

Supplementary Information

Diversity oriented synthesis of 6-Nitro- and 6-Aminoquinolones and their activity as alkaline phosphatase inhibitors

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^d *Leibniz Institut für Katalyse an der Universität Rostock e.V., Albert Einstein Str. 29a, 18059 Rostock, Germany*

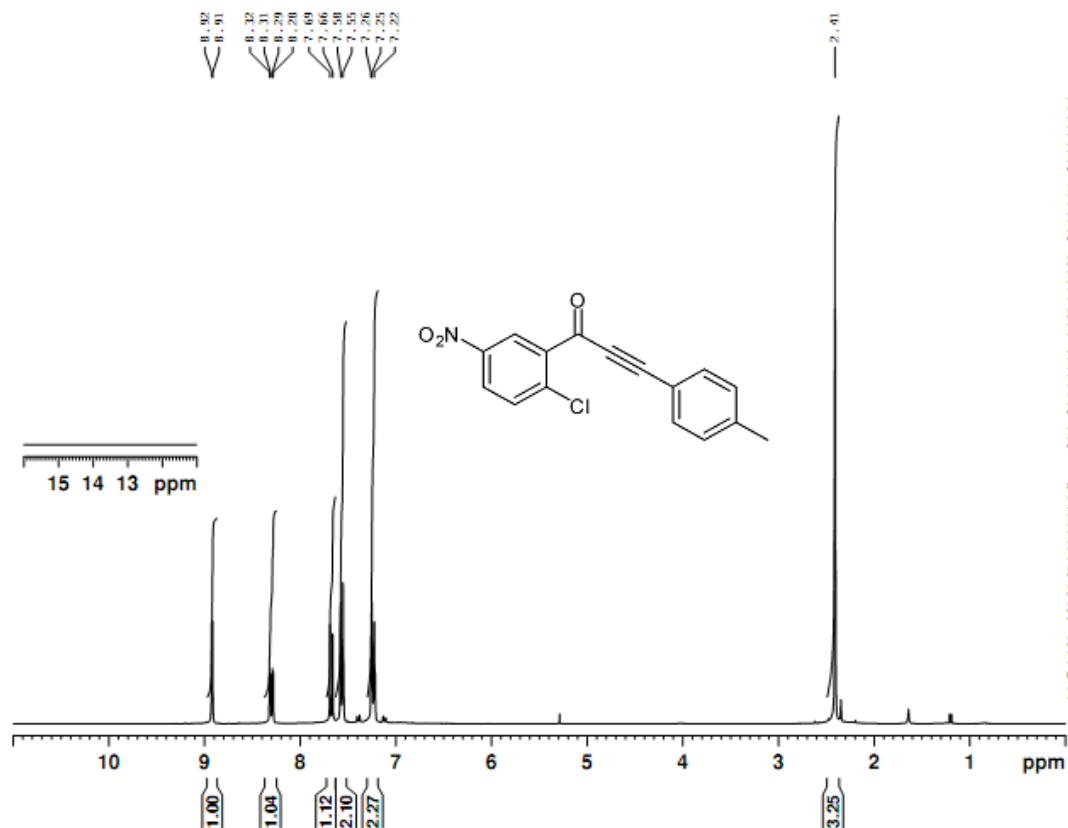
Copies of ¹ H and ¹³ C NMR spectras	1
X-Ray structure of compound 7ab	146
X-Ray structure of compound 7ac.....	147
X-Ray structure of compound 7bd.....	148
X-Ray structure of compound 15	149
X-Ray structure of compound 16.....	150

Copies of ¹H and ¹³C NMR spectras

1-(2-Chloro-5-nitrophenyl)-3-*p*-tolylprop-2-yn-1-one (6a).

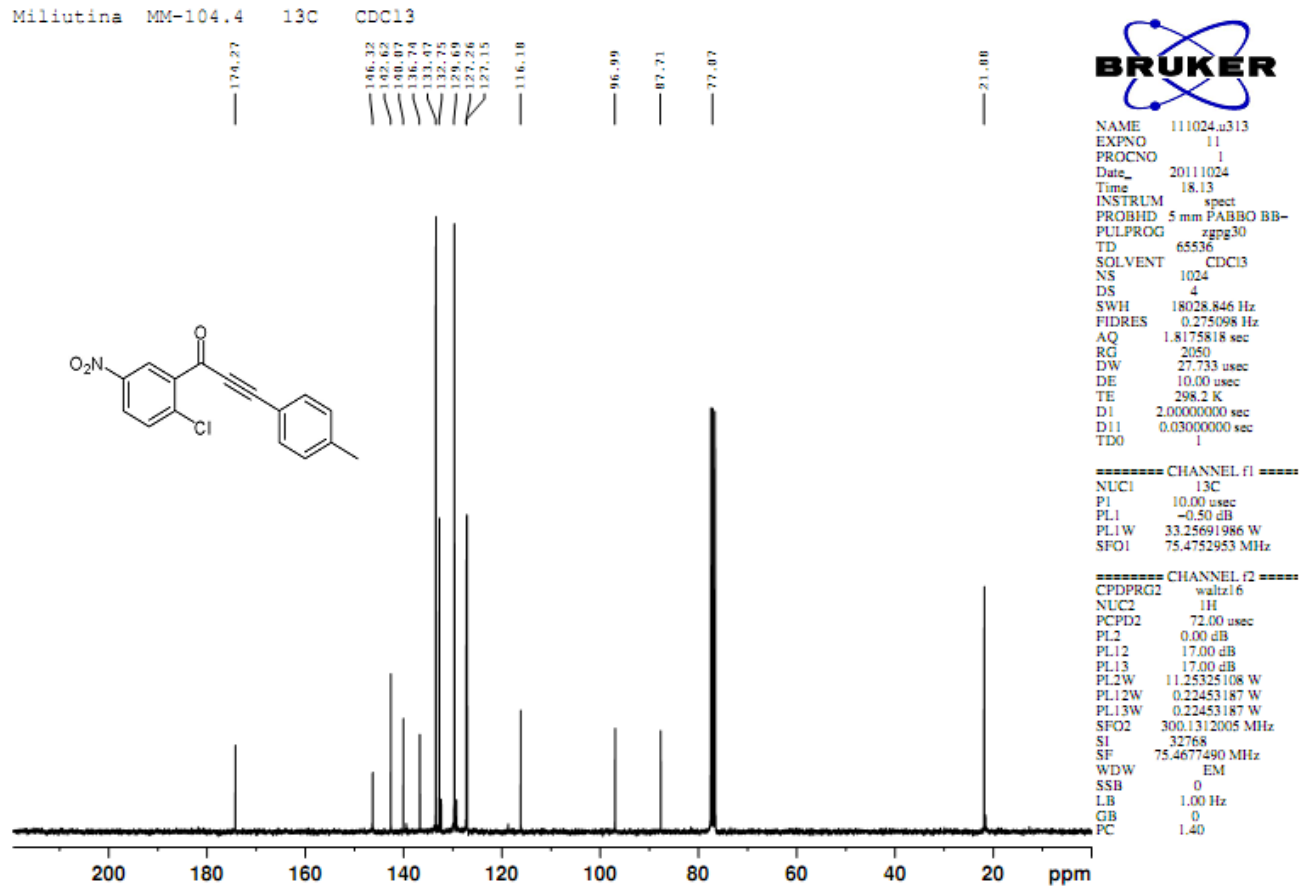
Miliutina MM-104.4 1H CDC13

8.91	8.21	7.98	7.66	7.55	7.25	7.22
∨	∨	∨	∨	∨	∨	∨



NAME 111020.u320
 EXPNO 10
 PROCNO 1
 Date_ 20111020
 Time 13.31
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 6188.119 Hz
 FIDRES 0.094423 Hz
 AQ 5.2953587 sec
 RG 80.6
 DW 80.800 usec
 DE 10.00 usec
 TE 296.0 K
 D1 1.00000000 sec
 TDO 1

===== CHANNEL f1 =====
 NUC1 1H
 P1 10.00 usec
 PL1 0.00 dB
 PL1W 11.25325108 W
 SFO1 300.1318534 MHz
 SI 32768
 SF 300.1300086 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1-(2-Chloro-5-nitrophenyl)-3-*p*-tolylprop-2-yn-1-one (6a).

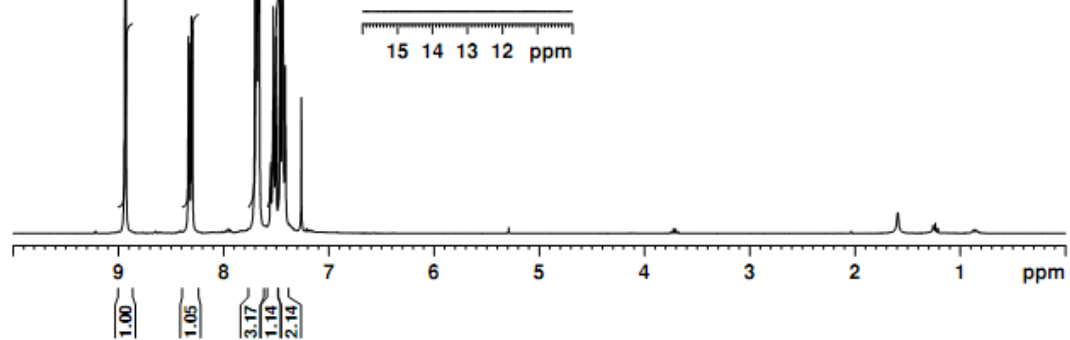
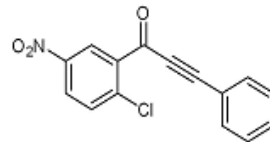
1-(2-Chloro-5-nitrophenyl)-3-phenylprop-2-yn-1-one (6b).

Miliutina MM-78 1H CDCl3

8.93
8.93
8.33
8.33
8.30
8.30
7.70
7.62
7.66
7.55
7.55
7.53
7.53
7.51
7.51
7.49
7.49
7.41
7.41
7.26



NAME 110606.u335
EXPNO 10
PROCNO 1
Date_ 20110606
Time 14.51
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 16
DS 2
SWH 6188.119 Hz
FIDRES 0.094423 Hz
AQ 5.2953587 sec
RG 114
DW 80.800 usec
DE 10.00 usec
TE 298.6 K
D1 1.0000000 sec
TD0 1

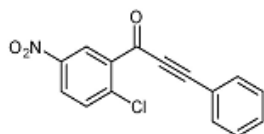


===== CHANNEL f1 =====
NUC1 1H
P1 10.00 usec
PL1 0.00 dB
PL1W 11.25325108 W
SFO1 300.1318534 MHz
SI 32768
SF 300.1300094 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

1-(2-Chloro-5-nitrophenyl)-3-phenylprop-2-yn-1-one (6b).

Miliutina MM-78.3 13C CDCl3

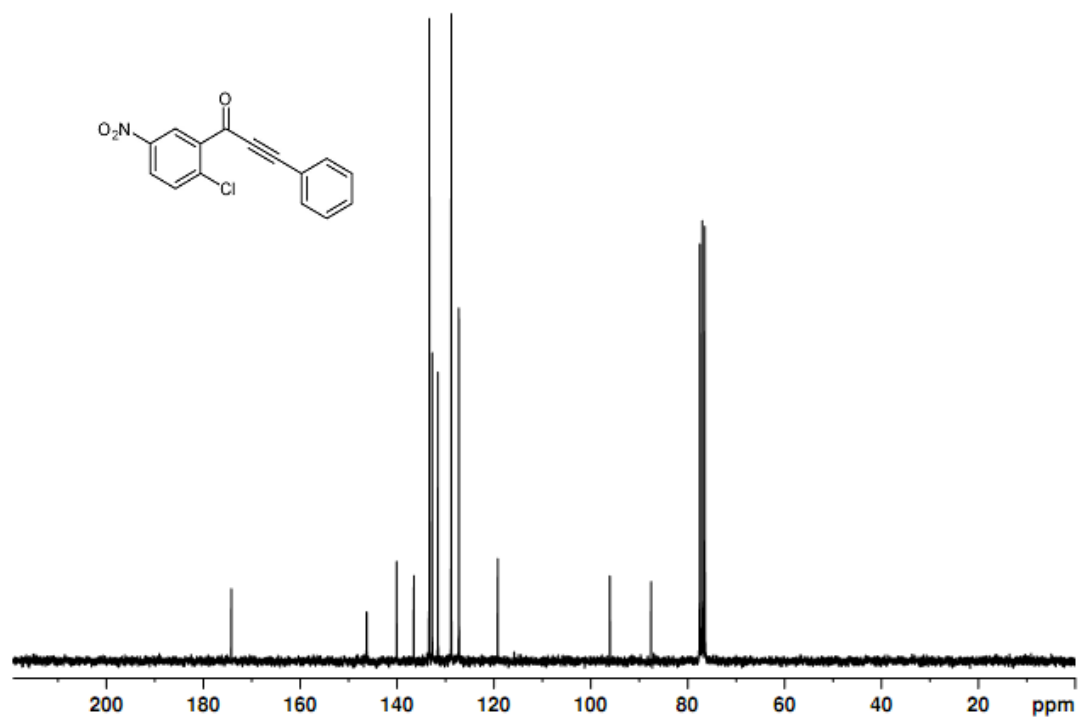
174.24
 146.32
 140.11
 136.58
 133.38
 132.77
 131.60
 129.75
 127.23
 119.28
 96.12
 87.62
 77.03



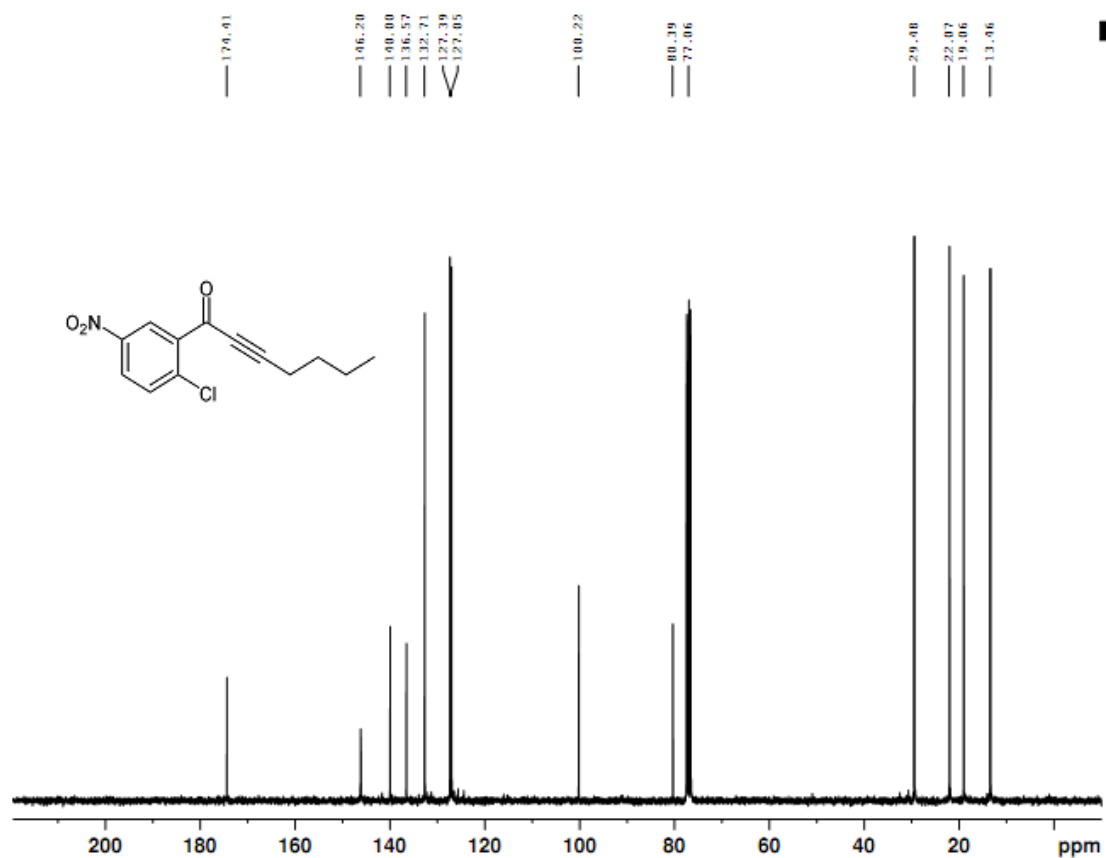
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 PROCNO 1
 Date_ 20110716
 Time 21.29
 INSTRUM spect
 PROBHD 5 mm F4BBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 1024
 DS 4
 SWH 15000.000 Hz
 FIDRES 0.228882 Hz
 AQ 2.1845834 sec
 RG 1620
 DW 33.333 usec
 DE 10.00 usec
 TE 298.3 K
 D1 2.0000000 sec
 d11 0.0300000 sec
 DELTA 1.89999998 sec
 TD0 1

==== CHANNEL f1 ====
 NUC1 13C
 P1 10.00 usec
 PL1 -1.00 dB
 SFO1 62.9015280 MHz

==== CHANNEL f2 ====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 70.00 usec
 PL12 15.00 dB
 PL13 15.00 dB
 PL2 -2.50 dB
 SFO2 250.1310005 MHz
 S1 32768
 SF 62.8952390 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40



1-(2-chloro-5-nitrophenyl)hept-2-yn-1-one (6c).

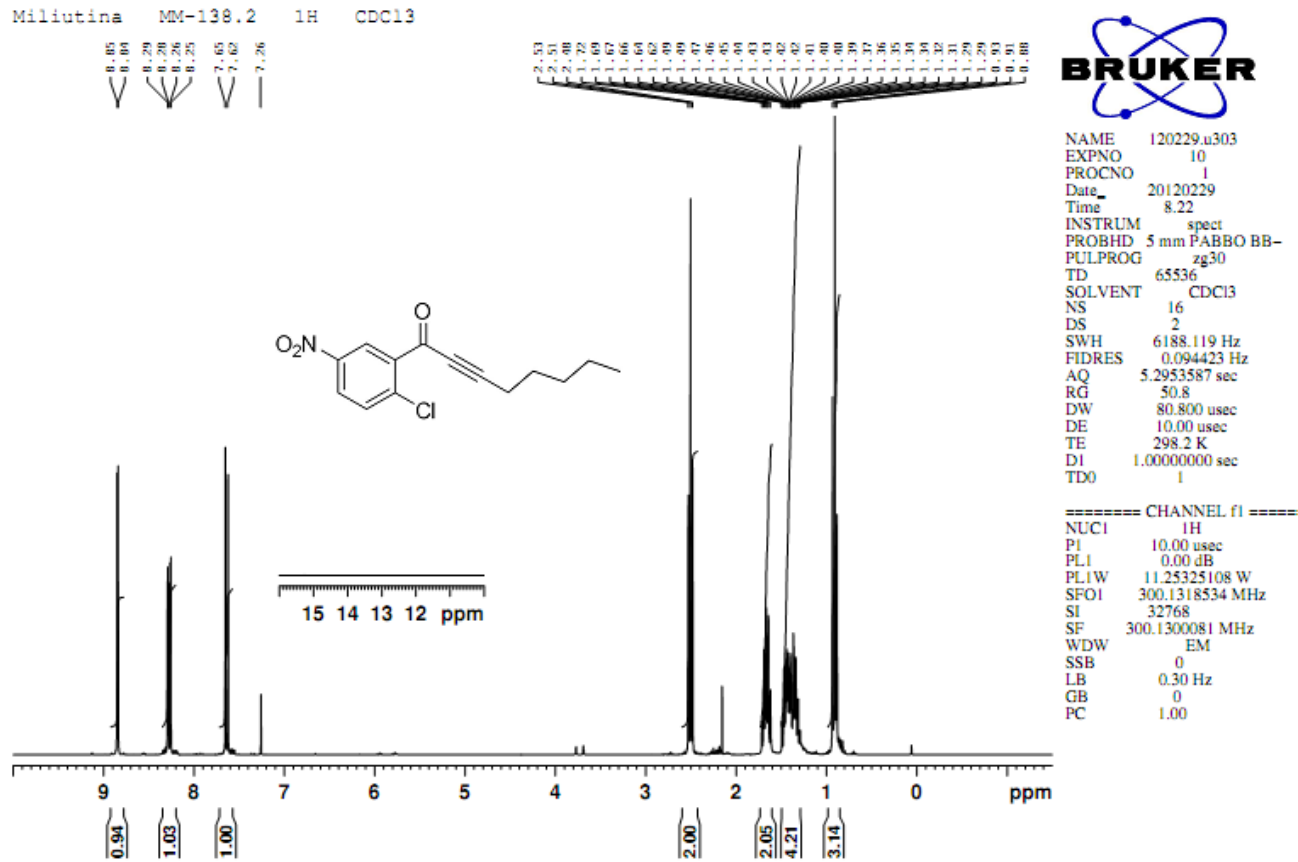
Miliutina, MM-88.4, CDCl₃, 13C

NAME 120113.u320
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 PROCNO 1
 Date_ 20120114
 Time 15.13
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl₃
 NS 1024
 DS 4
 SWH 18028.846 Hz
 FIDRES 0.275098 Hz
 AQ 1.8175818 sec
 RG 2050
 DW 27.733 usec
 DE 10.00 usec
 TE 298.2 K
 D1 2.0000000 sec
 D11 0.03000000 sec
 TDO 1

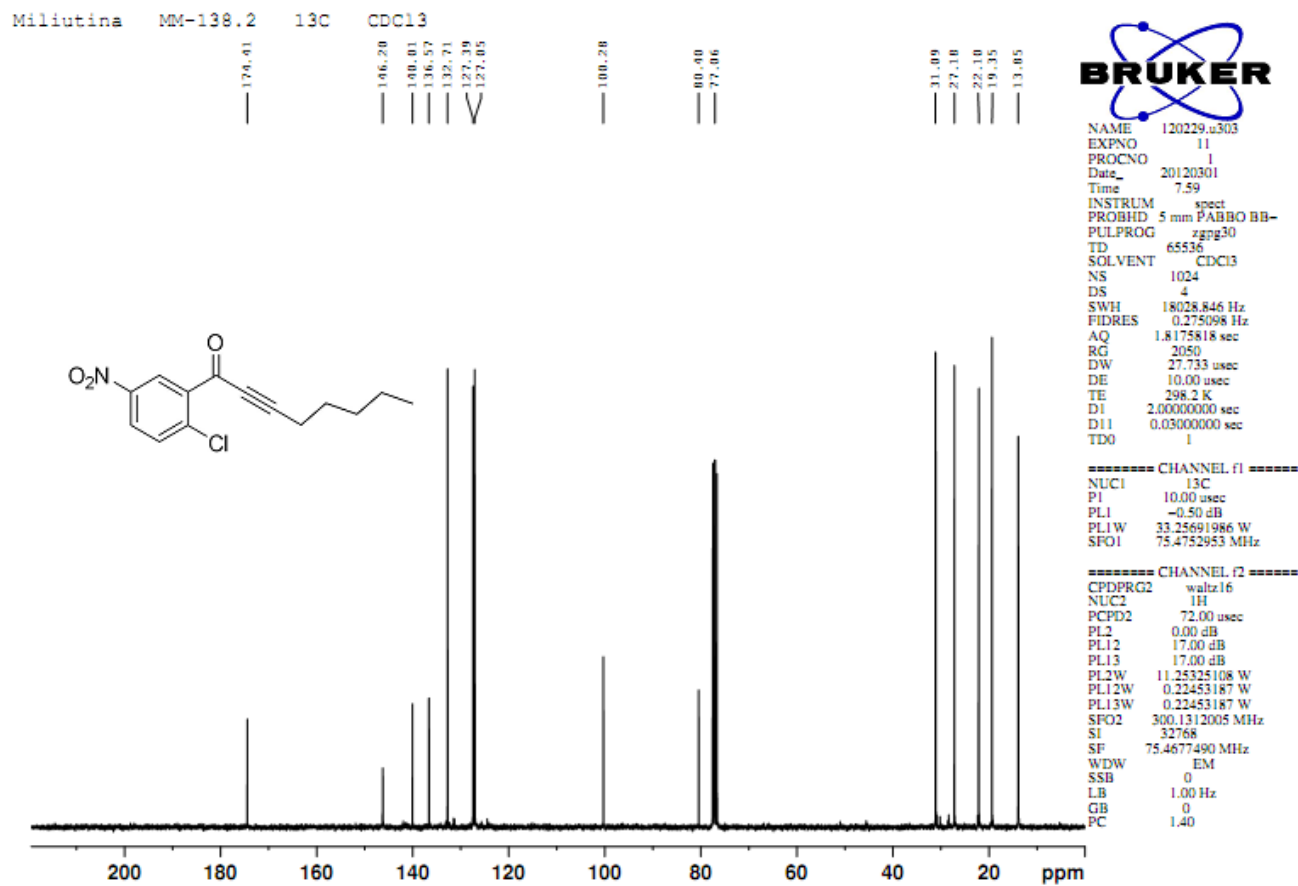
===== CHANNEL f1 =====
 NUC1 13C
 P1 10.00 usec
 PL1 -0.50 dB
 PL1W 33.25691986 W
 SFO1 75.4752953 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 72.00 usec
 PL2 0.00 dB
 PL12 17.00 dB
 PL13 17.00 dB
 PL2W 11.25325108 W
 PL12W 0.22453187 W
 PL13W 0.22453187 W
 SFO2 300.1312005 MHz
 SI 32768
 SF 75.4677490 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1-(2-chloro-5-nitrophenyl)oct-2-yn-1-one (6d).

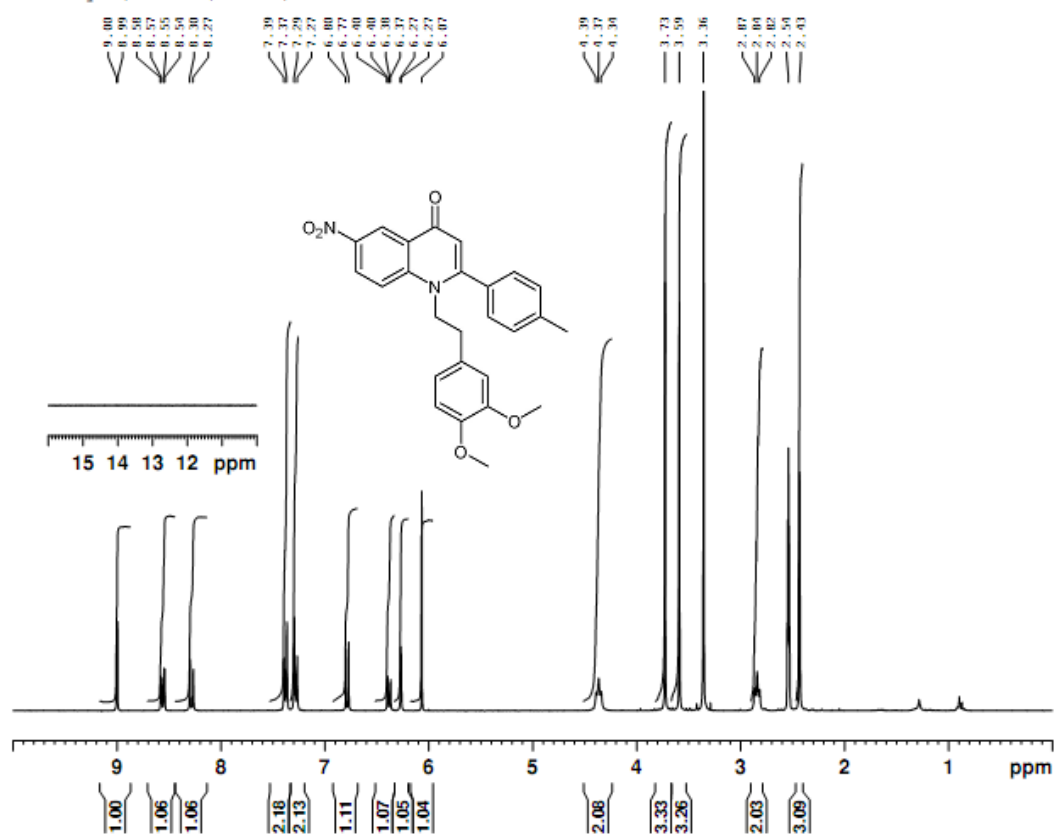


1-(2-chloro-5-nitrophenyl)oct-2-yn-1-one (6d).



1-(3,4-Dimethoxyphenethyl)-6-nitro-2-p-tolylquinolin-4(1H)-one (7aa).

Mkrtchyan, MM109, DMSO, 1H

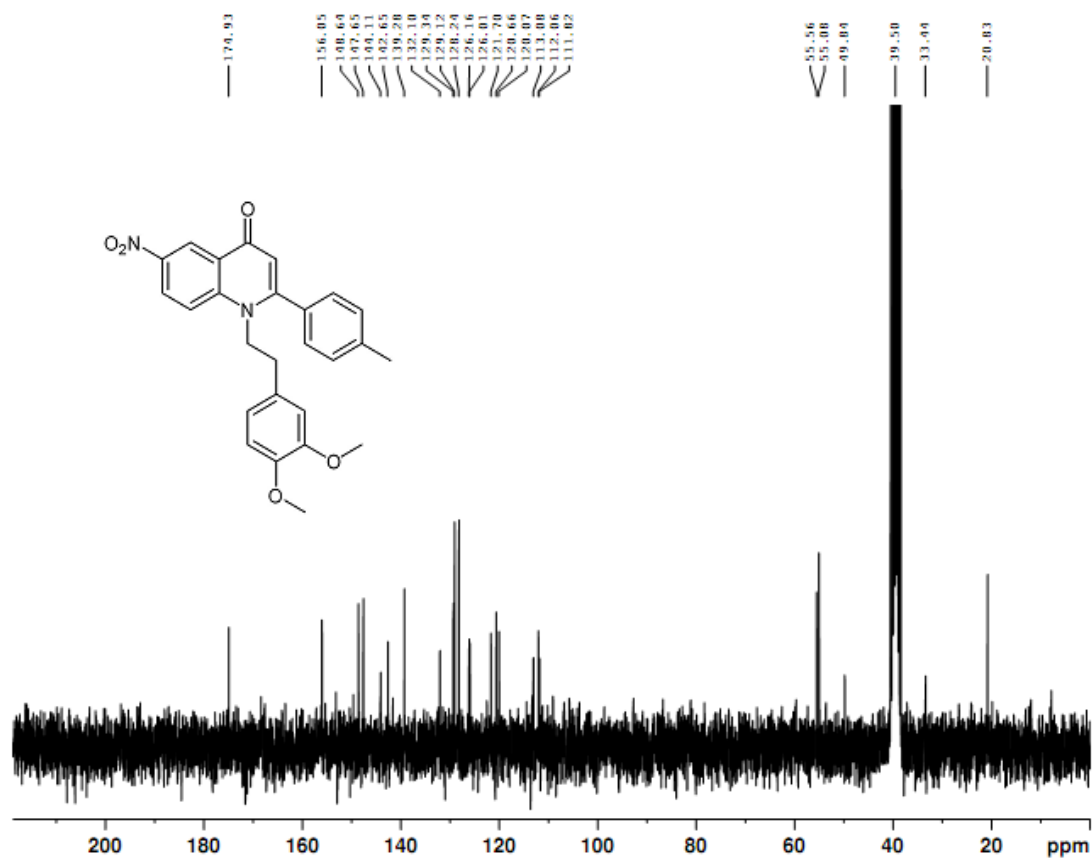


NAME 110819.u331
 EXPNO 10
 PROCNO 1
 Date_ 20110819
 Time 11.49
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 16
 DS 2
 SWH 6188.119 Hz
 FIDRES 0.094423 Hz
 AQ 5.2953587 sec
 RG 322
 DW 80.800 usec
 DE 10.00 usec
 TE 298.2 K
 D1 1.00000000 sec
 TD0 1

===== CHANNEL f1 =====
 NUC1 1H
 P1 10.00 usec
 PL1 0.00 dB
 PL1W 11.25325108 W
 SFO1 300.1318534 MHz
 SI 32768
 SF 300.1299951 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1-(3,4-Dimethoxyphenethyl)-6-nitro-2-p-tolylquinolin-4(1H)-one (7aa).

Mkrtchyan, MM-109, DMSO, 13C

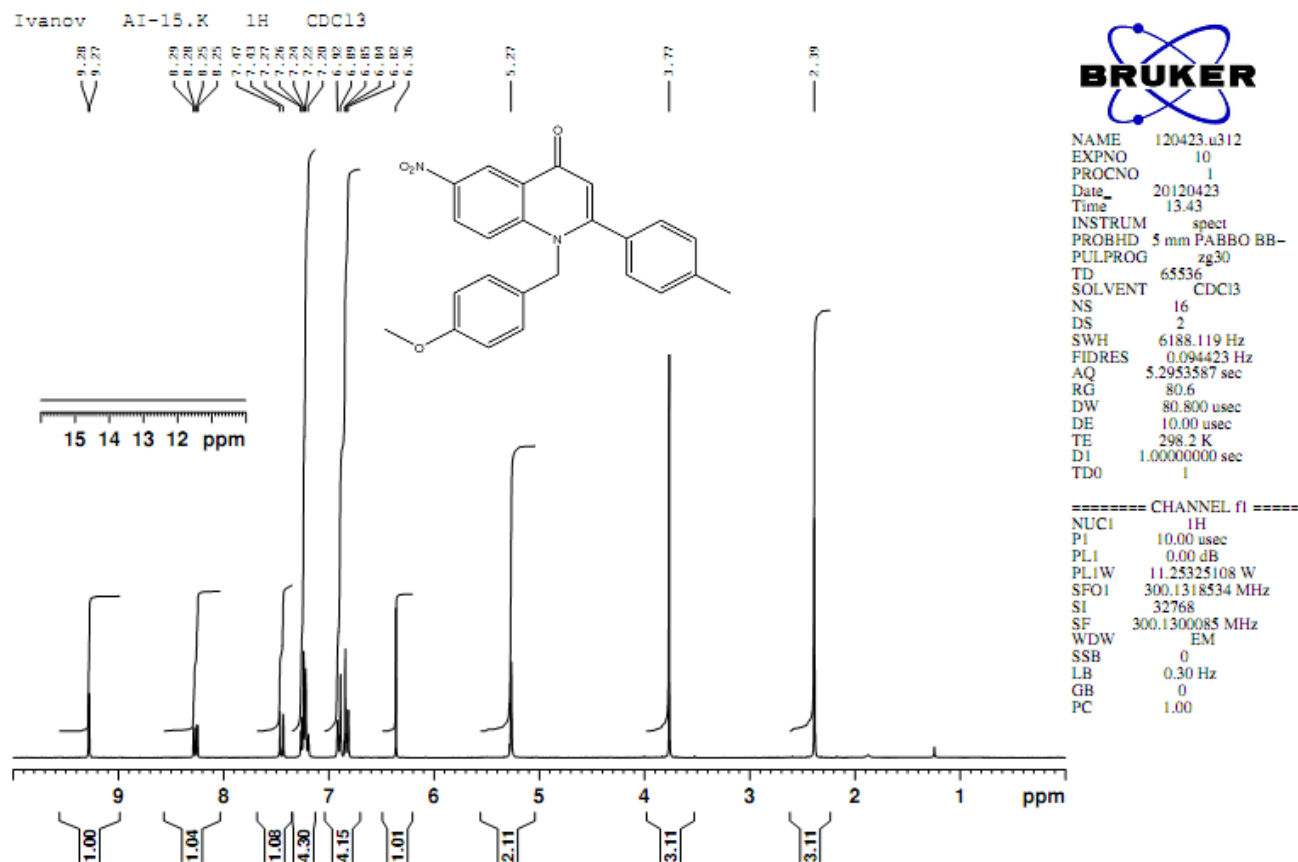


NAME 110819.217
 EXPNO 10
 PROCNO 1
 Date_ 20110821
 Time 13.36
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 1024
 DS 4
 SWH 15000.000 Hz
 FIDRES 0.228882 Hz
 AQ 2.1845834 sec
 RG 2050
 DW 33.333 usec
 DE 10.00 usec
 TE 298.4 K
 D1 2.0000000 sec
 d11 0.0300000 sec
 DELTA 1.8999999 sec
 TD0 1

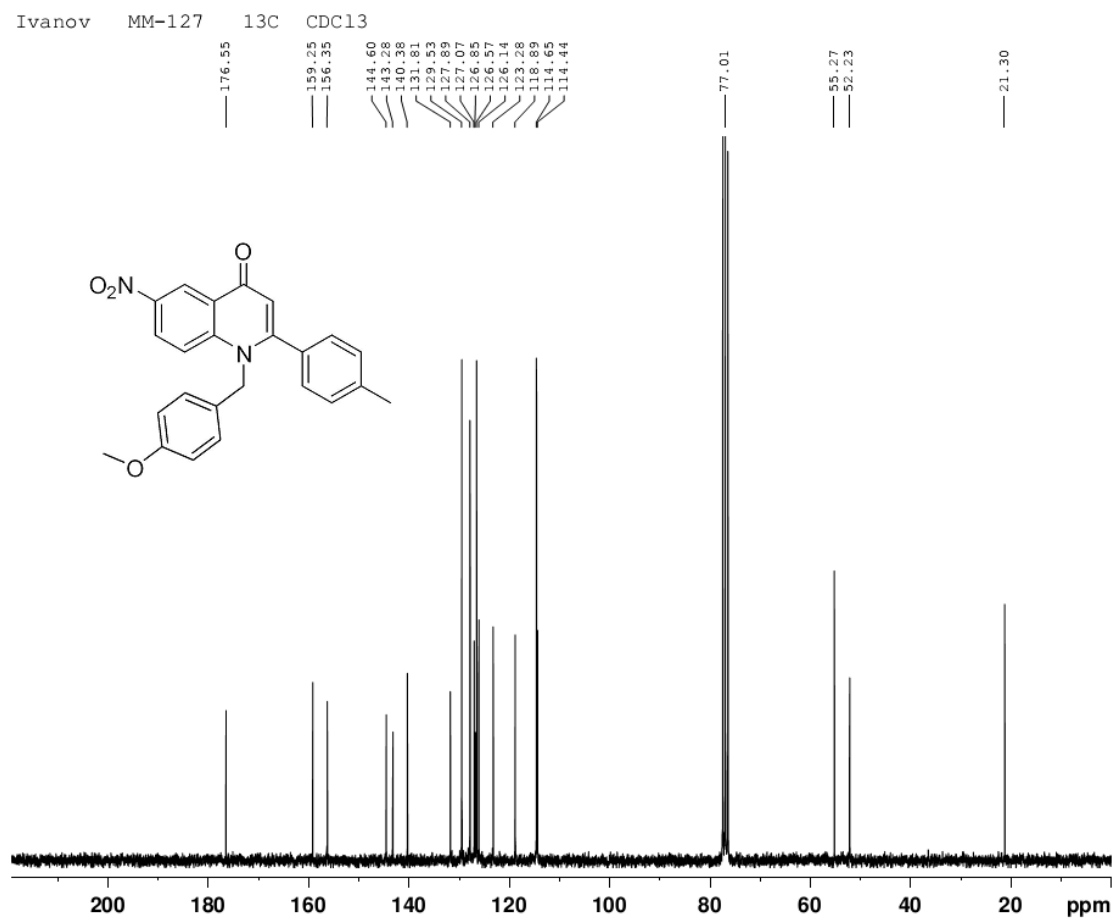
===== CHANNEL f1 =====
 NUC1 13C
 P1 10.00 usec
 PL1 -1.00 dB
 SFO1 62.9015280 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 70.00 usec
 PL12 15.00 dB
 PL13 15.00 dB
 PL2 -2.50 dB
 SFO2 250.1310005 MHz
 SI 32768
 SF 62.8952692 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1-(4-Methoxybenzyl)-6-nitro-2-p-tolylquinolin-4(1H)-one (7ab).



1-(4-methoxybenzyl)-6-nitro-2-p-tolylquinolin-4(1H)-one (7ab).



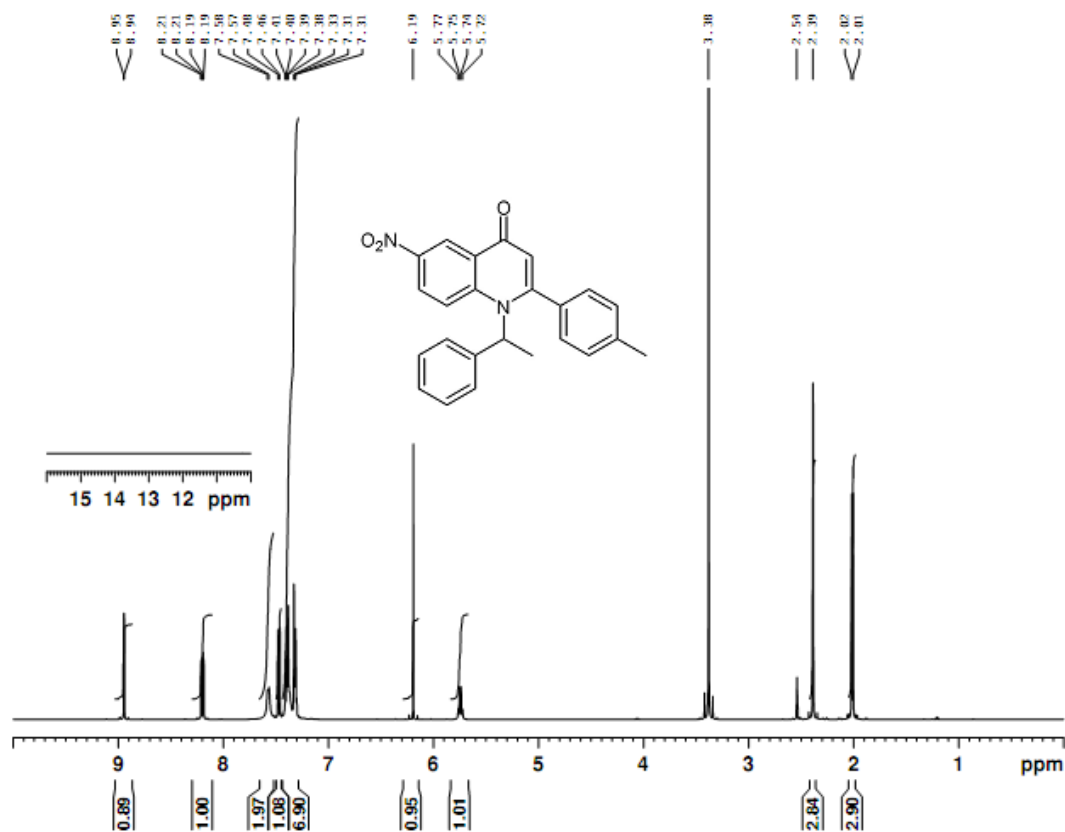
NAME 120424.202
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 Time 11.47
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 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDC13
 NS 1024
 DS 4
 SWH 15000.000 Hz
 FIDRES 0.228882 Hz
 AQ 2.1845834 sec
 RG 1440
 DW 33.333 usec
 DE 10.00 usec
 TE 299.7 K
 D1 2.00000000 sec
 d11 0.03000000 sec
 DELTA 1.89999998 sec
 TD0 1

==== CHANNEL f1 ====
 NUC1 13C
 P1 10.00 usec
 PL1 -1.00 dB
 SFO1 62.9015280 MHz

==== CHANNEL f2 ====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 70.00 usec
 PL12 15.00 dB
 PL13 15.00 dB
 PL2 -2.50 dB
 SFO2 250.1310005 MHz
 SI 32768
 SF 62.8952402 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

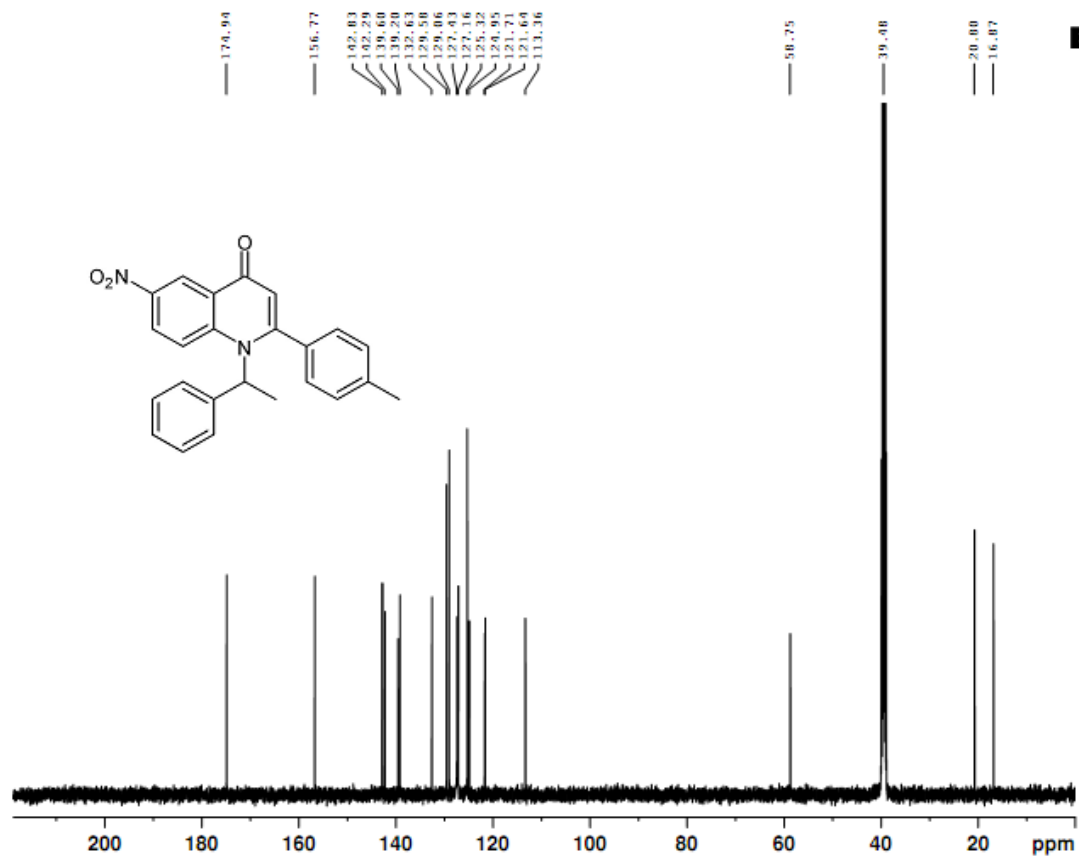
(R)-6-Nitro-1-(1-phenylethyl)-2-p-tolylquinolin-4(1H)-one (7ac).

