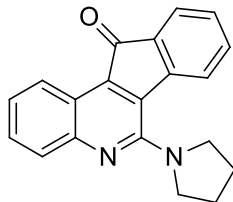
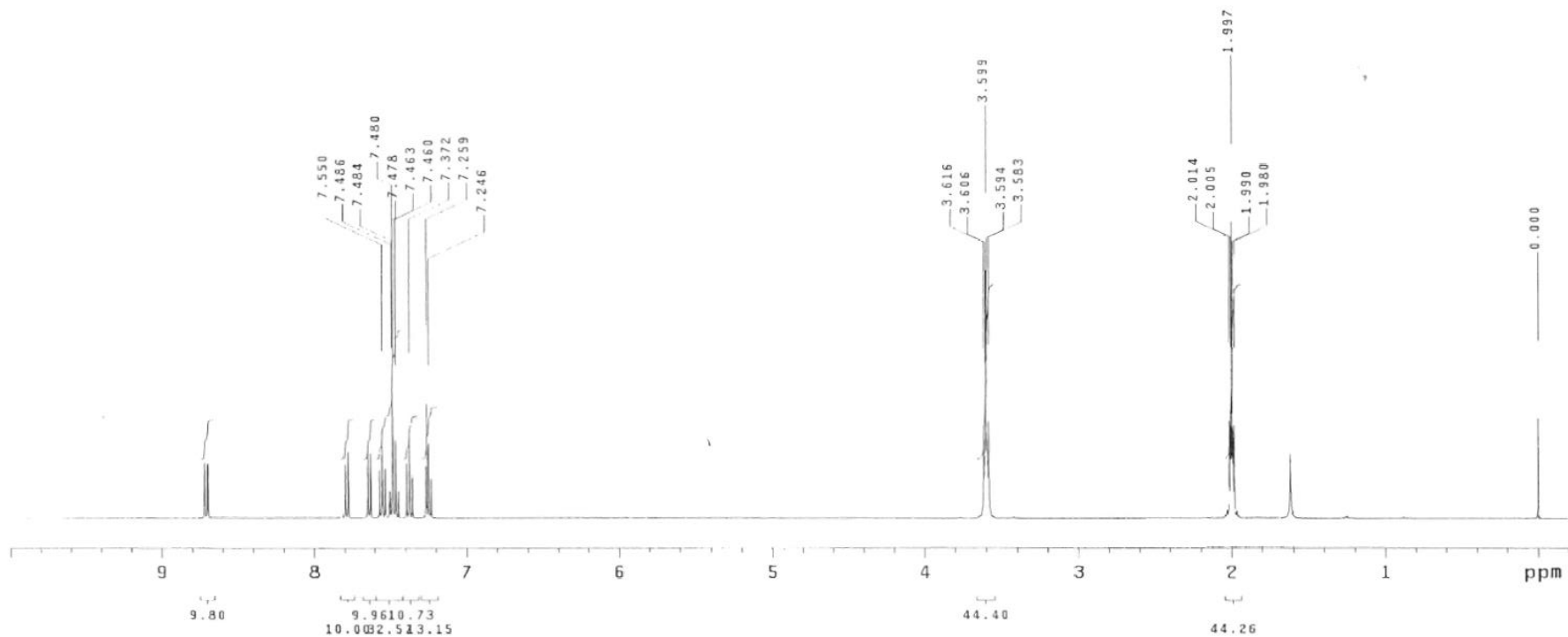


H,H-6-pyrro

Mercury-400BB "Mercuryplus400"
Date: Mar 28 2012
Solvent: CCl3
Ambient temperature
Total 32 repetitions

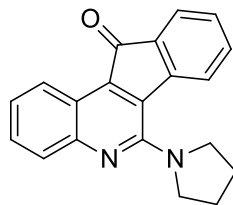


3a

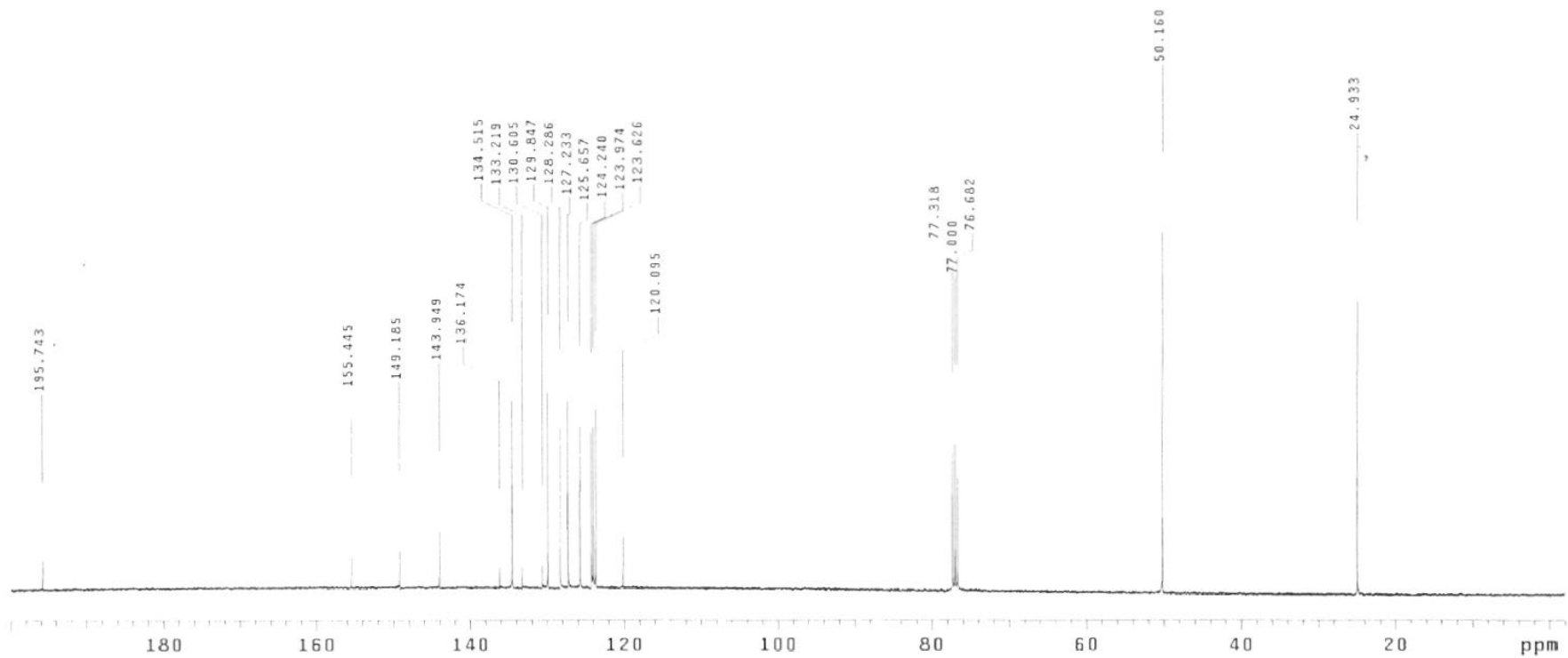


H,H-6-pyrro

Mercury-400BB "Mercuryplus400"
Date: Mar 28 2012
Solvent: CDCl3
Ambient temperature
Total 4448 repetitions

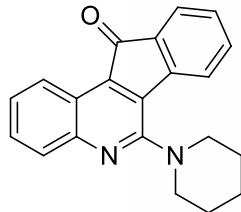


3a

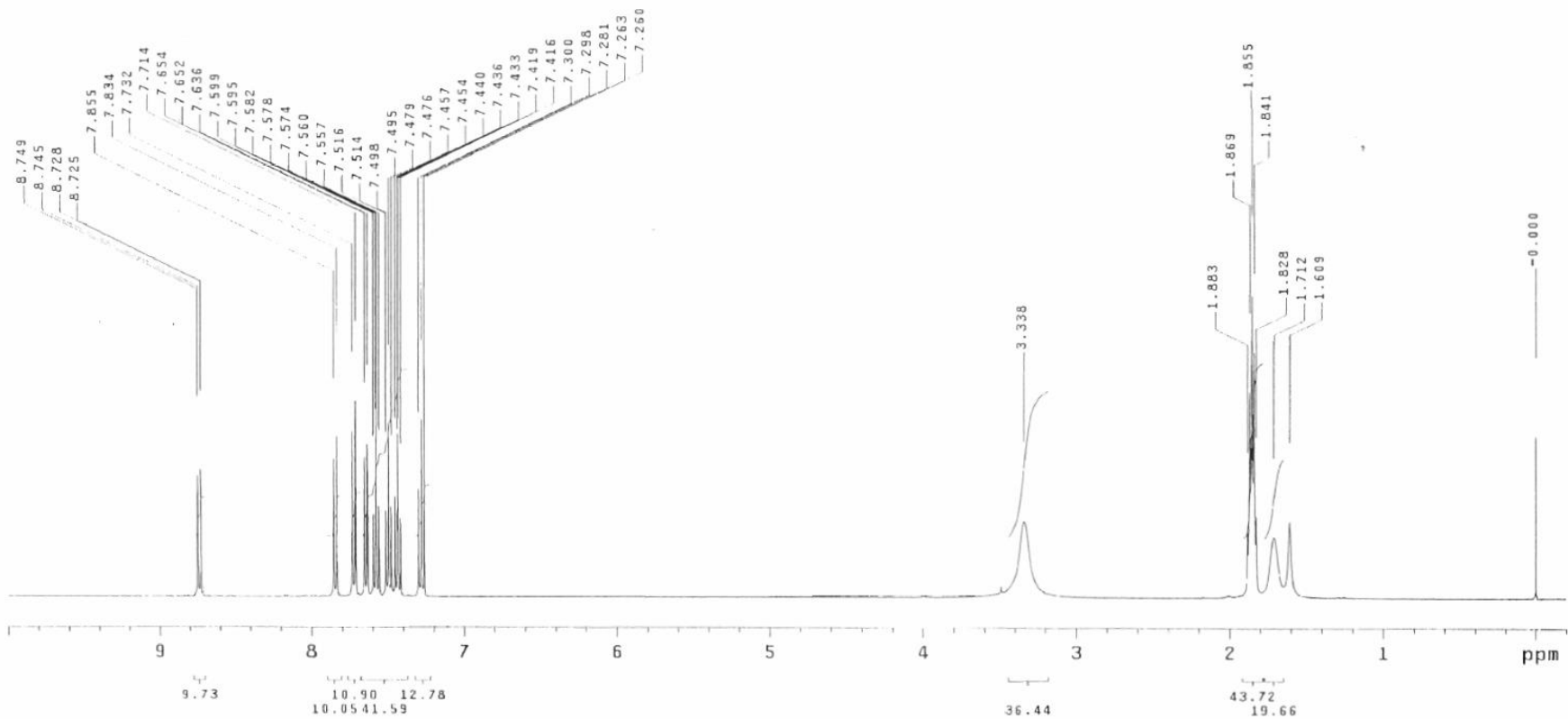


H,H-6-piperidine

Mercury-400BB "Mercuryplus400"
Date: Mar 27 2012
Solvent: CDCl3
Ambient temperature
Total 64 repetitions

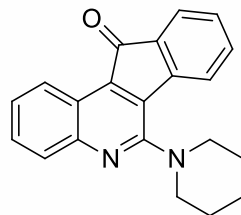


3b

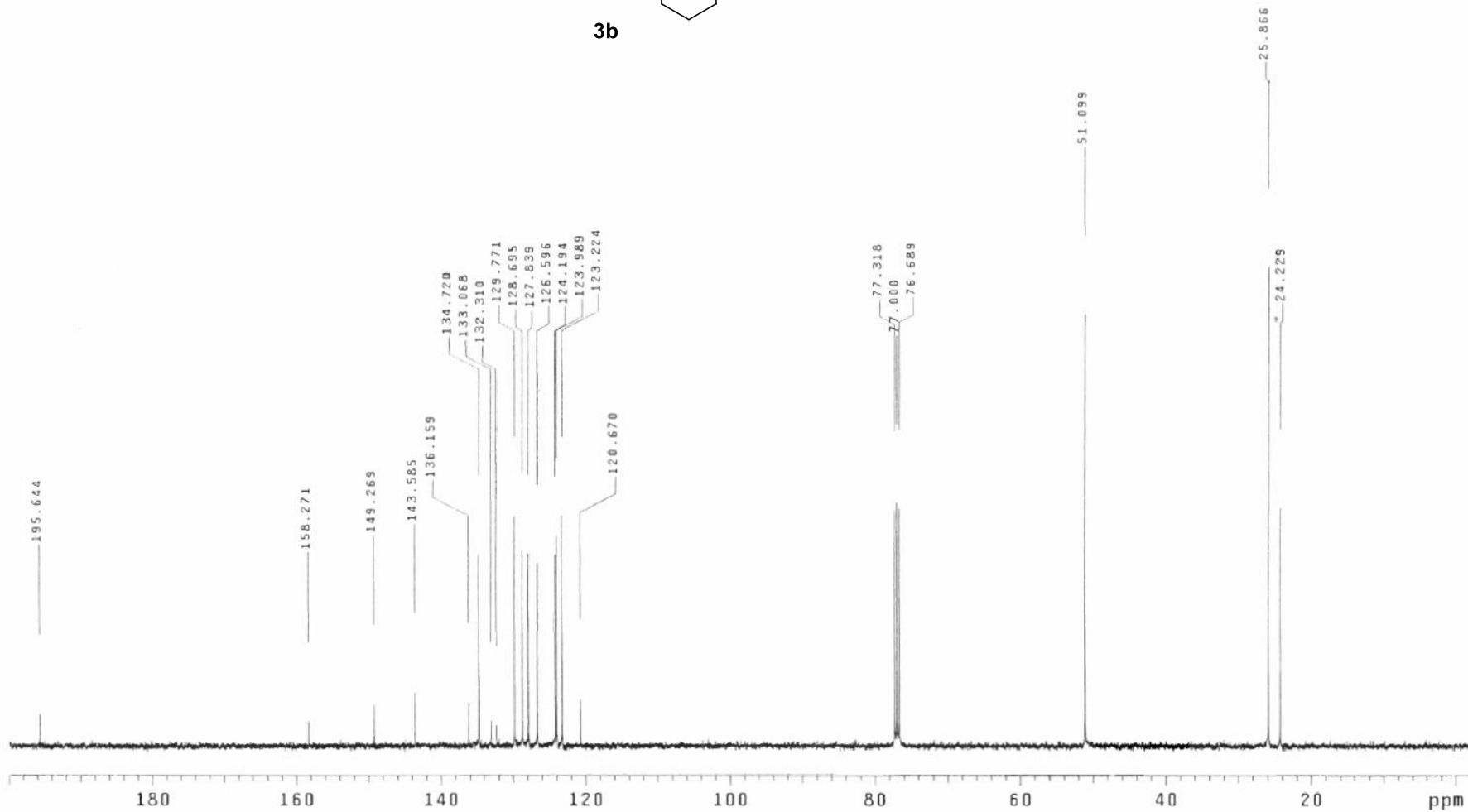


H,H-6-piperidine

Mercury-400BB "Mercuryplus400"
Date: Mar 27 2012
Solvent: CDCl3
Ambient temperature
Total 3072 repetitions

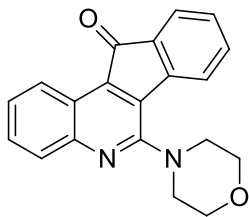


3b

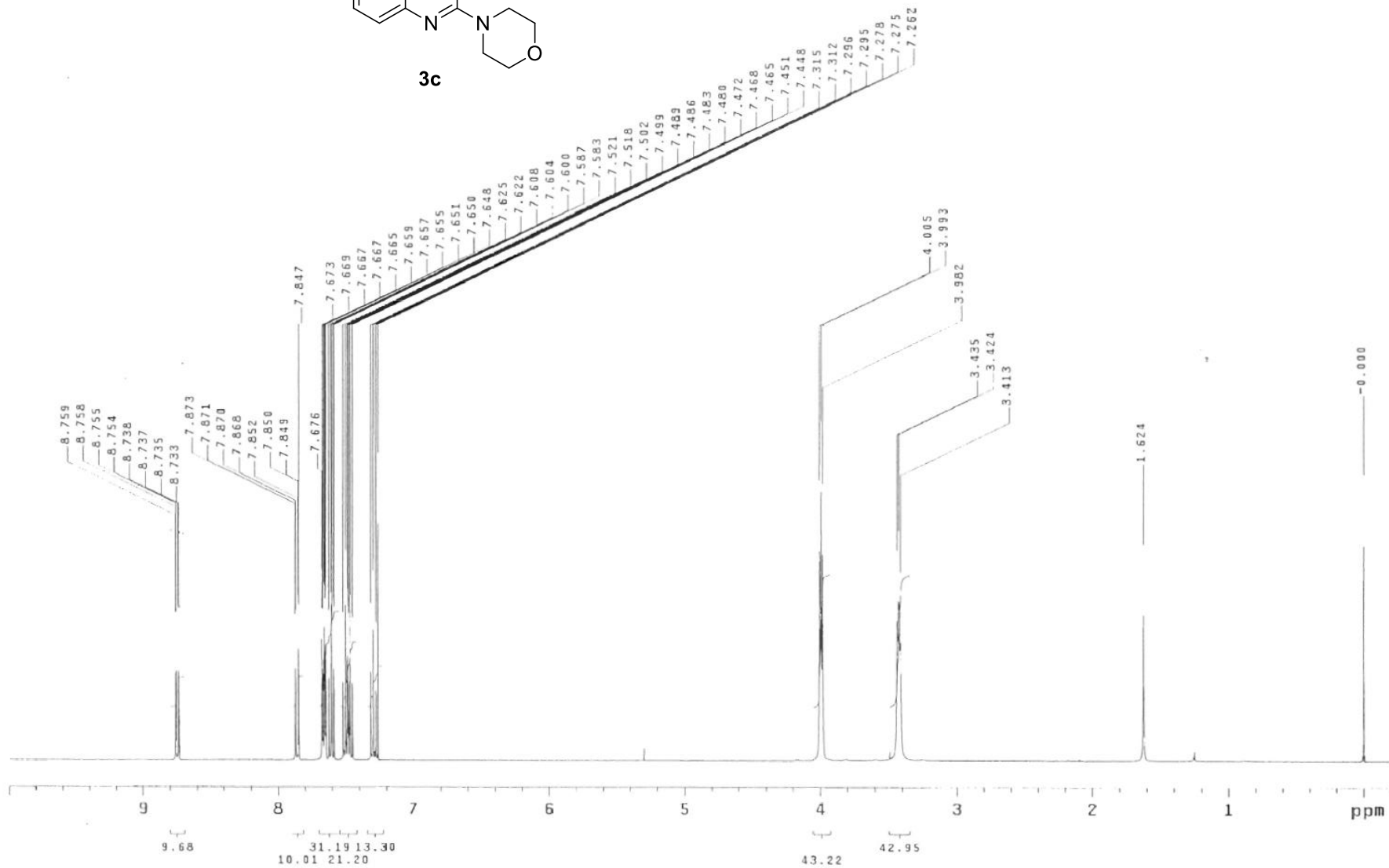


H,H-6-morphline

Mercury-400BB "Mercuryplus400"
Date: Mar 27 2012
Solvent: CDCl3
Ambient temperature
Total 64 repetitions



