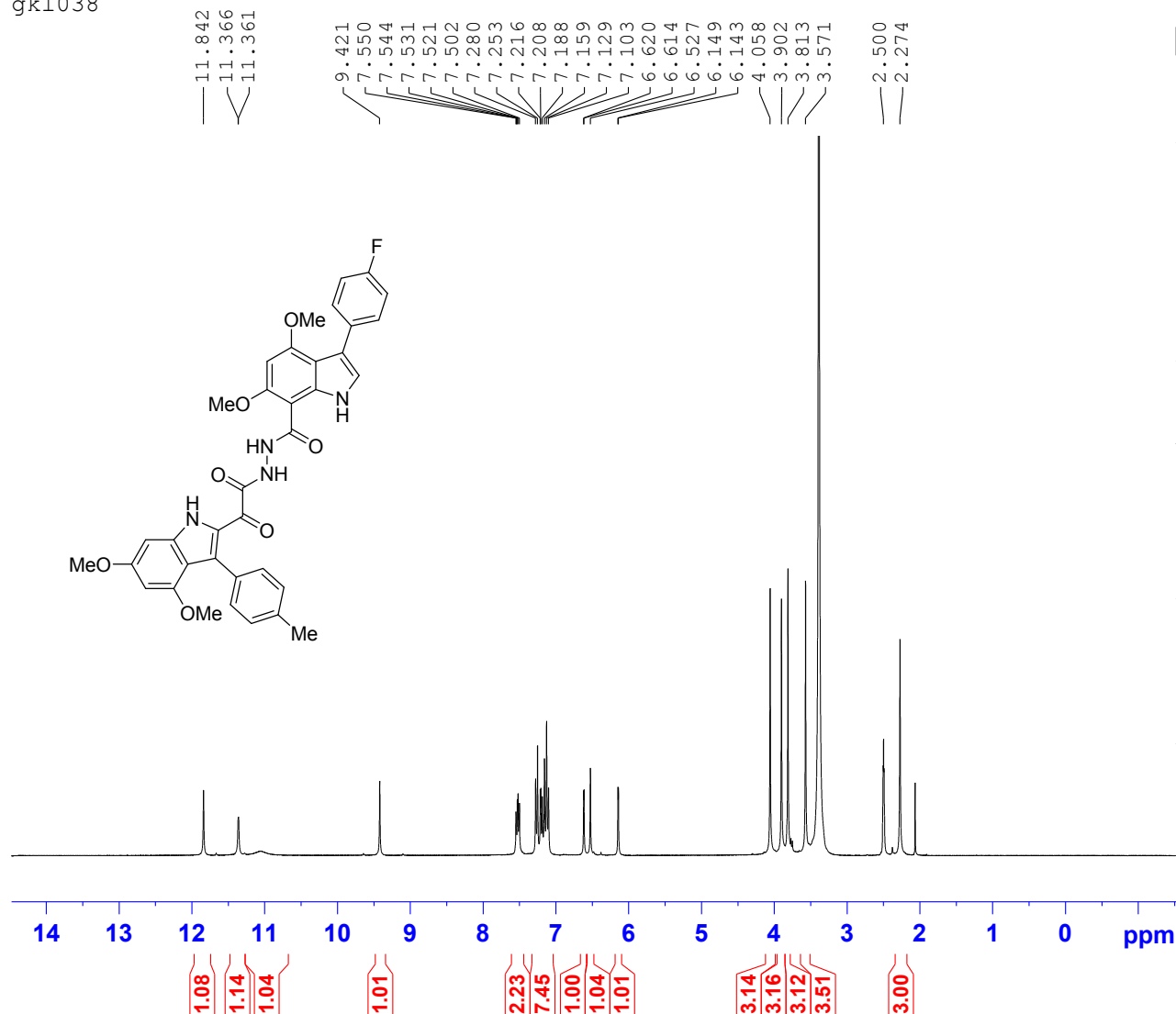


Current Data Parameters
NAME 111006-rvd
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20111007
Time_ 7.12
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg
TD 32768
SOLVENT DMSO
NS 8
DS 0
SWH 4801.537 Hz
FIDRES 0.146531 Hz
AQ 3.4122410 sec
RG 45.2
DW 104.133 usec
DE 10.47 usec
TE 298.3 K
D1 5.00000000 sec
TD0 1

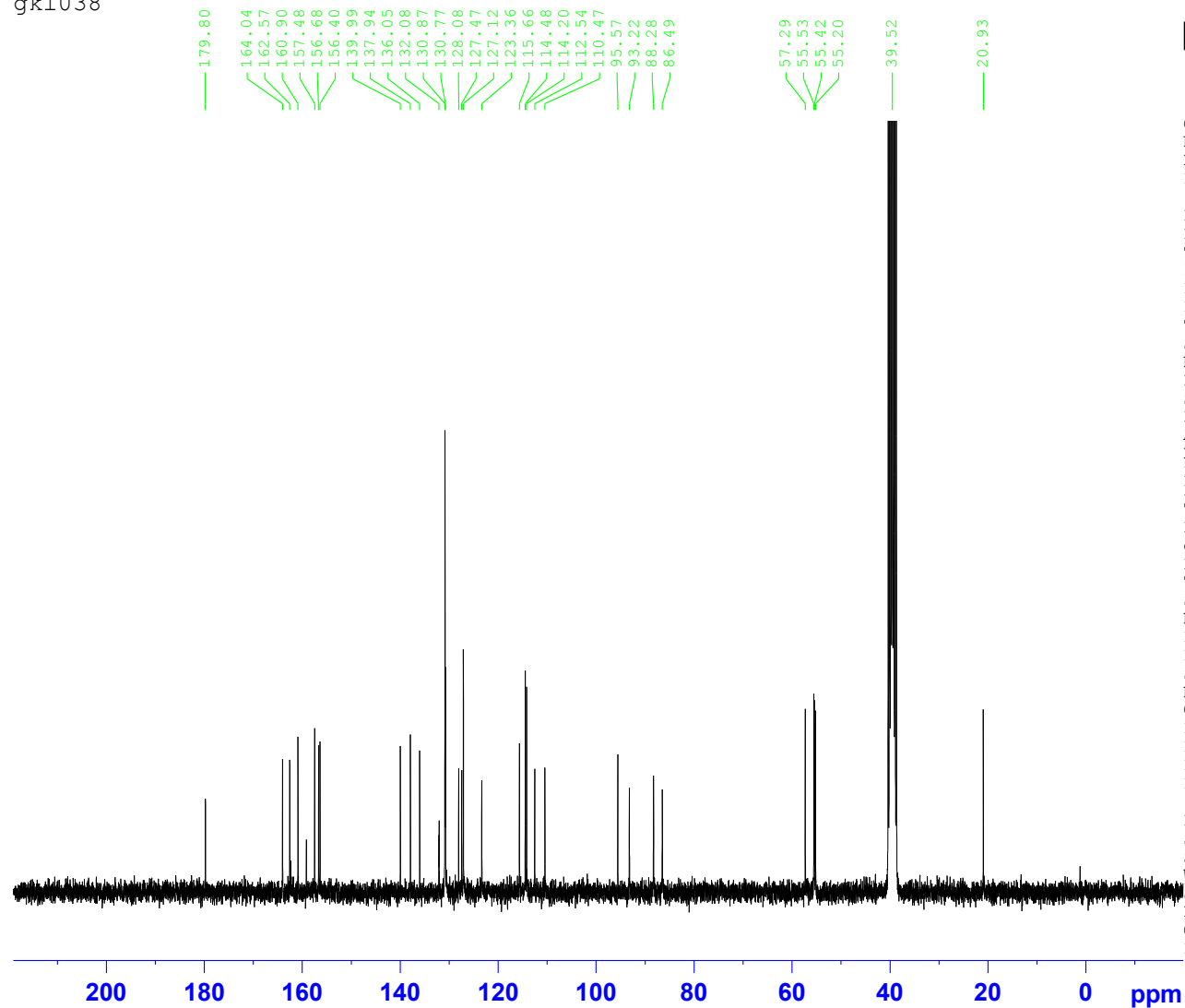
===== CHANNEL f1 =====
NUC1 1H
P1 14.95 usec
PLW1 8.19999981 W
SFO1 300.1719511 MHz

F2 - Processing parameters
SI 131072
SF 300.1700061 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00



¹³C NMR spectrum of **14b**

Supervisor Kumar
gkl038



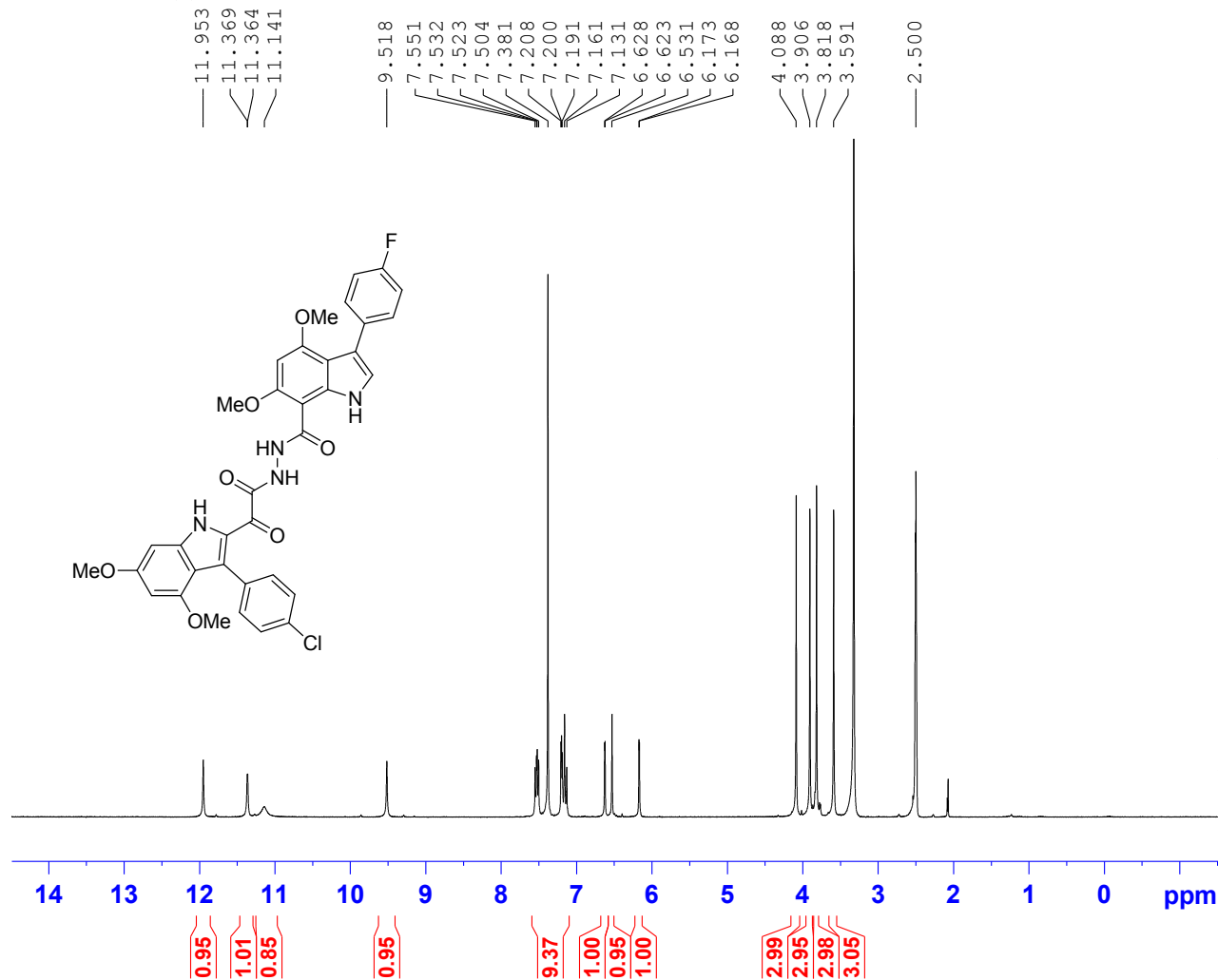
Current Data Parameters
NAME 111006-rvd
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters
Date_ 20111007
Time_ 7.47
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 2048
DS 2
SWH 18028.846 Hz
FIDRES 0.275098 Hz
AQ 1.8175317 sec
RG 203
DW 27.733 usec
DE 6.80 usec
TE 298.3 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
TD0 4
SFO1 75.4853543 MHz
NUC1 13C
P1 9.90 usec
PLW1 33.00000000 W
SFO2 300.1712007 MHz
NUC2 1H
CPDPRG[2] bi_waltz65_256
PCPD2 90.00 usec
PLW2 8.20349979 W
PLW12 0.22635999 W
PLW13 0.18335000 W

F2 - Processing parameters
SI 32768
SF 75.4778391 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