Miliutina Mariia, MM-118, 1H, DMSO



NAME 120201.501
 EXPNO 10
 PROCNO 1
 Date_ 20120201
 Time 9.12
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 16
 DS 2
 SWH 10330.578 Hz
 FIDRES 0.157632 Hz
 AQ 3.1720407 sec
 RG 114
 DW 48.400 usec
 DE 6.50 usec
 TE 300.0 K
 D1 1.0000000 sec
 TD0 1

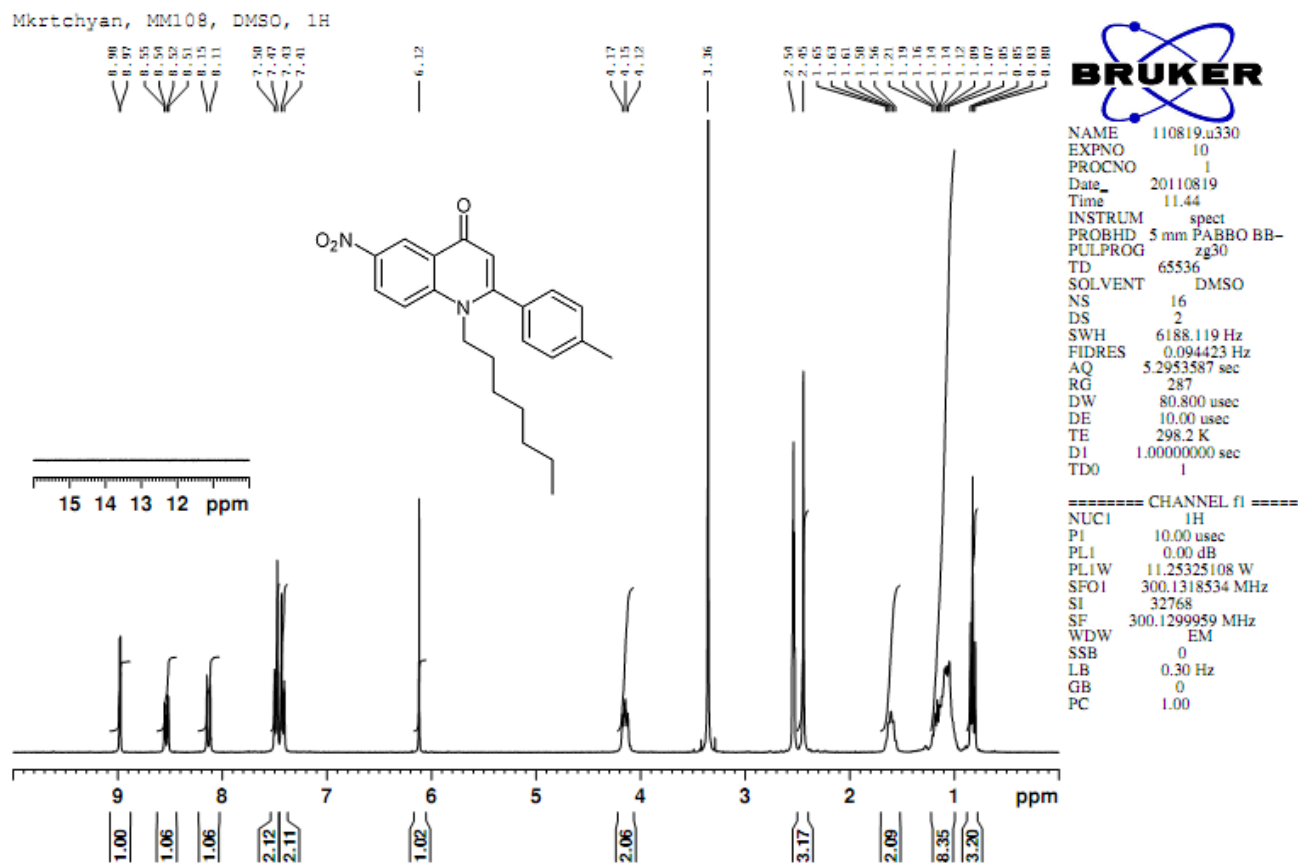
===== CHANNEL f1 =====
 NUC1 1H
 P1 9.80 usec
 PL1 -3.00 dB
 SFO1 500.1330885 MHz
 SI 32768
 SF 500.1299838 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

(R)-6-Nitro-1-(1-phenylethyl)-2-p-tolylquinolin-4(1H)-one (7ac).Miliutina Mariia, MM-118, ¹³C, DMSO

NAME 120201.501
 EXPNO 13
 PROCNO 1
 Date_ 20120201
 Time 10.54
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 512
 DS 4
 SWH 30030.029 Hz
 FIDRES 0.458222 Hz
 AQ 1.0912410 sec
 RG 1149.4
 DW 16.650 usec
 DE 6.50 usec
 TE 300.0 K
 D1 2.0000000 sec
 D11 0.03000000 sec
 TD0 1

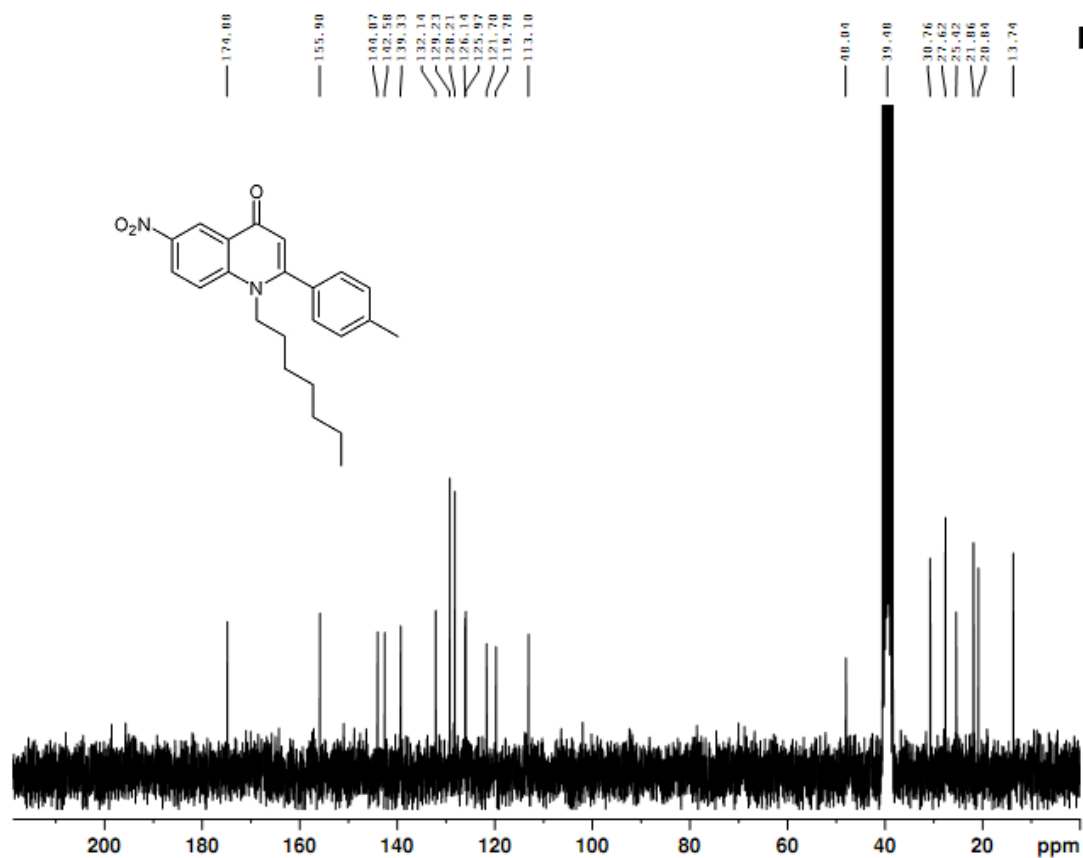
===== CHANNEL f1 =====
 NUC1 ¹³C
 P1 9.00 usec
 PL1 4.50 dB
 SFO1 125.7703643 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 ¹H
 PCPD2 70.00 usec
 PL2 -3.00 dB
 PL12 14.08 dB
 PL13 120.00 dB
 SFO2 500.1320005 MHz
 S1 32768
 SF 125.7578541 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1-Heptyl-6-nitro-2-*p*-tolylquinolin-4(1*H*)-one (7ad).

1-Heptyl-6-nitro-2-*p*-tolylquinolin-4(1*H*)-one (7ad).

Mkrtchyan, MM-108, DMSO, 13C



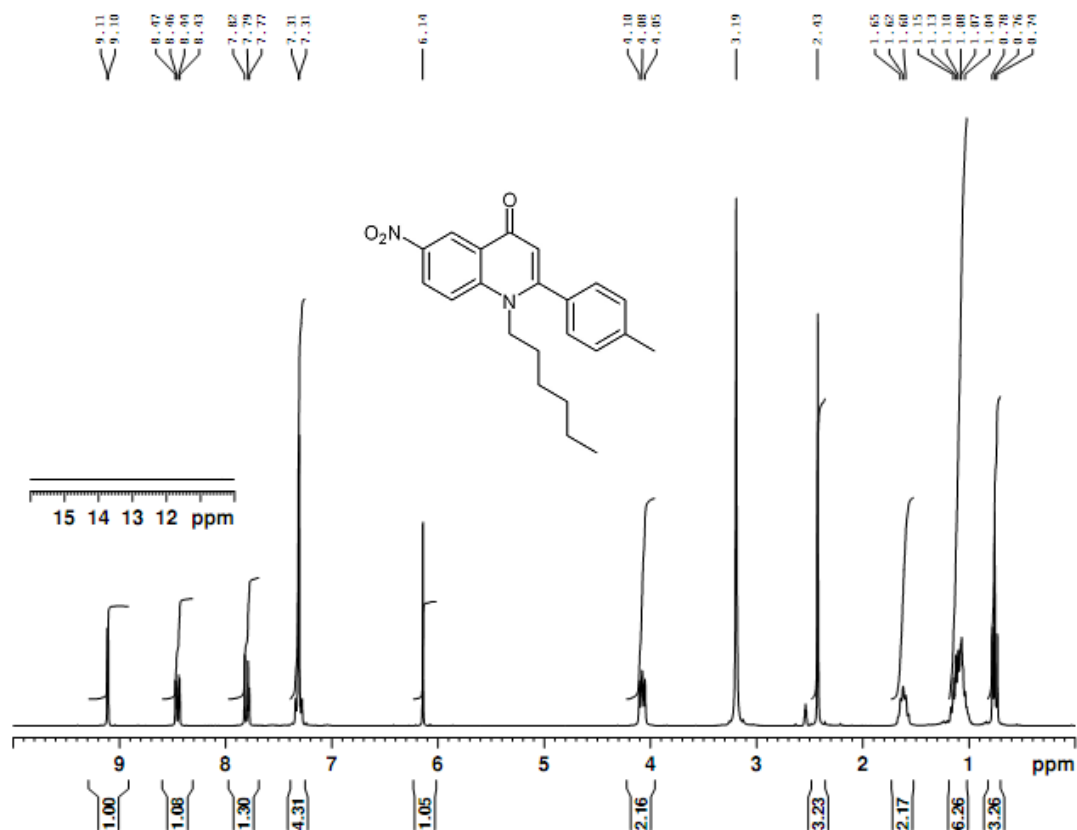
NAME 110819.216
 EXPNO 10
 PROCNO 1
 Date_ 20110821
 Time 11.58
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 1024
 DS 4
 SWH 15000.000 Hz
 FIDRES 0.228882 Hz
 AQ 2.1845834 sec
 RG 2050
 DW 33.333 usec
 DE 10.00 usec
 TE 298.0 K
 D1 2.0000000 sec
 d11 0.0300000 sec
 DELTA 1.89999998 sec
 TD0 1

===== CHANNEL f1 =====
 NUC1 13C
 P1 10.00 usec
 PL1 -1.00 dB
 SFO1 62.9015280 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 70.00 usec
 PL12 15.00 dB
 PL13 15.00 dB
 PL2 -2.50 dB
 SFO2 250.1310005 MHz
 SF 32768
 SF 62.8952704 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1-Hexyl-6-nitro-2-p-tolylquinolin-4(1H)-one (7ae).

Miliutina MM-107 1H CDC13/ DMSO(6:1)

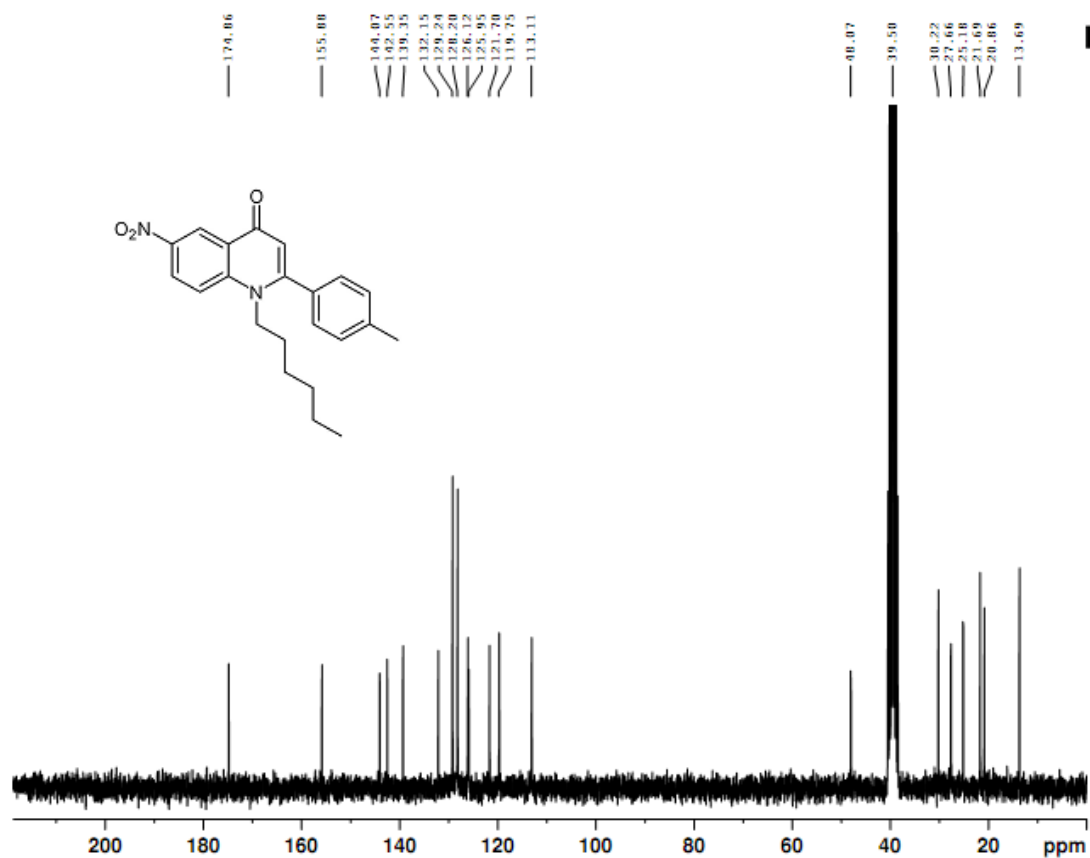


NAME 120131_u302
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 PROCNO 1
 Date_ 20120131
 Time 7.49
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 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 32
 DS 2
 SWH 9014.423 Hz
 FIDRES 0.137549 Hz
 AQ 3.6351135 sec
 RG 128
 DW 55.467 usec
 DE 10.00 usec
 TE 298.2 K
 D1 1.0000000 sec
 TDO 1

===== CHANNEL f1 =====
 NUC1 1H
 P1 10.00 usec
 PL1 0.00 dB
 PL1W 11.25325108 W
 SFO1 300.1318534 MHz
 SI 32768
 SF 300.1314194 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1-Hexyl-6-nitro-2-p-tolylquinolin-4(1H)-one (7ae).

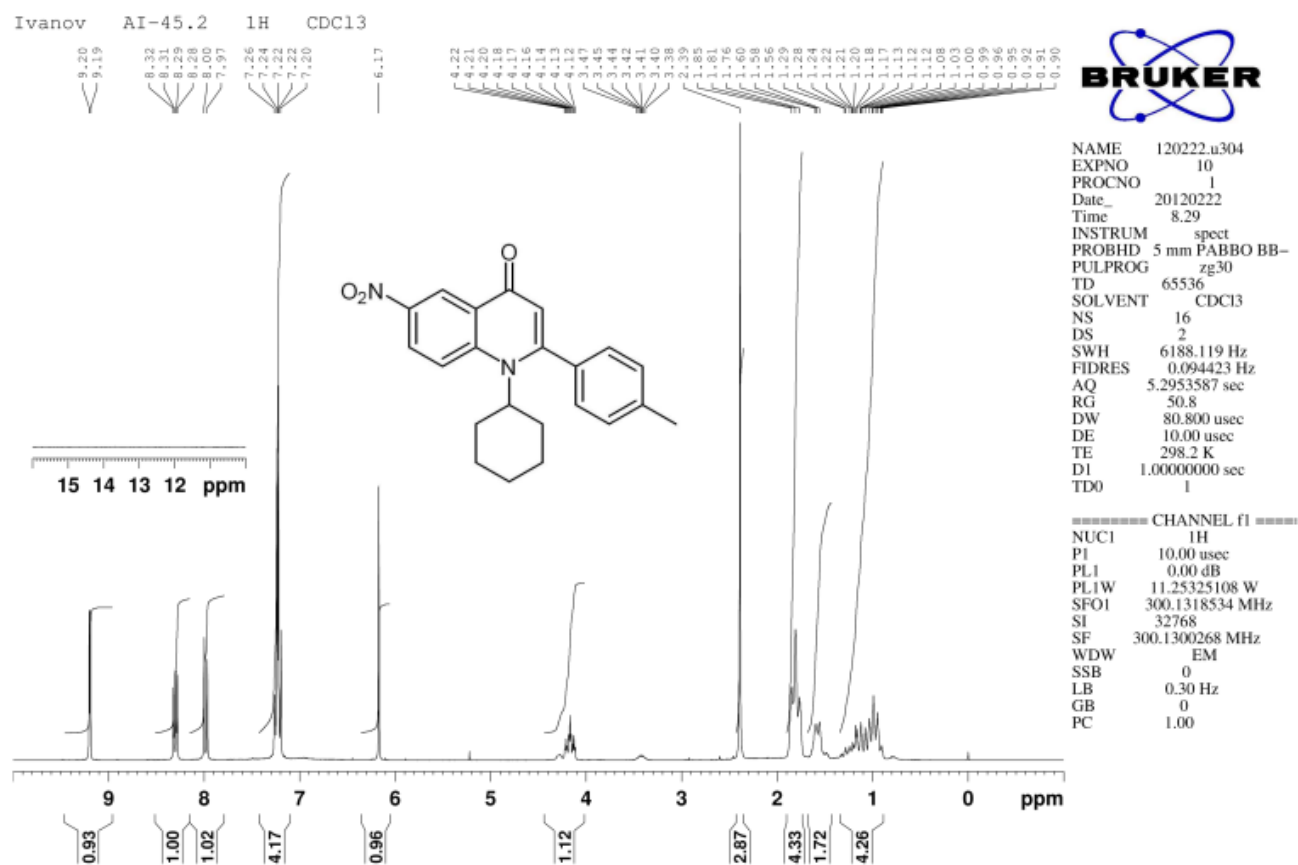
Mkrtchyan, MM-107, DMSO, 13C

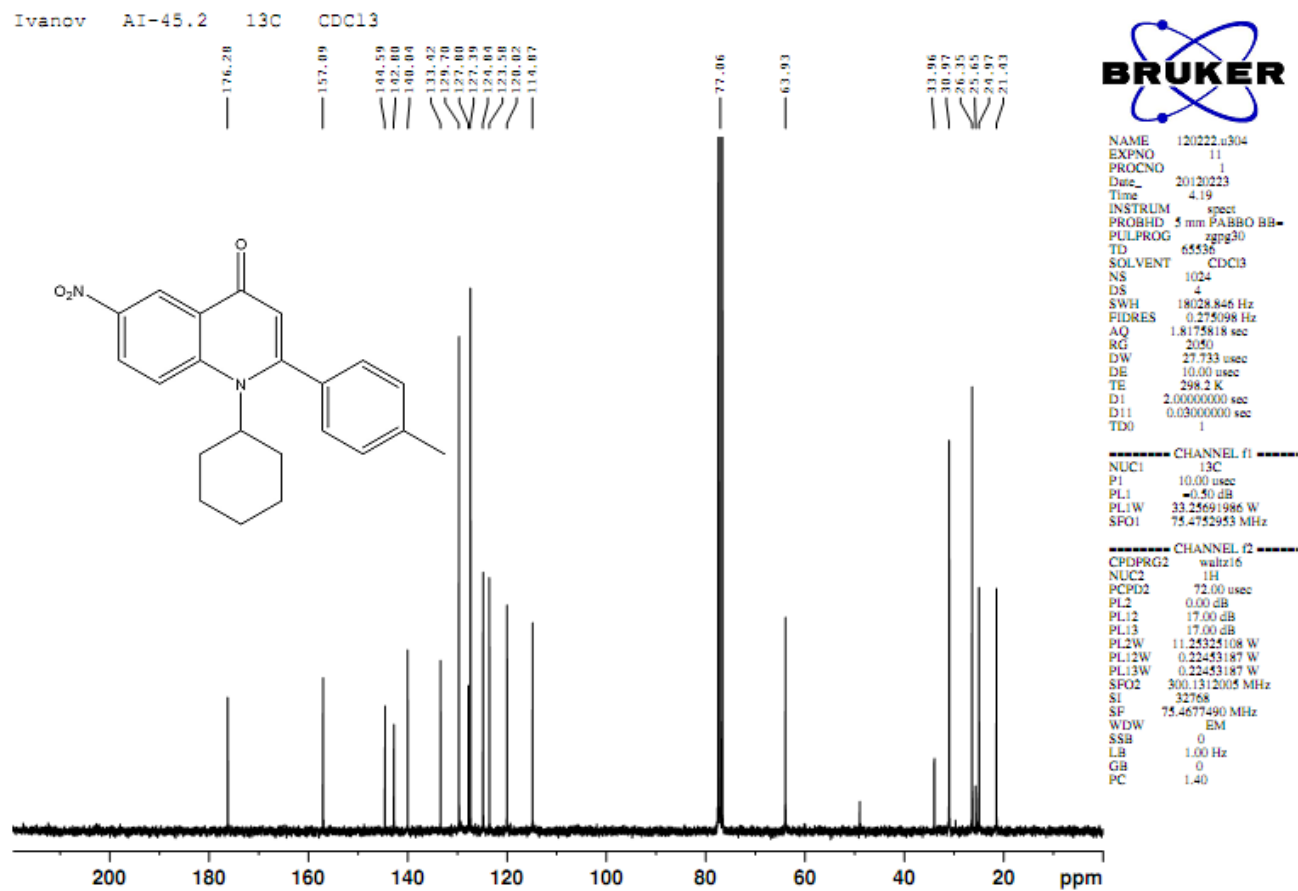


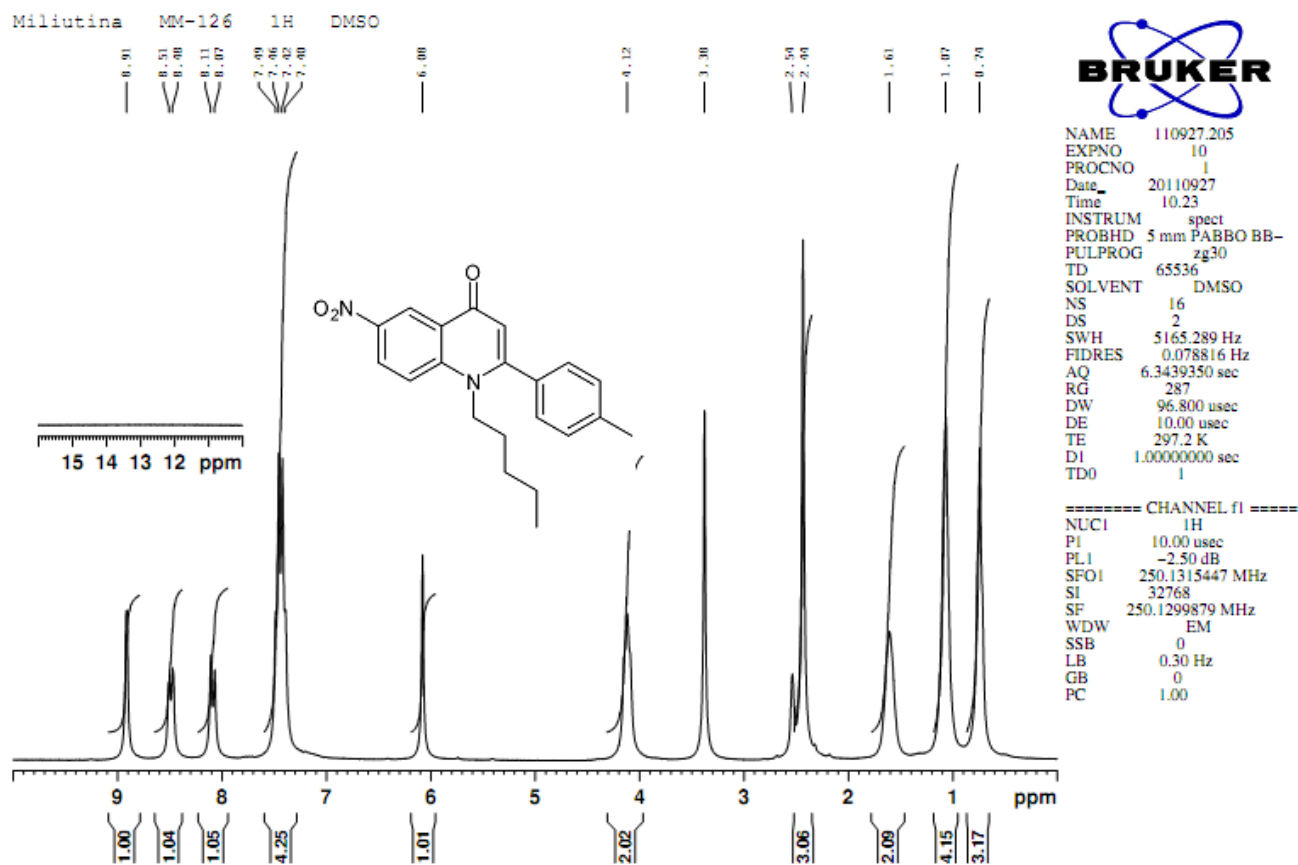
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 PROCNO 1
 Date_ 20110821
 Time 10.20
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 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 1024
 DS 4
 SWH 15000.000 Hz
 FIDRES 0.228882 Hz
 AQ 2.1845834 sec
 RG 2050
 DW 33.333 usec
 DE 10.00 usec
 TE 298.0 K
 D1 2.0000000 sec
 d11 0.0300000 sec
 DELTA 1.89999998 sec
 TD0 1

===== CHANNEL f1 =====
 NUC1 13C
 P1 10.00 usec
 PL1 -1.00 dB
 SFO1 62.9015280 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 70.00 usec
 PL12 15.00 dB
 PL13 15.00 dB
 PL2 -2.50 dB
 SFO2 250.1310005 MHz
 SI 32768
 SF 62.8952691 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

6-Nitro-1-cyclohexyl-2-*p*-tolyl-4-quinolone (7af).

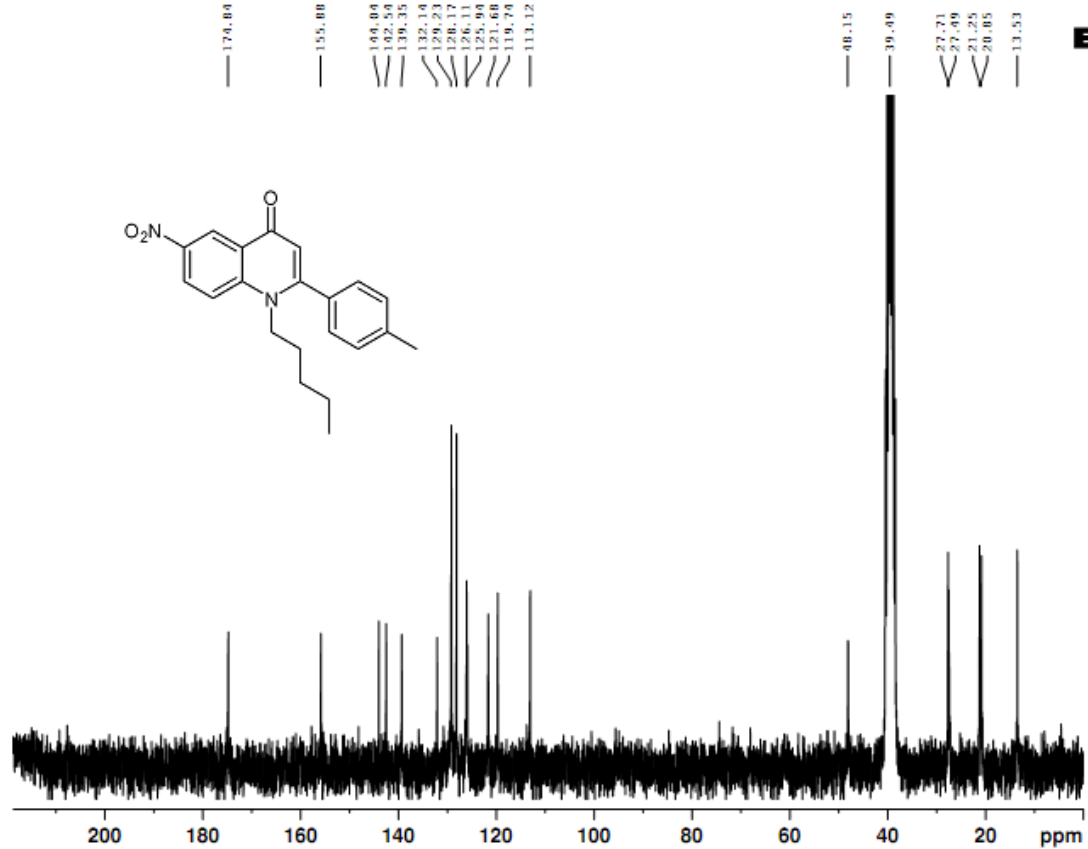
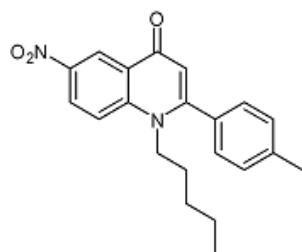
6-Nitro-1-cyclohexyl-2-*p*-tolyl-4-quinolone (7af).

6-Nitro-1-pentyl-2-*p*-tolylquinolin-4(1*H*)-one (7ag).

6-Nitro-1-pentyl-2-*p*-tolylquinolin-4(1*H*)-one (7ag).

Miliutina MM-126 13C DMSO

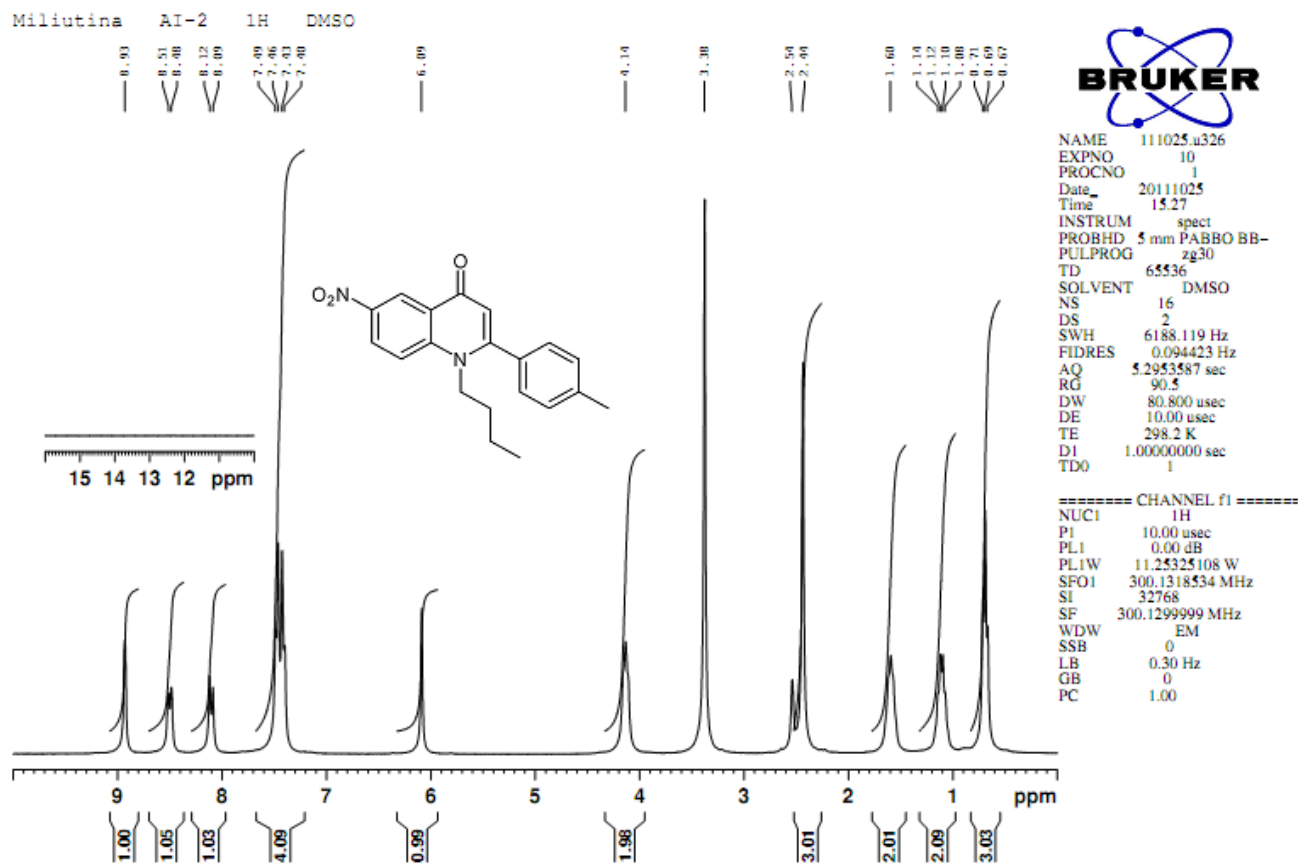
179.89
 155.88
 144.84
 142.54
 139.35
 132.14
 129.23
 128.17
 126.11
 125.94
 121.68
 119.74
 113.12



NAME 110927.205
 EXPNO 11
 PROCNO 1
 Date_ 20110927
 Time 21.09
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 1024
 DS 4
 SWH 15000.000 Hz
 FIDRES 0.228882 Hz
 AQ 2.1845834 sec
 RG 2050
 DW 33.333 usec
 DE 10.00 usec
 TE 298.3 K
 D1 2.0000000 sec
 d11 0.0300000 sec
 DELTA 1.89999998 sec
 TDO 1

===== CHANNEL f1 =====
 NUC1 13C
 P1 10.00 usec
 PL1 -1.00 dB
 SFO1 62.9015280 MHz

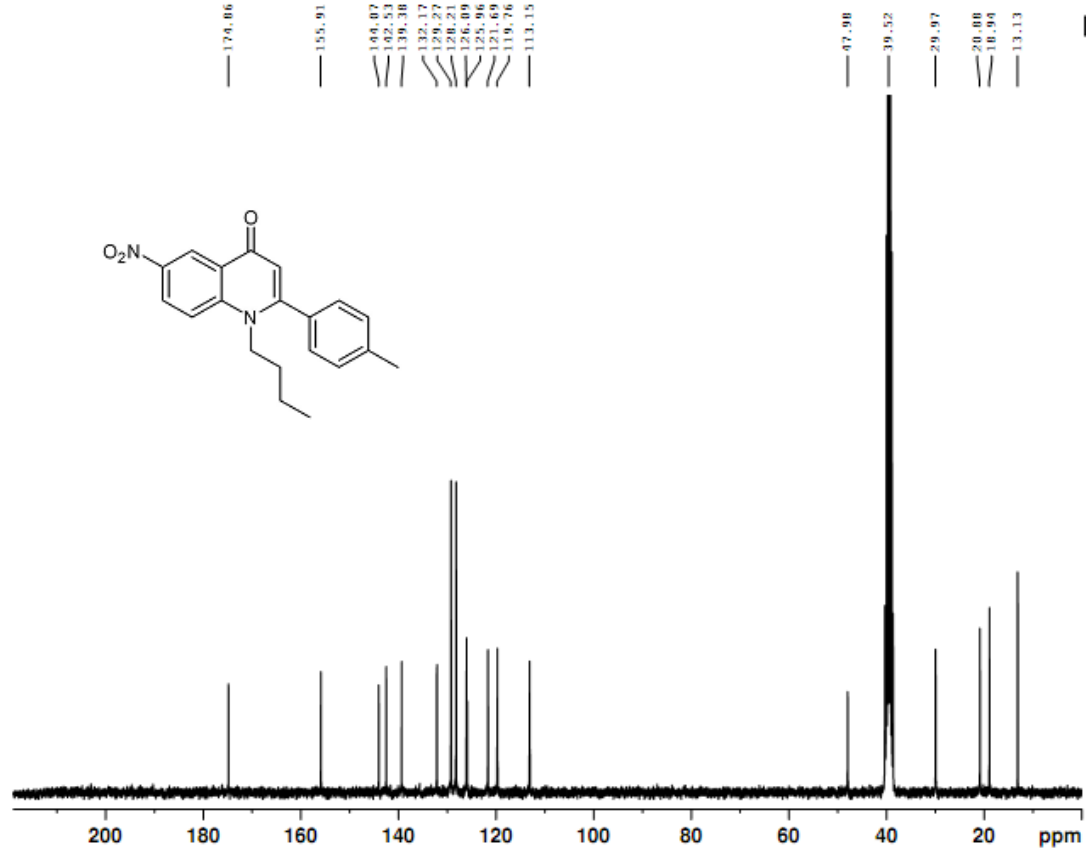
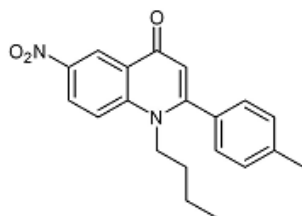
===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 70.00 usec
 PL12 15.00 dB
 PL13 15.00 dB
 PL2 -2.50 dB
 SFO2 250.1310005 MHz
 SI 32768
 SF 62.8952697 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1-*n*-Butyl-6-nitro-2-*p*-tolyl-4-quinolone (7ah).

1-*n*-Butyl-6-nitro-2-*p*-tolyl-4-quinolone (7ah).

Miliutina AI-2 13C DMSO

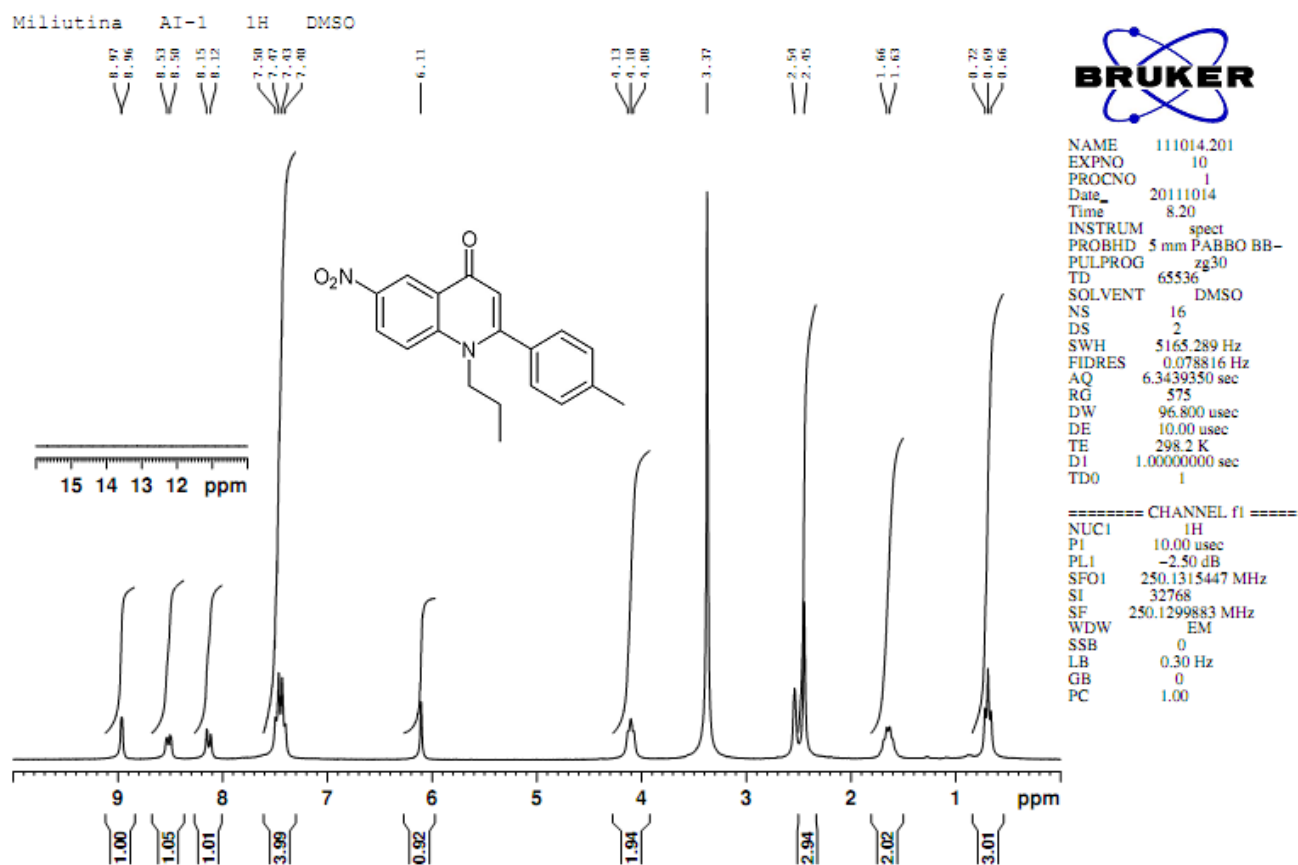
174.06
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 129.27
 128.21
 126.09
 125.96
 121.69
 119.76
 113.15

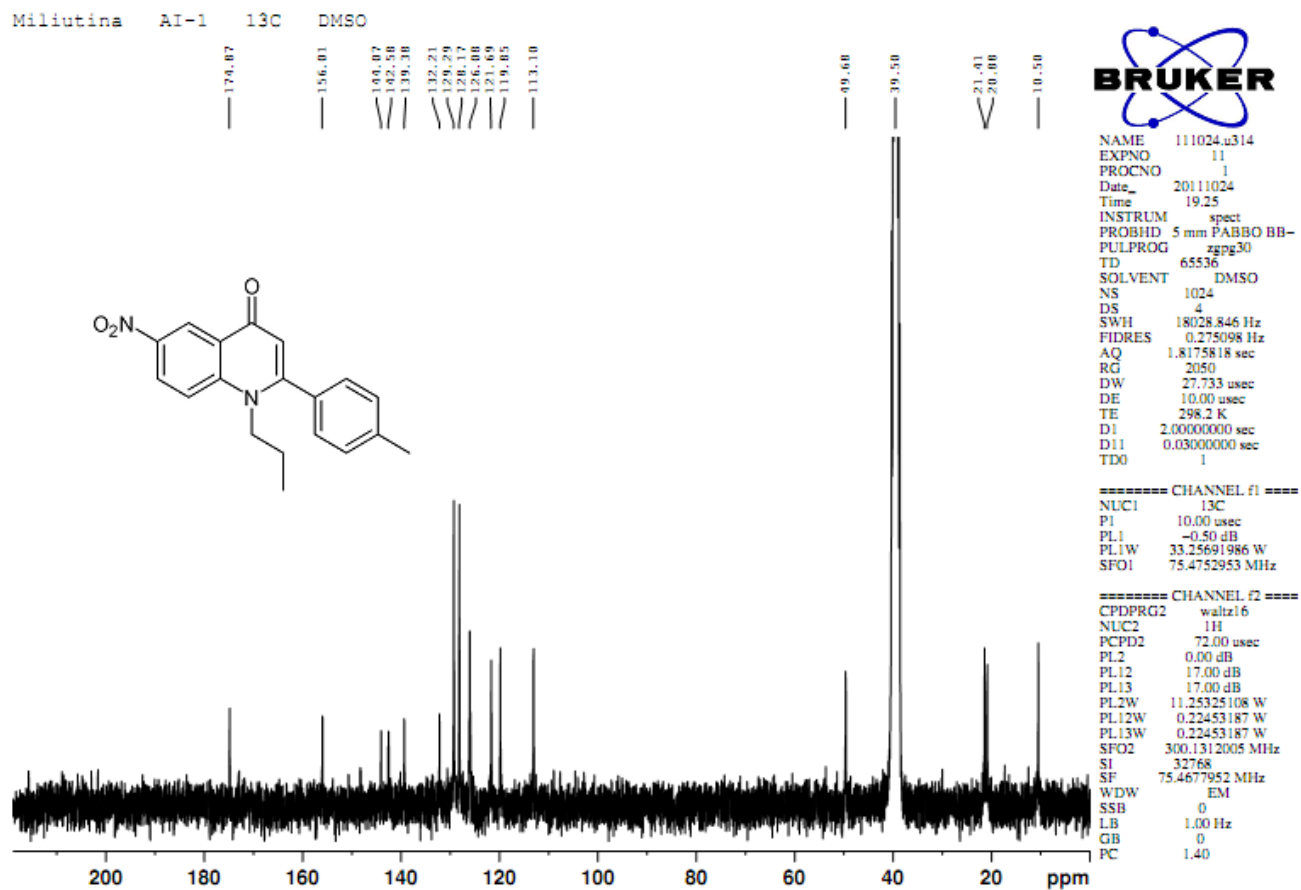


NAME 111025.u326
 EXPNO 11
 PROCNO 1
 Date_ 20111025
 Time 16.35
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 1024
 DS 4
 SWH 18028.846 Hz
 FIDRES 0.275098 Hz
 AQ 1.8175818 sec
 RG 2050
 DW 27.733 usec
 DE 10.00 usec
 TE 298.2 K
 D1 2.0000000 sec
 D11 0.0300000 sec
 TDO 1

===== CHANNEL f1 =====
 NUC1 13C
 P1 10.00 usec
 PL1 -0.50 dB
 PL1W 33.25691986 W
 SFO1 75.4752953 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 72.00 usec
 PL2 0.00 dB
 PL12 17.00 dB
 PL13 17.00 dB
 PL2W 11.25325108 W
 PL12W 0.22453187 W
 PL13W 0.22453187 W
 SFO2 300.1312005 MHz
 S1 32768
 SF 75.4677867 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

6-Nitro-1-*n*-propyl-2-*p*-tolyl-4-quinolone (7ai).

6-Nitro-1-*n*-propyl-2-*p*-tolyl-4-quinolone (7ai).

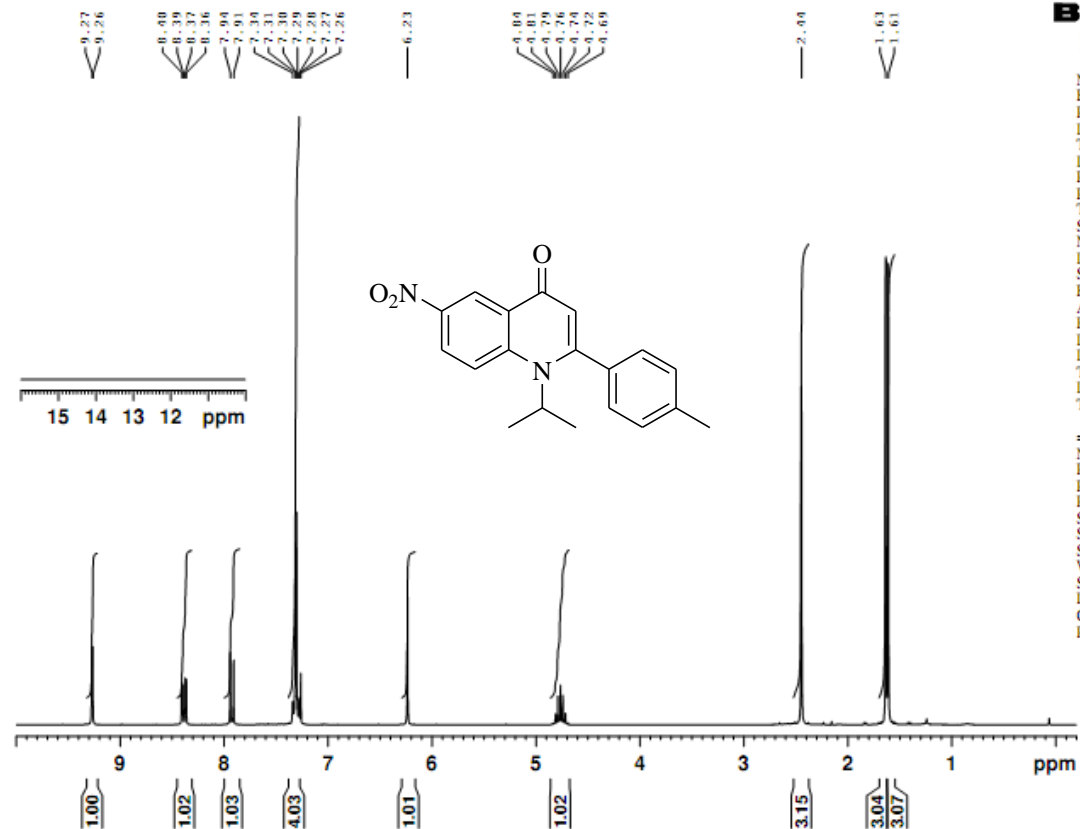
1-*iso*-Propyl-6-nitro-2-*p*-tolyl-4-quinolone (7aj).

Ivanov AI-7.1 1H CDCl3



NAME 111121.u340
 EXPNO 10
 PROCNO 1
 Date_ 20111121
 Time 16.04
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 6188.119 Hz
 FIDRES 0.094423 Hz
 AQ 5.2953587 sec
 RG 114
 DW 80.800 usec
 DE 10.00 usec
 TE 298.2 K
 D1 1.0000000 sec
 TD0 1

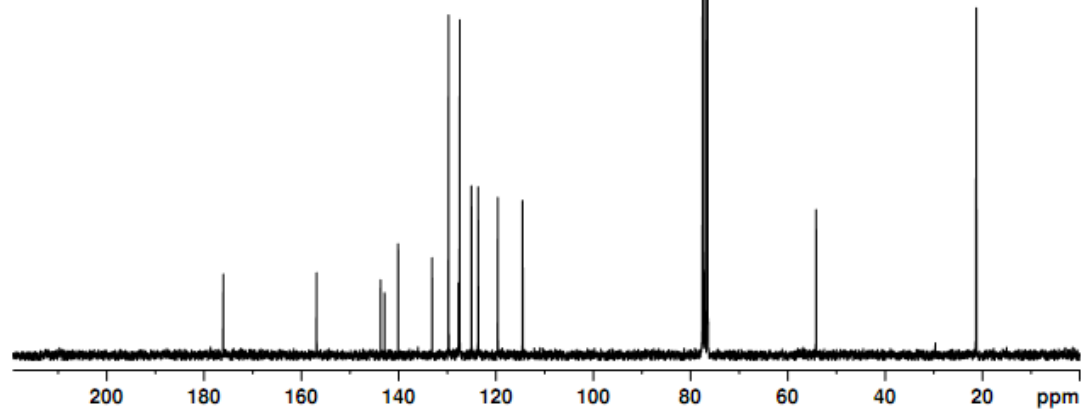
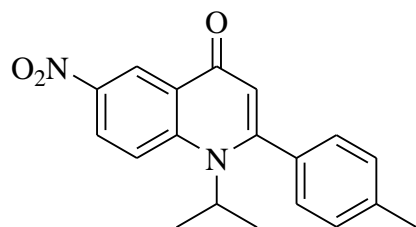
===== CHANNEL f1 =====
 NUC1 1H
 P1 10.00 usec
 PL1 0.00 dB
 PL1W 11.25325108 W
 SFO1 300.1318534 MHz
 SI 32768
 SF 300.1300083 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



1-iso-Propyl-6-nitro-2-p-tolyl-4-quinolone (7aj).

