

Supporting Information
For

Synthesis and Trypanocidal Activity Studies of Imidazoles Derived from Reaction of Nitroallylic Acetates and α -Bromonitroalkenes with Amidines

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NAME INH-TK-341-1R
 EXPNO 1
 PROCNO 1
 Date 20130530
 Time 19:56
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 0
 SWH 8223.685 Hz
 ETGRES 0.125483 Hz
 AQ 3.9846387 sec
 RG 32
 DW 60.800 usec
 DE 6.50 usec
 TE 294.8 K
 DI 1.0000000 sec
 TDO 1

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 NUC1 1H
 P1 13.50 usec
 PLL -1.00 dB
 PLIW 10.56200695 W
 SF01 400.1324710 MHz
 SI 32768
 SF 400.1300095 MHz
 WDM EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

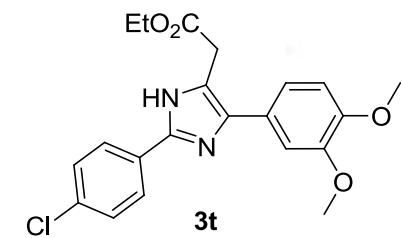
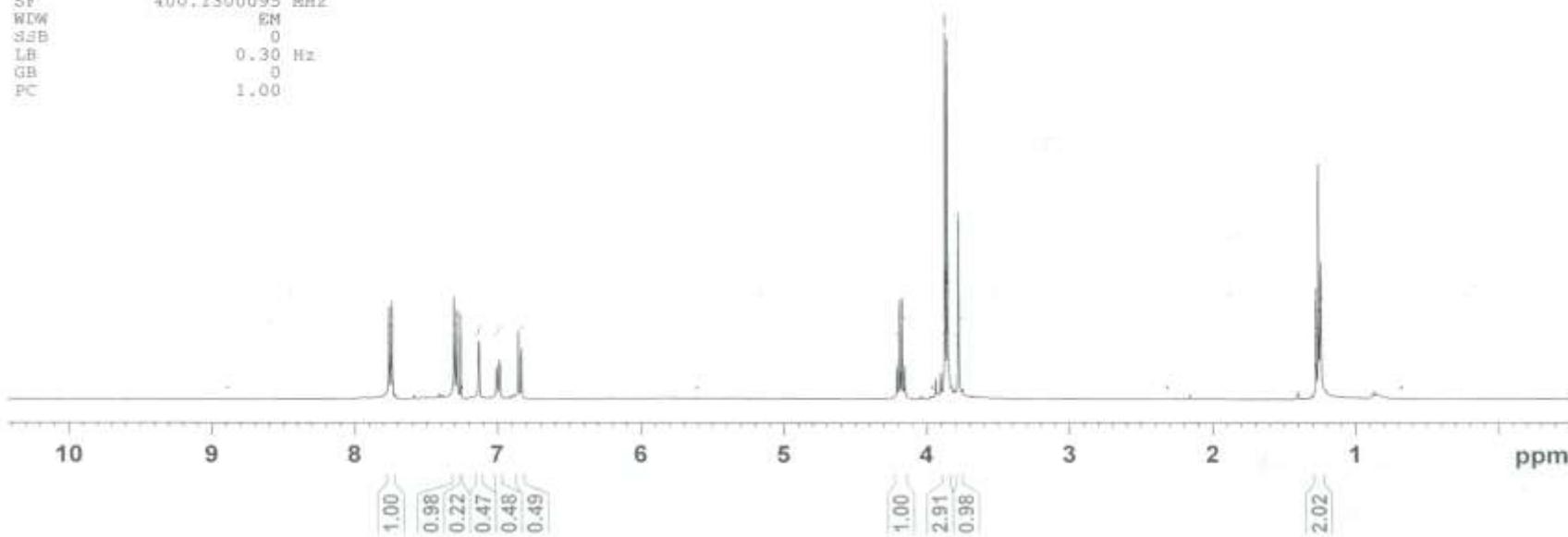
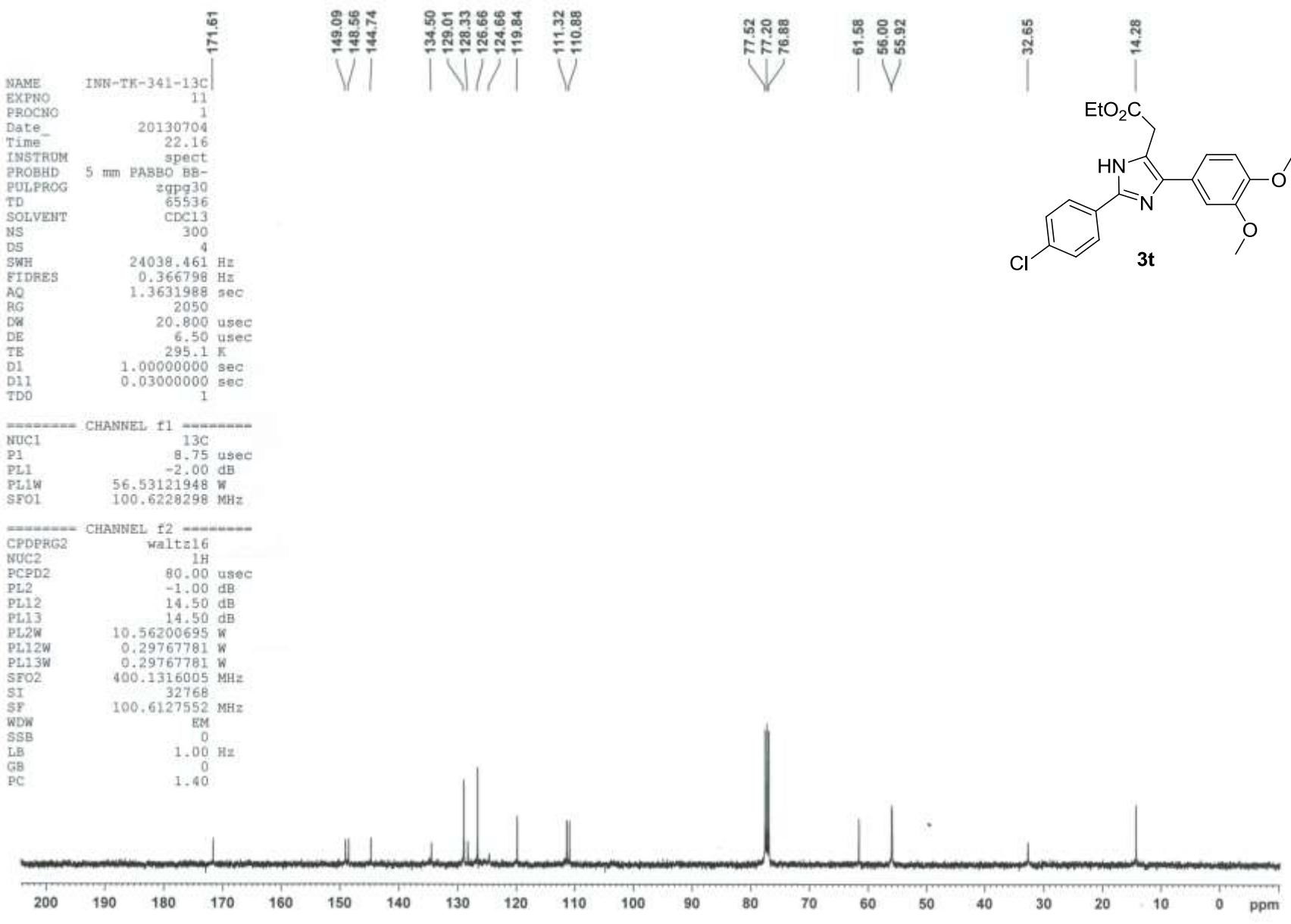


Figure S01. ^1H NMR Spectrum of **3t**



NAME INN-TK-347-1H
 EXPNO 5
 PROCHNO 1
 Date 20130609
 Time 18.42
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 20
 DS 0
 SWH 8223.683 Hz
 FIDRES 0.125483 Hz
 AQ 3.9846387 sec
 RG 101
 DW 60.800 usec
 DE 6.50 usec
 TE 292.3 K
 D1 1.0000000 sec
 TDO 1

----- CHANNEL f1 -----
 NUC1 1H
 P1 13.50 usec
 PL1 -1.00 dB
 PL1W 10.56200695 W
 SF01 400.1324710 MHz
 SI 32768
 SF 400.1300095 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

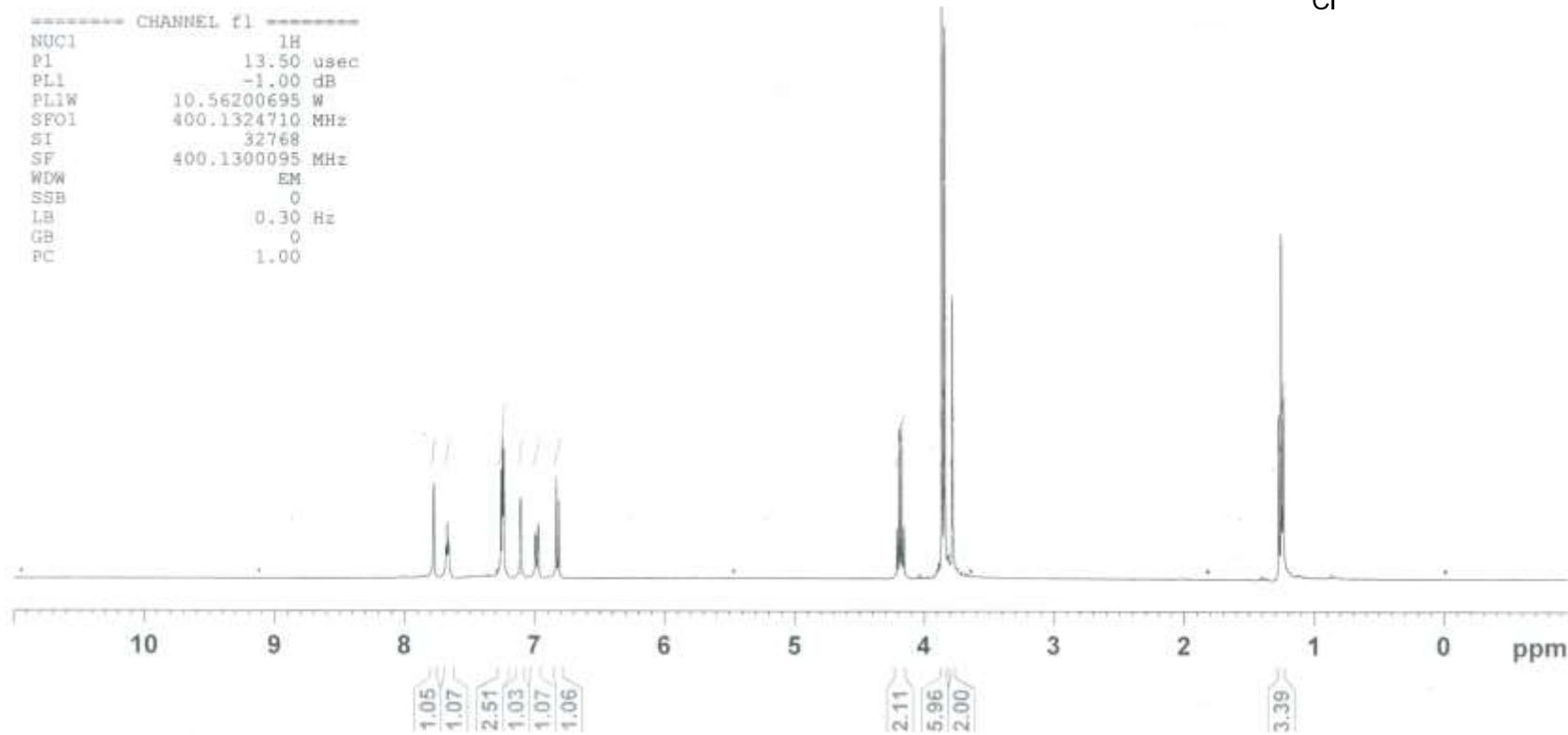
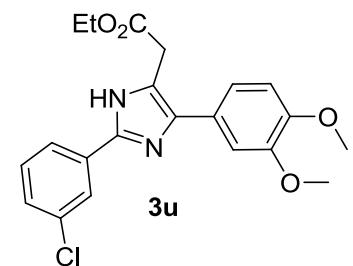
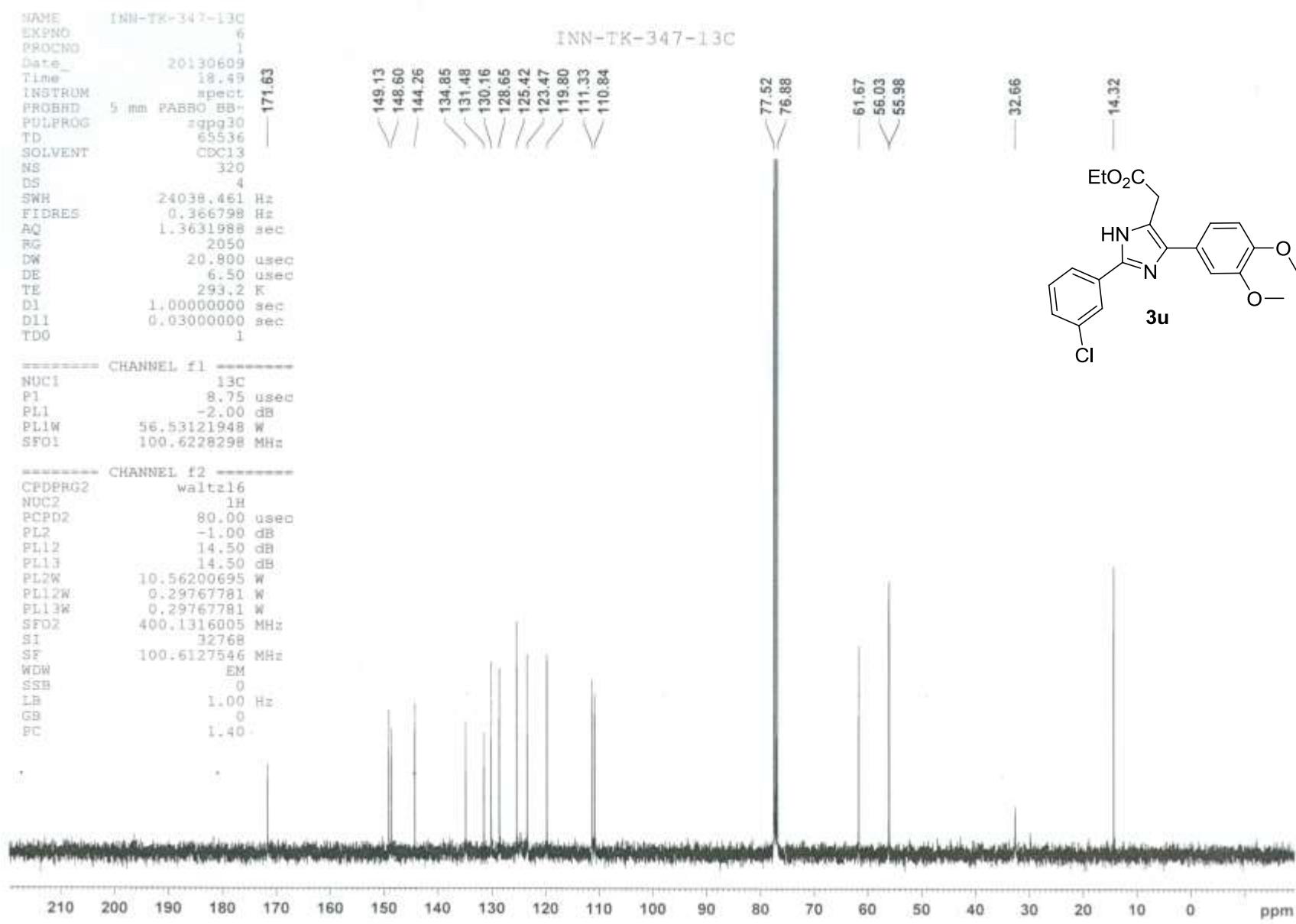


Figure S03. ¹H NMR Spectrum of 3u



Figure S04. ^{13}C NMR Spectrum of 3u

NAME INN-TR-340-1H
 EXPNO 1
 PROCHNO 1
 Date 20130525
 Time 8.36
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 12
 DS 0
 SWH 8223.685 Hz
 FIDRES 0.125483 Hz
 AQ 3.9846397 sec
 RG 114
 DW 60.800 usec
 DE 6.50 usec
 TE 293.1 K
 D1 1.0000000 sec
 TDO 1

----- CHANNEL f1 -----
 NUC1 1H
 P1 13.50 usec
 PL1 -1.00 dB
 PLLW 10.56200695 W
 SF01 400.1324710 MHz
 SI 32768
 SF 400.1300094 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

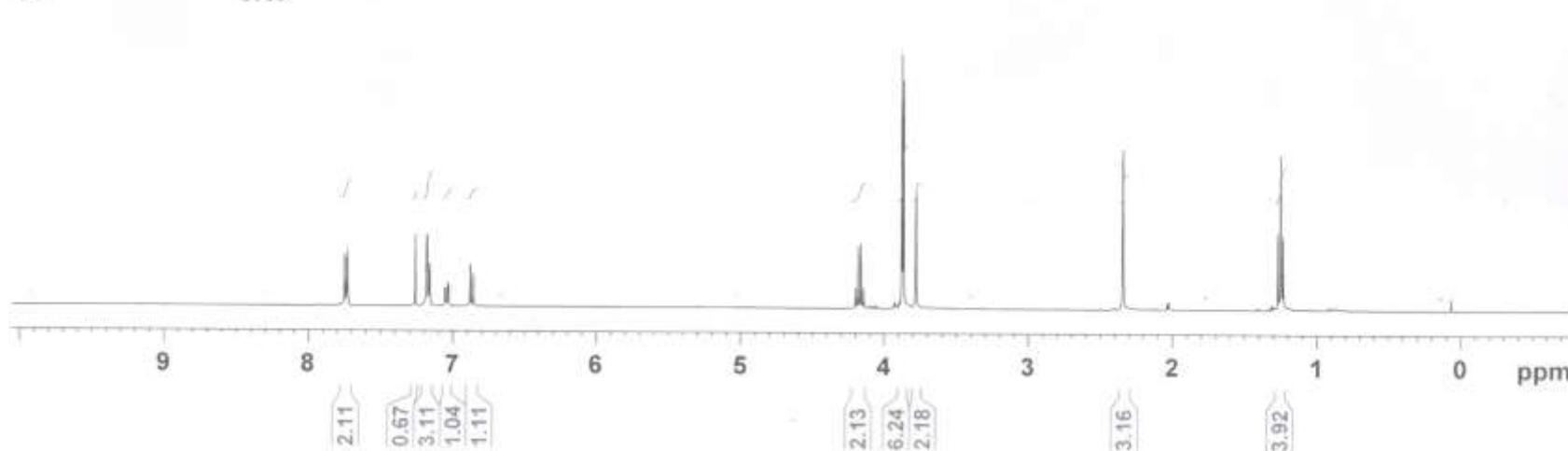
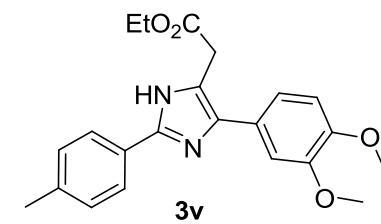
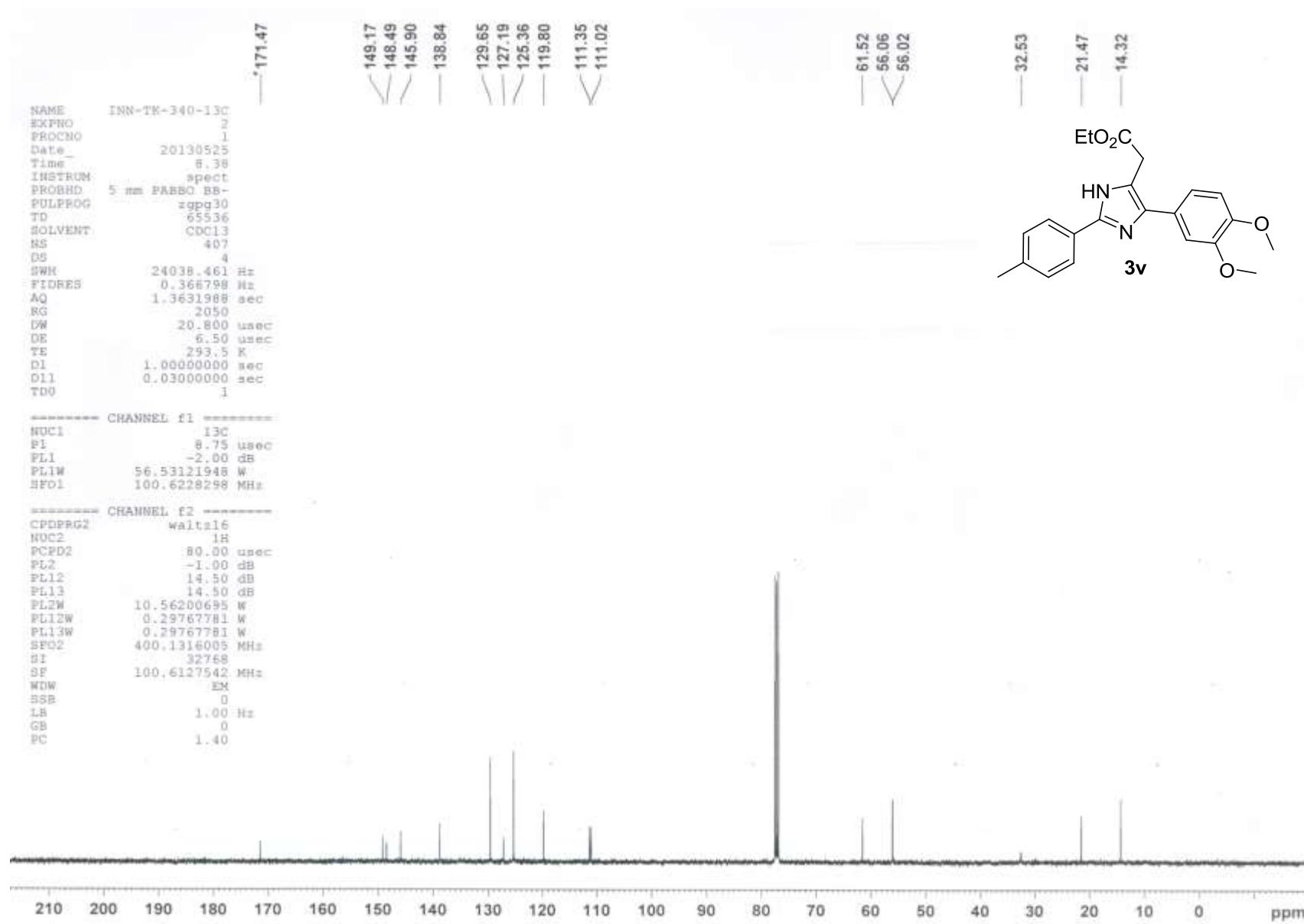


Figure S05. ^1H NMR Spectrum of **3v**



Figure S06. ¹³C NMR Spectrum of 3v

Current Data Parameters
 NAME INN-TK-551-1H
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date 20150114
 Time 2.45
 INSTRUM spect
 PROBHD 5 mm PABBO SB-
 PULPROG zg30
 TD 54274
 SOLVENT CDCl3
 NS 10
 DS 0
 SWH 8223.685 Hz
 FIDRES 0.151522 Hz
 AQ 3.2999091 sec
 RG 101
 DW 60.800 usec
 DE 6.50 usec
 TE 296.6 K
 D1 1.0000000 sec
 TDO 1

----- CHANNEL f1 -----
 NUC1 1H
 P1 14.75 usec
 PLL -1.00 dB
 PLIW 10.56200695 W
 SFO1 400.1324710 MHz

F2 - Processing parameters
 SI 32768
 SF 400.1300095 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