3c



H,H-6-morphine

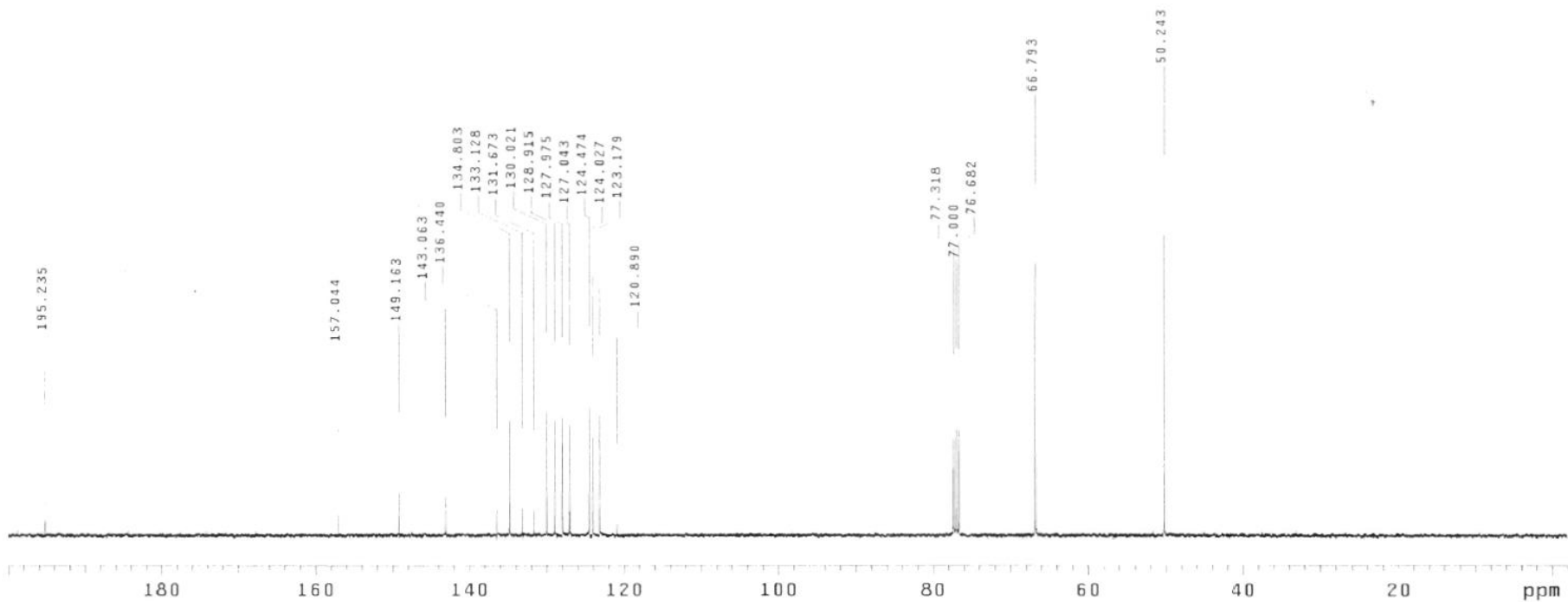
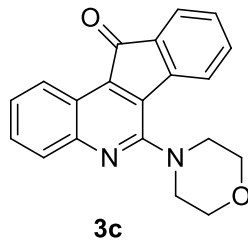
Mercury-400BB "Mercuryplus400"

Date: Mar 27 2012

Solvent: CDCl₃

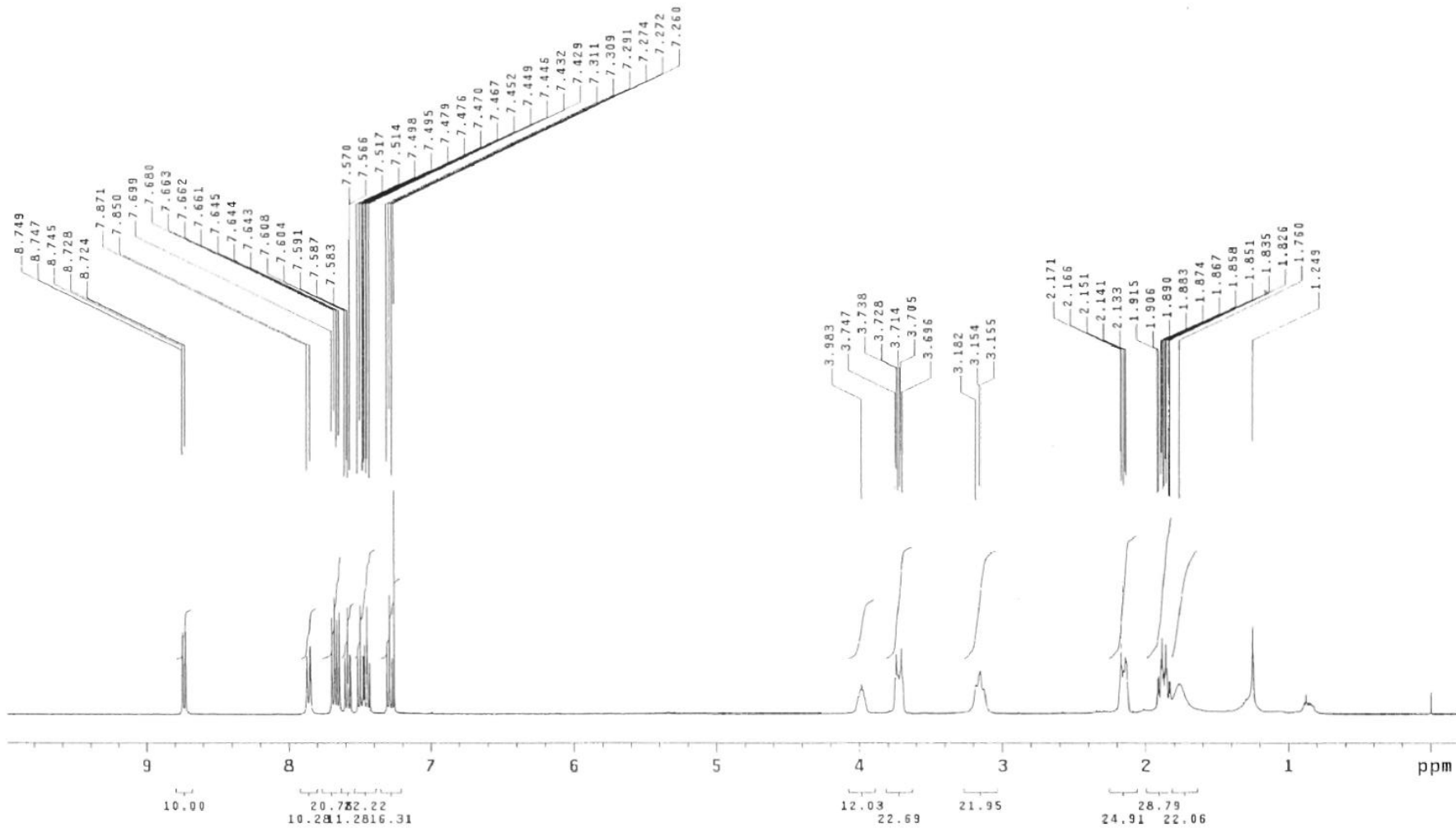
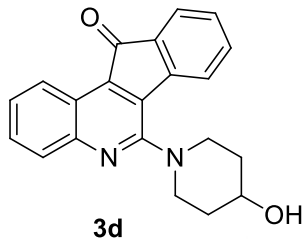
Ambient temperature

Total 1024 repetitions



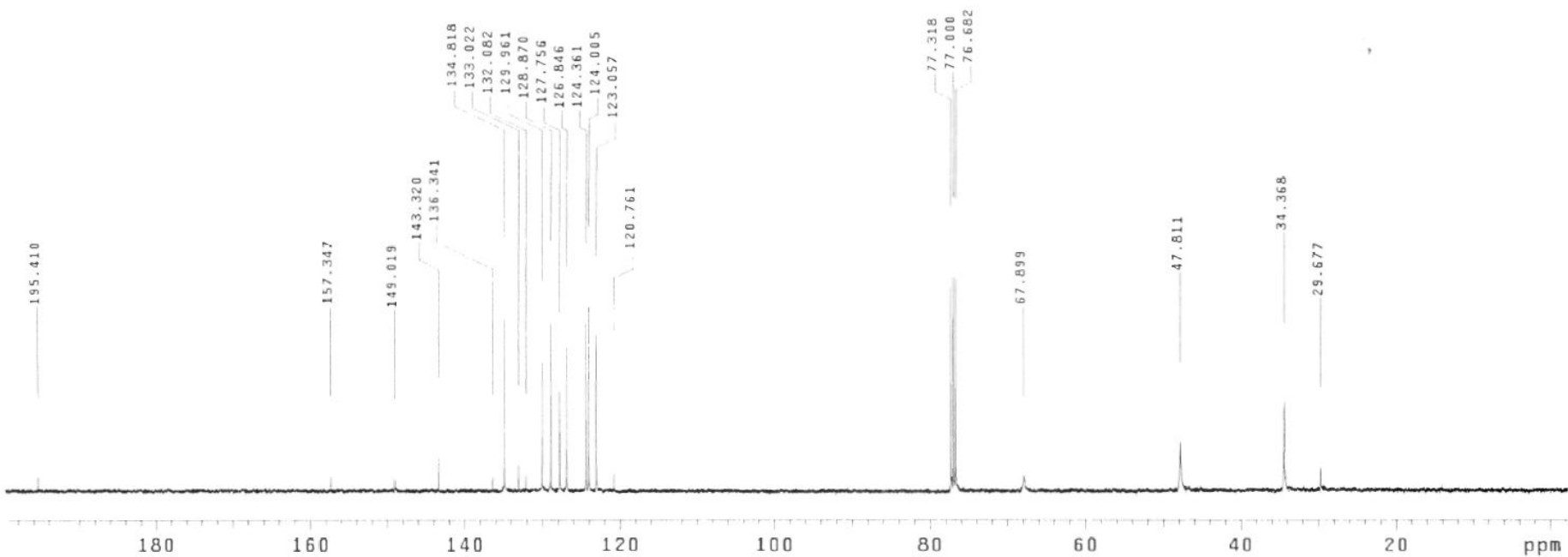
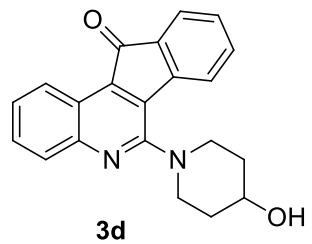
H-4-oH-piper

Mercury-400BB "Mercuryplus400"
Date: Nov 2 2007
Solvent: CDCl3
Ambient temperature
Total 32 repetitions



H-4-oH-piper

Mercury-400BB "Mercuryplus400"
Date: Nov 2 2007
Solvent: CDCl3
Ambient temperature
Total 2944 repetitions



H.H-6-30H-piper

Pulse Sequence: s2pu1

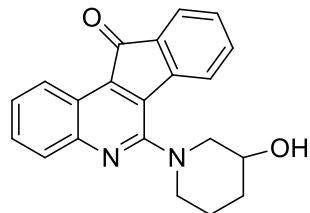
UNITYplus-400 "unity400"

Date: Feb 21 2012

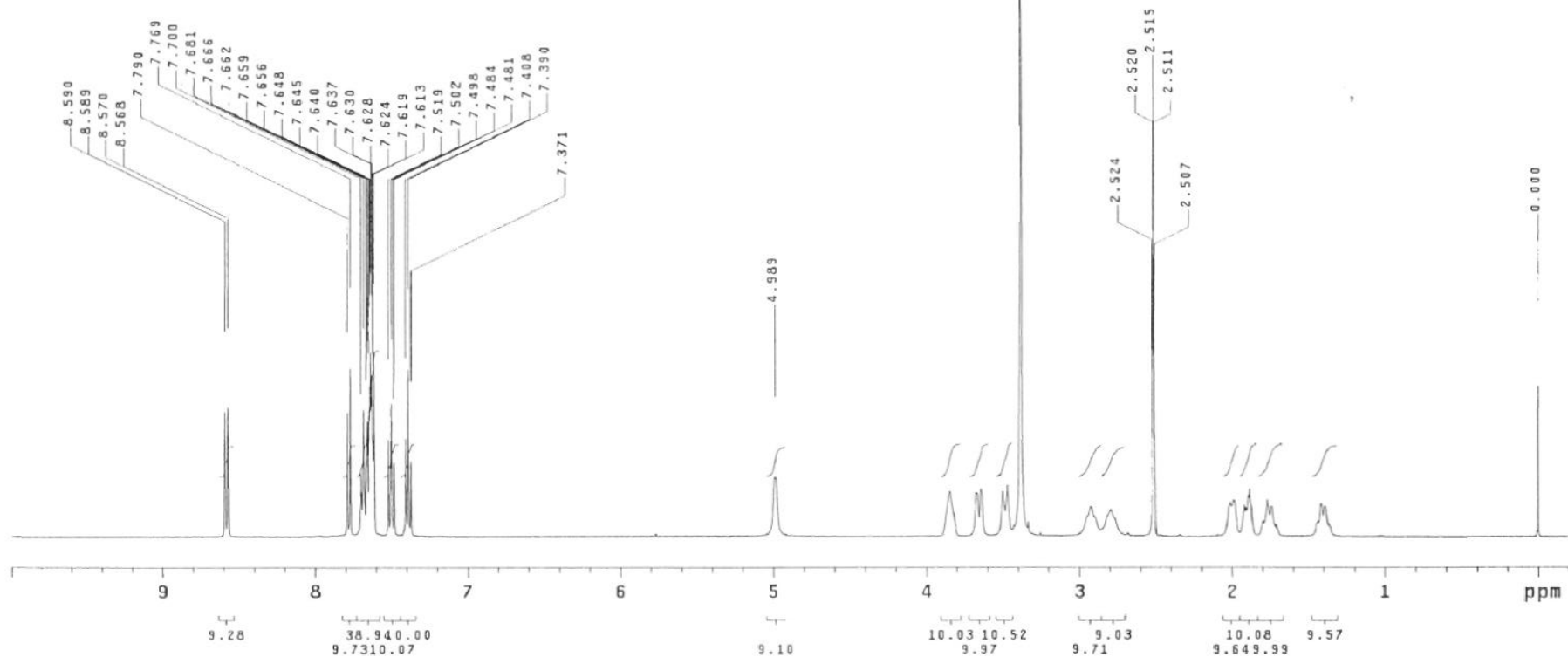
Solvent: DMSO

Ambient temperature

Total 64 repetitions



3e



H.H-6-3OH-piper

Pulse Sequence: s2pul

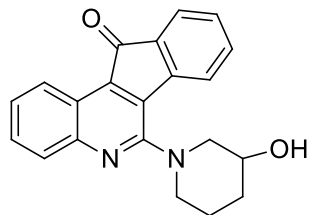
UNITYplus-400 "unity400"