¹H NMR spectrum of **14c**

Supervisor Black
GKL039
1H DMSO F:\ mmi 44



Current Data Parameters
NAME 140101-mm1
EXPNO 5
PROCNO 1

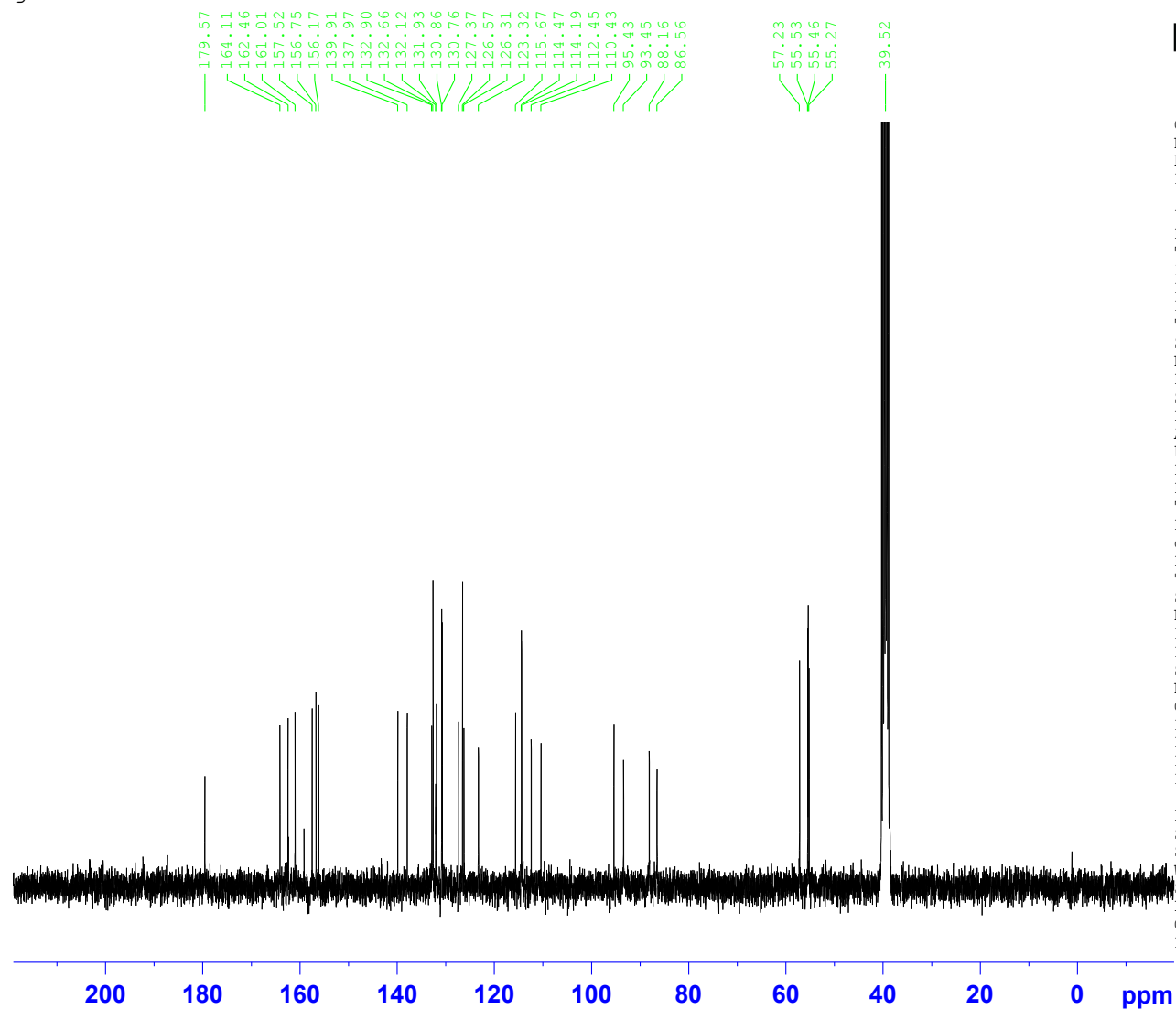
F2 - Acquisition Parameters
Date_ 20140101
Time 22.48
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg
TD 32768
SOLVENT DMSO
NS 24
DS 0
SWH 4801.537 Hz
FIDRES 0.146531 Hz
AQ 3.4122410 sec
RG 144
DW 104.133 usec
DE 9.44 usec
TE 298.0 K
D1 5.00000000 sec
TD0 1

===== CHANNEL f1 =====
SFO1 300.1719511 MHz
NUC1 1H
P1 16.56 usec
PLW1 8.19999981 W

F2 - Processing parameters
SI 131072
SF 300.1700025 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00

¹³C NMR spectrum of **14c**

Supervisor Kumar
gkl039



Current Data Parameters
NAME 111007-rvd
EXPNO 15
PROCNO 1

F2 - Acquisition Parameters
Date_ 20111008
Time_ 9.08
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 2048
DS 2
SWH 18028.846 Hz
FIDRES 0.275098 Hz
AQ 1.8175317 sec
RG 203
DW 27.733 usec
DE 6.80 usec
TE 298.3 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
TD0 4
SFO1 75.4853543 MHz
NUC1 13C
P1 9.90 usec
PLW1 33.00000000 W
SFO2 300.1712007 MHz
NUC2 1H
CPDPRG[2 bi_waltz65_256
PCPD2 90.00 usec
PLW2 8.20349979 W
PLW12 0.22635999 W
PLW13 0.18335000 W

F2 - Processing parameters
SI 32768
SF 75.4778394 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

¹H NMR spectrum of **15a**

Supervisor Black
GKL028
1H DMSO F:\ mmi 33

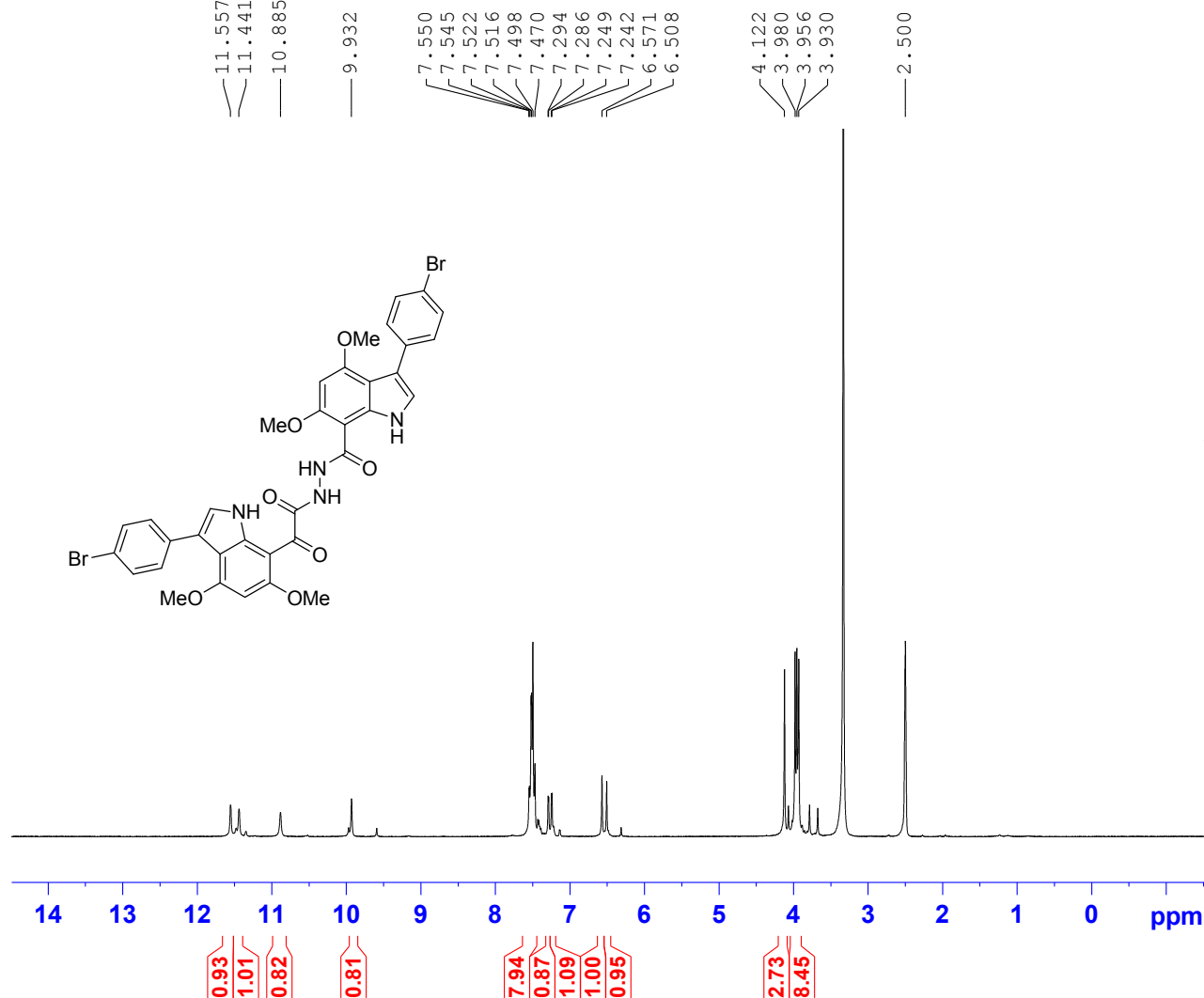


Current Data Parameters
NAME 131231-mmi
EXPNO 3
PROCNO 1

F2 - Acquisition Parameters
Date_ 20131231
Time_ 15.04
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg
TD 32768
SOLVENT DMSO
NS 24
DS 0
SWH 4801.537 Hz
FIDRES 0.146531 Hz
AQ 3.4122410 sec
RG 114
DW 104.133 usec
DE 9.44 usec
TE 298.0 K
D1 5.00000000 sec
TD0 1

===== CHANNEL f1 =====
SFO1 300.1719511 MHz
NUC1 1H
P1 16.56 usec
PLW1 8.19999981 W

F2 - Processing parameters
SI 131072
SF 300.1700025 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00

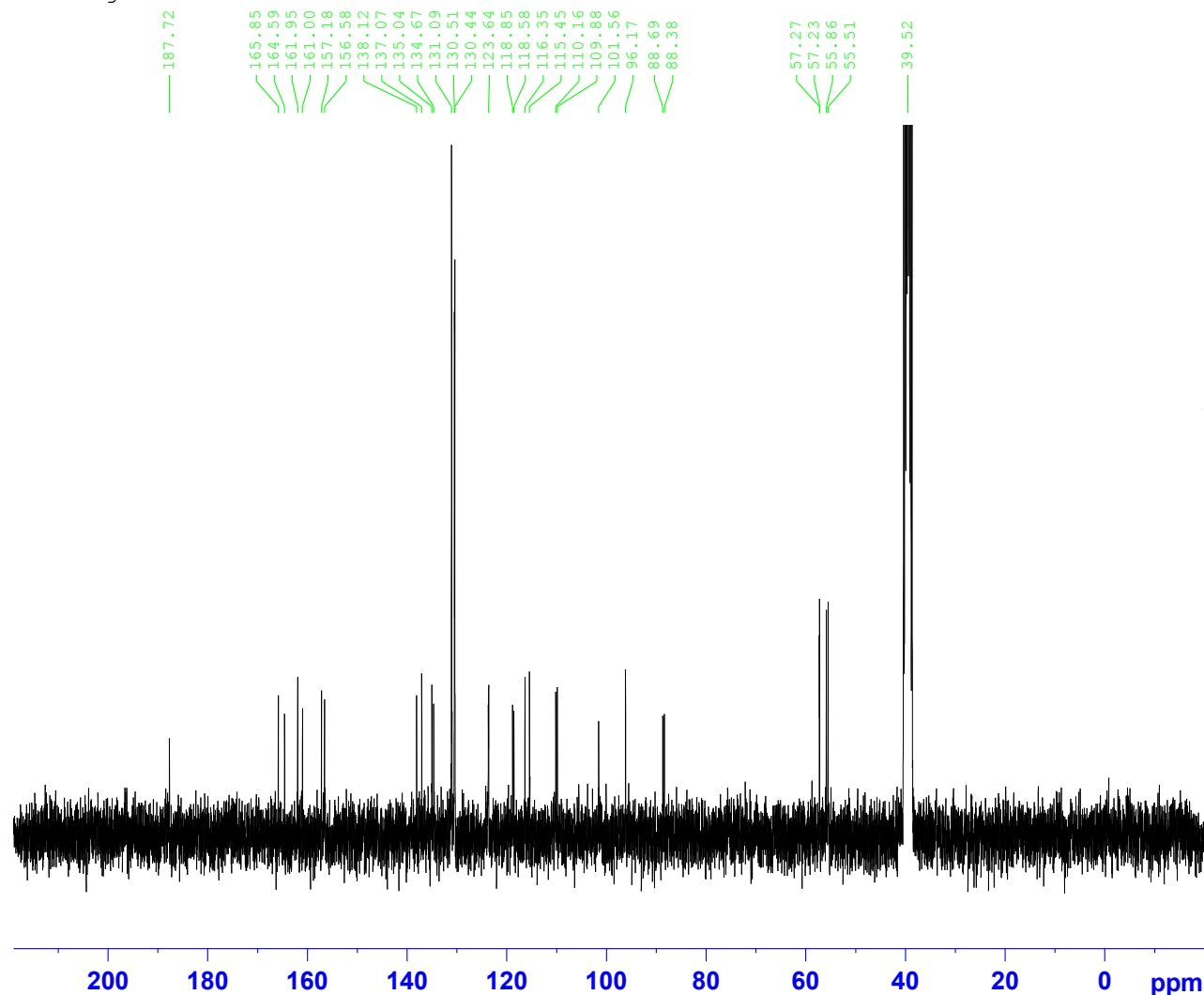


¹³C NMR spectrum of **15a**

Supervisor Black

GKL028

13C.night DMSO F:\\ mmi 33



Current Data Parameters
NAME 131231-mm1
EXPNO 4
PROCNO 1

F2 - Acquisition Parameters
Date_ 20131231
Time_ 15.31
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 3072
DS 2
SWH 18028.846 Hz
FIDRES 0.275098 Hz
AQ 1.8175317 sec
RG 203
DW 27.733 usec
DE 6.80 usec
TE 298.0 K
D1 1.00000000 sec
D11 0.03000000 sec
TD0 6