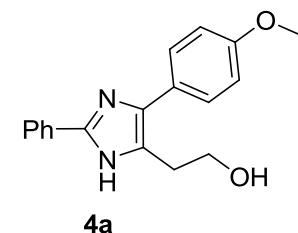
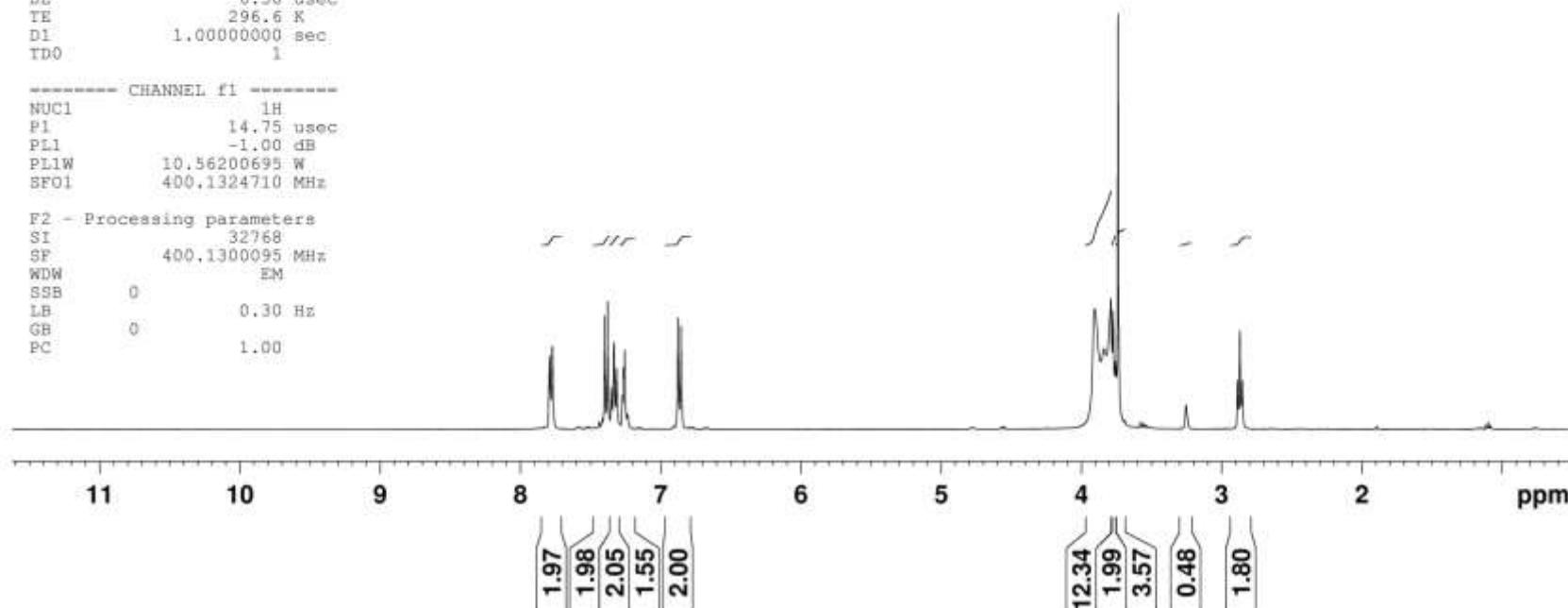
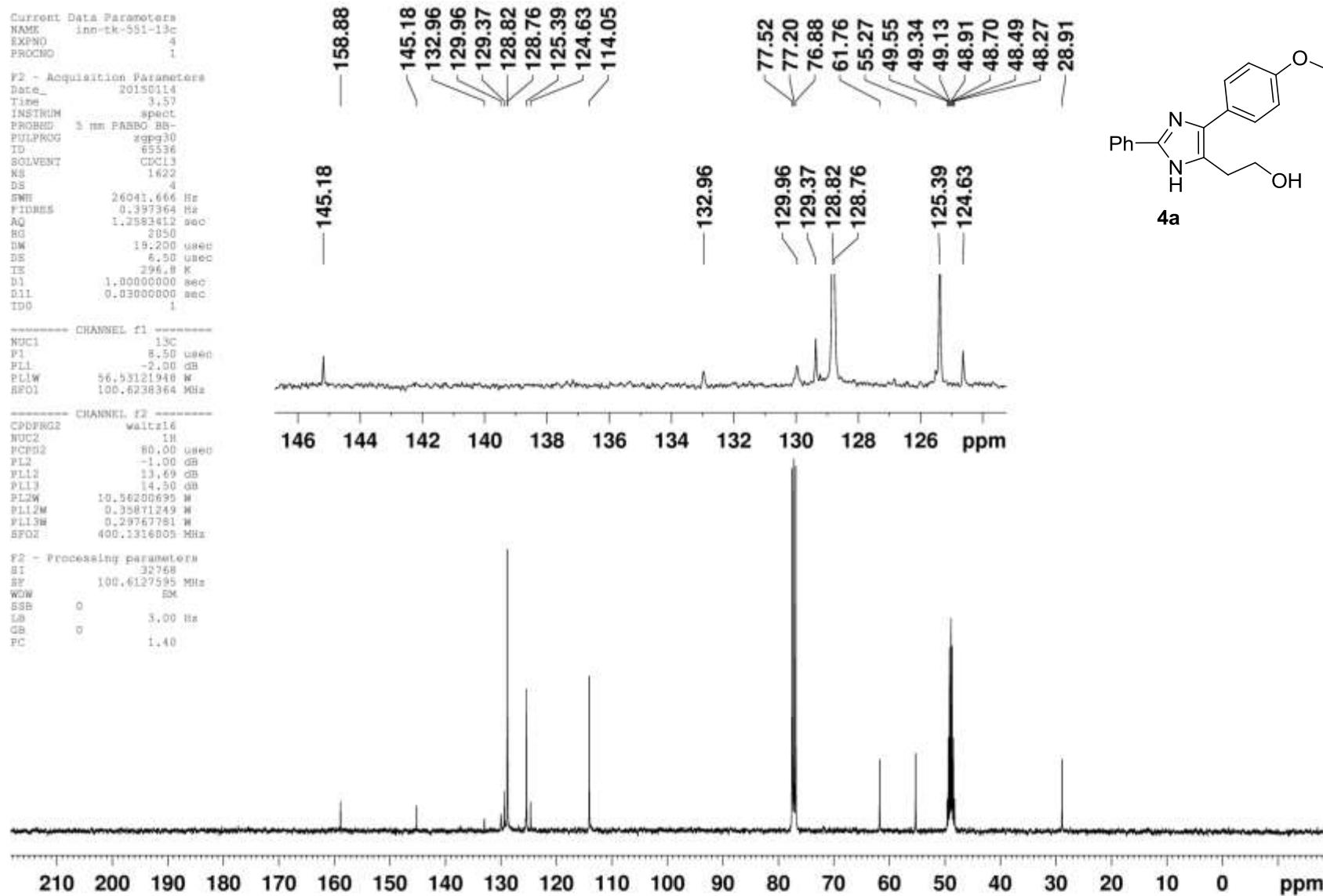


Figure S07. ¹H NMR Spectrum of 4a

Fig S08. ^{13}C NMR Spectrum of 4a

Current Data Parameters
 NAME INN-TK-562-1B
 EXPNO 1
 PROCDNO 1
 P2 - Acquisition Parameters
 Date 20150205
 Time 17:26
 INSTRUM spect
 PROBHD 5 mm TBI 1H
 POLPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 25
 DS 2
 SWH 10000.000 Hz
 FIDRES 0.156250 Hz
 AQ 3.276799 sec
 SSI 48.36
 DM 50.000 usec
 ER 6.50 usec
 TE 237.7 K
 D1 1.0000000 sec
 TDO 3
 ***** CHANNEL f1 *****
 EPPOL 500.1330885 MHz
 MUCS 1B
 V1 15.00 usec
 PW1 15.0000000 W
 P2 - Processing parameters
 SI 65536
 SP 500.1330123 MHz
 WMW EM
 NSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

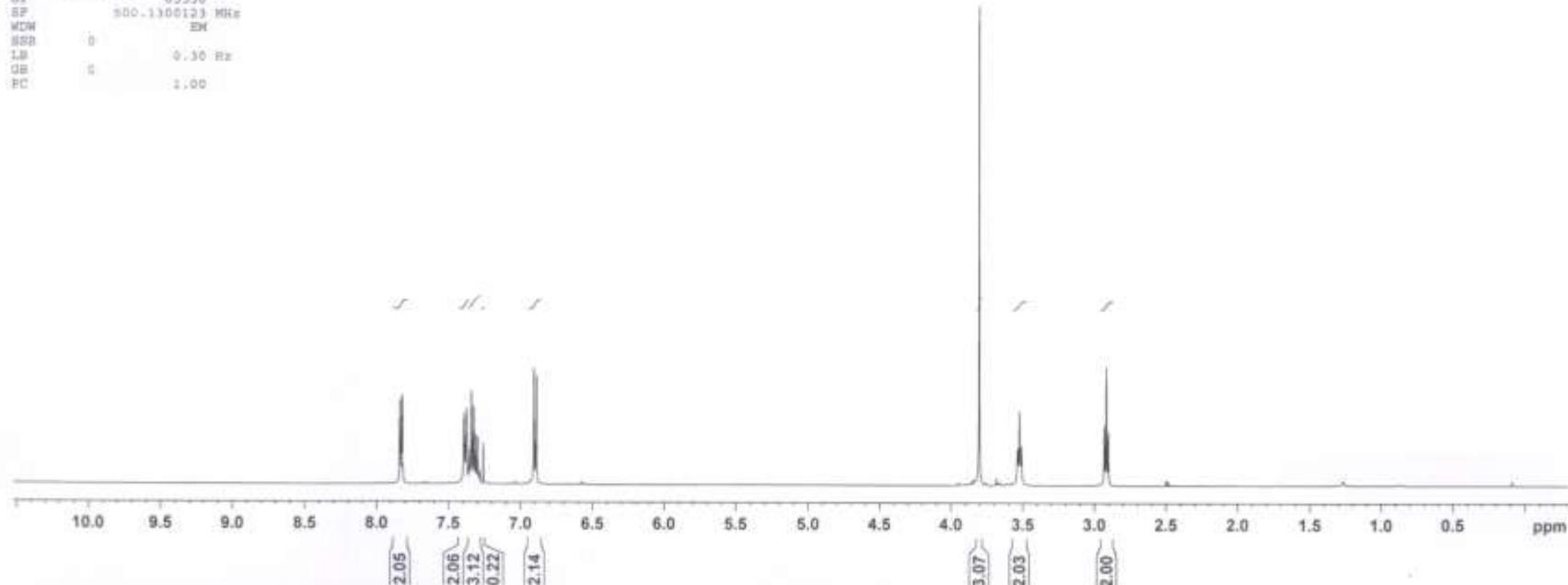
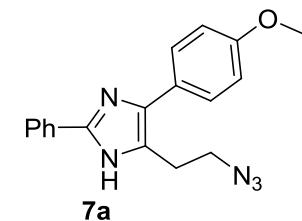


Figure S09. ^1H NMR Spectrum of 7a

Current Data Parameters
 NAME INN-TK-5E2-13C
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters
 Date 20150205
 Time 17.28
 INSTRUM spect
 PROBHD 5 mm RAMBO 30/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 138
 DS 4
 SWH 29761.904 Hz
 FIDRES 0.454131 Hz
 AQ 1.1010048 sec
 RG 197.27
 DM 16.800 usec
 DE 6.50 usec
 TE 298.0 K
 D1 1.0000000 sec
 D11 0.01000000 sec
 TDO 1

***** CHANNEL f1 *****
 SFO1 125.7703637 MHz
 NUC1 13C
 PI 8.90 usec
 PLW1 103.00000000 W

***** CHANNEL f2 *****
 SFO2 500.1320005 MHz
 NUC2 1H
 CPDPFG[2] waltz16
 PCPDQ 80.00 usec
 PLW2 13.00000000 W
 PLW12 0.34327998 W
 PLW13 0.31969995 W

F2 - Processing parameters
 SI 32768
 SF 125.7577747 MHz
 MDW 8K
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

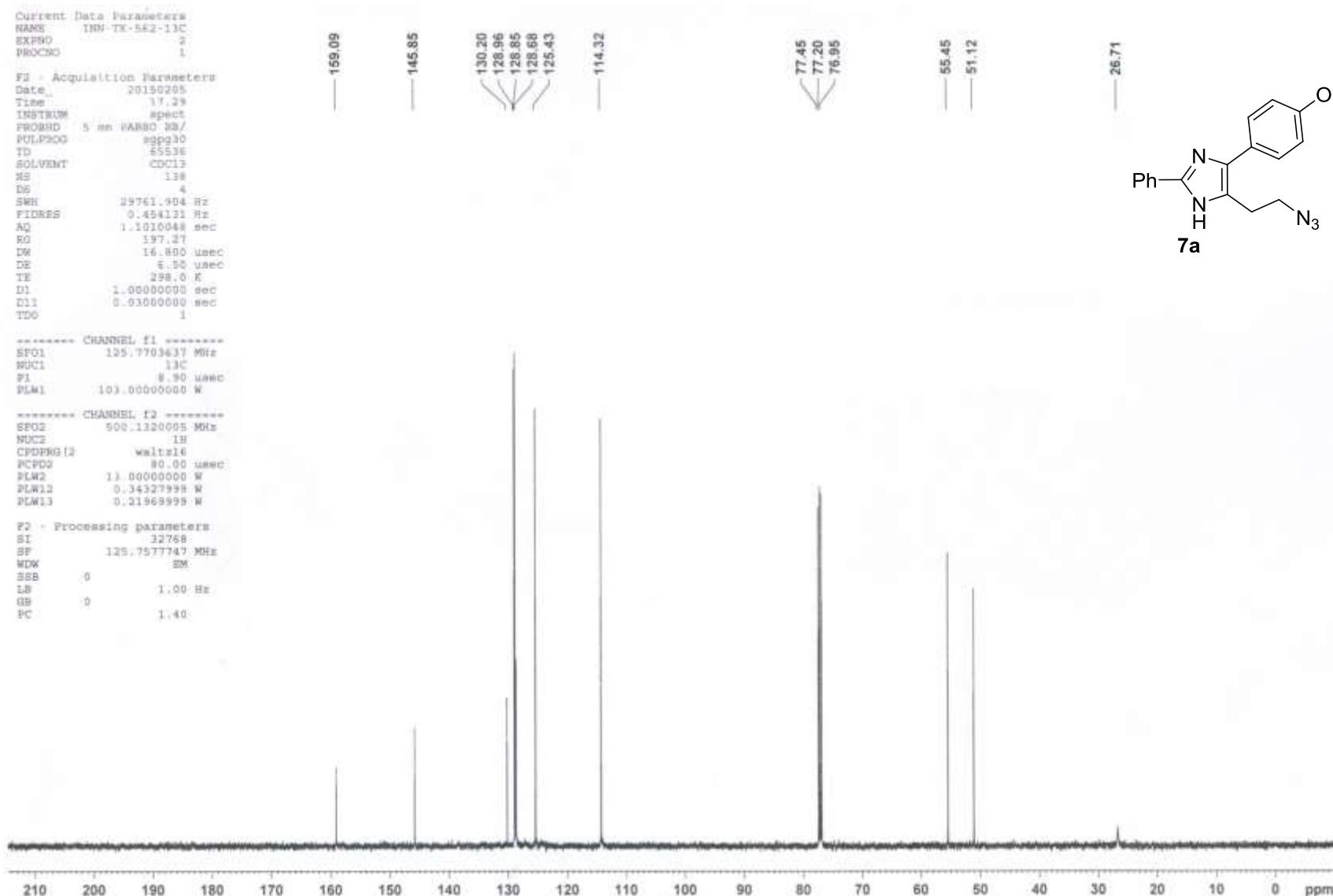
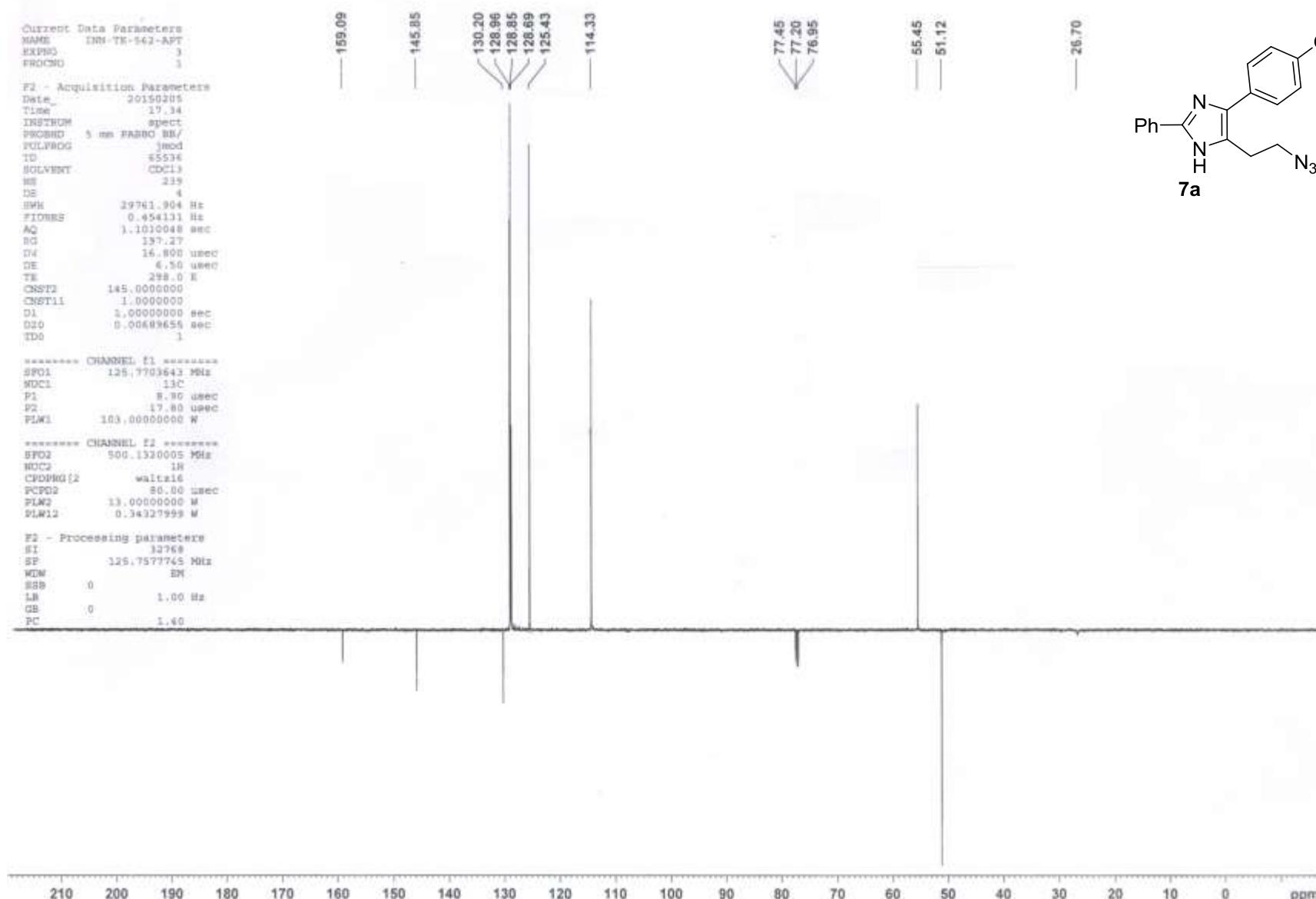


Figure S10. ^{13}C NMR Spectrum of 7a



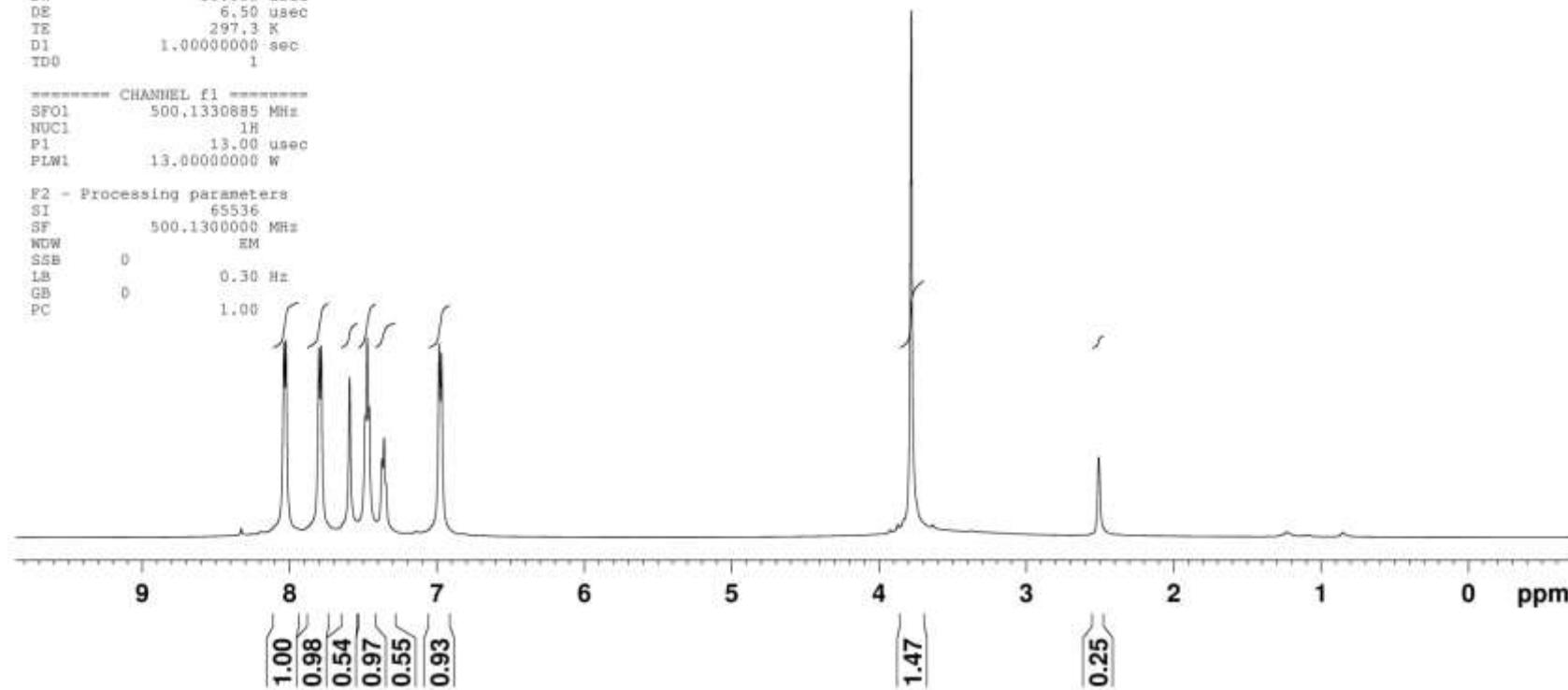
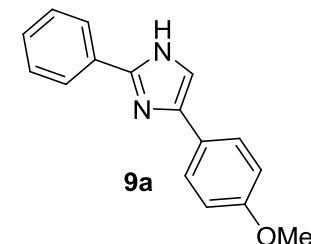
Current Data Parameters
 NAME INN-GOPI-BRNS-4-CME-1H
 EXPNO 1
 PROCNO 1

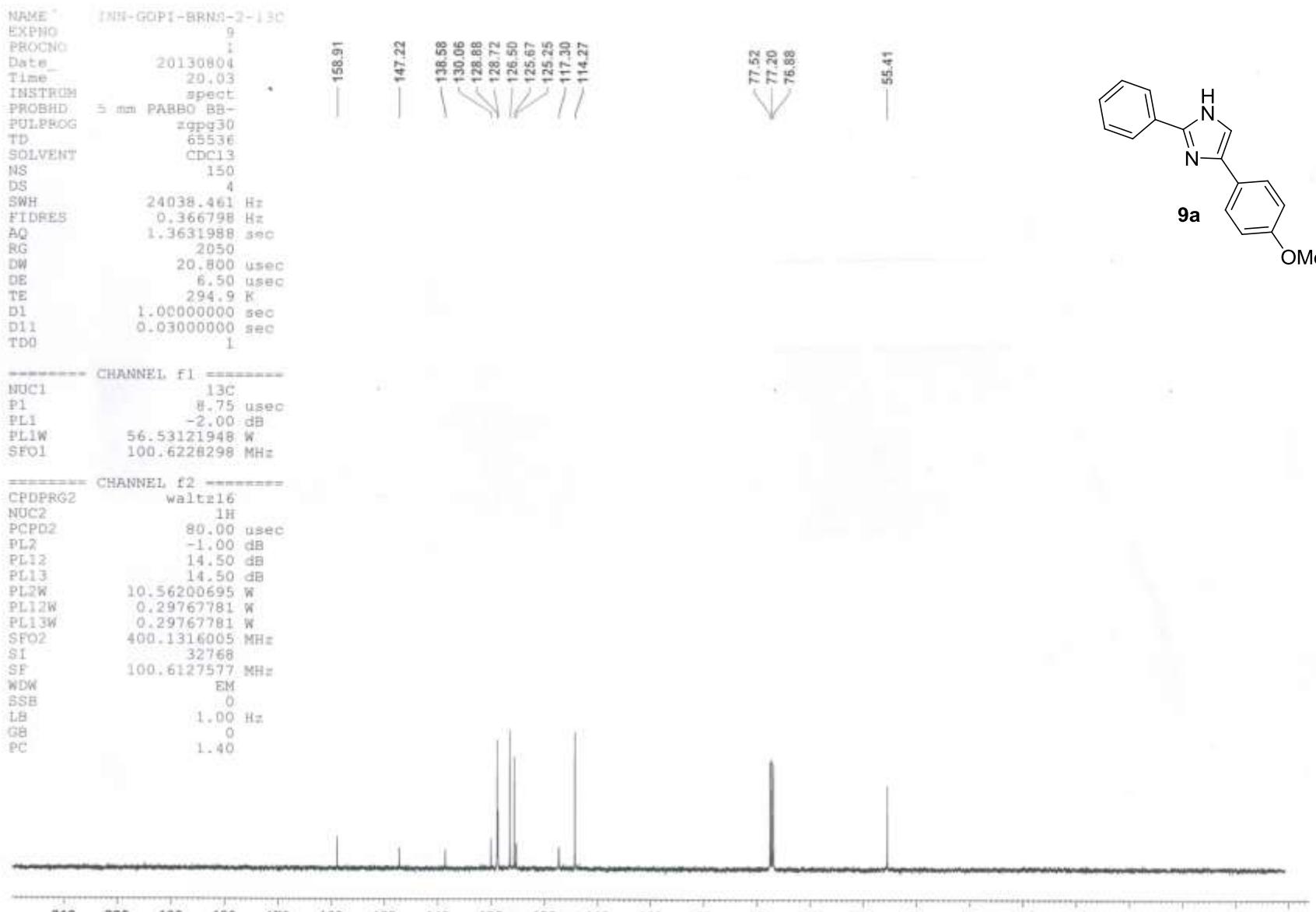
F2 - Acquisition Parameters

Date 20140106
 Time 23.25
 INSTRUM spect
 PROBHD 5 mm PABBO BB/
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 8
 DS 2
 SWH 10000.000 Hz
 FIDRES 0.152588 Hz
 AQ 3.2768500 sec
 RG 30.72
 DW 50.000 usec
 DE 6.50 usec
 TE 297.3 K
 D1 1.0000000 sec
 TDS 1

----- CHANNEL f1 -----
 SFO1 500.1330885 MHz
 NUC1 1H
 P1 13.00 usec
 PLW1 13.0000000 W

F2 - Processing parameters
 SI 65536
 SF 500.1300000 MHz
 NOW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

Figure S12. ¹H NMR Spectrum of 9a



```

NAME    INN-GOPI-BRNS-20M
EXPNO          1
PROCNO         1
Date   20140103
Time   23.05
INSTRUM spect
PROBHD 5 mm SEI 1H/D-
PULPROG zg30
TD      65536
SOLVENT   CDCl3
NS       12
DS        0
SWH     8223.685 Hz
FIDRES   0.125483 Hz
AQ      3.9846387 sec
RG        32
DW      60.800 usec
DE       6.50 usec
TE      296.6 K
D1      1.0000000 sec
TDO      1

===== CHANNEL f1 =====
NUC1           1H
P1      6.75 usec
PL1      -3.00 dB
PL1W    16.73965454 W
SF01    400.1324710 MHz
SI       32768
SF      400.1300095 MHz
WDW      EM
SSB      0
LB      0.30 Hz
GB      0
PC      1.00

```

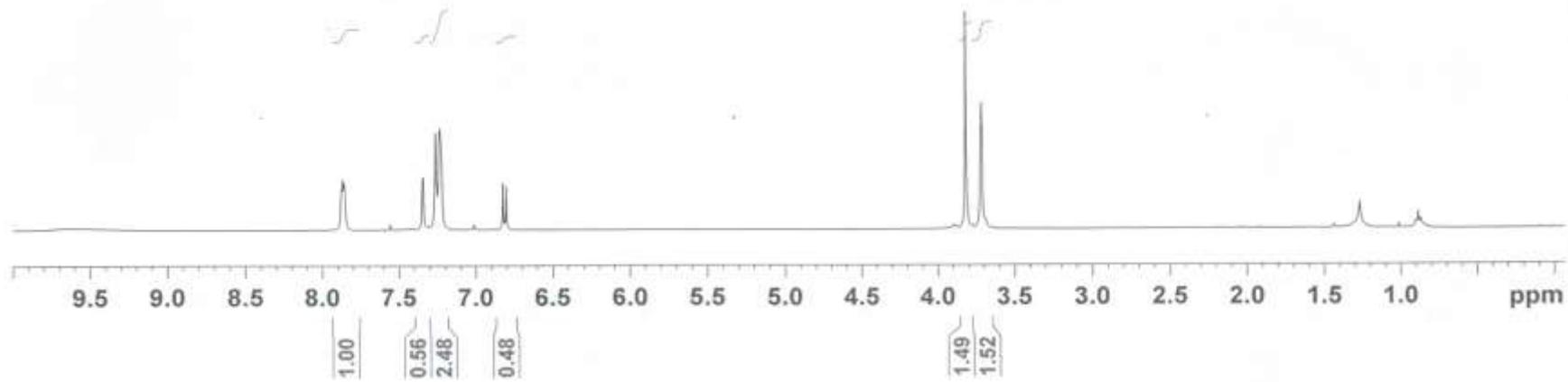
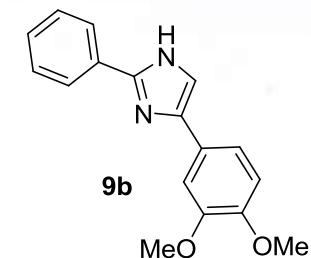