Ivanov AI-7.1 13C CDC13

176.12	156.92	141.76	140.93	140.14	133.17	129.80	127.76	127.50	125.07	124.69	119.67	114.55
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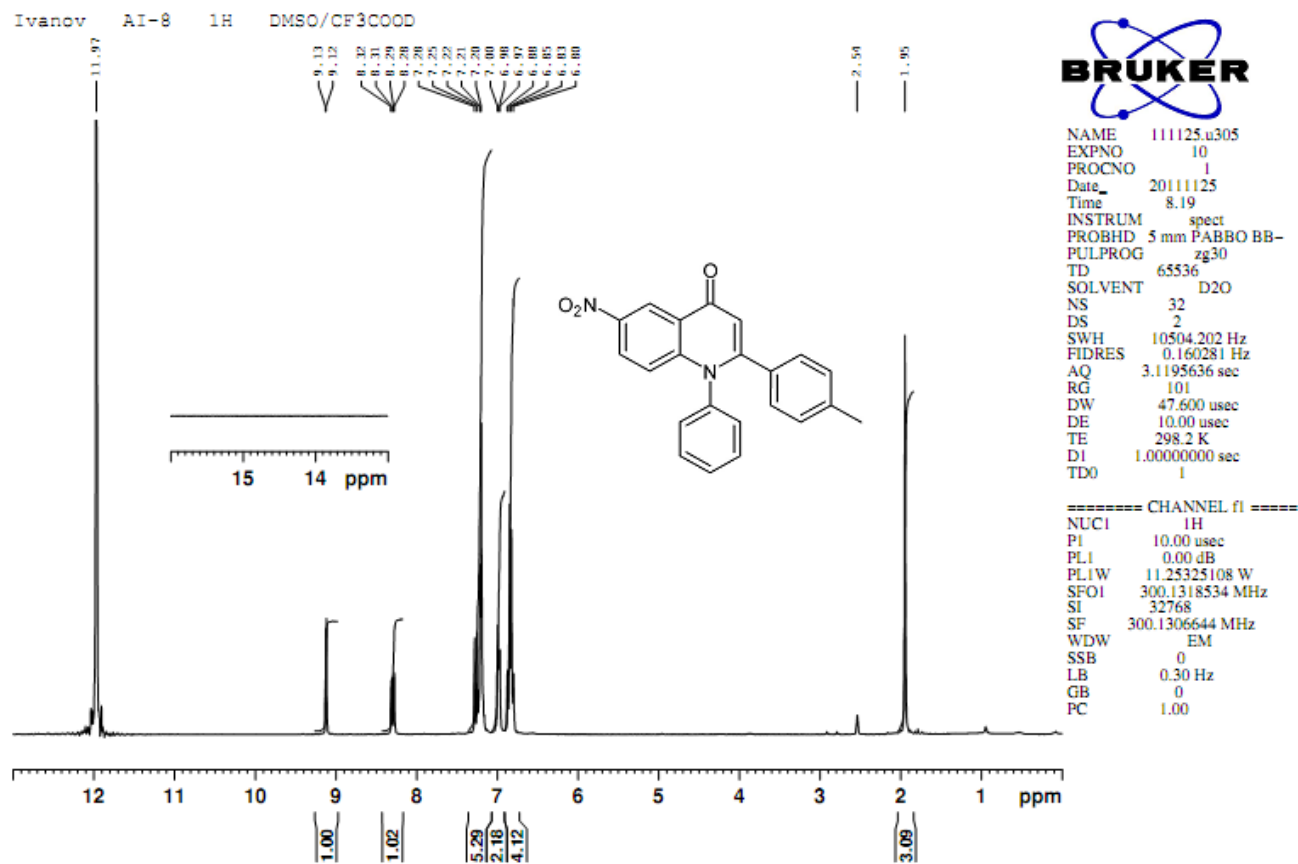


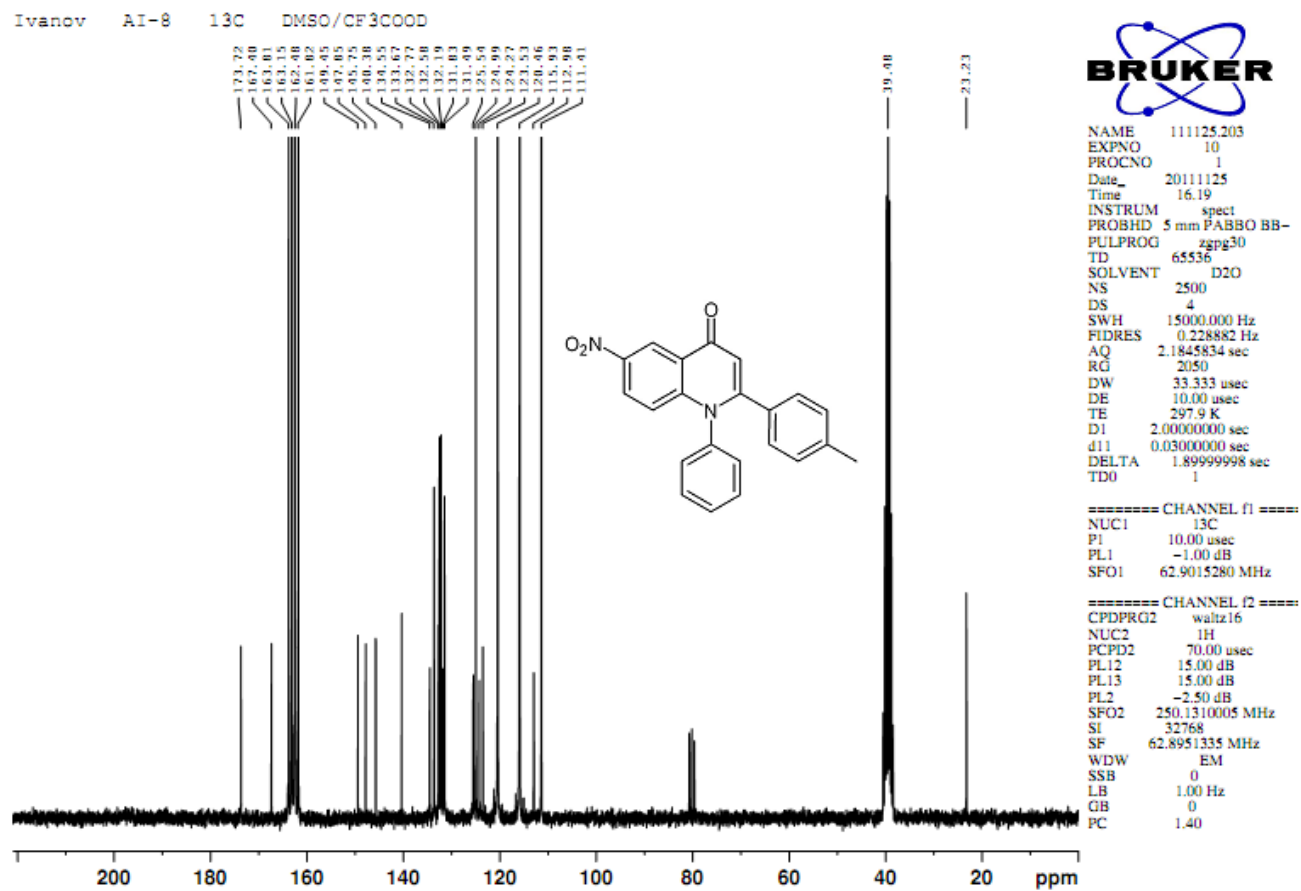
NAME 111129.212
 EXPNO 10
 PROCNO 1
 Date_ 20111130
 Time 3.33
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 1024
 DS 4
 SWH 15000.000 Hz
 FIDRES 0.228882 Hz
 AQ 2.1845834 sec
 RG 2050
 DW 33.333 usec
 DE 10.00 usec
 TE 297.9 K
 D1 2.00000000 sec
 d11 0.03000000 sec
 DELTA 1.89999998 sec
 TD0 1

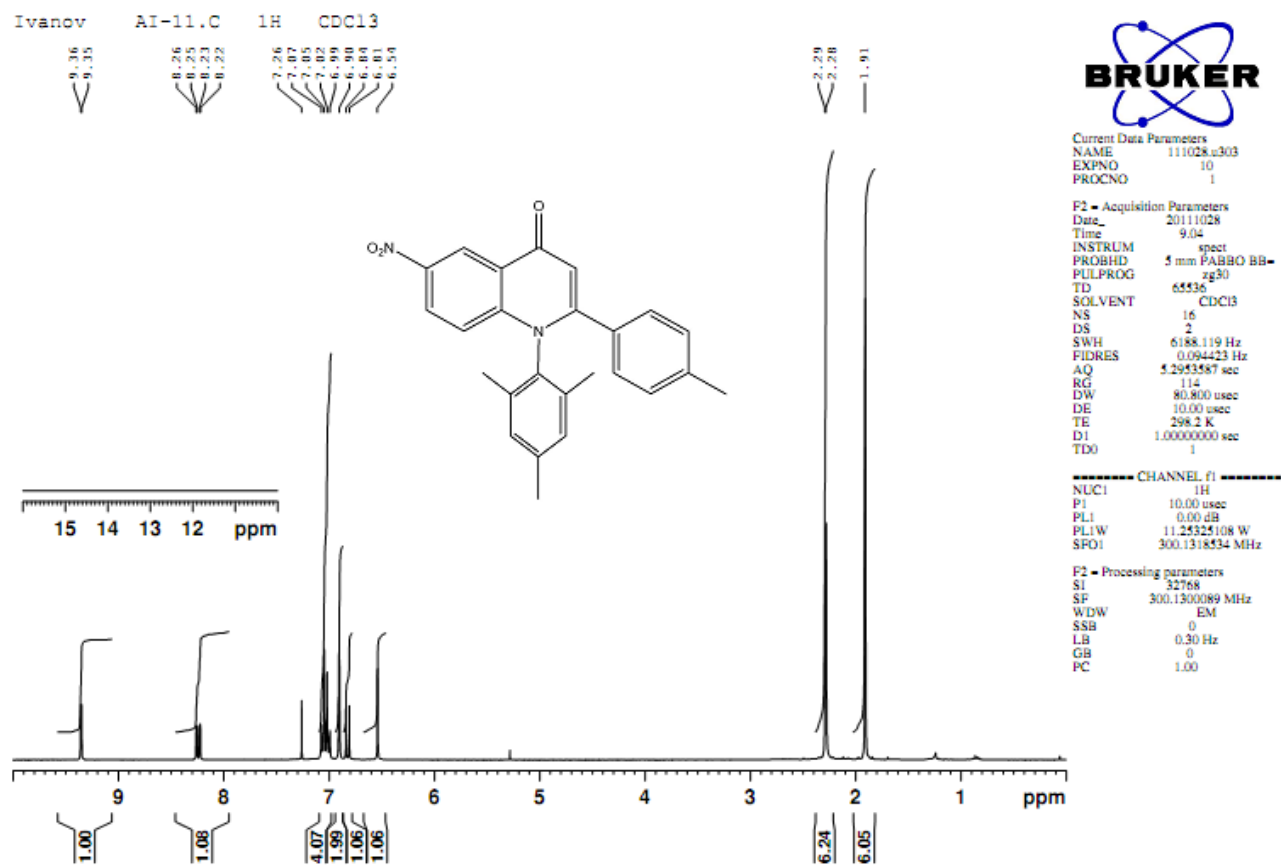
===== CHANNEL f1 =====
 NUC1 13C
 P1 10.00 usec
 PL1 -1.00 dB
 SFO1 62.9015280 MHz

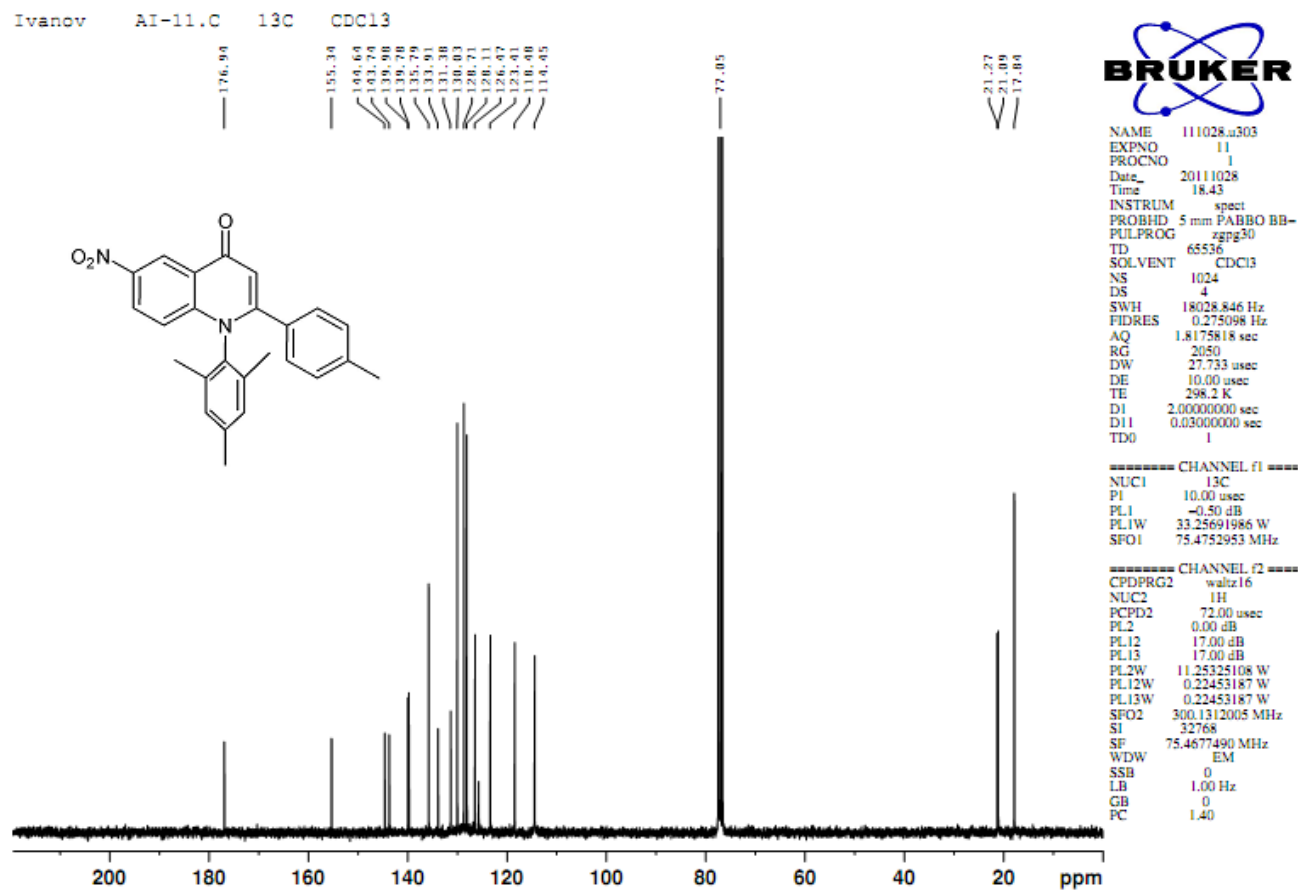
===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 70.00 usec
 PL12 15.00 dB
 PL13 15.00 dB
 PL2 -2.50 dB
 SFO2 250.1310005 MHz
 SI 32768
 SF 62.8952390 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

6-Nitro-1-phenyl-2-p-tolyl-4-quinolone (7ak).

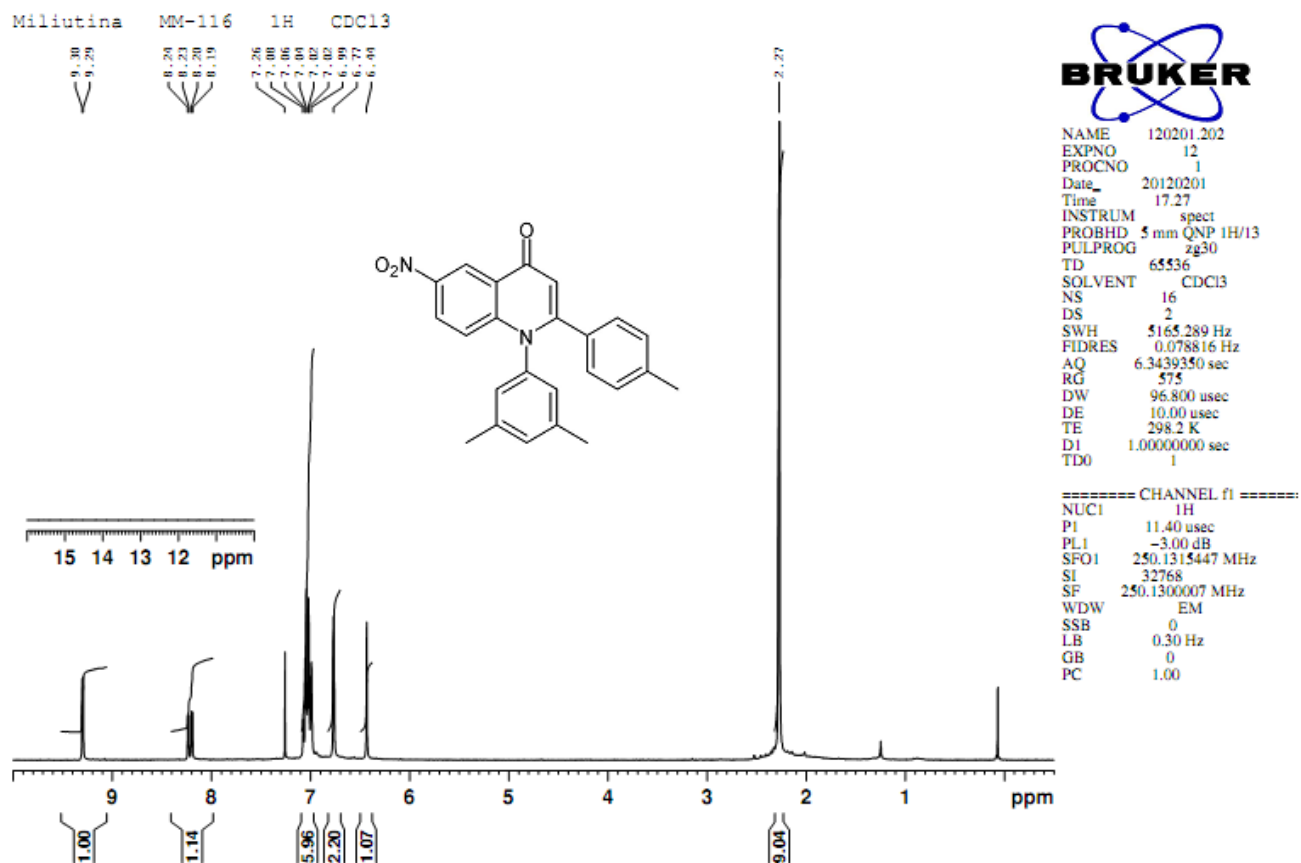


6-Nitro-1-phenyl-2-*p*-tolyl-4-quinolone (7ak).

6-Nitro-2-*p*-tolyl-2,4,6-trimethylphenyl-4-quinolone (7a).

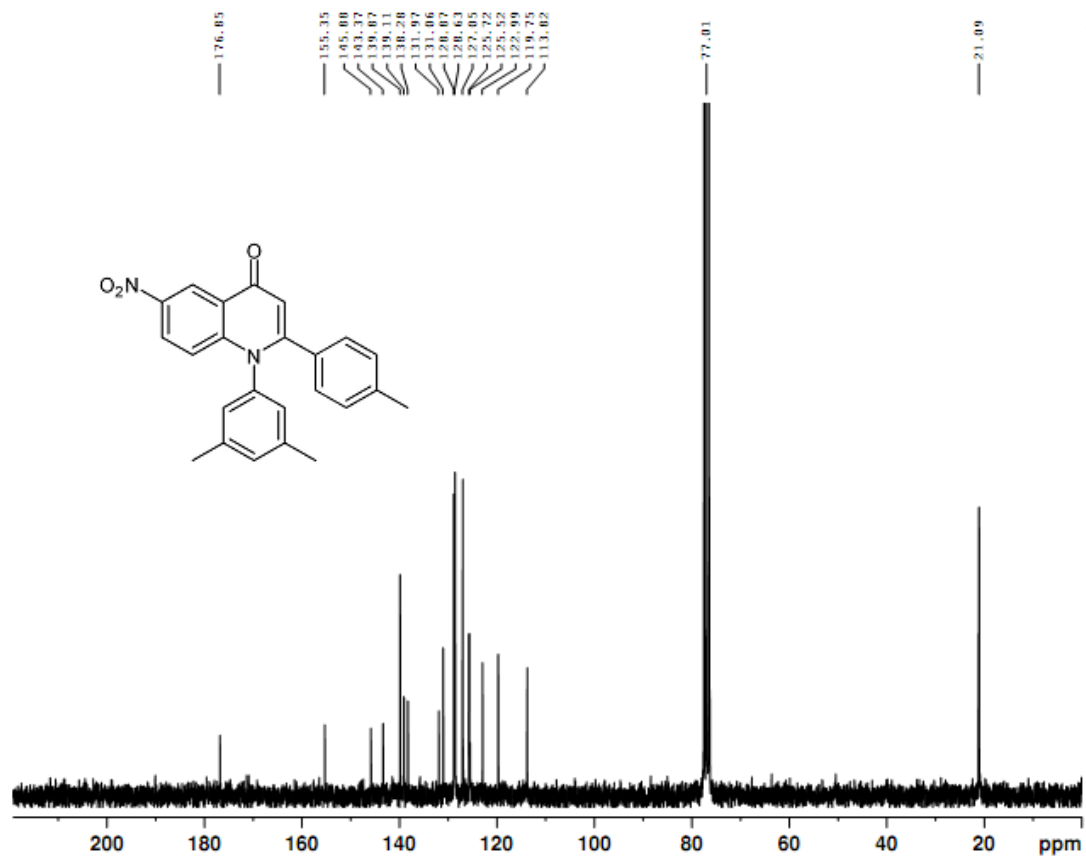
6-Nitro-2-*p*-tolyl-2,4,6-trimethylphenyl-4-quinolone (7a1).

1-(3,5-Dimethylphenyl)-6-nitro-2-p-tolylquinolin-4(1H)-one (7am).



1-(3,5-Dimethylphenyl)-6-nitro-2-p-tolylquinolin-4(1H)-one (7am).

Miliutina MM-116 13C CDCl3



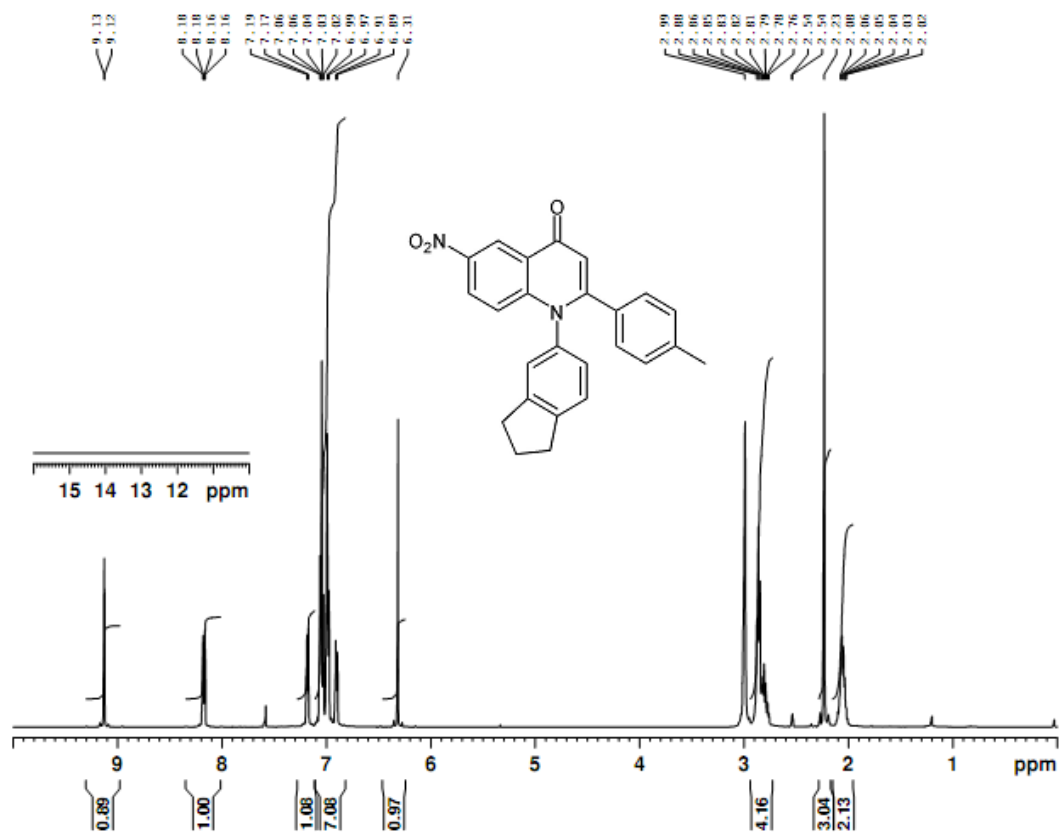
NAME 120201.202
 EXPNO 10
 PROCNO 1
 Date_ 20120201
 Time 13.50
 INSTRUM spect
 PROBHD 5 mm QNP 1H/13
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 1400
 DS 4
 SWH 15000.000 Hz
 FIDRES 0.228882 Hz
 AQ 2.1845834 sec
 RG 2050
 DW 33.333 usec
 DE 10.00 usec
 TE 298.2 K
 D1 2.0000000 sec
 d11 0.0300000 sec
 DELTA 1.89999998 sec
 TD0 1

==== CHANNEL f1 ====
 NUC1 13C
 P1 10.20 usec
 PL1 0.00 dB
 SFO1 62.9015280 MHz

==== CHANNEL f2 ====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 70.00 usec
 PL12 14.00 dB
 PL13 14.00 dB
 PL2 -3.00 dB
 SFO2 250.1310005 MHz
 SI 32768
 SF 62.8952390 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

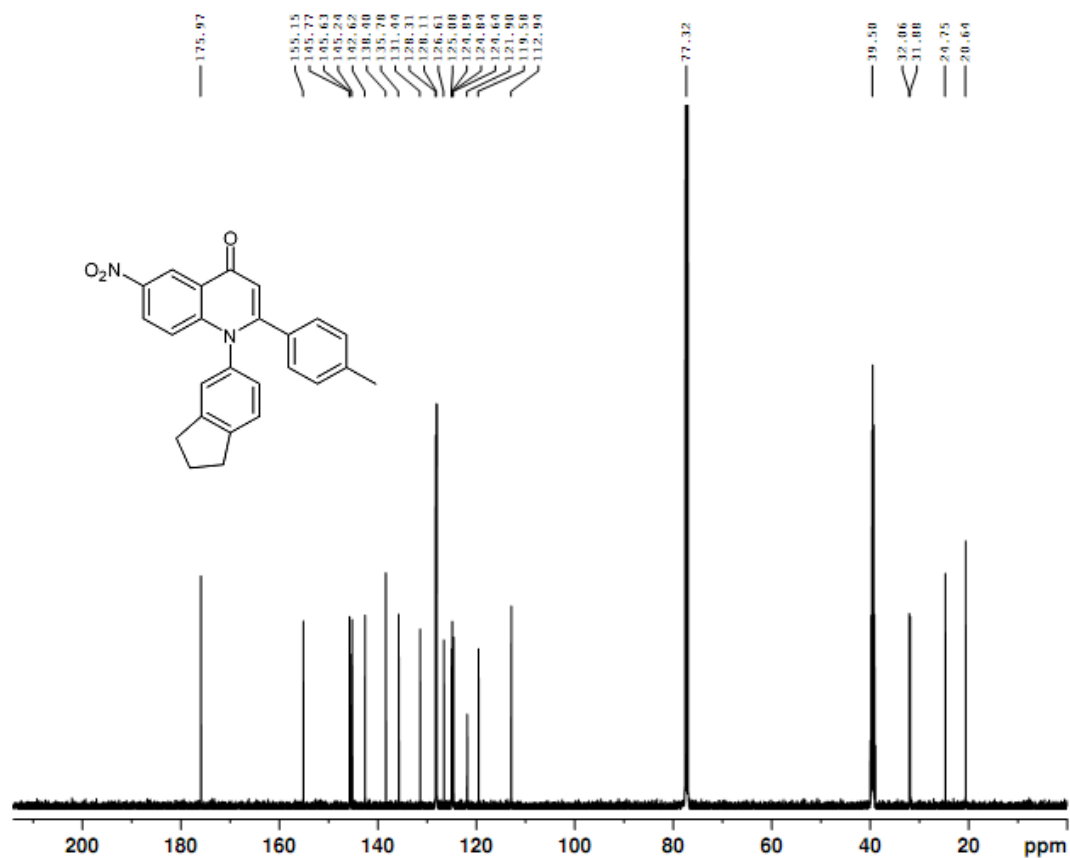
1-(2,3-Dihydro-1*H*-inden-5-yl)-6-nitro-2-*p*-tolylquinolin-4(1*H*)-one (7an).

Miliutina Mariia, MM-119, 1H in CDCl3/DMSO 9:1



NAME 120202.503
 EXPNO 10
 PROCNO 1
 Date_ 20120203
 Time 4.38
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 32
 DS 2
 SWH 15015.015 Hz
 FIDRES 0.229111 Hz
 AQ 2.1824322 sec
 RG 90.5
 DW 33.300 usec
 DE 6.50 usec
 TE 300.0 K
 D1 1.0000000 sec
 TDO 1

----- CHANNEL f1 -----
 NUC1 1H
 P1 9.80 usec
 PL1 -3.00 dB
 SFO1 500.1350013 MHz
 SI 32768
 SF 500.1323608 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

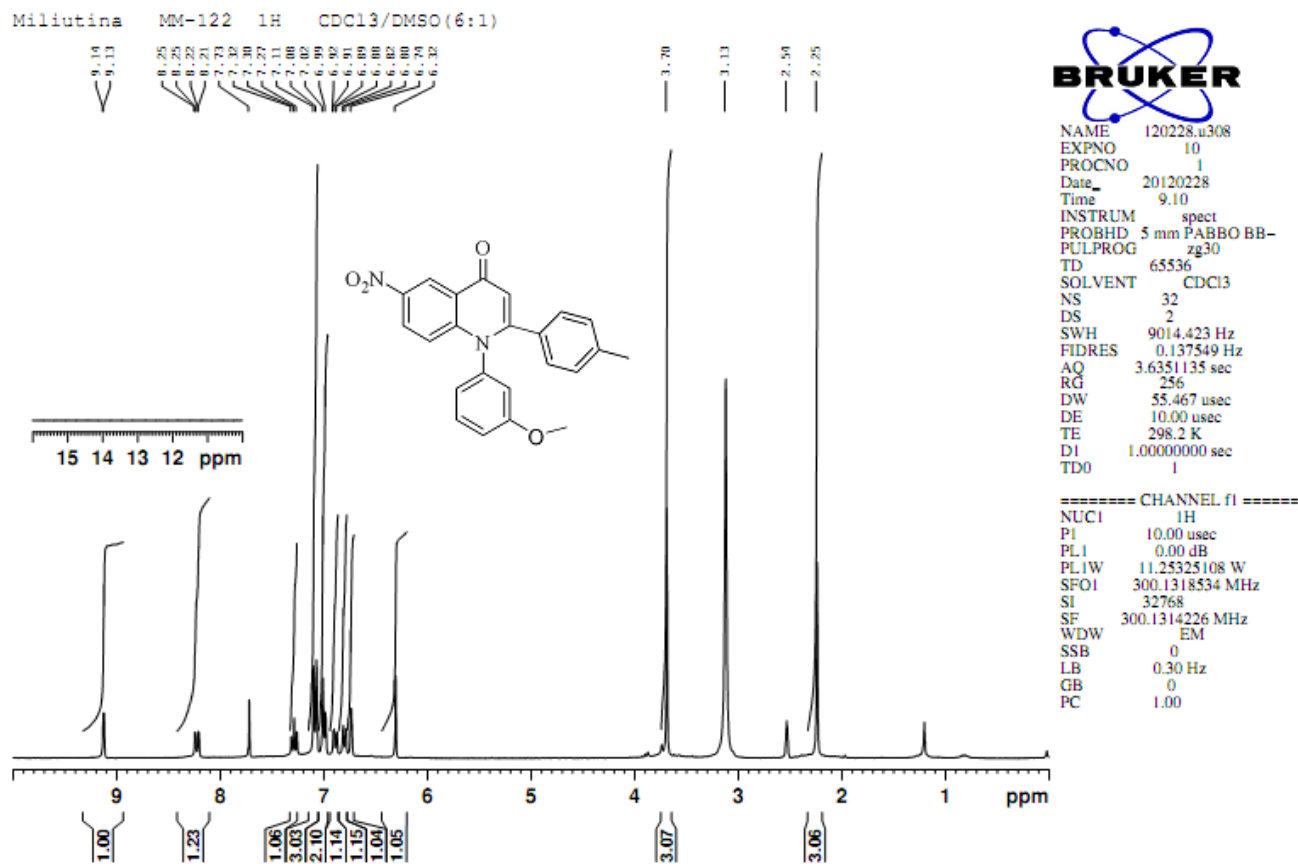
1-(2,3-Dihydro-1*H*-inden-5-yl)-6-nitro-2-*p*-tolylquinolin-4(1*H*)-one (7an).Miliutina Mariia, MM-119, ¹³C in CDCl₃/DMSO 9:1

NAME 120202.503
 EXPNO 13
 PROCNO 1
 Date_ 20120203
 Time 6.48
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl₃
 NS 1024
 DS 4
 SWH 30030.029 Hz
 FIDRES 0.458222 Hz
 AQ 1.0912410 sec
 RG 4597.6
 DW 16.650 usec
 DE 6.50 usec
 TE 300.0 K
 D1 2.0000000 sec
 D11 0.03000000 sec
 TD0 1

===== CHANNEL f1 =====
 NUC1 ¹³C
 P1 9.00 usec
 PL1 4.50 dB
 SFO1 125.7703643 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 ¹H
 PCPD2 70.00 usec
 PL2 -3.00 dB
 PL12 14.08 dB
 PL13 120.00 dB
 SFO2 500.1320005 MHz
 SI 32768
 SF 125.7584602 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

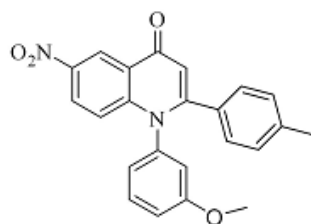
1-(3-Methoxyphenyl)-6-nitro-2-p-tolylquinolin-4(1H)-one (7ao).



1-(3-Methoxyphenyl)-6-nitro-2-p-tolylquinolin-4(1H)-one (7ao).

Miliutina MM-122 13C CDCl3/DMSO(6:1)

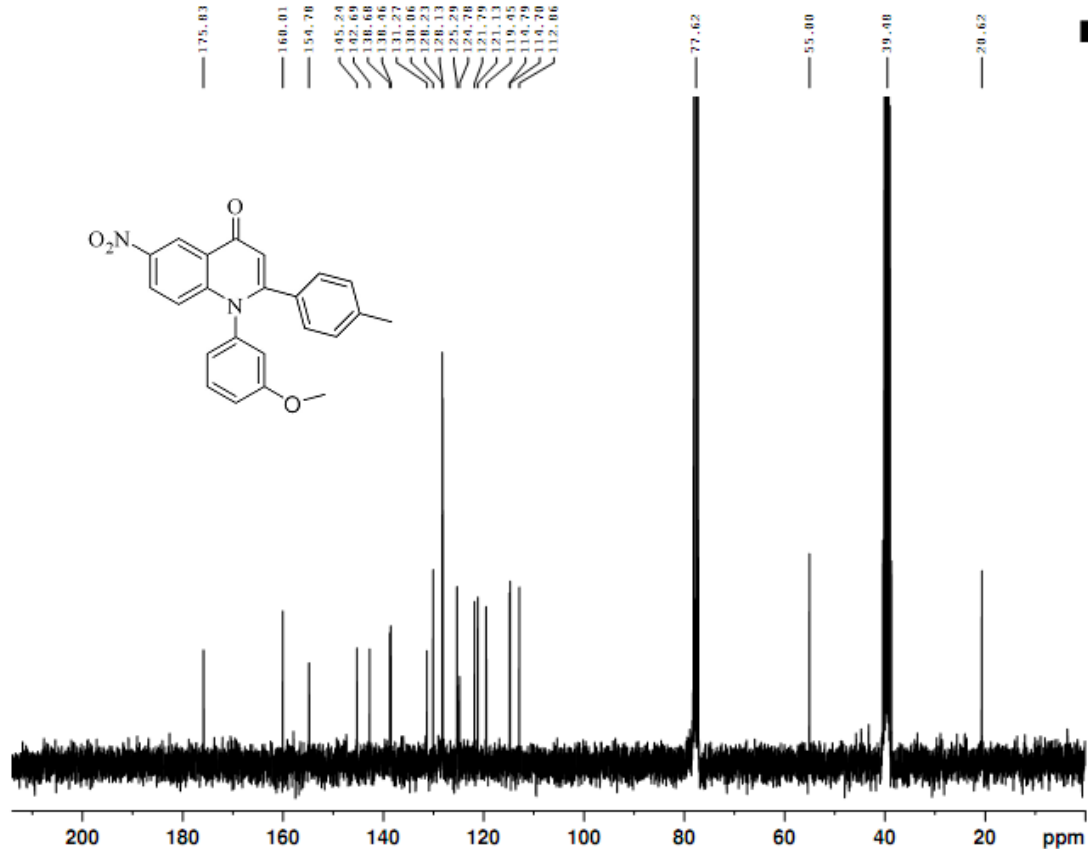
175.83
 160.01
 159.78
 145.24
 142.69
 138.68
 138.56
 130.96
 130.77
 130.66
 128.23
 128.13
 125.29
 124.78
 121.79
 121.13
 119.95
 117.98
 114.78
 112.80



NAME 120228_0308
 EXPNO 1
 PROCNO 1
 Date_ 20120228
 Time 23.44
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 1024
 DS 4
 SWH 18028.846 Hz
 FIDRES 0.275098 Hz
 AQ 1.8175818 sec
 RG 2050
 DW 27.733 usec
 DE 10.00 usec
 TE 298.2 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

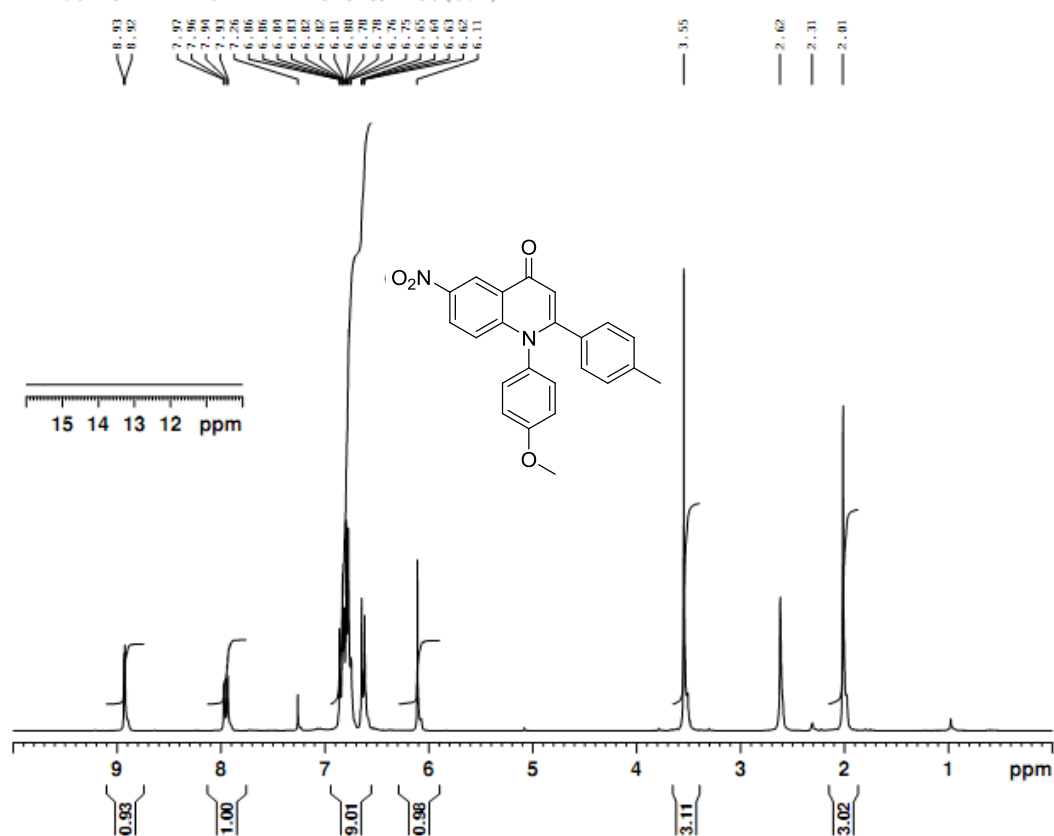
===== CHANNEL f1 =====
 NUC1 13C
 P1 10.00 usec
 PL1 -0.50 dB
 PL1W 33.25691986 W
 SFO1 75.4752953 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 72.00 usec
 PL2 0.00 dB
 PL12 17.00 dB
 PL13 17.00 dB
 PL2W 11.25325108 W
 PL12W 0.22453187 W
 PL13W 0.22453187 W
 SFO2 300.1312005 MHz
 S1 32768
 SF 75.4681560 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40



1-(4-Methoxyphenyl)-6-nitro-2-*p*-tolylquinolin-4(1*H*)-one (7ap).

Miliutina MM128 1H CDCl3/DMSO(8:1)

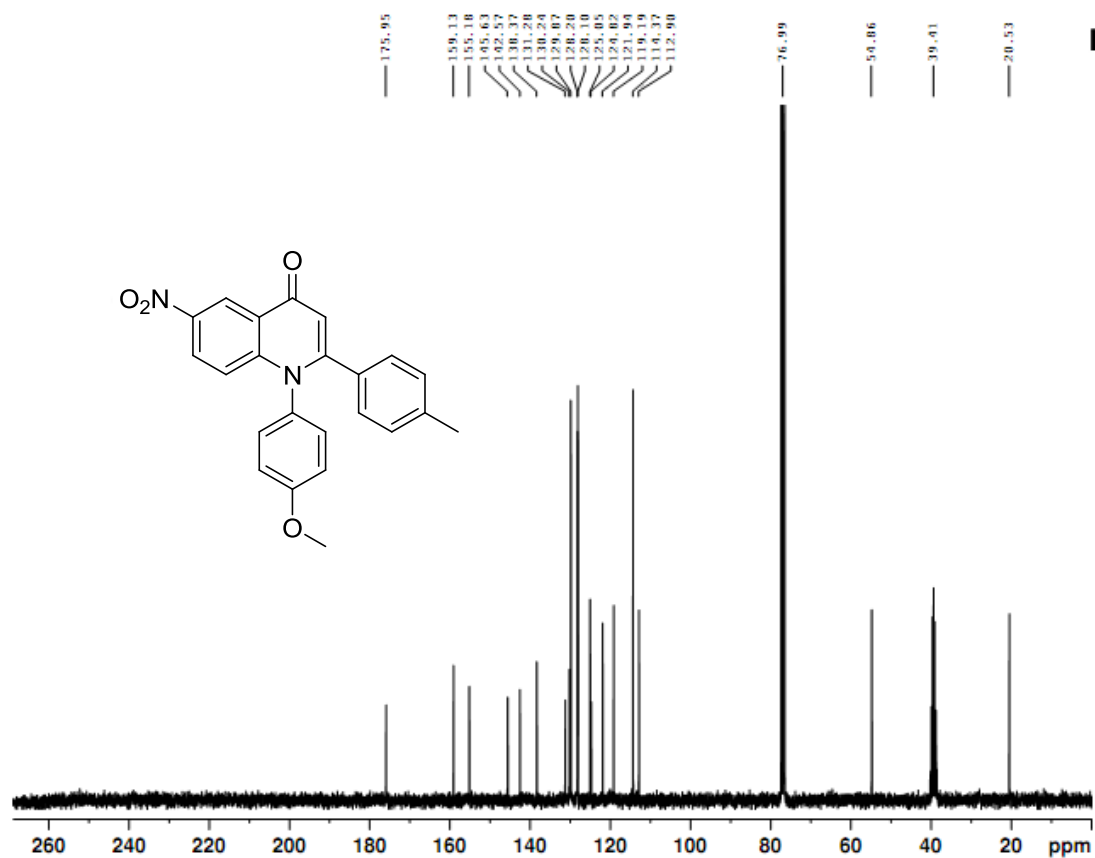


NAME 120327.u303
 EXPNO 10
 PROCNO 1
 Date_ 20120327
 Time 8.32
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 32
 DS 2
 SWH 9014.423 Hz
 FIDRES 0.137549 Hz
 AQ 3.6351135 sec
 RG 161
 DW 55.467 usec
 DE 10.00 usec
 TE 298.2 K
 D1 1.0000000 sec
 TD0 1

===== CHANNEL f1 =====
 NUC1 1H
 P1 10.00 usec
 PL1 0.00 dB
 PL1W 11.25325108 W
 SFO1 300.1318534 MHz
 SI 32768
 SF 300.1314975 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1-(4-Methoxyphenyl)-6-nitro-2-p-tolylquinolin-4(1H)-one (7ap).

Miliutina MM128 13C CDCl3/DMSO(8:1)



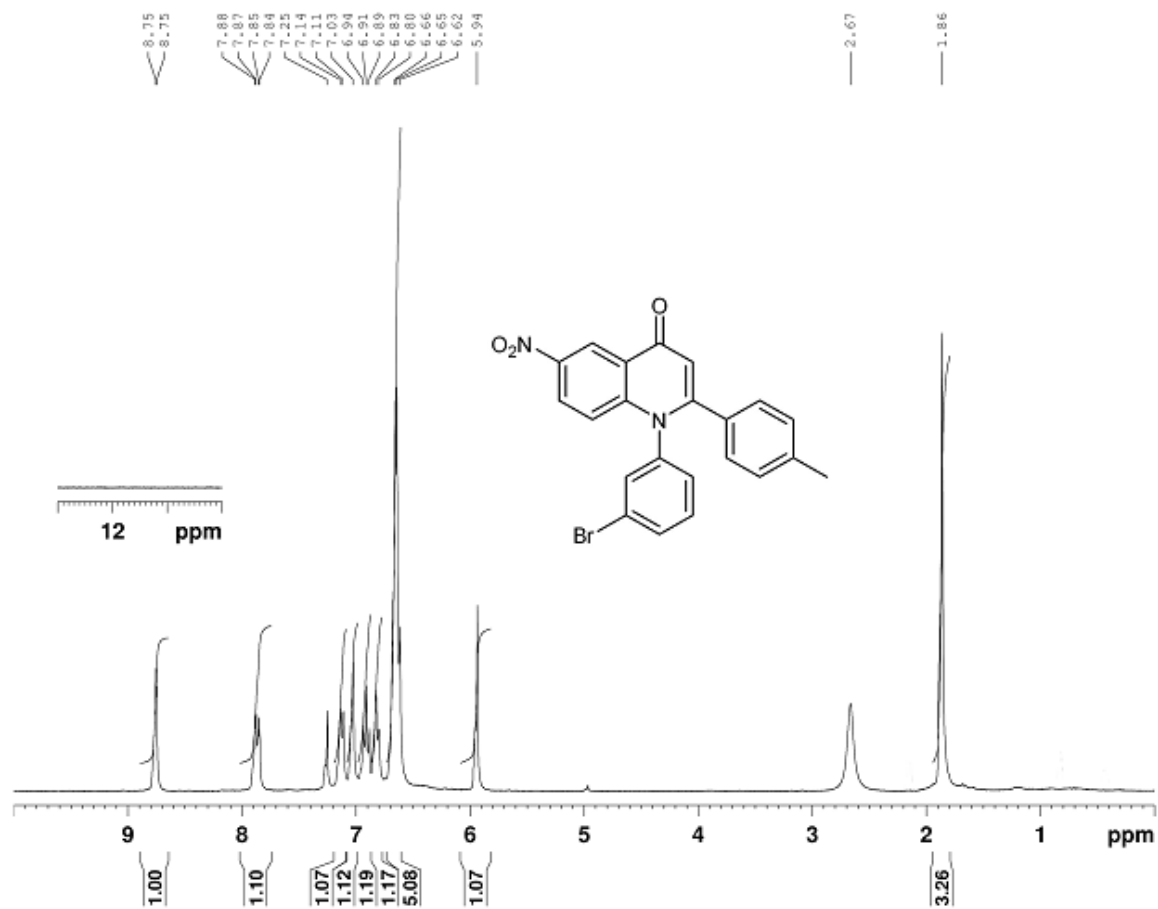
NAME 120327.u303
 EXPNO 11
 PROCNO 1
 Date_ 20120327
 Time 21.18
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 1024
 DS 4
 SWH 26315.789 Hz
 FIDRES 0.401547 Hz
 AQ 1.2452340 sec
 RG 2050
 DW 19.000 usec
 DE 10.00 usec
 TE 298.3 K
 D1 2.0000000 sec
 D11 0.03000000 sec
 TDO 1

===== CHANNEL f1 =====
 NUC1 13C
 P1 10.00 usec
 PL1 -0.50 dB
 PL1W 33.25691986 W
 SFO1 75.4752953 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 72.00 usec
 PL2 0.00 dB
 PL12 17.00 dB
 PL13 17.00 dB
 PL2W 11.25325108 W
 PL12W 0.22453187 W
 PL13W 0.22453187 W
 SFO2 300.1312005 MHz
 S1 32768
 SF 75.4681614 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

6-Nitro-1-(3-bromophenyl)-2-*p*-tolyl-4-quinolone (7aq).