===== CHANNEL f1 =====
SFO1 75.4853543 MHz
NUC1 13C
P1 9.90 usec
PLW1 33.00000000 W

===== CHANNEL f2 =====
SFO2 300.1712007 MHz
NUC2 1H
CPDPRG[2] bi_waltz65_256
PCPD2 90.00 usec
PLW2 8.20349979 W
PLW12 0.27774000 W
PLW13 0.22497000 W

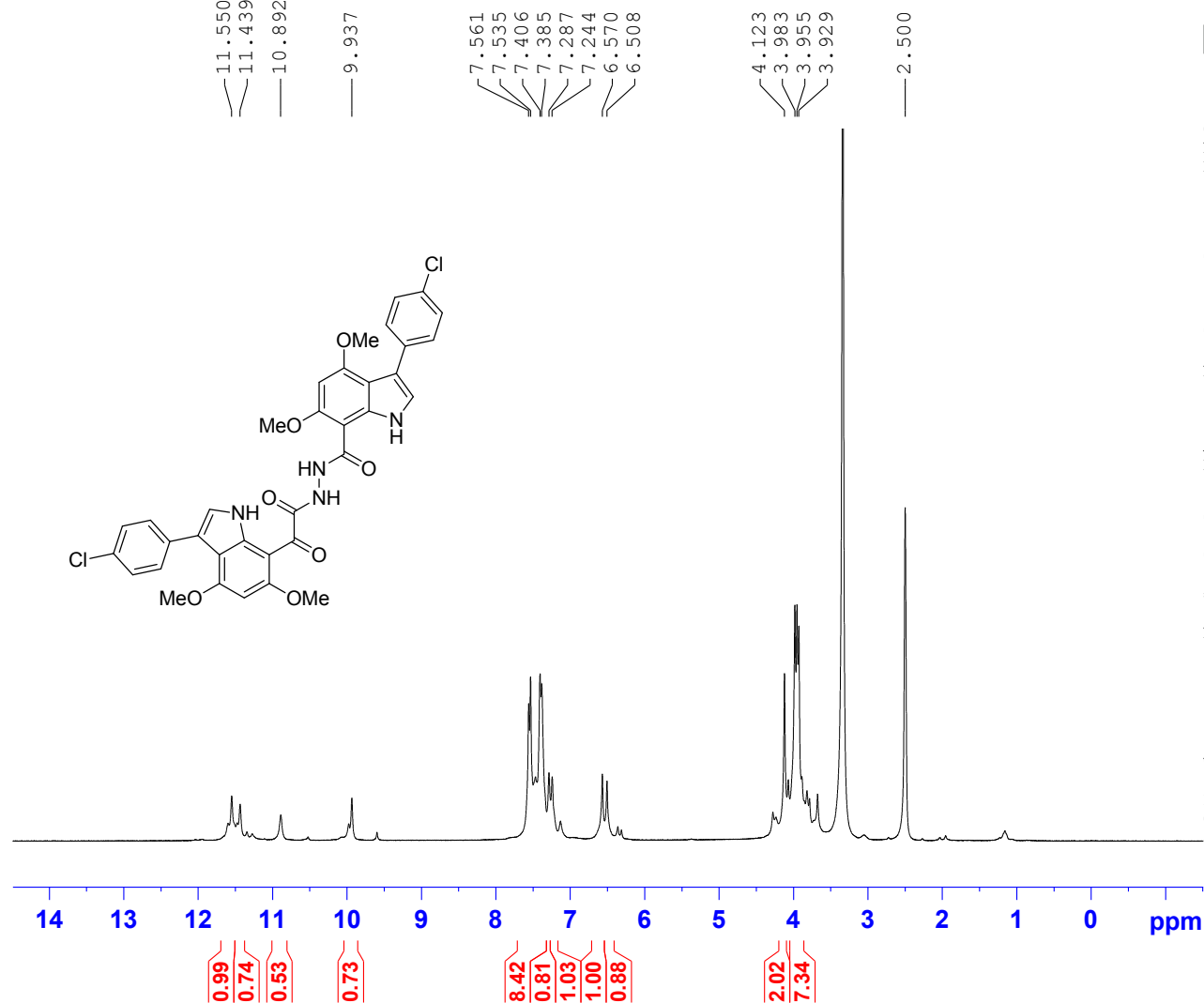
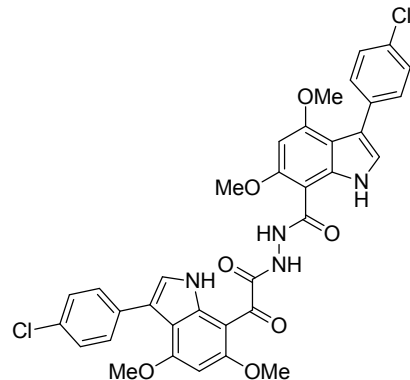
F2 - Processing parameters
SI 32768
SF 75.4778419 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

¹H NMR spectrum of **15b**

Supervisor Black

GKL029

1H DMSO F:\ mmi 34



Current Data Parameters
NAME 131231-mm1
EXPNO 5
PROCNO 1

F2 - Acquisition Parameters
Date_ 20131231
Time_ 17.40
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg
TD 32768
SOLVENT DMSO
NS 24
DS 0
SWH 4801.537 Hz
FIDRES 0.146531 Hz
AQ 3.4122410 sec
RG 80.6
DW 104.133 usec
DE 9.44 usec
TE 298.0 K
D1 5.00000000 sec
TD0 1

===== CHANNEL f1 =====
SFO1 300.1719511 MHz
NUC1 1H
P1 16.56 usec
PLW1 8.19999981 W

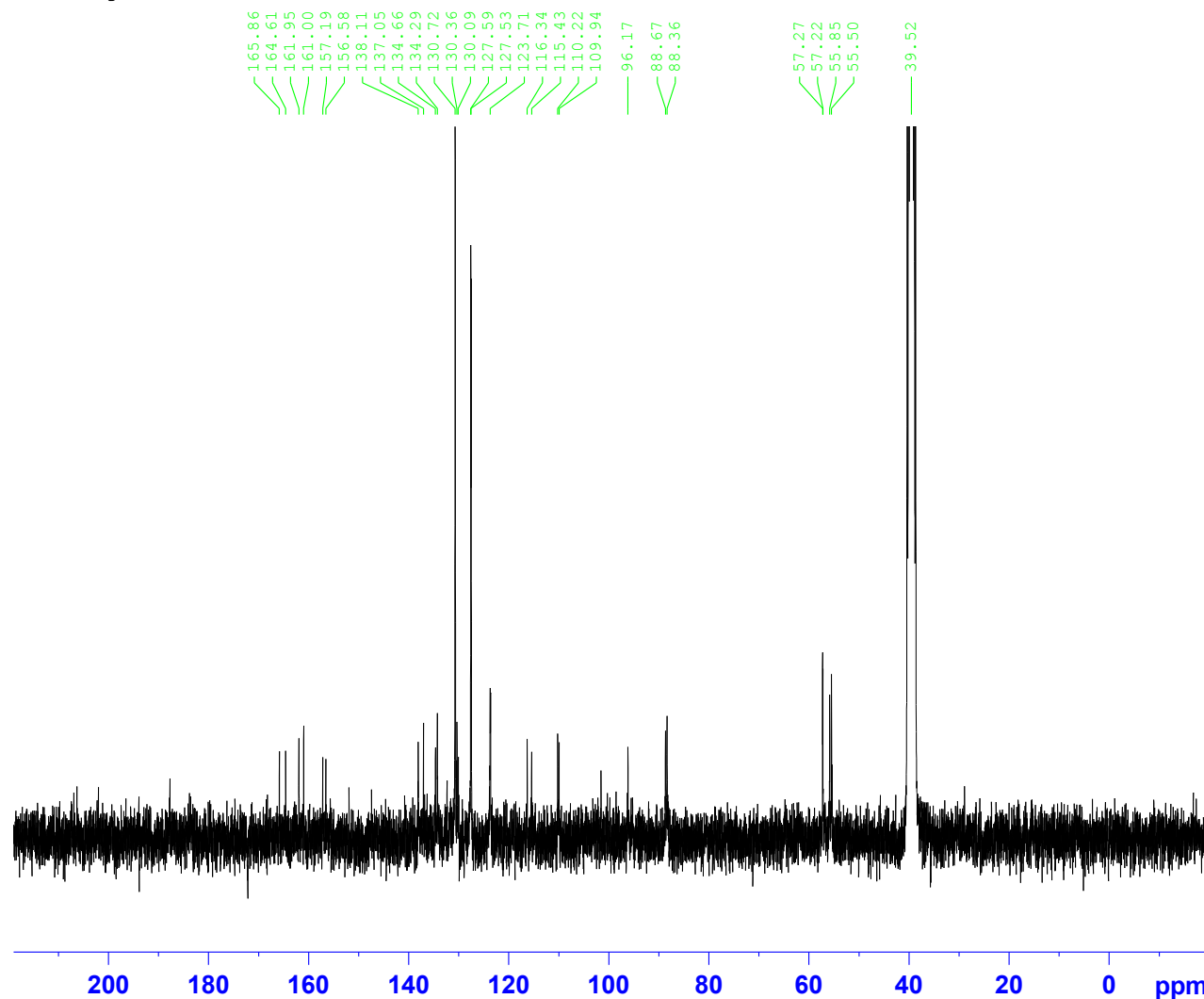
F2 - Processing parameters
SI 131072
SF 300.1700026 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00

¹³C NMR spectrum of **15b**

Supervisor Black

GKL029

13C.night DMSO F:\ mmi 34



Current Data Parameters
NAME 131231-mmi
EXPNO 6
PROCNO 1

F2 - Acquisition Parameters
Date_ 20131231
Time_ 18.06
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 3072
DS 2
SWH 18028.846 Hz
FIDRES 0.275098 Hz
AQ 1.8175317 sec
RG 203
DW 27.733 usec
DE 6.80 usec
TE 298.0 K
D1 1.00000000 sec
D11 0.03000000 sec
TD0 6