Figure S14. ^1H NMR Spectrum of **9b**

Current Data Parameters
 NAME INN-GOPI-BRNS-ZOME-13C
 EXPNO 7
 PROCNO 1

P2 - Acquisition Parameters
 Date 20130916
 Time 3.14
 INSTRUM spect
 PROBHD 5 mm SEI 1H/D-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 97
 DS 4
 SWH 24038.461 Hz
 FIDRES 0.366798 Hz
 AQ 1.3631988 sec
 BG 2050
 DW 20.800 usec
 DE 6.50 usec
 TE 296.6 K
 D1 1.00000000 sec
 D11 0.03000000 sec
 TDO 1

----- CHANNEL f1 -----

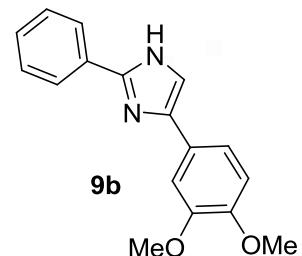
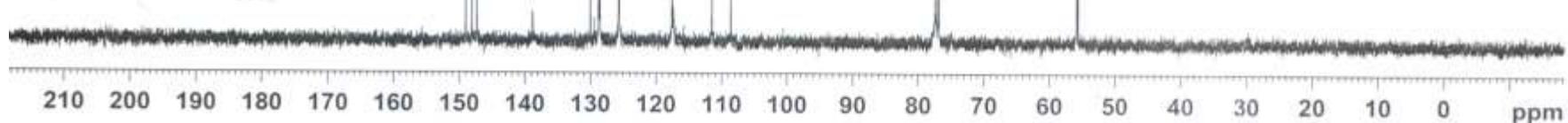
NUC1 13C
 F1 13.00 usec
 PL1 -3.00 dB
 PL1W 71.16858673 W
 SF01 100.6228298 MHz

----- CHANNEL f2 -----

CPDPRG2 waltz16
 NUC2 1H
 PCPD2 80.00 usec
 PL2 -3.00 dB
 PL12 18.48 dB
 PL13 19.00 dB
 PL2W 16.73965454 W
 PL12W 0.11905469 W
 PL13W 0.10562007 W
 SF02 400.1316005 MHz

P3 - Processing parameters

SI 32768
 SF 100.6127652 MHz
 WDM EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

Figure S15. ^{13}C NMR Spectrum of 9b

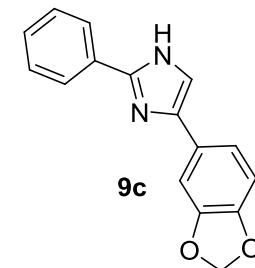
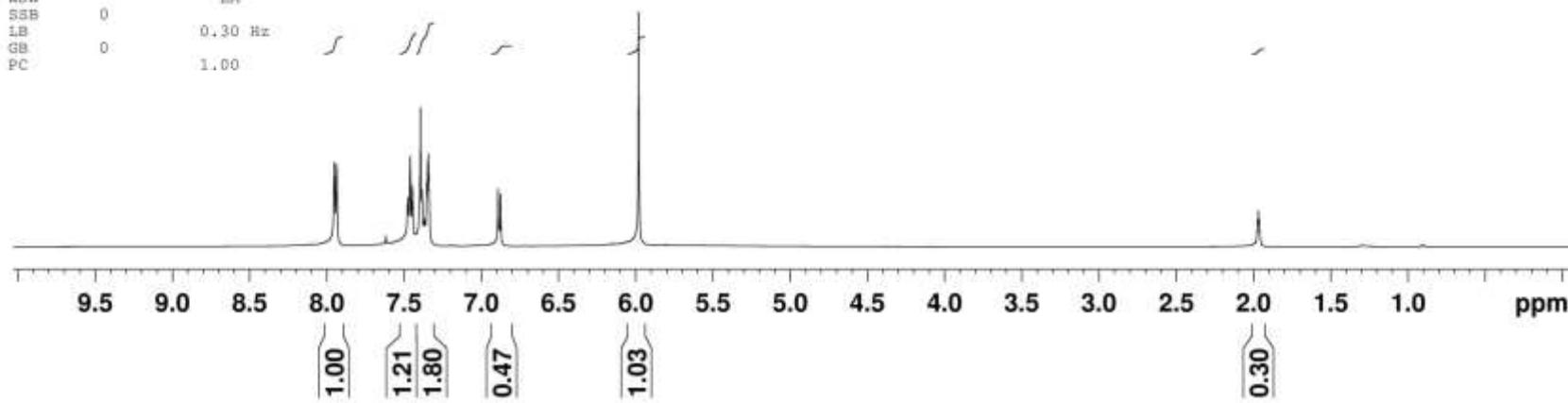
Current Data Parameters
 NAME INN-GOPI-BRNS-PIPER-1H
 EXPNO 9
 PROCNO 1

F2 - Acquisition Parameters

Date 20131225
 Time 7.44
 INSTRUM spect
 PROBHD 5 mm PABBO BB/
 PULPROG zg30
 TD 65536
 SOLVENT CD3CN
 NS 15
 DS 2
 SWH 10000.000 Hz
 FIDRES 0.152588 Hz
 AQ 3.2768500 sec
 RG 30.72
 DW 50.000 usec
 DE 6.50 usec
 TE 297.2 K
 D1 1.0000000 sec
 TDO 1

----- CHANNEL f1 -----
 SFO1 500.1330885 MHz
 NUC1 1H
 F1 13.00 usec
 PLW1 13.0000000 W

F2 - Processing parameters
 SI 65536
 SF 500.1300000 MHz
 MDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

Figure S16. ¹H NMR Spectrum of 9c

Current Data Parameters
 NAME INN-GOPI-BRNS-PIPI
 EXPNO 9
 PROCNO 1

F2 - Acquisition Parameter:
 Date 20131225
 Time 21.11
 INSTRUM spect
 PROBHD 5 mm PABBO BB/
 PULPROG zgpg30
 TD 65536
 SOLVENT CD3CN
 NS 68
 DS 4
 SWH 29761.904 Hz
 FIDRES 0.454131 Hz
 AQ 1.1010048 sec
 RG 197.27
 DW 16.800 usec
 DE 6.50 usec
 TE 297.3 K
 D1 1.0000000 sec
 D11 0.03000000 sec
 TD0 1

----- CHANNEL f1 -----
 SFO1 125.7703637 MHz
 NUC1 13C
 P1 8.90 usec
 PLW1 103.0000000 W

----- CHANNEL F2 -----
 SFO2 500.1320005 MHz
 NUC2 1H
 CPDPRG[2] waltz16
 PCPD2 80.00 usec
 PLW2 13.00000000 W
 PLW12 0.34327999 W
 PLW13 0.21969999 W

F2 - Processing parameters
 SI 32768
 SF 125.7576599 MHz
 NDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

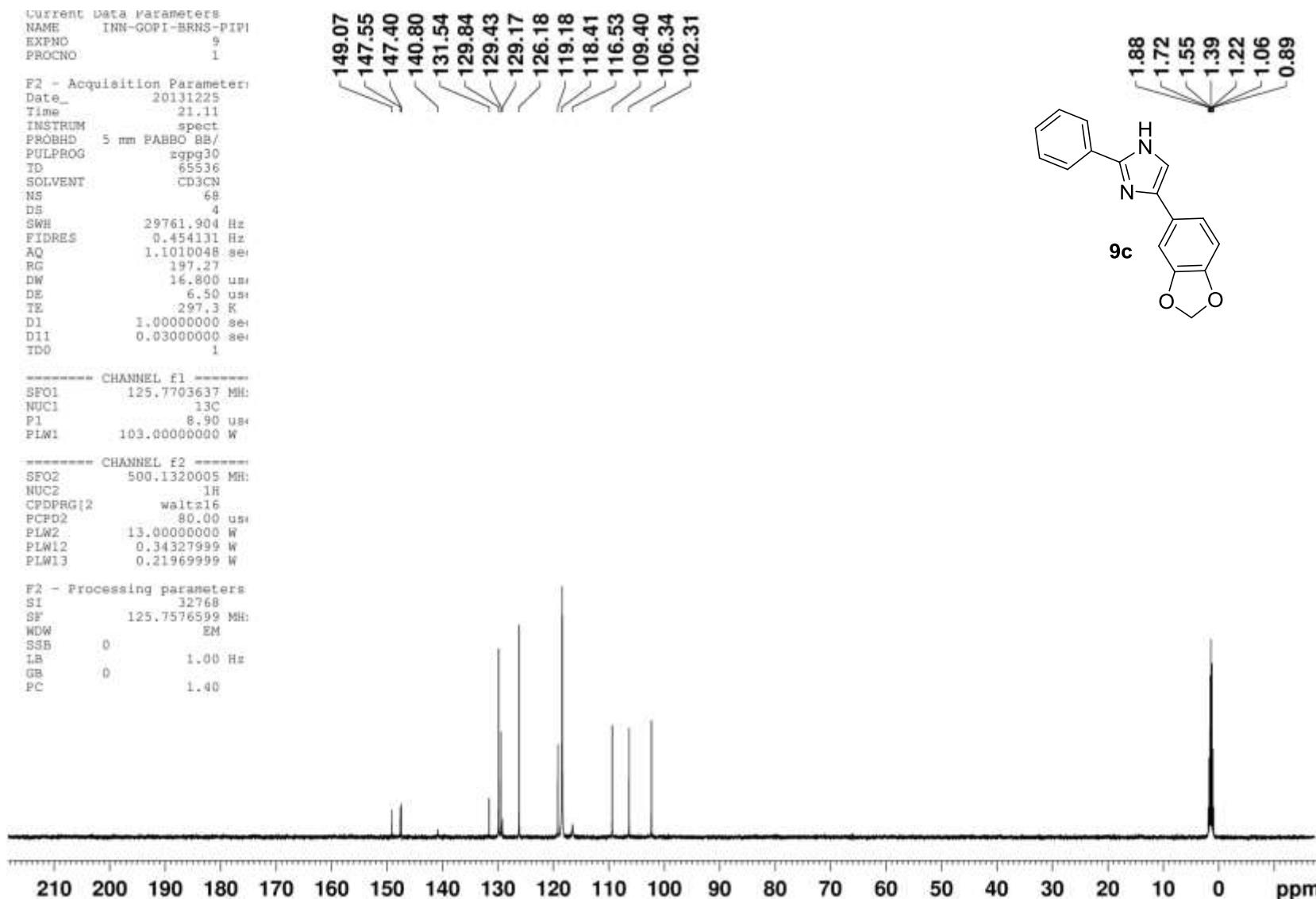


Figure S17. ¹³C NMR Spectrum of 9c

Current Data Parameters
 NAME inn-gopi-brns-1-h
 EXPNO 3
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20130306
 Time 22.46
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 15
 DS 0
 SWH 8223.685 Hz
 FIDRES 0.125483 Hz
 AQ 3.9846387 sec
 RG 32
 DW 60.800 usec
 DE 6.50 used
 TE 294.8 K
 D1 1.0000000 sec
 TDO 1

----- CHANNEL f1 -----
 NUC1 1H
 P1 13.50 usec
 PL1 -1.00 dB
 PL1W 10.56200695 W
 SF01 400.1324710 MHz

F2 - Processing parameters
 SI 32768
 SF 400.1300095 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

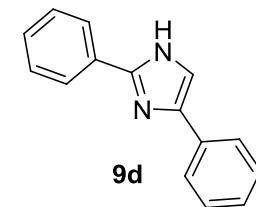
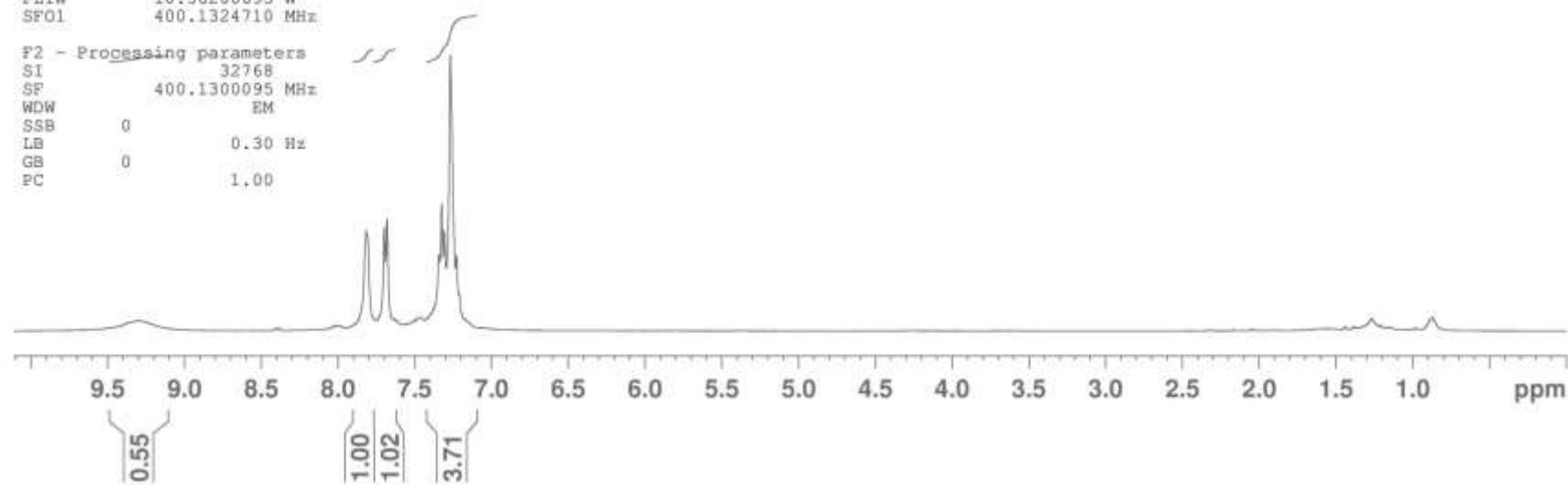


Figure S18. ¹H NMR Spectrum of 9d

```

NAME      inn-gopi-brna-1-13c
EXPNO            3
PROCNO           1
Date_      20130306
Time_      18.18
INSTRUM   spect
PROBHD   5 mm FABBO BB-
PULPROG  zgpg30
TD        65536
SOLVENT    CDCl3
NS         60
DS          4
SWH       24038.461 Hz
FIDRES   0.366798 Hz
AQ        1.3631988 sec
RG        2050
DW        20.800 usec
DE        6.50 usec
TE        295.1 K
D1        1.0000000 sec
D11       0.0300000 sec
TDO      1

```

```
===== CHANNEL f1 =====
```

```

NUC1        13C
P1        8.75 usec
PL1      -2.00 dB
PL1W     56.53121948 MHz
SFO1     100.6228298 MHz