Date: Feb 21 2012

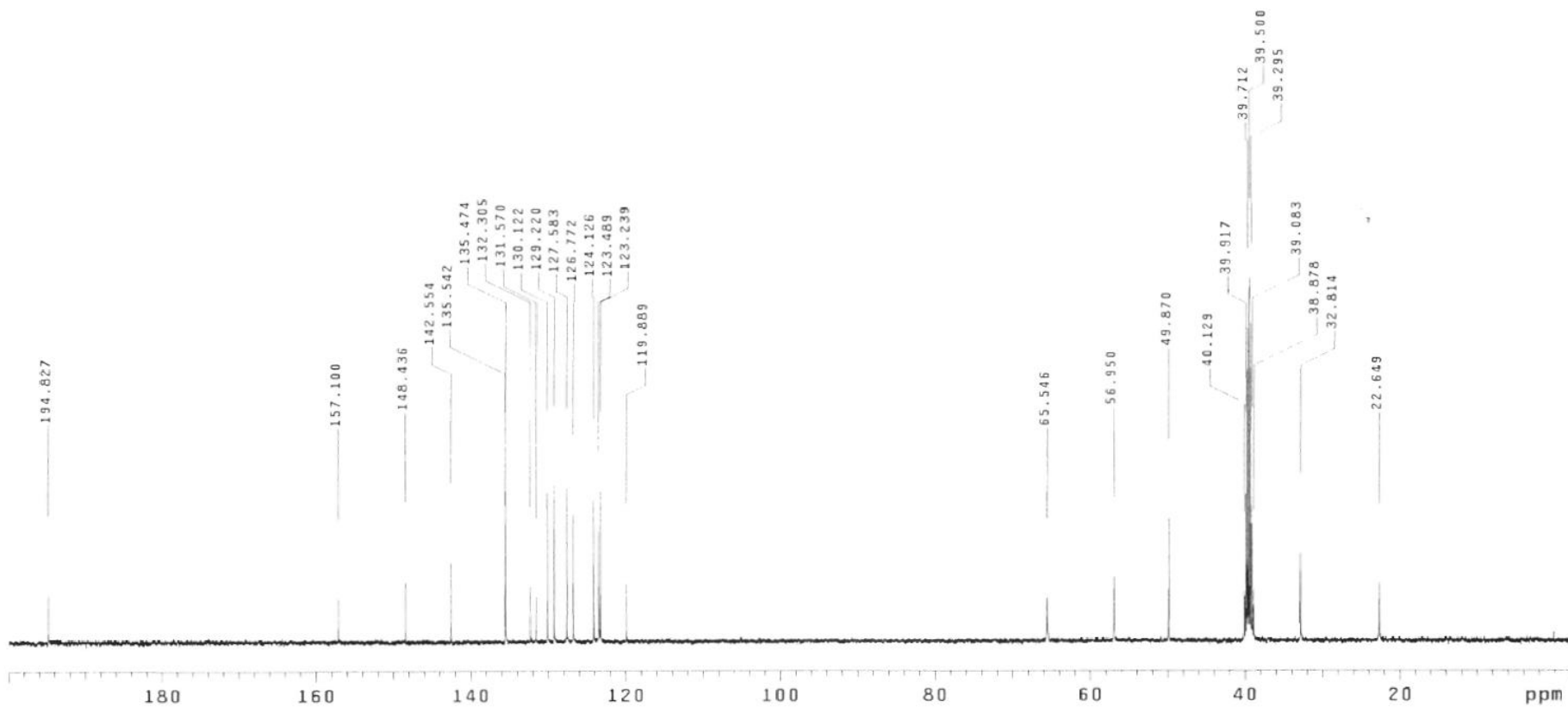
Solvent: DMSO

Ambient temperature

Total 4896 repetitions

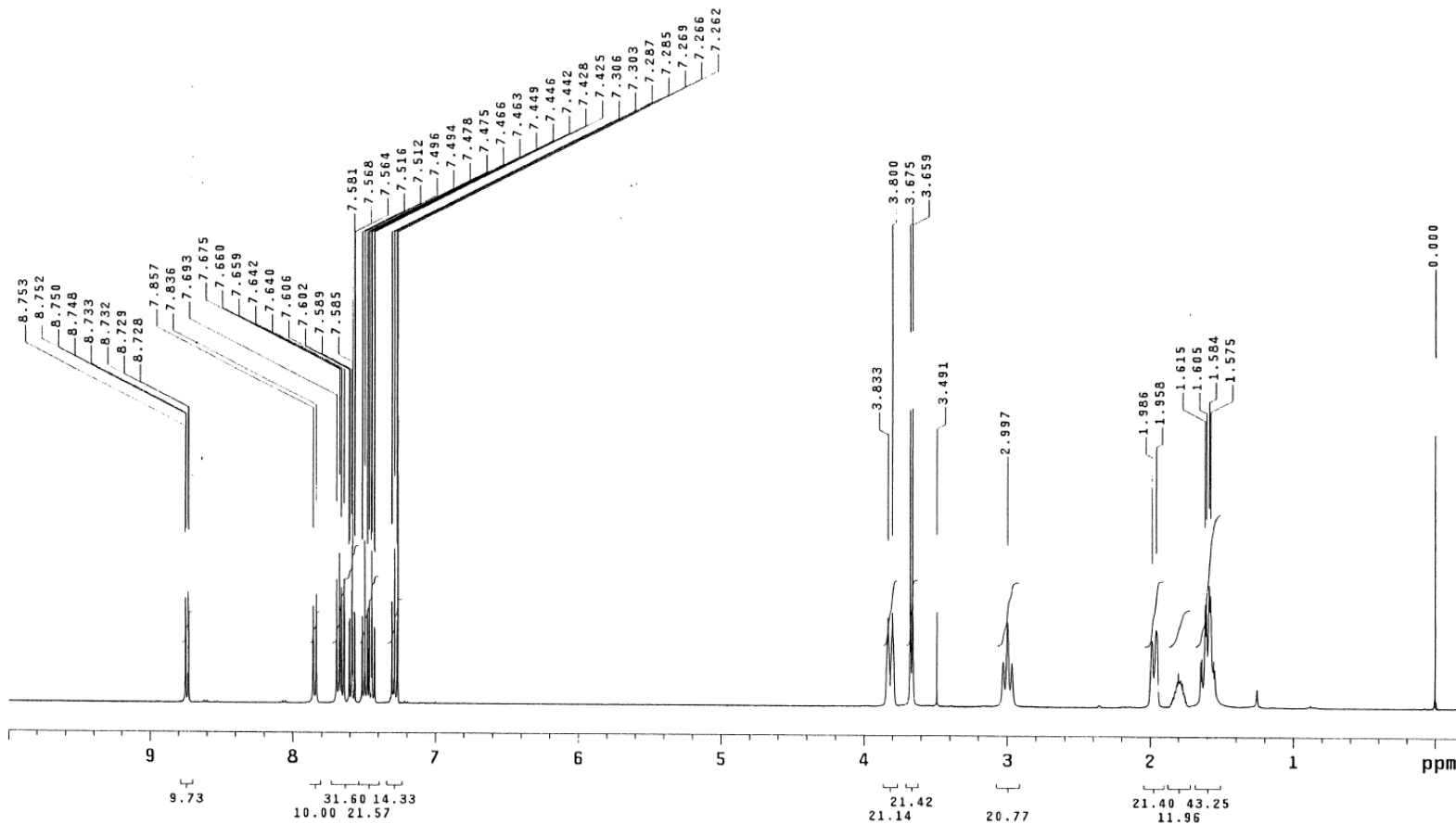
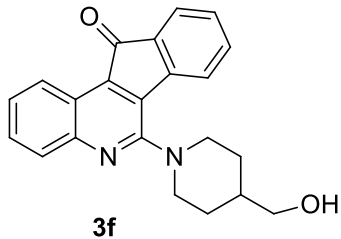


3e



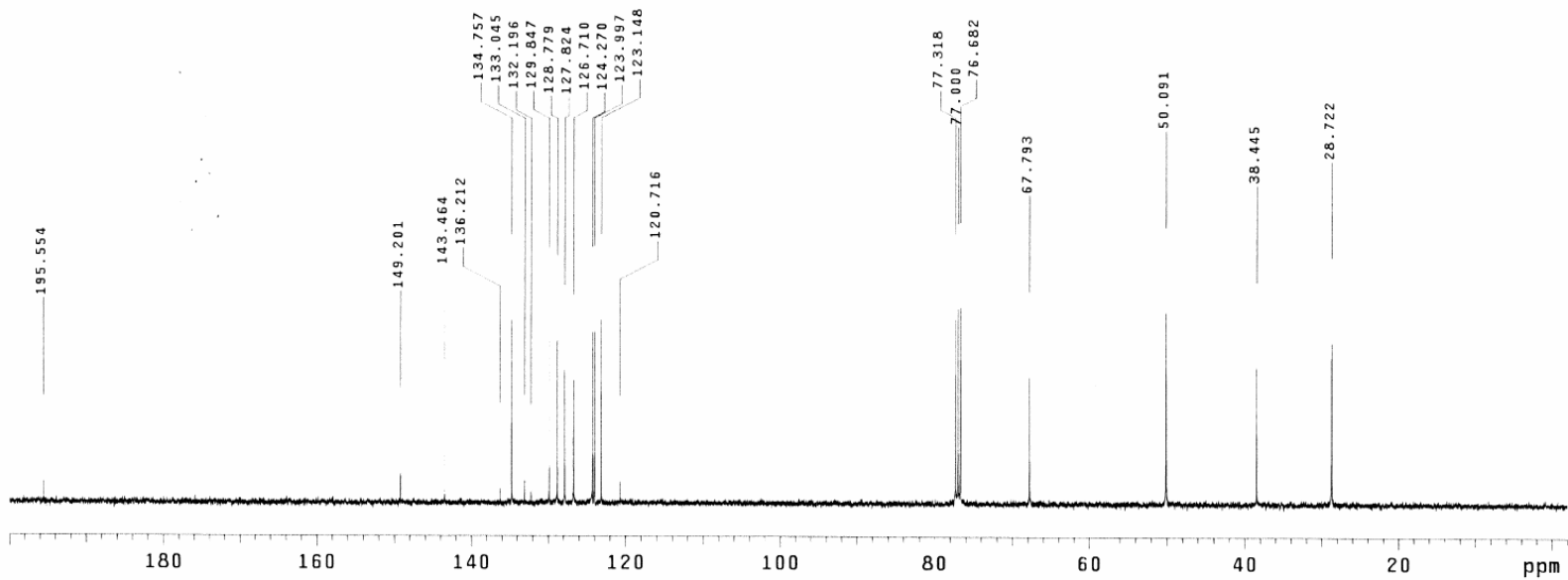
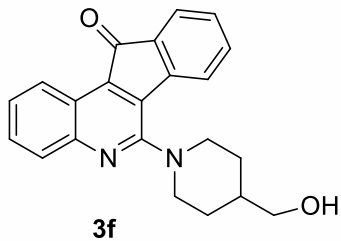
H,H-6-4-piperMeOH

Mercury-400BB "Mercuryplus400"
Date: Mar 27 2012
Solvent: CDC13
Ambient temperature
Total 32 repetitions



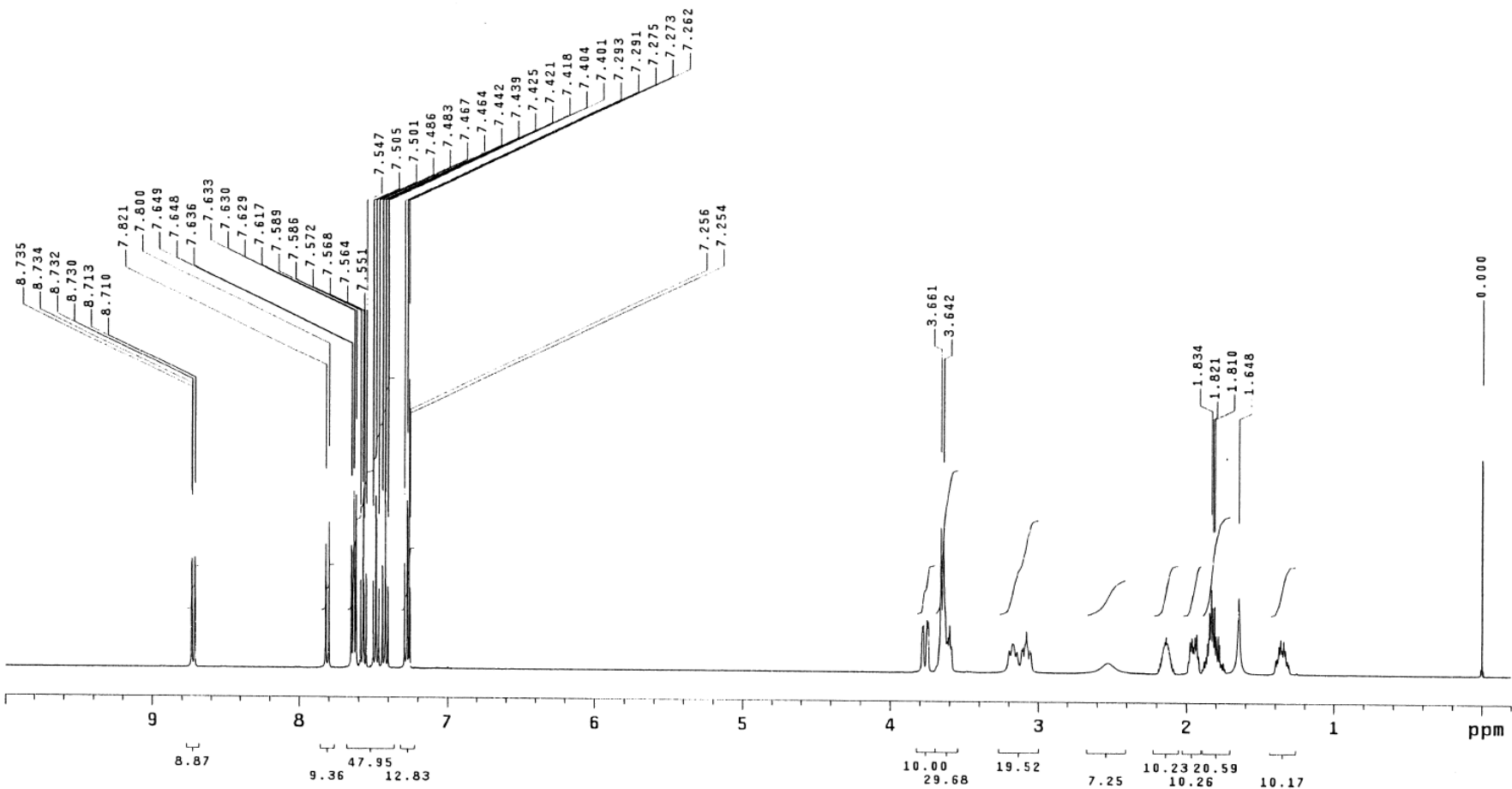
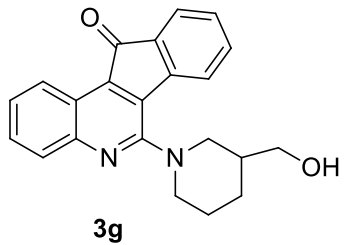
H,H-6-4-piperMeOH

Mercury-400BB "Mercuryplus400"
Date: Mar 27 2012
Solvent: CDCl3
Ambient temperature
Total 2048 repetitions



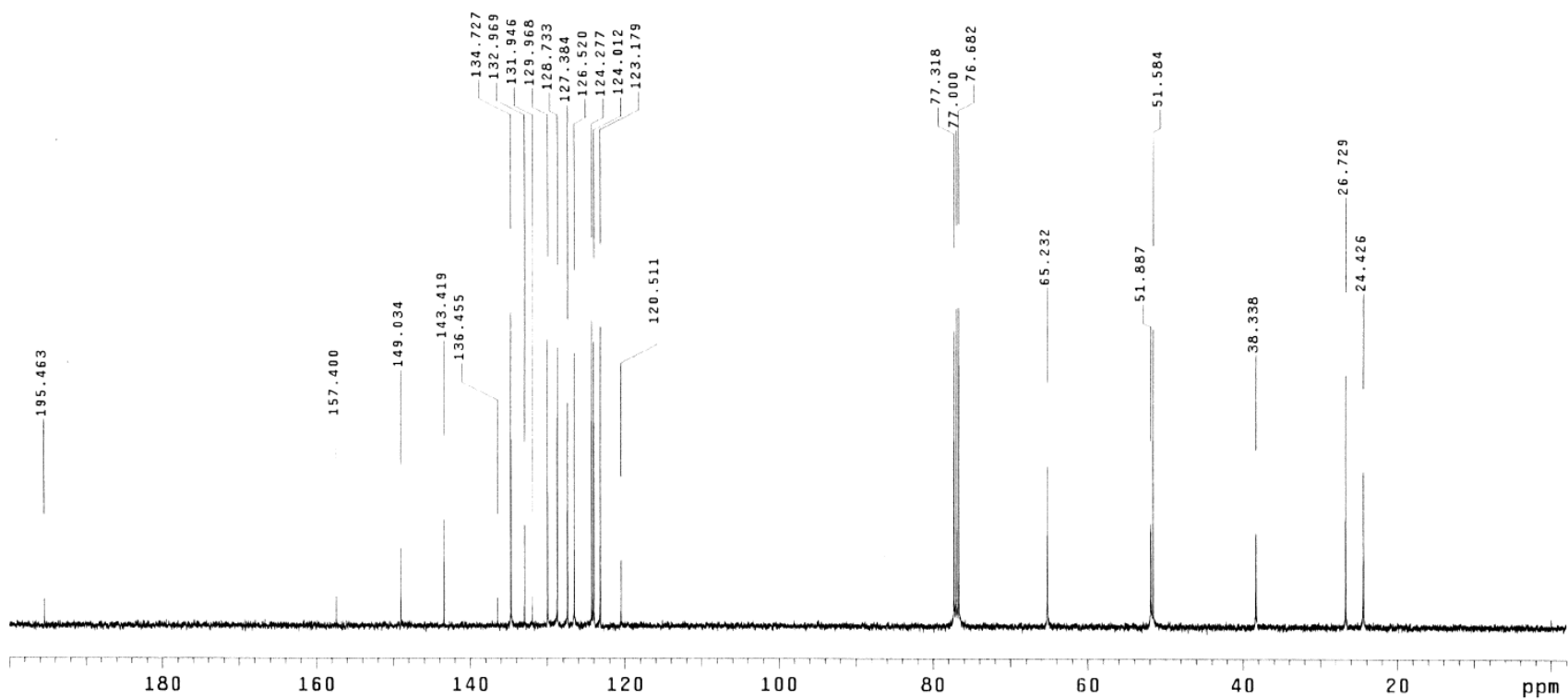
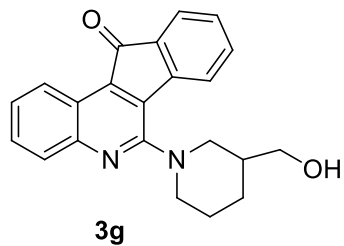
H,H-6-3-piperMeOH

Mercury-400BB "Mercuryplus400"
Date: Mar 28 2012
Solvent: CDCl3
Ambient temperature
Total 64 repetitions



H,H-6-3-piperMeOH

Mercury-400BB "Mercuryplus400"
Date: Mar 28 2012
Solvent: CDCl3
Ambient temperature
Total 4496 repetitions



H1Pyrrolidine

Pulse Sequence: s2pu1

Solvent: CDC13

Ambient temperature

UNITYplus-400 "unityplus400"