Ivanov AI-9 1H CDC13/DMSO (8:1)

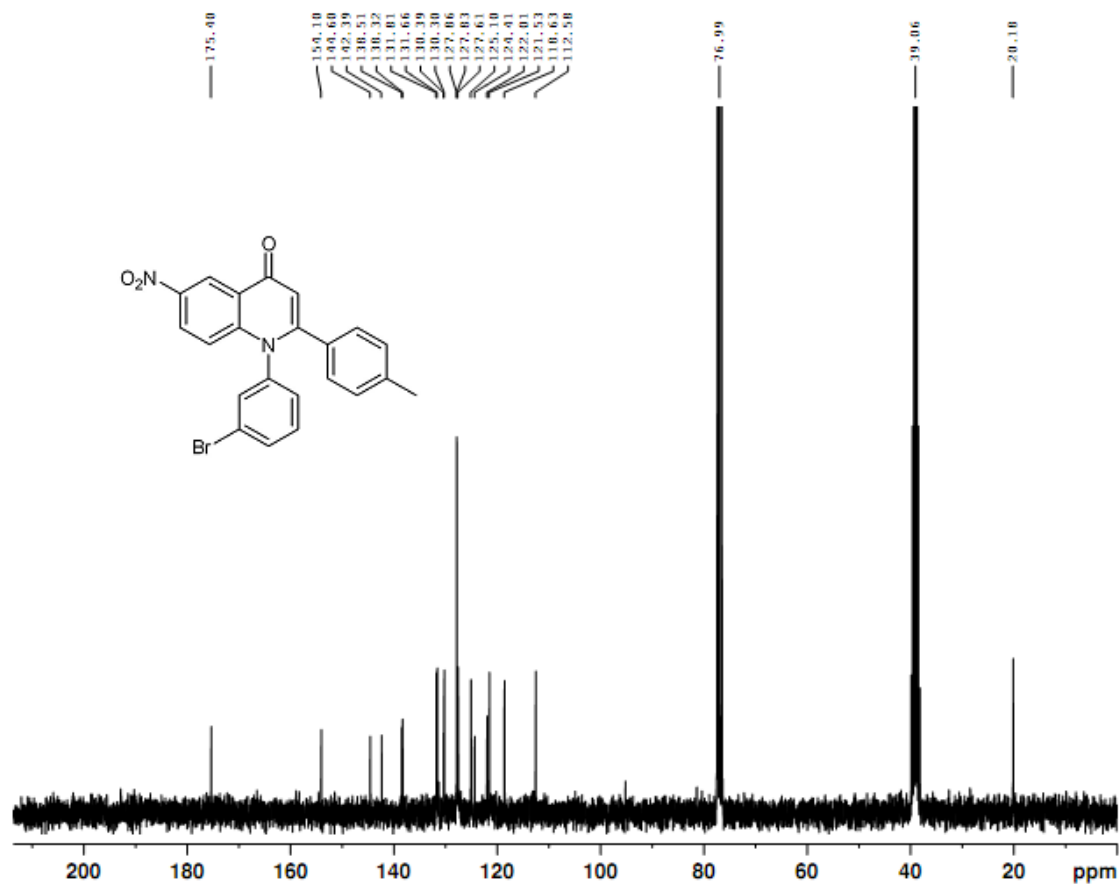


NAME 120123.u326
 EXPNO 10
 PROCNO 1
 Date_ 20120123
 Time 12.42
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 32
 DS 2
 SWH 7500.000 Hz
 FIDRES 0.114441 Hz
 AQ 4.3691168 sec
 RG 228
 DW 66.667 usec
 DE 10.00 usec
 TE 298.2 K
 D1 1.00000000 sec
 TD0 1

===== CHANNEL f1 =====
 NUC1 1H
 P1 10.00 usec
 PL1 0.00 dB
 PL1W 11.25325108 W
 SFO1 300.1318534 MHz
 SI 32768
 SF 300.1315400 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

6-Nitro-1-(3-bromophenyl)-2-*p*-tolyl-4-quinolone (7aq).

Ivanov AI-9 13C CDCl3/DMSO(8:1)

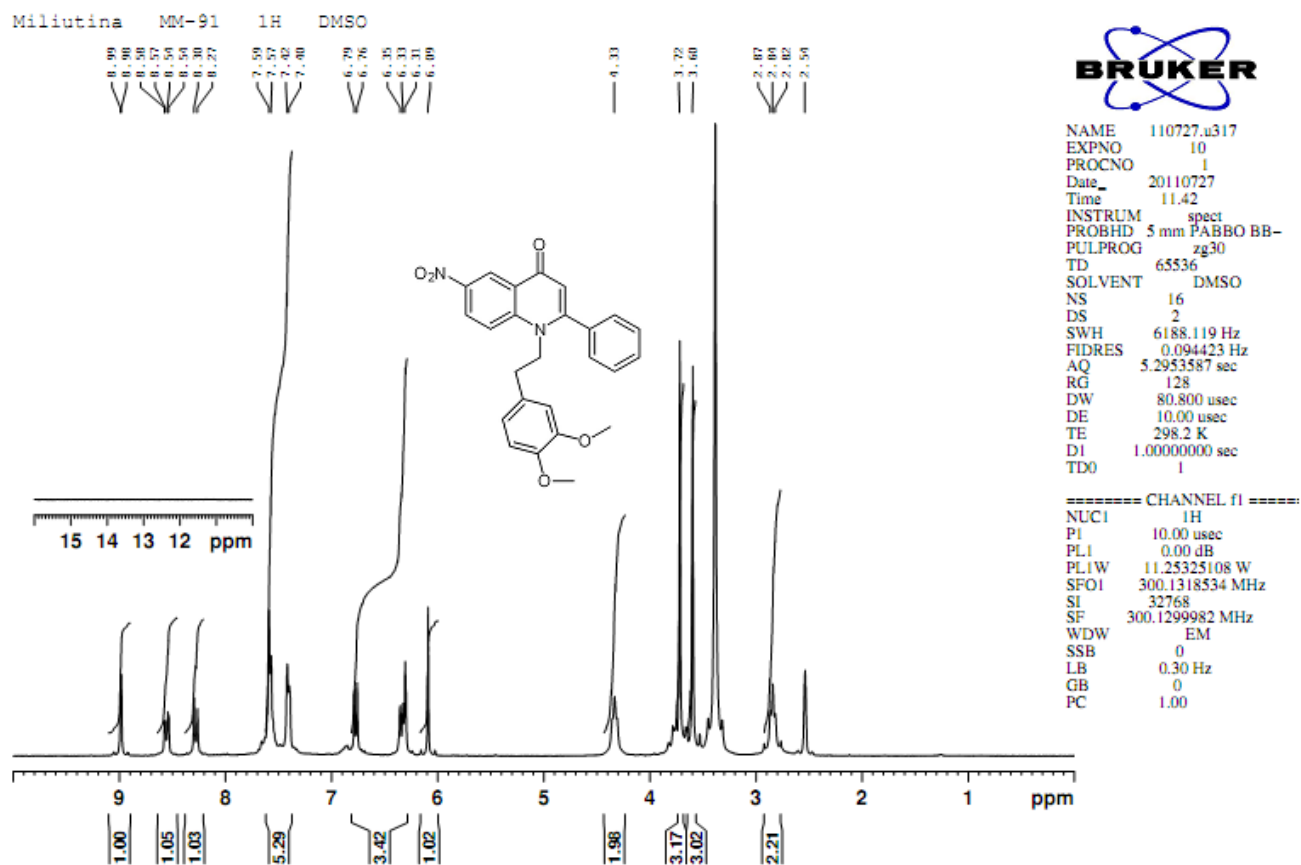


NAME 120123.0326
 EXPNO 12
 PROCNO 1
 Date_ 20120124
 Time 7.40
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 1024
 DS 4
 SWH 18028.846 Hz
 FIDRES 0.275098 Hz
 AQ 1.8175818 sec
 RG 2050
 DW 27.733 usec
 DE 10.00 usec
 TE 298.2 K
 D1 2.0000000 sec
 D11 0.03000000 sec
 TDO 1

===== CHANNEL f1 =====
 NUC1 13C
 P1 10.00 usec
 PL1 -0.50 dB
 PL1W 33.25691986 W
 SFO1 75.4752953 MHz

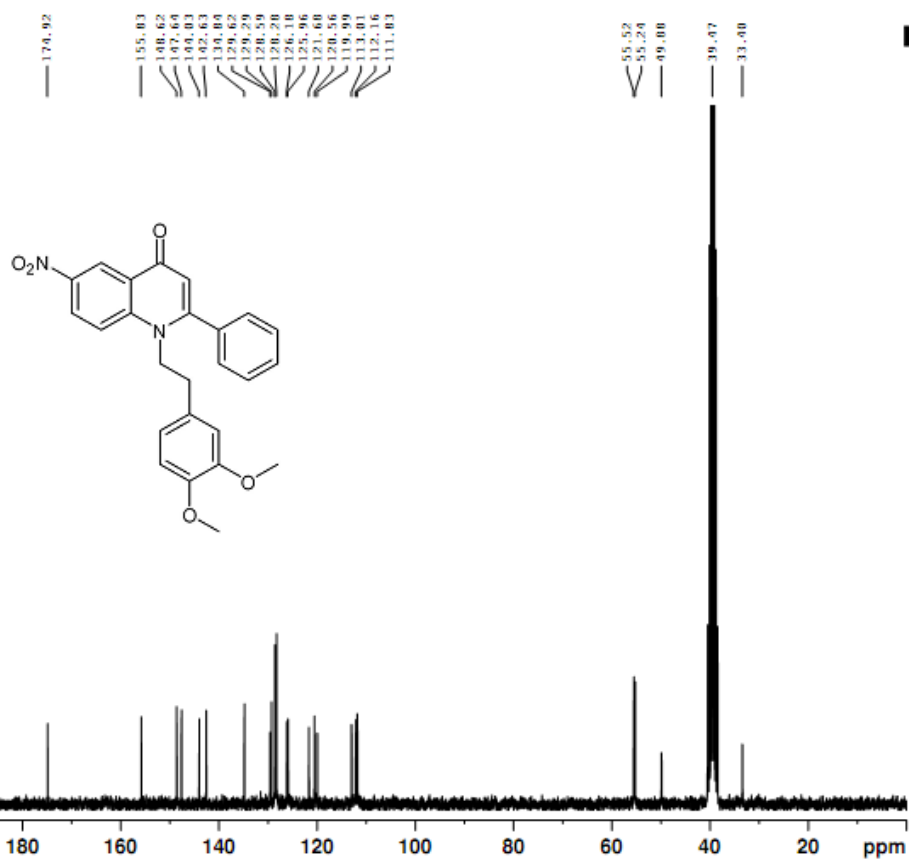
===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 72.00 usec
 PL2 0.00 dB
 PL12 17.00 dB
 PL13 17.00 dB
 PL2W 11.25325108 W
 PL12W 0.22453187 W
 PL13W 0.22453187 W
 SFO2 300.1312005 MHz
 SI 32768
 SF 75.4681893 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1-(3,4-Dimethoxyphenethyl)-6-nitro-2-phenylquinolin-4(1H)-one (7ba).



1-(3,4-Dimethoxyphenethyl)-6-nitro-2-phenylquinolin-4(1H)-one (7ba).

Miliutina MM-91 13C DMSO

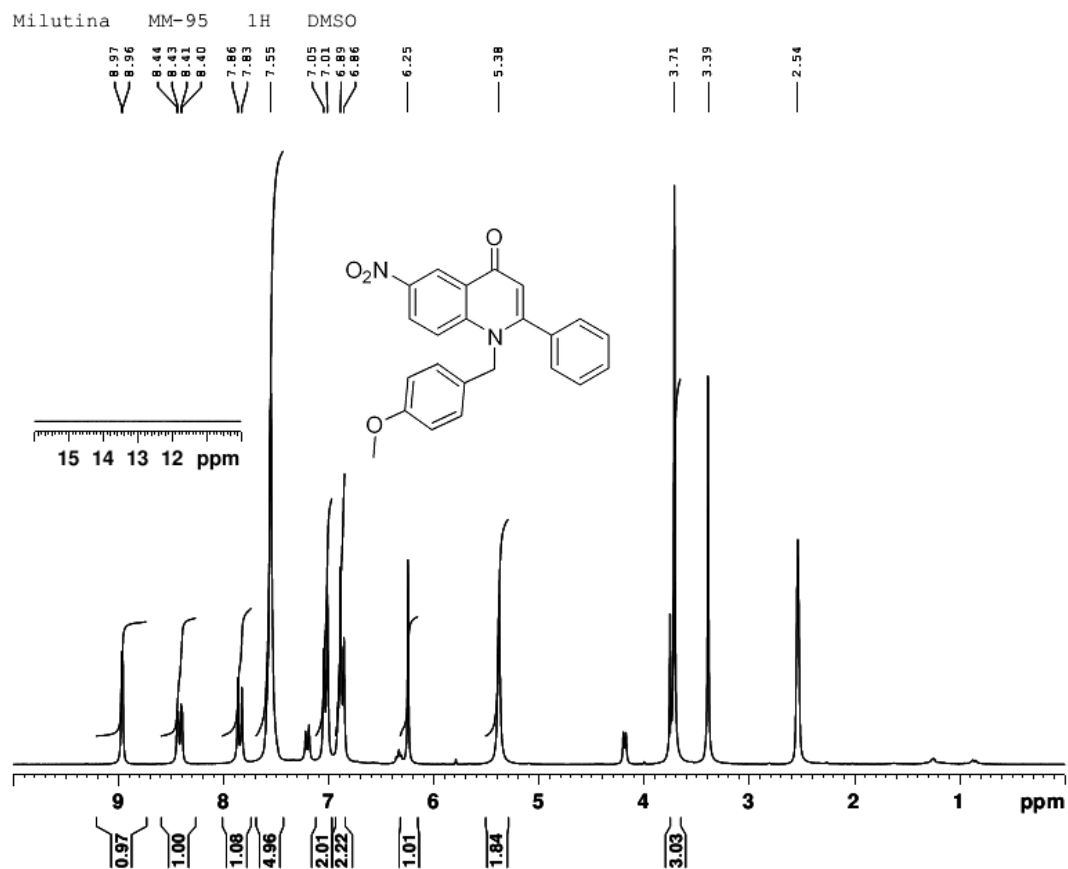


NAME 110727.205
 EXPNO 10
 PROCNO 1
 Date_ 20110727
 Time 16.25
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 1024
 DS 4
 SWH 15000.000 Hz
 FIDRES 0.228882 Hz
 AQ 2.1845834 sec
 RG 2050
 DW 33.333 usec
 DE 10.00 usec
 TE 298.8 K
 D1 2.00000000 sec
 d11 0.03000000 sec
 DELTA 1.89999998 sec
 TD0 1

===== CHANNEL f1 =====
 NUC1 13C
 P1 10.00 usec
 PL1 -1.00 dB
 SFO1 62.9015280 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 70.00 usec
 PL12 15.00 dB
 PL13 15.00 dB
 PL2 -2.50 dB
 SFO2 250.1310005 MHz
 S1 32768
 SF 62.8952704 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

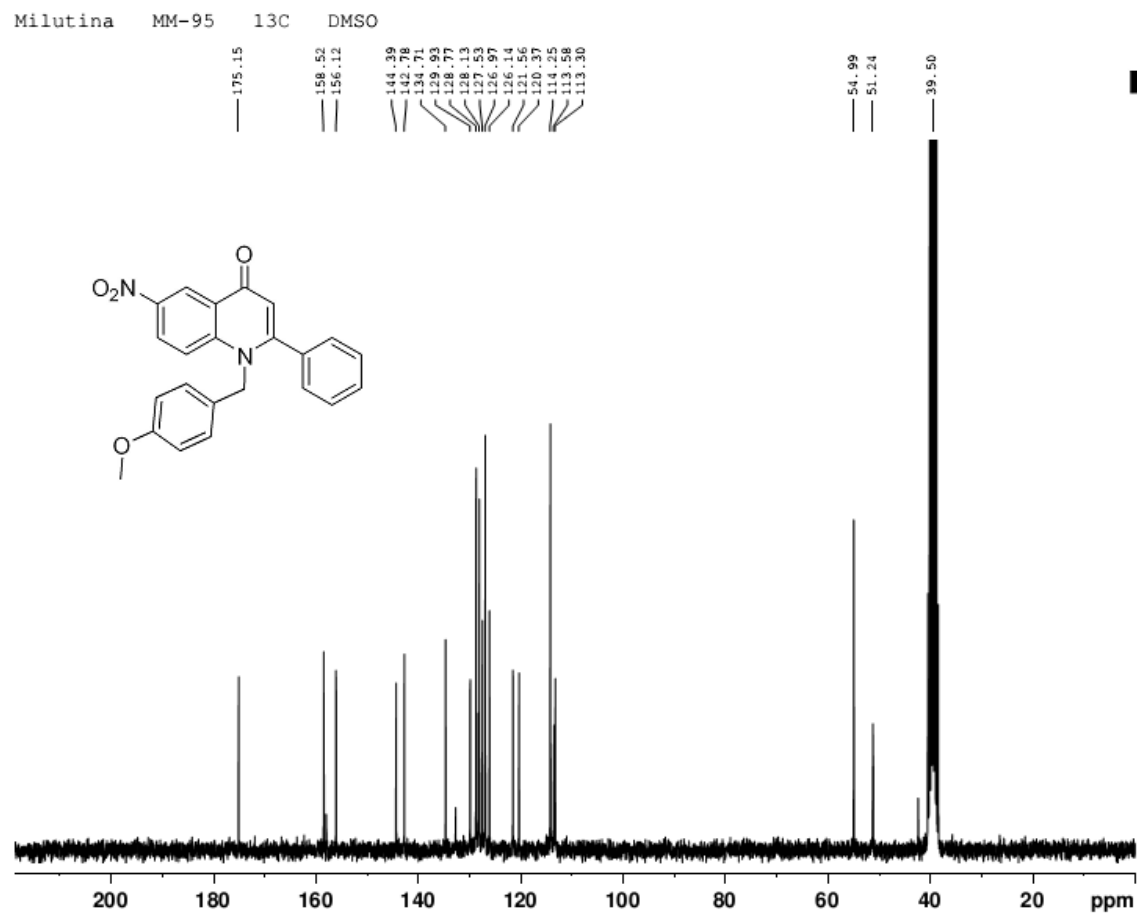
1-(4-Methoxybenzyl)-6-nitro-2-phenylquinolin-4(1H)-one (7bb).



NAME 121024.207
EXPNO 10
PROCNO 1
Date_ 20121024
Time 14.12
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 16
DS 2
SWH 5165.289 Hz
FIDRES 0.078816 Hz
AQ 6.3439350 sec
RG 322
DW 96.800 usec
DE 10.00 usec
TE 296.5 K
D1 1.00000000 sec
TD0 1

===== CHANNEL f1 =====
NUC1 1H
P1 10.00 usec
PL1 -2.50 dB
SFO1 250.1315447 MHz
SI 32768
SF 250.1299880 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

1-(4-Methoxybenzyl)-6-nitro-2-phenylquinolin-4(1H)-one (7bb).

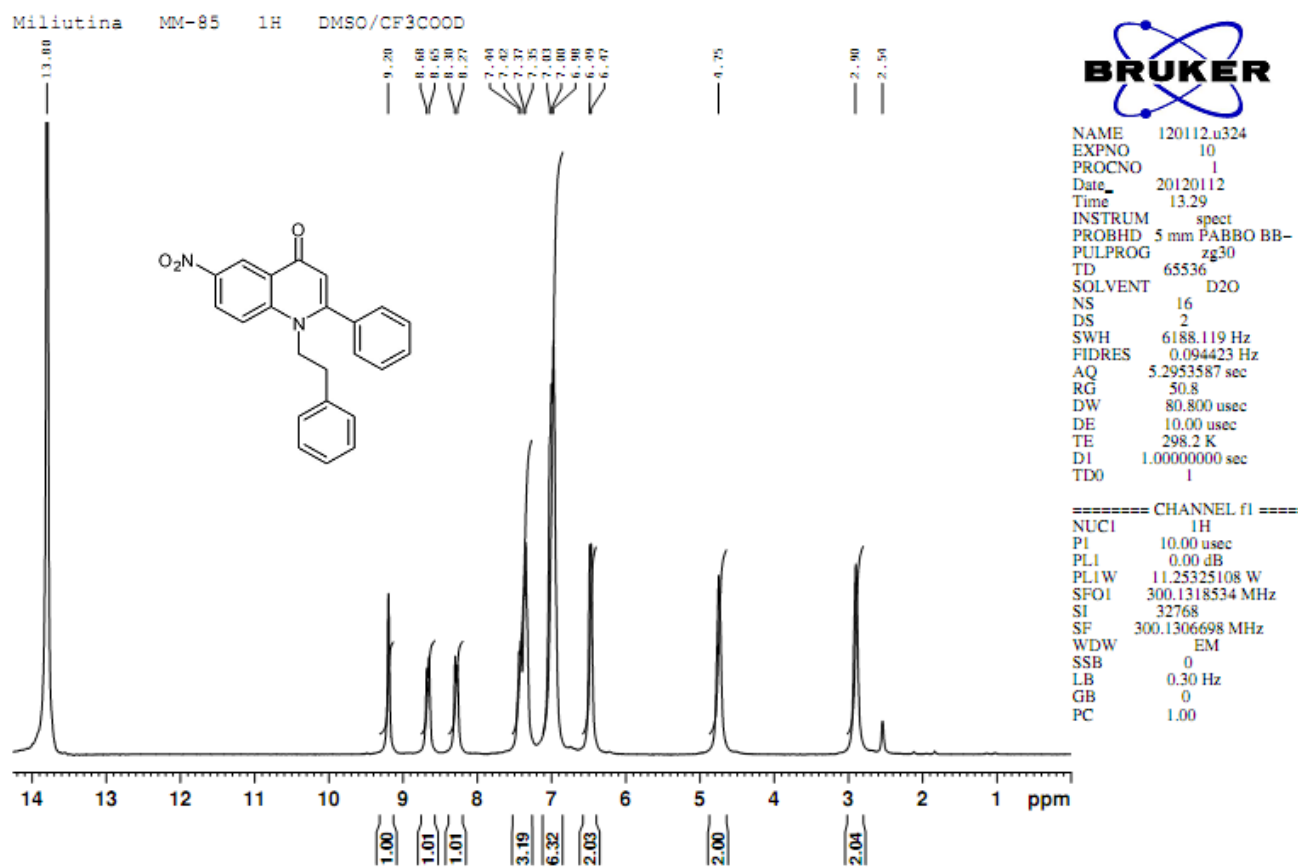


NAME 121024.207
EXPNO 11
PROCNO 1
Date_ 20121024
Time 20.35
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 1024
DS 4
SWH 15000.000 Hz
FIDRES 0.228882 Hz
AQ 2.1845834 sec
RG 2050
DW 33.333 usec
DE 10.00 usec
TE 297.4 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
TD0 1

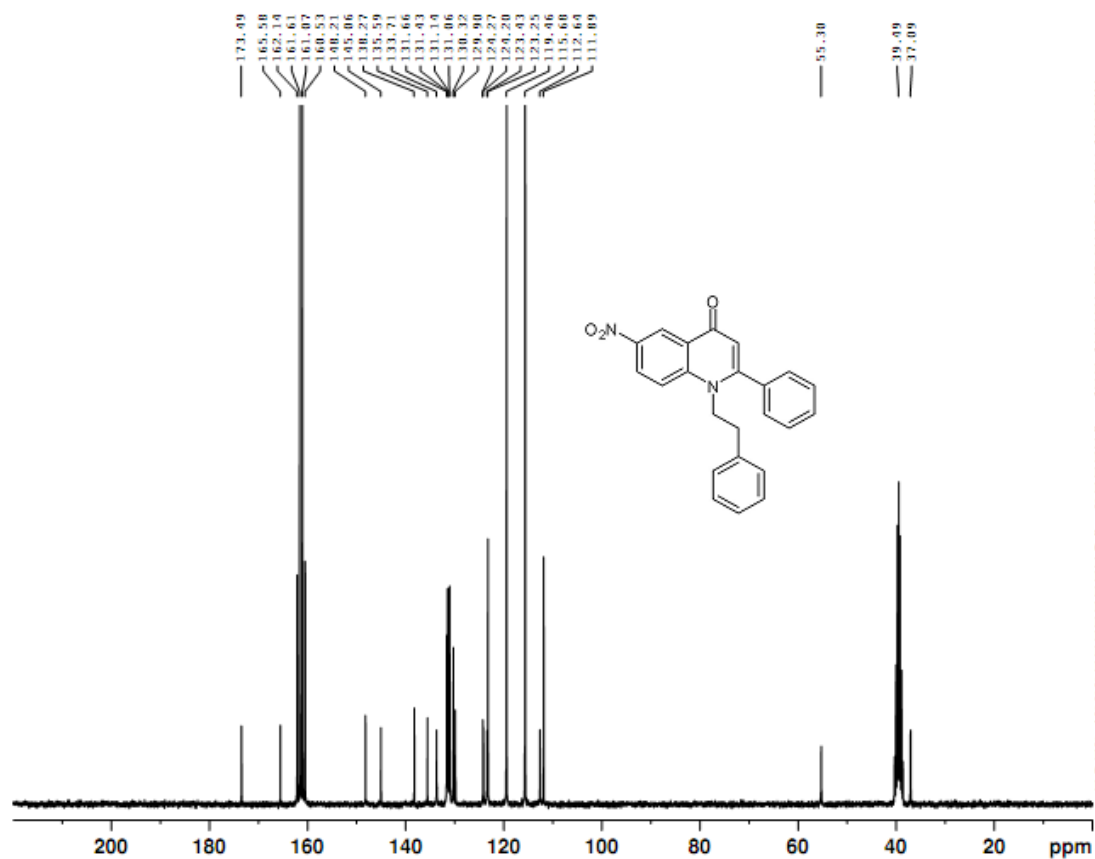
==== CHANNEL f1 ====
NUC1 13C
P1 10.00 usec
PL1 -1.00 dB
SFO1 62.9015280 MHz

==== CHANNEL f2 ====
CPDPRG2 waltz16
NUC2 1H
PCPD2 70.00 usec
PL12 15.00 dB
PL13 15.00 dB
PL2 -2.50 dB
SFO2 250.1310005 MHz
SI 32768
SF 62.8952687 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

6-Nitro-1-phenethyl-2-phenylquinolin-4(1H)-one (7bc).



6-Nitro-1-phenethyl-2-phenylquinolin-4(1H)-one (7bc).

Miliutina MM-85 13C DMSO-*d*₆

NAME 120112_u324
 EXPNO 12
 PROCNO 1
 Date_ 20120113
 Time 2.30
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT D2O
 NS 1024
 DS 4
 SWH 18028.846 Hz
 FIDRES 0.275098 Hz
 AQ 1.8175818 sec
 RG 2050
 DW 27.733 usec
 DE 10.00 usec
 TE 298.2 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TDO 1

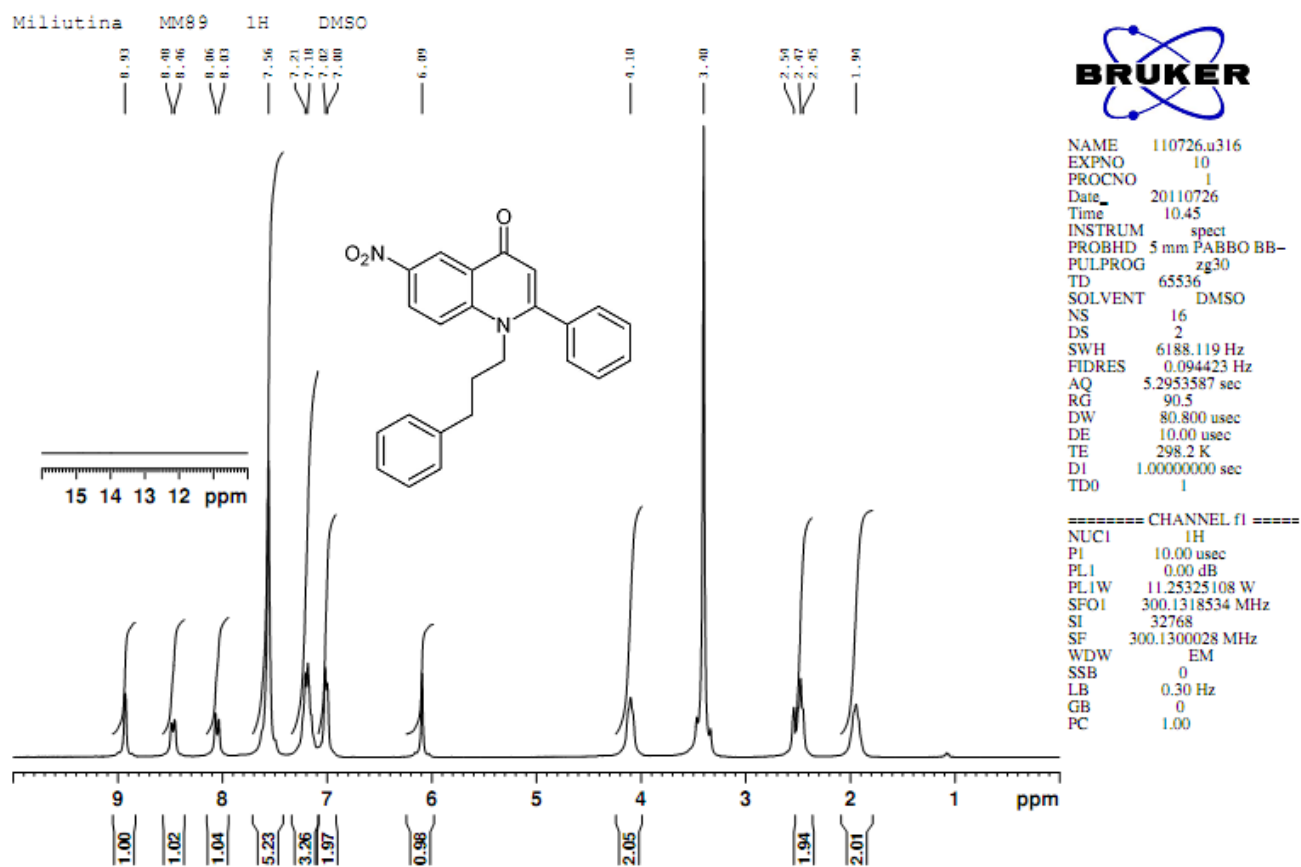
===== CHANNEL f1 =====

NUC1 13C
 P1 10.00 usec
 PL1 -0.50 dB
 PL1W 33.25691986 W
 SFO1 75.4752953 MHz

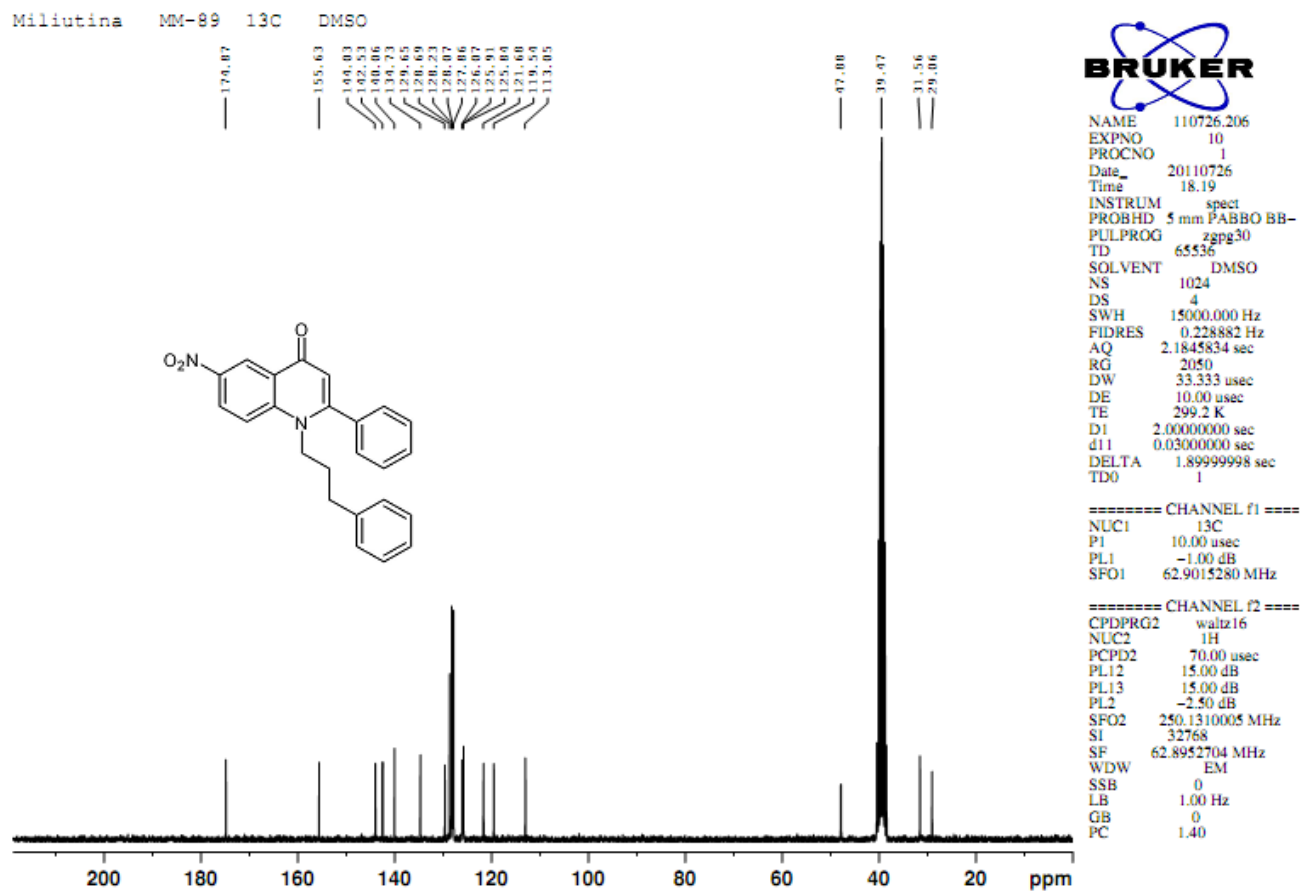
===== CHANNEL f2 =====

CPDPRG2 waltz16
 NUC2 1H
 PCPD2 72.00 usec
 PL2 0.00 dB
 PL12 17.00 dB
 PL13 17.00 dB
 PL2W 11.25325108 W
 PL12W 0.22453187 W
 PL13W 0.22453187 W
 SFO2 300.1312005 MHz
 SI 32768
 SF 75.4677074 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

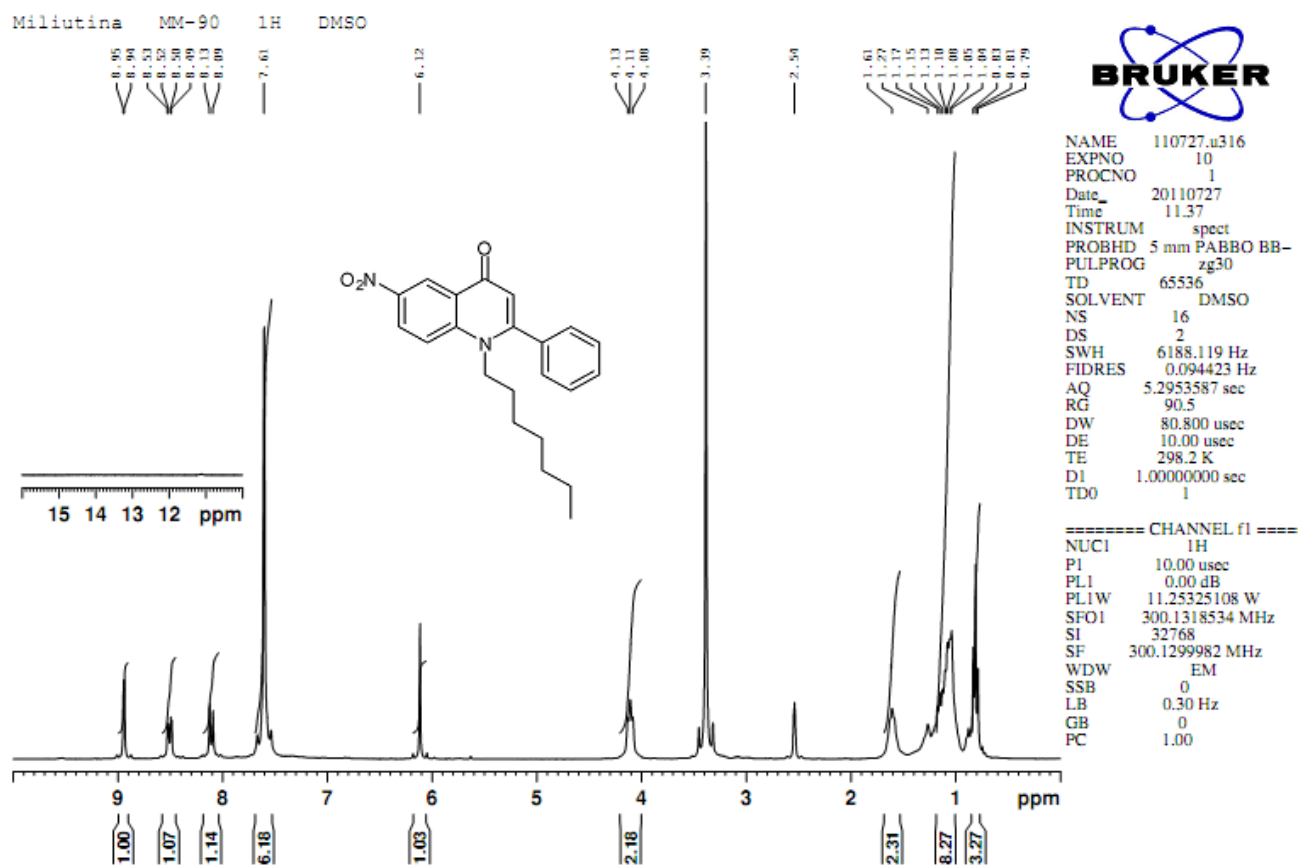
6-Nitro-4-oxo-2-phenyl-1-(3-phenylpropyl)quinoline (7bd).



6-Nitro-4-oxo-2-phenyl-1-(3-phenylpropyl)quinoline (7bd).



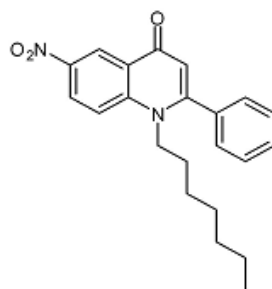
1-Heptyl-6-nitro-2-phenylquinolin-4(1H)-one (7be).



1-Heptyl-6-nitro-2-phenylquinolin-4(1H)-one (7be).

Miliutina MM-90 13C DMSO

179.05
155.66
144.01
142.54
139.91
129.67
128.20
126.11
125.92
121.67
119.69
113.04



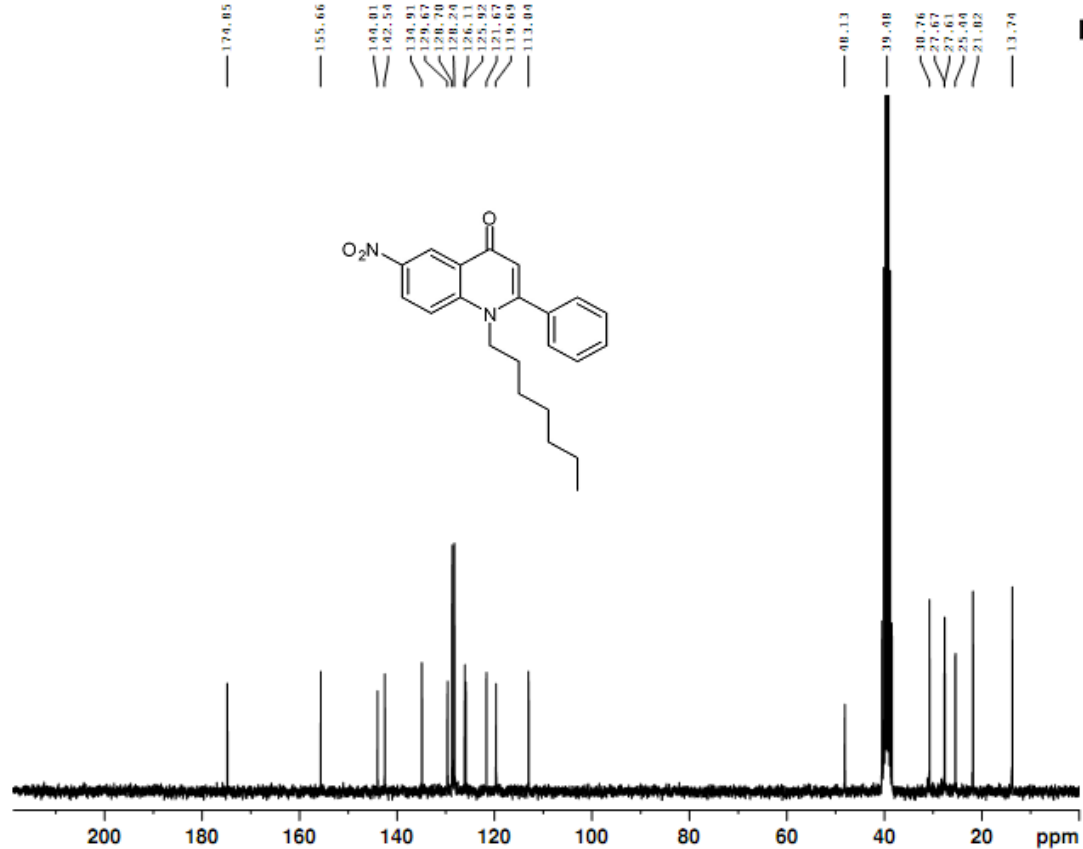
40.13
39.00
30.76
29.67
27.61
25.99
21.02
13.79



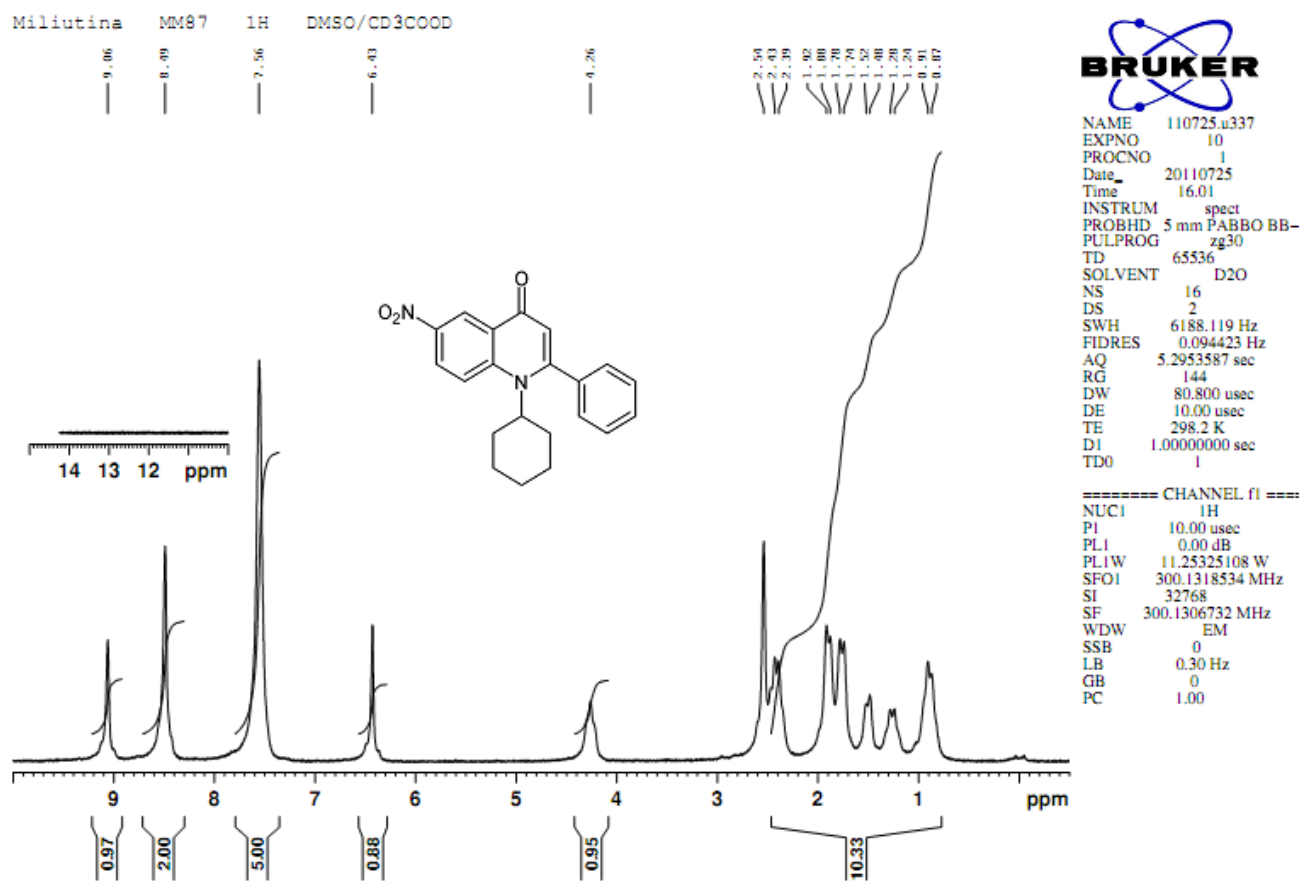
NAME 110727.204
EXPNO 10
PROCNO 1
Date_ 20110727
Time 14.48
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 1024
DS 4
SWH 15000.000 Hz
FIDRES 0.228882 Hz
AQ 2.1845834 sec
RG 2050
DW 33.353 usec
DE 10.00 usec
TE 299.3 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
TD0 1

===== CHANNEL f1 =====
NUC1 13C
P1 10.00 usec
PL1 -1.00 dB
SFO1 62.9015280 MHz

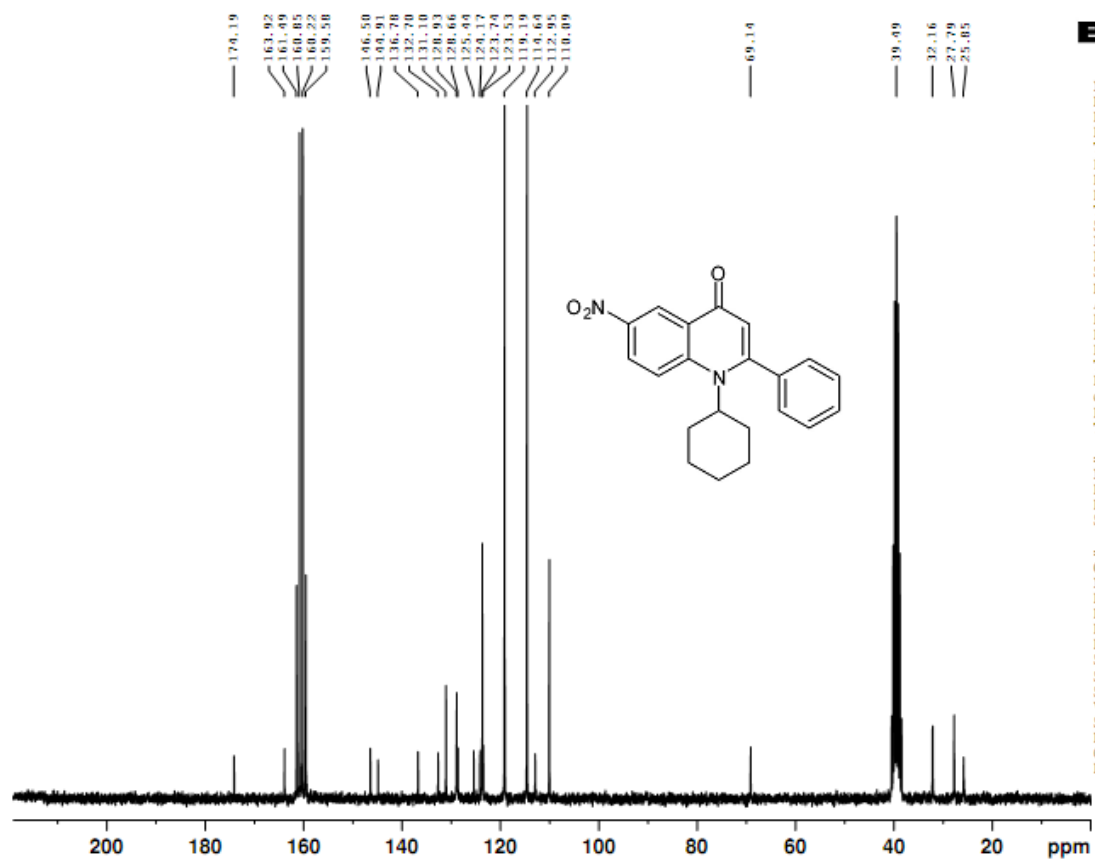
===== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 70.00 usec
PL12 15.00 dB
PL13 15.00 dB
PL2 -2.50 dB
SFO2 250.1310005 MHz
S1 32768
SF 62.8952704 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40



1-cyclohexane-6-nitro-4-oxo-2-phenylquinoline (7bf).