```

```
===== CHANNEL f2 =====
```

```

CPDPRG2   waltz16
NUC2        1H
PCPD2      80.00 usec
PL2      -1.00 dB
PL12     14.50 dB
PL13     14.50 dB
PL2W     10.56200695 W
PL12W    0.29767781 W
PL13W    0.29767781 W
SFO2     400.1316005 MHz
SI        32768
SF      100.6127564 MHz
WDW      EM
SSB      0
LB      1.00 Hz
GB      0
PC      1.40

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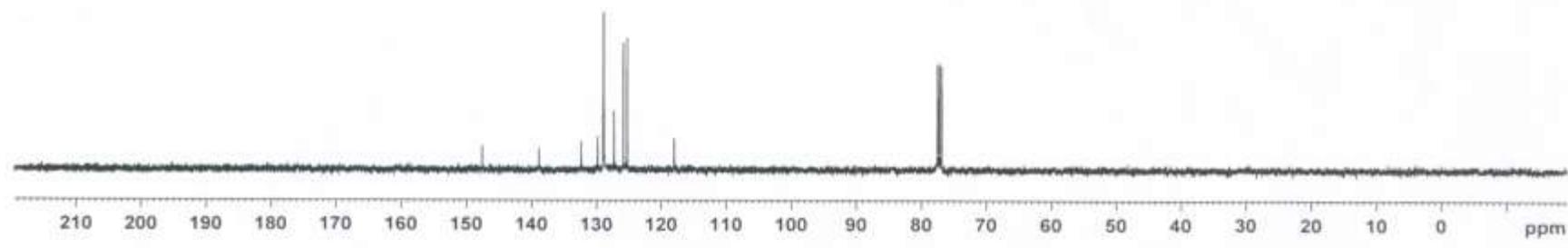
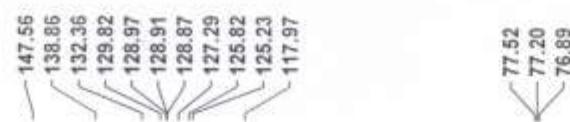
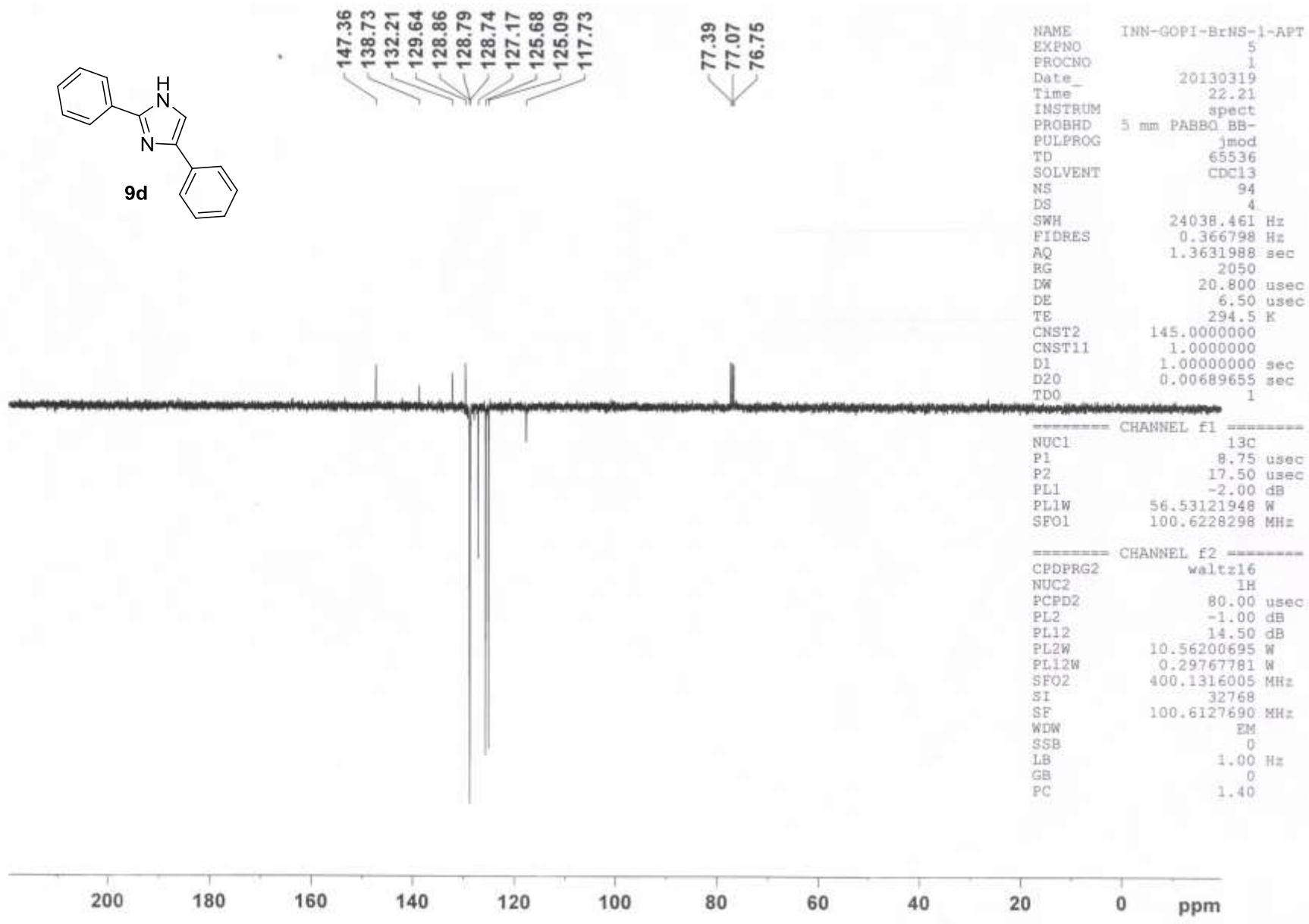


Figure S19. ^{13}C NMR Spectrum of **9d**

Figure S20. ^{13}C -APT NMR Spectrum of 9d

Current Data Parameters
 NAME INN-GOPI-BENS-4-ME-1H
 EXPNO 5
 PROCNO 1

F2 - Acquisition Parameters

Date 20140106
 Time 21.36
 INSTRUM spect
 PROBHD 5 mm PABBO BB/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl₃
 NS 16
 DS 2
 SWH 10000.000 Hz
 FIDRES 0.152588 Hz
 AQ 1.2767599 sec
 RG 30.72
 DW 50.000 usec
 DE 6.50 usec
 TR 297.5 K
 DI 1.0000000 sec
 TDD 1

***** CHANNEL f1 *****
 SP01 500.1330885 MHz
 NUC1 1H
 PL 13.00 usec
 PLW1 13.0000000 W

F2 - Processing parameters
 SI 65536
 SF 500.1300047 MHz
 WMW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

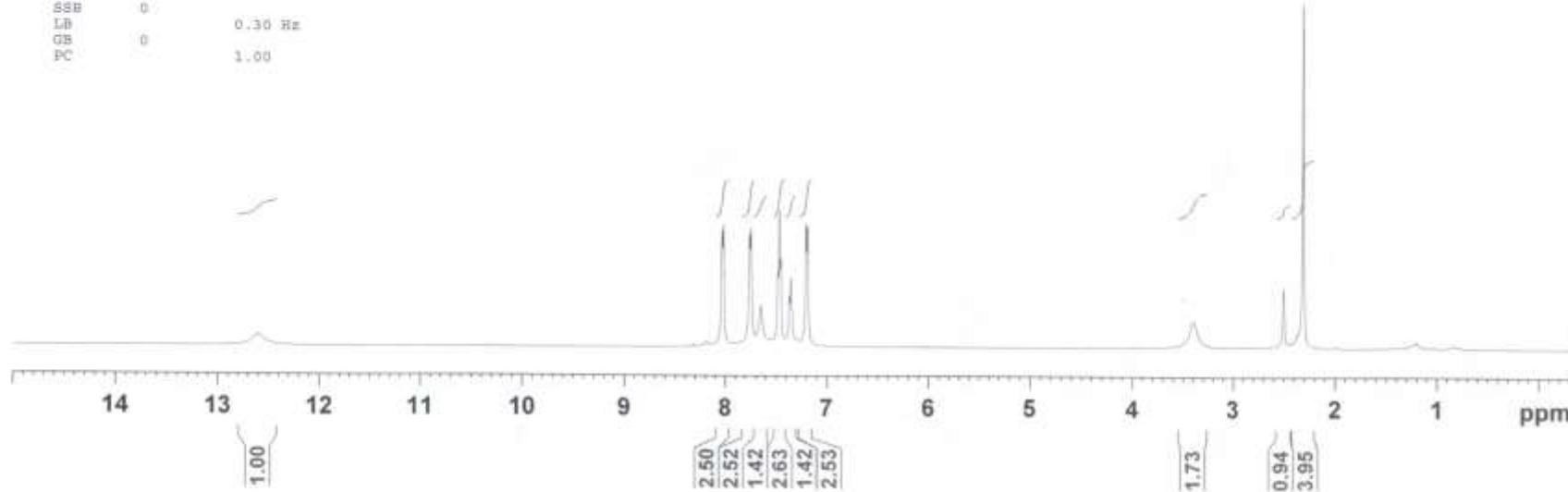
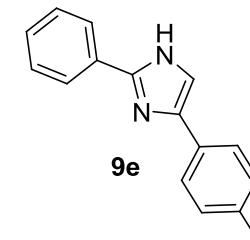
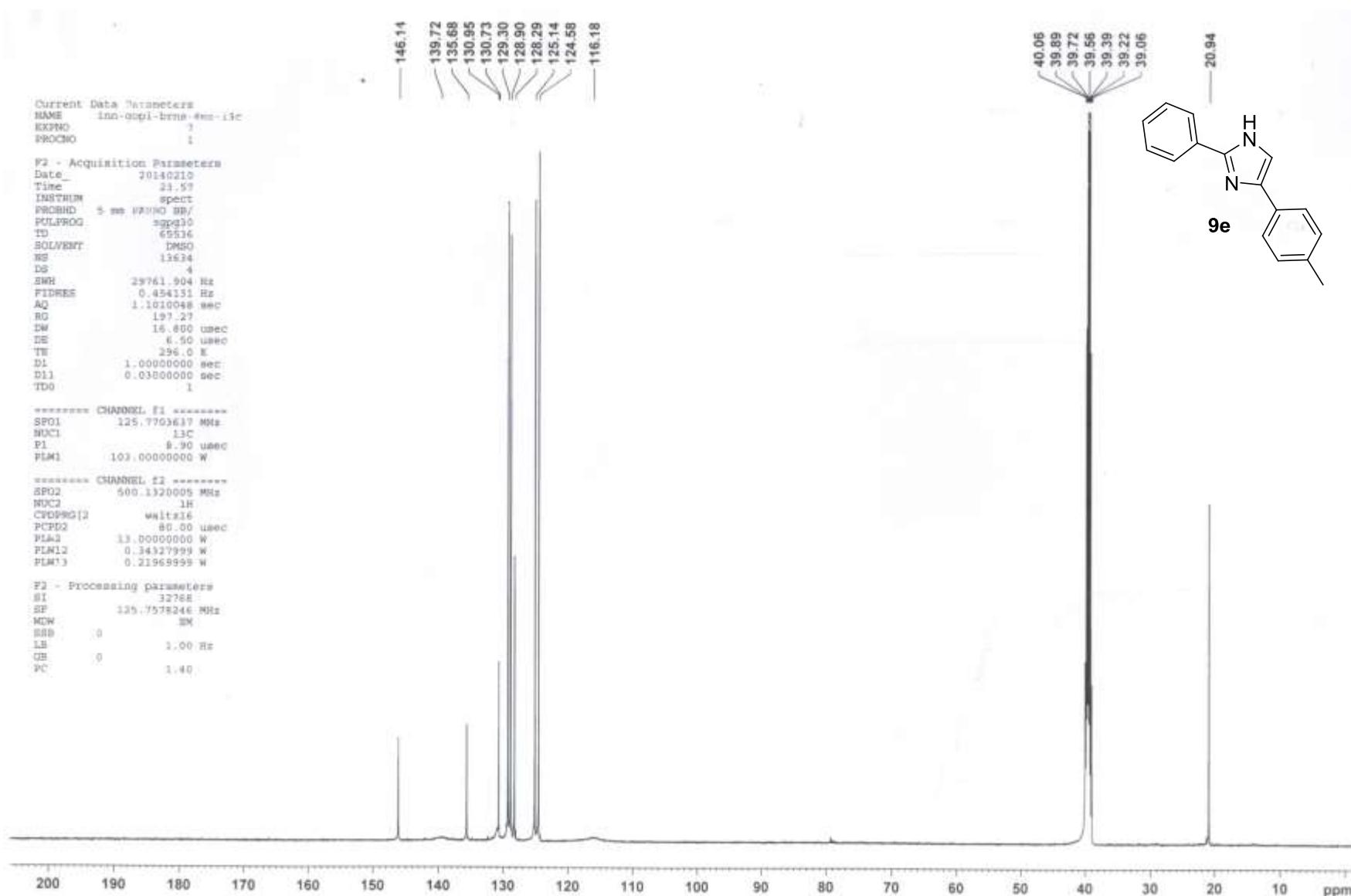


Figure S21. ¹H NMR Spectrum of 9e

Figure S22. ^{13}C NMR Spectrum of 9e

Current Data Parameters
 NAME: IBB-GOPI-BPNS-SME-1H
 EXPNO: 8
 PROCHNO: 1

P2 - Acquisition Parameters
 Date: 20140203
 Time: 21:51
 INSTRUM: spect
 PROBHD: 5 mm PABBO BB/
 PULPROG: zg30
 TD: 65536
 SOLVENT: DMSO
 NS: 16
 DS: 2
 SWH: 10000.000 Hz
 FIDRES: 0.152588 Hz
 AQ: 3.2768500 sec
 RG: 53.37
 DW: 50.000 usec
 DE: 6.50 usec
 IR: 300.5 K
 D1: 1.0000000 sec
 TDO: 1

----- CHANNEL F1 -----
 BFO1: 500.1330885 MHz
 HNU1: 18
 P1: 13.00 usec
 PLWI: 13.0000000 W

P2 - Processing parameters
 SI: 65536
 SF: 500.1299994 MHz
 WDW: EM
 SSB: 0
 LB: 0.30 Hz
 GB: 0
 PC: 1.00

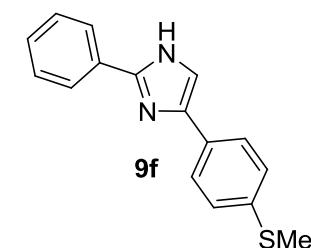
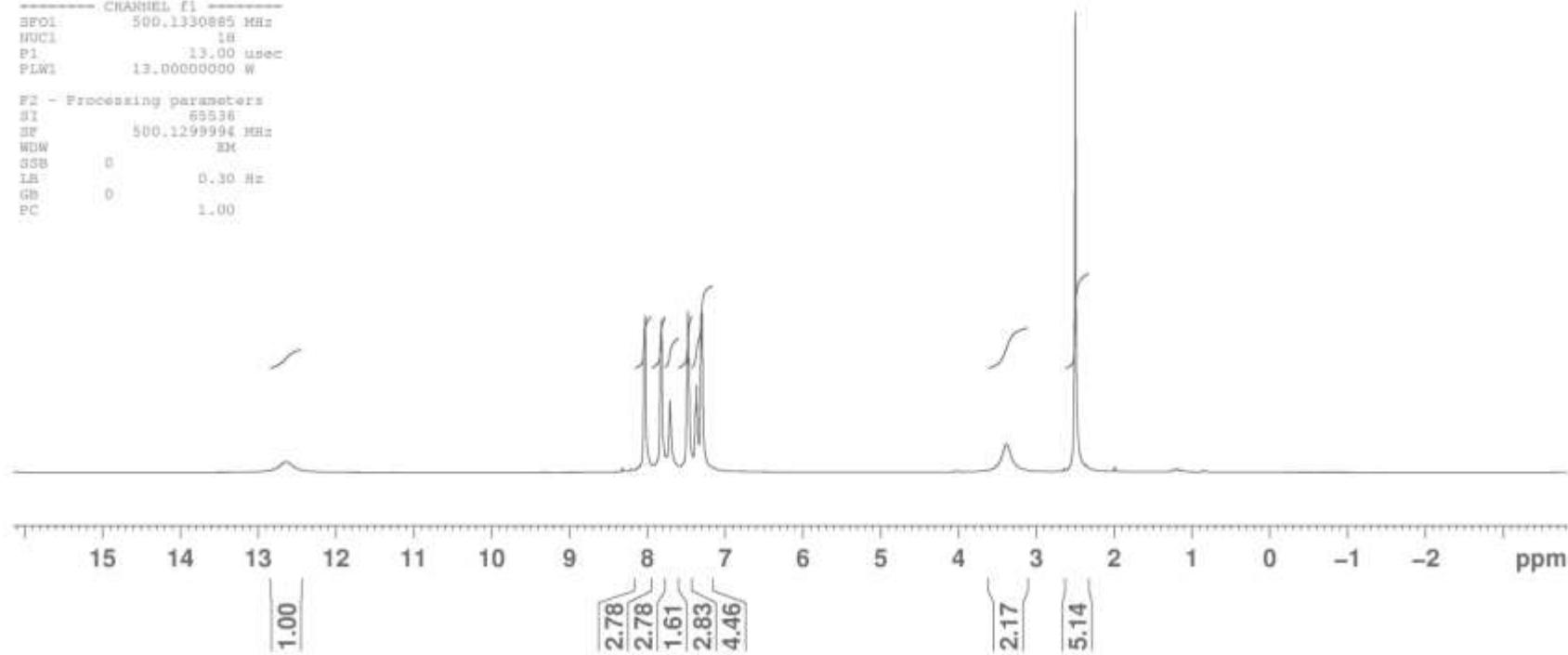
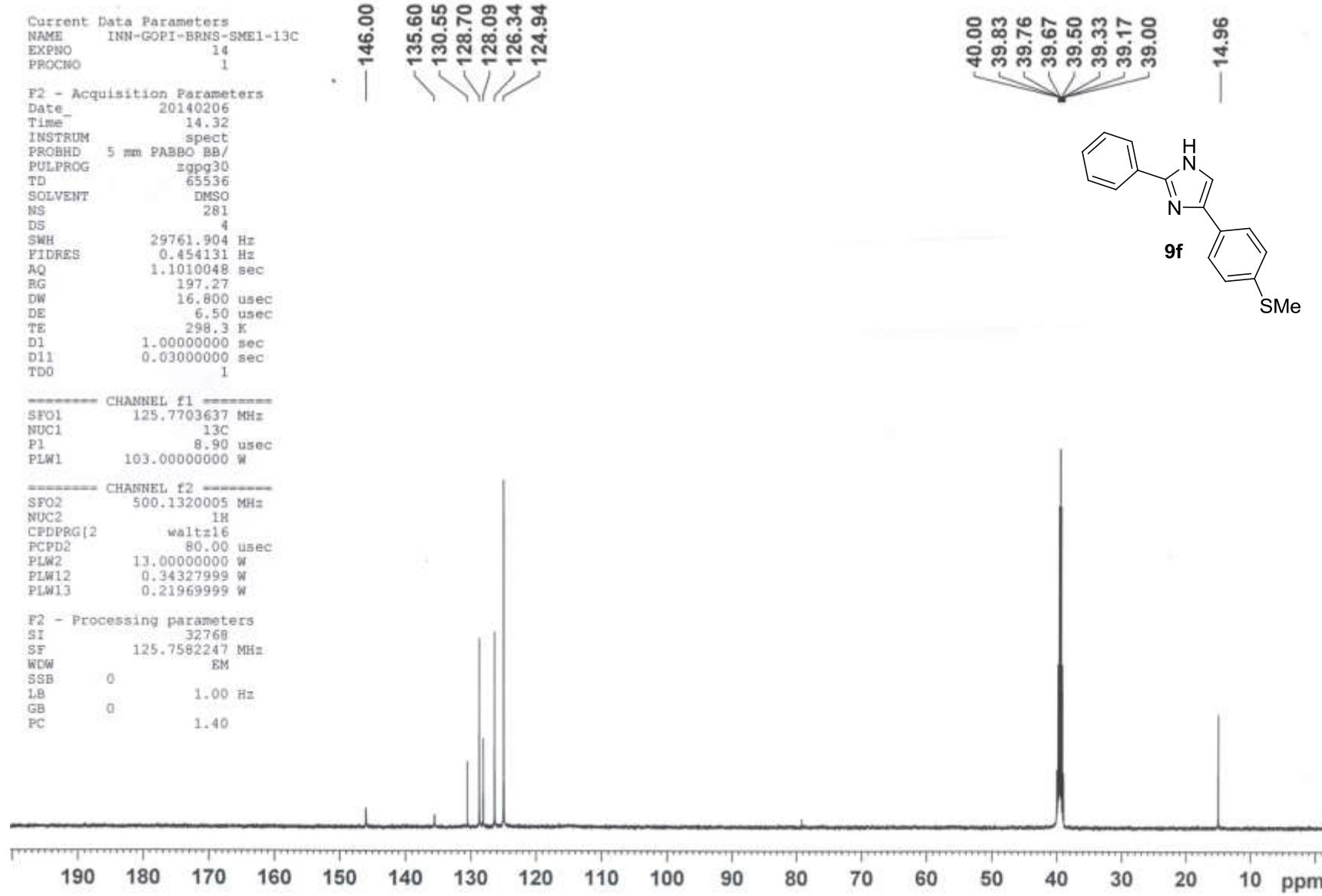


Figure S23. ¹H NMR Spectrum of 9f

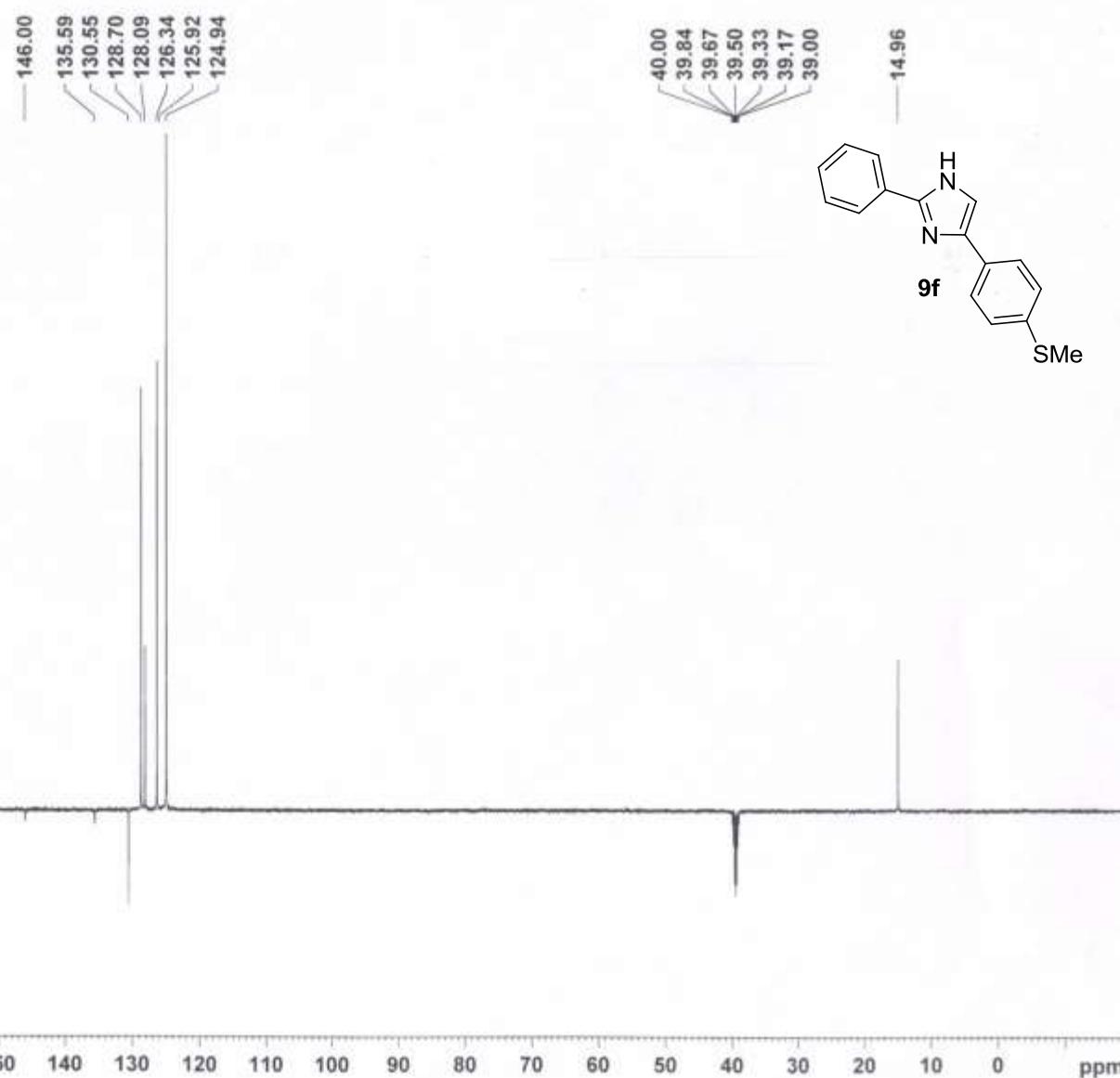


Current Data Parameters
 NAME INN-GOPI-BRNS-SMR1-APT
 EXPNO 14
 PROCNO 1
 F2 - Acquisition Parameters
 Date_ 20140206
 Time 14.42
 INSTRUM spect
 PROBHD 5 mm PABBO BB/
 PULPROG jmod
 TD 65536
 SOLVENT DMSO
 NS 200
 DS 4
 SWH 29761.904 Hz
 FIDRES 0.454131 Hz
 AQ 1.1010048 sec
 RG 197.27
 DW 16.800 usec
 DE 6.50 usec
 TE 298.6 K
 CNUST2 145.000000
 CNUST11 1.0000000
 D1 1.0000000 sec
 D20 0.00689655 sec
 TDO 1

***** CHANNEL f1 *****
 SP01 125.7703643 MHz
 NUC1 13C
 P1 8.90 usec
 F2 17.80 usec
 PLW1 103.0000000 W

***** CHANNEL f2 *****
 SP02 500.1320005 MHz
 NUC2 1H
 CPDPRG[2] waltz16
 PCPD2 80.00 usec
 PLW2 13.0000000 W
 PLW12 0.34327999 W

F2 - Processing parameters
 SI 32768
 SP 125.7578496 MHz
 RDM EN
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

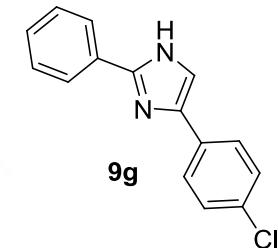
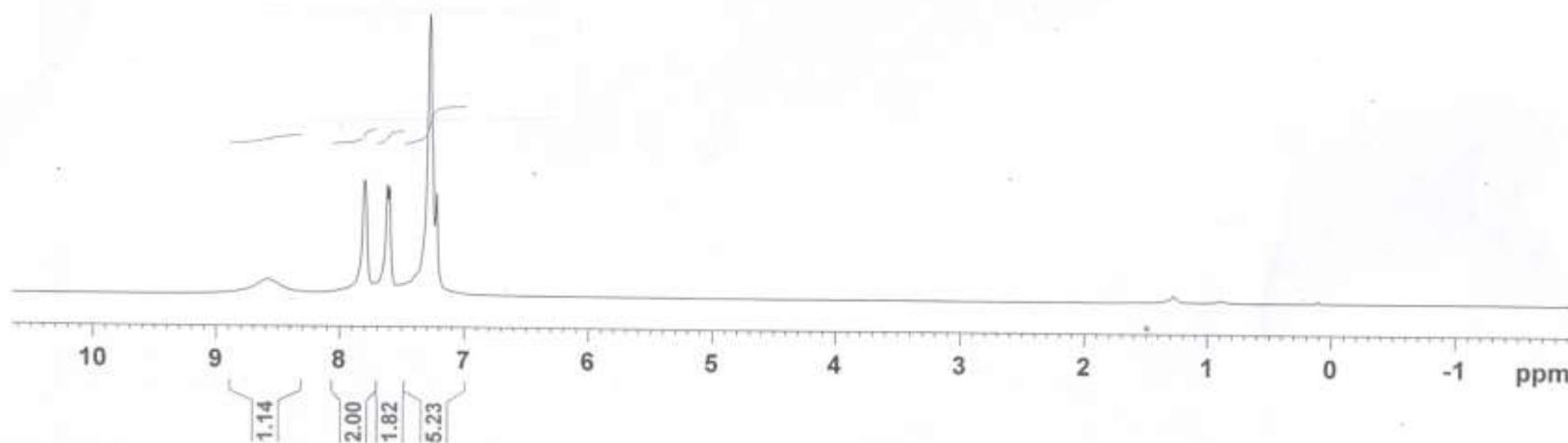