Pulse 39.9 degrees

Acq. time 3.200 sec

Width 6000.6 Hz

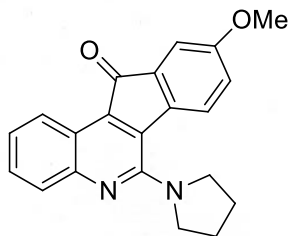
32 repetitions

OBSERVE H1, 400.2874120 MHz

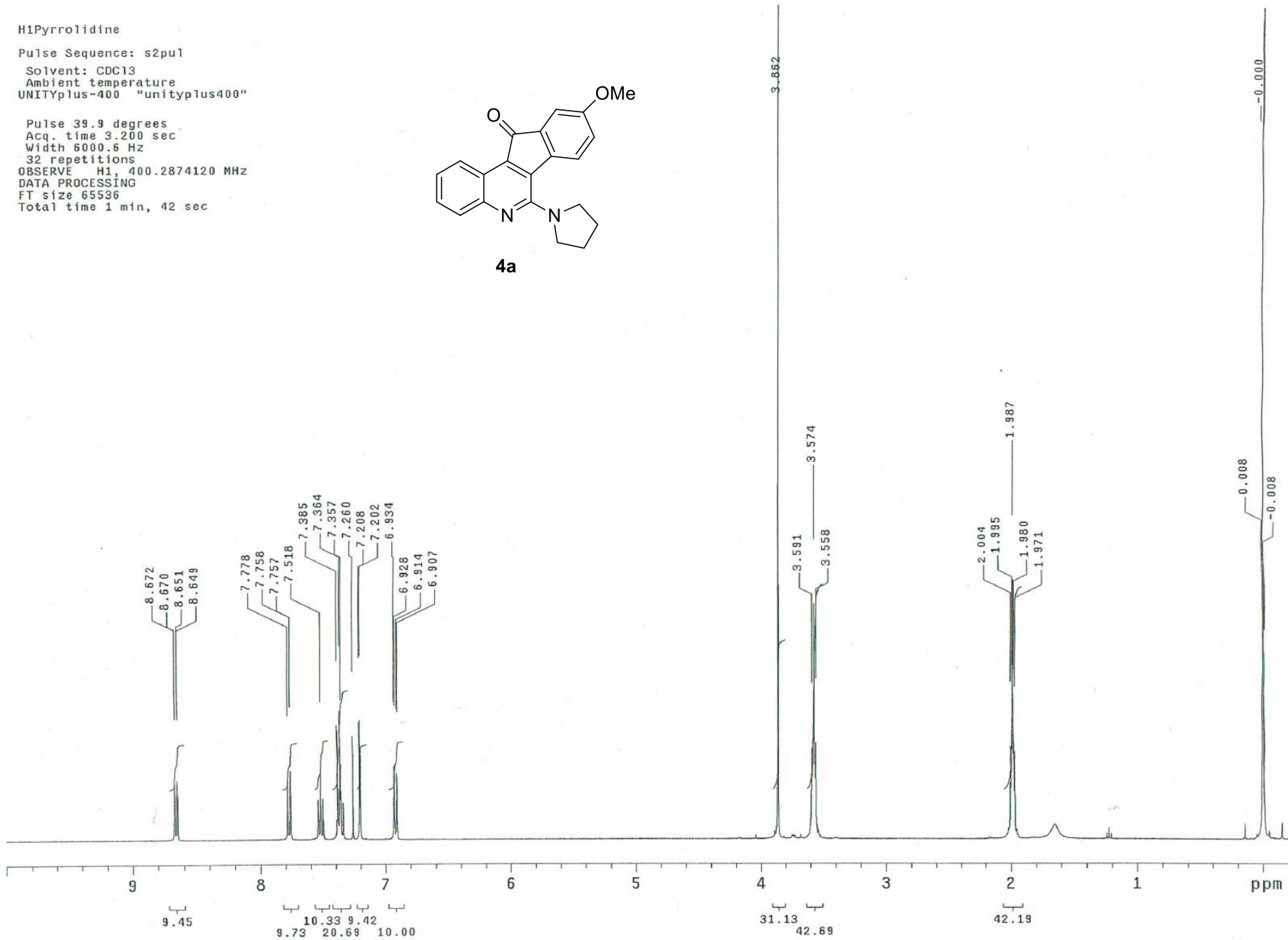
DATA PROCESSING

FT size 65536

Total time 1 min, 42 sec



4a

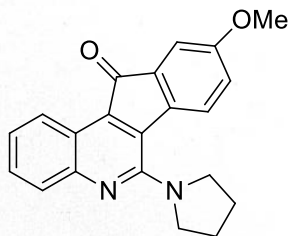


H1Pyrrolidine

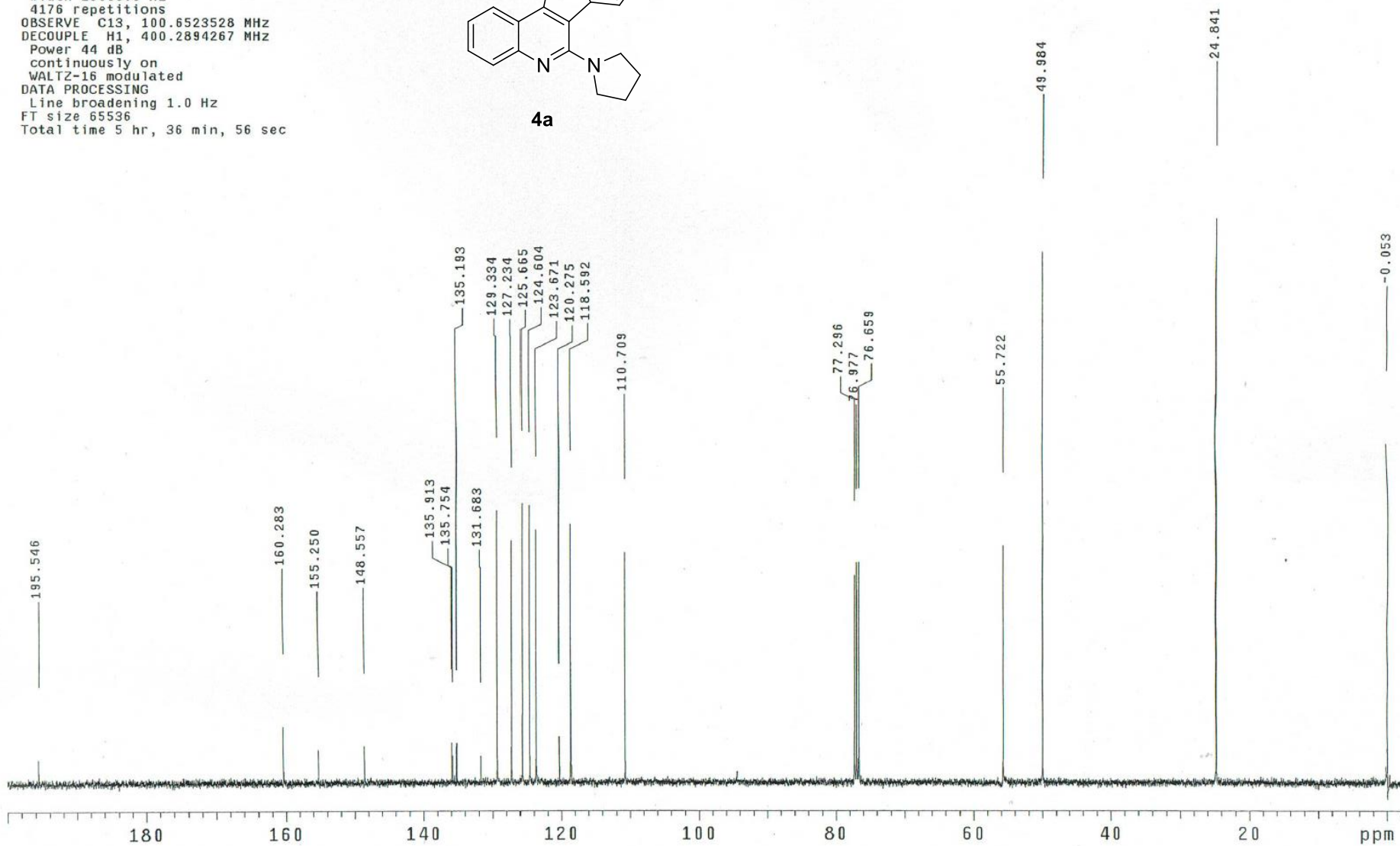
Pulse Sequence: s2pu1

Solvent: CDC13
Ambient temperature
UNITYplus-400 "unityplus400"

Pulse 69.5 degrees
Acq. time 1.000 sec
Width 25000.0 Hz
4176 repetitions
OBSERVE C13, 100.6523528 MHz
DECOUPLE H1, 400.2894267 MHz
Power 44 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 1.0 Hz
FT size 65536
Total time 5 hr, 36 min, 56 sec

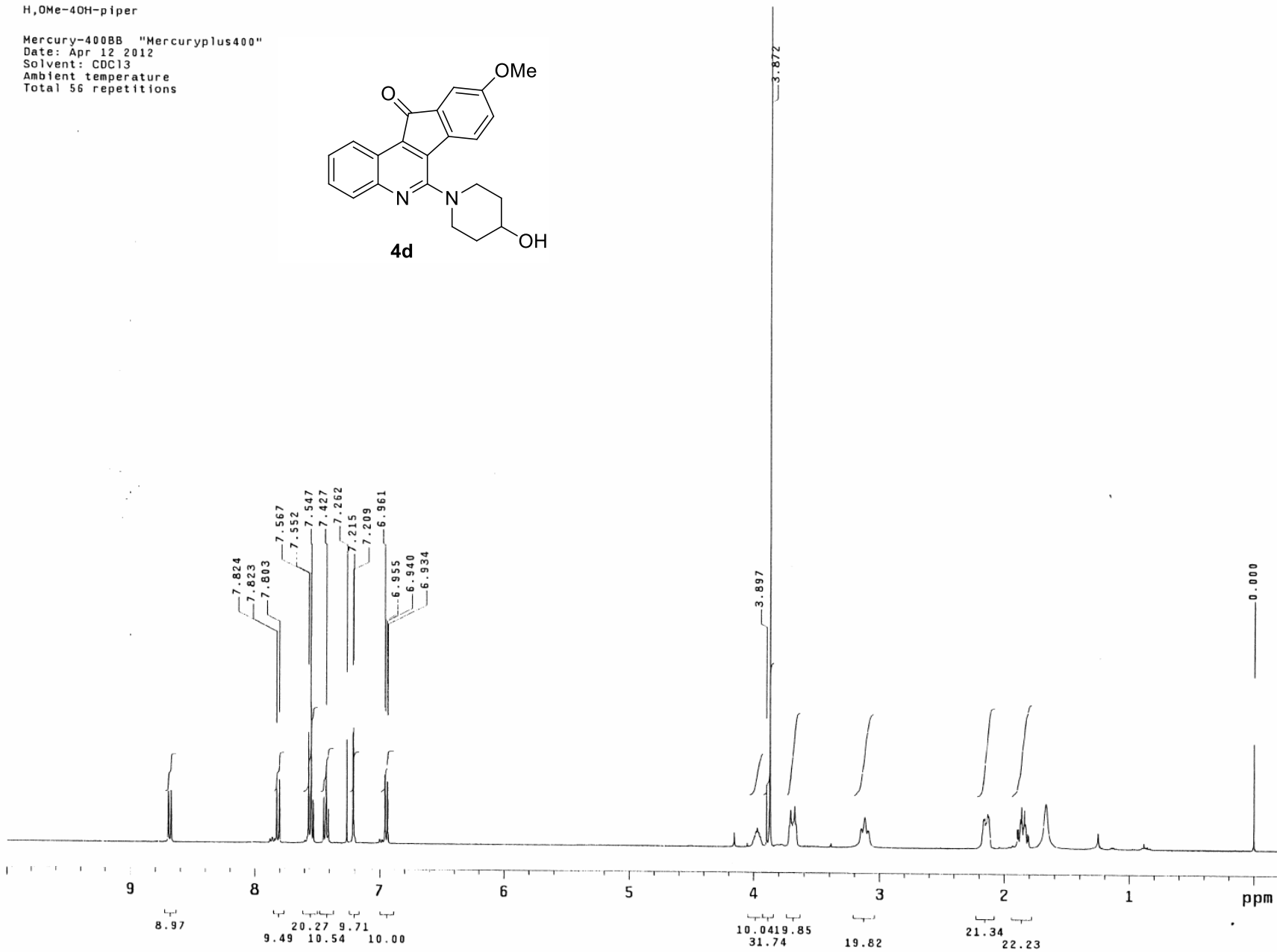
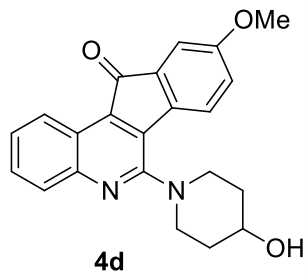


4a



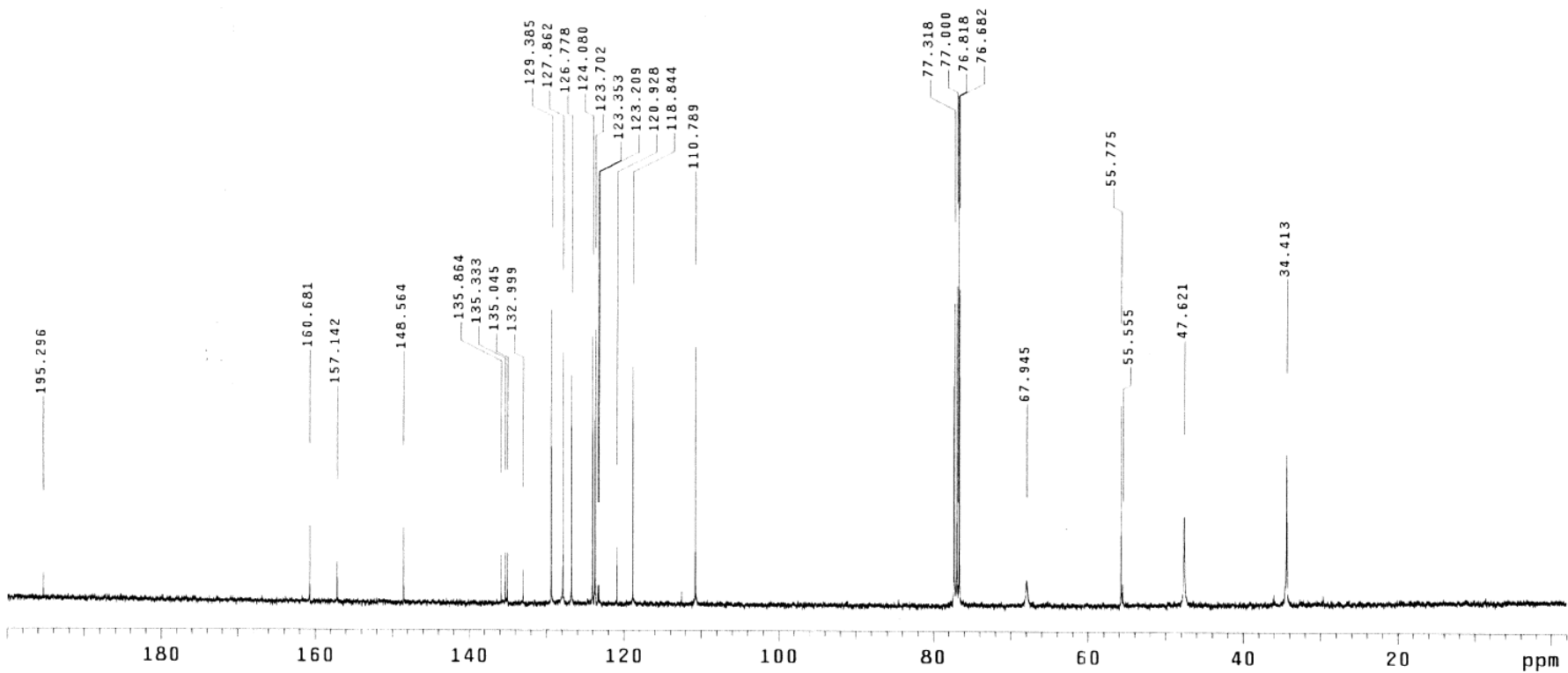
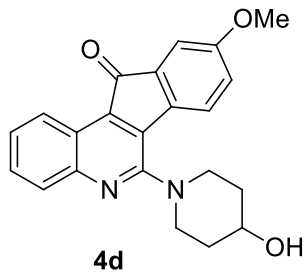
H,OMe-4OH-piper

Mercury-400BB "Mercuryplus400"
Date: Apr 12 2012
Solvent: CDCl3
Ambient temperature
Total 56 repetitions



H,OMe-4OH-piper

Mercury-400BB "Mercuryplus400"
Date: Apr 12 2012
Solvent: CDCl3
Ambient temperature
Total 5280 repetitions



H1-3OH-PIPERID

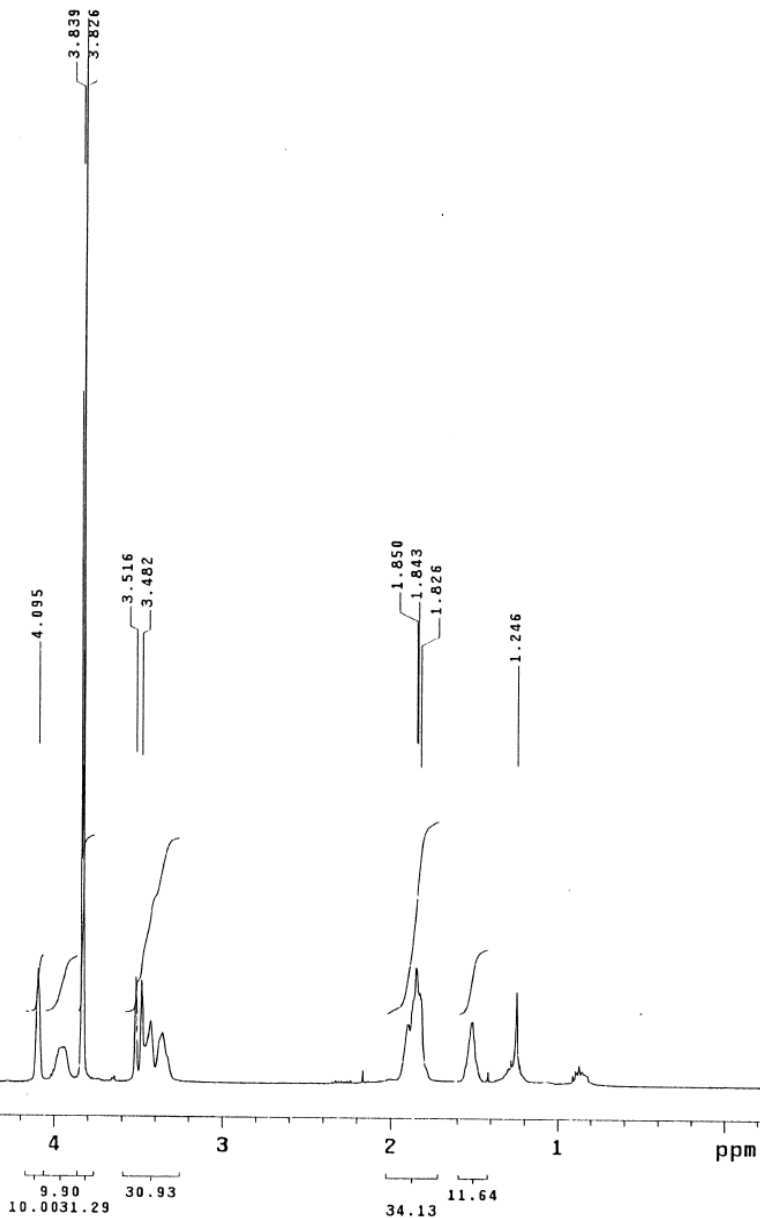
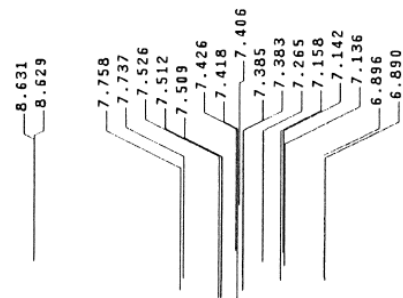
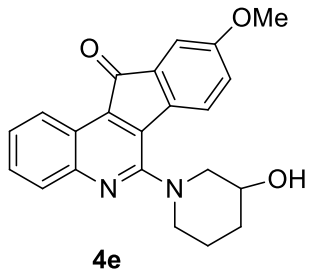
Mercury-400BB "Mercuryplus400"

Date: Nov 2 2007

Solvent: CDC13

Ambient temperature

Total 21 repetitions



ppm

H1-3OH-PIPERID

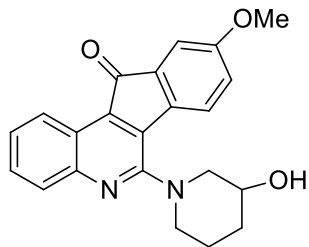
Mercury-400BB "Mercuryplus400"