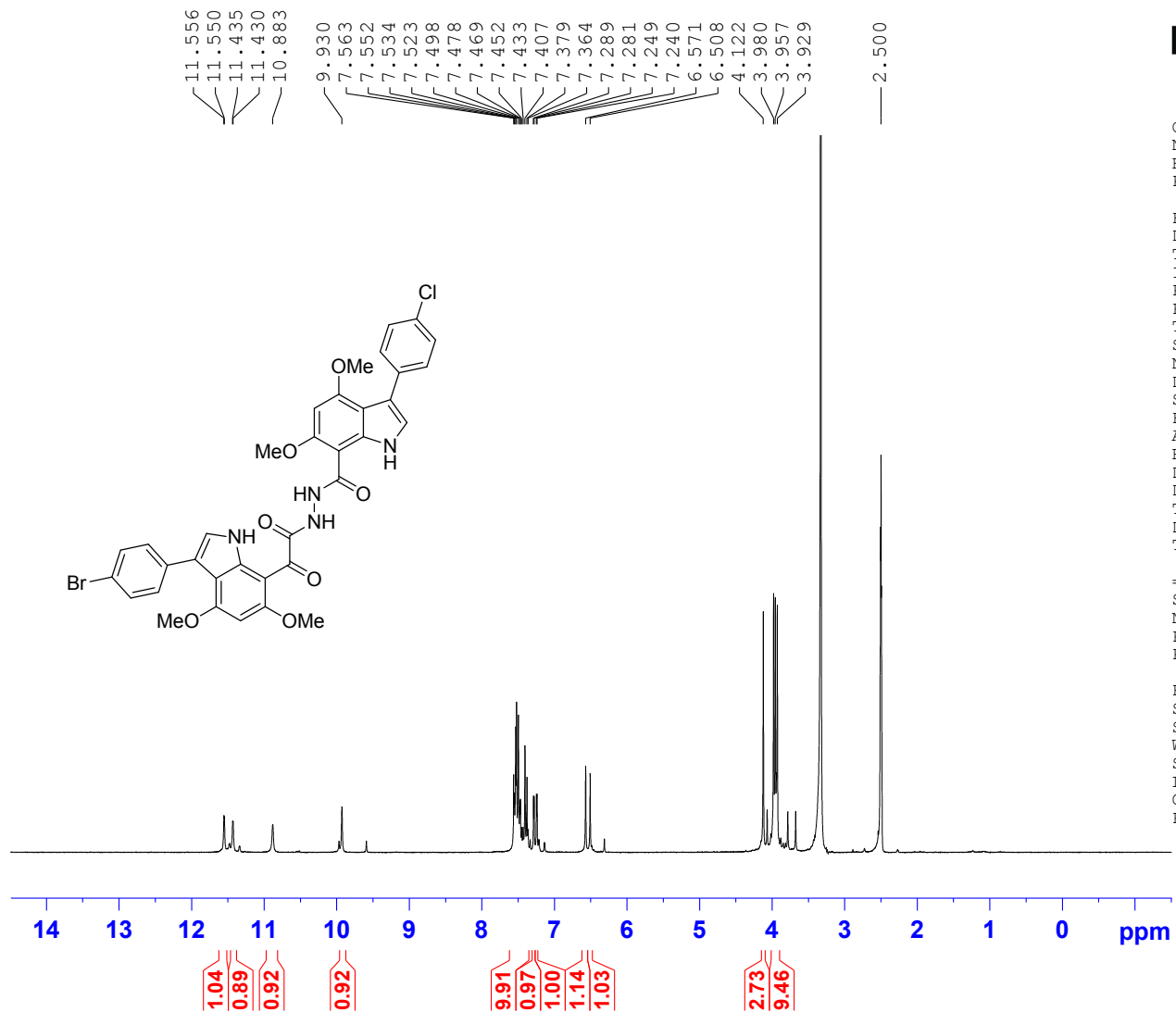
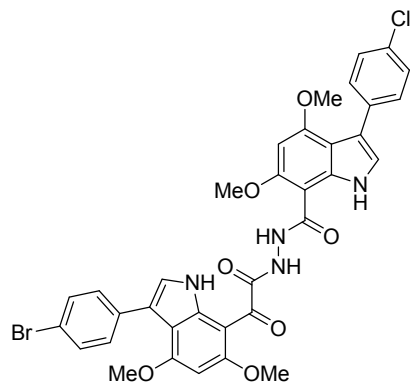
===== CHANNEL f1 =====
SFO1 75.4853543 MHz
NUC1 13C
P1 9.90 usec
PLW1 33.00000000 W

===== CHANNEL f2 =====
SFO2 300.1712007 MHz
NUC2 1H
CPDPRG[2] bi_waltz65_256
PCPD2 90.00 usec
PLW2 8.20349979 W
PLW12 0.27774000 W
PLW13 0.22497000 W

F2 - Processing parameters
SI 32768
SF 75.4778419 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

¹H NMR spectrum of **15c**

Supervisor Black
GKL030
1H DMSO F:\ mmi 35



Current Data Parameters
NAME 131231-mm1
EXPNO 7
PROCNO 1

F2 - Acquisition Parameters
Date_ 20131231
Time 20.16
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg
TD 32768
SOLVENT DMSO
NS 24
DS 0
SWH 4801.537 Hz
FIDRES 0.146531 Hz
AQ 3.4122410 sec
RG 128
DW 104.133 usec
DE 9.44 usec
TE 298.0 K
D1 5.00000000 sec
TD0 1

===== CHANNEL f1 =====
SFO1 300.1719511 MHz
NUC1 1H
P1 16.56 usec
PLW1 8.19999981 W

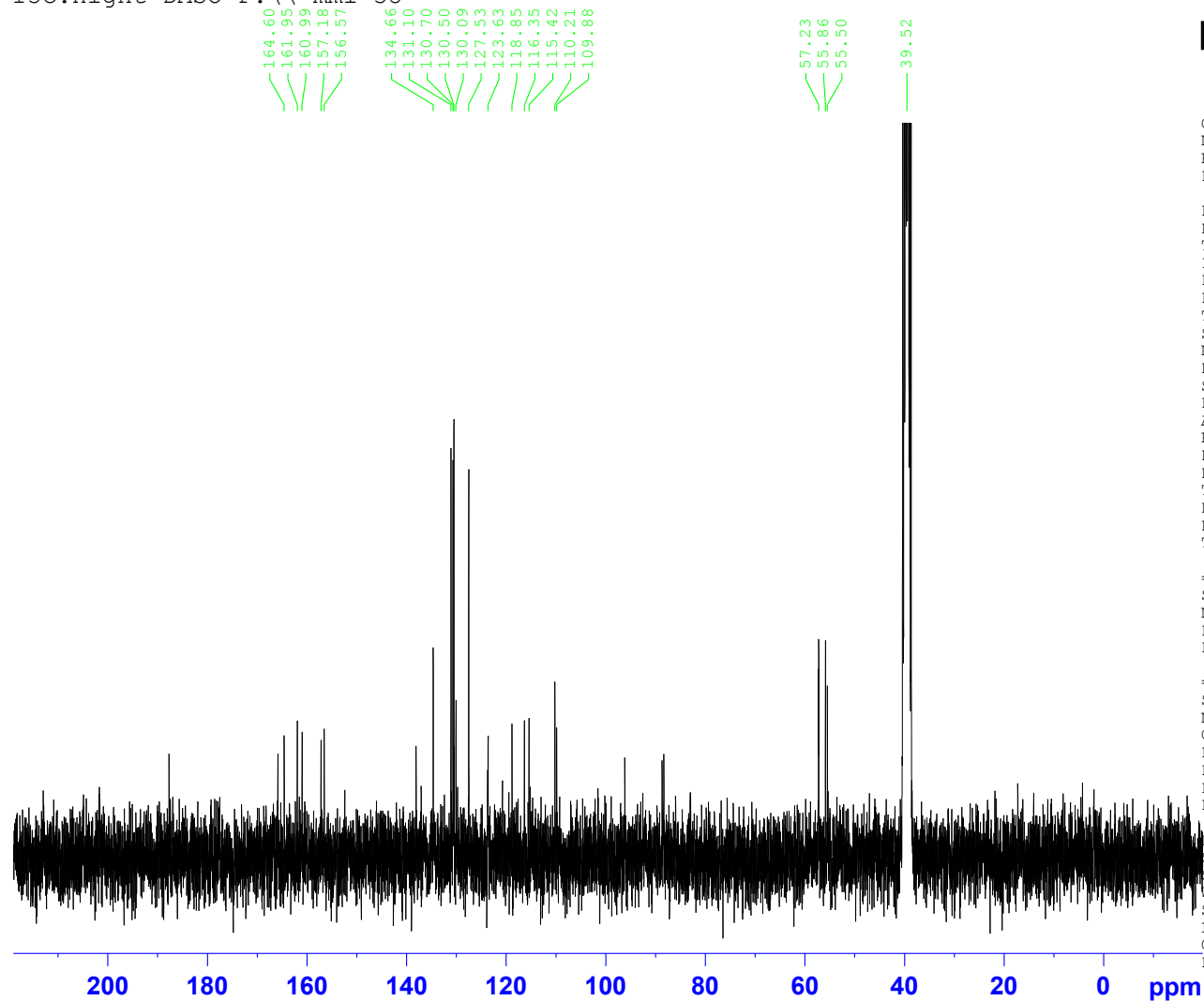
F2 - Processing parameters
SI 131072
SF 300.1700024 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00

¹³C NMR spectrum of **15c**

Supervisor Black

GKL030

13C.night DMSO F:\ mmi 35



Current Data Parameters
NAME 131231-mm
EXPNO 8
PROCNO 1

F2 - Acquisition Parameters
Date_ 20131231
Time 20.42
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 3072
DS 2
SWH 18028.846 Hz
FIDRES 0.275098 Hz
AQ 1.8175317 sec
RG 203
DW 27.733 usec
DE 6.80 usec
TE 298.0 K
D1 1.00000000 sec
D11 0.03000000 sec
TD0 6

===== CHANNEL f1 =====
SFO1 75.4853543 MHz
NUC1 13C
P1 9.90 usec
PLW1 33.00000000 W

===== CHANNEL f2 =====
SFO2 300.1712007 MHz
NUC2 1H
CPDPRG[2 bi_waltz65_256
PCPD2 90.00 usec
PLW2 8.20349979 W
PLW12 0.27774000 W
PLW13 0.22497000 W

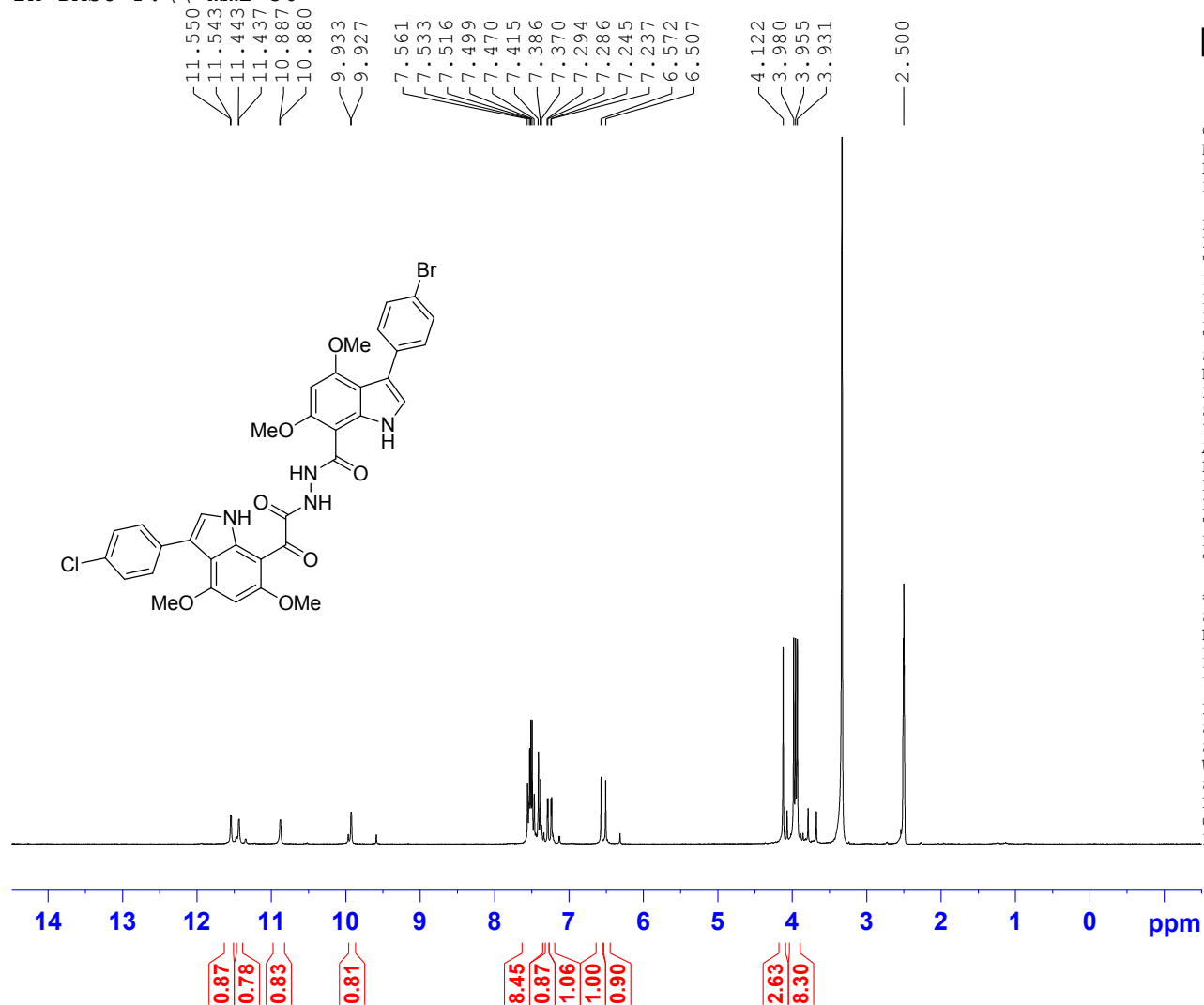
F2 - Processing parameters
SI 32768
SF 75.4778420 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

¹H NMR spectrum of **15d**

Supervisor Black

GKL031

1H DMSO F:\ mmi 36



Current Data Parameters
NAME 131231-mmi
EXPNO 9
PROCNO 1

F2 - Acquisition Parameters
Date_ 20131231
Time_ 22.52
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg
TD 32768
SOLVENT DMSO
NS 24
DS 0
SWH 4801.537 Hz
FIDRES 0.146531 Hz
AQ 3.4122410 sec
RG 128
DW 104.133 usec
DE 9.44 usec
TE 298.0 K
D1 5.00000000 sec
TD0 1