Figure S25. ^{13}C -APT NMR Spectrum of 9f

```

NAME      INN-GOPI-BRNS-7-11
EXPNO:        1
PROCNO:       1
Date:     20130912
Time:    22.37
INSTRUM:   spect
PROBHD:  5 mm SEI 1H/D-
PULPROG: sg30
TD:        65536
SOLVENT:  CDCl3
NS:          5
DS:          0
SWH:     8223.685 Hz
FIDRES:  0.125483 Hz
AQ:      3.9846387 sec
RG:        57
DW:     60.800 usec
DE:      6.50 usec
TE:     295.5 K
D1:    1.00000000 sec
TDO:        1

===== CHANNEL f1 =====
NUC1:        1H
P1:       6.75 usec
PL1:      -3.00 dB
PL1W:    16.73965454 W
SF01:   400.1324710 MHz
SI:      32768
SF:    400.1300101 MHz
WDW:        EM
SSB:        0
LB:      0.30 Hz
GB:        0
PC:        1.00

```

Figure S26. ^1H NMR Spectrum of **9g**

NAME INN-GOPI-BRNS-7-13C
 EXPNO 2
 PROCNO 1
 Date 20130912
 Time 22.39
 INSTRUM spect
 PROBHD 5 mm SEI 1H/D-
 PULPROG zgpg30
 TD 65536
 SOLVENT CBC13
 NS 150
 DS 4
 SWH 24038.461 Hz
 FIDRES 0.366798 Hz
 AQ 1.3631988 sec
 RG 2050
 DW 20.800 usec
 DE 6.50 usec
 TE 295.6 K
 D1 1.0000000 sec
 D11 0.03000000 sec
 TDO 1

CHANNEL f1
 NUC1 13C
 P1 13.00 usec
 PL1 -3.00 dB
 PL1W 71.16858673 W
 SFO1 100.6228298 MHz

CHANNEL f2
 CPDPBG2 waltz16
 NUC2 1H
 PCPD2 80.00 usec
 PL2 -3.00 dB
 PL12 18.48 dB
 PL13 19.00 dB
 PL2W 16.73965454 W
 PL12W 0.11905469 W
 PL13W 0.10562007 W
 SFO2 400.1316005 MHz
 SF 32768
 SF 100.6127584 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

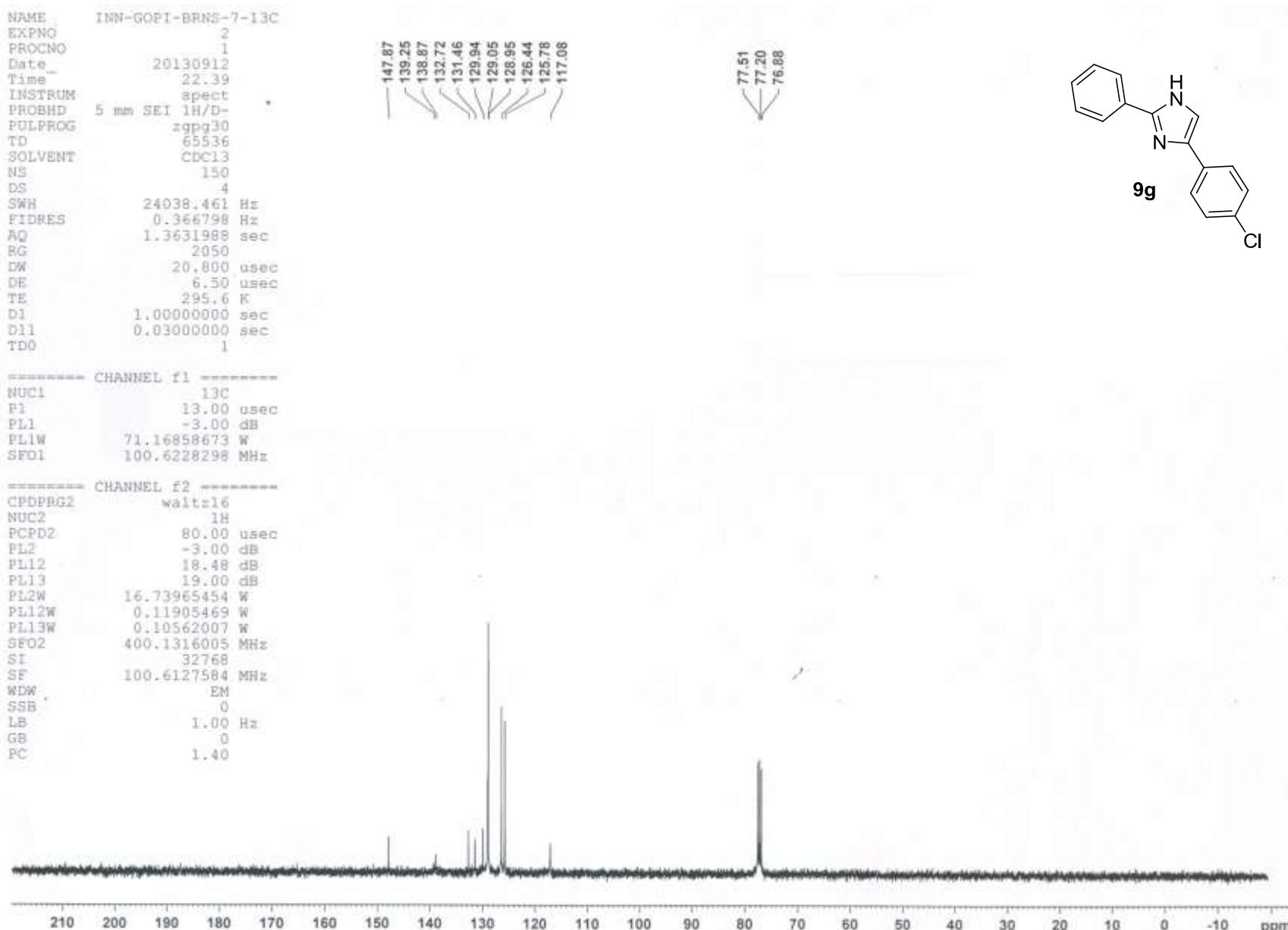


Figure S27. ^{13}C NMR Spectrum of 9g

Current Data Parameters
 NAME inn-gopi-brns-pf-1h
 EXENO 4
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20140111
 Time 11.30
 INSTRUM spect
 PROBHD 5 mm PABBO BB/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 10
 DS 2
 SWH 10000.000 Hz
 FIDRES 0.152588 Hz
 AQ 3.2768500 sec
 RG 30.72
 DW 50.000 usec
 DE 6.50 usec
 TE 296.5 K
 D1 1.0000000 sec
 TD0 1

CHANNEL f1
 SFO1 500.1330885 MHz
 NUC1 1H
 P1 13.00 usec
 PLW1 13.0000000 W

F2 - Processing parameters
 SI 65536
 SF 500.1300000 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

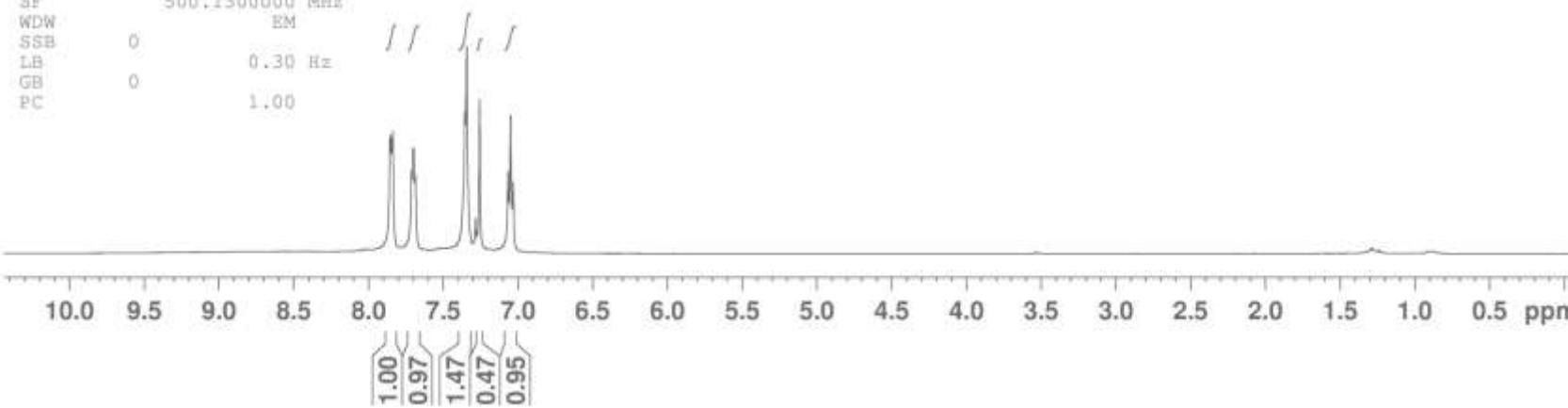
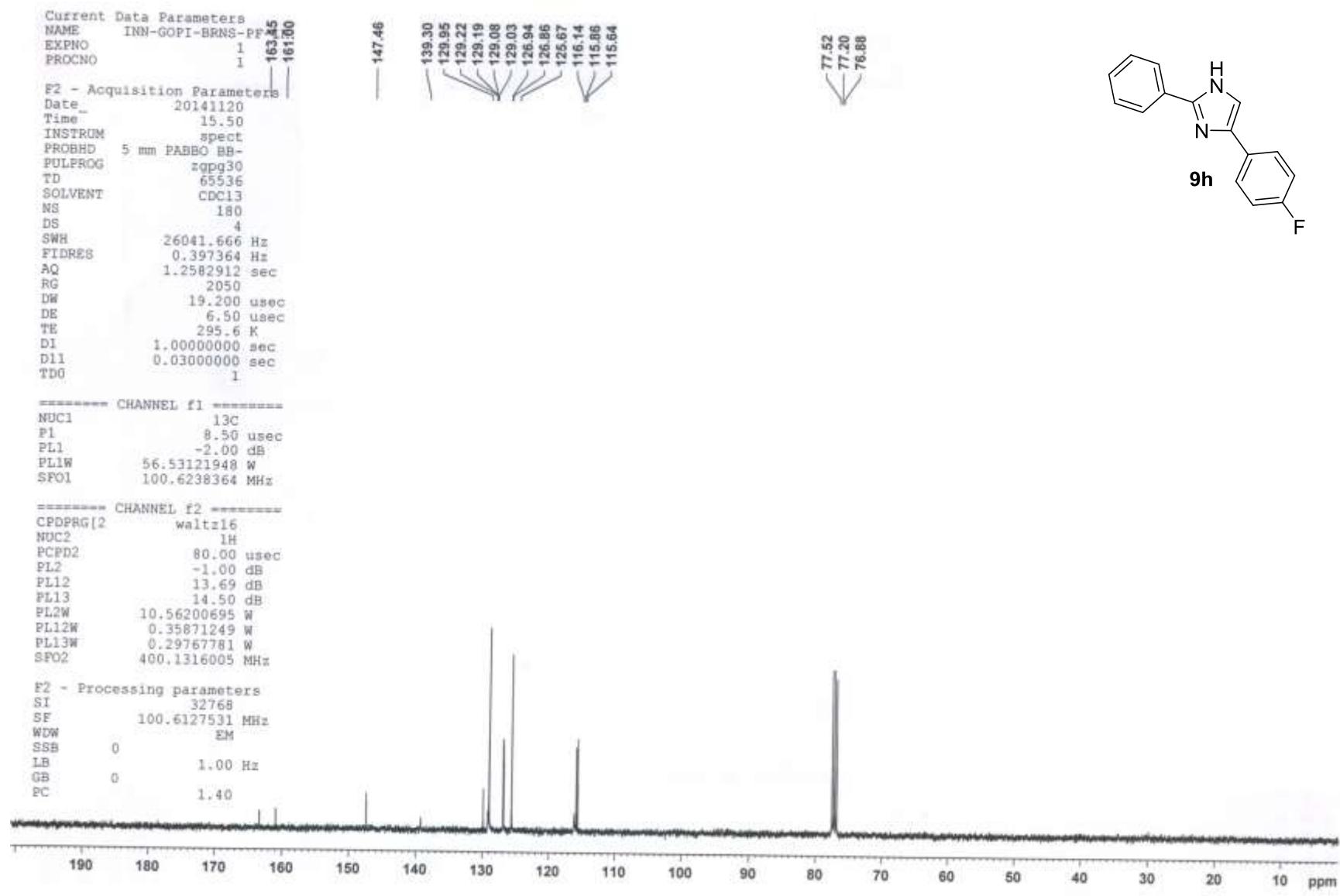


Figure S28. ^1H NMR Spectrum of 9h

Figure S29. ¹³C NMR Spectrum of 9h

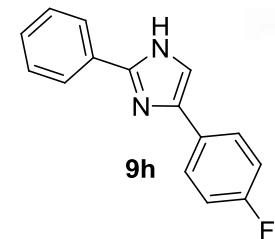


Fig S30. ¹⁹F NMR Spectrum of 9h

Current Data Parameters
 NAME inn-gopi-brns-3BR-1H
 EXPNO 15
 PROCNO 1

F2 - Acquisition Parameters

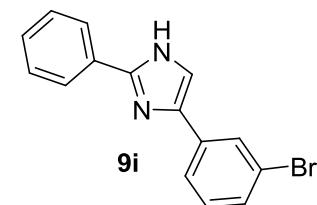
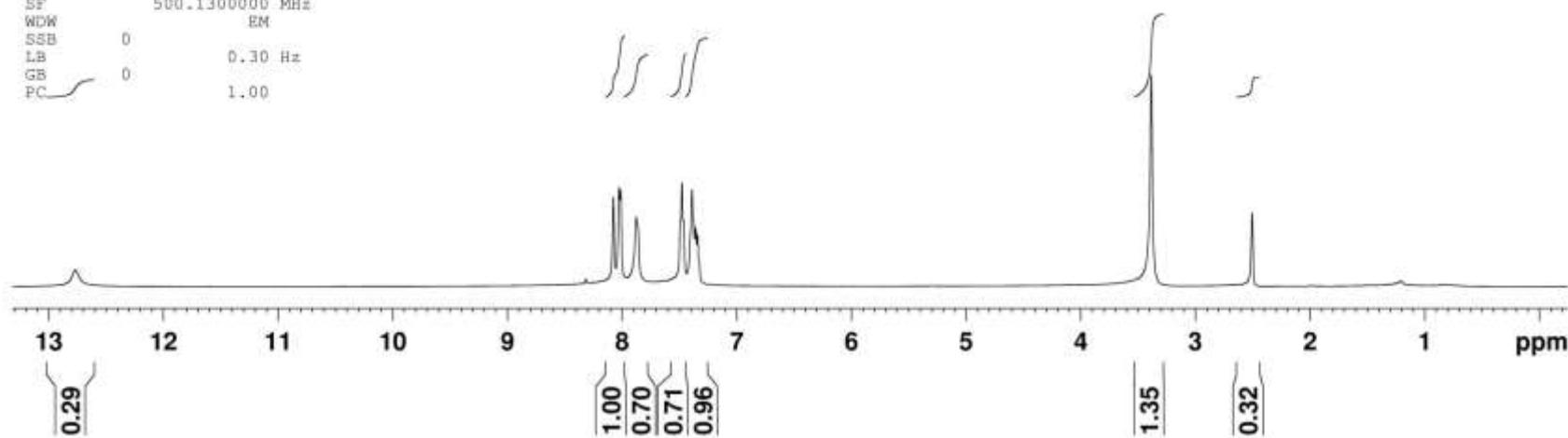
Date 20140115
 Time 7.47
 INSTRUM spect
 PROBHD 5 mm FABBO BB/
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 7
 DS 2
 SWH 10000.000 Hz
 FIDRES 0.152588 Hz
 AQ 3.2768500 sec
 RG 30.72
 DW 50.000 usec
 DE 6.50 usec
 TE 296.1 K
 D1 1.0000000 sec
 TDO 1

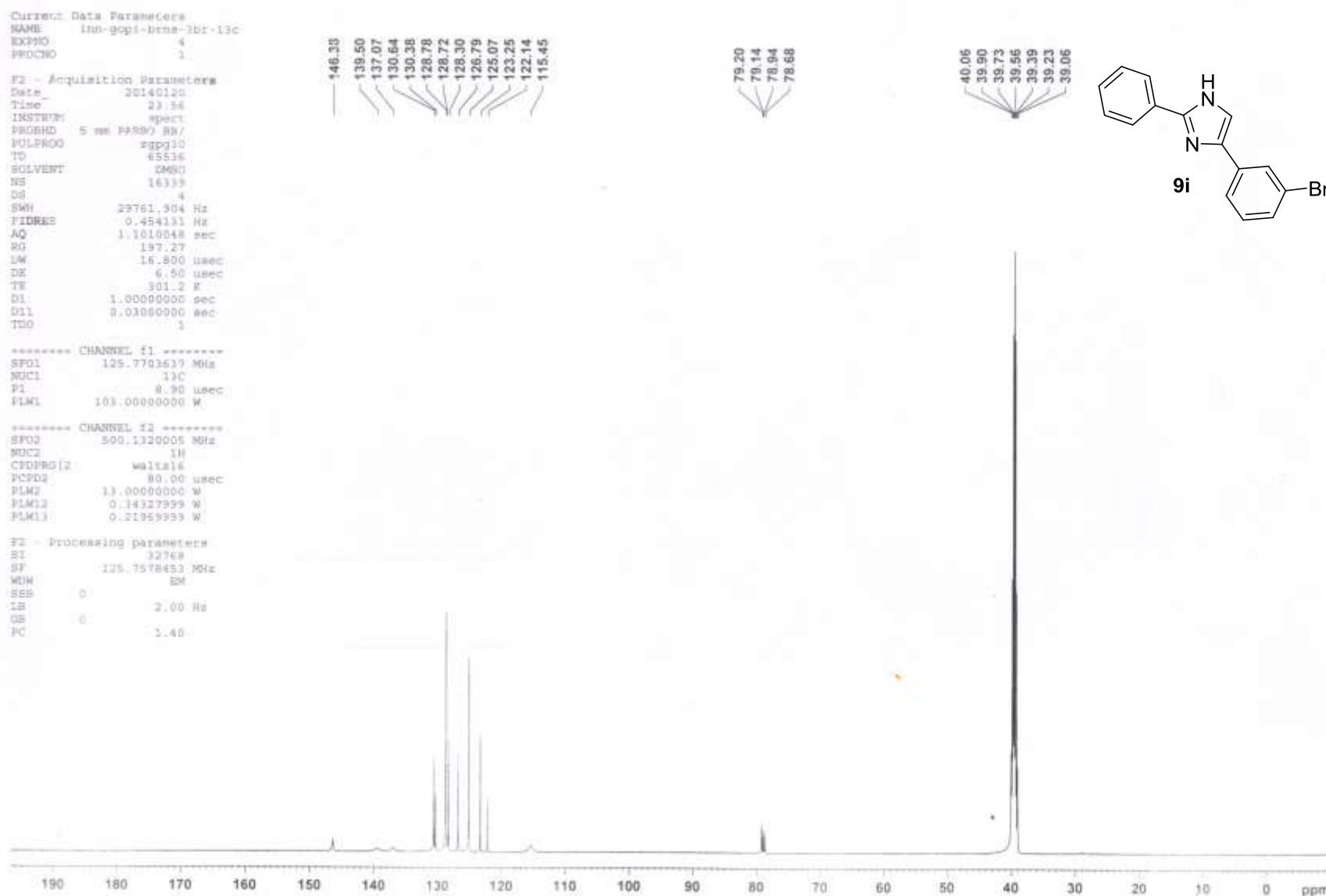
----- CHANNEL f1 -----

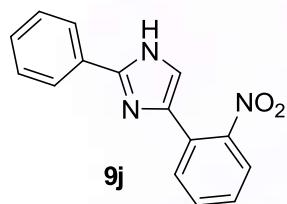
SFO1 500.1330885 MHz
 NUC1 1H
 P1 13.00 usec
 PLW1 13.0000000 W

F2 - Processing parameters

SI 65536
 SF 500.1300000 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

Figure S31. ^1H NMR Spectrum of **9i**