1-cyclohexane-6-nitro-4-oxo-2-phenylquinoline (7bf).

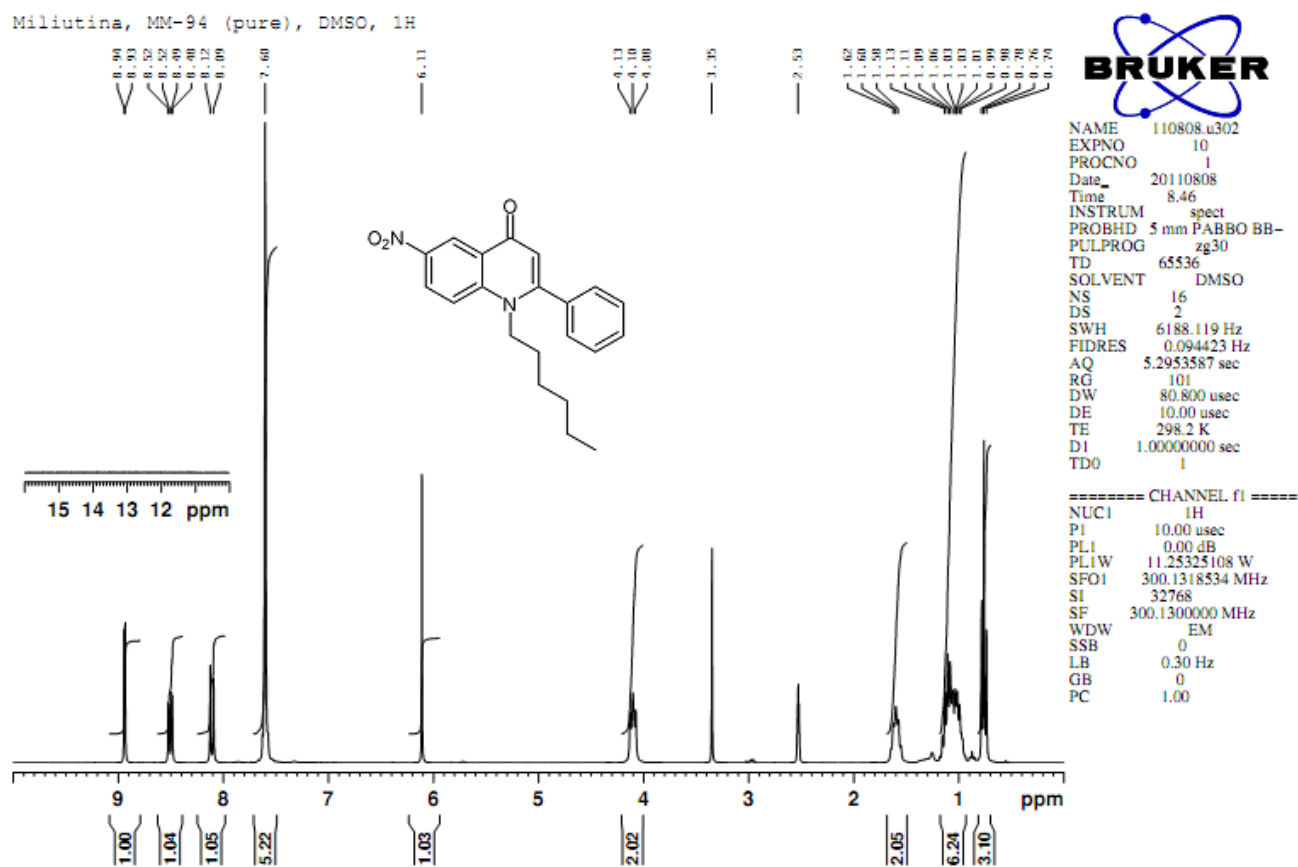
Millutina, MM-87, DMSO- d_6 /CF $_3$ COOD, 13C

NAME 120113.206
 EXPNO 10
 PROCNO 1
 Date_ 20120113
 Time 17.40
 INSTRUM spect
 PROBHD 5 mm QNP 1H/13
 PULPROG zgpg30
 TD 65536
 SOLVENT D2O
 NS 1024
 DS 4
 SWH 15000.000 Hz
 FIDRES 0.228882 Hz
 AQ 2.1845834 sec
 RG 2050
 DW 33.333 usec
 DE 10.00 usec
 TE 298.2 K
 D1 2.0000000 sec
 d11 0.0300000 sec
 DELTA 1.89999998 sec
 TD0 1

===== CHANNEL f1 =====
 NUC1 13C
 P1 10.20 usec
 PL1 0.00 dB
 SFO1 62.9015280 MHz

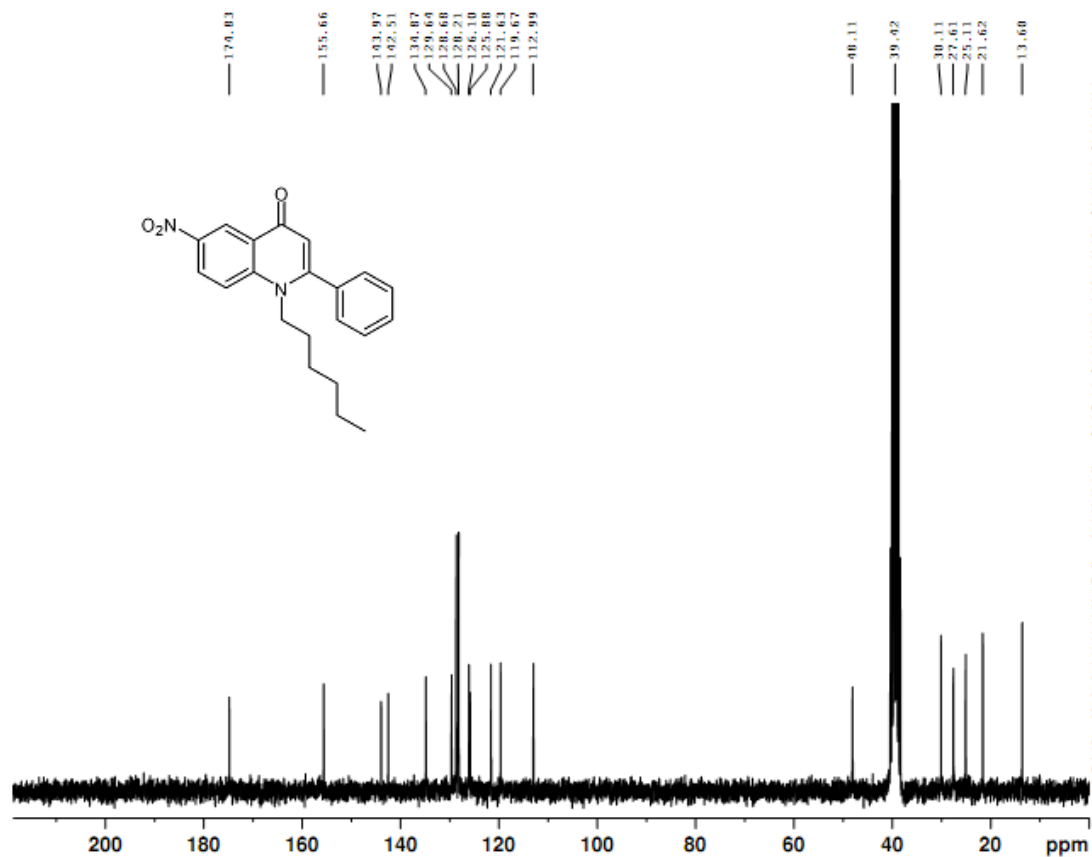
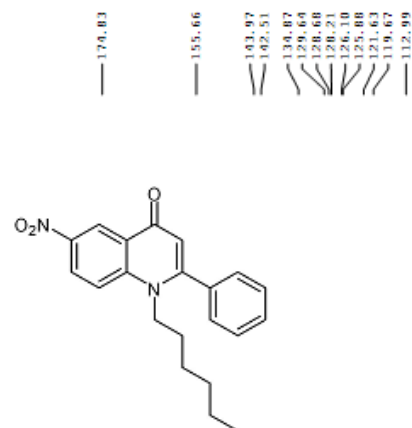
===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 70.00 usec
 PL12 14.00 dB
 PL13 14.00 dB
 PL2 -3.00 dB
 SFO2 250.1310005 MHz
 SI 32768
 SF 62.8952522 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1-Hexyl-6-nitro-2-phenylquinolin-4(1H)-one (7bg).



1-Hexyl-6-nitro-2-phenylquinolin-4(1H)-one (7bg).

Millutina, MM-94, DMSO, 13C



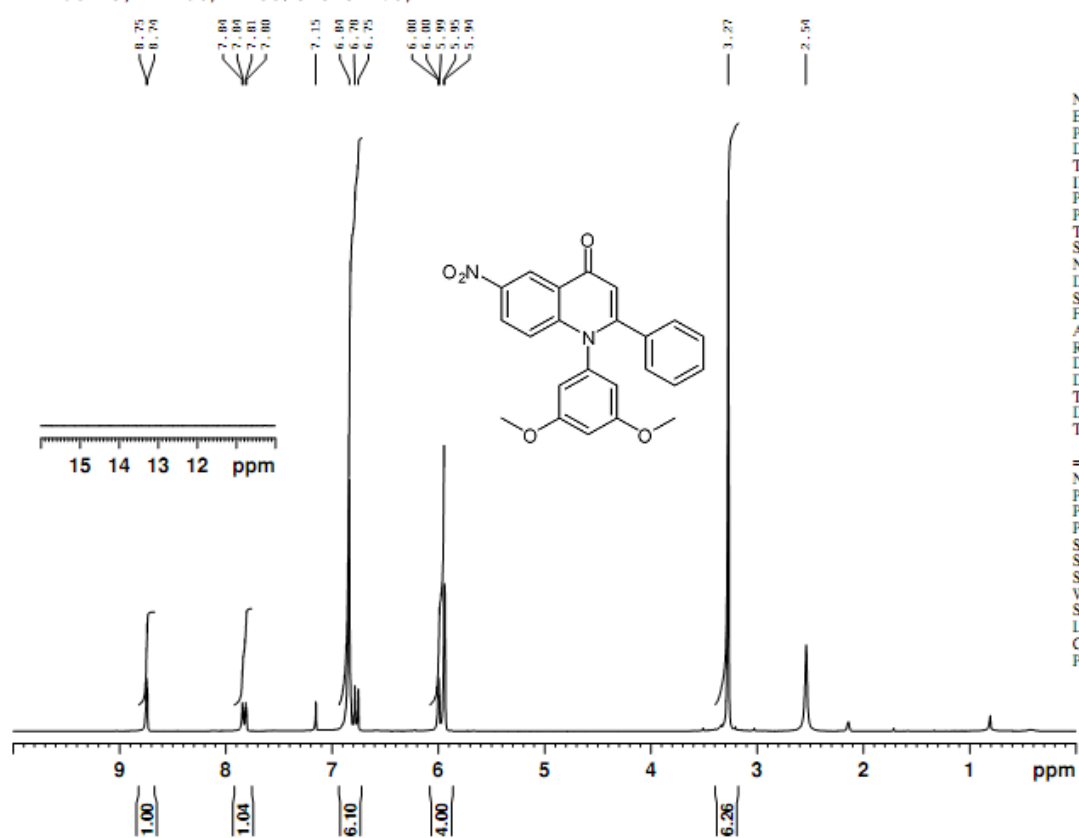
NAME 120113.207
 EXPNO 10
 PROCNO 1
 Date_ 20120113
 Time 19.23
 INSTRUM spect
 PROBHD 5 mm QNP 1H/13
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 1024
 DS 4
 SWH 15000.000 Hz
 FIDRES 0.228882 Hz
 AQ 2.1845834 sec
 RG 2050
 DW 33.333 usec
 DE 10.00 usec
 TE 298.2 K
 D1 2.0000000 sec
 d11 0.0300000 sec
 DELTA 1.89999998 sec
 TD0 1

===== CHANNEL f1 =====
 NUC1 13C
 P1 10.20 usec
 PL1 0.00 dB
 SFO1 62.9015280 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 70.00 usec
 PL12 14.00 dB
 PL13 14.00 dB
 PL2 -3.00 dB
 SFO2 250.1310005 MHz
 SI 32768
 SF 62.8952704 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1-(3,5-dimethoxybenzen)-6-nitro-4-oxo-2-phenylquinoline (7bh).

Miliutina, mm-86, DMSO/CDCl3 1:5, 1H

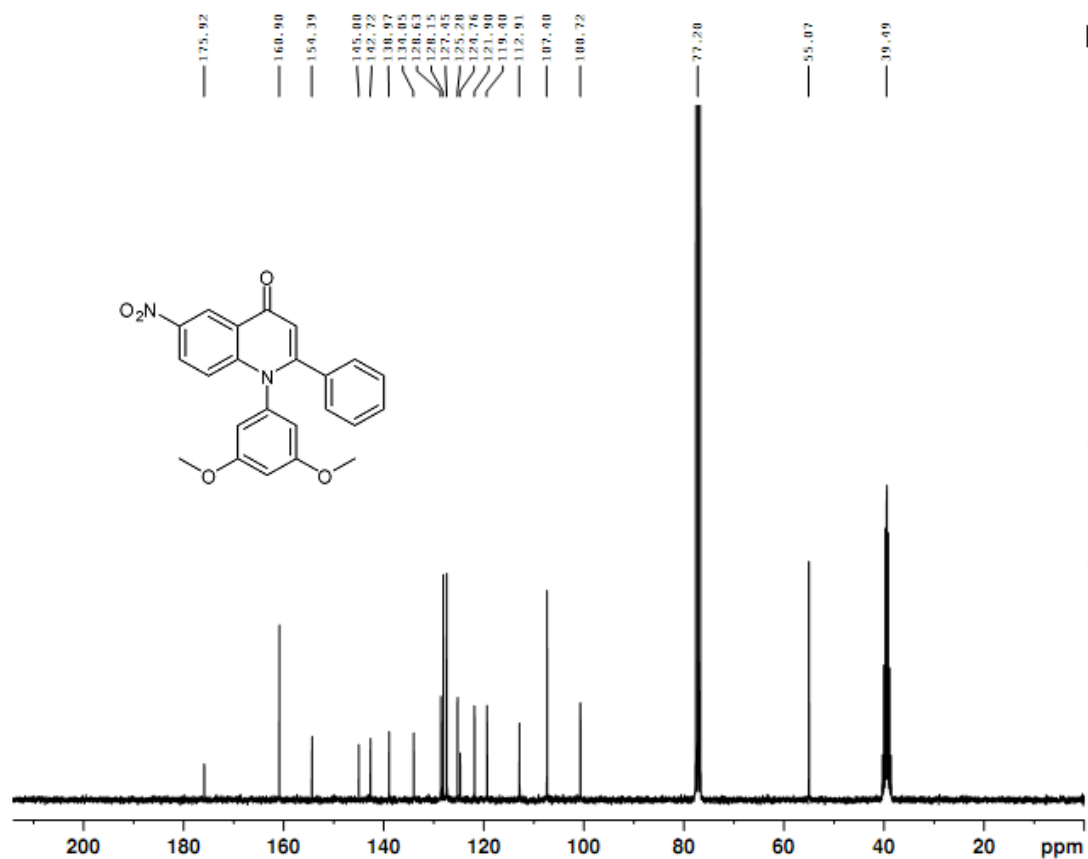


NAME 120113.u325
 EXPNO 10
 PROCNO 1
 Date_ 20120115
 Time 18.27
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7263477 sec
 RG 181
 DW 41.600 usec
 DE 10.00 usec
 TE 298.2 K
 D1 1.00000000 sec
 TD0 1

===== CHANNEL f1 =====
 NUC1 1H
 P1 10.00 usec
 PL1 0.00 dB
 PL1W 11.25325108 W
 SFO1 300.1318534 MHz
 SI 32768
 SF 300.1315388 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1-(3,5-dimethoxybenzen)-6-nitro-4-oxo-2-phenylquinoline (7bh).

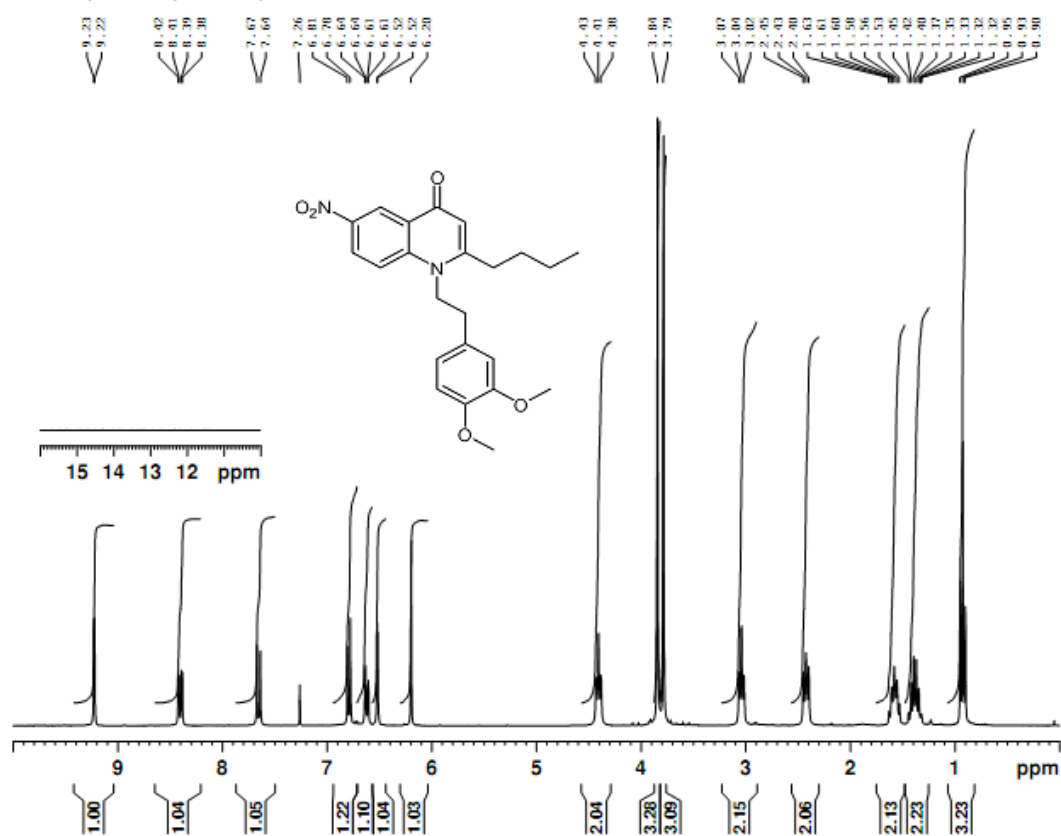
Miliutina, mm-86, DMSO/CDCl3 1:5, 13C



NAME 120113.u325
 EXPNO 11
 PROCNO 1
 Date_ 20120115
 Time 20.41
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 2048
 DS 4
 SWH 18028.846 Hz
 FIDRES 0.275098 Hz
 AQ 1.8175818 sec
 RG 2050
 DW 27.733 usec
 DE 10.00 usec
 TE 298.2 K
 D1 2.0000000 sec
 D11 0.0300000 sec
 TD0 1

===== CHANNEL f1 =====
 NUC1 13C
 P1 10.00 usec
 PL1 -0.50 dB
 PL1W 33.25691986 W
 SFO1 75.4752953 MHz

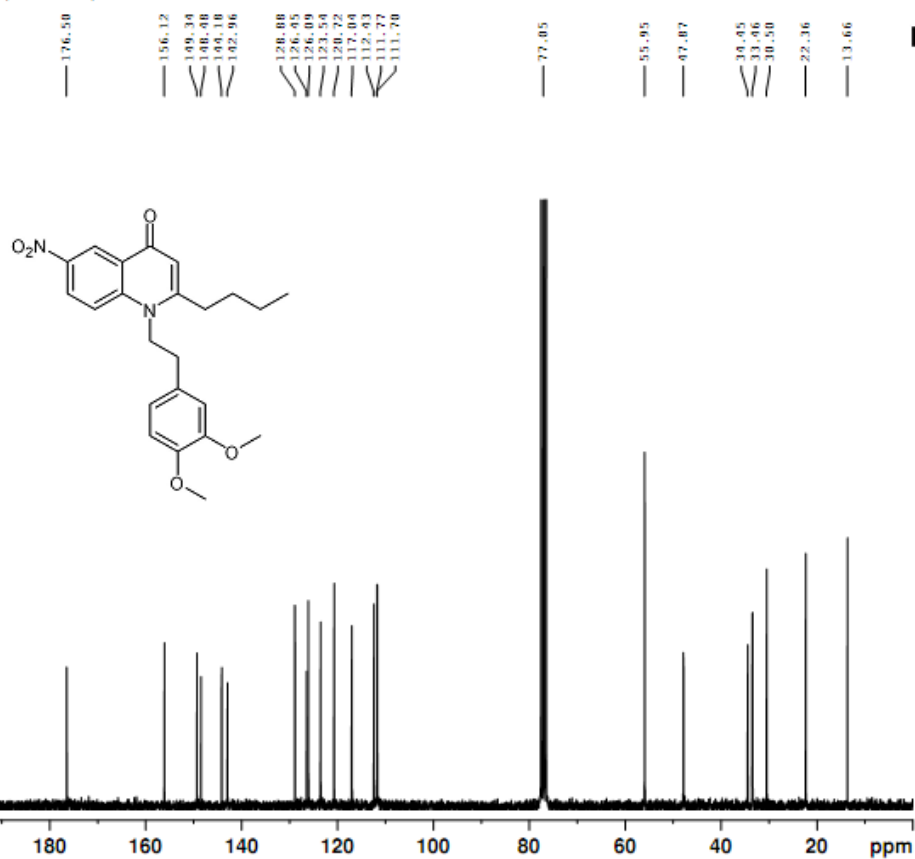
===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 72.00 usec
 PL2 0.00 dB
 PL12 17.00 dB
 PL13 17.00 dB
 PL2W 11.25325108 W
 PL12W 0.22453187 W
 PL13W 0.22453187 W
 SFO2 300.1312005 MHz
 SI 32768
 SF 75.4681550 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

6-Nitro-1-(3,4-dimethoxyphenethyl)-2-*p*-tolyl-4-quinolone (7ca).Ivanov, AI-42, CDCl₃, 1H

NAME 120207.u302
 EXPNO 10
 PROCNO 1
 Date_ 20120207
 Time 8.42
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl₃
 NS 16
 DS 2
 SWH 6188.119 Hz
 FIDRES 0.094423 Hz
 AQ 5.2953587 sec
 RG 50.8
 DW 80.800 usec
 DE 10.00 usec
 TE 298.2 K
 D1 1.0000000 sec
 TD0 1

===== CHANNEL f1 =====
 NUC1 1H
 P1 10.00 usec
 PL1 0.00 dB
 PL1W 11.25325108 W
 SFO1 300.1318534 MHz
 SI 32768
 SF 300.1300086 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

6-Nitro-1-(3,4-dimethoxyphenethyl)-2-p-tyl-4-quinolone (7ca).

Ivanov, AI-42, CDCl₃, 13C

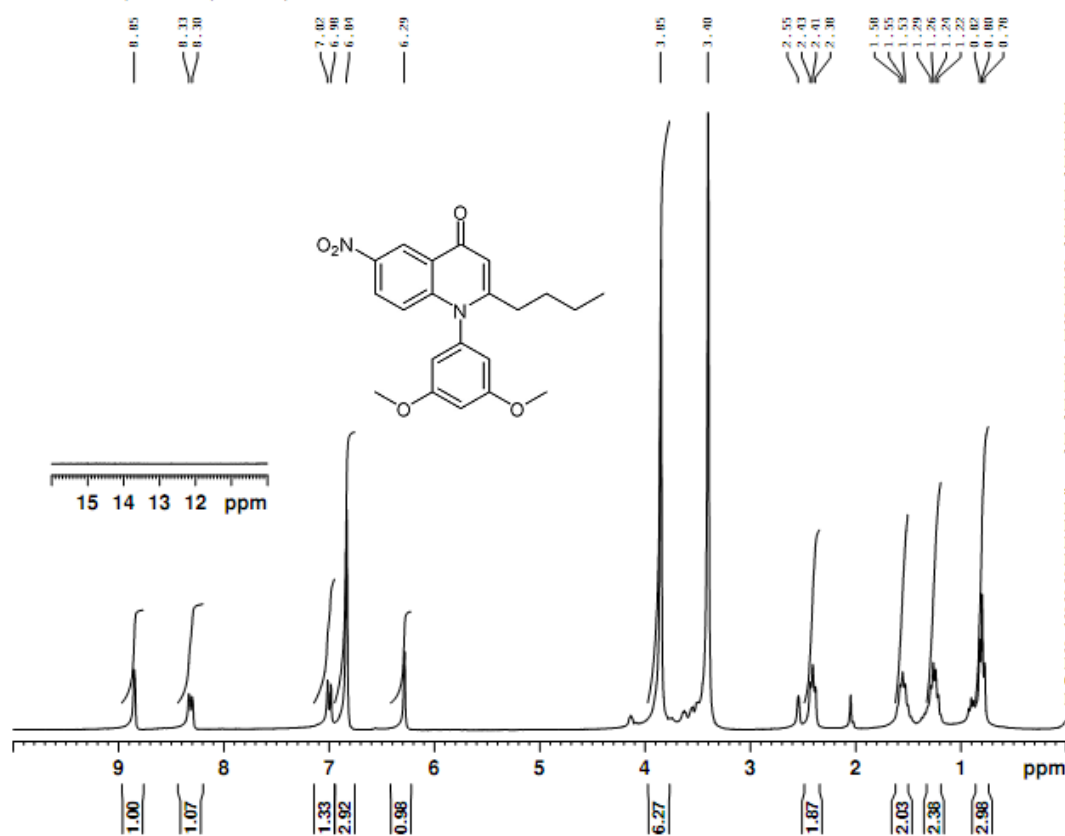
NAME 120207.204
 EXPNO 10
 PROCNO 1
 Date_ 20120207
 Time 15.21
 INSTRUM spect
 PROBHD 5 mm QNP 1H/13
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl₃
 NS 1024
 DS 4
 SWH 15000.000 Hz
 FIDRES 0.228882 Hz
 AQ 2.1845834 sec
 RG 2050
 DW 33.333 usec
 DE 10.00 usec
 TE 298.2 K
 D1 2.0000000 sec
 d11 0.0300000 sec
 DELTA 1.89999998 sec
 TDO 1

===== CHANNEL f1 =====
 NUC1 13C
 P1 10.20 usec
 PL1 0.00 dB
 SFO1 62.9015280 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 70.00 usec
 PL12 14.00 dB
 PL13 14.00 dB
 PL2 -3.00 dB
 SFO2 250.1310005 MHz
 SI 32768
 SF 62.8952390 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

2-Butyl-1-(3,5-dimethoxyphenyl)-6-nitroquinolin-4(1H)-one (7cb).

Miliutina, MM-93, DMSO, 1H

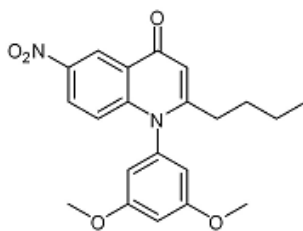
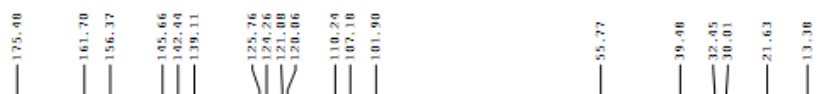


NAME 110804.u301
 EXPNO 10
 PROCNO 1
 Date_ 20110804
 Time 9.07
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 16
 DS 2
 SWH 6188.119 Hz
 FIDRES 0.094423 Hz
 AQ 5.2953587 sec
 RG 64
 DW 80.800 usec
 DE 10.00 usec
 TE 298.2 K
 D1 1.00000000 sec
 TD0 1

===== CHANNEL f1 =====
 NUC1 1H
 P1 10.00 usec
 PL1 0.00 dB
 PL1W 11.25325108 W
 SFO1 300.1318534 MHz
 S1 32768
 SF 300.1299991 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

2-Butyl-1-(3,5-dimethoxyphenyl)-6-nitroquinolin-4(1H)-one (7cb).

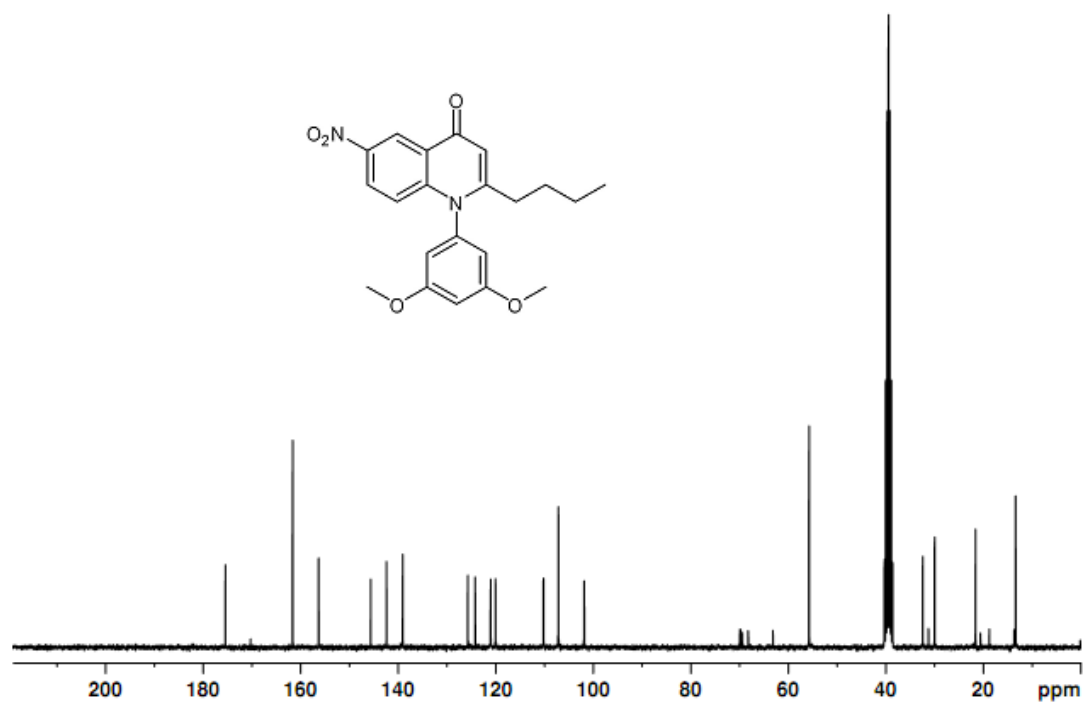
Miliutina, MM-93, DMSO, 13C



NAME 110809.u316
EXPNO 10
PROCNO 1
Date_ 20110809
Time 23.34
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 1024
DS 4
SWH 18028.846 Hz
FIDRES 0.275098 Hz
AQ 1.8175818 sec
RG 2050
DW 27.733 usec
DE 10.00 usec
TE 298.2 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1

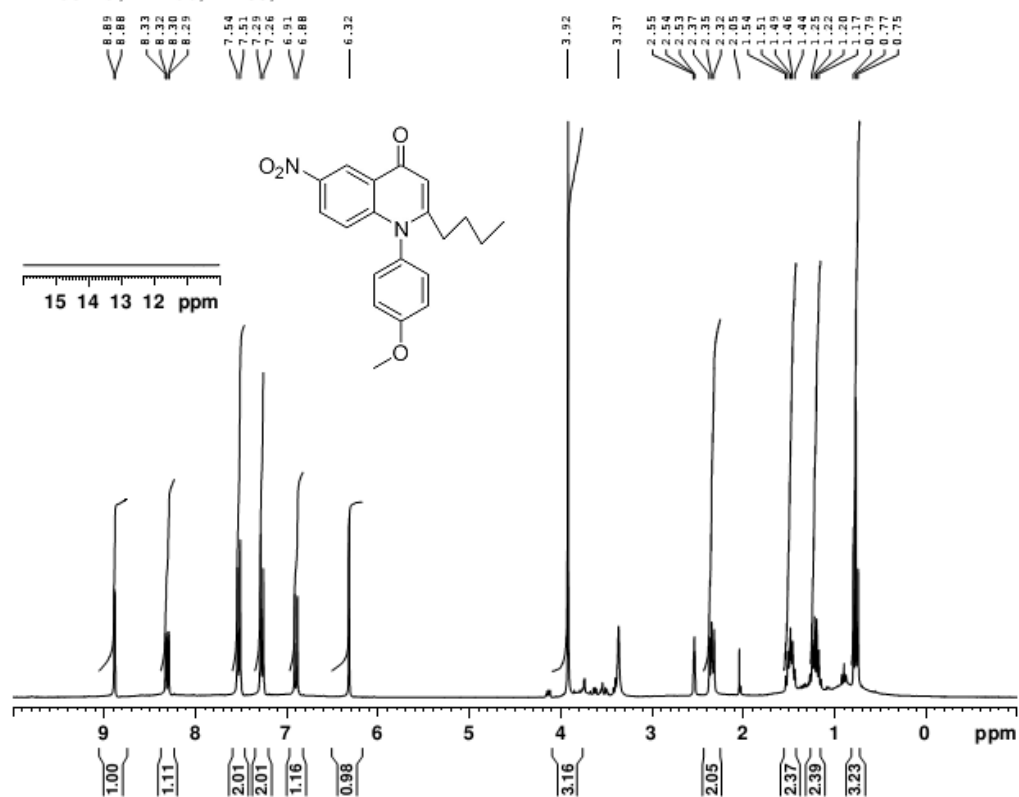
===== CHANNEL f1 =====
NUC1 13C
P1 10.00 usec
PL1 -0.50 dB
PL1W 33.25691986 W
SFO1 75.4752953 MHz

===== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 72.00 usec
PL2 0.00 dB
PL12 17.00 dB
PL13 17.00 dB
PL2W 11.25325108 W
PL12W 0.22453187 W
PL13W 0.22453187 W
SFO2 300.1312005 MHz
SI 32768
SF 75.4677864 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40



2-Butyl-1-(4-methoxyphenyl)-6-nitroquinolin-4(1H)-one (7cc).

Miliutina, MM-98, DMSO, 1H

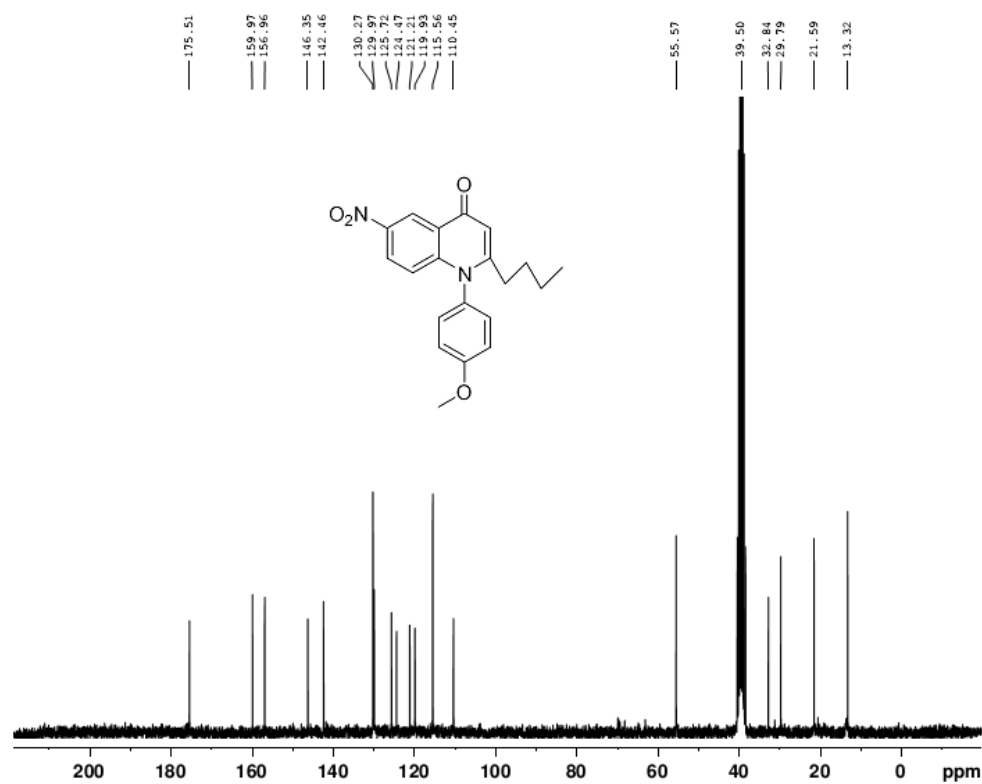


NAME 110816.u302
 EXPNO 10
 PROCNO 1
 Date_ 20110816
 Time 9.59
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 16
 DS 2
 SWH 6188.119 Hz
 FIDRES 0.094423 Hz
 AQ 5.2953587 sec
 RG 90.5
 DW 80.800 usec
 DE 10.00 usec
 TE 298.2 K
 D1 1.00000000 sec
 TD0 1

==== CHANNEL f1 ====
 NUC1 1H
 P1 10.00 usec
 PL1 0.00 dB
 PL1W 11.25325108 W
 SFO1 300.1318534 MHz
 S1 32768
 SF 300.1299964 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

2-Butyl-1-(4-methoxyphenyl)-6-nitroquinolin-4(1H)-one (7cc).

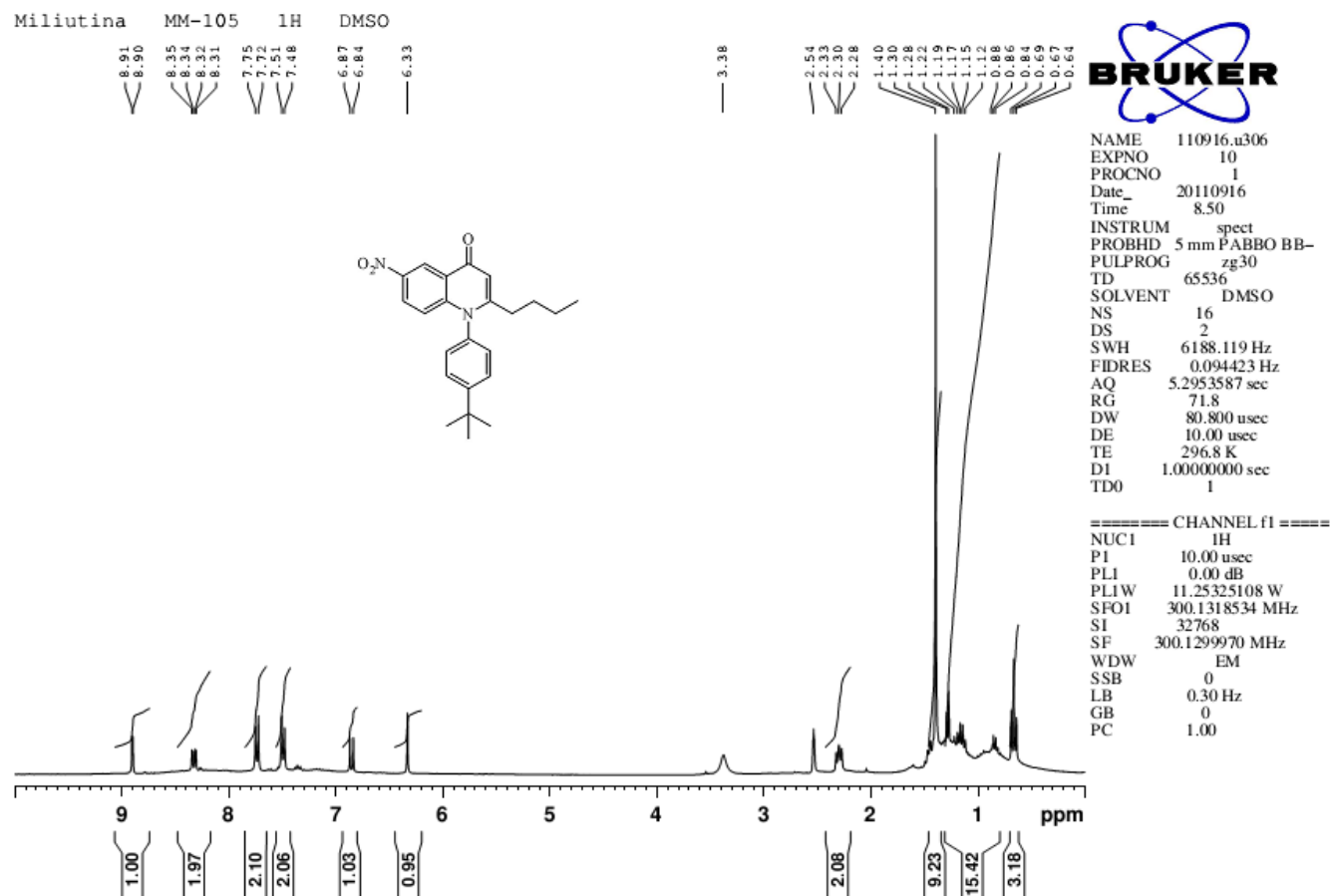
Miliutina, MM-98, DMSO, 13C

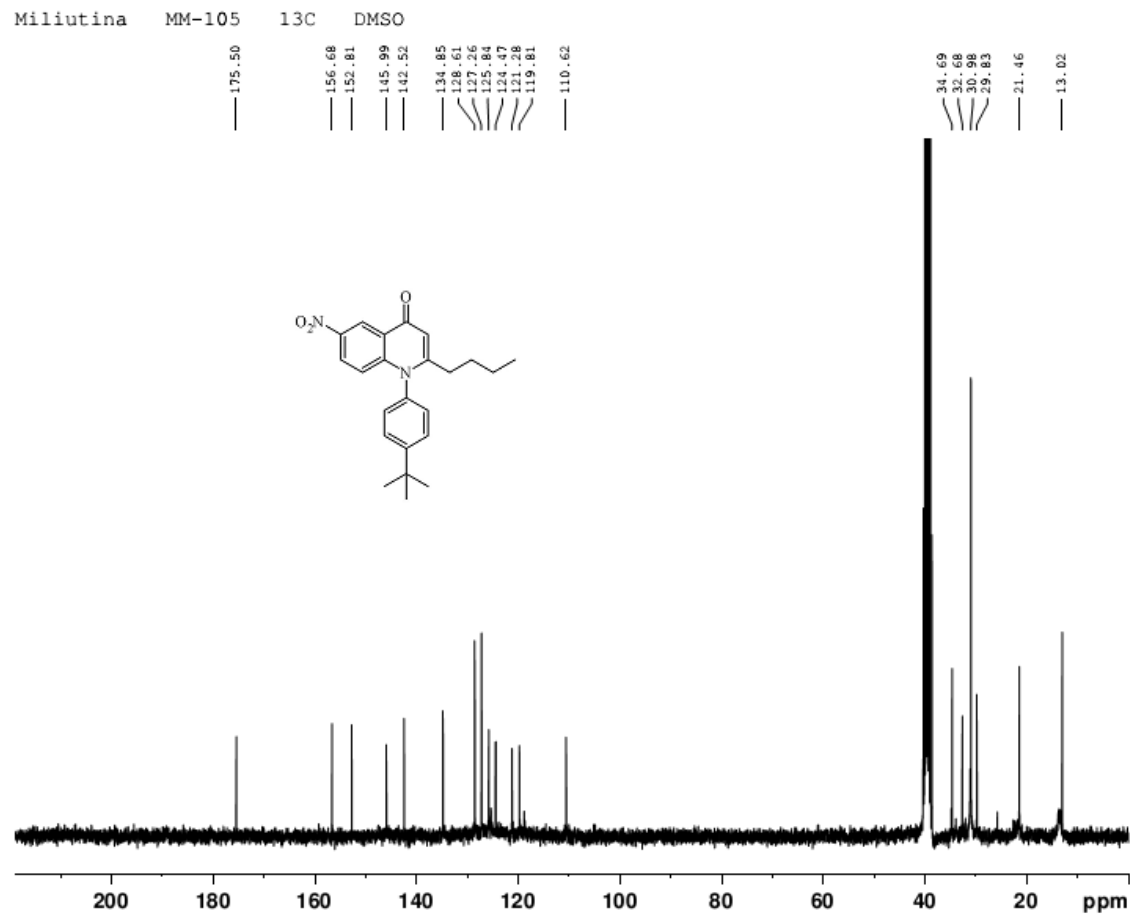


NAME 110818202
 EXPNO 10
 PROCNO 1
 Date_ 20110818
 Time 12.18
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 1024
 DS 4
 SWH 15000.000 Hz
 FIDRES 0.228882 Hz
 AQ 2.1845834 sec
 RG 1620
 DW 33.333 usec
 DE 10.00 usec
 TE 297.9 K
 DI 2.00000000 sec
 dI1 0.03000000 sec
 DELTA 1.89999998 sec
 TD0 1

===== CHANNEL f1 =====
 NUC1 13C
 P1 10.00 usec
 PL1 -1.00 dB
 SFO1 62.9015280 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 70.00 usec
 PL12 15.00 dB
 PL13 15.00 dB
 PL2 -2.50 dB
 SFO2 250.1310005 MHz
 SI 32768
 SF 62.8952692 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

2-Butyl-1-(4-*tert*-butylphenyl)-6-nitroquinolin-4(1*H*)-one (7cd).

2-Butyl-1-(4-*tert*-butylphenyl)-6-nitroquinolin-4(1*H*)-one (7cd).