===== CHANNEL f1 =====
SFO1 300.1719511 MHz
NUC1 1H
P1 16.56 usec
PLW1 8.19999981 W

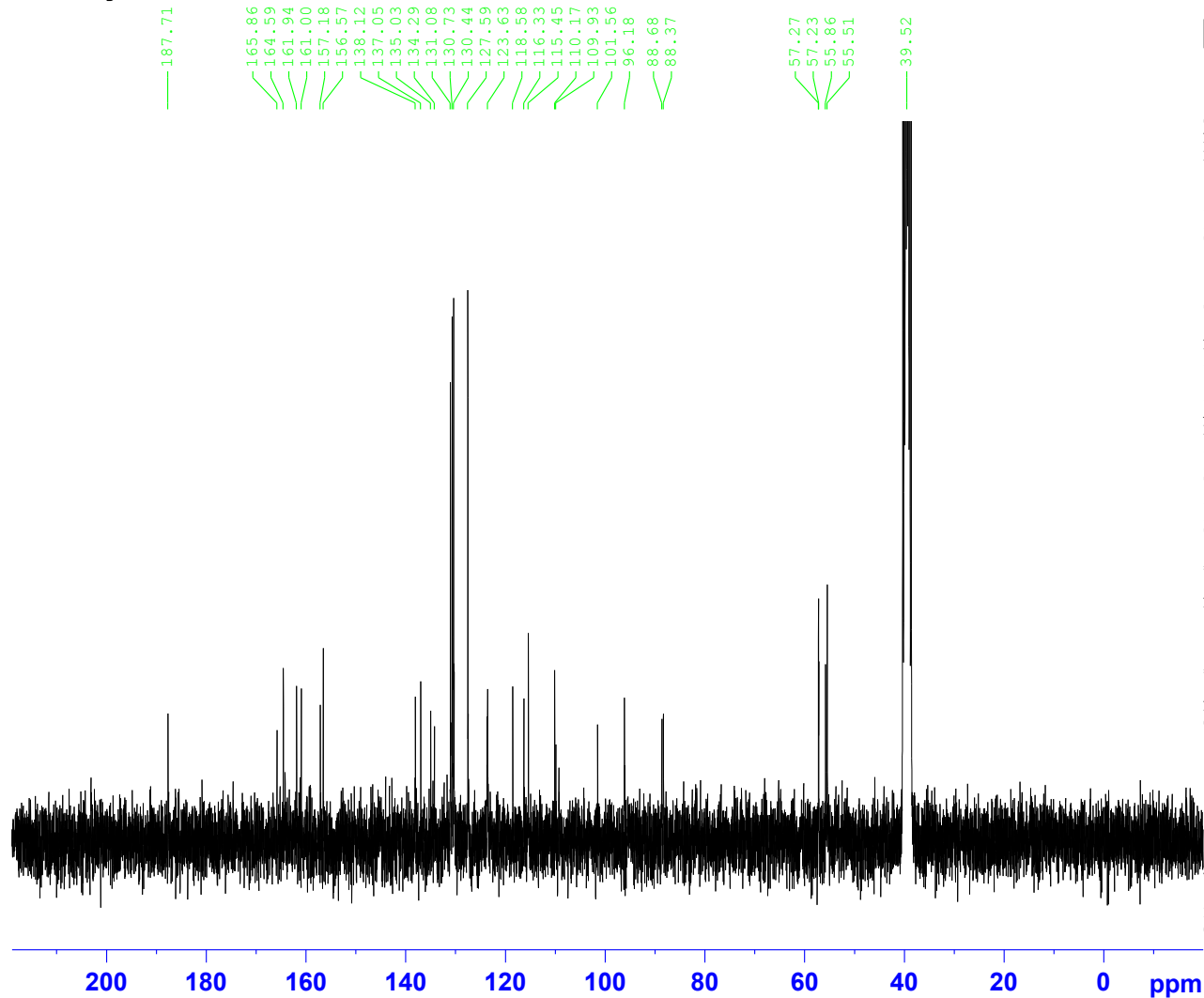
F2 - Processing parameters
SI 131072
SF 300.1700024 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00

¹³C NMR spectrum of **15d**

Supervisor Black

GKL031

13C.night DMSO F:\ mmi 36



Current Data Parameters
NAME 131231-mmi
EXPNO 10
PROCNO 1

F2 - Acquisition Parameters
Date_ 20131231
Time 23.18
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 3072
DS 2
SWH 18028.846 Hz
FIDRES 0.275098 Hz
AQ 1.8175317 sec
RG 203
DW 27.733 usec
DE 6.80 usec
TE 298.0 K
D1 1.00000000 sec
D11 0.03000000 sec
TD0 6

===== CHANNEL f1 =====
SFO1 75.4853543 MHz
NUC1 13C
P1 9.90 usec
PLW1 33.00000000 W

===== CHANNEL f2 =====
SFO2 300.1712007 MHz
NUC2 1H
CPDPRG[2 bi_waltz65 256
PCPD2 90.00 usec
PLW2 8.20349979 W
PLW12 0.27774000 W
PLW13 0.22497000 W

F2 - Processing parameters
SI 32768
SF 75.4778419 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

¹H NMR spectrum of **16**

Supervisor Kumar
gkl001

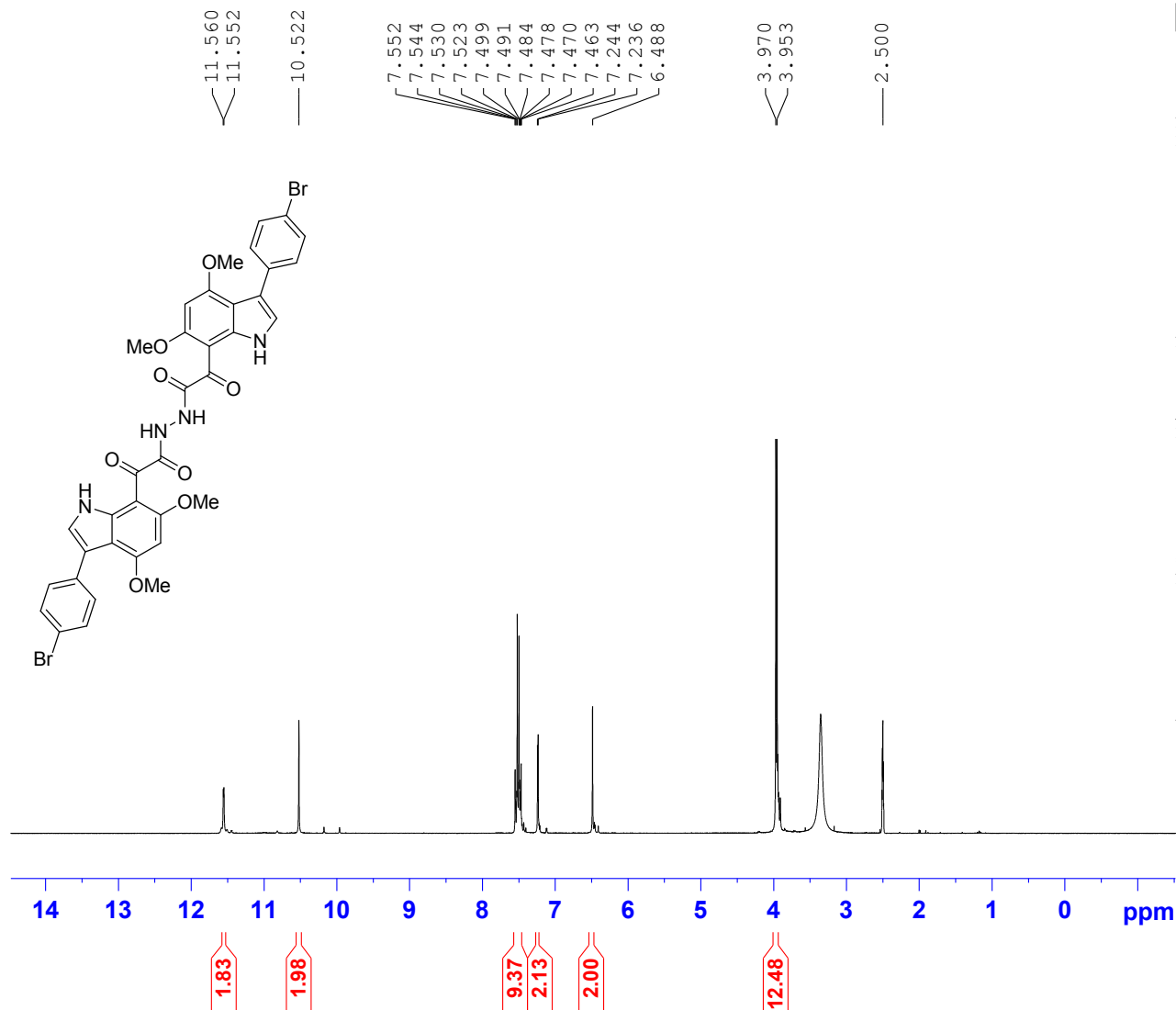


Current Data Parameters
NAME 110912-rvd
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20110913
Time 7.27
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg
TD 32768
SOLVENT DMSO
NS 8
DS 0
SWH 4801.537 Hz
FIDRES 0.146531 Hz
AQ 3.4122410 sec
RG 90.5
DW 104.133 usec
DE 10.47 usec
TE 298.3 K
D1 5.00000000 sec
TD0 1

===== CHANNEL f1 =====
NUC1 1H
P1 14.95 usec
PLW1 8.1999981 W
SFO1 300.1719511 MHz

F2 - Processing parameters
SI 131072
SF 300.1700061 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00



¹H NMR spectrum of **17**

Supervisor Black
GKL022
1H DMSO F:\ mmi 38

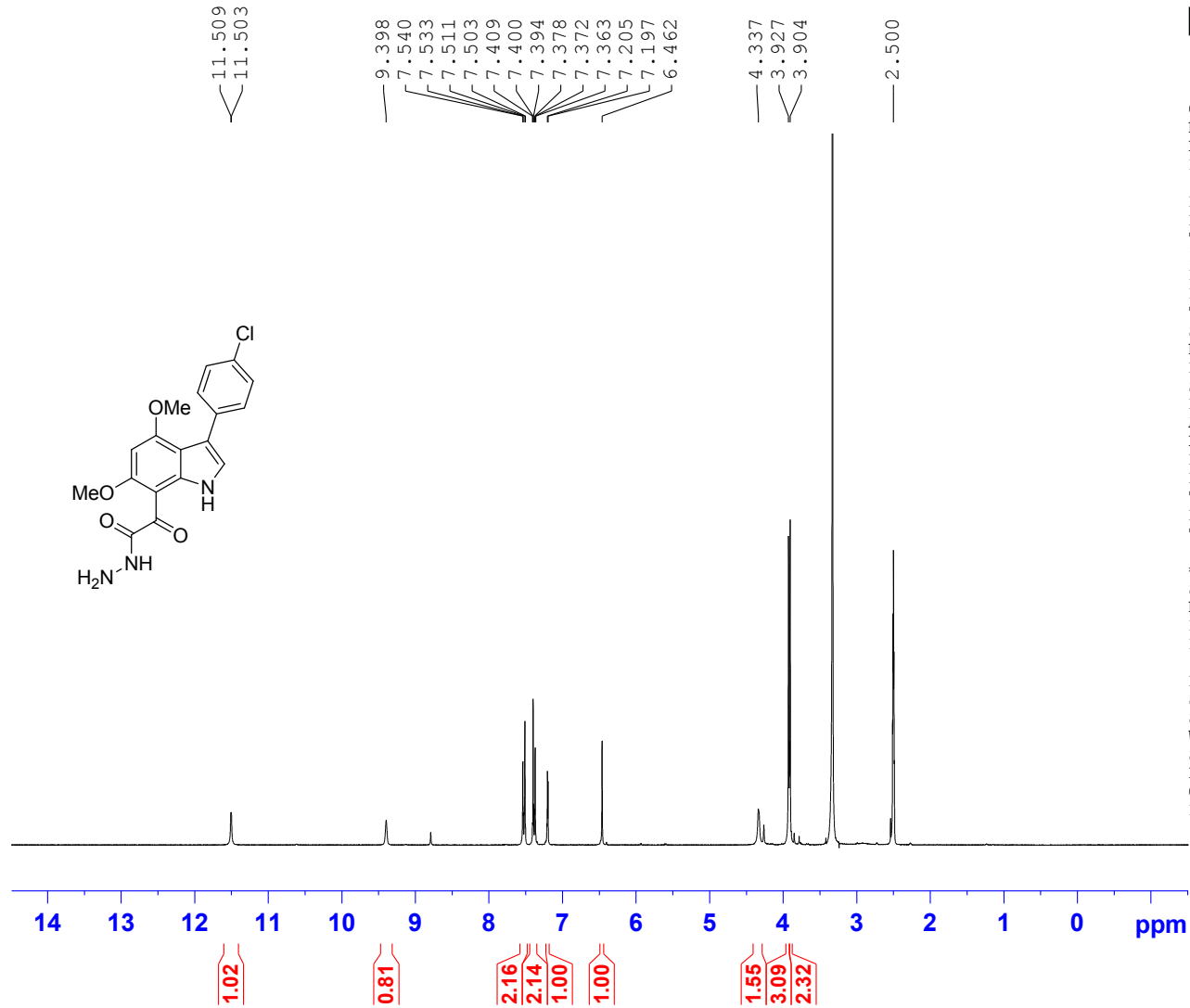


Current Data Parameters
NAME 131027-mmi
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20131027
Time_ 17.59
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg
TD 32768
SOLVENT DMSO
NS 64
DS 0
SWH 4801.537 Hz
FIDRES 0.146531 Hz
AQ 3.4122410 sec
RG 144
DW 104.133 usec
DE 10.47 usec
TE 298.1 K
D1 5.00000000 sec
TD0 1