```

Current Data Parameters
NAME   Inn-gopi-bnsn-prmt-10
NS     1
SWH   37
SFIDB   1
SMODEL   1
P1     1
TD    65536
SOLVENT   CDCl3
TE    10
DR     2
SWR   10000.000 Hz
FIDRES  0.152588 Hz
AQ    3.2767999 sec
RG    30.72
DW    50.000 usec
DE    6.00 usec
TB    294.8 Hz
D1    1.0000000 sec
TDS   1

***** CHANNEL F1 *****
RF1L   500.113888 MHz
NUC1   1H
PL1   13.00 usec
PLM1   13.0000000 Hz

P2 - Processing parameters
SI    65536
SF    500.1130000 MHz
WDW   EM
SSB   0
LB    0.10 Hz
SP    8
PC    1.00

```

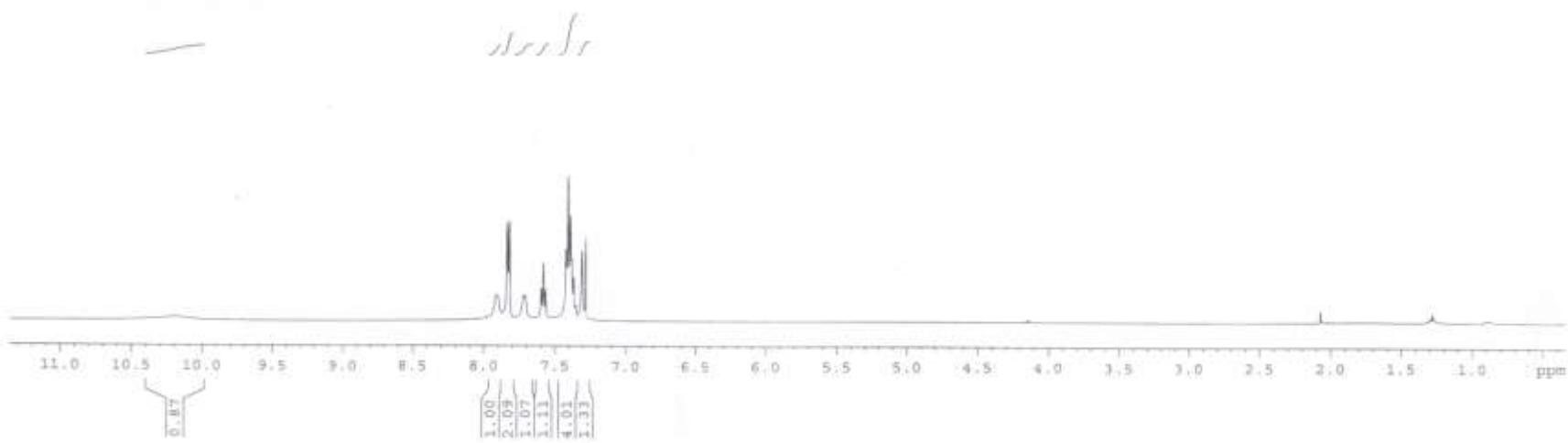
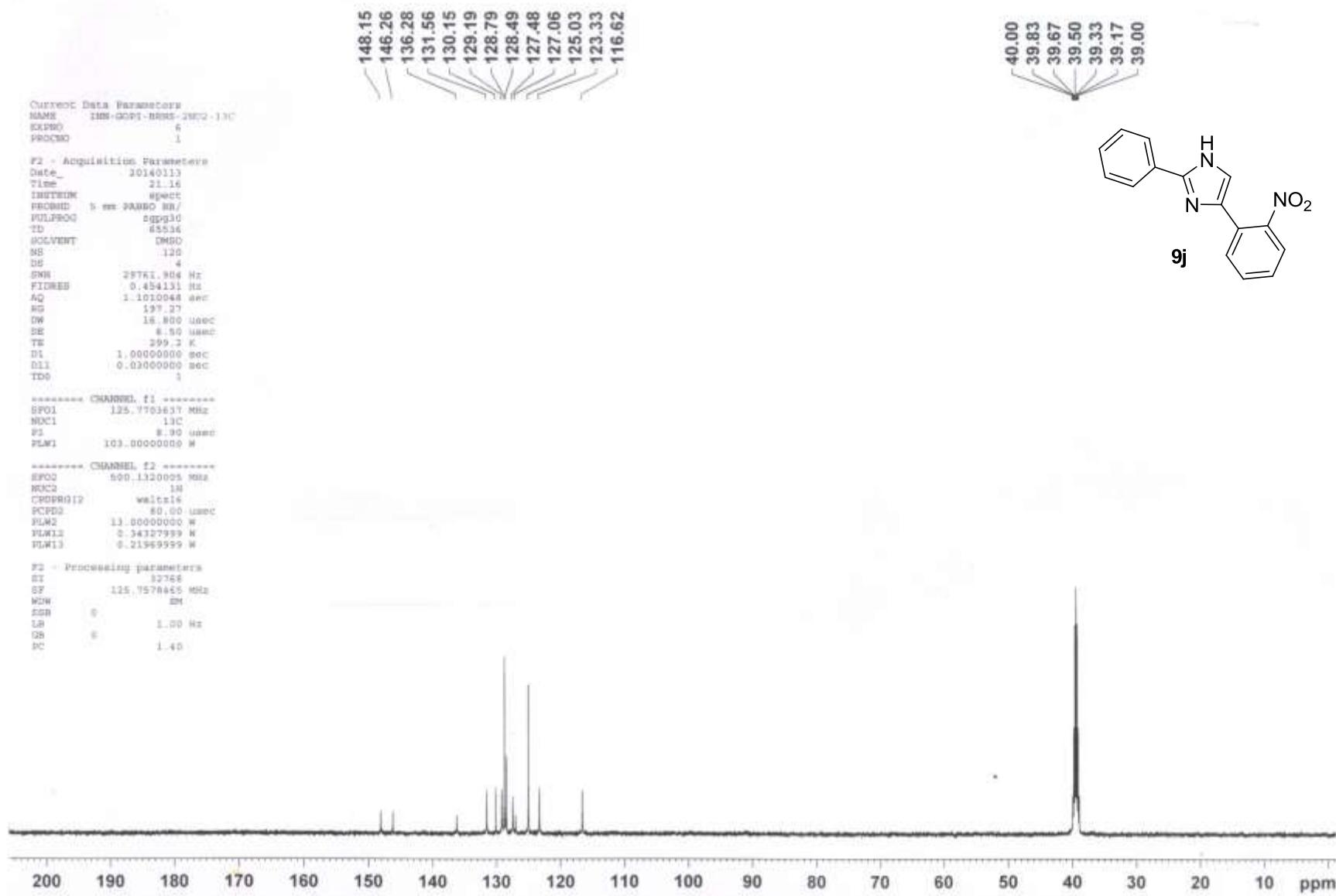


Figure S33. ¹H NMR Spectrum of 9j

Figure S34. ^{13}C NMR Spectrum of **9j**

Current Data Parameters
 NAME INN-GOPI-BRNS-2-T-1H
 EXPNO 9
 PROCNO 1

F2 - Acquisition Parameters

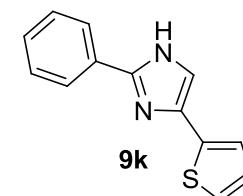
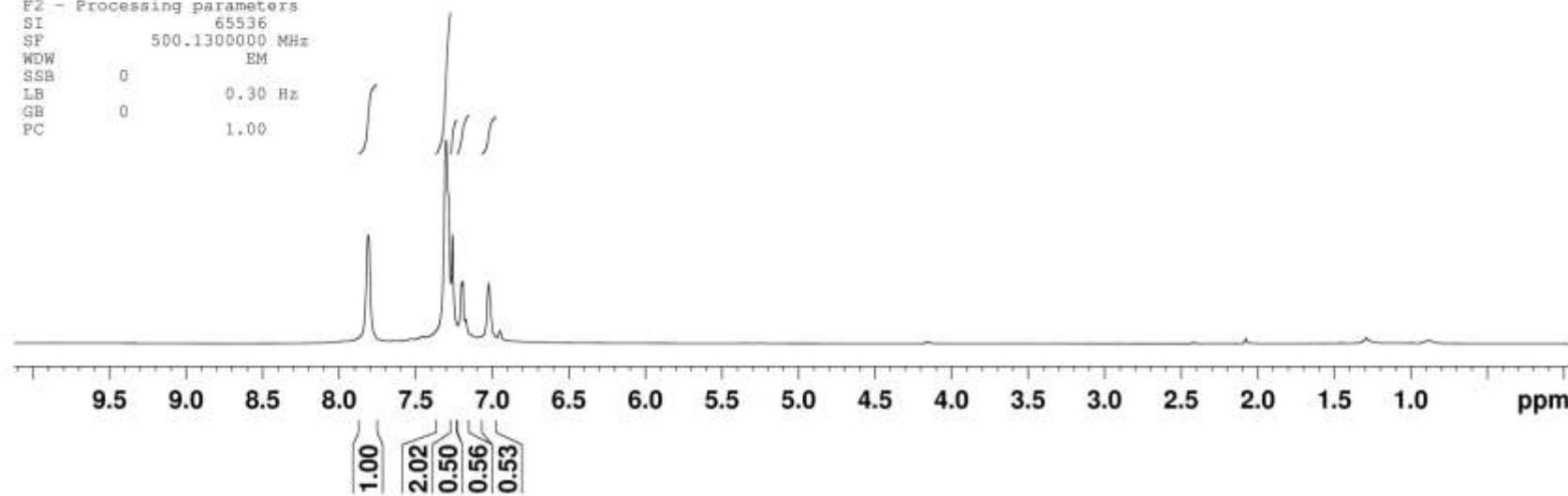
Date_ 20140117
 Time 10.06
 INSTRUM spect
 PROBHD 5 mm PABBO BB/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 10000.000 Hz
 FIDRES 0.152588 Hz
 AQ 3.2768500 sec
 RG 30.72
 DW 50.000 usec
 DE 6.50 usec
 TE 296.0 K
 D1 1.0000000 sec
 TDO 1

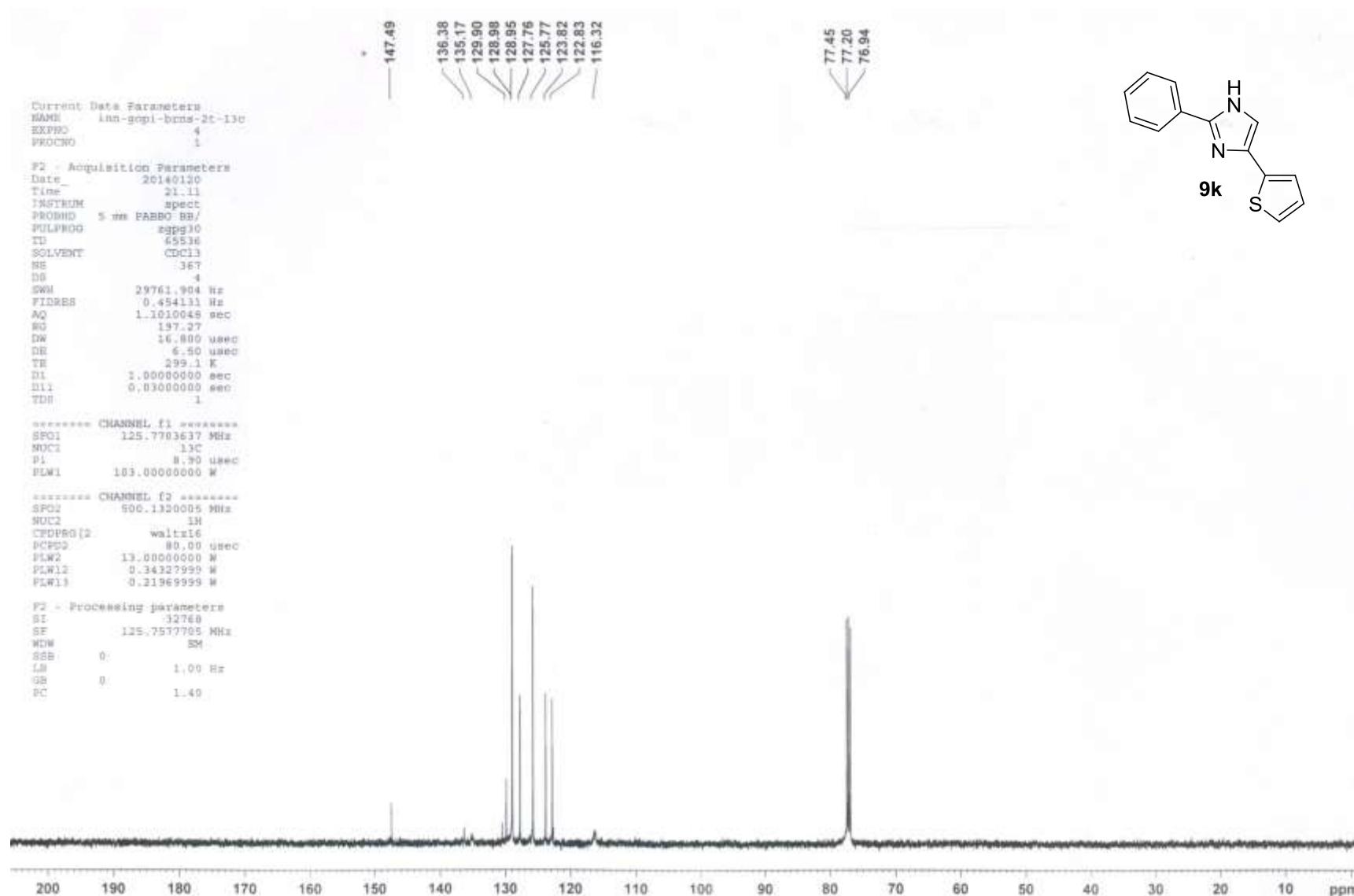
----- CHANNEL f1 -----

SFO1 500.1330885 MHz
 NUC1 1H
 P1 13.00 usec
 PLW1 13.00000000 W

F2 - Processing parameters

SI 65536
 SF 500.1300000 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

Figure S35. ¹H NMR Spectrum of 9k

Figure S36. ^{13}C NMR Spectrum of **9k**

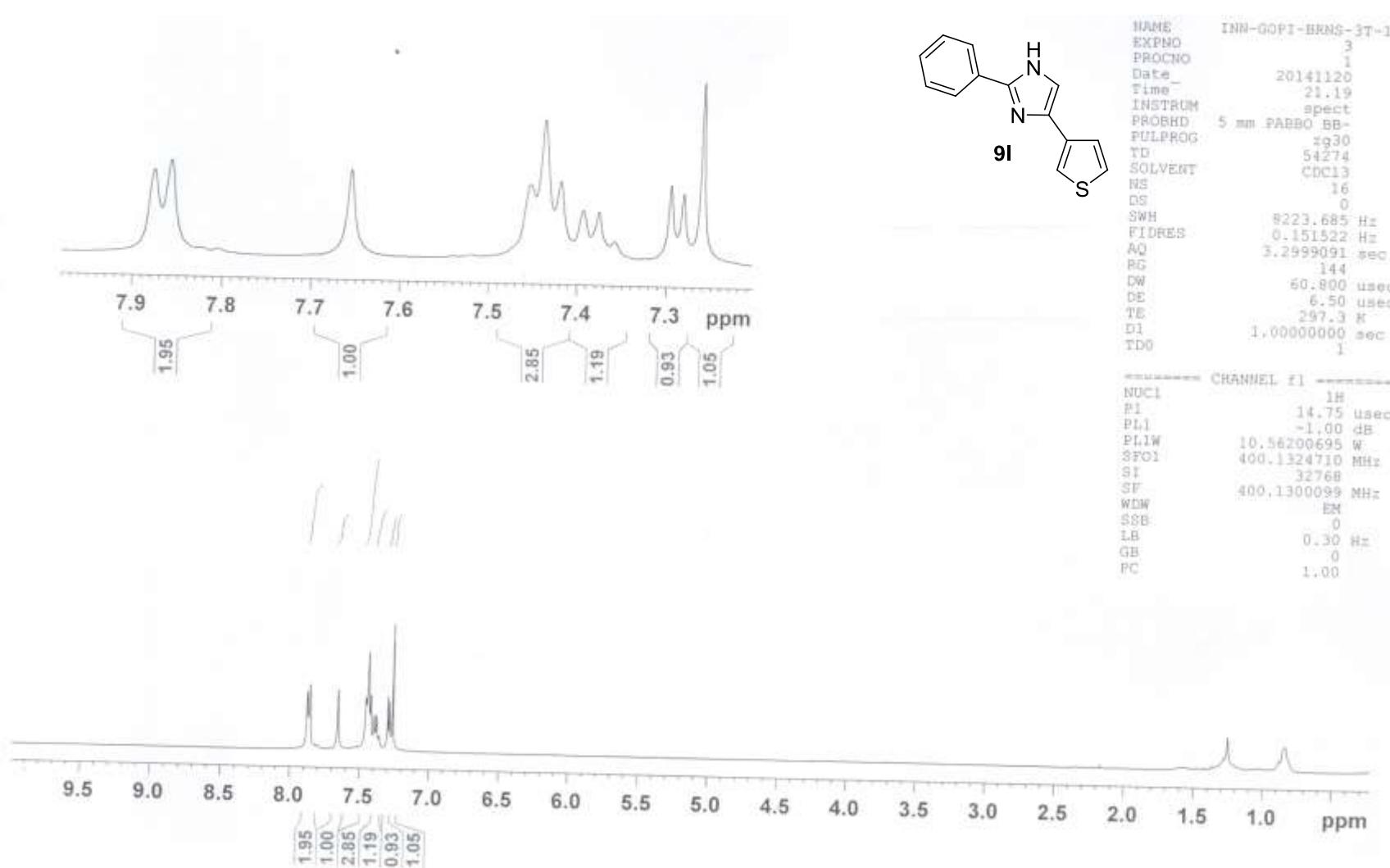


Figure S37. ^1H NMR Spectrum of **9l**

Current Data Parameters
 NAME INN-GOPI-BRMS-3T-13C
 EXPNO 4
 PROCMG 1

F2 - Acquisition Parameters
 Date 20140213
 Time 0.45
 INSTRUM spect
 PROBHD 5 mm PARBO BB/
 PULPROG zgpp3d
 TD 65536
 SOLVENT DMSO
 NS 363
 DS 4
 SWH 29761.904 Hz
 FIDRES 0.454131 Hz
 AQ 1.1010048 sec
 RG 197.27
 DW 16.800 usec
 DE 6.50 usec
 TE 296.9 K
 D1 1.0000000 sec
 D11 0.03000000 sec
 TDD 1

----- CHANNEL f1 -----
 SFO1 125.7703637 MHz
 NUC1 13C
 P1 8.90 usec
 PLW1 103.0000000 W

----- CHANNEL f2 -----
 SFO2 500.1320005 MHz
 NUC2 1H
 CPDPRG[2] waltz16
 PCPD2 80.00 usec
 PLW2 13.00000000 W
 PLW12 0.34327999 W
 PLW13 0.21969999 W

F2 - Processing parameters
 SI 32768
 SF 125.7578471 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

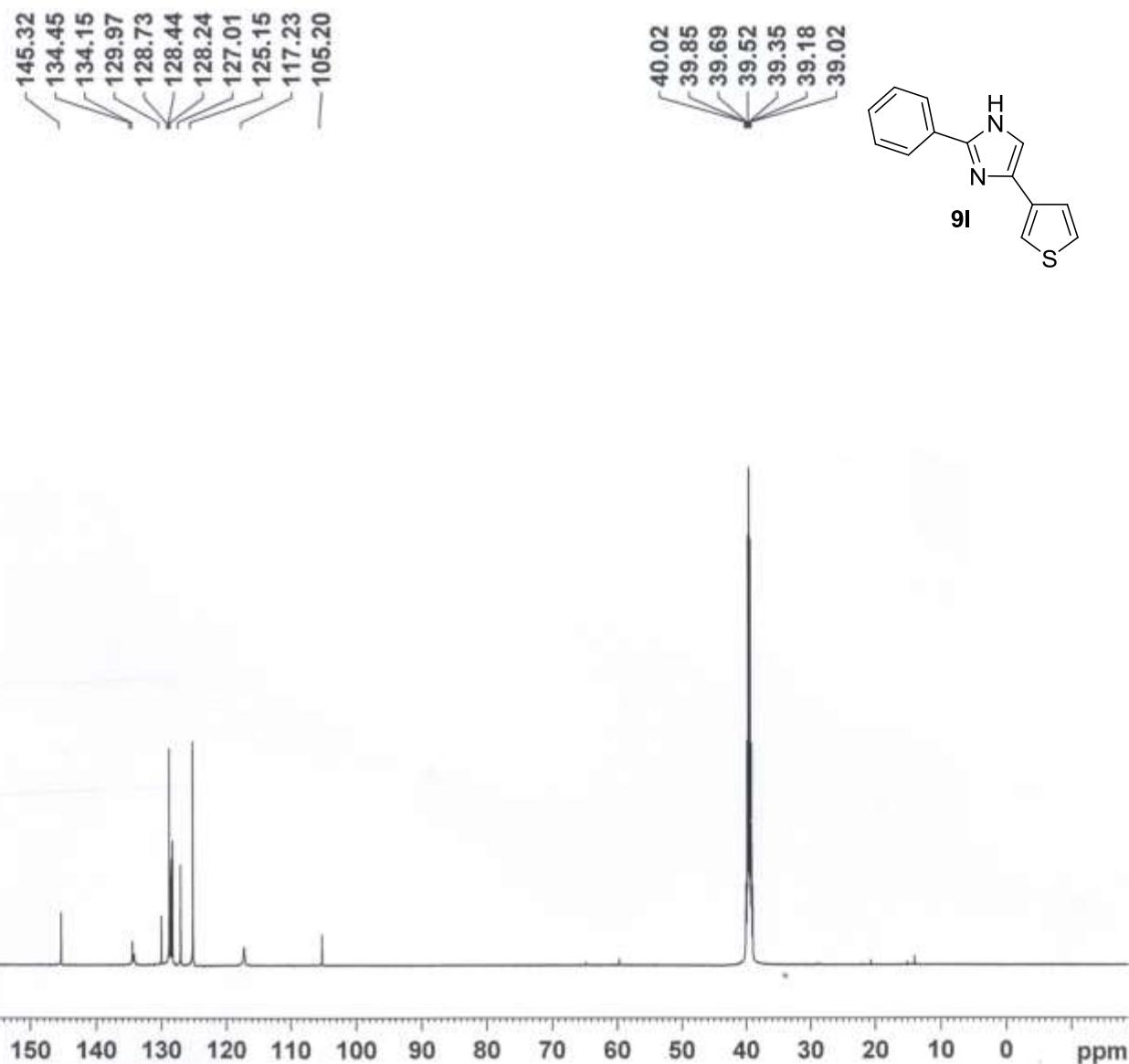


Figure S38. ¹³C NMR Spectrum of 9l

Current Data Parameters
 NAME INN-GOPI-BRNS-NAPB-1H
 EXPNO 6
 PROCNO 1

F2 - Acquisition Parameters
 Date 20141119
 Time 22:11
 INSTRUM spect
 PROBHD 5 mm PABBO BB/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 10000.000 Hz
 FIDRES 0.152568 Hz
 AQ 3.2767999 sec
 RG 30.72
 DW 50.000 usec
 DR 6.50 usec
 TE 296.6 K
 D1 1.0000000 sec
 TDD 1

----- CHANNEL F1 -----
 SPO1 500.1330885 MHz
 NUC1 1H
 P1 13.00 usec
 PLW1 13.0000000 W

F2 - Processing parameters
 SI 65536
 SP 500.1300123 MHz
 HDW 5M
 SSB 0
 LB 0.30 Hz ✓ *f_x* ✓ *f_{ppm}*
 GB 0
 PC 1.00

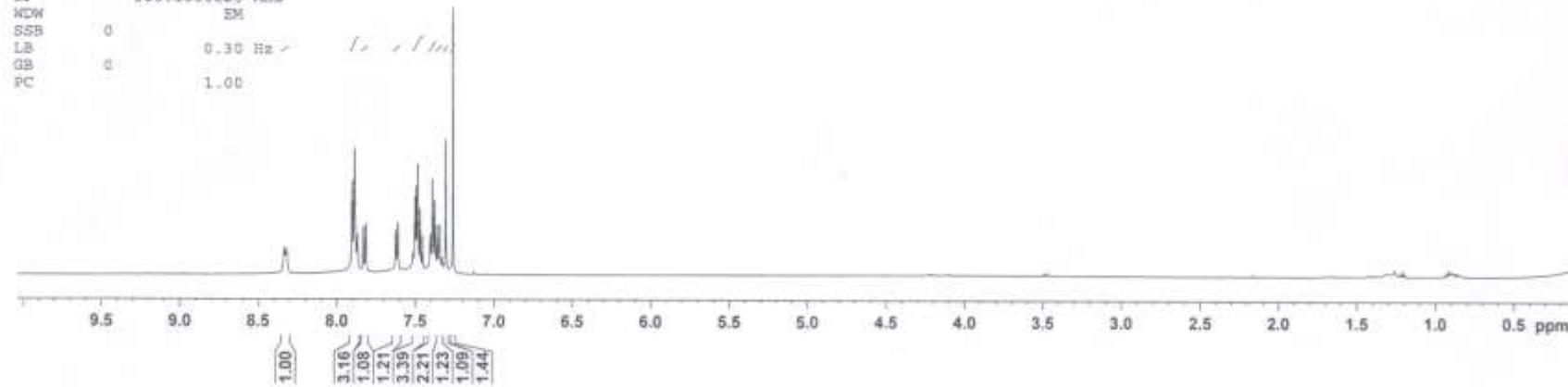
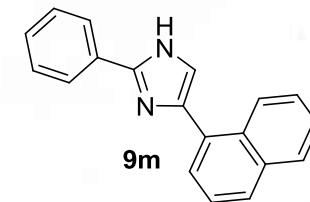
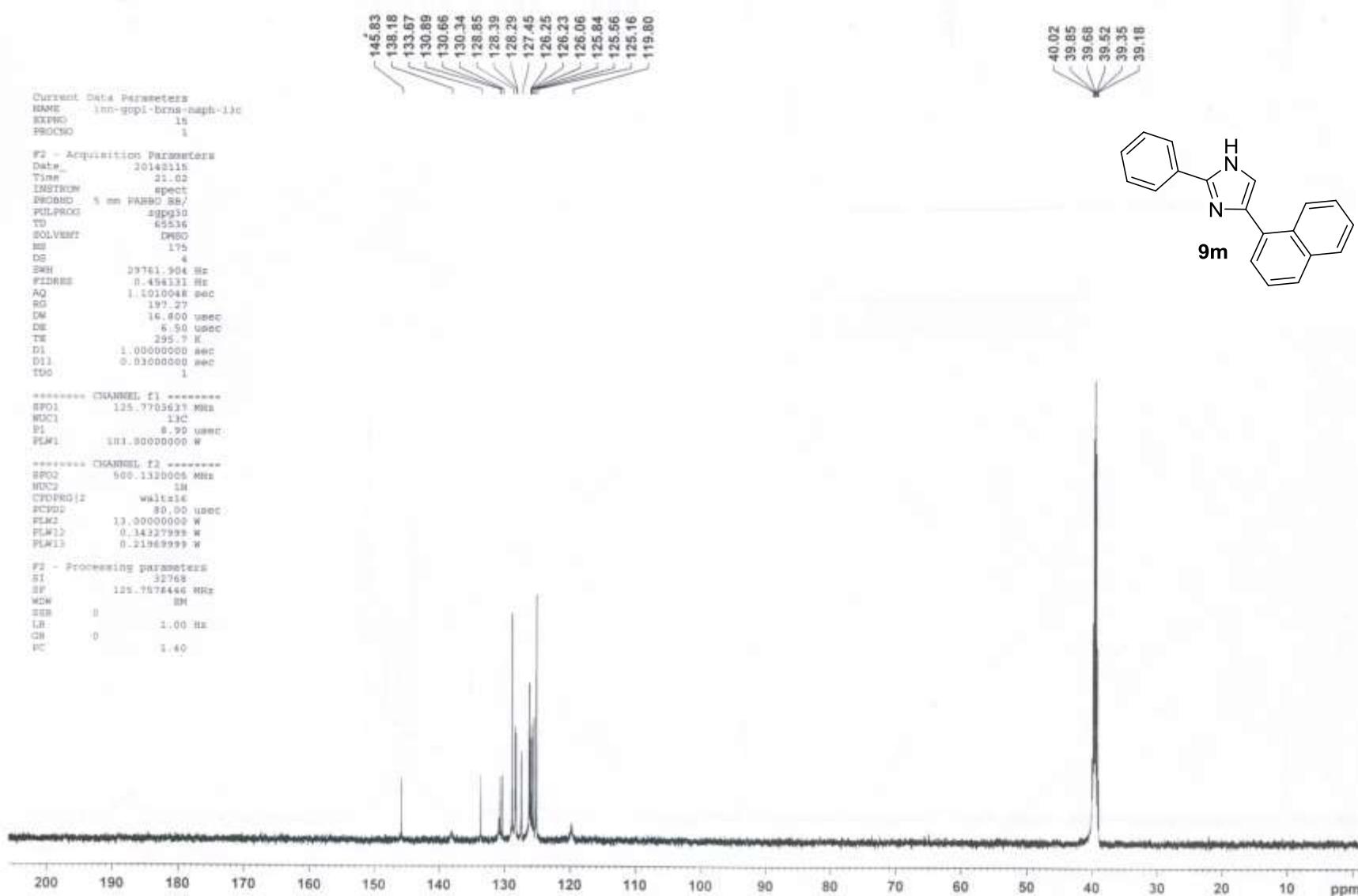
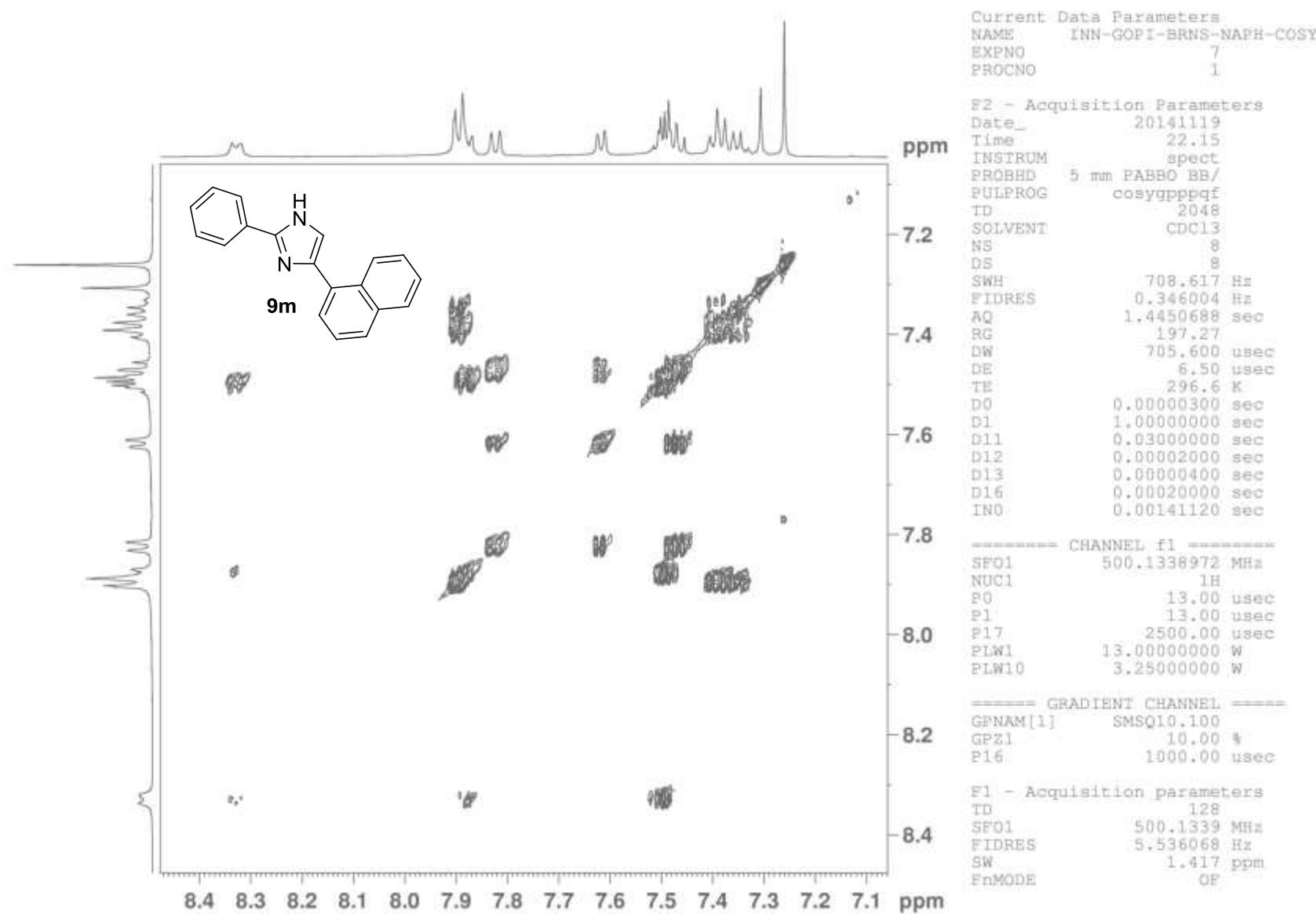


Figure S39. ¹H NMR Spectrum of 9m

Figure S40. ¹³C NMR Spectrum of 9m