NAME 110916.a306
 EXPNO 12
 PROCNO 1
 Date_ 20110917
 Time 2.19
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 1024
 DS 4
 SWH 18028.846 Hz
 FIDRES 0.275098 Hz
 AQ 1.8175818 sec
 RG 2050
 DW 27.733 usec
 DE 10.00 usec
 TE 297.7 K
 D1 2.0000000 sec
 D11 0.03000000 sec
 TDO 1

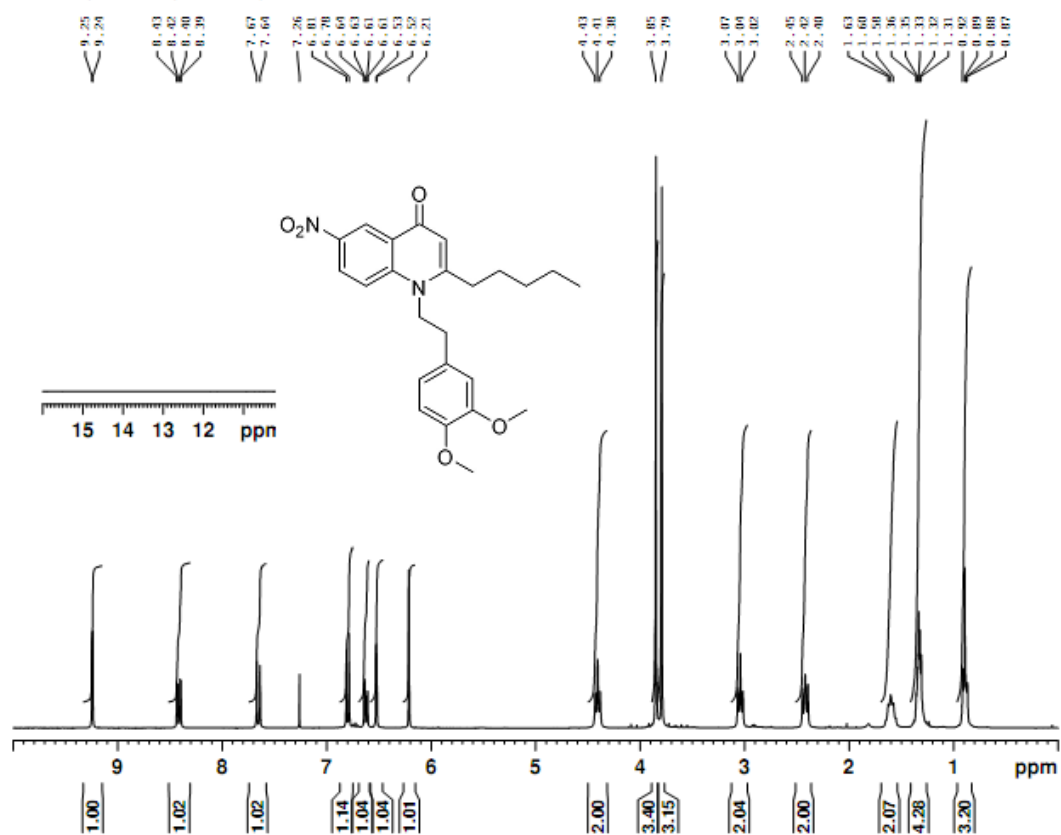
===== CHANNEL f1 =====

NUC1 13C
 P1 10.00 usec
 PL1 -0.50 dB
 PL1W 33.25691986 W
 SFO1 75.4752953 MHz

===== CHANNEL f2 =====

CPDPRG2 waltz16
 NUC2 1H
 PCPD2 72.00 usec
 PL2 0.00 dB
 PL12 17.00 dB
 PL13 17.00 dB
 PL2W 11.25325108 W
 PL12W 0.22453187 W
 PL13W 0.22453187 W
 SFO2 300.1312005 MHz
 S1 32768
 SF 75.4677867 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

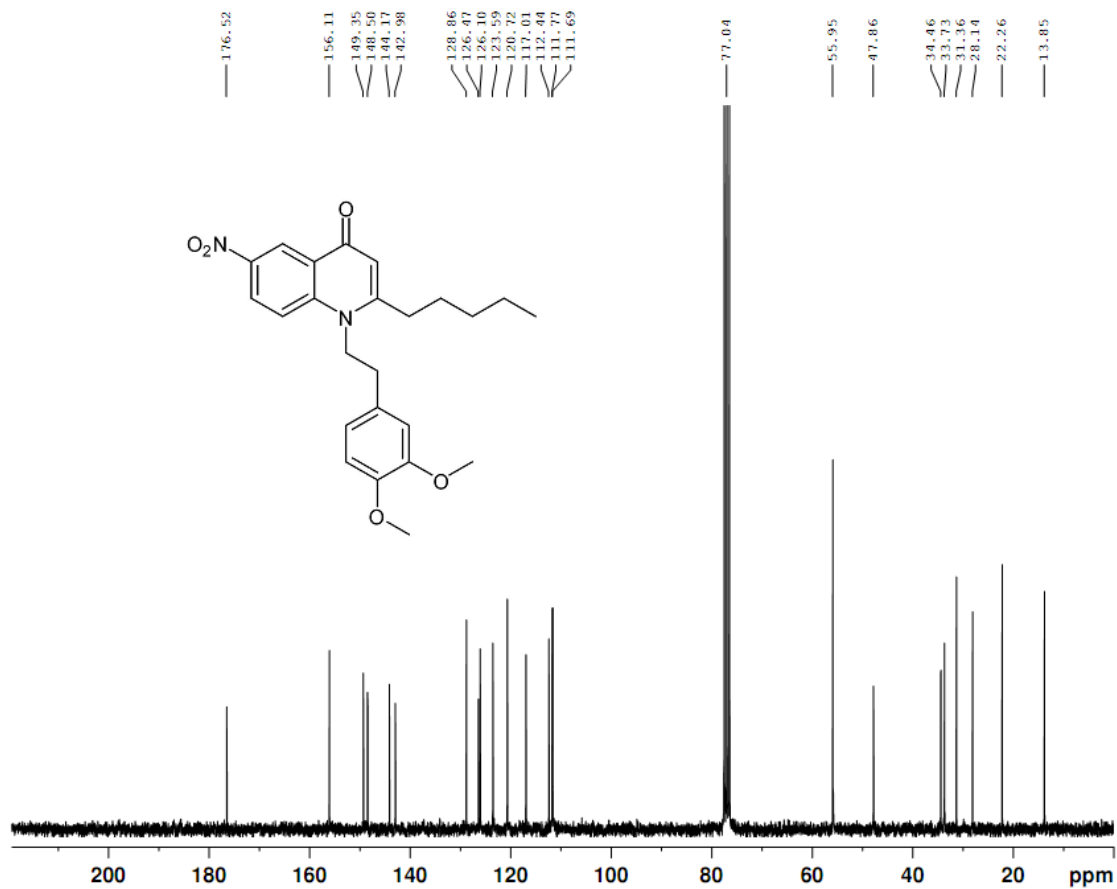
6-Nitro-(3,4-dimethoxyphenethyl)-2-pentyl-4-quinolone (7da).

Ivanov, AI-44, CDCl₃, 1H

NAME 120208 u303
 EXPNO 10
 PROCNO 1
 Date_ 20120208
 Time 7.51
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 6188.119 Hz
 FIDRES 0.094423 Hz
 AQ 5.2953587 sec
 RG 50.8
 DW 80.800 usec
 DE 10.00 usec
 TE 298.2 K
 D1 1.00000000 sec
 TD0 1

===== CHANNEL f1 =====
 NUC1 1H
 P1 10.00 usec
 PL1 0.00 dB
 PL1W 11.25325108 W
 SFO1 300.1318534 MHz
 SI 32768
 SF 300.1300083 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

6-Nitro-(3,4-dimethoxyphenethyl)-2-pentyl-4-quinolone (7da).

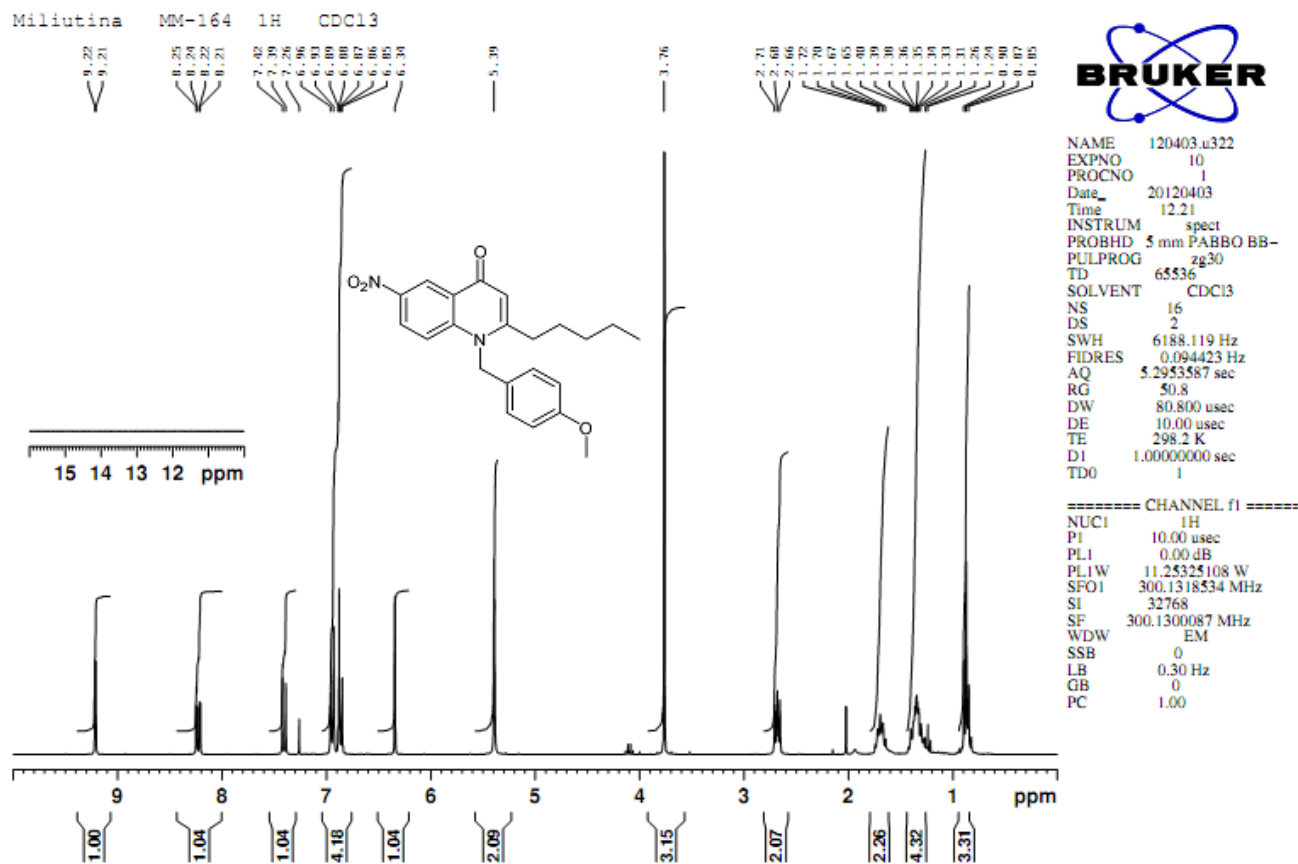
Ivanov, AI-44, CDCl₃, 13C

NAME 120208.203
 EXPNO 10
 PROCNO 1
 Date_ 20120208
 Time 12.38
 INSTRUM spect
 PROBHD 5 mm QNP 1H/13
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 1024
 DS 4
 SWH 15000.000 Hz
 FIDRES 0.228882 Hz
 AQ 2.1845834 sec
 RG 2050
 DW 33.333 usec
 DE 10.00 usec
 TE 298.2 K
 D1 2.00000000 sec
 d11 0.03000000 sec
 DELTA 1.89999998 sec
 TDO 1

===== CHANNEL f1 =====
 NUC1 13C
 P1 10.20 usec
 PL1 0.00 dB
 SFO1 62.9015280 MHz

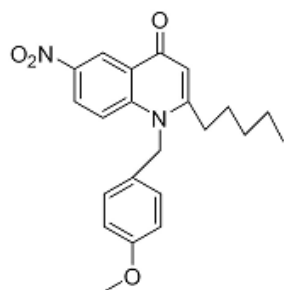
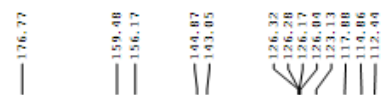
===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 70.00 usec
 PL12 14.00 dB
 PL13 14.00 dB
 PL2 -3.00 dB
 SFO2 250.1310005 MHz
 SI 32768
 SF 62.8952390 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1-(4-Methoxybenzyl)-6-nitro-2-pentylquinolin-4(1H)-one (7db).



1-(4-Methoxybenzyl)-6-nitro-2-pentylquinolin-4(1H)-one (7db).

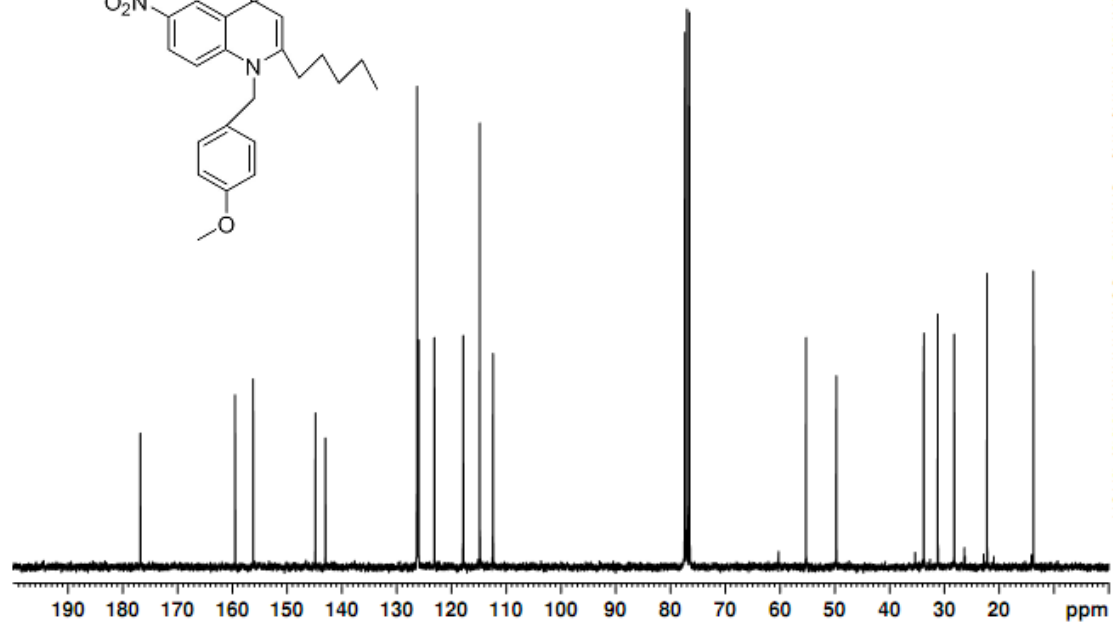
Miliutina MM-164 13C CDCl3



NAME 120403.u322
 EXPNO 11
 PROCNO 1
 Date_ 20120404
 Time 5.44
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 1024
 DS 4
 SWH 18028.846 Hz
 FIDRES 0.275398 Hz
 AQ 1.8175818 sec
 RG 2040
 DW 27.733 usec
 DE 10.00 usec
 TE 298.2 K
 D1 2.0000000 sec
 D11 0.0500000 sec
 TD0 1

----- CHANNEL f1 -----
 NUC1 13C
 P1 10.00 usec
 PL1 -0.50 dB
 PL1W 33.25591986 W
 SFO1 75.4752953 MHz

----- CHANNEL f2 -----
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 72.00 usec
 PL2 0.00 dB
 PL12 17.00 dB
 PL13 17.00 dB
 PL2W 11.25325108 W
 PL12W 0.22453187 W
 PL13W 0.22453187 W
 SFO2 300.1312005 MHz
 SI 32769
 SF 75.4677437 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40



6-Amino-1-(3,4-dimethoxyphenethyl)-2-*p*-tolylquinolin-4(1*H*)-one (8aa).

Miliutina MM-114-2 1H DMSO

7.89
7.77
7.43
7.42
7.33
7.31
7.22
7.20
7.17
6.80
6.77
6.42
6.41
6.39
6.39
6.24
6.14
5.74

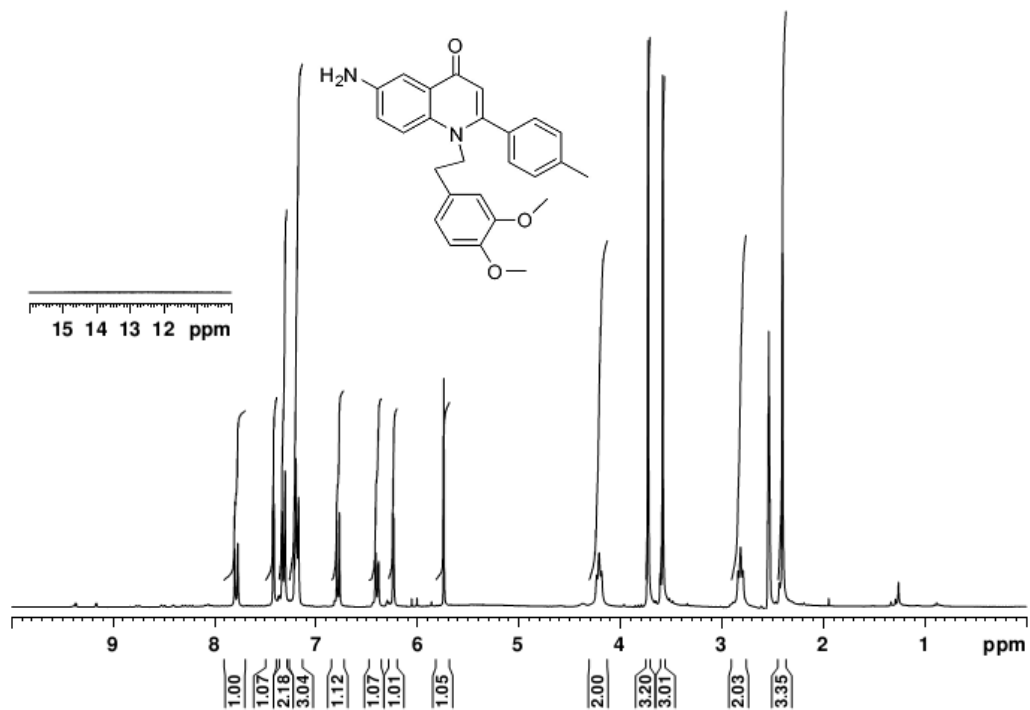
4.24
4.21
4.19
3.73
3.59

2.84
2.82
2.79
2.54
2.41



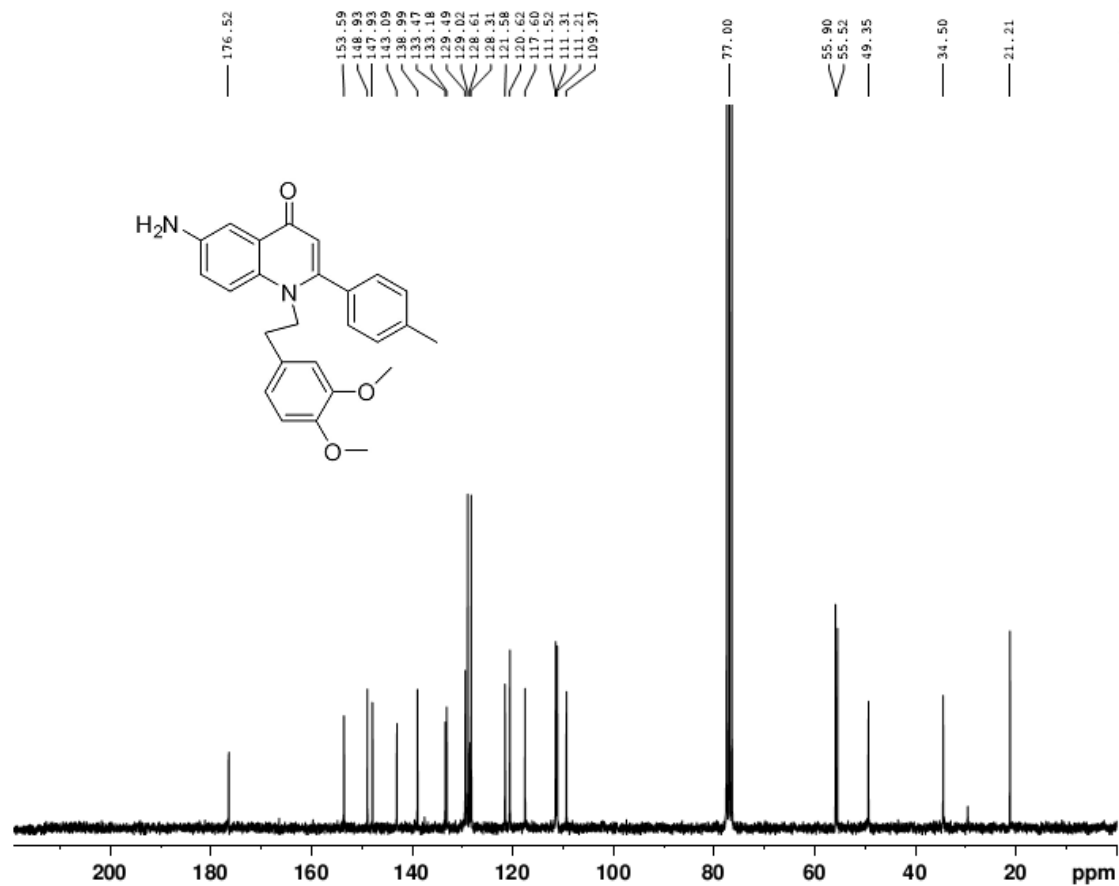
NAME 121121.u306
EXPNO 10
PROCNO 1
Date_ 20121121
Time 8.56
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 16
DS 2
SWH 6009.615 Hz
FIDRES 0.091699 Hz
AQ 5.4526453 sec
RG 50.8
DW 83.200 usec
DE 10.00 usec
TE 298.2 K
D1 1.0000000 sec
TD0 1

==== CHANNEL f1 =====
NUC1 1H
PI 10.00 usec
PL1 0.00 dB
PL1W 11.25325108 W
SFO1 300.1318534 MHz
SI 32768
SF 300.1299967 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



6-Amino-1-(3,4-dimethoxyphenethyl)-2-*p*-tolylquinolin-4(1*H*)-one (8aa).

Miliutina, MM-114-2, CDC13, 13C

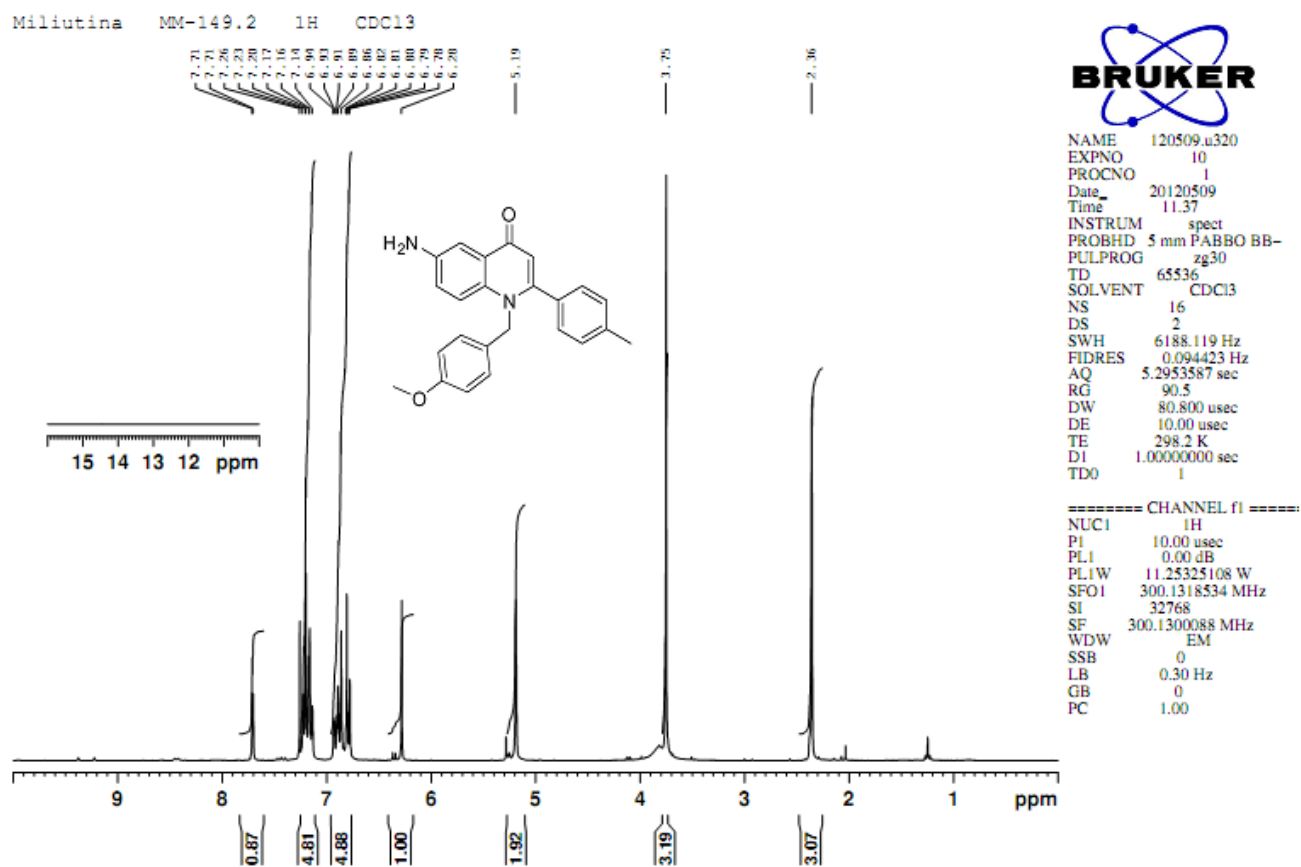


NAME 120706.203
 EXPNO 10
 PROCNO 1
 Date_ 20120706
 Time 22.36
 INSTRUM spect
 PROBHD 5 mm F4BBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDC13
 NS 2048
 DS 4
 SWH 15000.000 Hz
 FIDRES 0.228882 Hz
 AQ 2.1845834 sec
 RG 2050
 DW 33.333 usec
 DE 10.00 usec
 TE 298.6 K
 D1 2.00000000 sec
 d11 0.03000000 sec
 DELTA 1.89999998 sec
 TDO 1

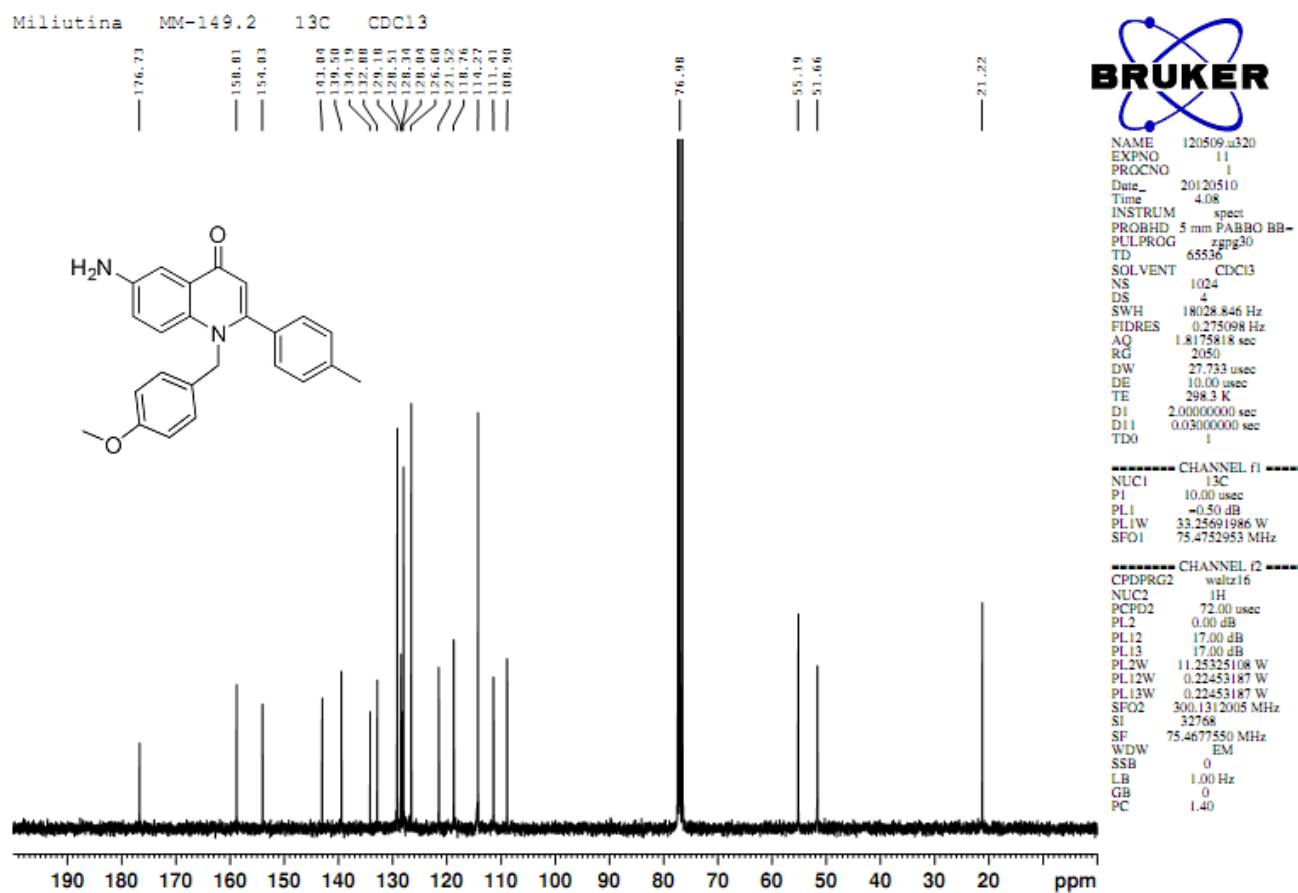
===== CHANNEL f1 =====
 NUC1 13C
 P1 10.00 usec
 PL1 -1.00 dB
 SFO1 62.9015280 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 70.00 usec
 PL12 15.00 dB
 PL13 15.00 dB
 PL2 -2.50 dB
 SFO2 250.1310005 MHz
 SI 32768
 SF 62.8952423 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

6-Amino-1-(4-methoxybenzyl)-2-*p*-tolylquinolin-4(1*H*)-one (8ab).

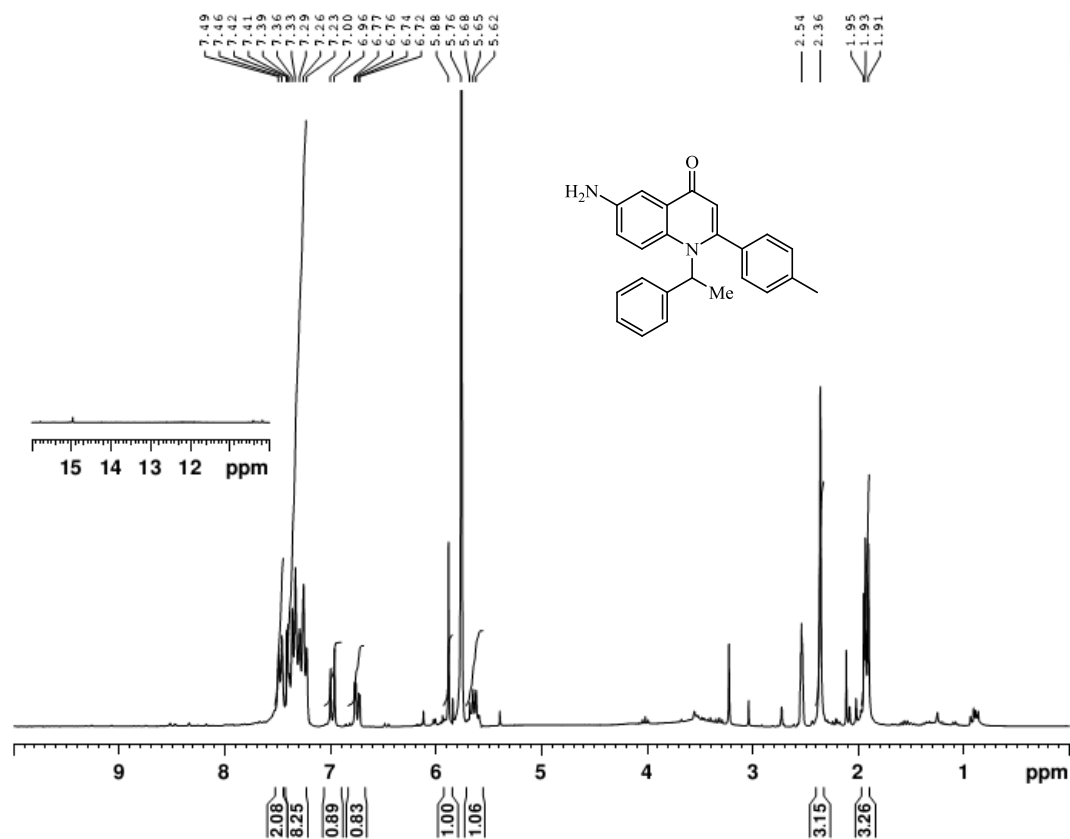


6-Amino-1-(4-methoxybenzyl)-2-*p*-tolylquinolin-4(1*H*)-one (8ab).



6-Amino-1-(1-phenylethyl)-2-*p*-tolylquinolin-4(1*H*)-one (8ac).

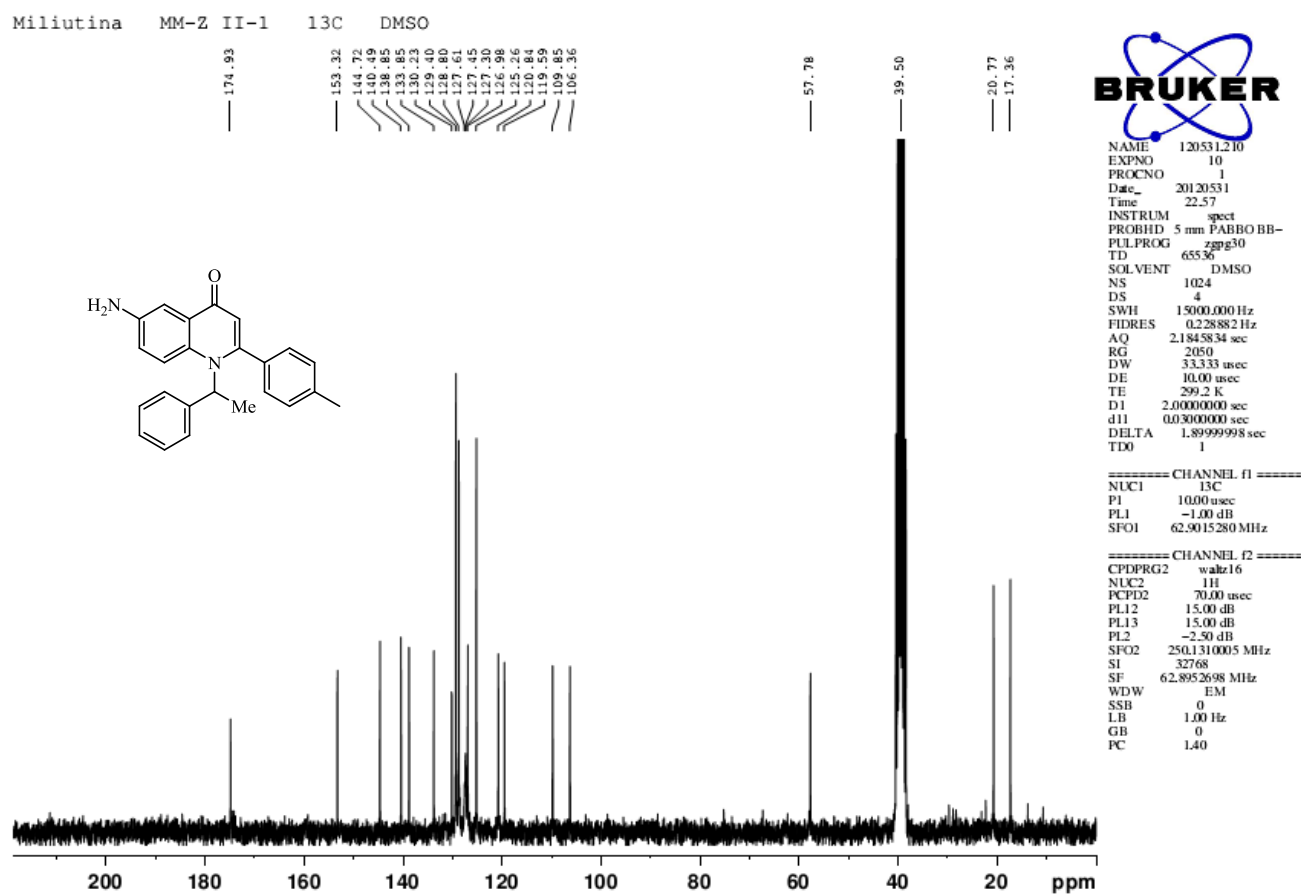
Miliutina MM-129 1H DMSO/CH₂Cl₂ (20:1)



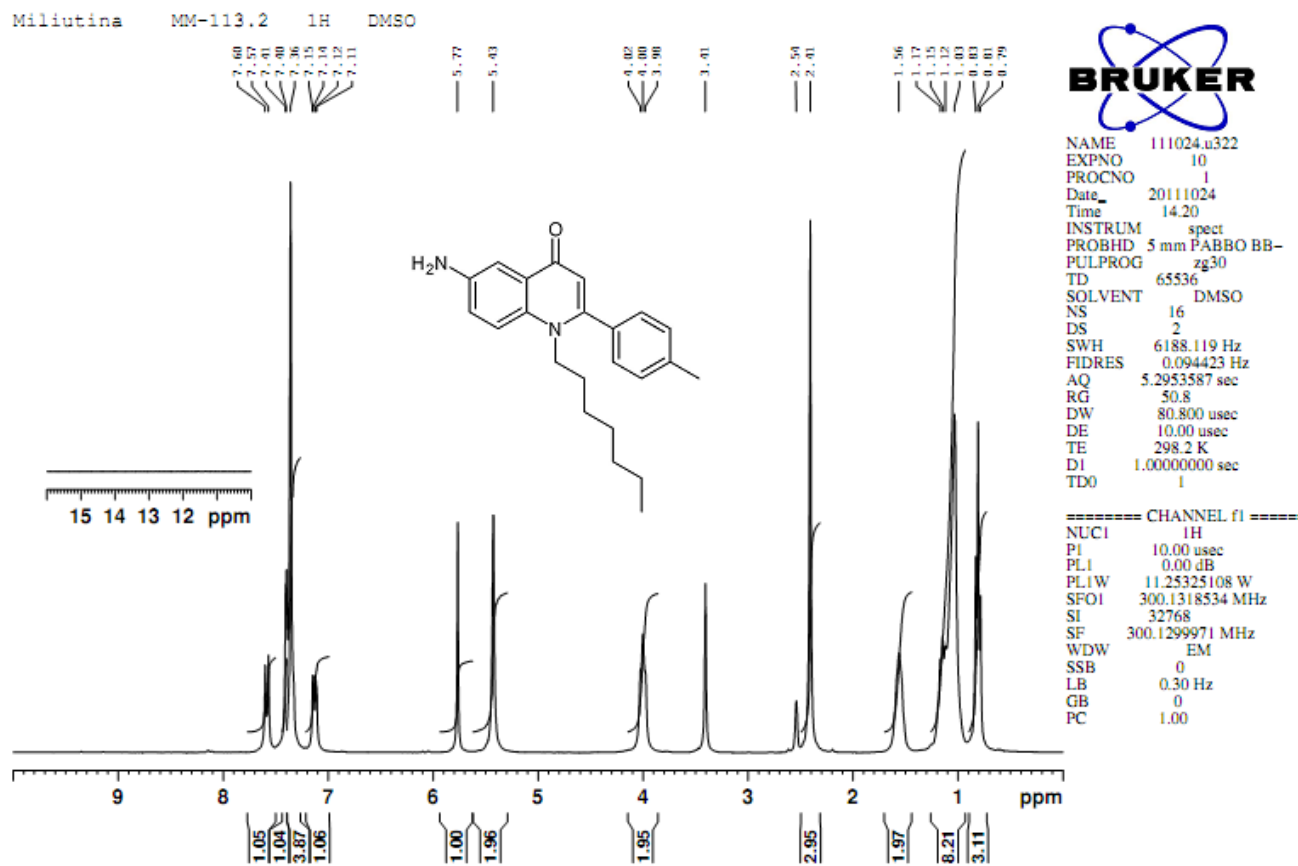
NAME 121217_205
 EXPNO 10
 PROCNO 1
 Date_ 20121217
 Time 14.03
 INSTRUM spect
 PROBHD 5 mm QNP 1H/13
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 16
 DS 2
 SWH 5165.289 Hz
 FIDRES 0.078816 Hz
 AQ 6.3439350 sec
 RG 161
 DW 96.800 usec
 DE 10.00 usec
 TE 298.2 K
 D1 1.0000000 sec
 TD0 1

===== CHANNEL f1 =====
 NUC1 1H
 PI 11.40 usec
 PL1 -3.00 dB
 SFO1 250.1315447 MHz
 SI 32768
 SF 250.1299838 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

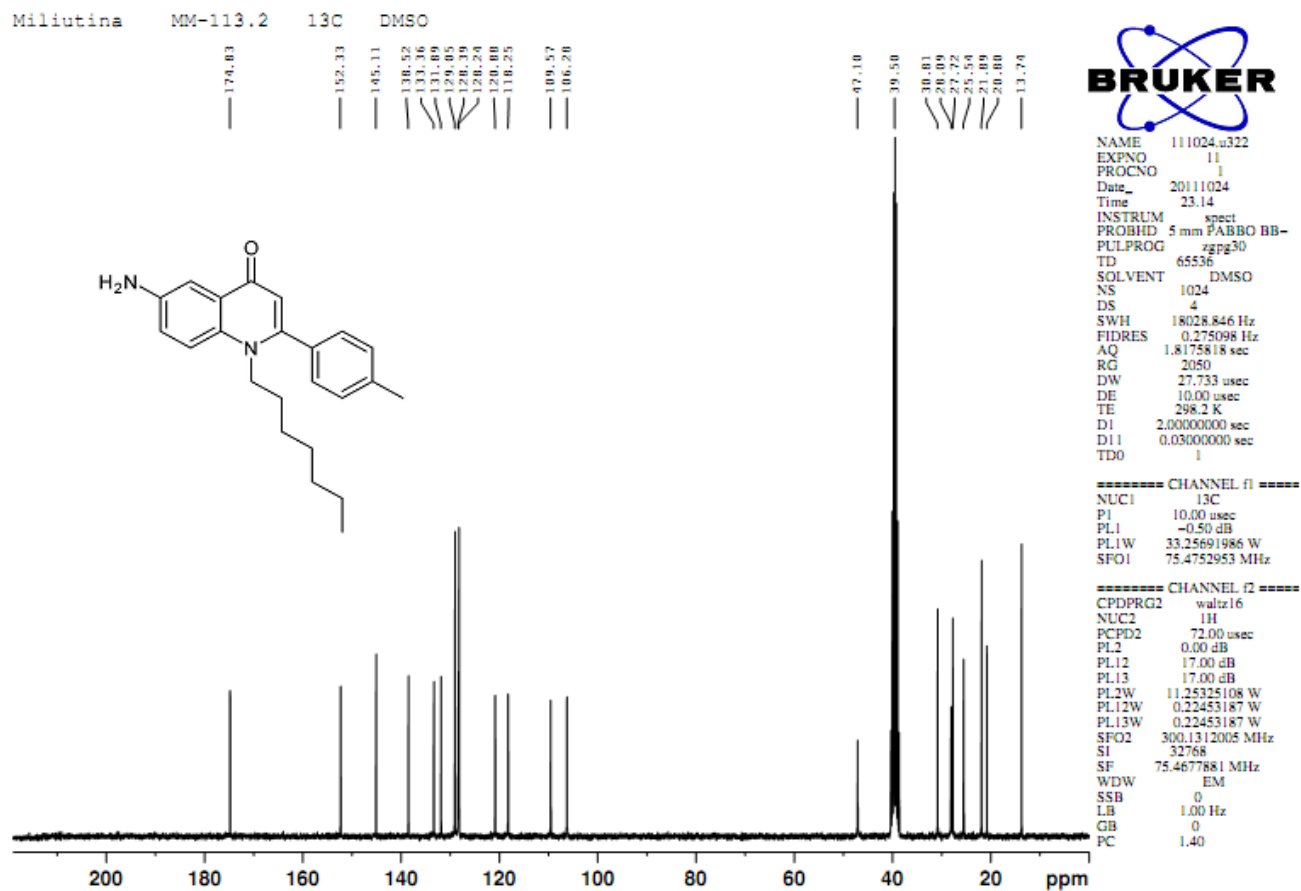
6-Amino-1-(1-phenylethyl)-2-*p*-tolylquinolin-4(1*H*)-one (8a**c**).



6-Amino-1-heptyl-2-*p*-tolylquinolin-4(1*H*)-one (**8ad**).



6-Amino-1-heptyl-2-*p*-tolylquinolin-4(1*H*)-one (8ad).



6-Amino-1-hexyl-2-*p*-tolylquinolin-4(1*H*)-one (8ae).

Miliutina MM-112 1H DMSO

7.59
7.56
7.39
7.36
7.36
7.13
7.11
7.10

5.76
5.41

4.02
4.00
3.97

3.39

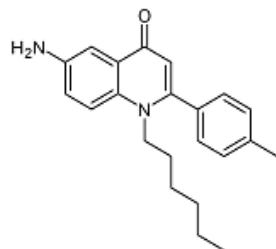
2.53
2.41

1.55
1.52
1.52
1.10
1.08
1.06
1.02
0.76
0.76
0.73

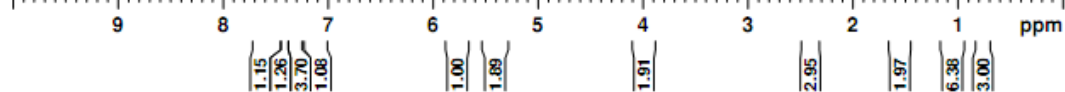


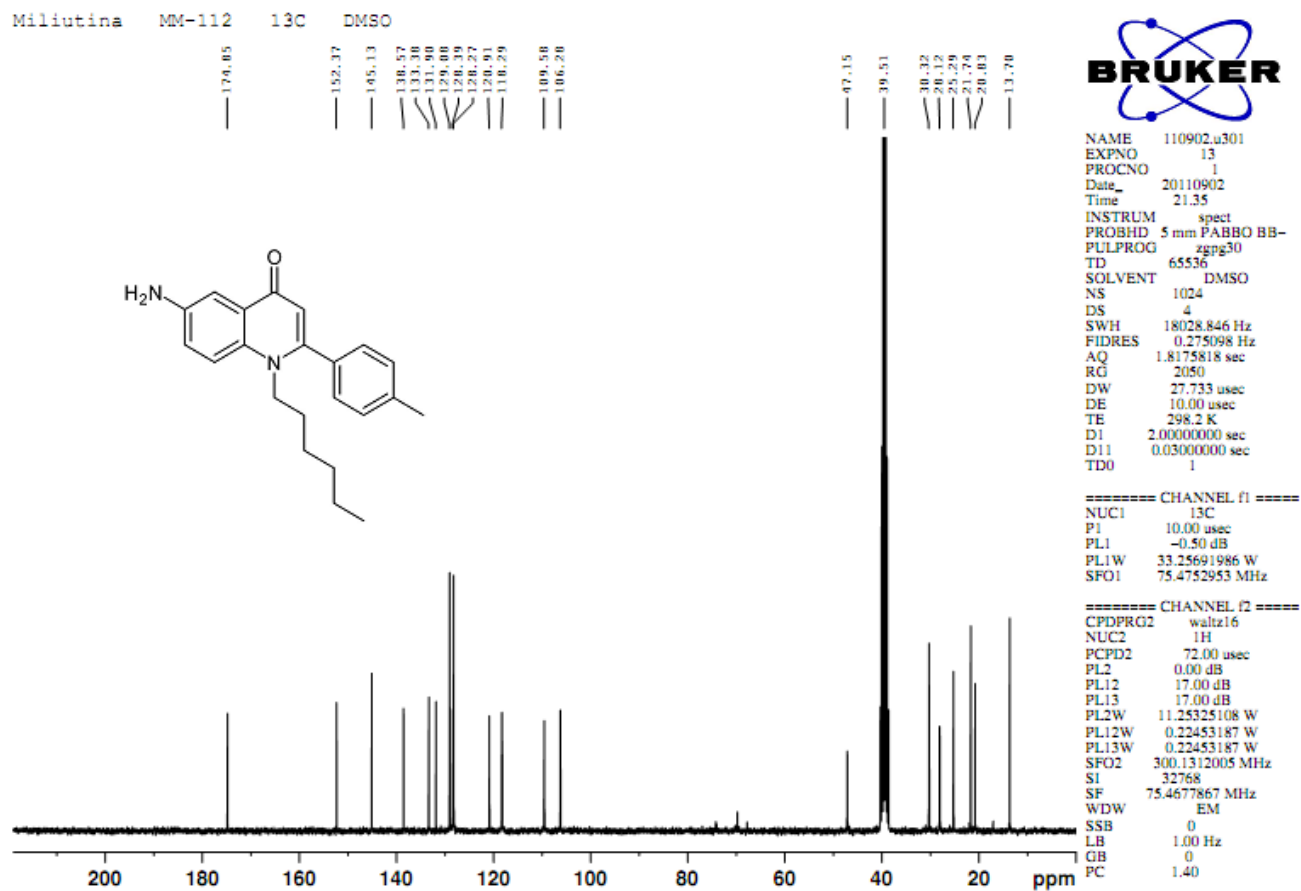
NAME 110902.u301
EXPNO 10
PROCNO 1
Date_ 20110902
Time 8.04
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 16
DS 2
SWH 6188.119 Hz
FIDRES 0.094423 Hz
AQ 5.2953587 sec
RG 57
DW 80.800 usec
DE 10.00 usec
TE 298.2 K
D1 1.0000000 sec
TD0 1

===== CHANNEL f1 =====
NUC1 1H
P1 10.00 usec
PL1 0.00 dB
PL1W 11.25325108 W
SFO1 300.1318534 MHz
SI 32768
SF 300.1300000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



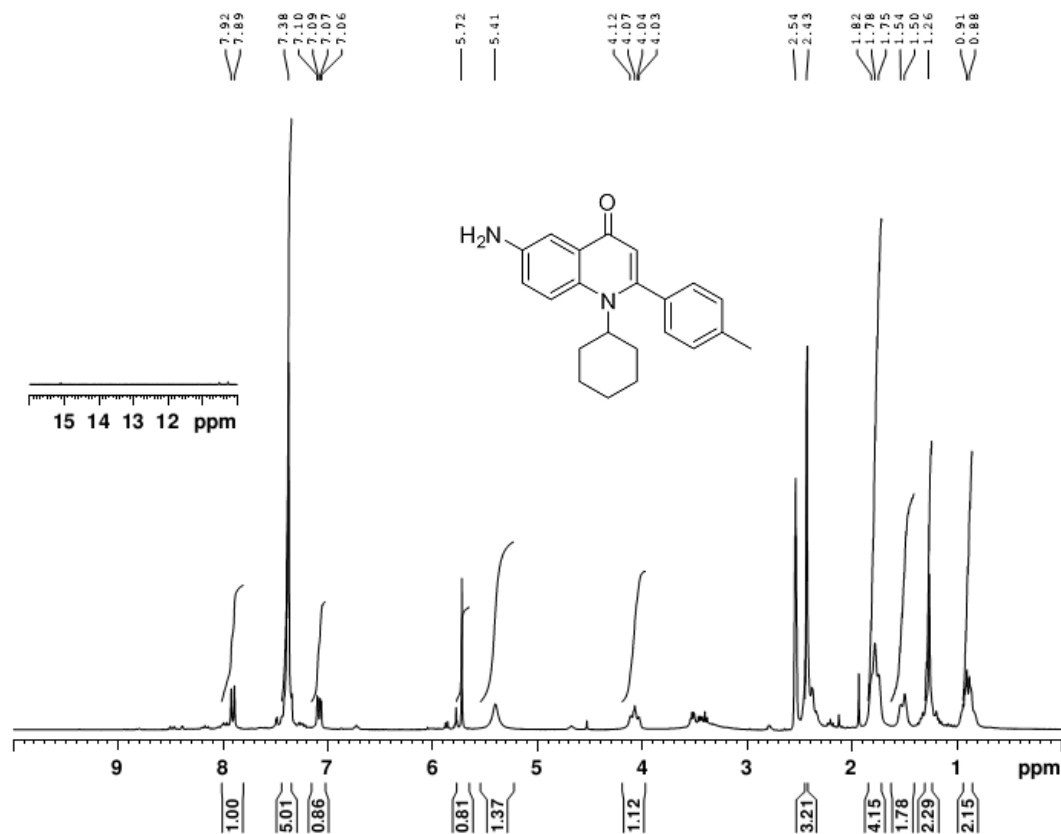
15 14 13 12 ppm



6-Amino-1-hexyl-2-*p*-tolylquinolin-4(1*H*)-one (8ae).