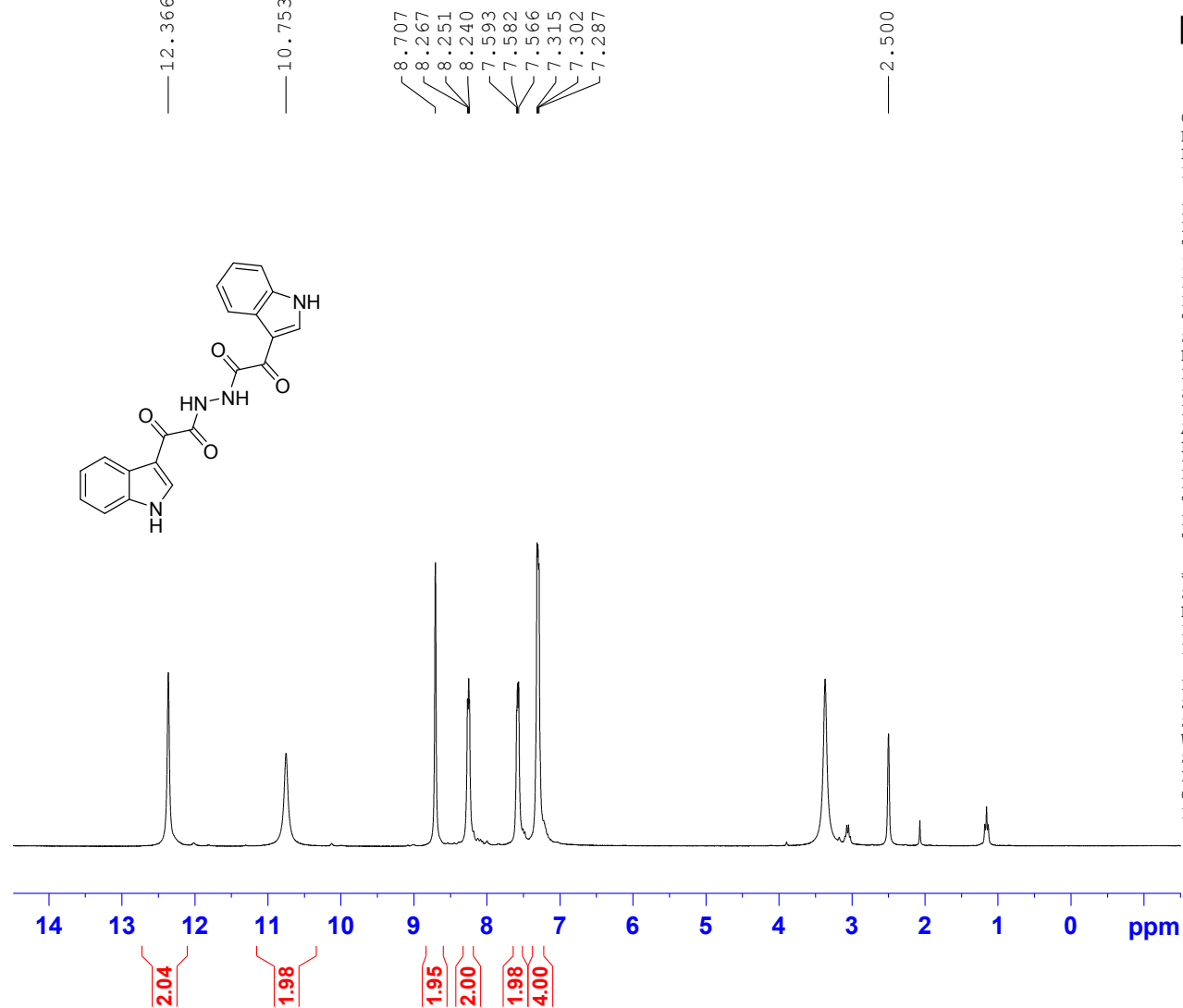
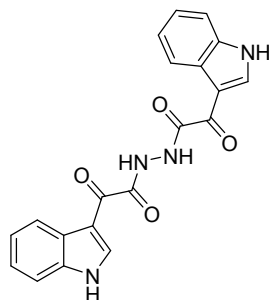
===== CHANNEL f1 =====
SFO1 300.1719511 MHz
NUC1 1H
P1 14.95 usec
PLW1 8.19999981 W

F2 - Processing parameters
SI 131072
SF 300.1700024 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00



¹H NMR spectrum of **18**

Supervisor Black
GKL060
1H DMSO F:\ mmi 7



Current Data Parameters
NAME 131021-mm1
EXPNO 2
PROCNO 1

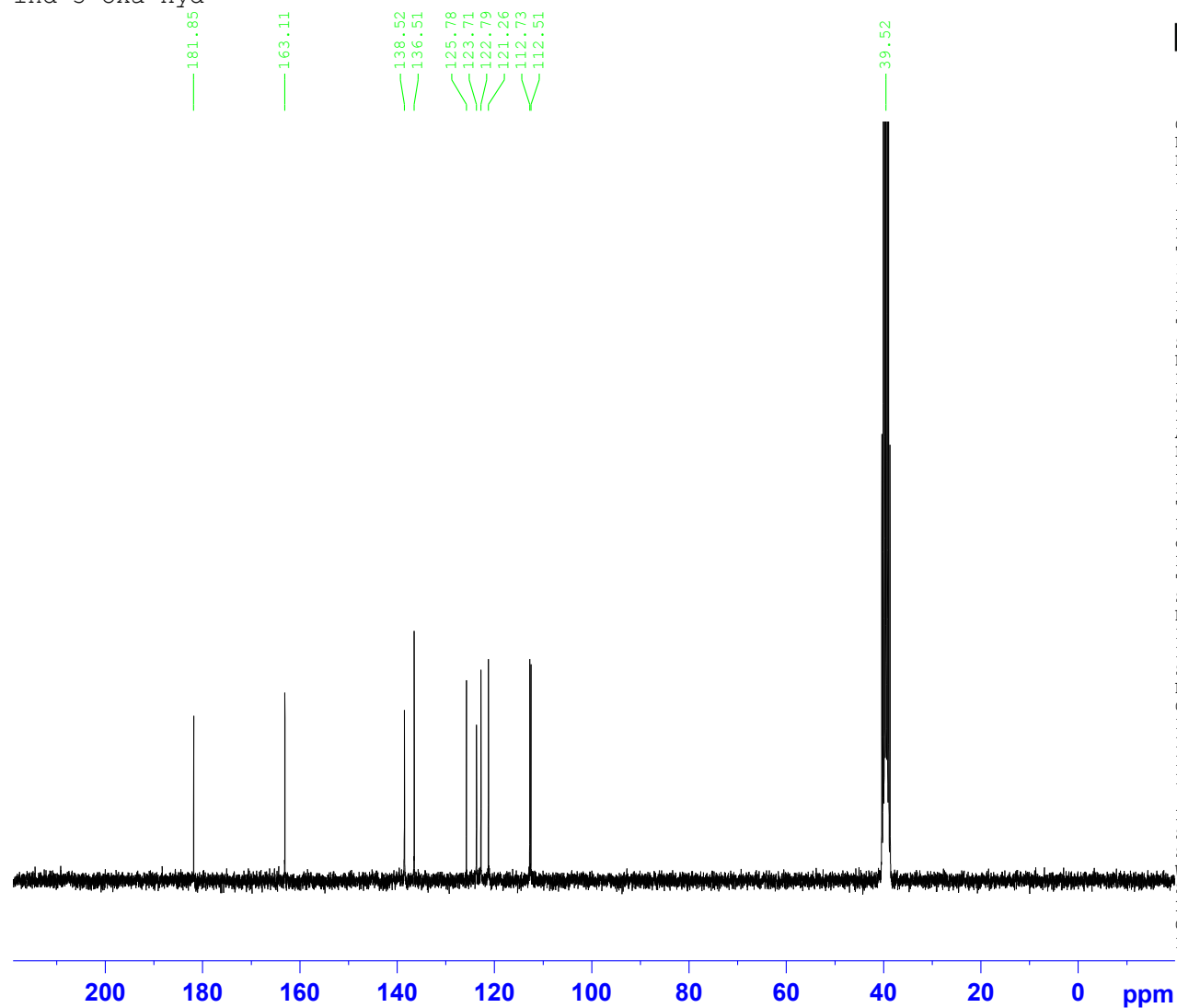
F2 - Acquisition Parameters
Date_ 20131022
Time_ 13.30
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg
TD 32768
SOLVENT DMSO
NS 24
DS 0
SWH 4801.537 Hz
FIDRES 0.146531 Hz
AQ 3.4122410 sec
RG 71.8
DW 104.133 usec
DE 10.47 usec
TE 298.0 K
D1 5.00000000 sec
TD0 1

===== CHANNEL f1 =====
SFO1 300.1719511 MHz
NUC1 1H
P1 14.95 usec
PLW1 8.19999981 W

F2 - Processing parameters
SI 131072
SF 300.1700025 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00

¹³C NMR spectrum of **18**

Supervisor Kumar
ind 3 oxa hyd



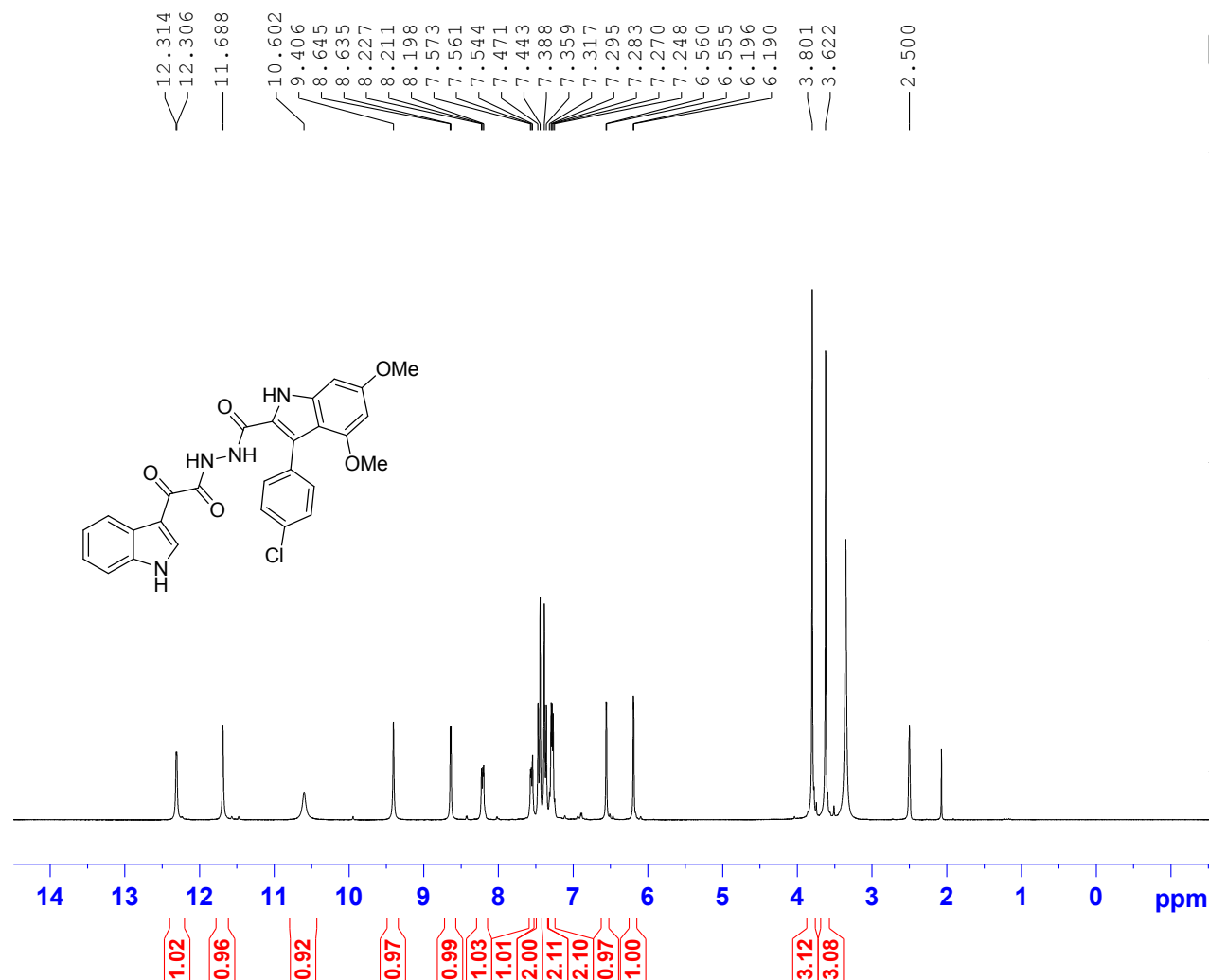
Current Data Parameters
NAME 120306-rvd
EXPNO 3
PROCNO 1