Figure S41. ¹H-¹H-COSY NMR Spectrum of 9m

Current Data Parameters
 NAME INH-GOPI-BRNS-CINNA-11
 EXPNO 11
 PROCHNO 1

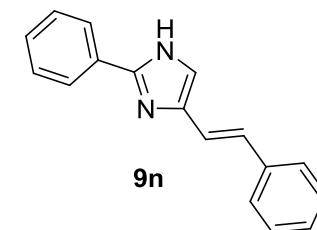
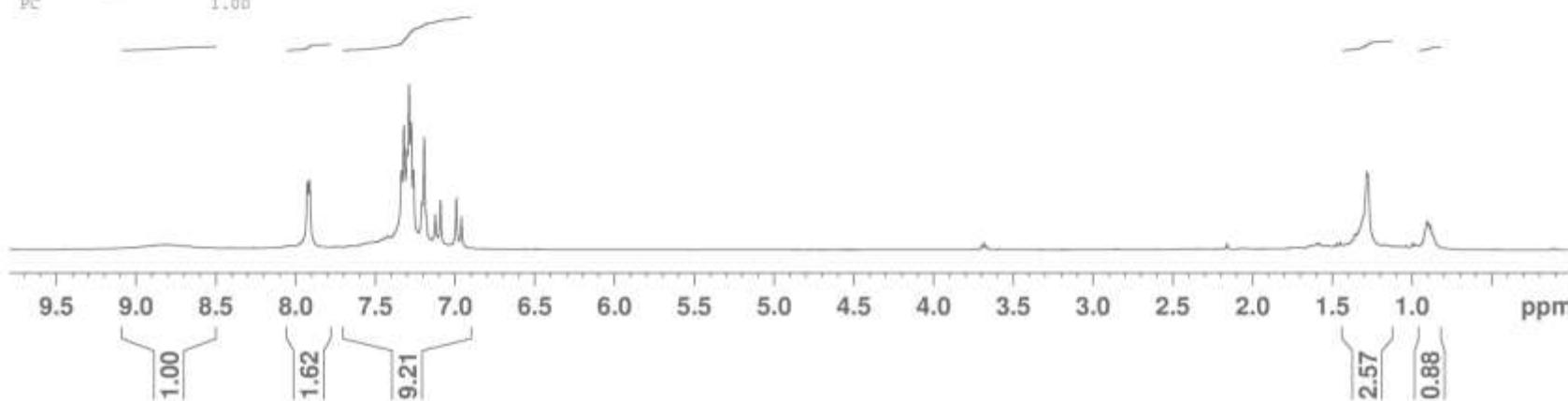
P1 - Acquisition Parameters

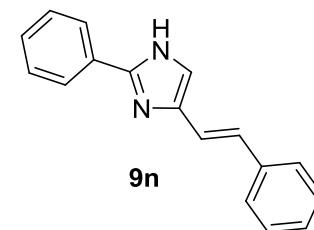
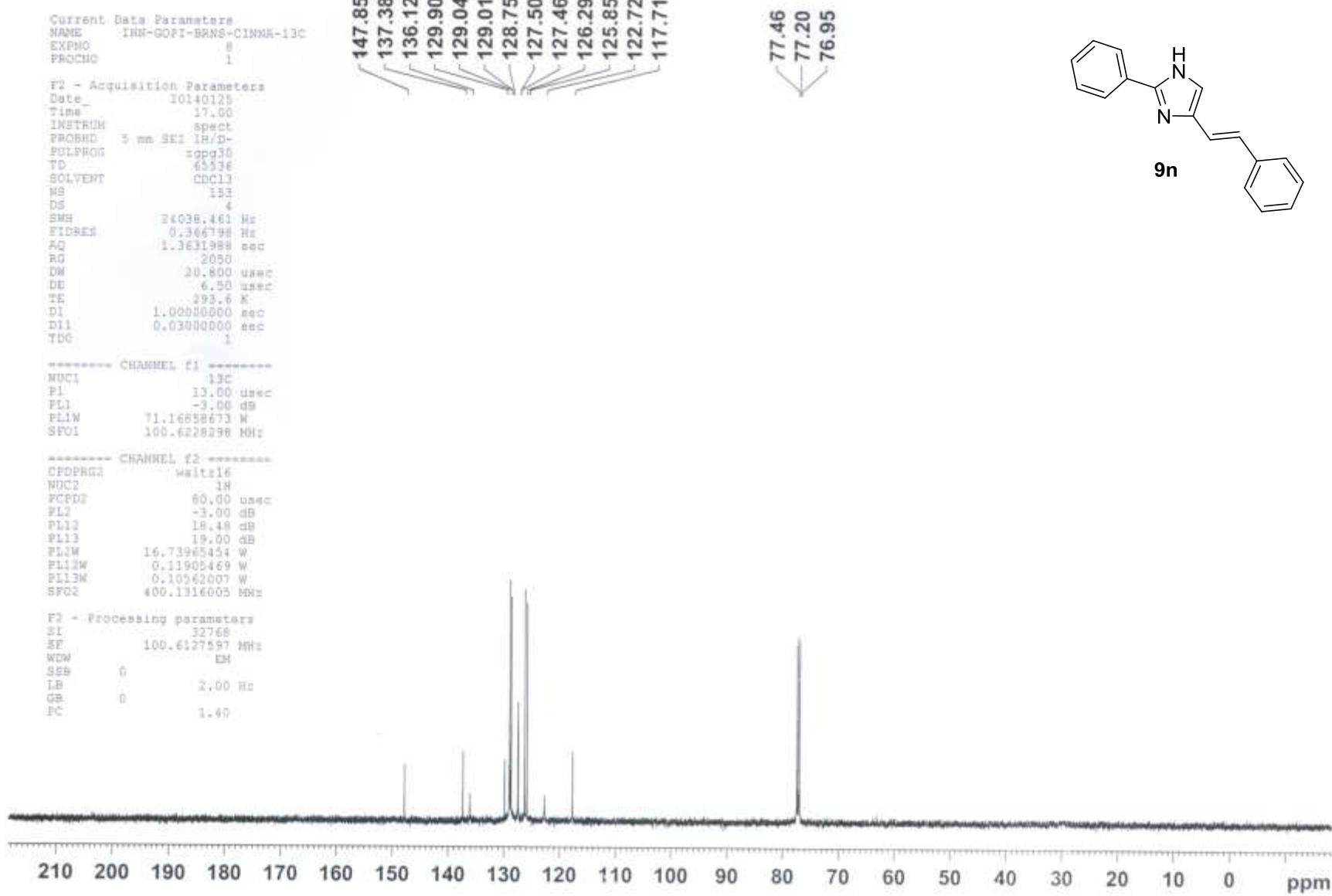
Date_ 20140127
 TIME 22:02
 INSTRUM spect
 PROBHD 5 mm PABBO BB/
 PULPROG sg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 10000.000 Hz
 FIDRES 0.152588 Hz
 AQ 3.2768500 sec
 RG 30.72
 DW 50.000 usec
 DE 6.50 usec
 TE 299.0 K
 D1 1,00000000 sec
 TDO 1

----- CHANNEL f1 -----
 SFO1 500.1330885 MHz
 NUC1 1H
 P1 13.00 usec
 PLWI 13.0000000 K

P2 - Processing parameters

SI 65536
 SF 500.13000122 MHz
 MW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

Figure S42. ¹H NMR Spectrum of 9n

Figure S43. ^{13}C NMR Spectrum of **9n**

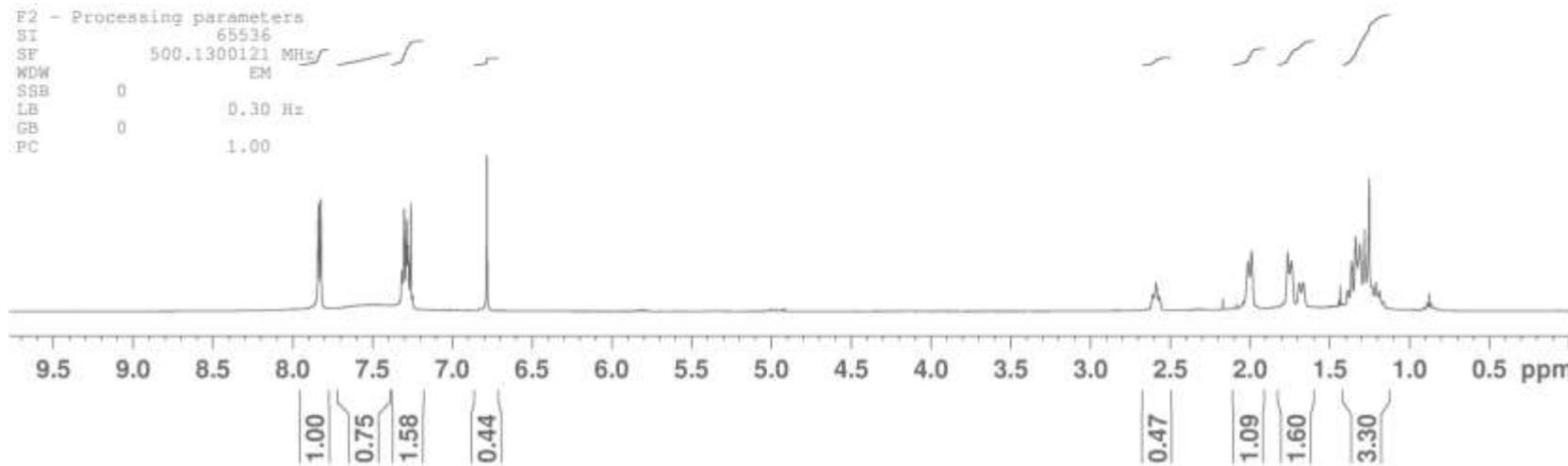
Current Data Parameters
 NAME INN-GOPI-BRNS-CY-1H
 EXPNO 13
 PROCNO 1

P2 - Acquisition Parameters

Date_ 20140221
 Time 23.35
 INSTRUM spect
 PROBHD 5 mm PABBOB BB/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 10000.000 Hz
 FIDRES 0.152588 Hz
 AQ 3.2766500 sec
 RG 30.72
 DW 50.000 usec
 DE 6.50 usec
 TE 297.3 K
 DI 1.0000000 sec
 TDO 1

===== CHANNEL F1 =====
 SFO1 500.1330885 MHz
 NUC1 1H
 PI 13.00 usec
 PLW1 13.00000000 W

P2 - Processing parameters
 SI 65536
 SF 500.1300121 MHz
 NDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

Figure S44. ^1H NMR Spectrum of 9o

Current Data Parameters
 NAME INN-GOPI-BRNS-CY-13C
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters:

Date 20140222
 Time 2.51
 INSTRUM spect
 PROBHD 5 mm SEI 1H/D
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 2614
 DS 4
 SWH 24038.461 Hz
 FIDRES 0.366798 Hz
 AQ 1.3631988 sec
 RG 2050
 DW 20.800 usec
 DE 6.50 usec
 TE 296.0 K
 D1 1.00000000 sec
 D1L 0.03000000 sec
 TDD 1

----- CHANNEL f1 -----

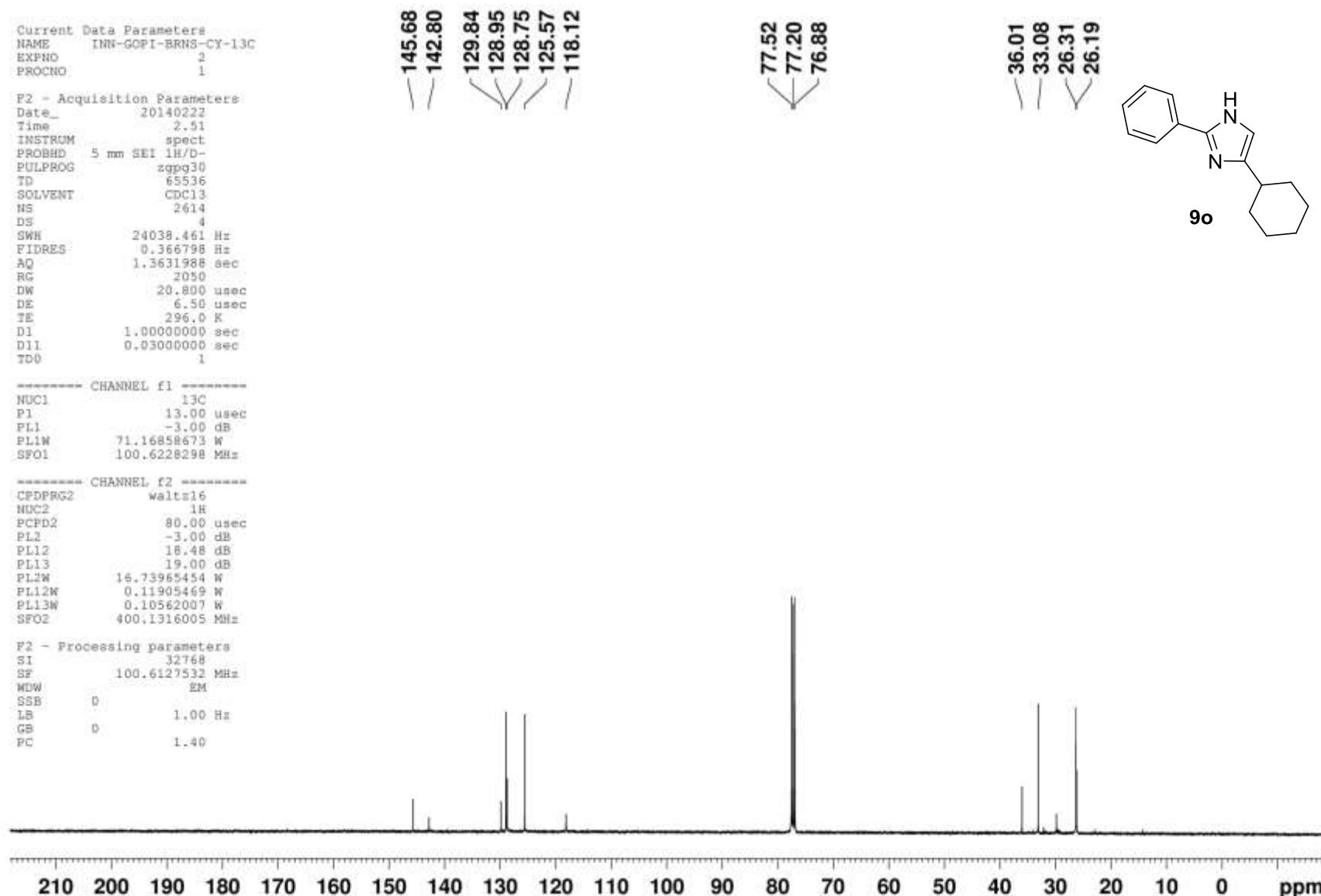
NUC1 13C
 P1 13.00 usec
 PL1 -3.00 dB
 PL1W 71.16858673 W
 SFQ1 100.6228298 MHz

----- CHANNEL f2 -----

CPDPRG2 waltz16
 NUC2 1H
 PCPD2 80.00 usec
 PL2 -3.00 dB
 PL12 18.48 dB
 PL13 19.00 dB
 PL2W 16.73965454 W
 PL12W 0.11905469 W
 PL13W 0.10562007 W
 SFQ2 400.1316005 MHz

F2 - Processing parameters

SI 32768
 SF 100.6127532 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

Figure S45. ^{13}C NMR Spectrum of **9o**

Current Data Parameters
 NAME INN-GOPI-BRNS-VD-1H
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters

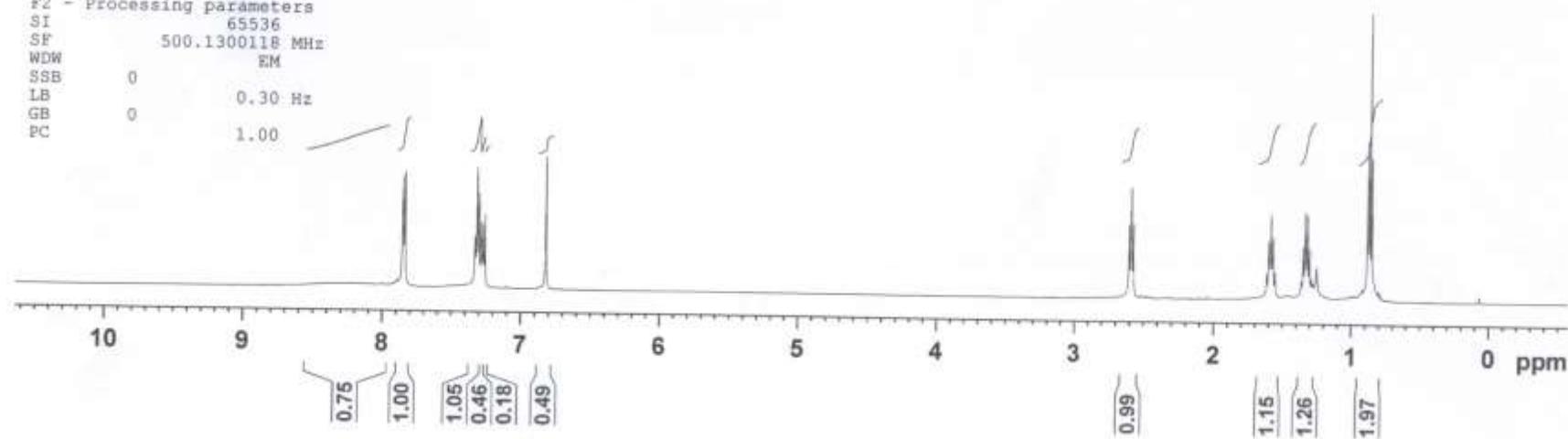
Date 20140228
 Time 22.50
 INSTRUM spect
 PROBHD 5 mm PABBO BB/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 8
 DS 2
 SWH 10000.000 Hz
 FIDRES 0.152588 Hz
 AQ 3.2768500 sec
 RG 30.72
 DW 50.000 usec
 DE 6.50 usec
 TE 294.8 K
 D1 1.0000000 sec
 TDO 1

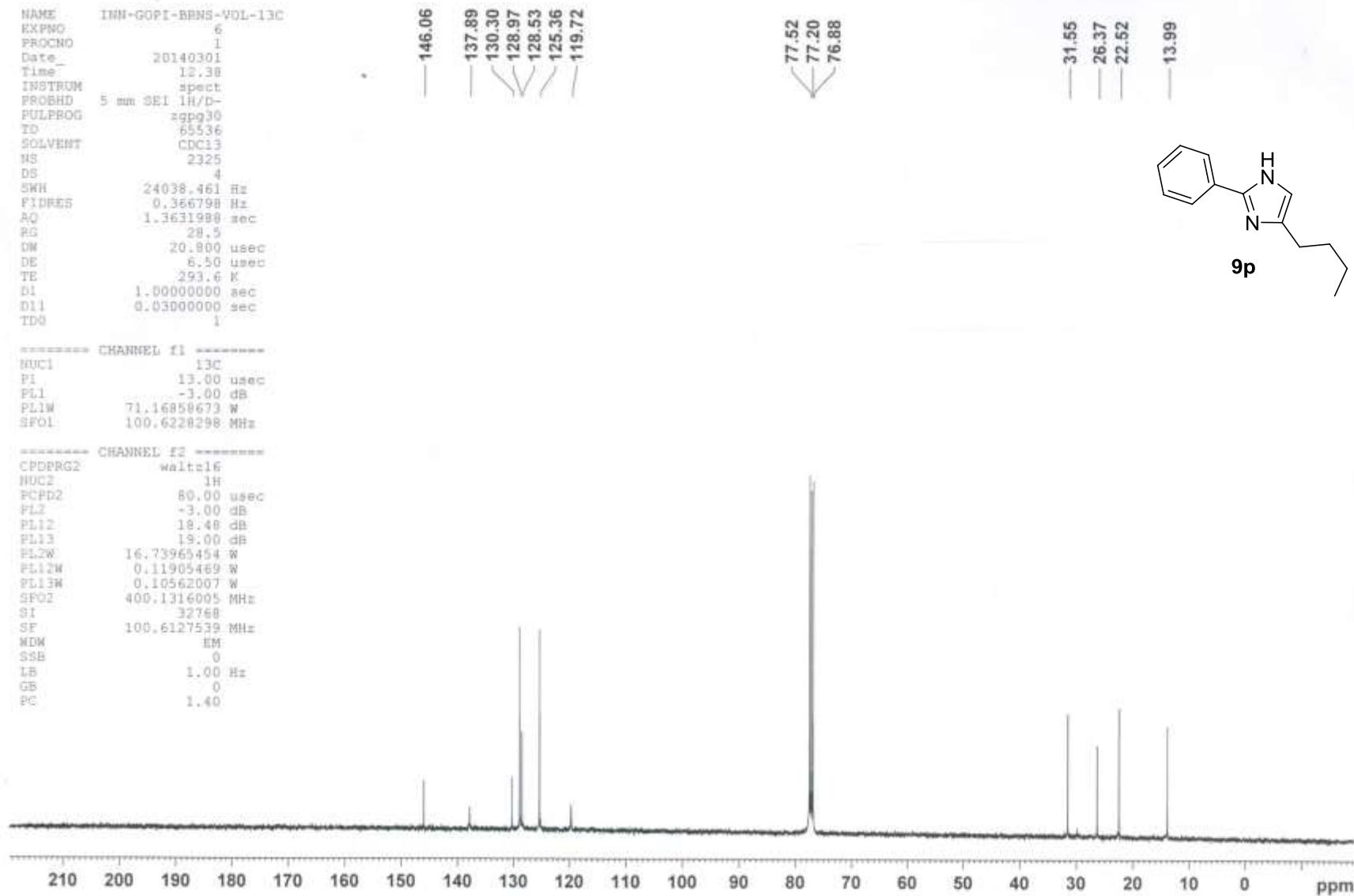
***** CHANNEL f1 *****

SFO1 500.1330885 MHz
 NUC1 1H
 F1 13.00 usec
 PLW1 13.0000000 W

F2 - Processing parameters

SI 65536
 SF 500.1300118 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

Figure S46. ¹H NMR Spectrum of 9p

Figure S47. ^{13}C NMR Spectrum of 9p