6-Amino-1-cyclohexyl-2-p-tolylquinolin-4(1H)-one (8af).

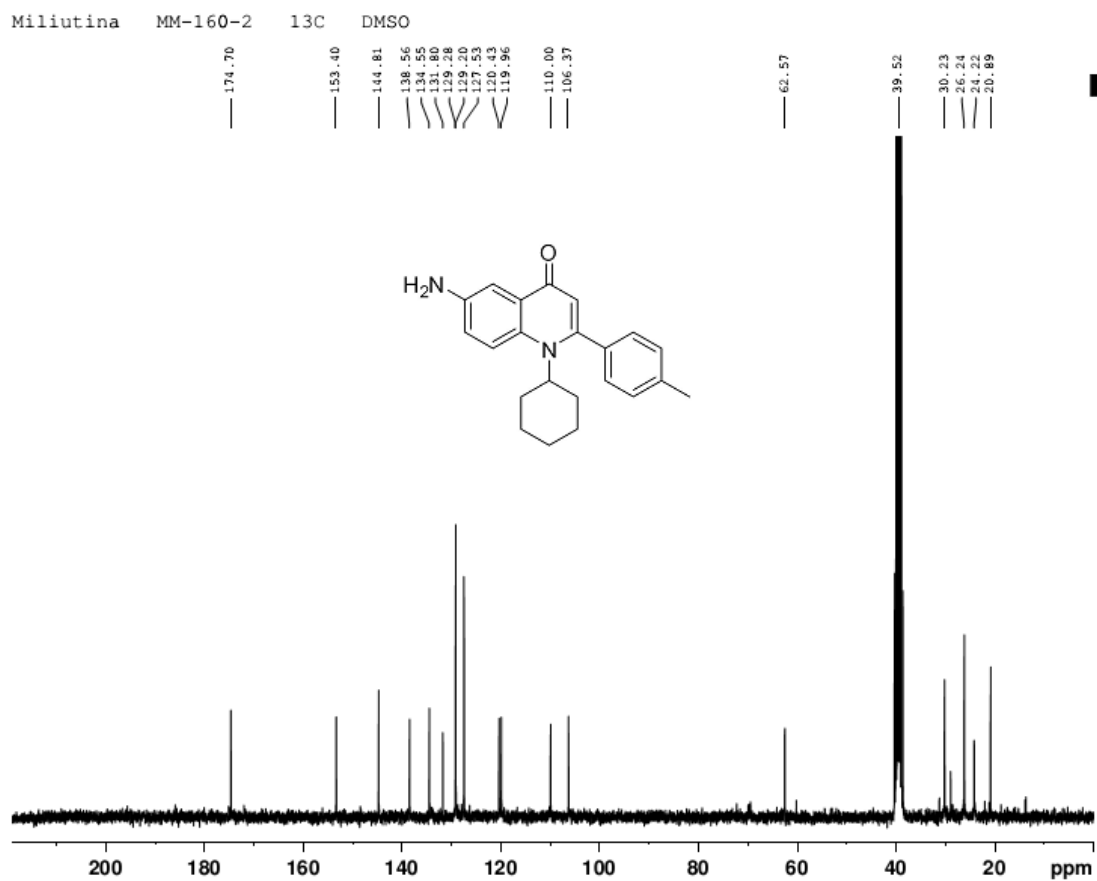
Miliutina MM-160-2 1H DMSO



NAME 130125.u314
 EXPNO 10
 PROCNO 1
 Date_ 20130125
 Time 10.52
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 16
 DS 2
 SWH 6188.119 Hz
 FIDRES 0.094423 Hz
 AQ 5.2953587 sec
 RG 50.8
 DW 80.800 usec
 DE 10.00 usec
 TE 298.2 K
 D1 1.0000000 sec
 TD0 1

==== CHANNEL f1 ====
 NUC1 1H
 P1 10.00 usec
 PL1 0.00 dB
 PL1W 11.25325108 W
 SFO1 300.1318534 MHz
 SI 32768
 SF 300.1299968 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

6-Amino-1-cyclohexyl-2-*p*-tolylquinolin-4(1*H*)-one (8af).

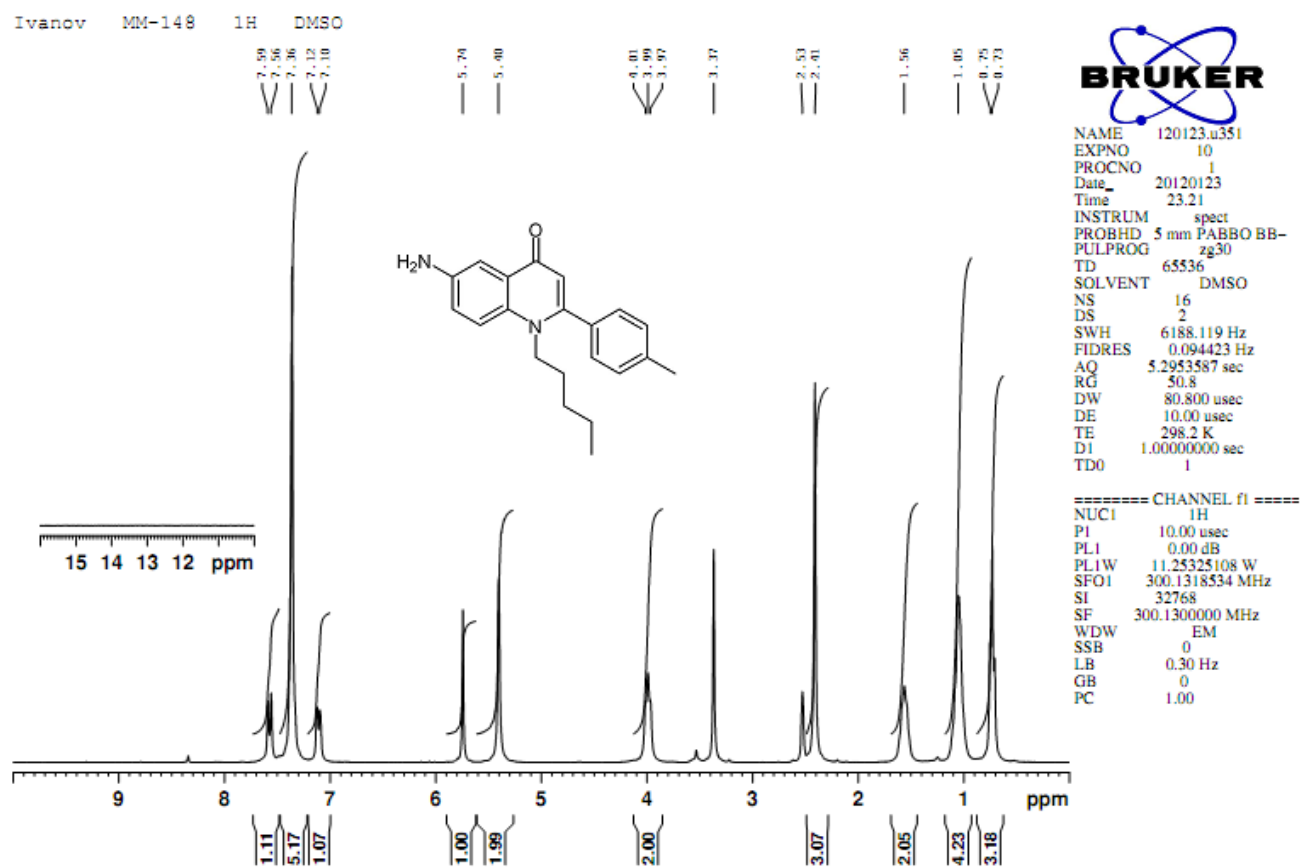


NAME 130125a314
 EXPNO 11
 PROCNO 1
 Date_ 20130125
 Time 22:03
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 1024
 DS 4
 SW H 18028.846 Hz
 FIDRES 0.275098 Hz
 AQ 1.8173818 sec
 RG 2050
 DW 27.733 usec
 DE 10.00 usec
 TE 298.2 K
 D1 2.0000000 sec
 D11 0.0300000 sec
 TDO 1

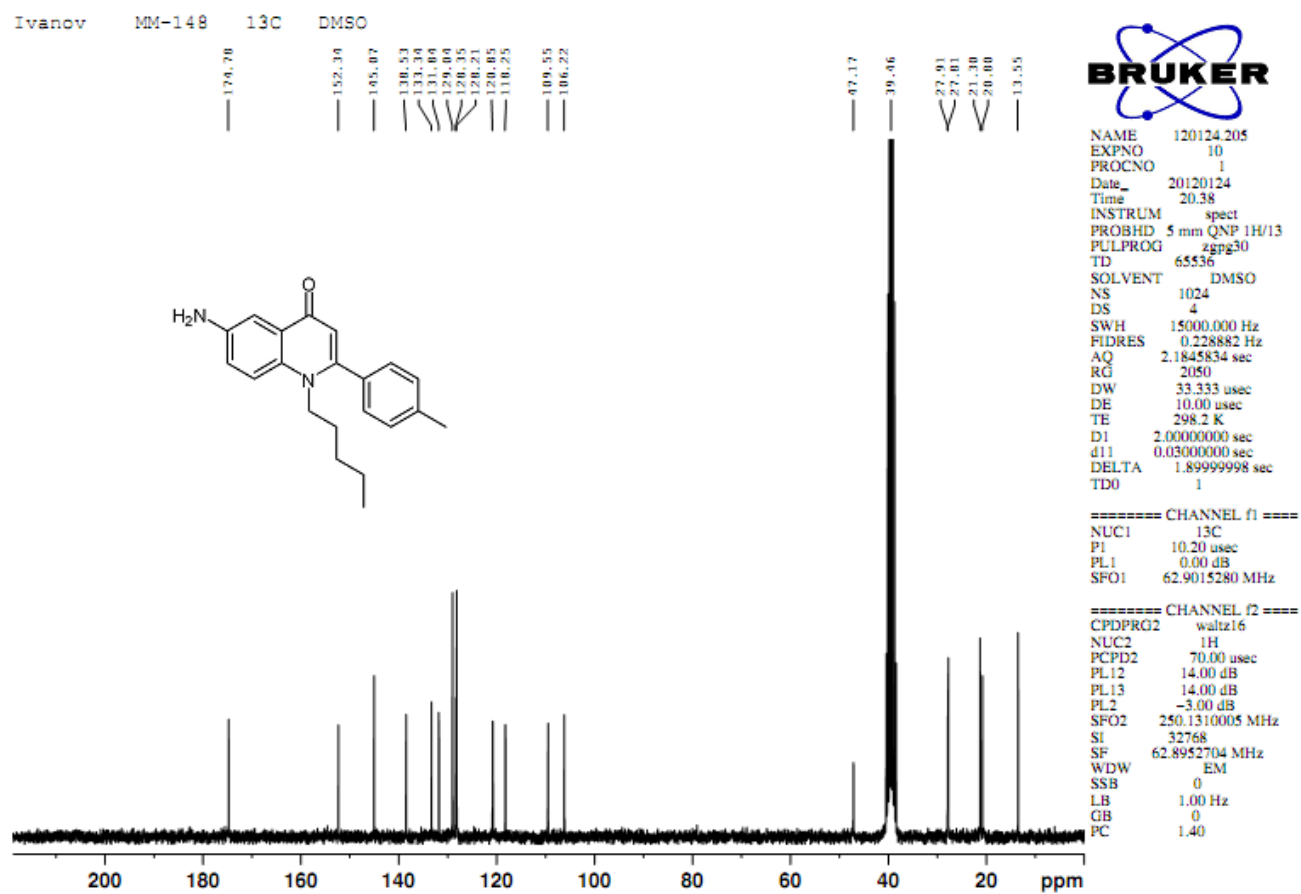
===== CHANNEL f1 =====
 NUC1 13C
 P1 10.00 usec
 PL1 -0.50 dB
 PL1W 33.25691986 W
 SFO1 75.4752953 MHz

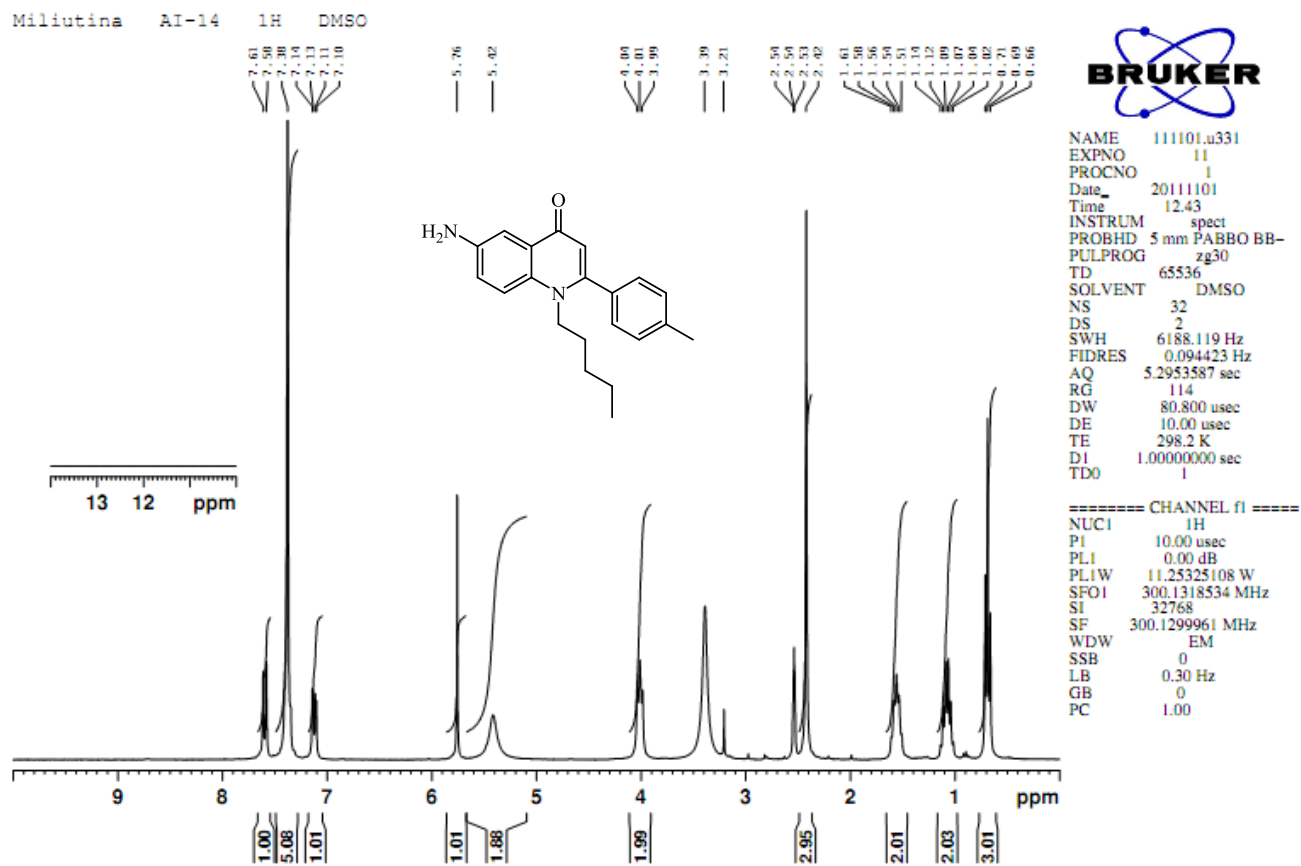
===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 72.00 usec
 PL2 0.00 dB
 PL12 17.00 dB
 PL13 17.00 dB
 PL2W 11.25325108 W
 PL12W 0.22453187 W
 PL13W 0.22453187 W
 SFO2 300.1312005 MHz
 SI 32768
 SF 75.4677867 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

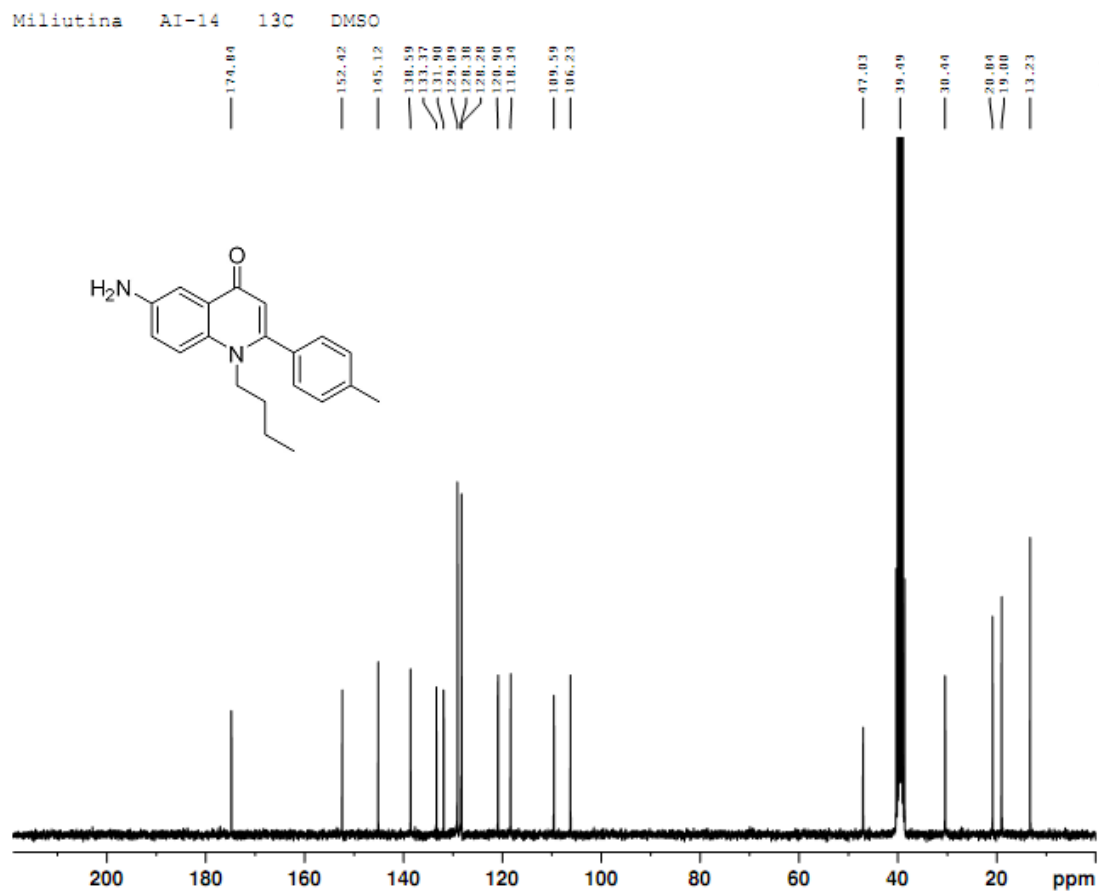
6-Amino-1-pentyl-2-*p*-tolylquinolin-4(1*H*)-one (8ag).



6-Amino-1-pentyl-2-*p*-tolylquinolin-4(1*H*)-one (8ag).



6-Amino-1-*n*-butyl-2-*p*-tolyl-4-quinolone (8ah).

6-Amino-1-*n*-butyl-2-*p*-tolyl-4-quinolone (8ah).

NAME 120302.u307
 EXPNO 11
 PROCNO 1
 Date_ 20120304
 Time 16.55
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 2048
 DS 4
 SWH 18028.846 Hz
 FIDRES 0.275098 Hz
 AQ 1.8175818 sec
 RG 2050
 DW 27.733 usec
 DE 10.00 usec
 TE 298.2 K
 D1 2.0000000 sec
 D11 0.0300000 sec
 TD0 1

===== CHANNEL f1 =====
 NUC1 13C
 P1 10.00 usec
 PL1 -0.50 dB
 PL1W 33.25691986 W
 SFO1 75.4752953 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 72.00 usec
 PL2 0.00 dB
 PL12 17.00 dB
 PL13 17.00 dB
 PL2W 11.25325108 W
 PL12W 0.22453187 W
 PL13W 0.22453187 W
 SFO2 300.1312005 MHz
 S1 32768
 SF 75.4677867 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

6-Amino-1-*n*-propyl-2-*p*-tolyl-4-quinolone (8ai).

Miliutina AI-13 1H DMSO

7.60
7.57
7.38
7.37
7.36
7.13
7.12
7.10
7.09

5.74
5.41

3.97
3.95
3.92

3.30

2.53
2.52
2.52
2.41

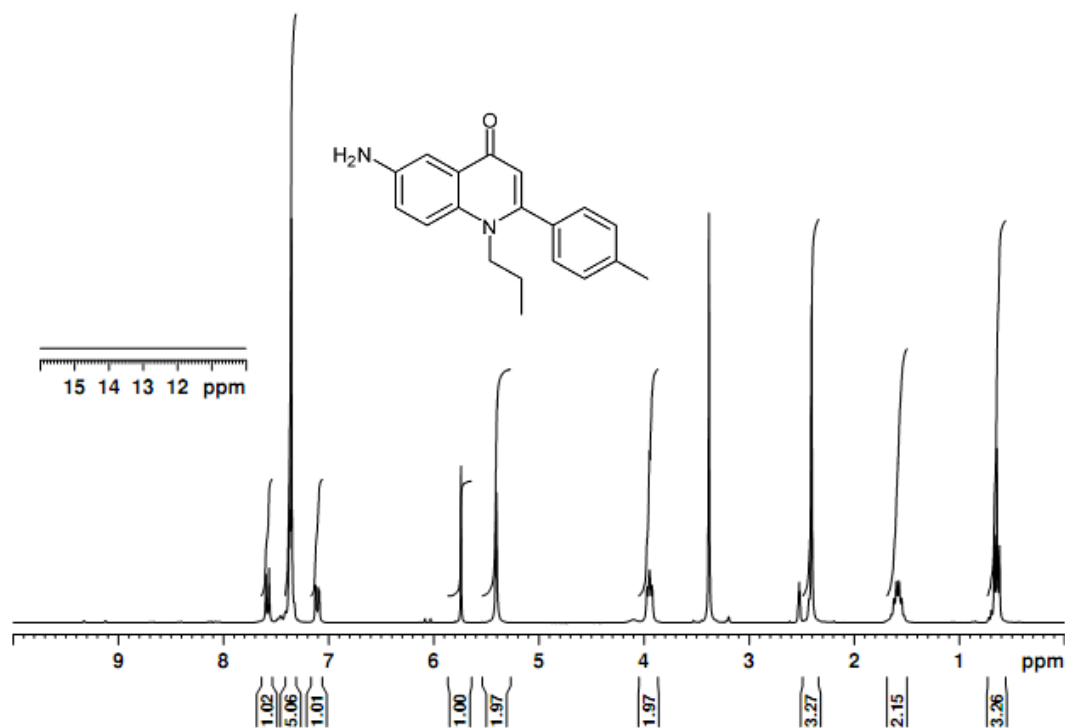
1.62
1.60
1.57
1.55

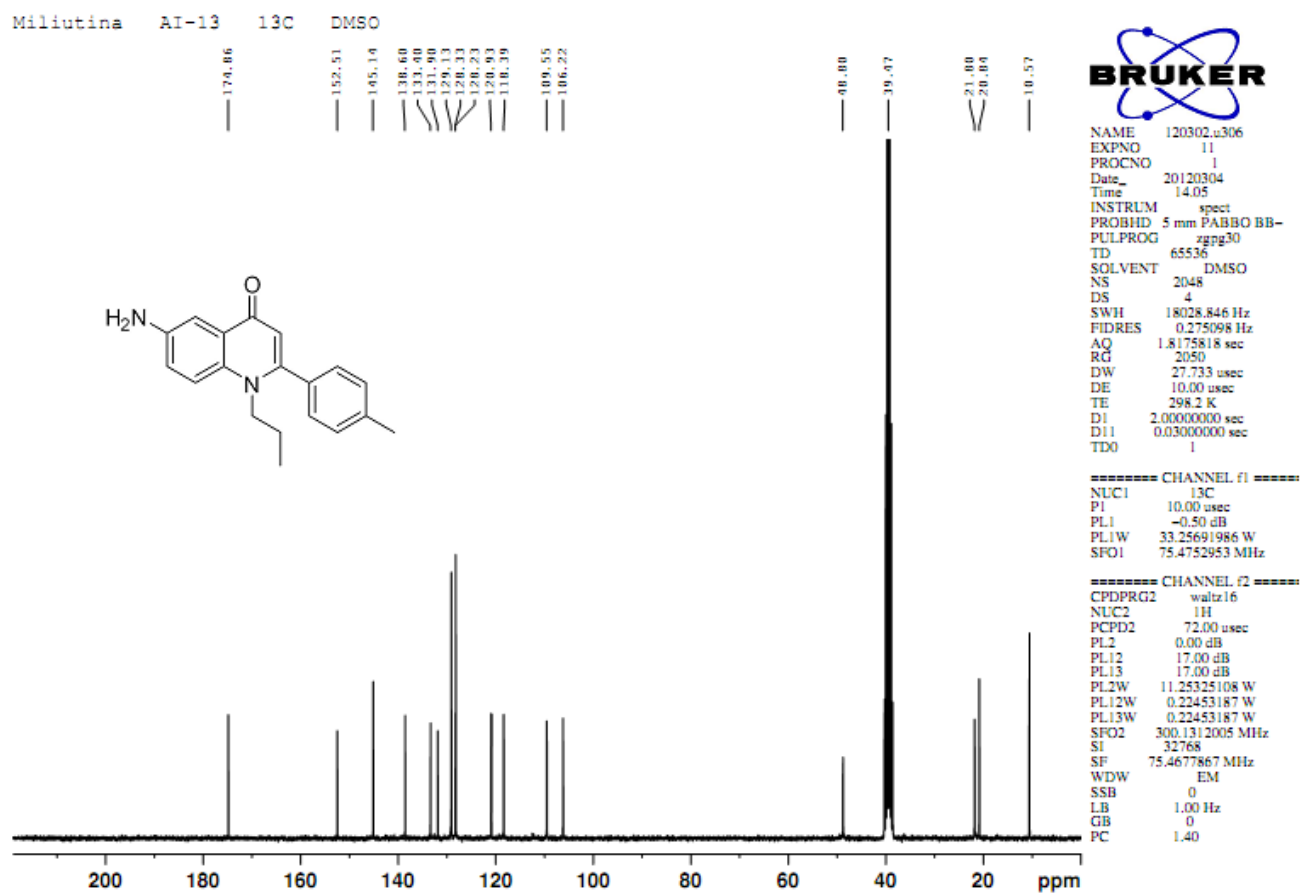
0.67
0.66
0.62



NAME 111101.u332
EXPNO 10
PROCNO 1
Date_ 20111101
Time 12.50
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 32
DS 2
SWH 6188.119 Hz
FIDRES 0.094423 Hz
AQ 5.2953587 sec
RG 80.6
DW 80.800 usec
DE 10.00 usec
TE 298.2 K
D1 1.00000000 sec
TD0 1

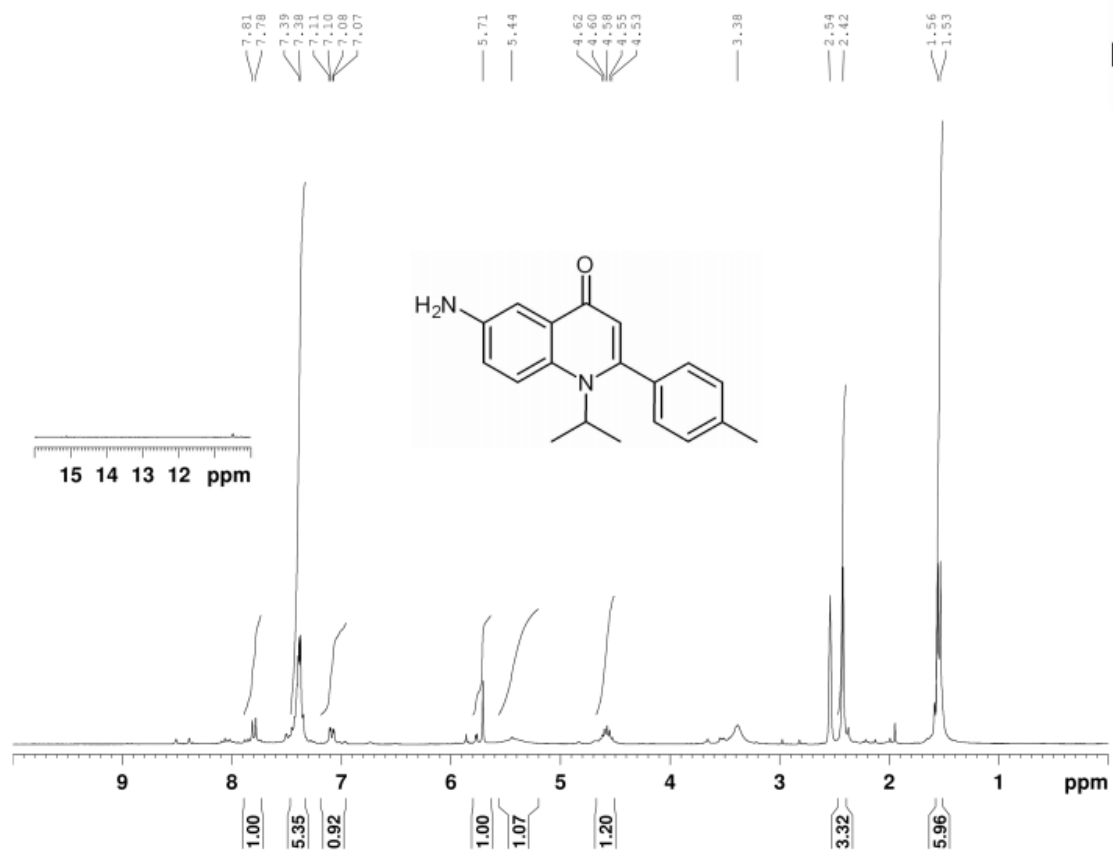
==== CHANNEL f1 =====
NUC1 1H
P1 10.00 usec
PL1 0.00 dB
PL1W 11.25325108 W
SFO1 300.1318534 MHz
SI 32768
SF 300.1300000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



6-Amino-1-*n*-propyl-2-*p*-tolyl-4-quinolone (8ai).

6-Amino-1-isopropyl-2-*p*-tolylquinolin-4(1*H*)-one (8aj).

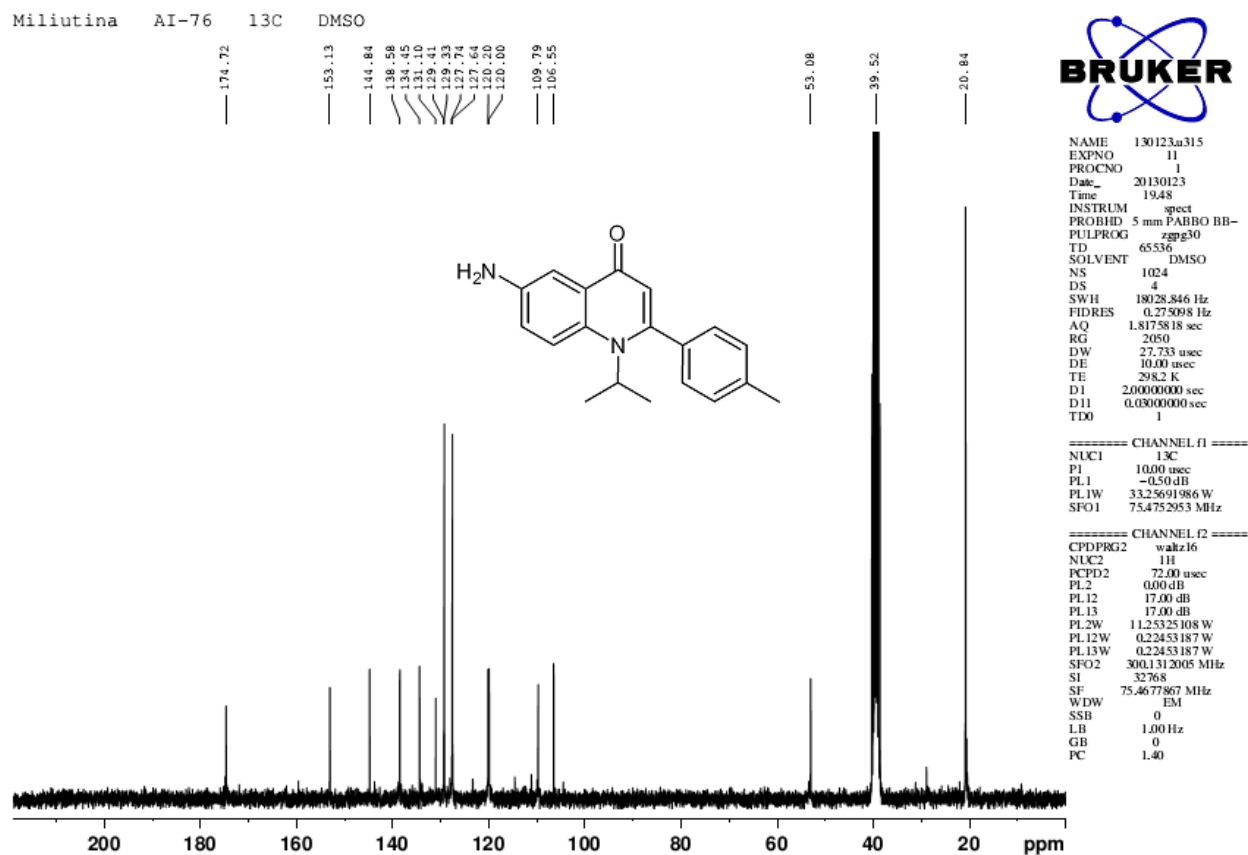
Miliutina AI-76 1H DMSO

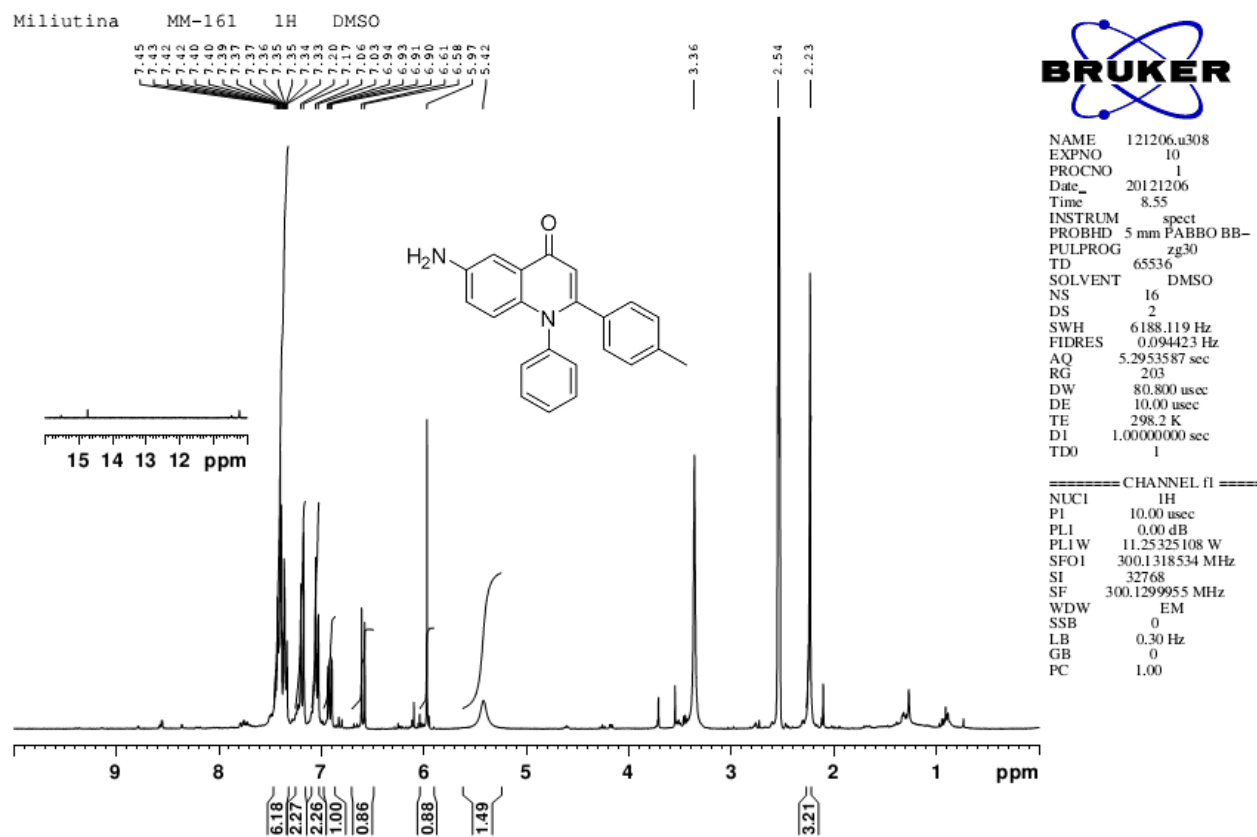


NAME 130123.u315
 EXPNO 10
 PROCNO 1
 Date_ 20130123
 Time 13.26
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 16
 DS 2
 SWH 6188.119 Hz
 FIDRES 0.094423 Hz
 AQ 5.2953587 sec
 RG 50.8
 DW 80.800 usec
 DE 10.00 usec
 TE 298.2 K
 D1 1.0000000 sec
 TD0 1

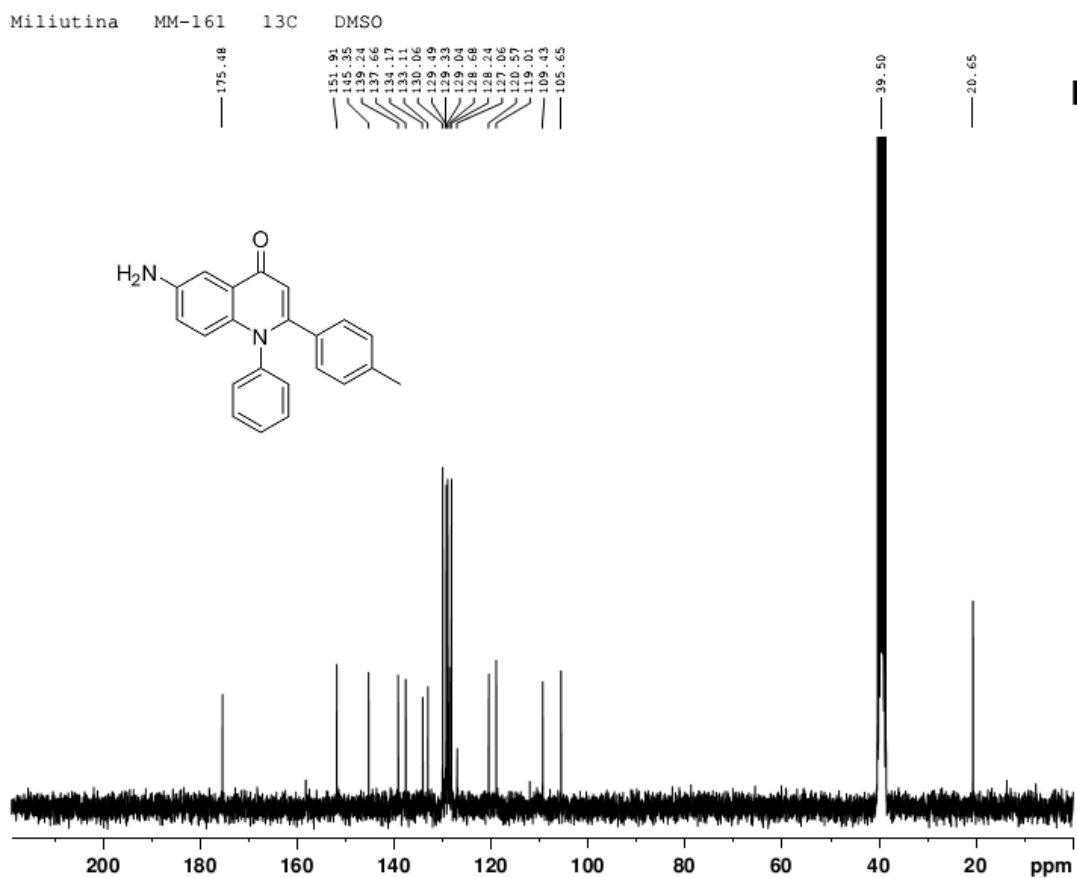
==== CHANNEL f1 ====
 NUC1 1H
 P1 10.00 usec
 PL1 0.00 dB
 PL1W 11.25325108 W
 SFO1 300.1318534 MHz
 SI 32768
 SF 300.1299976 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

6-Amino-1-isopropyl-2-*p*-tolylquinolin-4(1*H*)-one (8aj).



6-Amino-1-phenyl-2-*p*-tolylquinolin-4(1*H*)-one (8ak).

6-Amino-1-phenyl-2-p-tolylquinolin-4(1H)-one (8ak).



NAME 121207.a319
EXPNO 10
PROCNO 1
Date_ 20121208
Time 15.56
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 1600
DS 4
SWH 18028.846 Hz
FIDRES 0.275098 Hz
AQ 1.8175818 sec
RG 2050
DW 27.753 usec
DE 10.00 usec
TE 298.2 K
D1 2.0000000 sec
D11 0.0300000 sec
TD0 1

==== CHANNEL f1 =====
NUC1 13C
P1 10.00 usec
PL1 -0.50 dB
PL1W 33.25691986 W
SFO1 75.4752953 MHz

==== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 72.00 usec
PL2 0.00 dB
PL12 17.00 dB
PL13 17.00 dB
PL2W 11.25325108 W
PL12W 0.22453187 W
PL13W 0.22453187 W
SFO2 300.1312005 MHz
SI 32768
SF 75.4677879 MHz
WDW EBI
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

6-Amino-1-(3,5-dimethylphenyl)-2-*p*-tolylquinolin-4(1*H*)-one (8am4).

Miliutina MM-154.2 1H DMSO

7.40
7.39
7.22
7.19
7.07
7.06
6.97
6.94
6.93
6.91
6.90
6.65
6.62
5.94
5.41

3.21

2.54

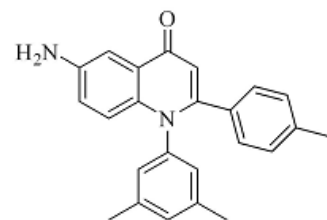
2.24

2.22

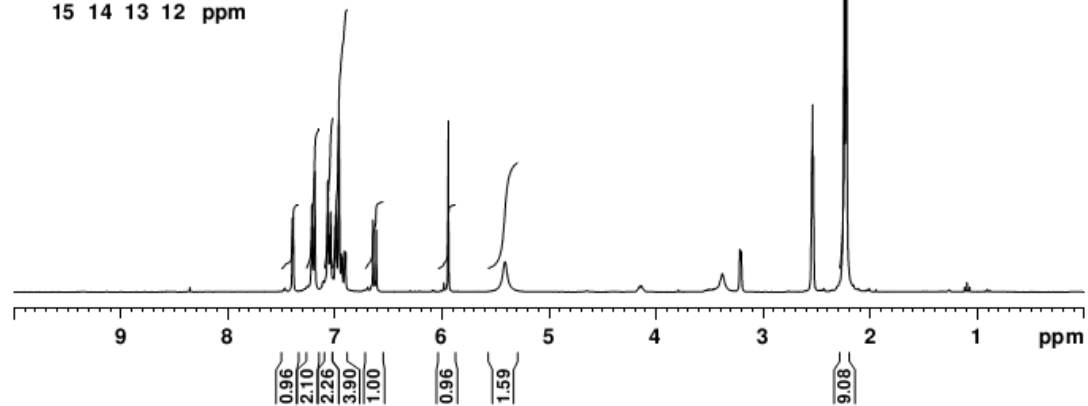


NAME 121120.u335
EXPNO 10
PROCNO 1
Date_ 20121120
Time 19.17
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 16
DS 2
SWH 6188.119 Hz
FIDRES 0.094423 Hz
AQ 5.2953587 sec
RG 50.8
DW 80.800 usec
DE 10.00 usec
TE 298.2 K
D1 1.0000000 sec
TD0 1

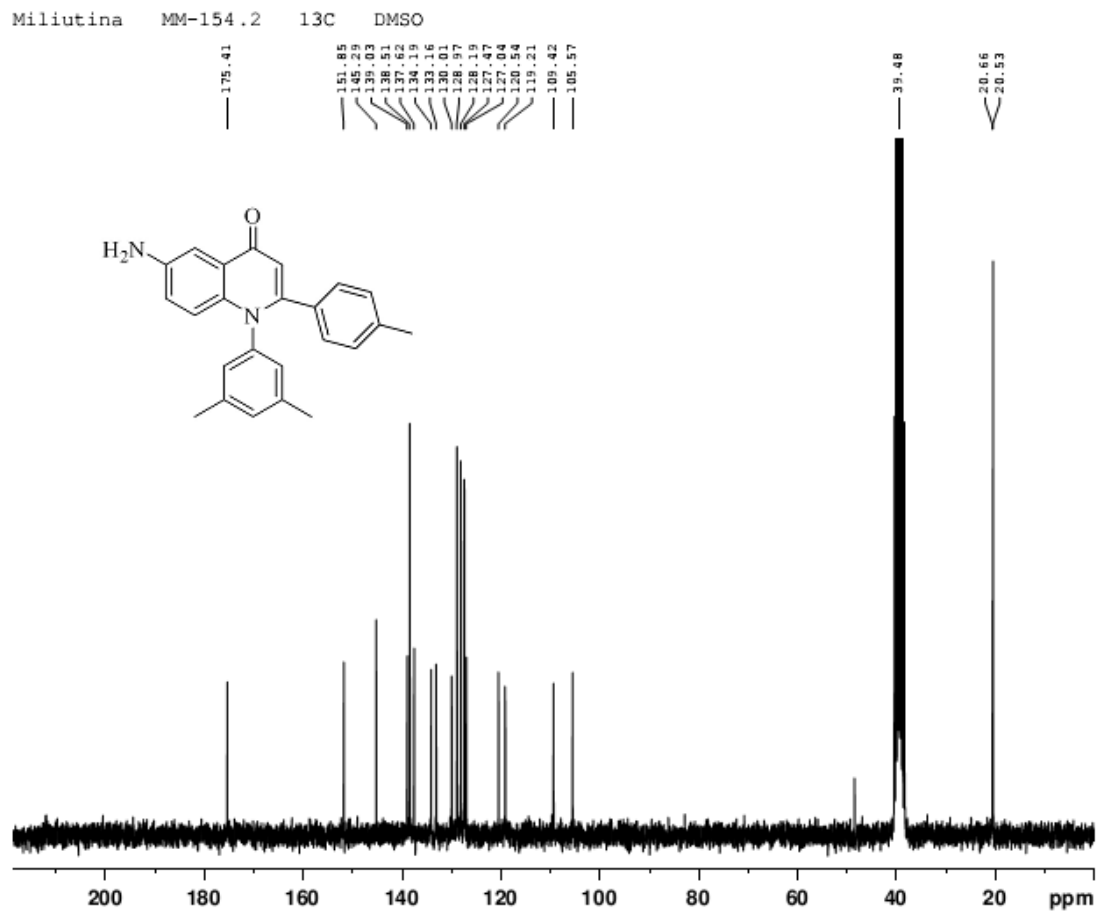
==== CHANNEL f1 =====
NUC1 1H
P1 10.00 usec
PL1 0.00 dB
PL1W 11.25325108 W
SFO1 300.1318534 MHz
SI 32768
SF 300.1299968 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



15 14 13 12 ppm



6-Amino-1-(3,5-dimethylphenyl)-2-*p*-tolylquinolin-4(1*H*)-one (8am4).