F2 - Acquisition Parameters
Date_ 20120306
Time 17.11
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 2048
DS 2
SWH 18028.846 Hz
FIDRES 0.275098 Hz
AQ 1.8175317 sec
RG 203
DW 27.733 usec
DE 6.80 usec
TE 298.3 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
TD0 4
SFO1 75.4853543 MHz
NUC1 13C
P1 9.90 usec
PLW1 33.00000000 W
SFO2 300.1712007 MHz
NUC2 1H
CPDPRG[2 bi_waltz65_256
PCPD2 90.00 usec
PLW2 8.20349979 W
PLW12 0.22635999 W
PLW13 0.18335000 W

F2 - Processing parameters
SI 32768
SF 75.4778416 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

¹H NMR spectrum of **19a**

Supervisor Black
GKL061
1H DMSO F:\ mm1 8



Current Data Parameters
NAME 131021-mm1
EXPNO 3
PROCNO 1

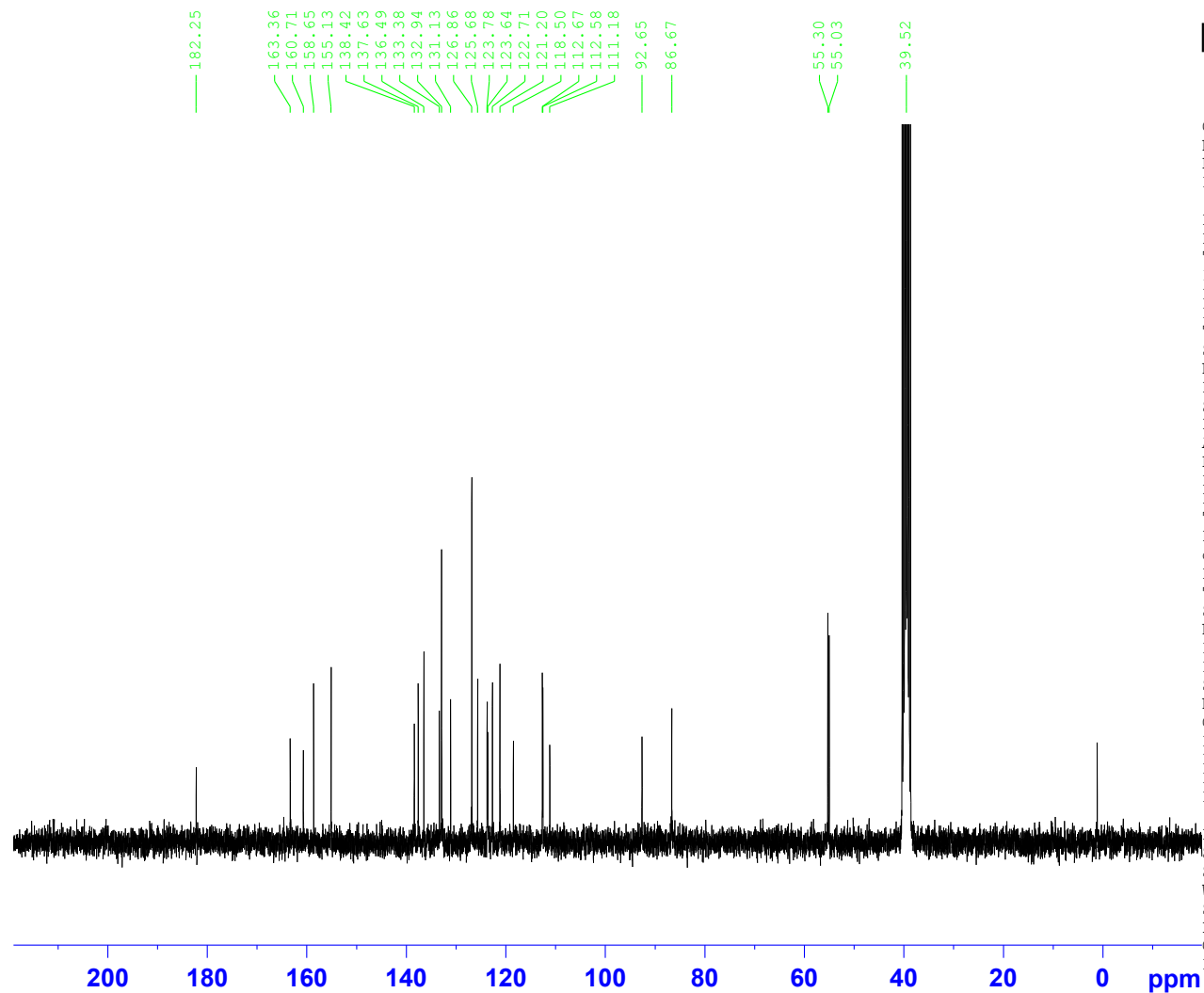
F2 - Acquisition Parameters
Date_ 20131022
Time 13.37
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg
TD 32768
SOLVENT DMSO
NS 24
DS 0
SWH 4801.537 Hz
FIDRES 0.146531 Hz
AQ 3.4122410 sec
RG 71.8
DW 104.133 usec
DE 10.47 usec
TE 298.0 K
D1 5.00000000 sec
TD0 1

===== CHANNEL f1 =====
SF01 300.1719511 MHz
NUC1 1H
P1 14.95 usec
PLW1 8.19999981 W

F2 - Processing parameters
SI 131072
SF 300.1700024 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00

¹³C NMR spectrum of **19a**

Supervisor Kumar
ind 3 oxa 2 cl



Current Data Parameters
NAME 120315-rvd
EXPNO 1
PROCNO 1

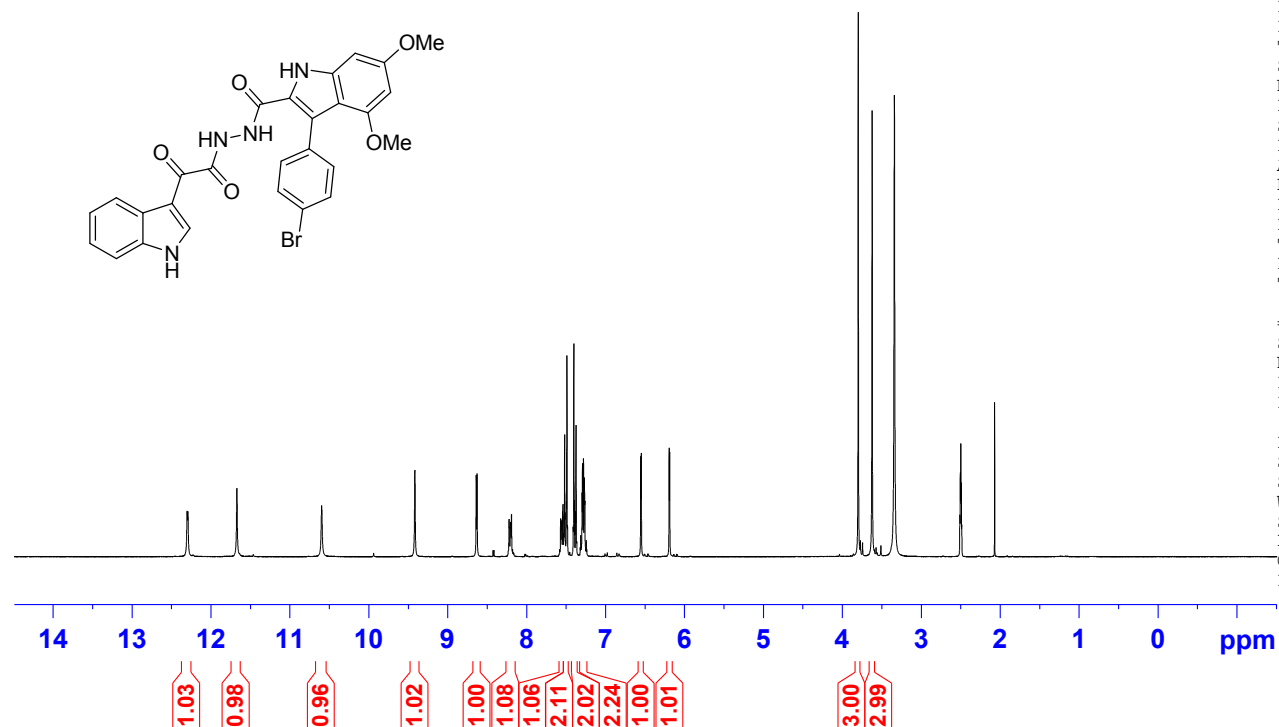
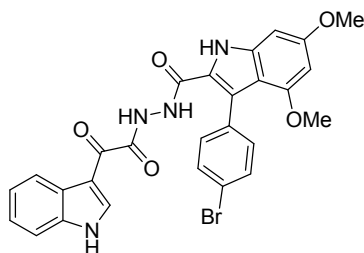
F2 - Acquisition Parameters
Date_ 20120315
Time_ 18.53
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 2048
DS 2
SWH 18028.846 Hz
FIDRES 0.275098 Hz
AQ 1.8175317 sec
RG 203
DW 27.733 usec
DE 6.80 usec
TE 298.3 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
TD0 4
SFO1 75.4853543 MHz
NUC1 13C
P1 9.90 usec
PLW1 33.00000000 W
SFO2 300.1712007 MHz
NUC2 1H
CPDPRG[2 bi_waltz65 256
PCPD2 90.00 usec
PLW2 8.20349979 W
PLW12 0.22635999 W
PLW13 0.18335000 W

F2 - Processing parameters
SI 32768
SF 75.4778425 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

¹H NMR spectrum of **19b**

Supervisor Black
GKL062
1H DMSO F:\ mmi 9

9.419
8.642
8.631
8.225
8.220
8.209
8.204
8.195
8.182
8.173
8.164
7.572
7.570
7.564
7.559
7.556
7.546
7.542
7.540
7.530
7.521
7.515
7.499
7.492
7.485
7.412
7.404
7.398
7.382
7.376
7.368
7.324
7.317
7.306
7.300
7.295
7.282
7.269
7.265
7.248
7.241
6.556
6.550
6.196
6.190
3.800
3.624
2.500



Current Data Parameters
NAME 131021-mm
EXPNO 4
PROCNO 1

F2 - Acquisition Parameters
Date_ 20131022
Time_ 13.43
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg
TD 32768
SOLVENT DMSO
NS 24
DS 0
SWH 4801.537 Hz
FIDRES 0.146531 Hz
AQ 3.4122410 sec
RG 90.5
DW 104.133 usec
DE 10.47 usec
TE 298.0 K
D1 5.00000000 sec
TD0 1

===== CHANNEL f1 =====
SF01 300.1719511 MHz
NUC1 1H
P1 14.95 usec
PLW1 8.19999981 W