```

NAME      INN-GOPI-BRNS-4-M
EXPNO        1
PROCNO        1
Date_   20140103
Time       23.24
INSTRUM   spect
PROBHD  5 mm SEI 1H/D-
PULPROG  zg30
TD      65536
SOLVENT    DMSO
NS         16
DS          0
SWH     8223.685 Hz
FIDRES  0.125483 Hz
AQ      3.9846387 sec
RG          32
DW      60.800 us
DE       6.50 us
TE      296.5 K
D1      2.00000000 sec
TDO          1

```

```

===== CHANNEL f1 =====
NUC1           1H
P1            6.75 us
PL1          -3.00 dB
PL1W        16.73965454 W
SF01        400.1324710 MHz
SI            32768
SF        400.1300095 MHz
WDW           EM
SSB            0
LB            0.30 Hz
GB            0
PC            1.00

```

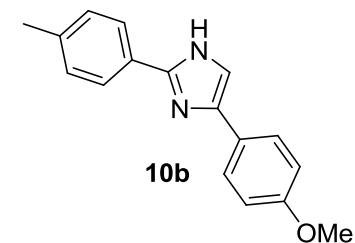
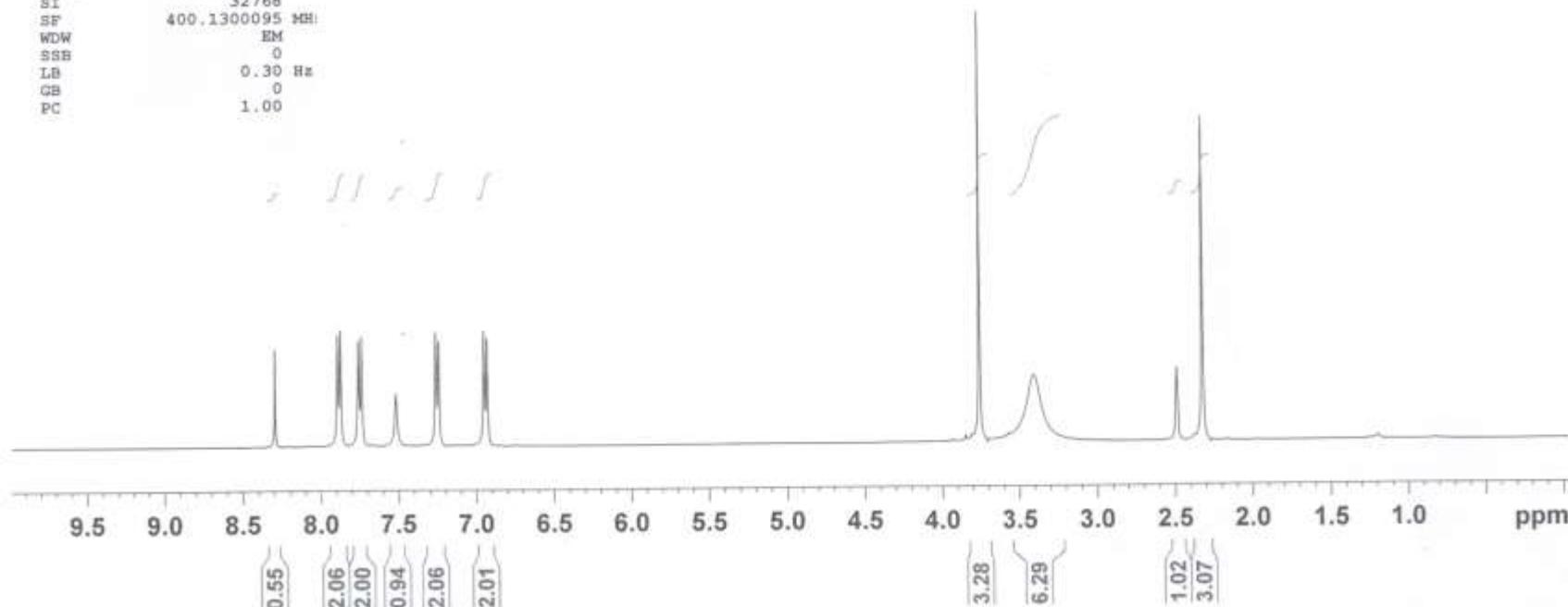
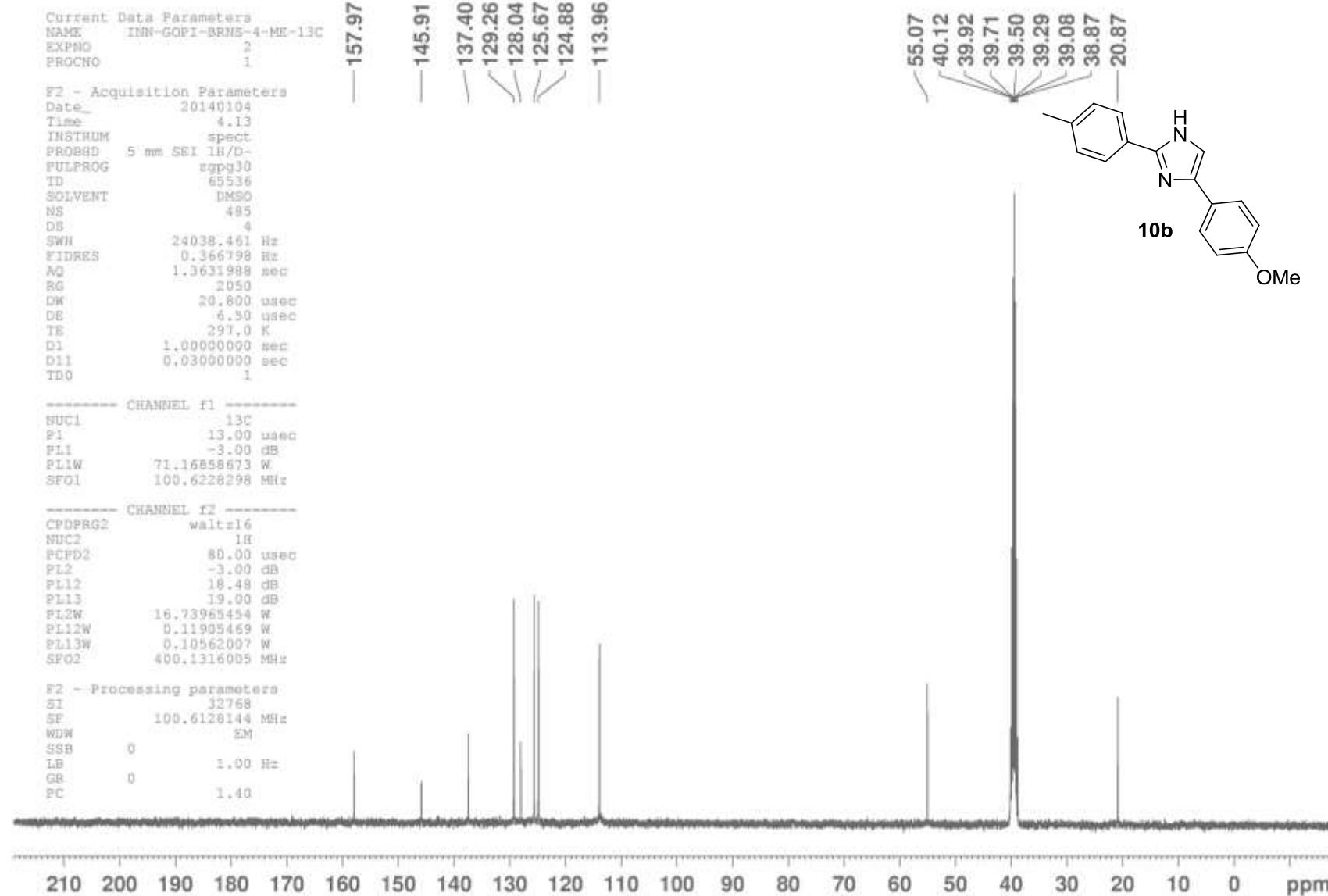
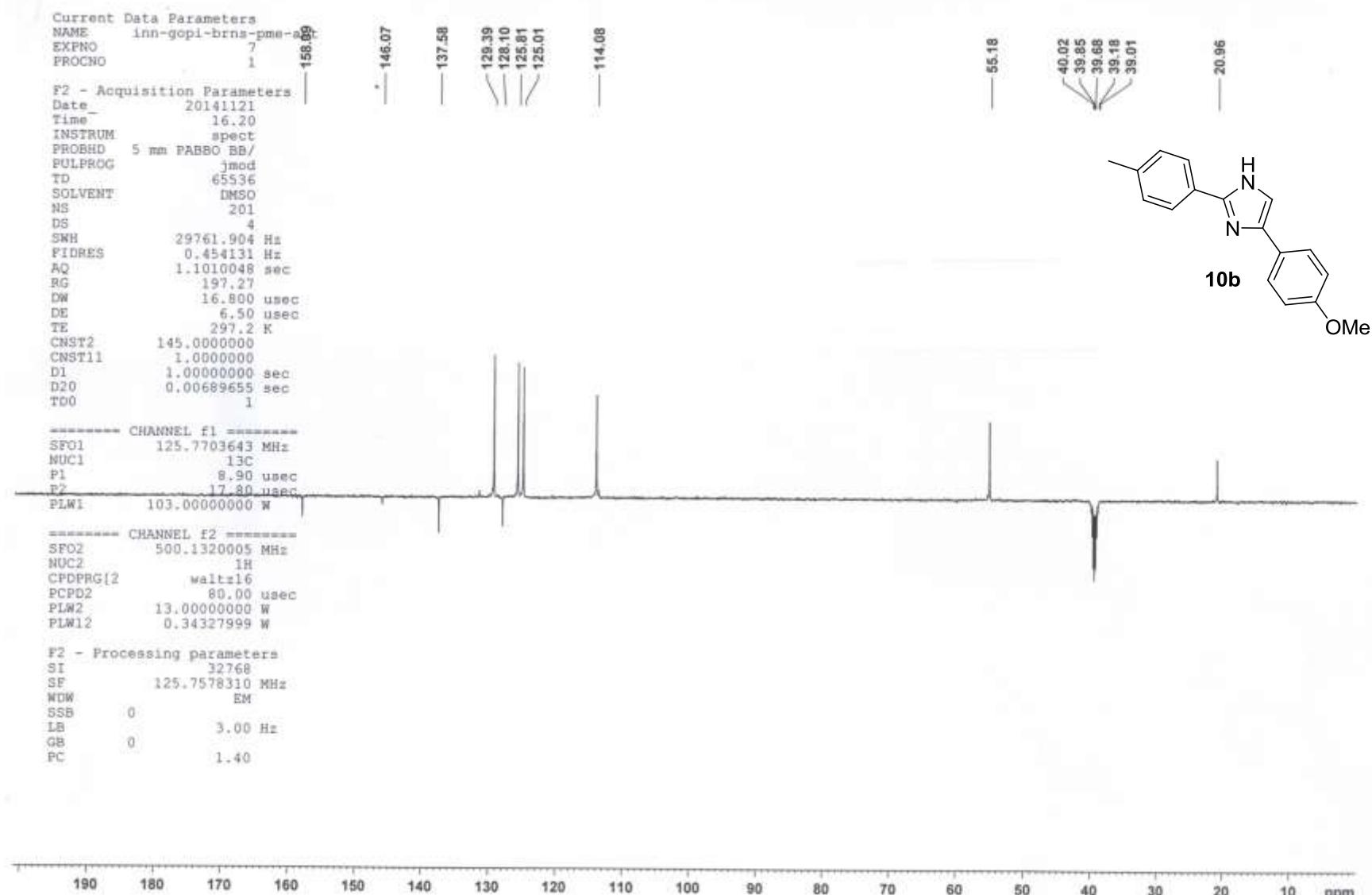


Figure S48. ^1H NMR Spectrum of **10b**

Figure S49. ¹³C NMR Spectrum of 10b

Figure S50. ¹³C-APT NMR Spectrum of 10b

Current Data Parameters
 NAME INN-GOPI-BirMS-4-C1-1H
 EXPNO 2
 PROCHNO 1

F2 - Acquisition Parameters

Date 20140101
 Time 21.27
 INSTRUM spect
 PROBHD 5 mm PABBO BB/
 PULPROG zg30
 TD 65536
 SOLVENT Acetone
 NS 6
 DS 2
 SWH 10000.000 Hz
 FIDRES 0.152588 Hz
 AQ 3.2768500 sec
 RG 30.72
 DW 50.000 usec
 DE 6.50 usec
 TE 297.1 K
 D1 1.0000000 sec
 TDO 4

===== CHANNEL f1 =====

SFO1 500.1330665 MHz
 NUC1 1H
 P1 13.00 usec
 PRW1 13.0000000 W

F3 - Processing parameters

SI 65536
 SF 500.1300000 Hz
 WMW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

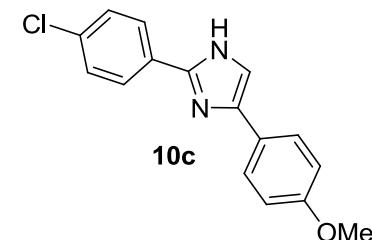
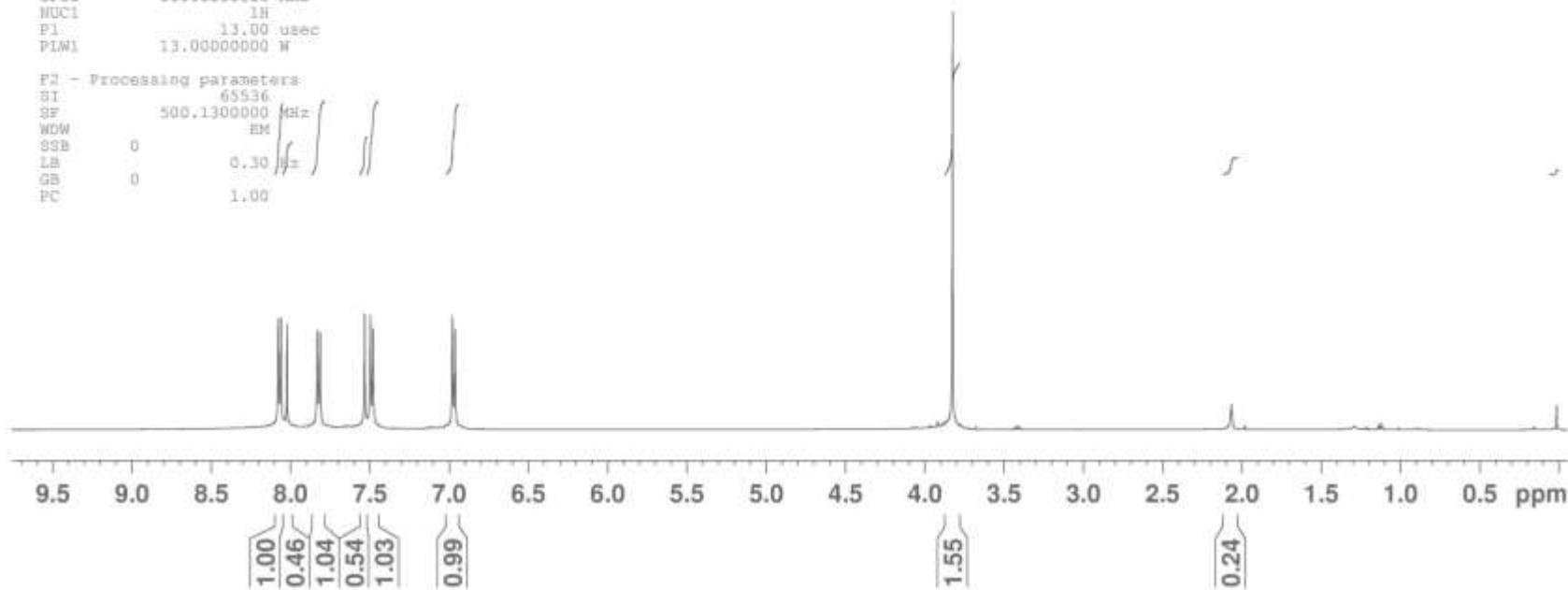
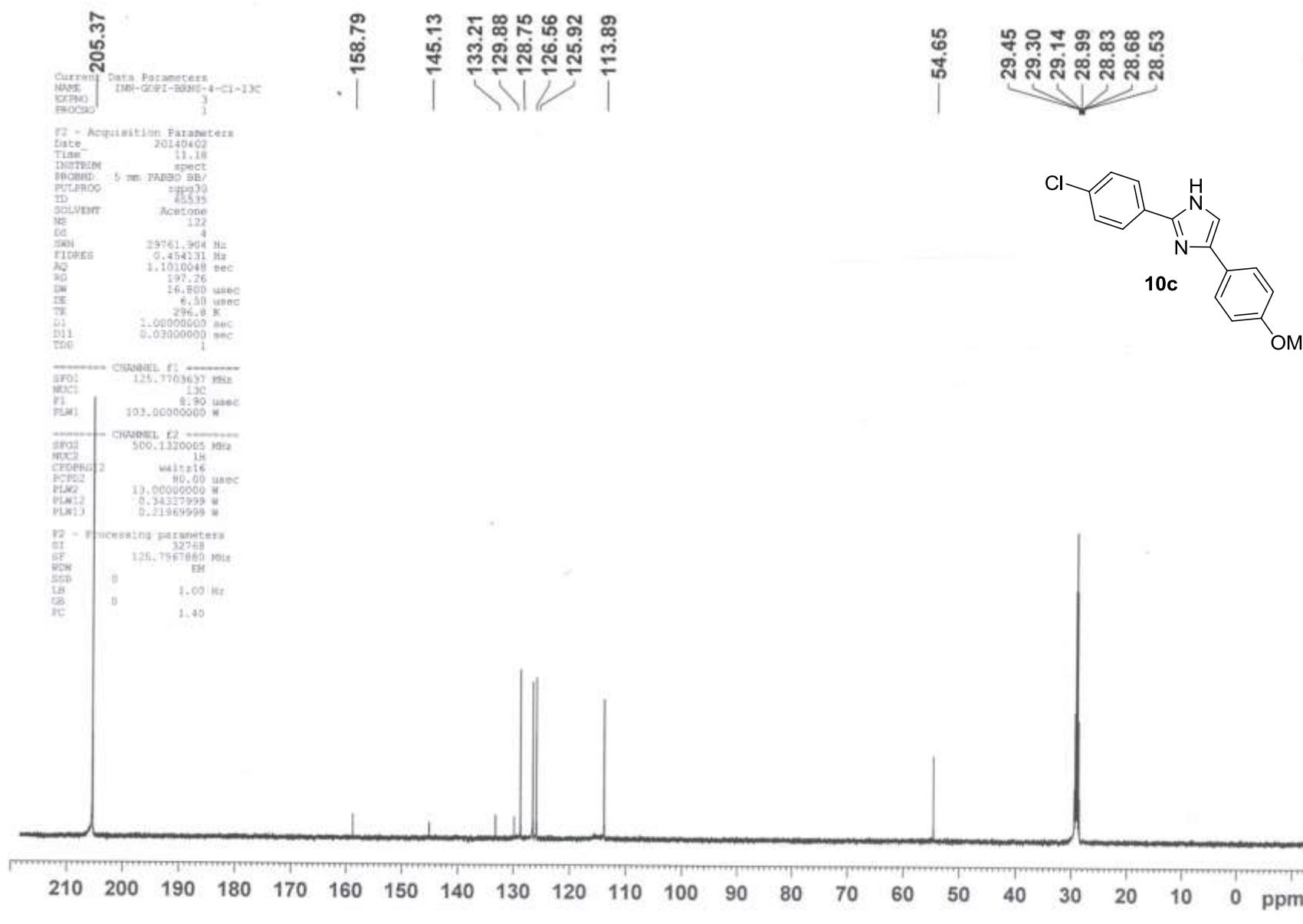
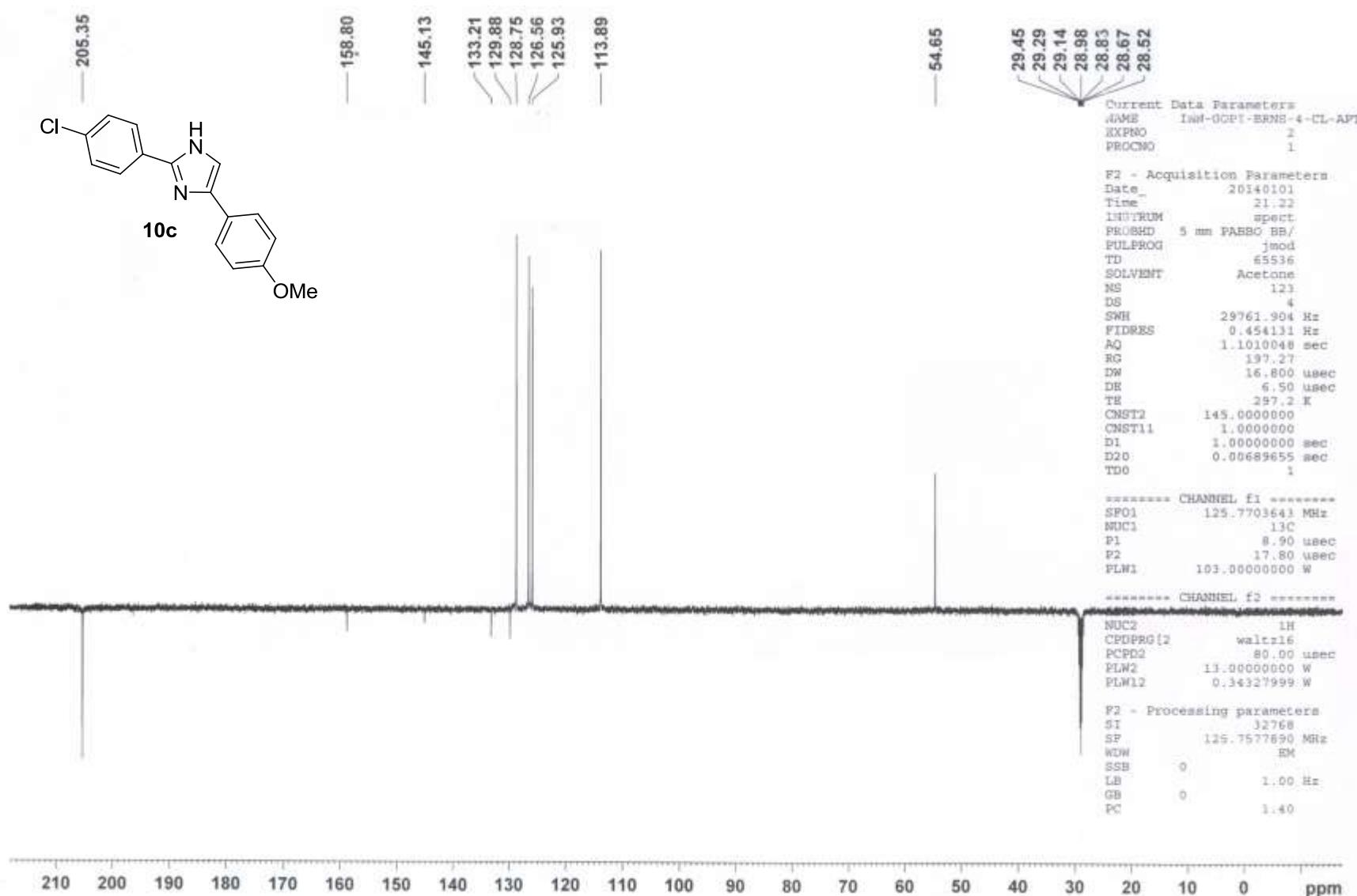
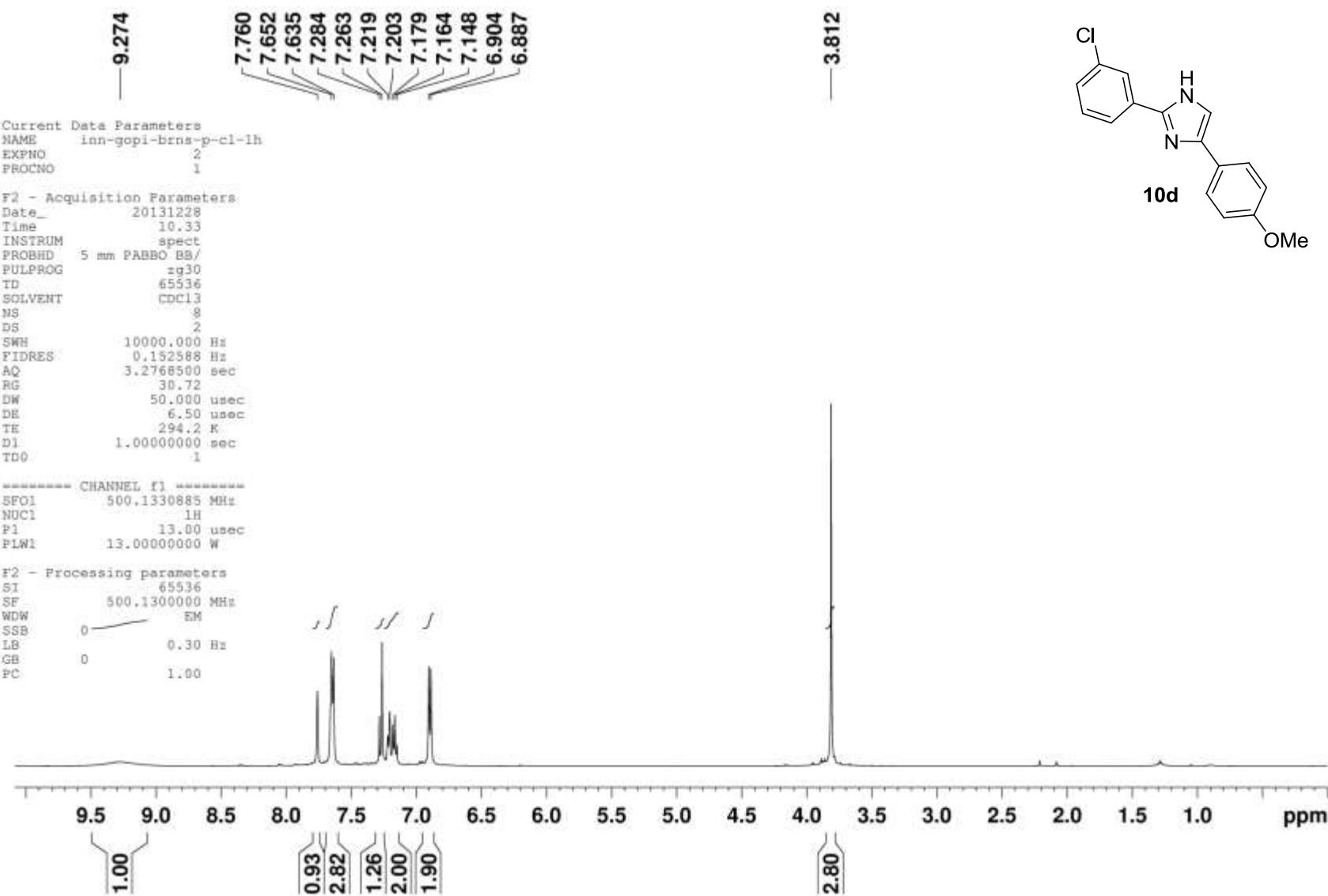
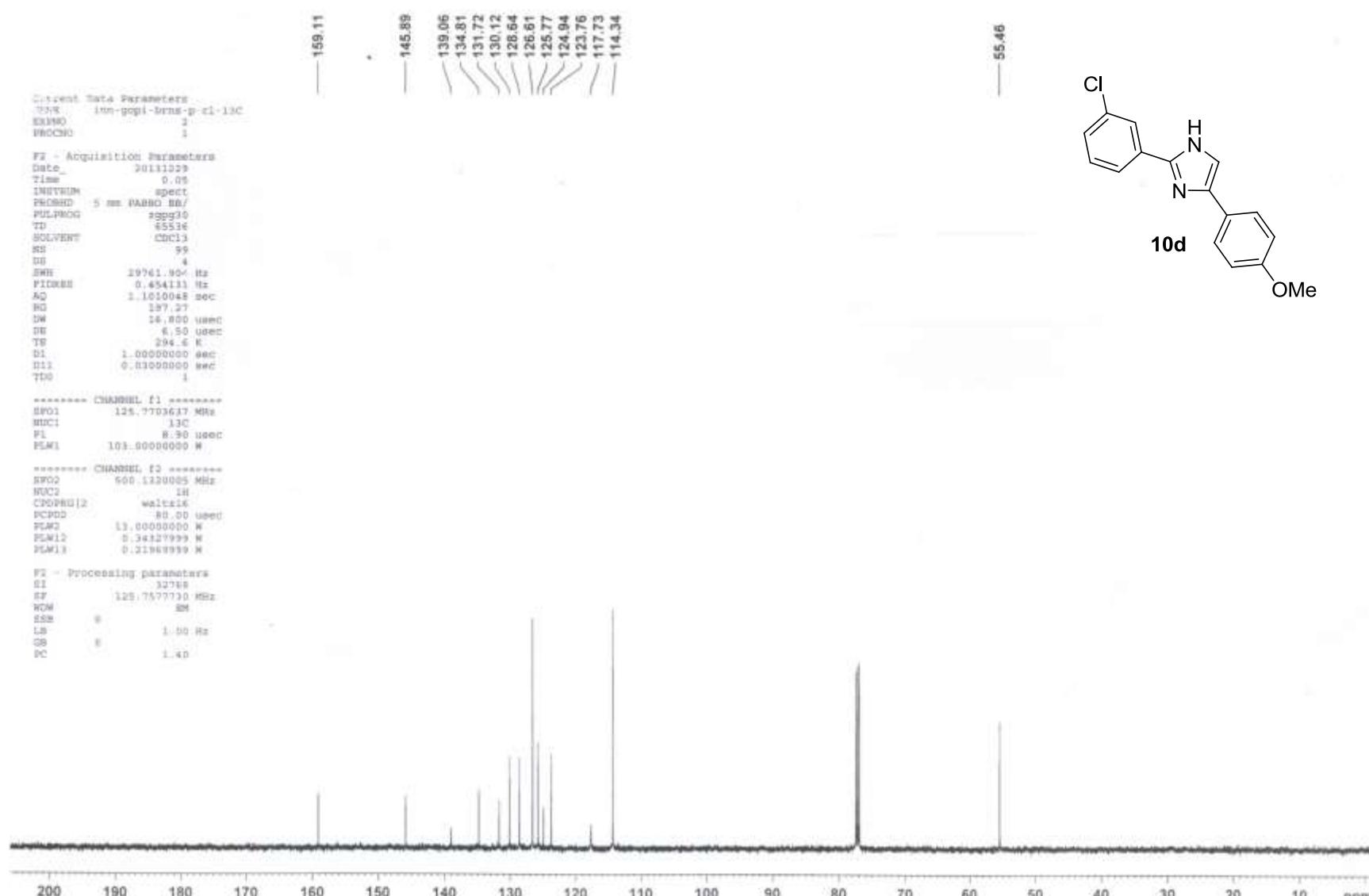


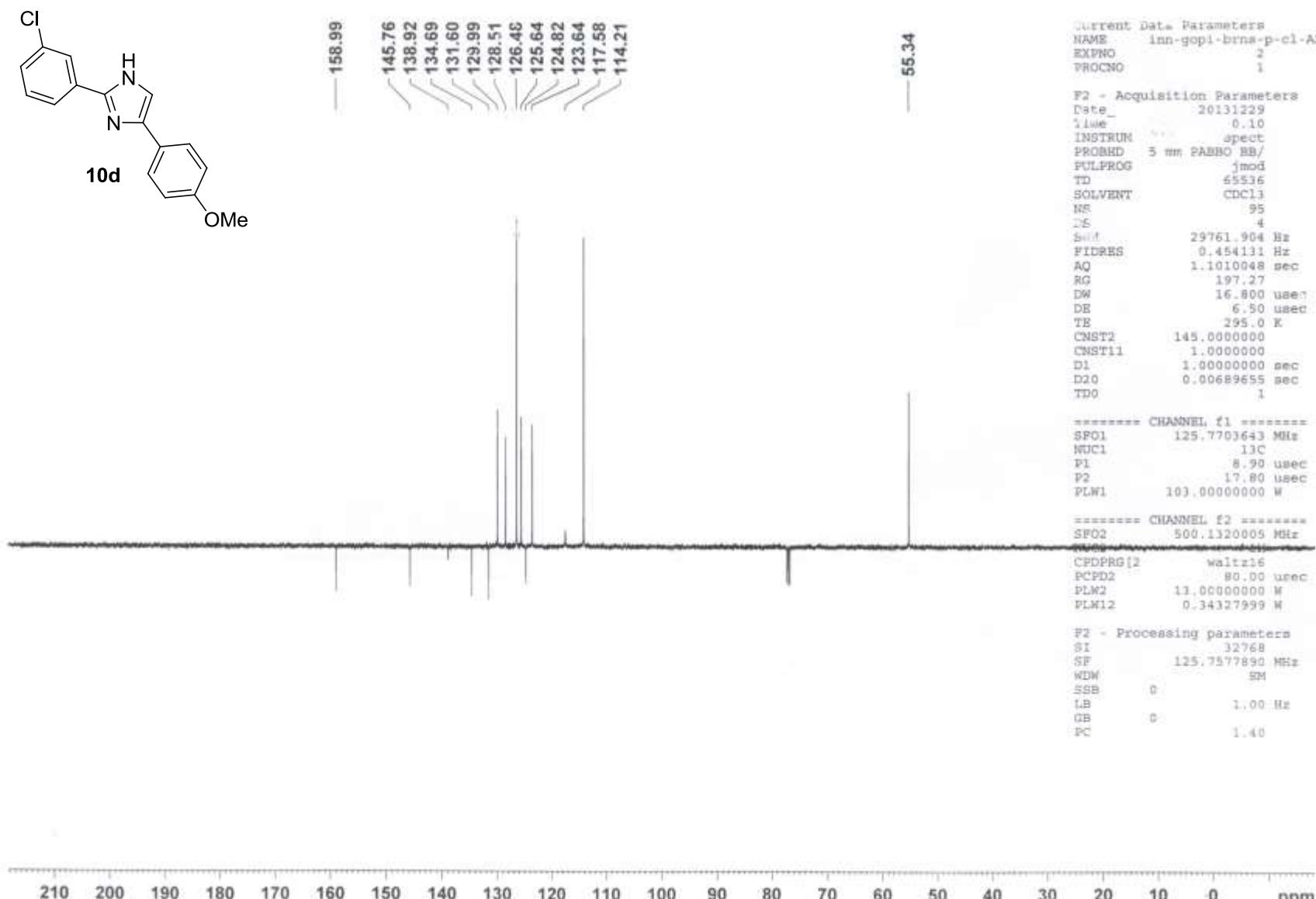
Figure S51. ¹H NMR Spectrum of 10c

Figure S52. ^{13}C NMR Spectrum of **10c**

Figure S53. ^{13}C -APT NMR Spectrum of 10c



Figure S55. ^{13}C NMR Spectrum of 10d

Figure S56. ¹³C-APT NMR Spectrum of 10d

Current Data Parameters
 NAME: INN-DOP1-BR09-ME-1-LH
 EXPNO: 4
 PROCNM: 1

F2 - Acquisition Parameters

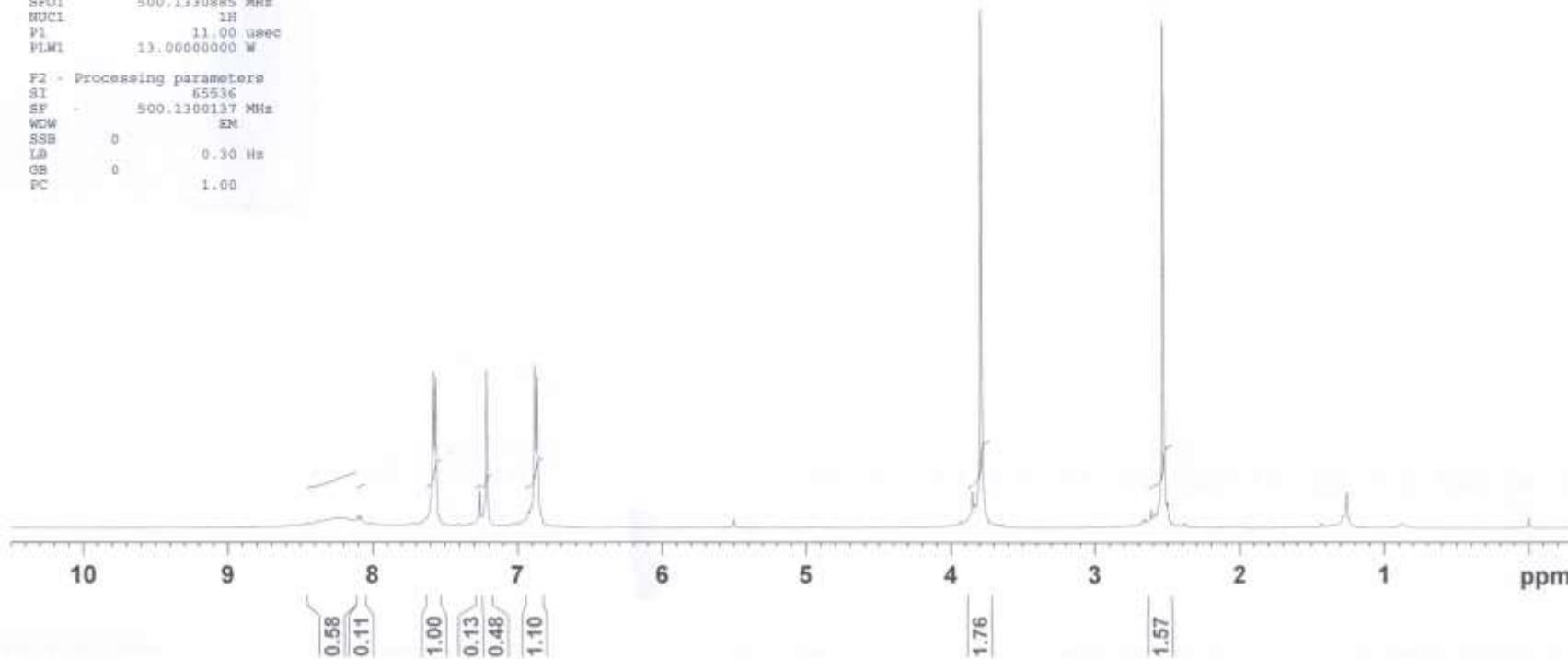
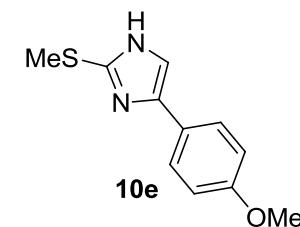
Date: 20140512
 Time: 21:28
 INSTRUM: spect
 PROBHD: 5 mm PABSO BB/
 PULPROG: zg30
 TD: 65536
 SOLVENT: CDCl3
 NS: 16
 DS: 2
 SWH: 10000.000 Hz
 FIDRES: 0.152588 Hz
 AQ: 3.2767999 sec
 RG: 30.72
 DW: 50.000 usec
 DE: 6.50 usec
 TE: 299.0 K
 D1: 1.0000000 sec
 TDO: 1

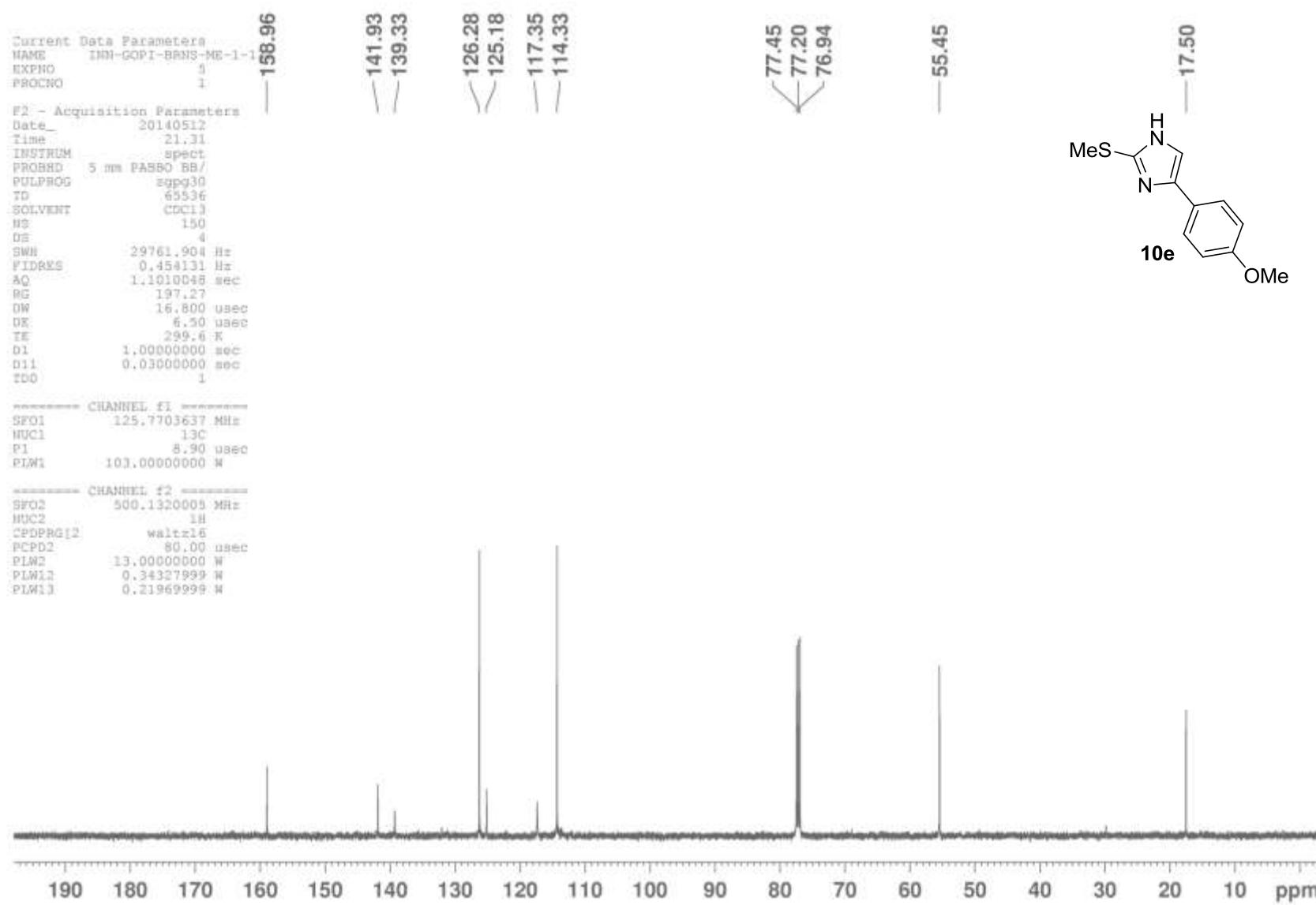
***** CHANNEL f1 *****

SPOL: 500.1330885 MHz
 NUC1: 1H
 PI: 11.00 usec
 PLW1: 13.00000000 W

F2 - Processing parameters

SI: 65536
 SF: 500.1300137 MHz
 WDW: EM
 SSB: 0
 LB: 0.30 Hz
 GB: 0
 PC: 1.00

Figure S57. ¹H NMR Spectrum of **10e**

Figure S58. ^{13}C NMR Spectrum of 10e