Date: Nov 2 2007

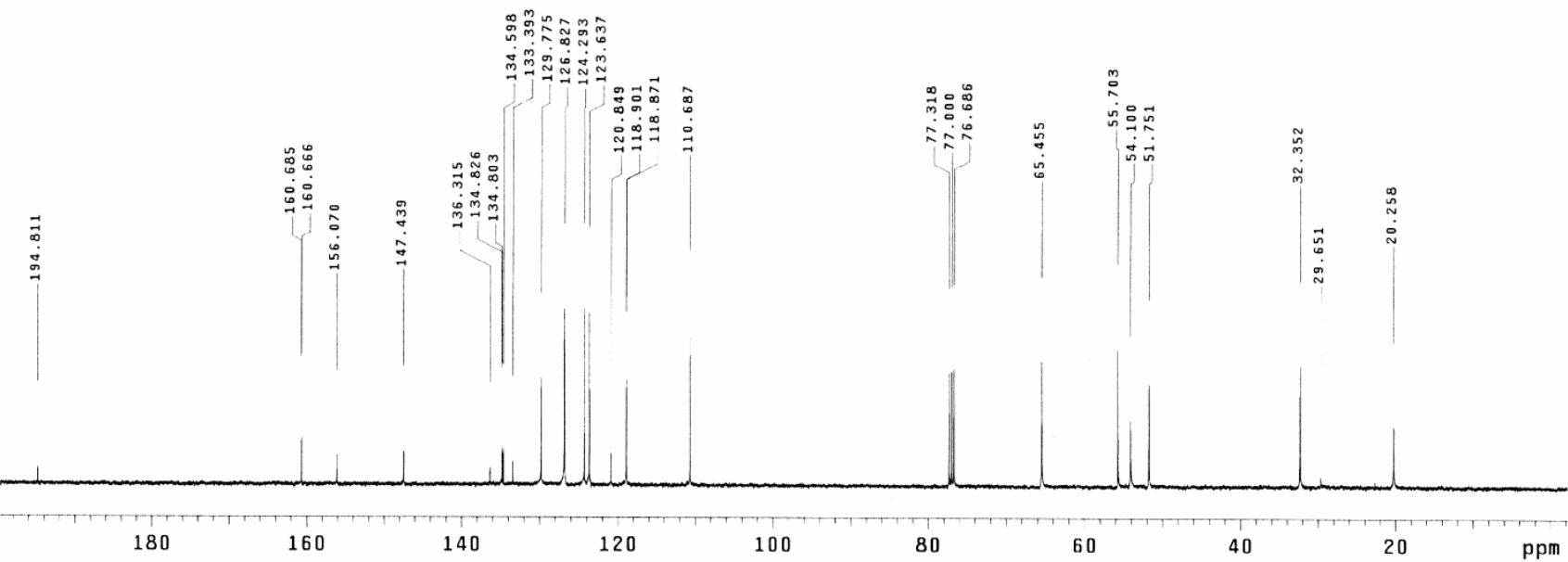
Solvent: CDCl3

Ambient temperature

Total 711 repetitions

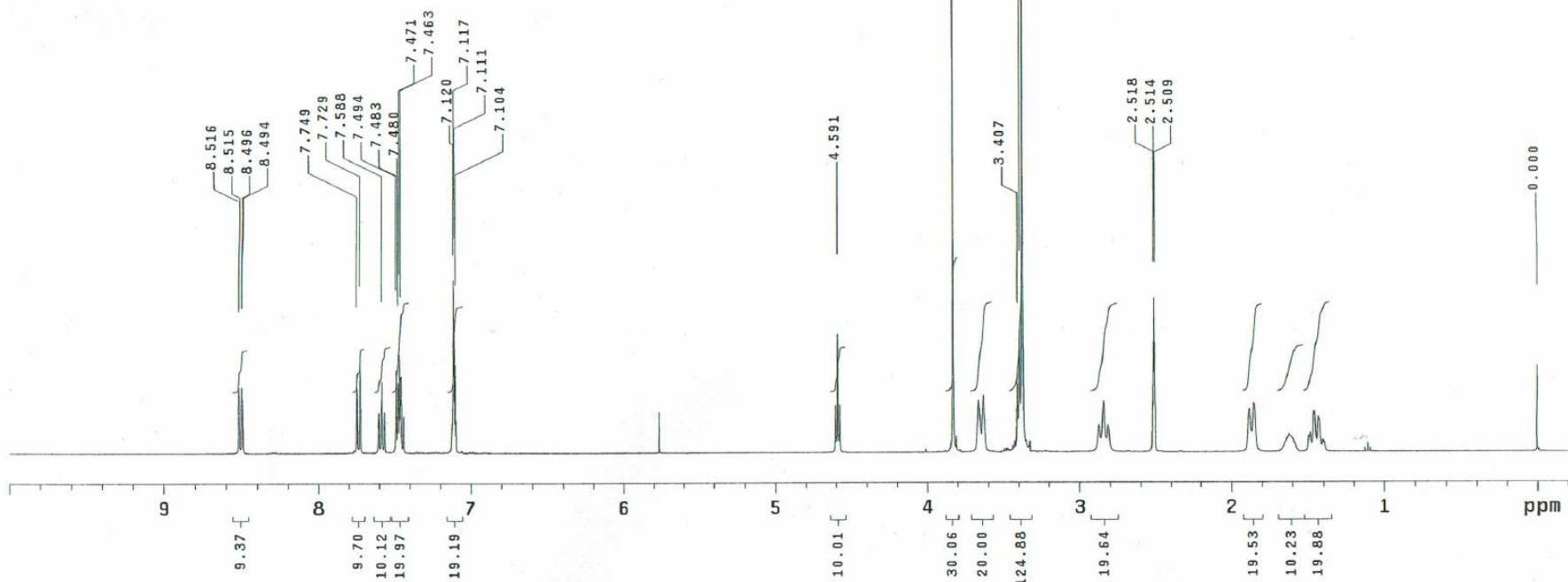
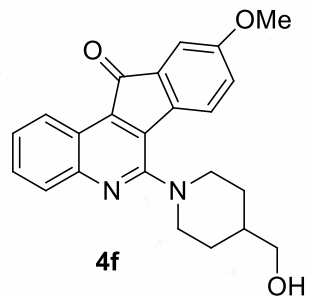


4e



H-4-Me-pi

Pulse Sequence: s2pu1
UNITYplus-400 "unity400"
Date: Mar 27 2013
Solvent: DMSO
Ambient temperature
Total 80 repetitions



H-4-Me-pi

Pulse Sequence: s2pul

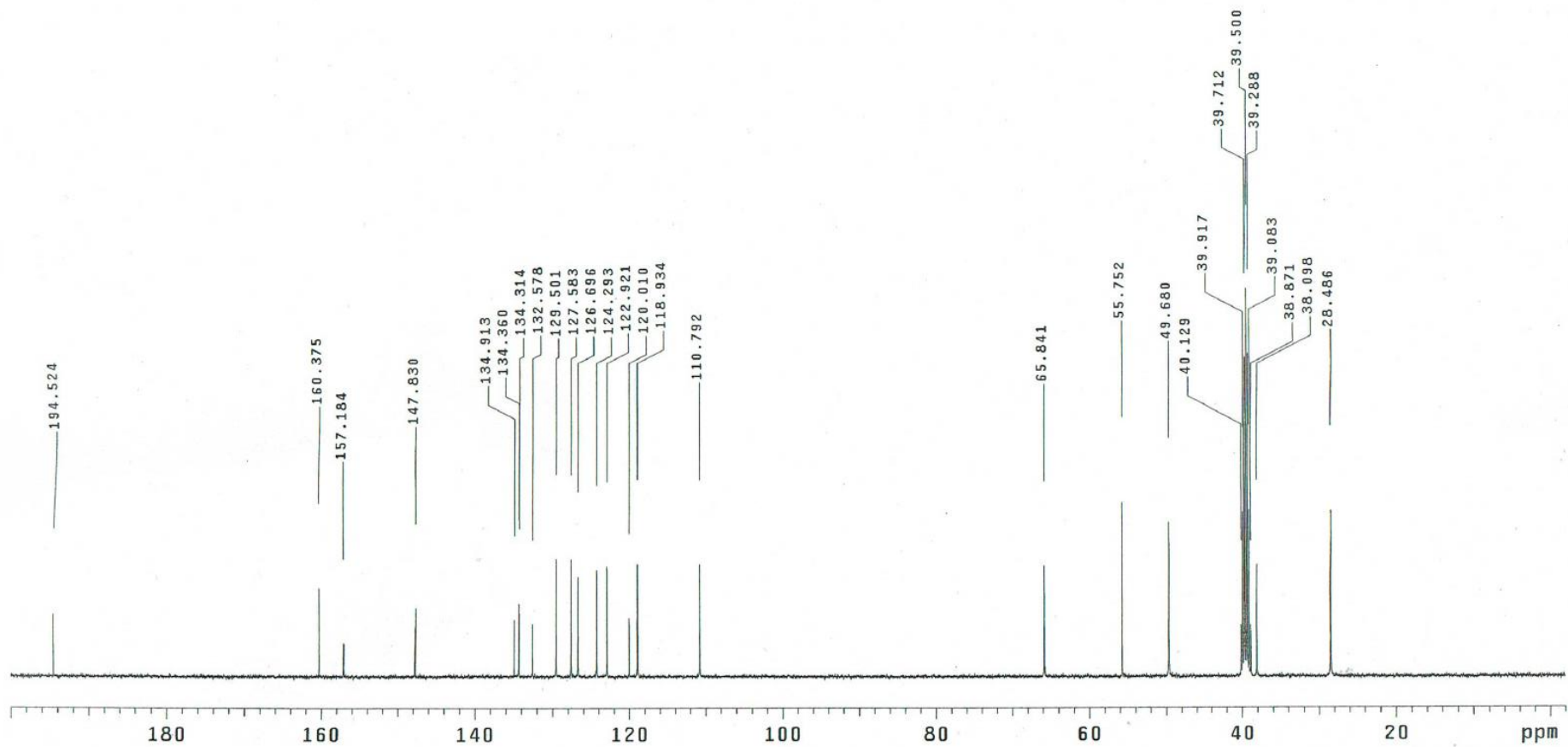
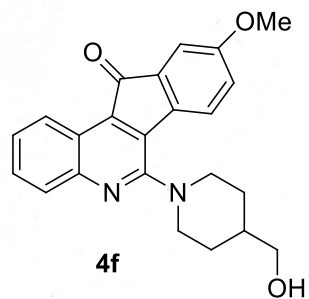
UNITYplus-400 "unity400"

Date: Mar 27 2013

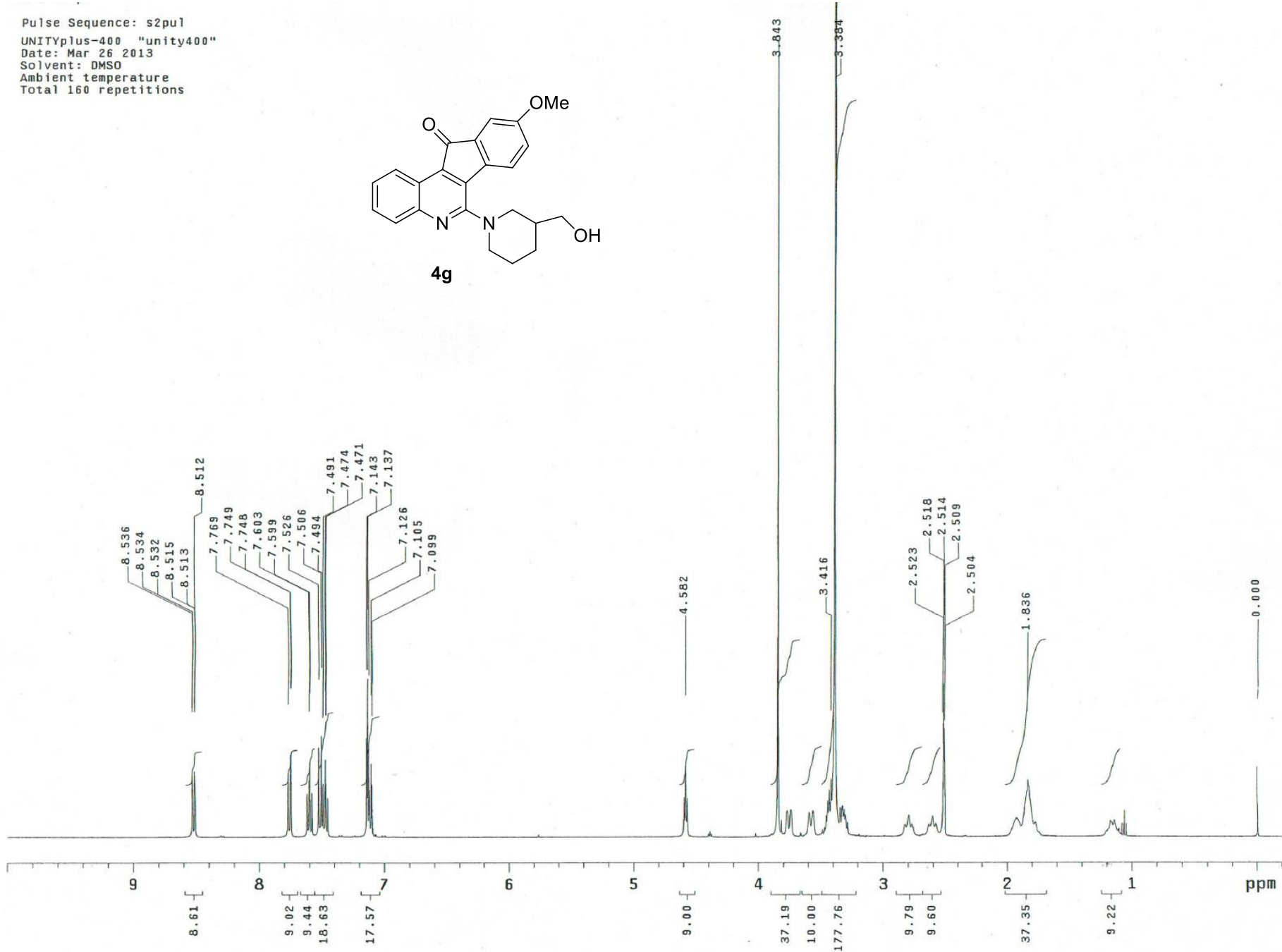
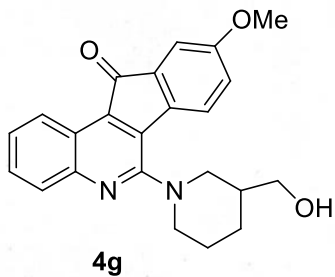
Solvent: DMSO

Ambient temperature

Total 3696 repetitions



Pulse Sequence: s2pul
UNITYplus-400 "unity400"
Date: Mar 26 2013
Solvent: DMSO
Ambient temperature
Total 160 repetitions



H-3-Me-pi

Pulse Sequence: s2pu1

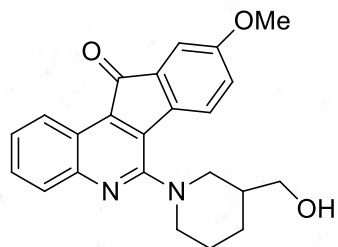
UNITYplus-400 "unity400"

Date: Mar 26 2013

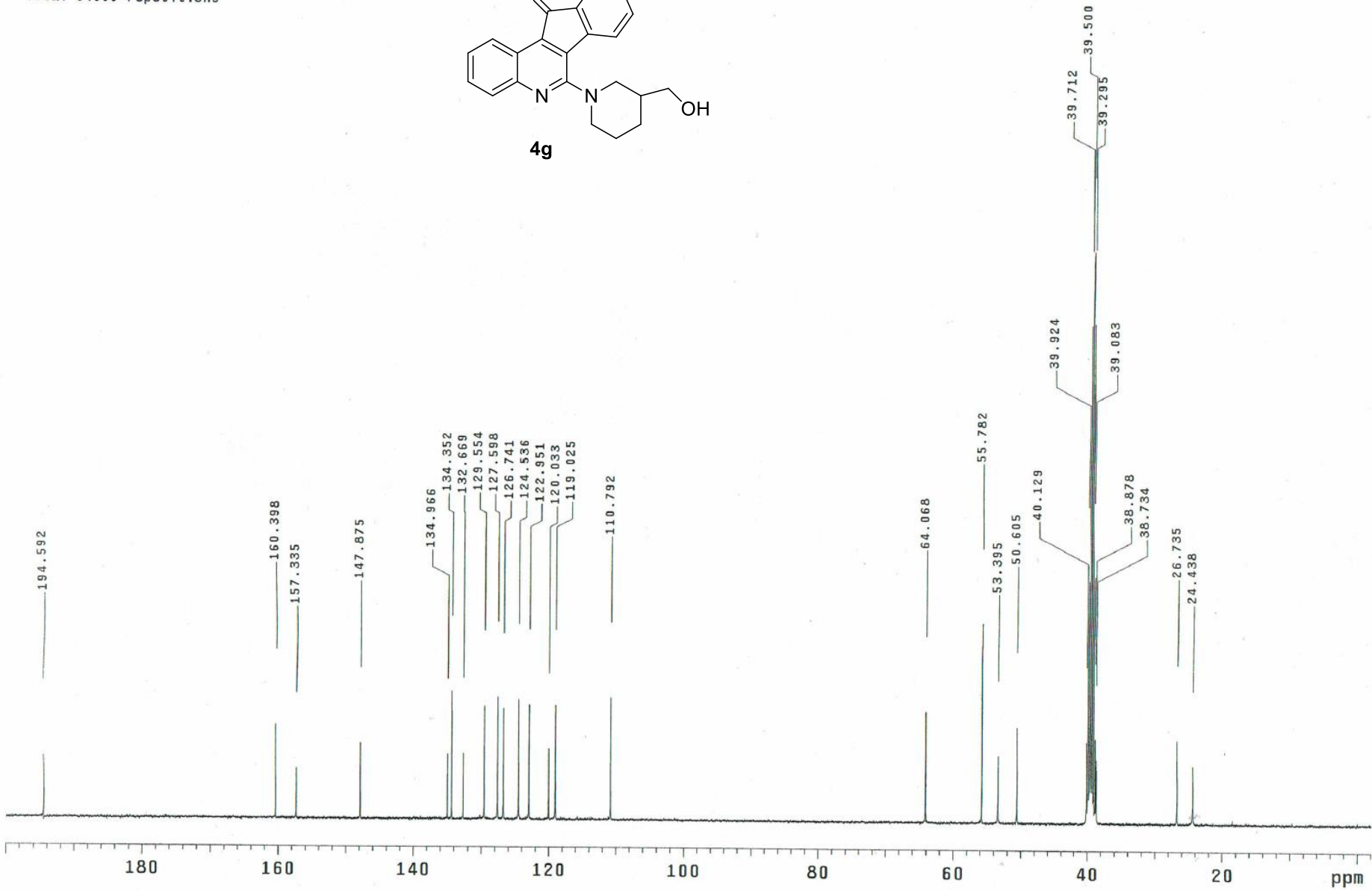
Solvent: DMSO

Ambient temperature

Total 64000 repetitions



4g



TCH-RE

Pulse Sequence: s2pu1

Solvent: CDCl3

Ambient temperature

Mercury-400BB "MercuryPlus400"