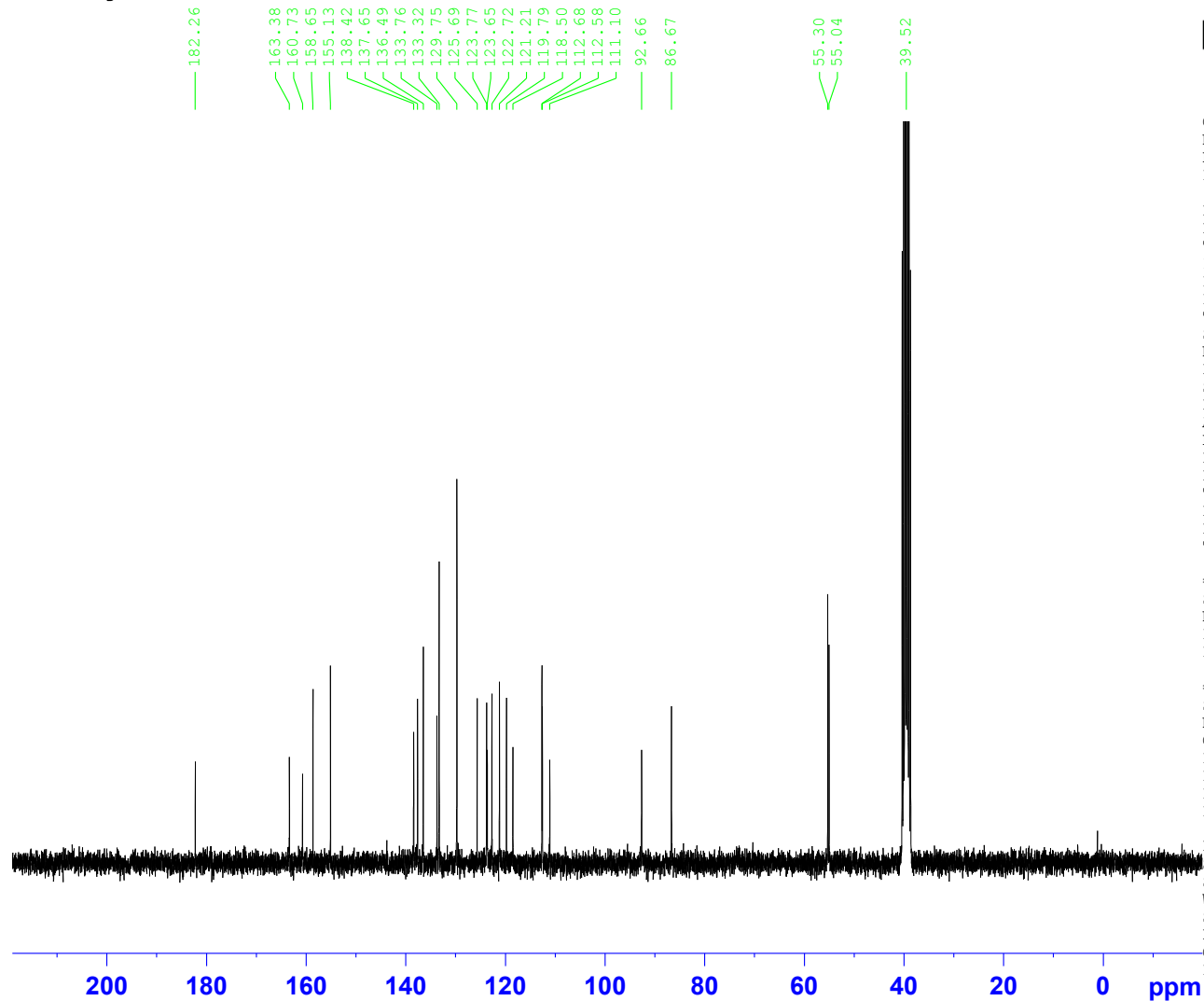
F2 - Processing parameters
SI 131072
SF 300.1700024 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00

^{13}C NMR spectrum of **19b**

Supervisor Black

GKL062

13C.night DMSO F:\ mmi 55



Current Data Parameters
NAME 131022-mm1
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20131022
Time_ 21.24
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 2304
DS 2
SWH 18028.846 Hz
FIDRES 0.275098 Hz
AQ 1.8175317 sec
RG 203
DW 27.733 usec
DE 6.80 usec
TE 298.0 K
D1 1.00000000 sec
D11 0.03000000 sec
TD0 6

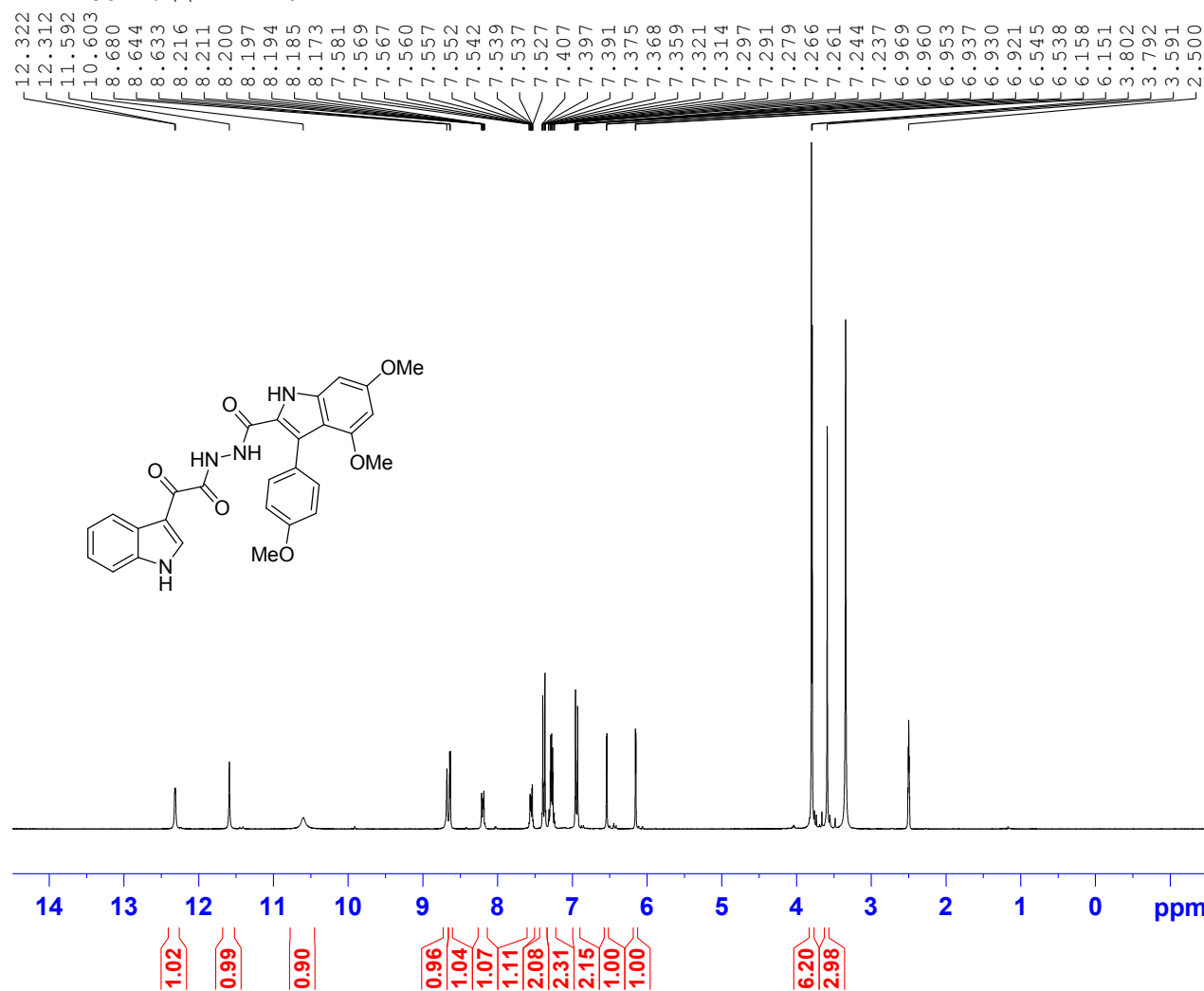
===== CHANNEL f1 =====
SFO1 75.4853543 MHz
NUC1 13C
P1 9.90 usec
PLW1 33.00000000 W

===== CHANNEL f2 =====
SFO2 300.1712007 MHz
NUC2 1H
CPDPRG[2] bi_waltz65_256
PCPD2 90.00 usec
PLW2 8.20349979 W
PLW12 0.22635999 W
PLW13 0.18335000 W

F2 - Processing parameters
SI 32768
SF 75.4778414 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

¹H NMR spectrum of **19c**

Supervisor Black
GKL063
1H DMSO F:\ mmi 10



Current Data Parameters
NAME 131021-mmi
EXPNO 5
PROCNO 1

F2 - Acquisition Parameters
Date_ 20131022
Time_ 13.50
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg
TD 32768
SOLVENT DMSO
NS 24
DS 0
SWH 4801.537 Hz
FIDRES 0.146531 Hz
AQ 3.4122410 sec
RG 80.6
DW 104.133 usec
DE 10.47 usec
TE 298.0 K
D1 5.00000000 sec
TD0 1

===== CHANNEL f1 =====
SF01 300.1719511 MHz
NUC1 1H
P1 14.95 usec
PLW1 8.19999981 W

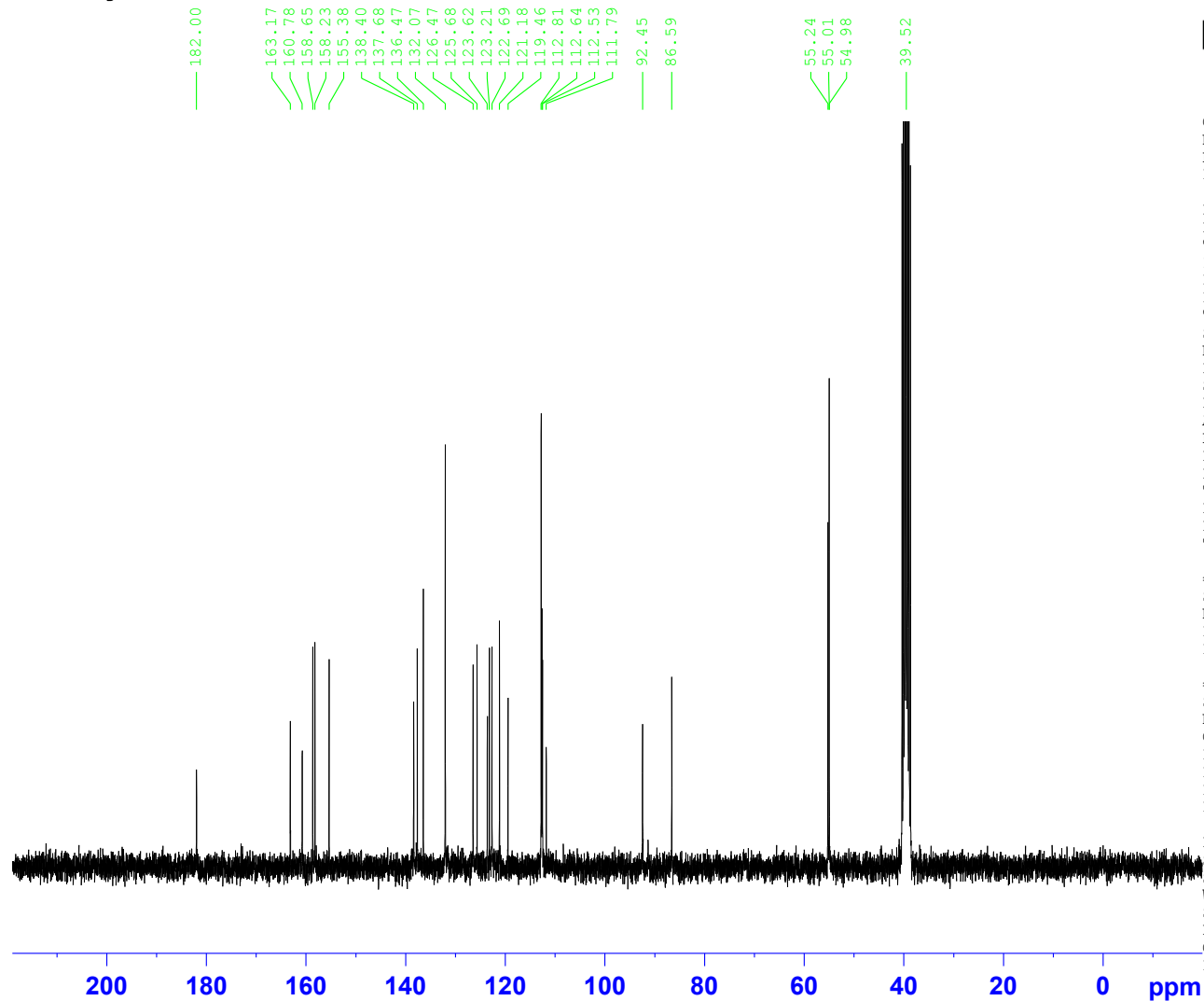
F2 - Processing parameters
SI 131072
SF 300.1700024 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00

¹³C NMR spectrum of **19c**

Supervisor Black

GKL063

13C.night DMSO F:\ mmi 54



Current Data Parameters
NAME 131024-mm1
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20131025
Time_ 5.23
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 2304
DS 2
SWH 18028.846 Hz
FIDRES 0.275098 Hz
AQ 1.8175317 sec
RG 203
DW 27.733 usec
DE 6.80 usec
TE 300.7 K
D1 1.00000000 sec
D11 0.03000000 sec
TD0 6

===== CHANNEL f1 =====
SFO1 75.4853543 MHz
NUC1 13C
P1 9.90 usec
PLW1 33.00000000 W

===== CHANNEL f2 =====
SFO2 300.1712007 MHz
NUC2 1H
CPDPRG[2] bi_waltz65 256
PCPD2 90.00 usec
PLW2 8.20349979 W
PLW12 0.22635999 W
PLW13 0.18335000 W

F2 - Processing parameters
SI 32768
SF 75.4778433 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40