Pulse 48.1 degrees

Acq. time 4.002 sec

Width 5995.2 Hz

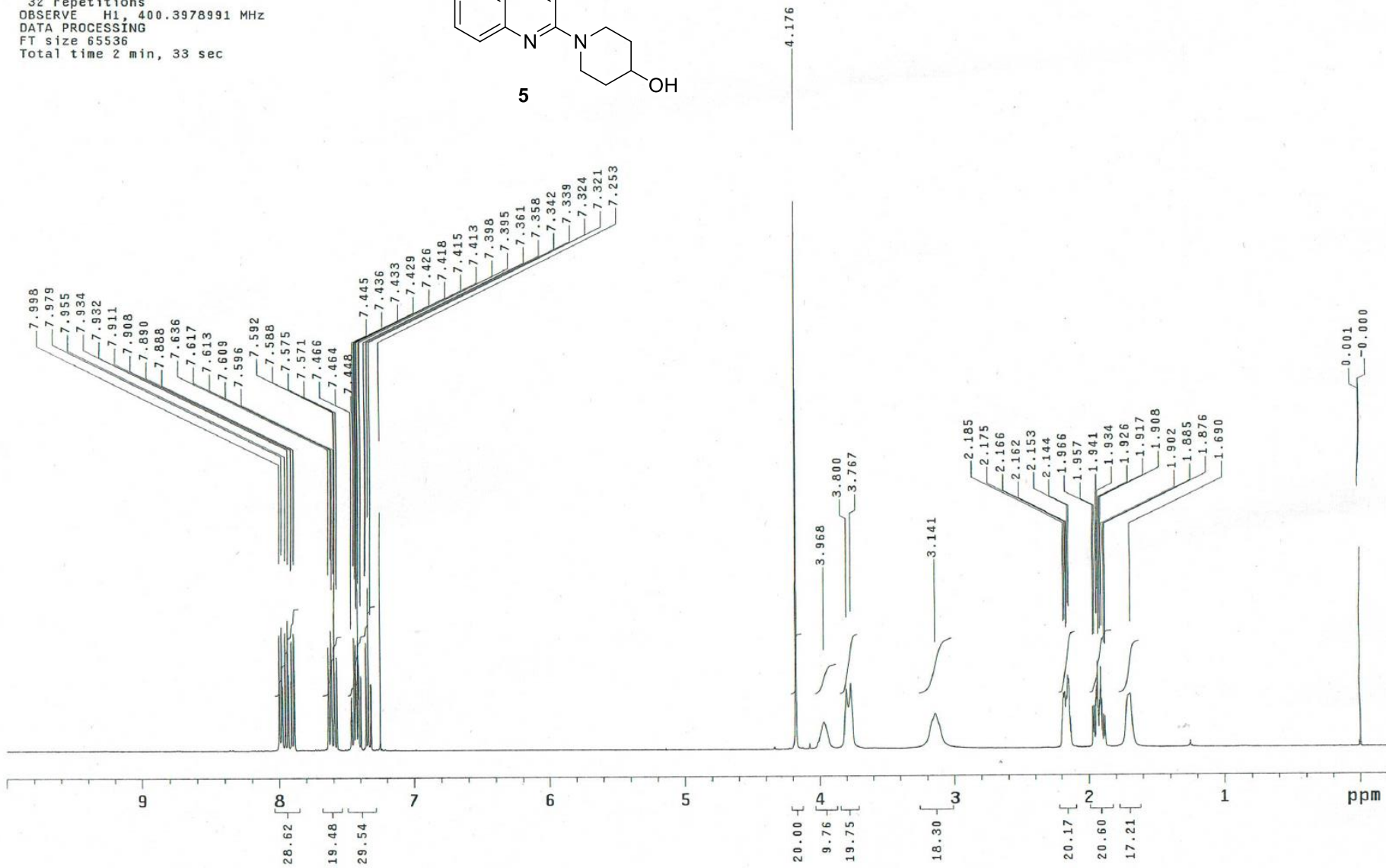
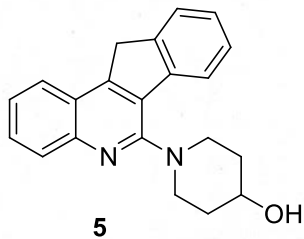
32 repetitions

OBSERVE H1, 400.3978991 MHz

DATA PROCESSING

FT size 65536

Total time 2 min, 33 sec



TCH-RE

Pulse Sequence: s2pu1

Solvent: CDC13

Ambient temperature

Mercury-400BB "MercuryPlus400"

Pulse 68.7 degrees

Acq. time 1.000 sec

Width 25000.0 Hz

5552 repetitions

OBSERVE C13, 100.6801338 MHz

DECOUPLE H1, 400.3999572 MHz

Power 38 dB

continuously on

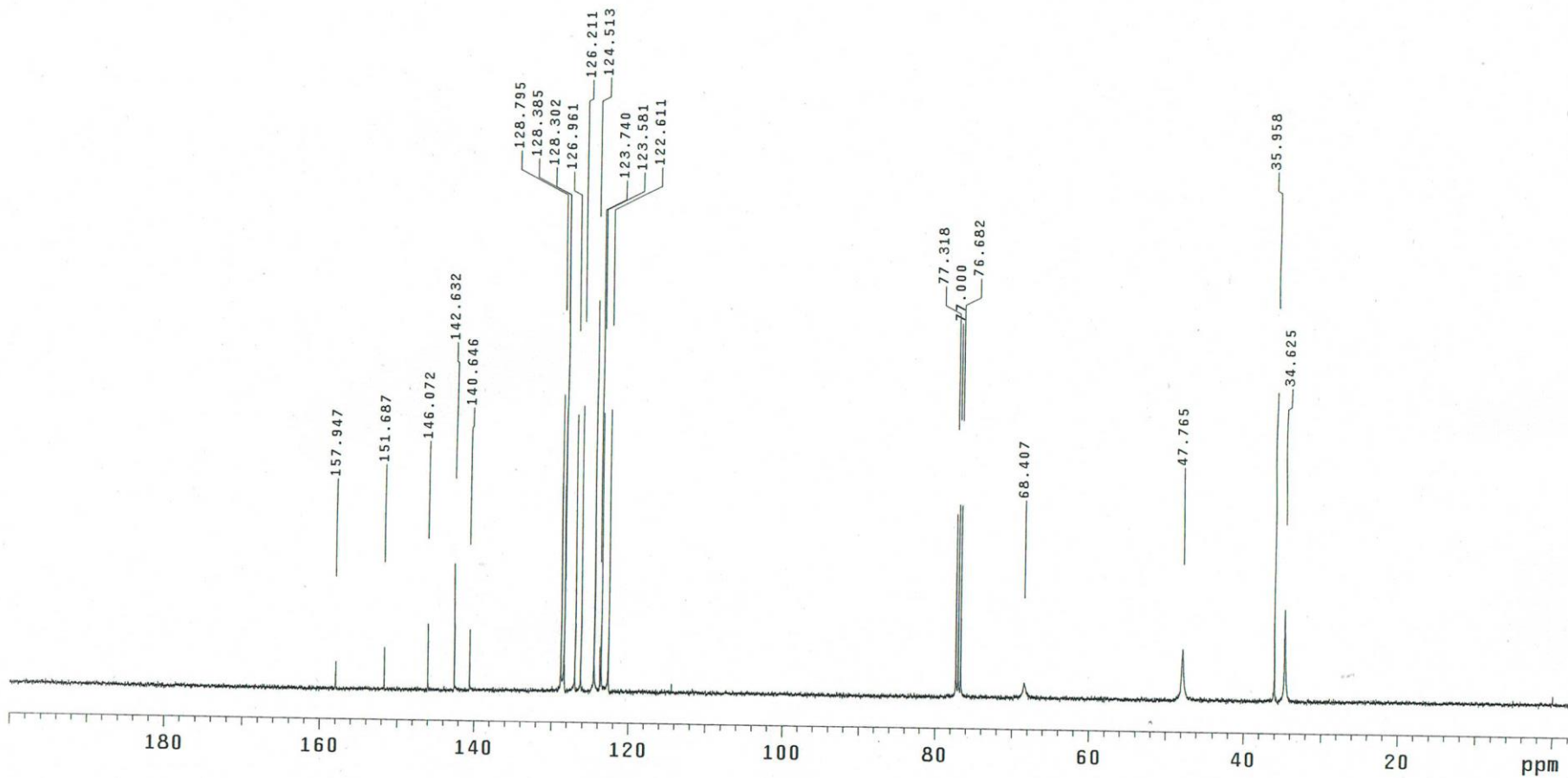
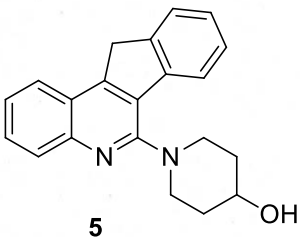
WALTZ-16 modulated

DATA PROCESSING

Line broadening 1.0 Hz

FT size 65536

Total time 21 hr, 51 min, 34 sec



H,H-4-OH-piper-HgBr

Pulse Sequence: s2pu1

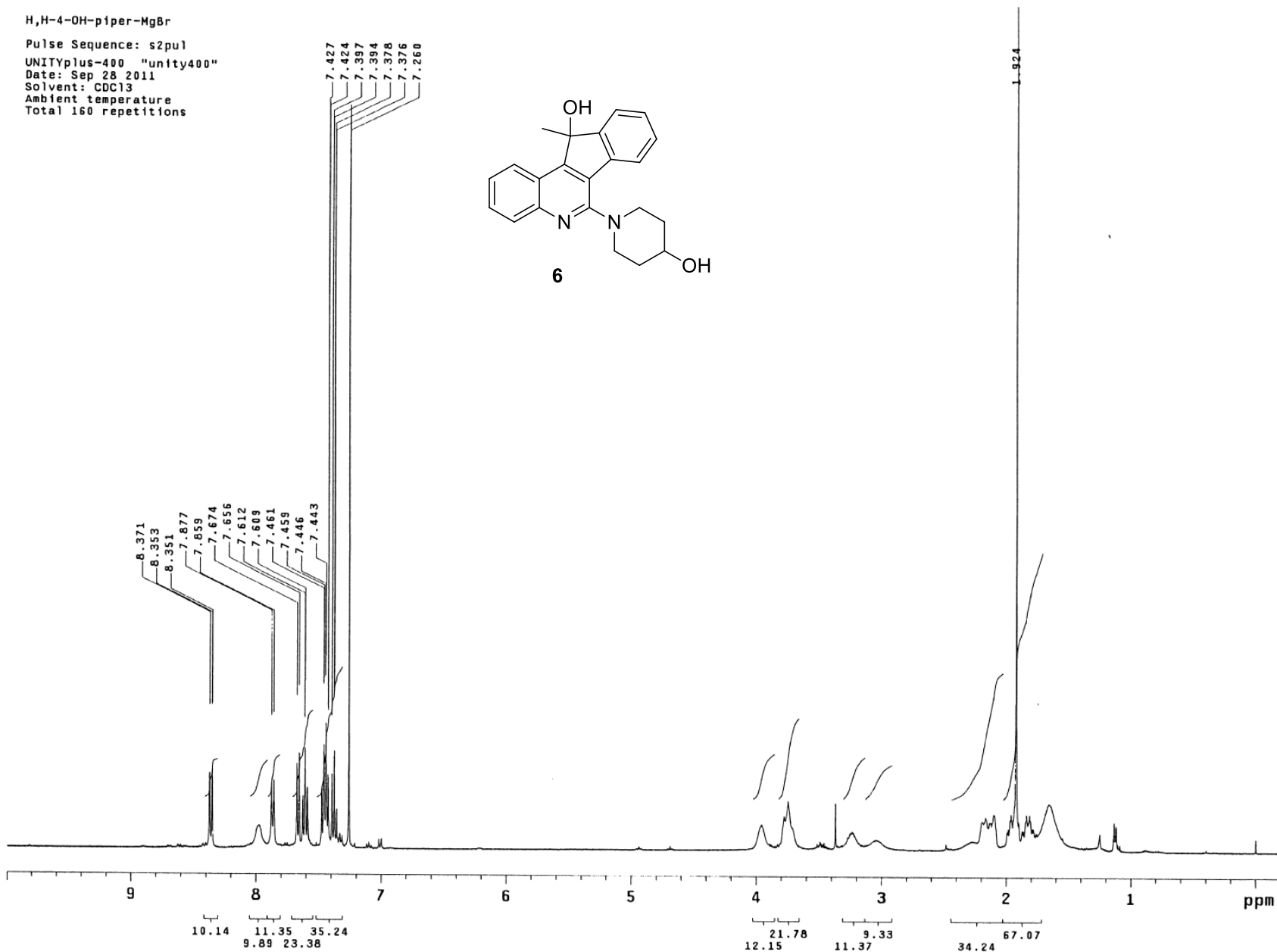
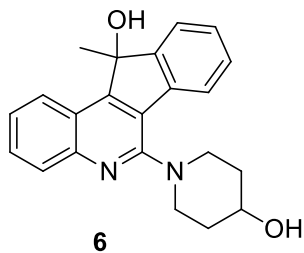
UNITYplus-400 "unity400"

Date: Sep 28 2011

Solvent: CDCl3

Ambient temperature

Total 160 repetitions



H,H-4-OH-piper-MgBr

Pulse Sequence: s2pul

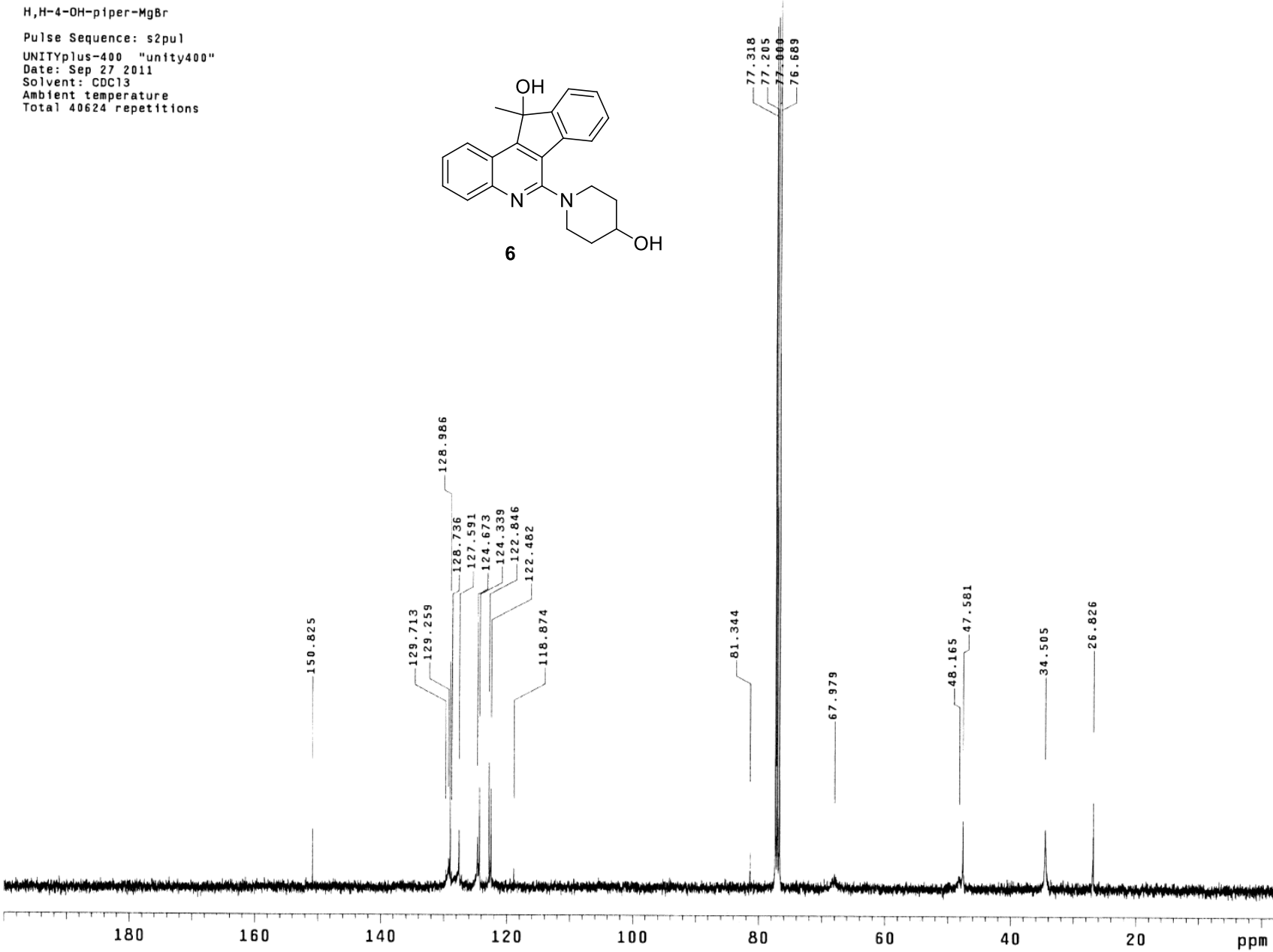
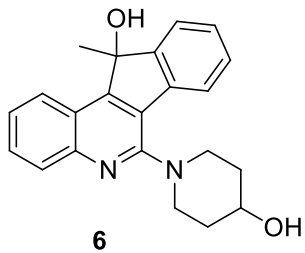
UNITYplus-400 "unity400"

Date: Sep 27 2011

Solvent: CDCl3

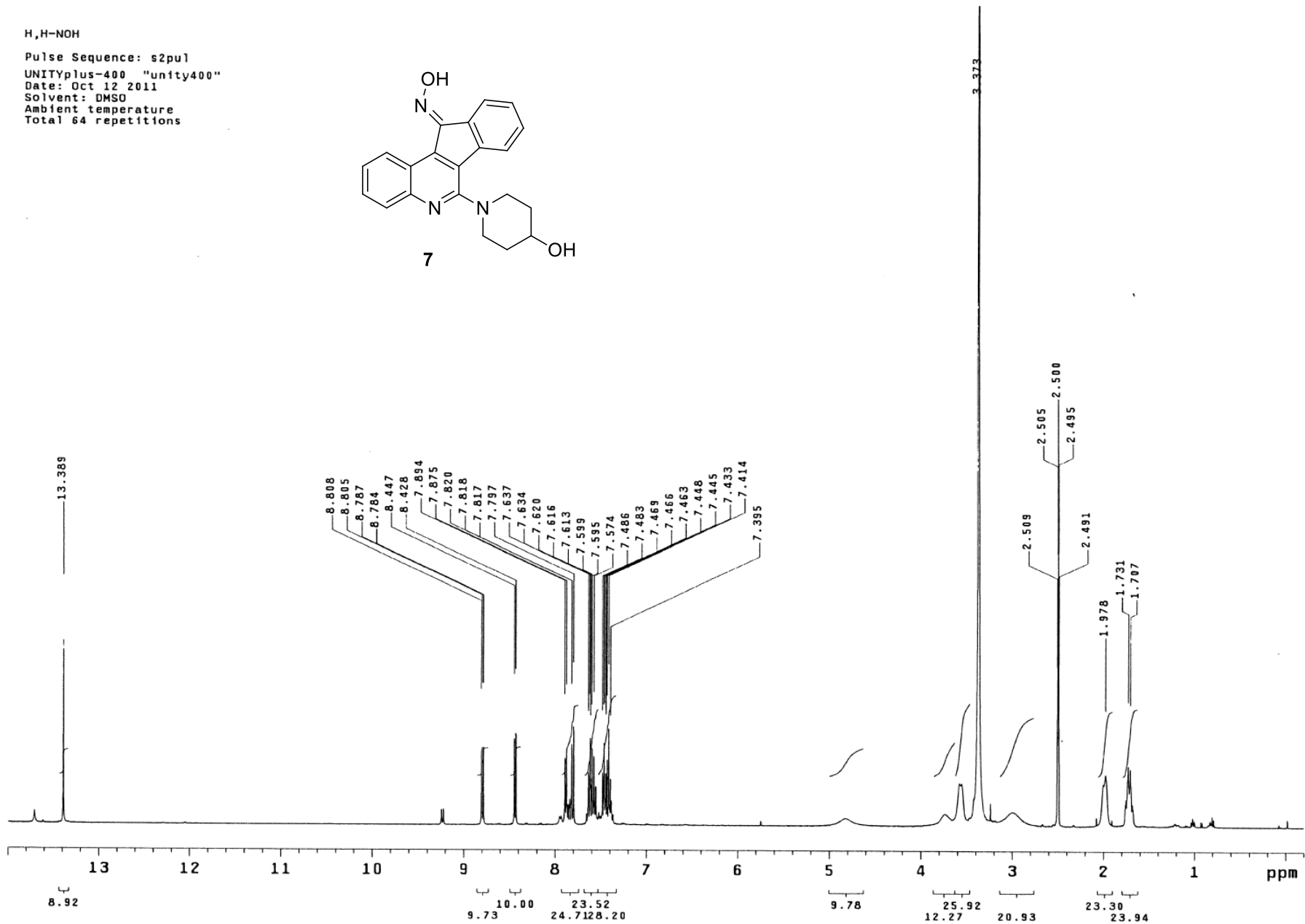
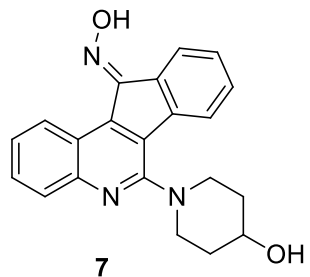
Ambient temperature

Total 40624 repetitions



H,H-NOH

Pulse Sequence: s2pul
UNITYplus-400 "unity400"
Date: Oct 12 2011
Solvent: DMSO
Ambient temperature
Total 64 repetitions



H,H-NOH

Pulse Sequence: s2pul

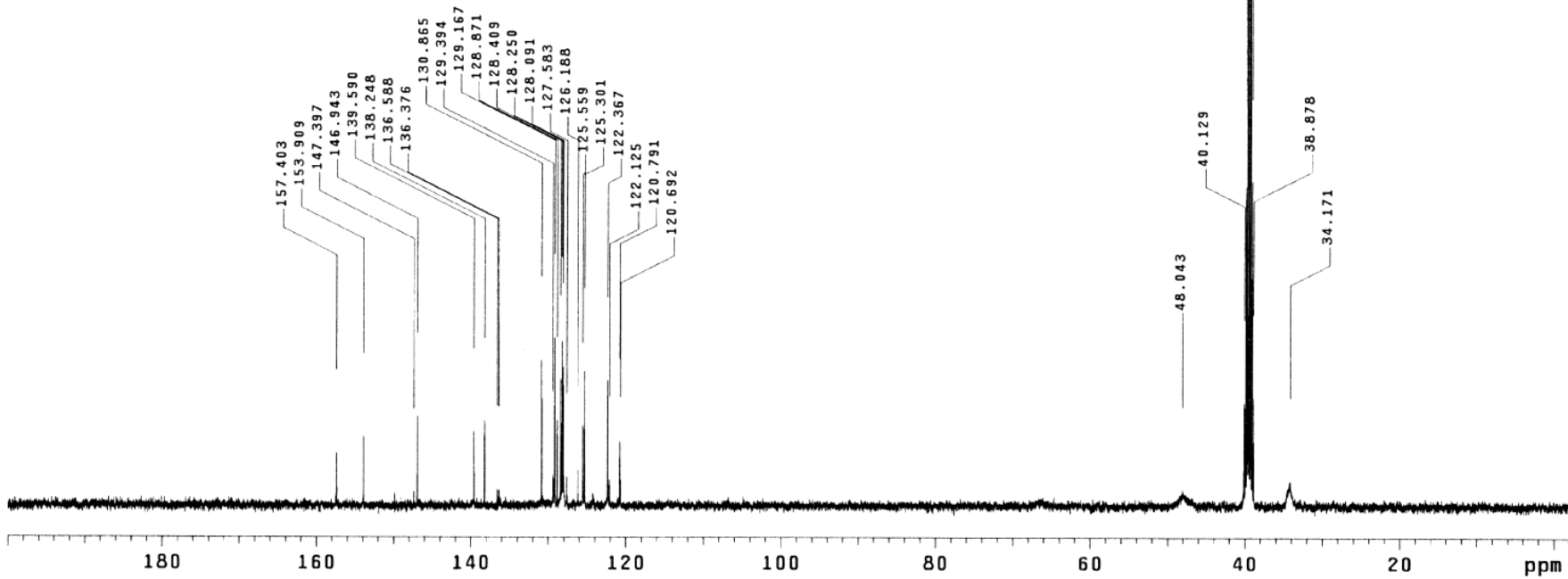
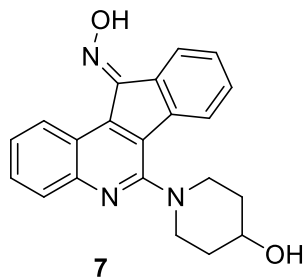
UNITYplus-400 "unity400"

Date: Oct 12 2011

Solvent: DMSO

Ambient temperature

Total 5328 repetitions



WCH-4376z

Pulse Sequence: s2pu1

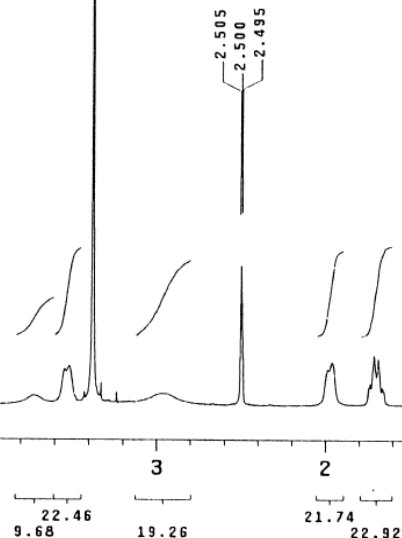
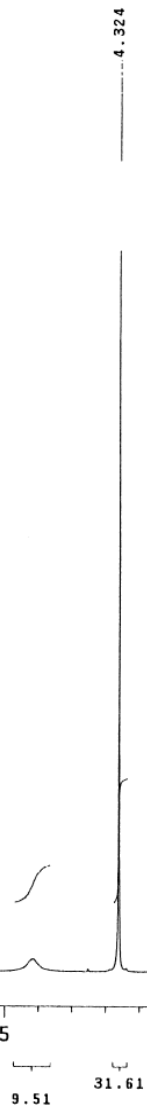
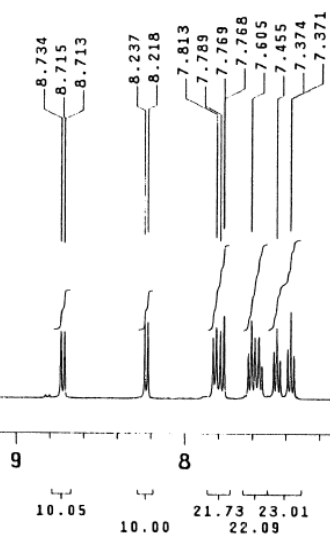
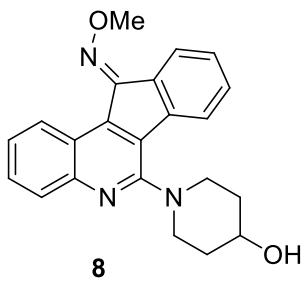
UNITYplus-400 "unity400"

Date: May 8 2012

Solvent: DMSO

Ambient temperature

Total 64 repetitions



ppm

WCH-4376z

Pulse Sequence: s2pu1

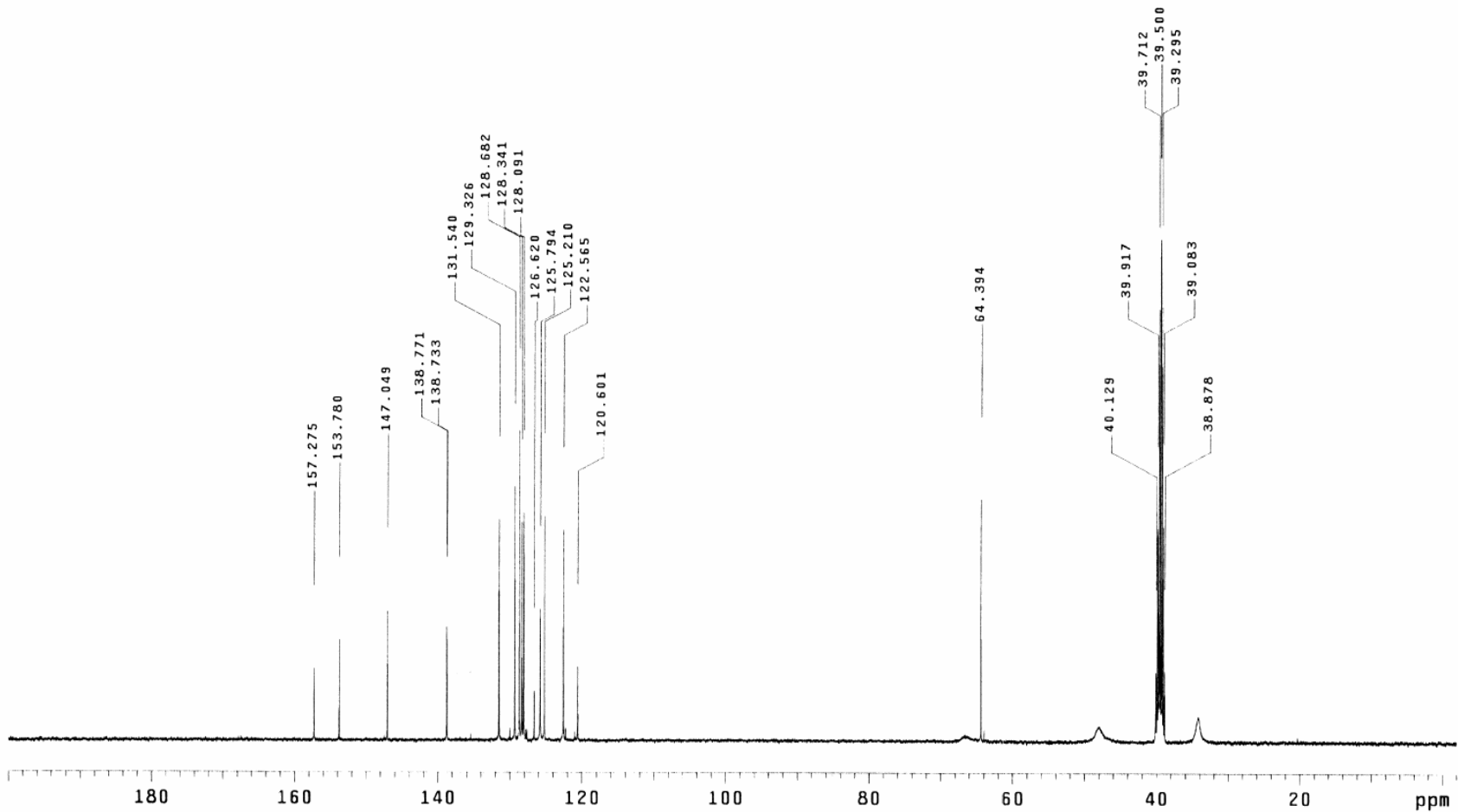
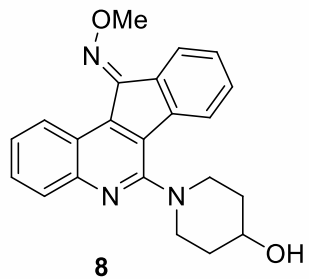
UNITYplus-400 "unity400"

Date: May 8 2012

Solvent: DMSO

Ambient temperature

Total 26720 repetitions



H,H-6-4OHpip-sem

Pulse Sequence: s2pu1

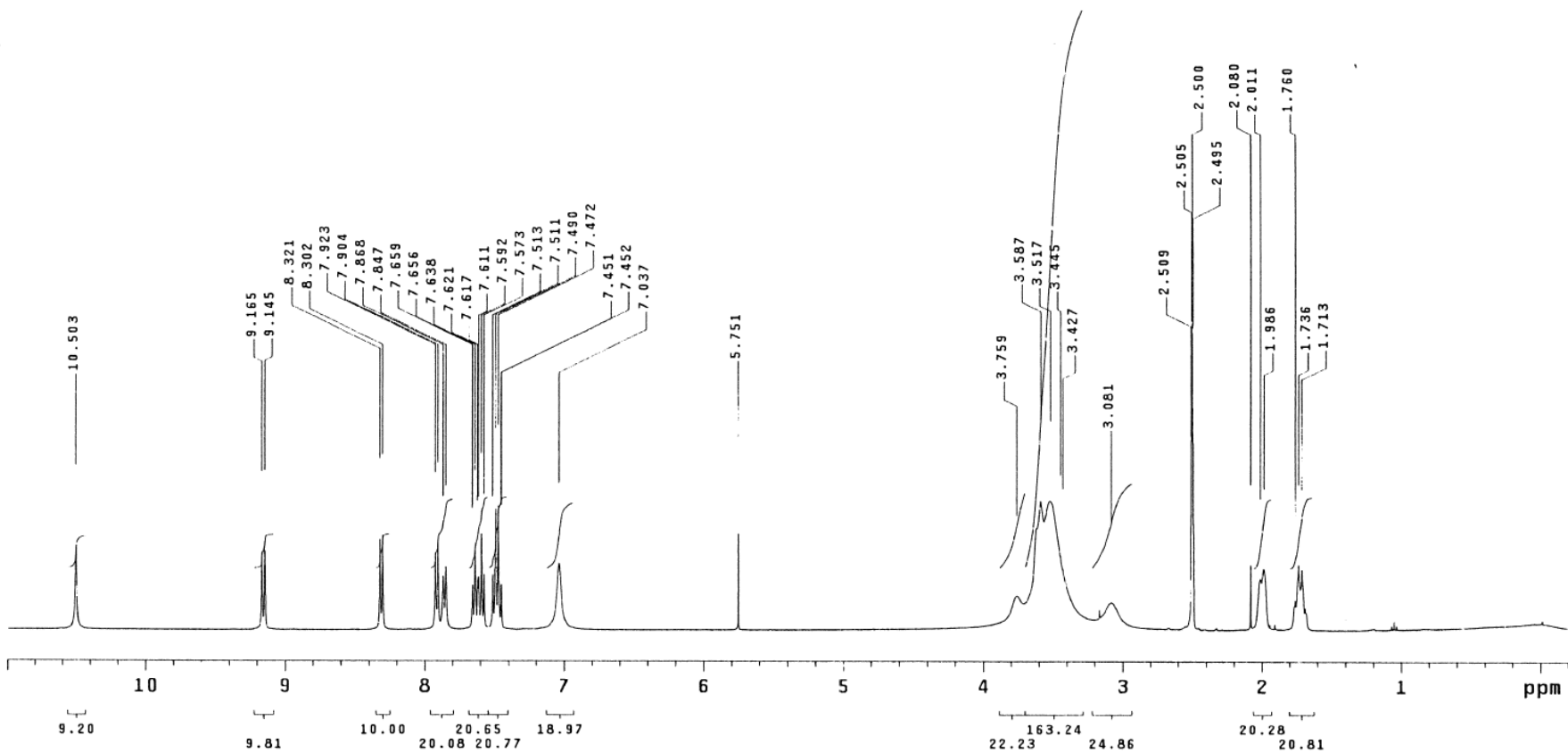
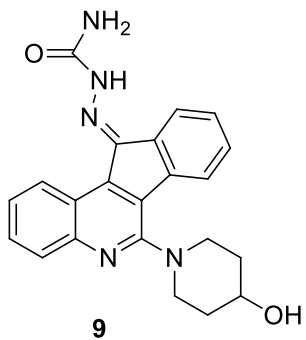
UNITYplus-400 "unity400"

Date: Apr 30 2012

Solvent: DMSO

Ambient temperature

Total 64 repetitions



H,H-6-40Hpip-sem

Pulse Sequence: s2pu1

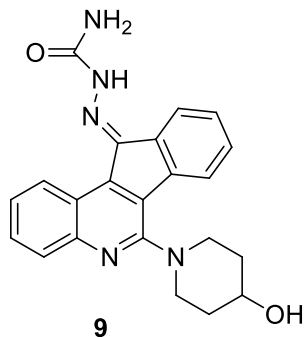
UNITYplus-400 "unity400"

Date: Apr 30 2012

Solvent: DMSO

Ambient temperature

Total 14784 repetitions



181.342

156.570

155.743

143.903

141.515

138.369

136.080

130.387

129.440

128.181

127.802

126.855

125.870

125.748

124.975

122.489

120.654

65.705

54.911

47.793

40.122

39.917

39.705

39.500

39.288

39.083

38.871

34.035

180

160

140

120

100

80

60

40

20

ppm

Thiosemicarbazide

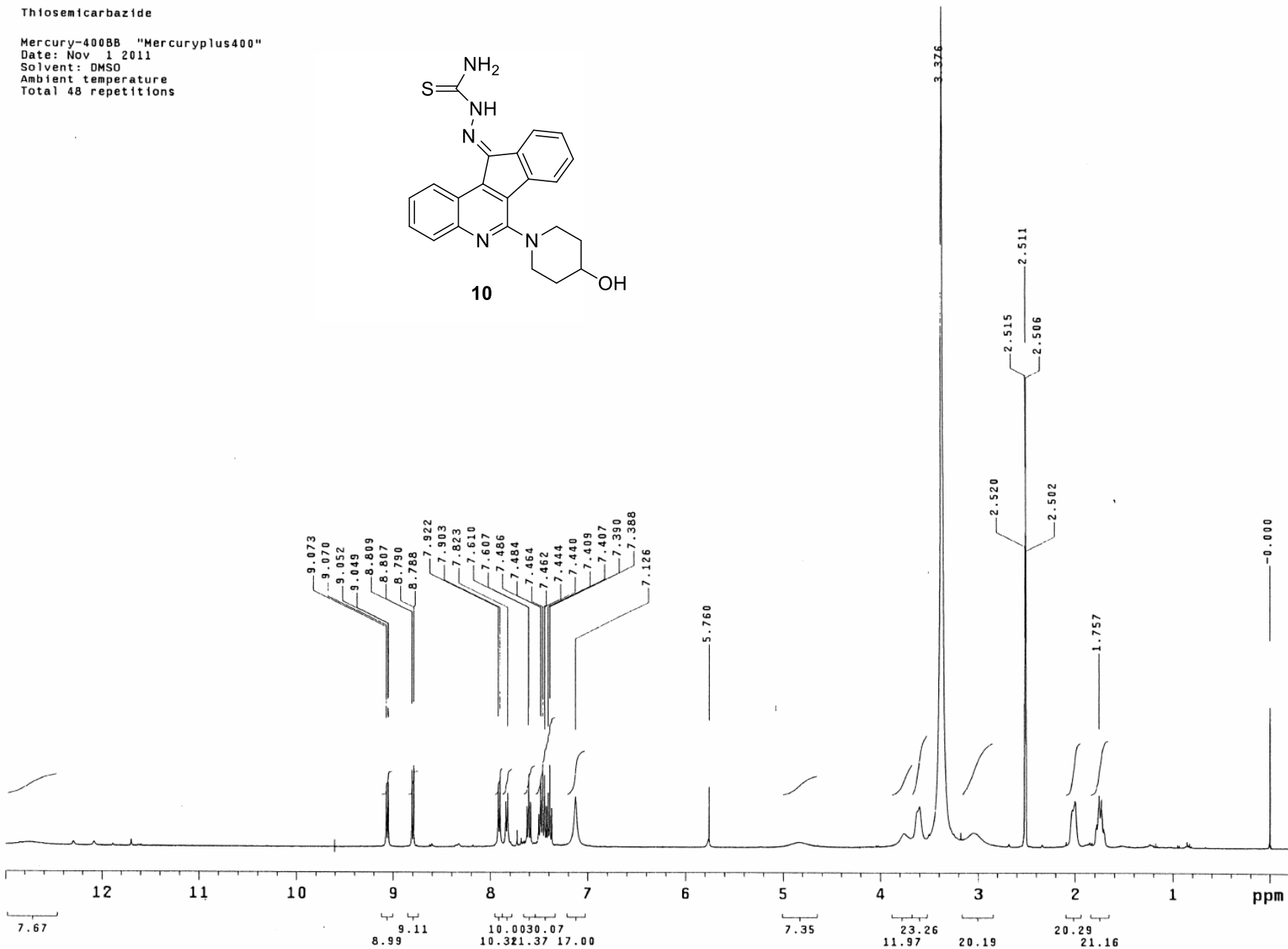
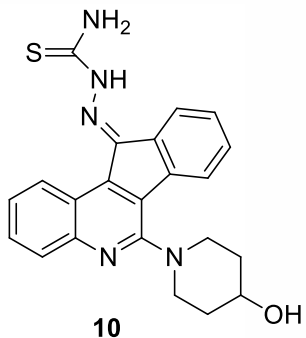
Mercury-400BB "Mercuryplus400"

Date: Nov 1 2011

Solvent: DMSO

Ambient temperature

Total 48 repetitions



Thiosemicarbazide

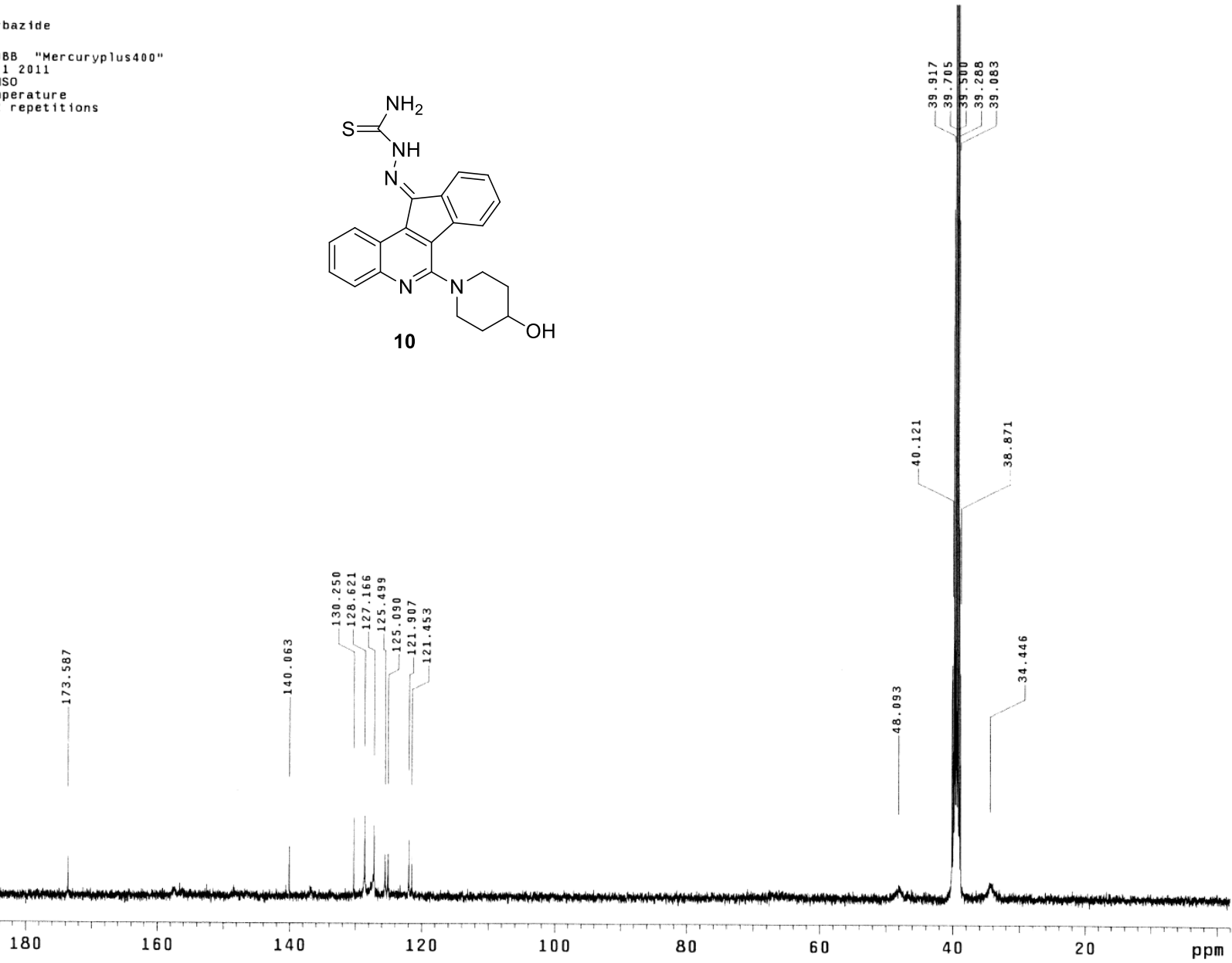
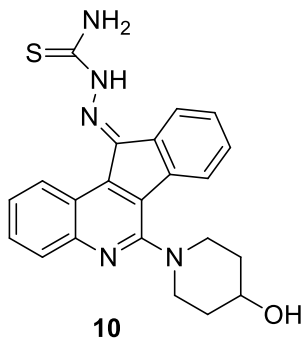
Mercury-400BB "Mercuryplus400"

Date: Nov 1 2011

Solvent: DMSO

Ambient temperature

Total 13712 repetitions



STANDARD 1H OBSERVE

H, H-4OH-piper-11-phenyl

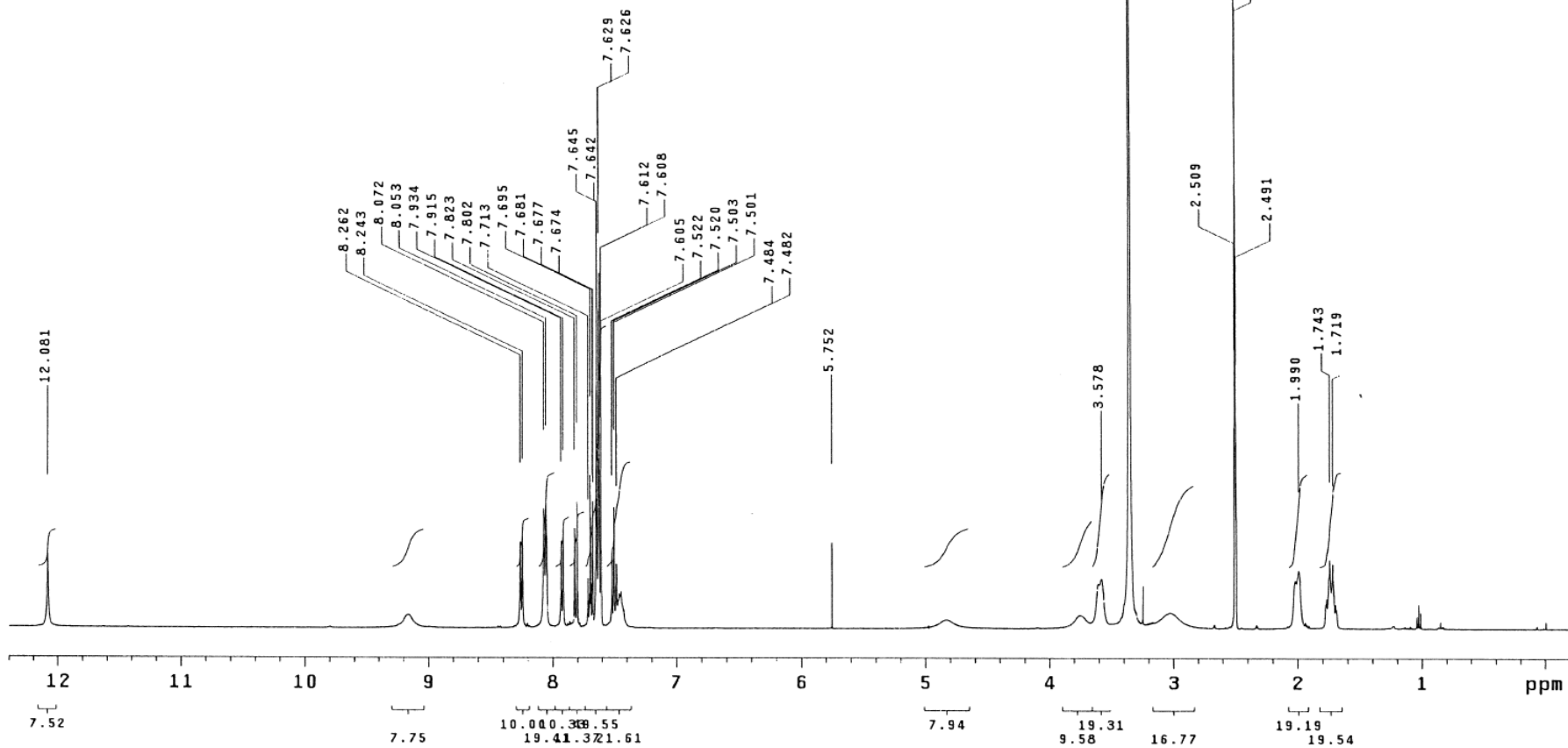
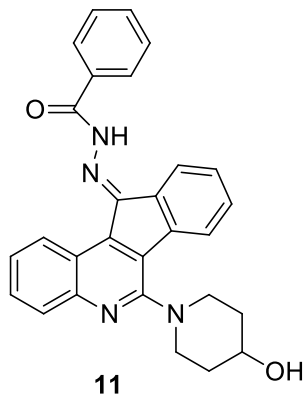
Mercury-400BB "Mercuryplus400"

Date: Oct 12 2011

Solvent: DMSO

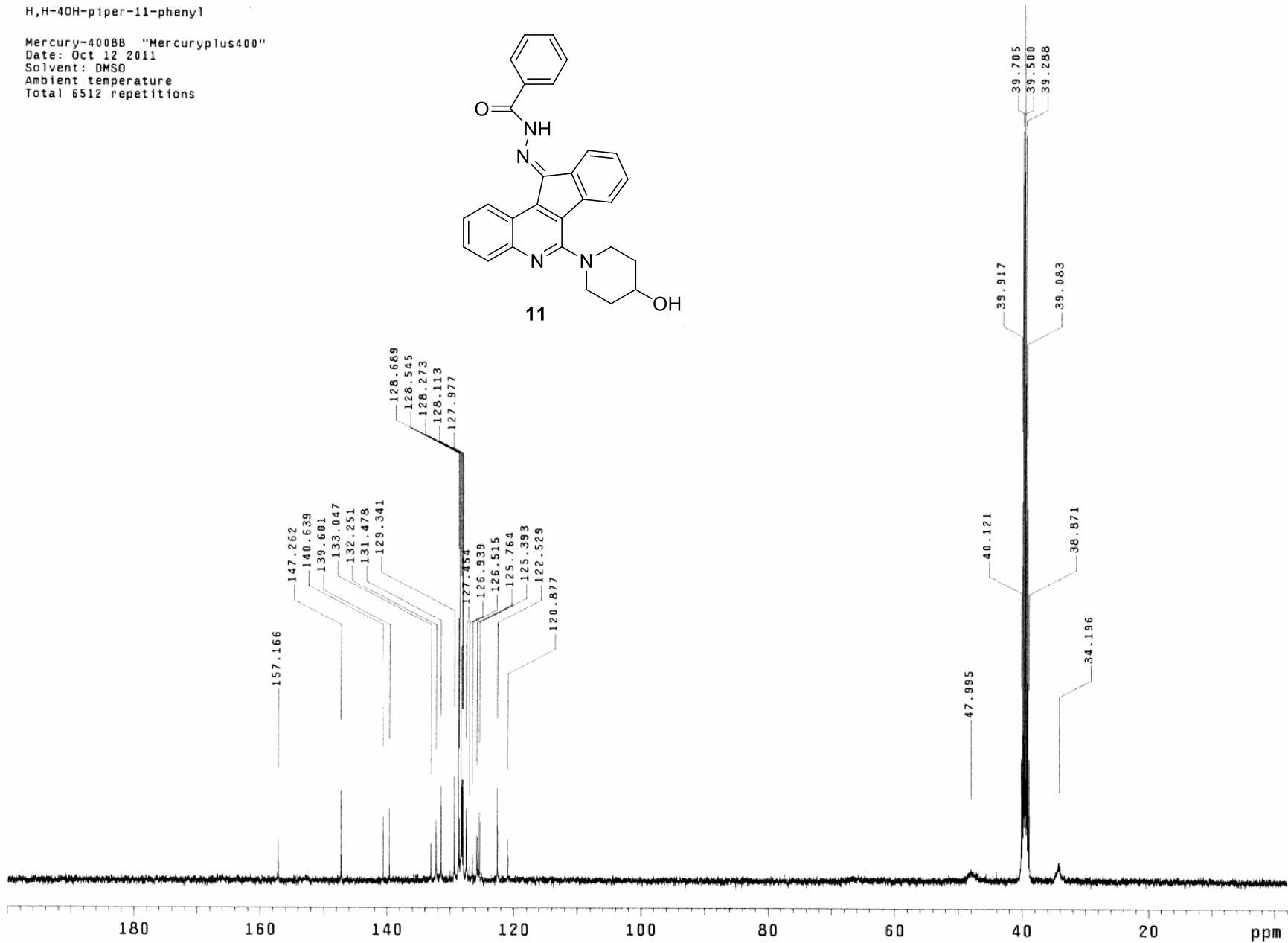
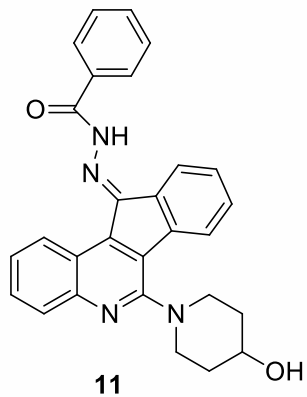
Ambient temperature

Total 80 repetitions



H,H-40H-piper-11-phenyl

Mercury-400BB "Mercuryplus400"
Date: Oct 12 2011
Solvent: DMSO
Ambient temperature
Total 6512 repetitions



H,H-40H-piper-11-iso

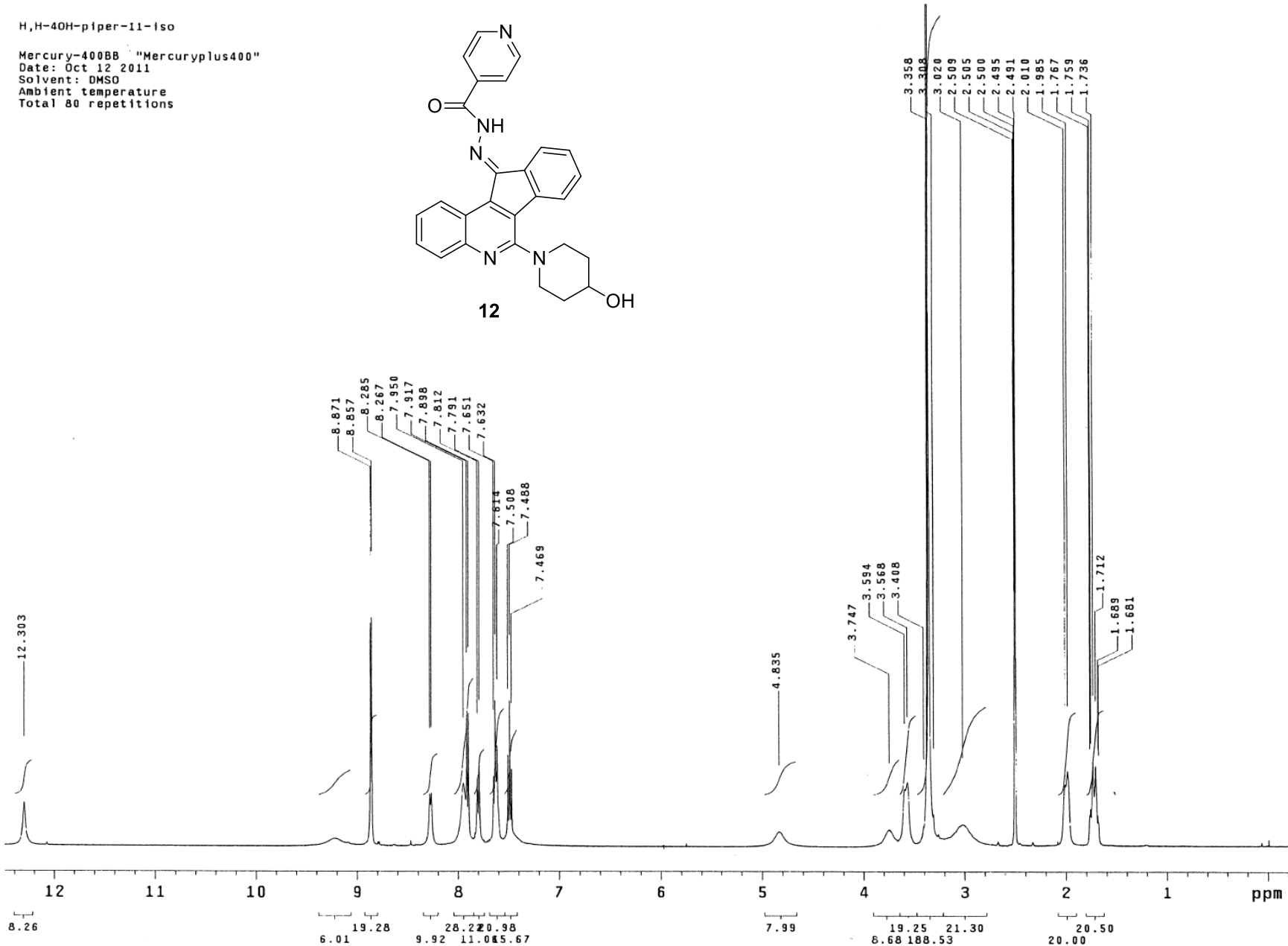
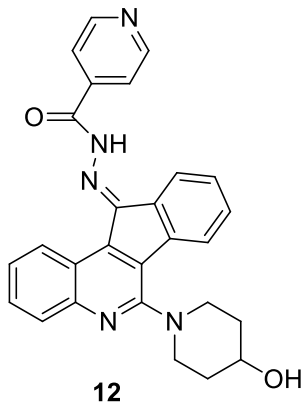
Mercury-400BB "Mercuryplus400"

Date: Oct 12 2011

Solvent: DMSO

Ambient temperature

Total 80 repetitions



H,H-40H-piper-11-iso

Mercury-400BB "Mercuryplus400"

Date: Oct 12 2011

Solvent: DMSO

Ambient temperature

Total 9536 repetitions