NAME 121122.211
EXPNO 10
PROCNO 1
Date_ 20121122
Time 23.16
INSTRUM spect
PROBHD 5 mm QNP 1H/13
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 1024
DS 4
SWH 15000.000 Hz
FIDRES 0.228882 Hz
AQ 2.1845834 sec
RG 2050
DW 33.333 usec
DE 10.00 usec
TE 298.1 K
D1 2.0000000 sec
d11 0.0300000 sec
DELTA 1.8999998 sec
TD0 1

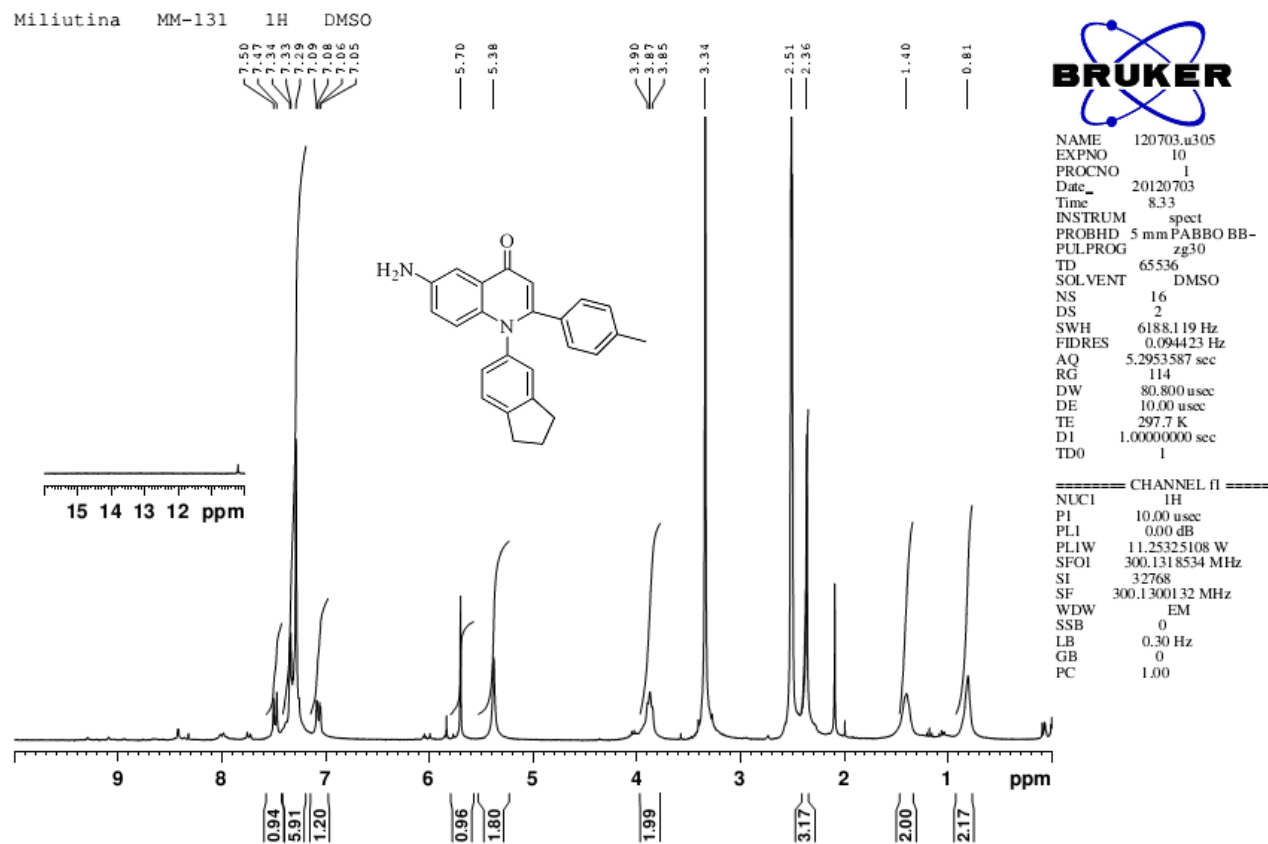
==== CHANNEL f1 ====

NUC1 13C
P1 10.20 usec
PL1 0.00 dB
SFO1 62.9015280 MHz

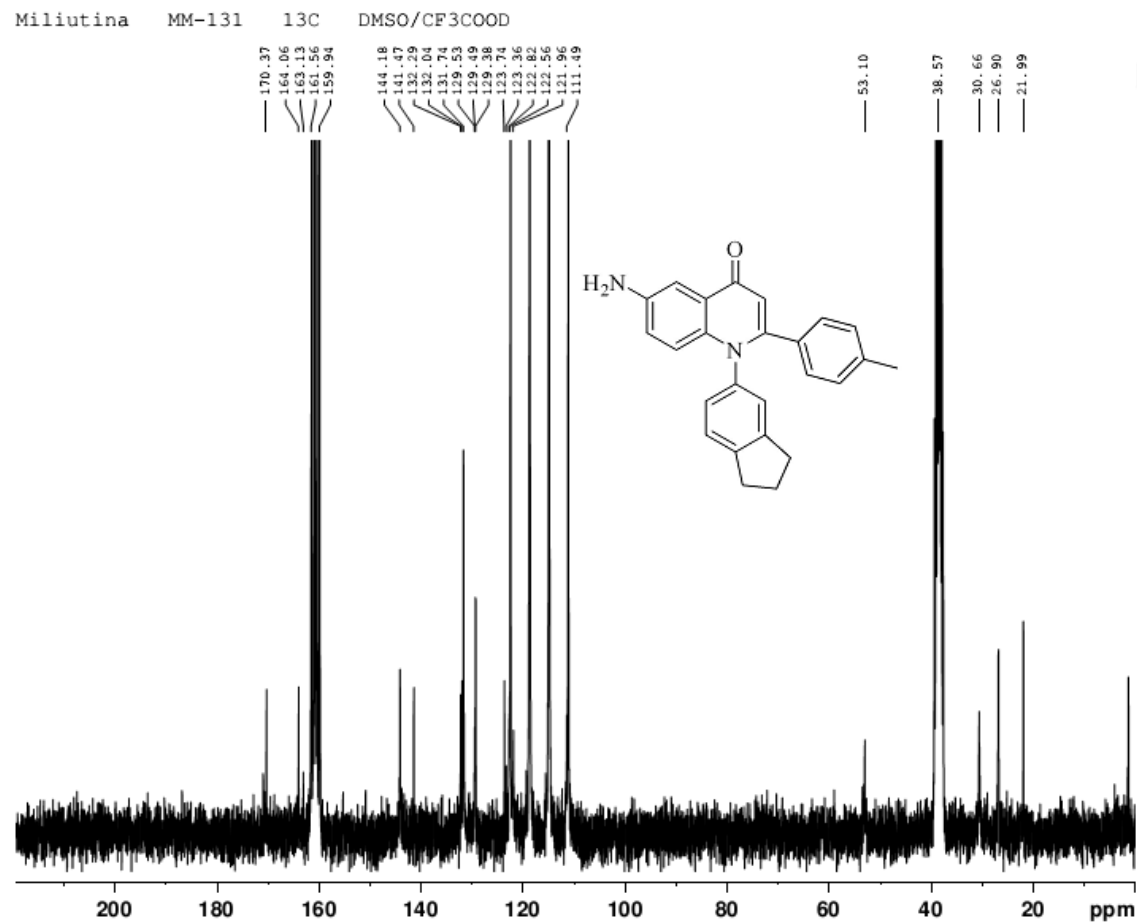
==== CHANNEL f2 ====

CPDPRG2 waltz16
NUC2 1H
PCPD2 70.00 usec
PL12 14.00 dB
PL13 14.00 dB
PL2 -3.00 dB
SFO2 250.1310005 MHz
SI 32768
SF 62.8952692 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

6-Amino-1-(2,3-dihydro-1H-inden-5-yl)-2-p-tolylquinolin-4(1H)-one (8anm).



6-Amino-1-(2,3-dihydro-1H-inden-5-yl)-2-p-tolylquinolin-4(1H)-one (8anm).



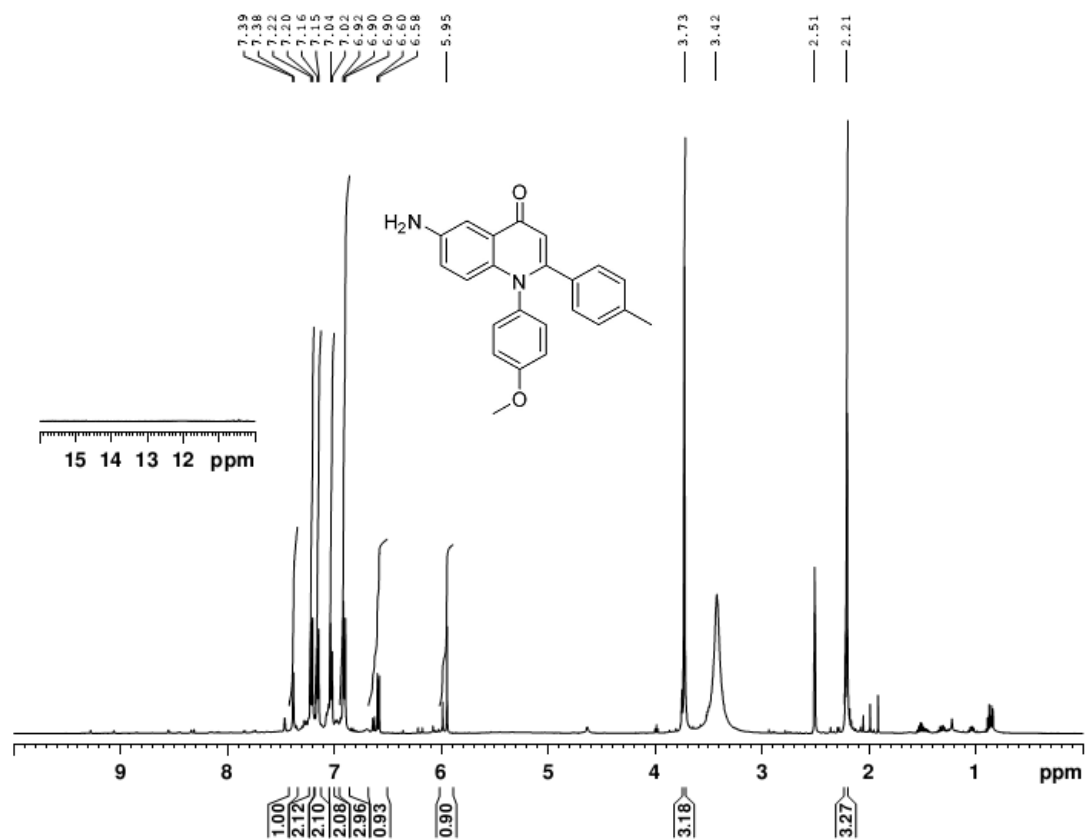
NAME 111024.u331
 EXPNO 12
 PROCNO 1
 Date_ 20111025
 Time 3.44
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT D2O
 NS 1024
 DS 4
 SWH 18028.846 Hz
 FIDRES 0.275098 Hz
 AQ 1.8175818 sec
 RG 2090
 DW 27.733 usec
 DE 10.00 usec
 TE 298.2 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

===== CHANNEL f1 =====
 NUC1 13C
 P1 10.00 usec
 PL1 -0.50 dB
 PL1W 33.25691986 W
 SFO1 75.4752953 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 72.00 usec
 PL2 0.00 dB
 PL12 17.00 dB
 PL13 17.00 dB
 PL2W 11.25325108 W
 PL12W 0.22453187 W
 PL13W 0.22453187 W
 SFO2 300.1312005 MHz
 SI 32768
 SF 75.4677511 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

6-Amino-1-(4-methoxyphenyl)-2-*p*-tolylquinolin-4(1*H*)-one (8apn).

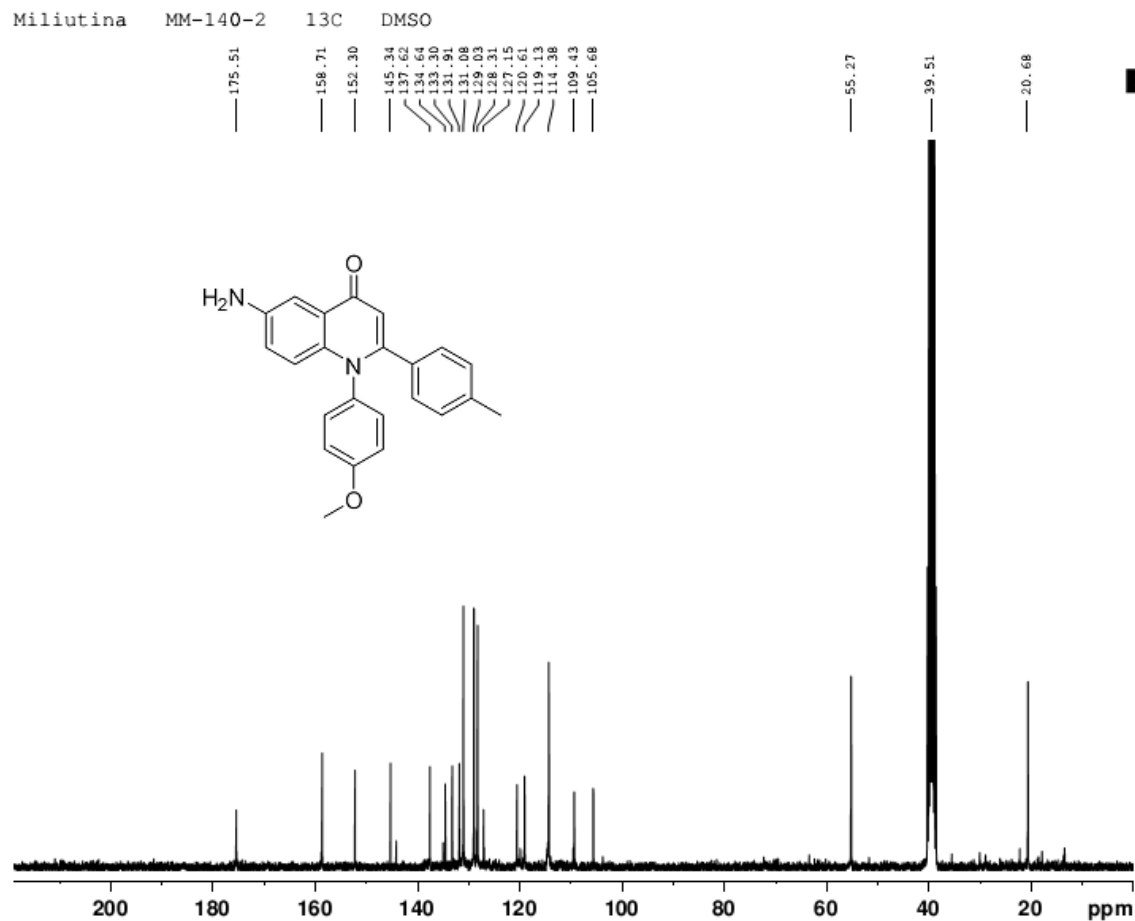
Mariia Miliutina, MM-140-2, 1H in DMSO



NAME 121128.511
 EXPNO 10
 PROCNO 1
 Date_ 20121128
 Time 16.42
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 16
 DS 2
 SWH 10330.578 Hz
 FIDRES 0.157632 Hz
 AQ 3.1720407 sec
 RG 45.3
 DW 48.400 usec
 DE 10.00 usec
 TE 300.0 K
 D1 1.00000000 sec
 TD0 1

===== CHANNEL f1 =====
 NUC1 1H
 P1 9.80 usec
 PL1 -3.00 dB
 SFO1 500.1330885 MHz
 SI 32768
 SF 500.1300000 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

6-Amino-1-(4-methoxyphenyl)-2-*p*-tolylquinolin-4(1*H*)-one (8apn).



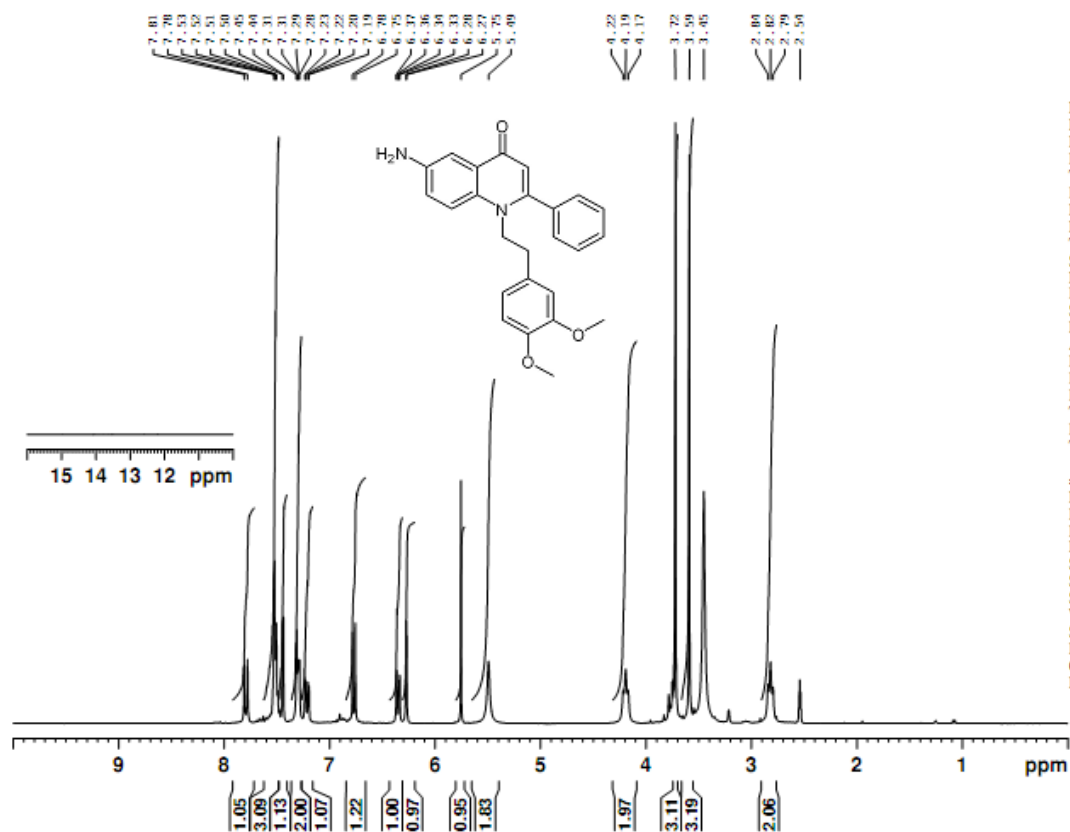
NAME 121121a307
EXPNO 11
PROCNO 1
Date_ 20121121
Time 21.35
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 1024
DS 4
SWH 18028.846 Hz
FIDRES 0.275098 Hz
AQ 1.8175818 sec
RG 2090
DW 27.733 usec
DE 10.00 usec
TE 298.2 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1

===== CHANNEL f1 =====
NUC1 13C
P1 10.00 usec
PL1 -0.50 dB
PL1W 33.25691986 W
SFO1 75.4752953 MHz

===== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 72.00 usec
PL2 0.00 dB
PL12 17.00 dB
PL13 17.00 dB
PL2W 11.25325108 W
PL12W 0.22453187 W
PL13W 0.22453187 W
SFO2 300.1312005 MHz
SI 32768
SF 75.4677867 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

6-Amino-1-(3,4-dimethoxyphenethyl)-2-phenylquinolin-4(1H)-one (8bae).

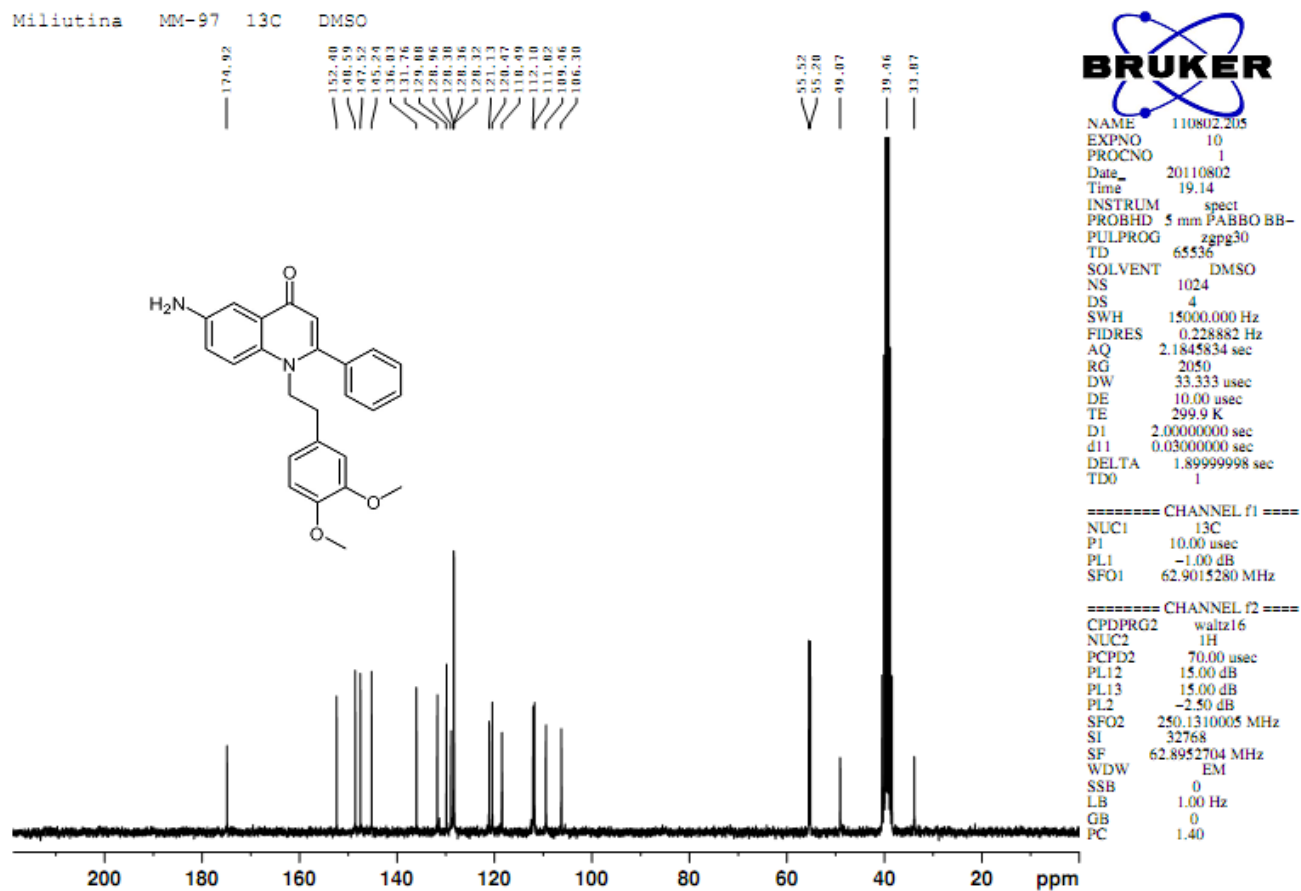
Miliutina, MM-97, DMSO, 1H



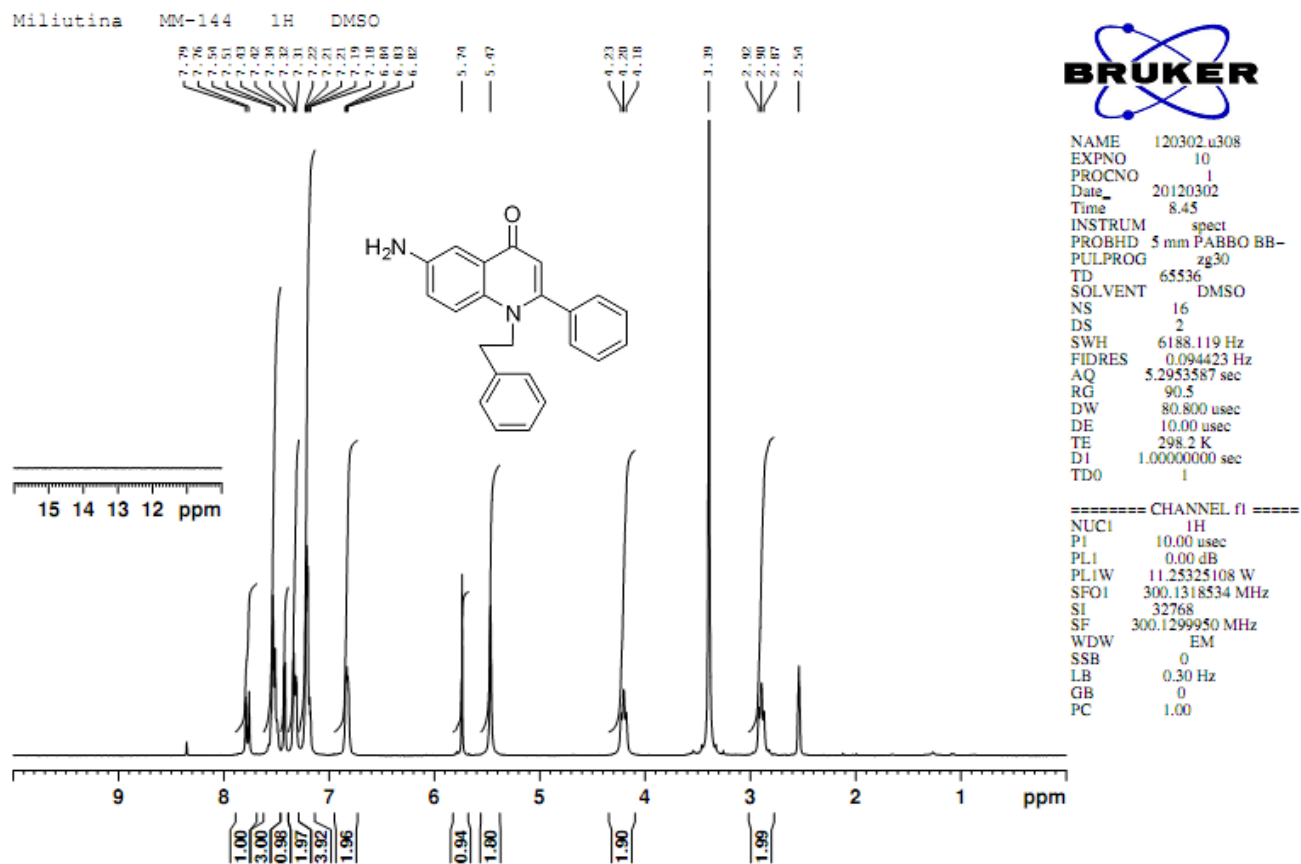
NAME 110803.u316
 EXPNO 10
 PROCNO 1
 Date_ 20110803
 Time 15.59
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 16
 DS 2
 SWH 6188.119 Hz
 FIDRES 0.094423 Hz
 AQ 5.2953587 sec
 RG 64
 DW 80.800 usec
 DE 10.00 usec
 TE 298.2 K
 D1 1.00000000 sec
 TD0 1

===== CHANNEL f1 =====
 NUC1 1H
 P1 10.00 usec
 PL1 0.00 dB
 PL1W 11.25325108 W
 SFO1 300.1318534 MHz
 SI 32768
 SF 300.1299960 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

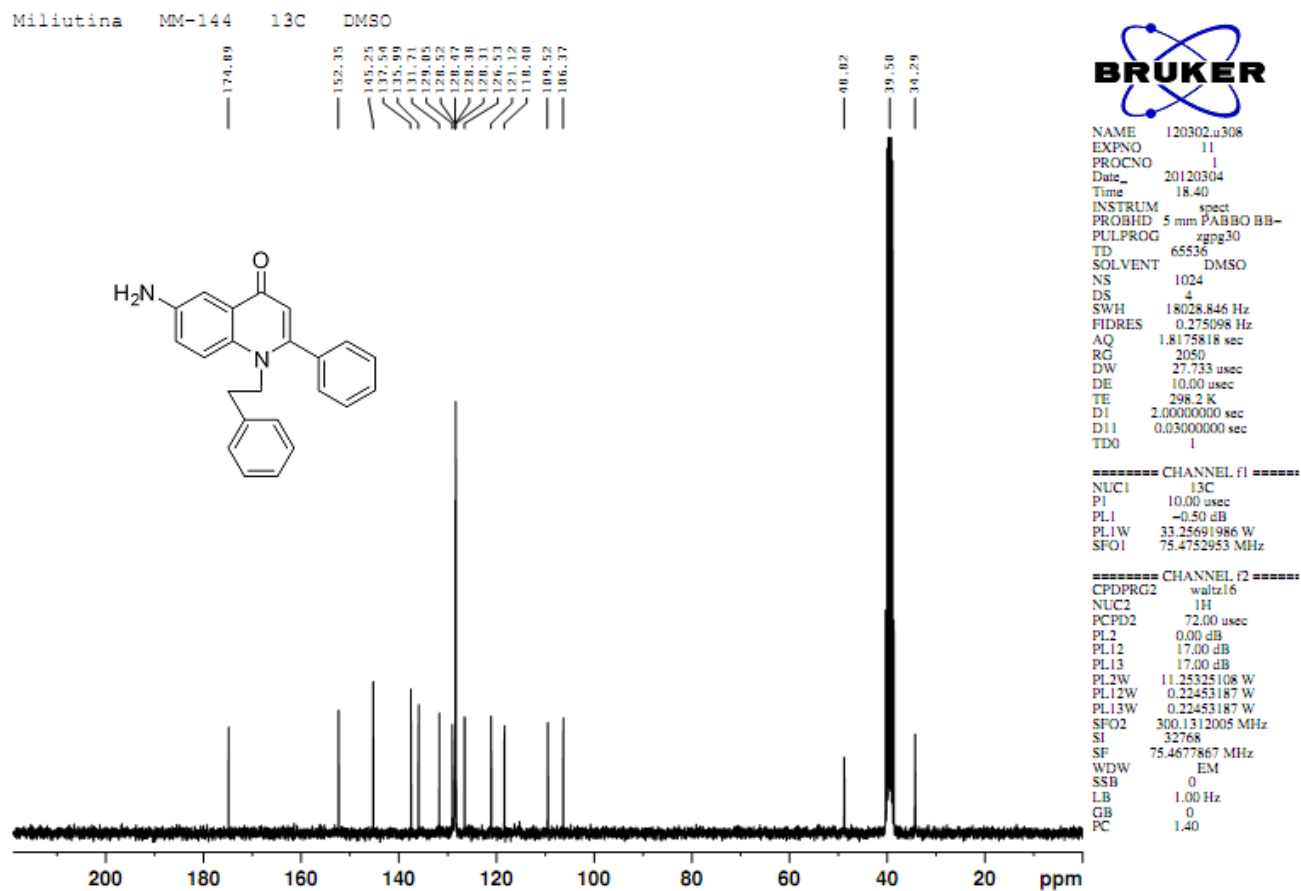
6-Amino-1-(3,4-dimethoxyphenethyl)-2-phenylquinolin-4(1H)-one (8bae).



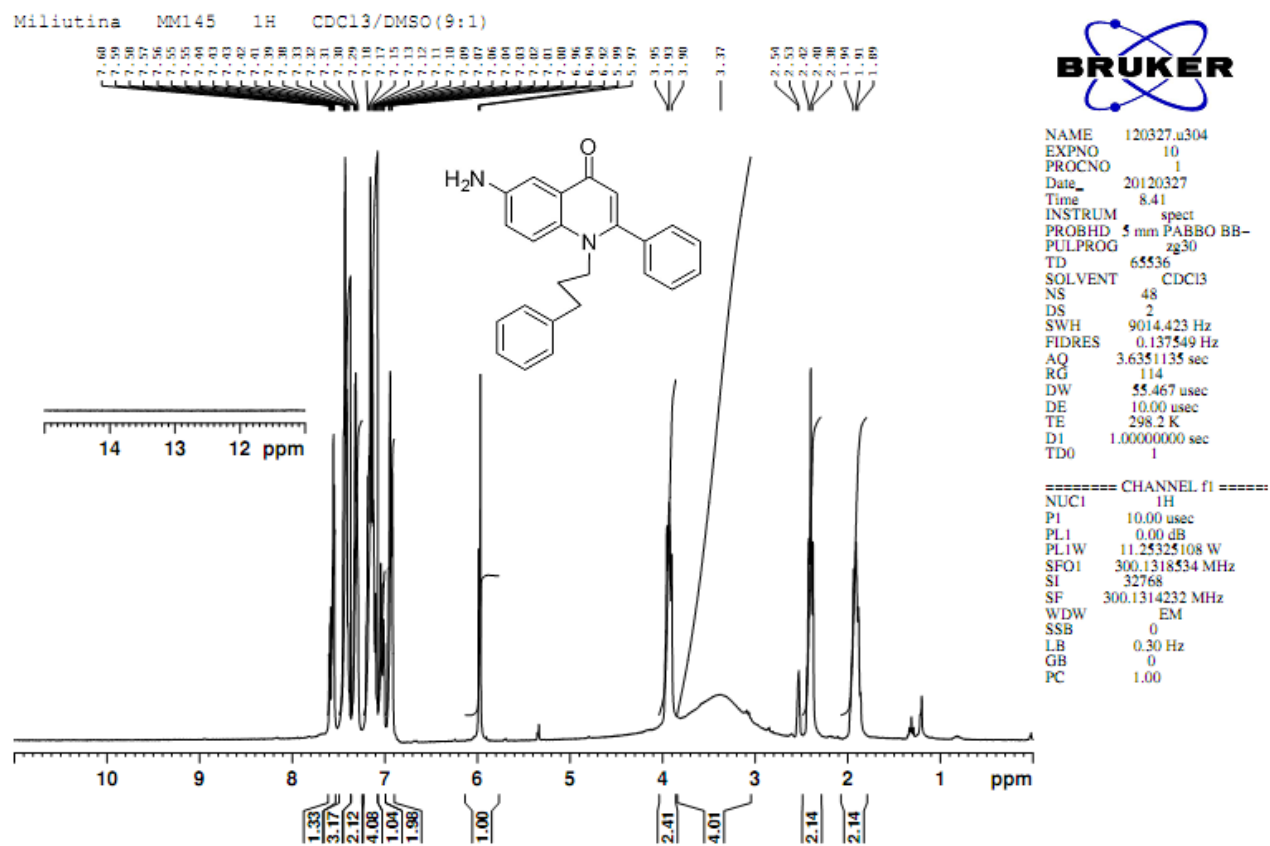
6-Amino-1-phenethyl-2-phenylquinolin-4(1H)-one (8bc9).



6-Amino-1-phenethyl-2-phenylquinolin-4(1H)-one (8bc9).

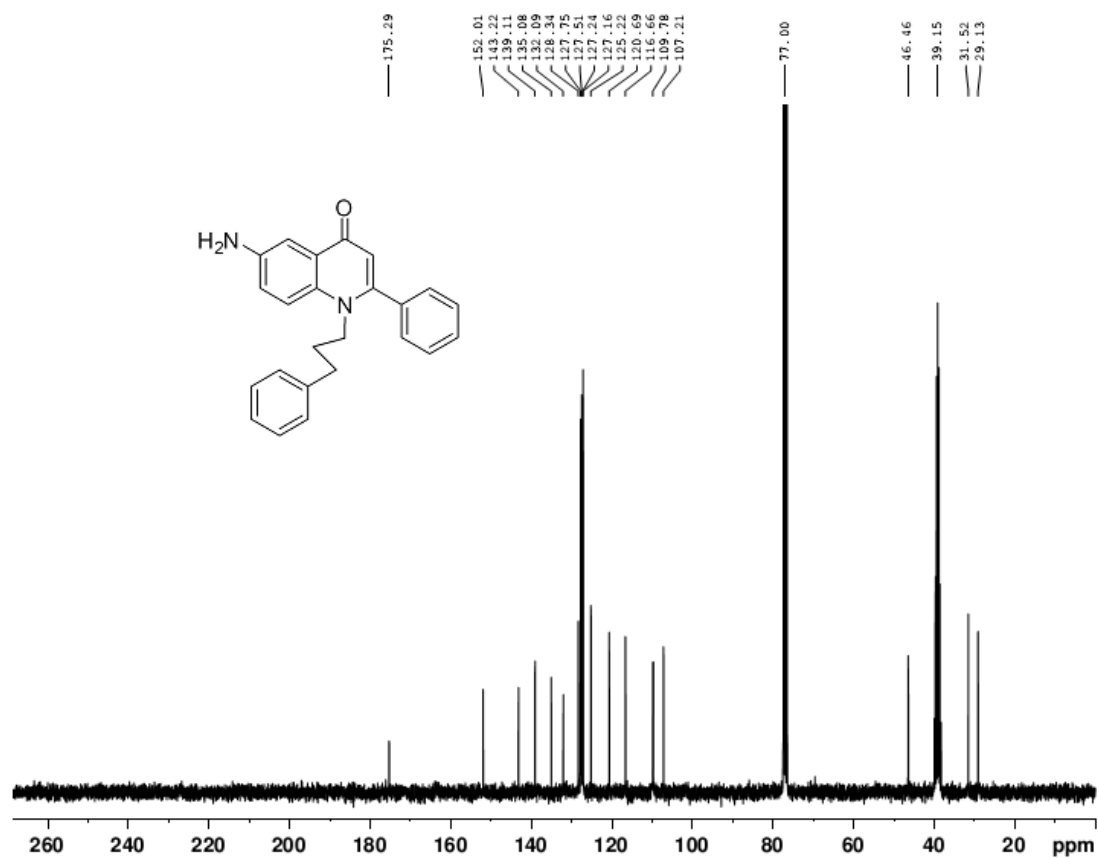


6-Amino-1-phenethyl-2-phenylquinolin-4(1H)-one (8bdq).



6-Amino-1-phenethyl-2-phenylquinolin-4(1H)-one (8bdq).

Miliutina MM145 13C CDC13/DMSO(9:1)



NAME 13152 / m. 204
 EXPNO 11
 PROCNO 1
 Date_ 20120327
 Time 23.22
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 1600
 DS 4
 SWH 26315.789 Hz
 FIDRES 0.401547 Hz
 AQ 1.2452340 sec
 RG 2050
 DW 19.000 usec
 DE 10.00 usec
 TE 298.2 K
 D1 2.0000000 sec
 D11 0.0300000 sec
 TD0 1

==== CHANNEL f1 ====
 NUC1 13C
 P1 10.00 usec
 PL1 -45.0 dB
 PL1W 33.25691986 W
 SFO1 75.4752953 MHz

==== CHANNEL f2 ====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 72.00 usec
 PL2 0.00 dB
 PL12 17.00 dB
 PL13 17.00 dB
 PL2W 11.25325108 W
 PL12W 0.22453187 W
 PL13W 0.22453187 W
 SFO2 300.1312005 MHz
 SI 32768
 SF 75.4681804 MHz
 WDW EM
 SSB 0
 LB 100 Hz
 GB 0
 PC 1.40

6-Amino-1-heptyl-2-phenylquinolin-4(1H)-one (8ber).

Miliutina MM-96 1H DMSO

7.62
7.58
7.55
7.51
7.50
7.39
7.38
7.15
7.14
7.12

5.79

4.02
3.99
3.97

3.54
3.43

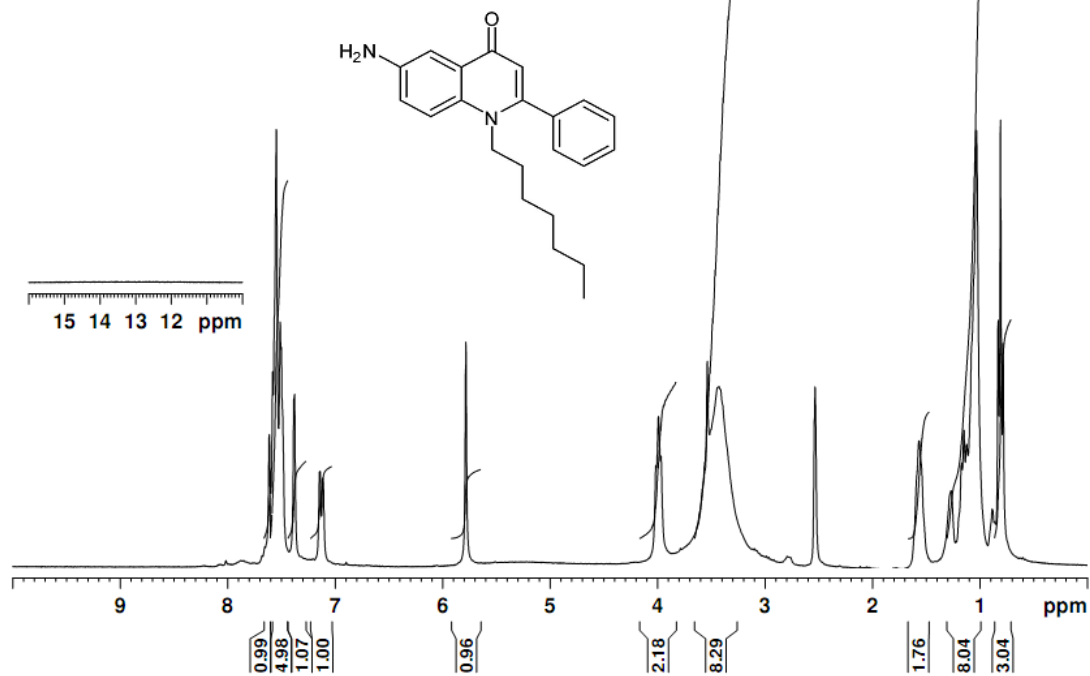
2.54

1.57
1.17
1.15
1.13
1.03
0.81
0.79

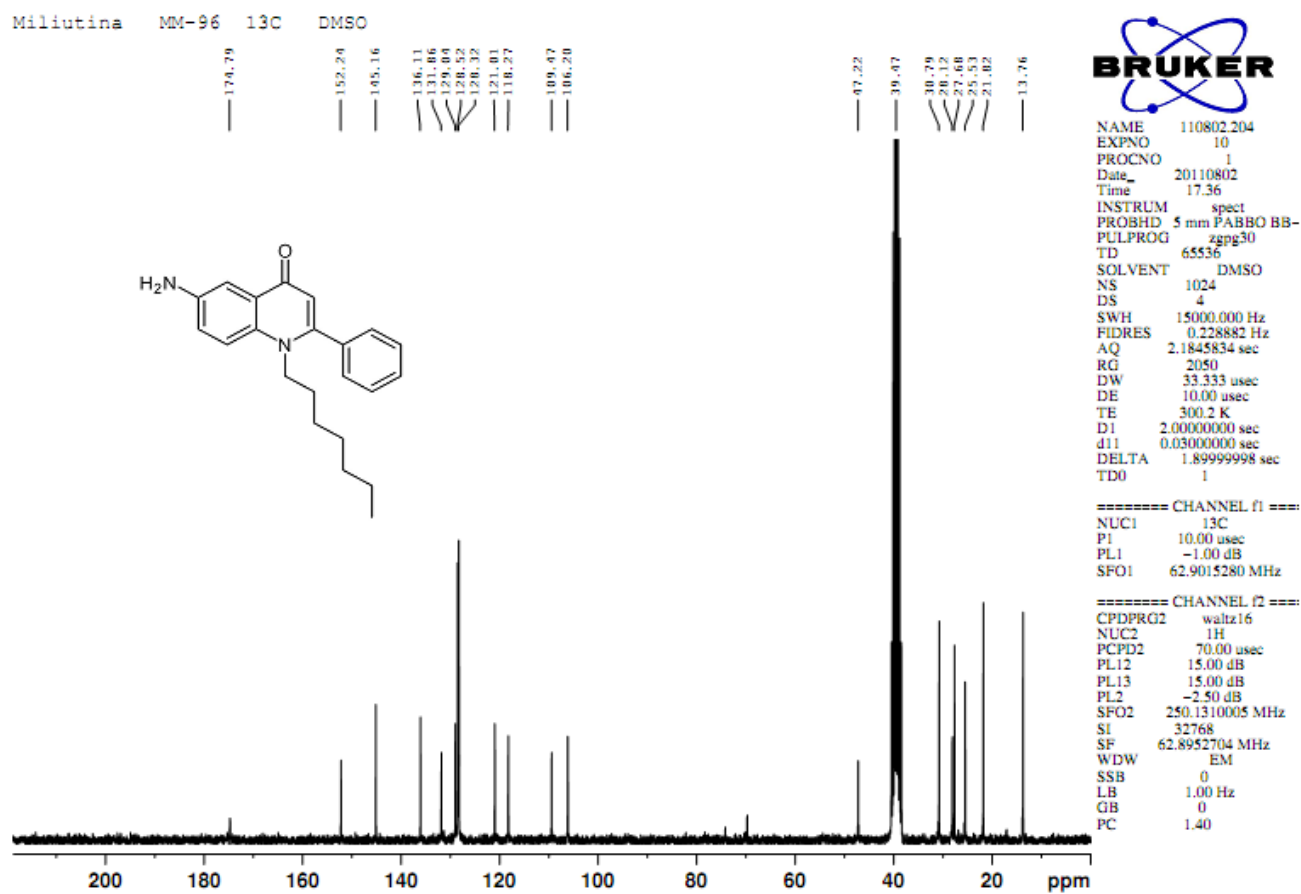


NAME 110801.u327
EXPNO 10
PROCNO 1
Date_ 20110801
Time 15.32
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 16
DS 2
SWH 6188.119 Hz
FIDRES 0.094423 Hz
AQ 5.2953587 sec
RG 90.5
DW 80.800 usec
DE 10.00 usec
TE 298.2 K
D1 1.00000000 sec
TD0 1

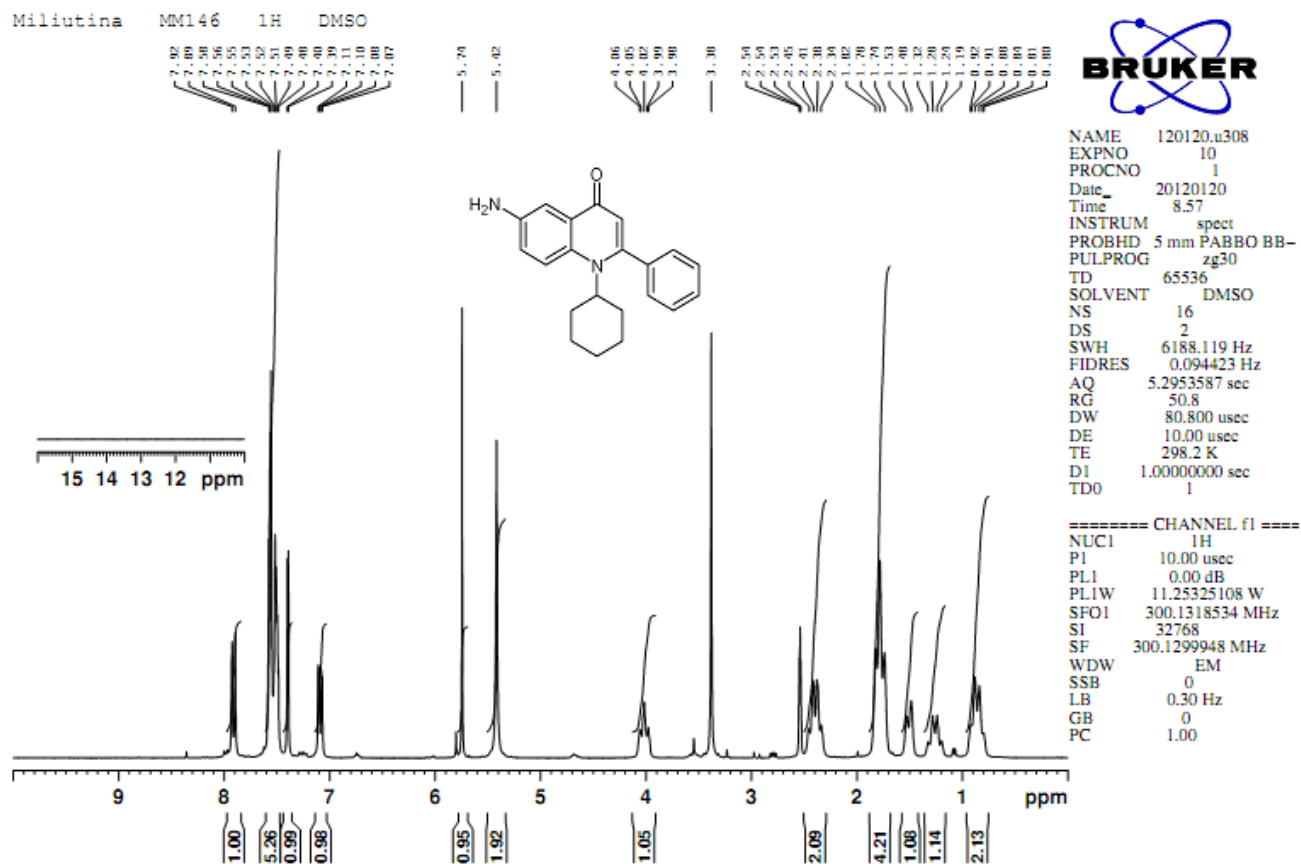
===== CHANNEL f1 =====
NUC1 1H
P1 10.00 usec
PL1 0.00 dB
PL1W 11.25325108 W
SFO1 300.1318534 MHz
SI 32768
SF 300.1300000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



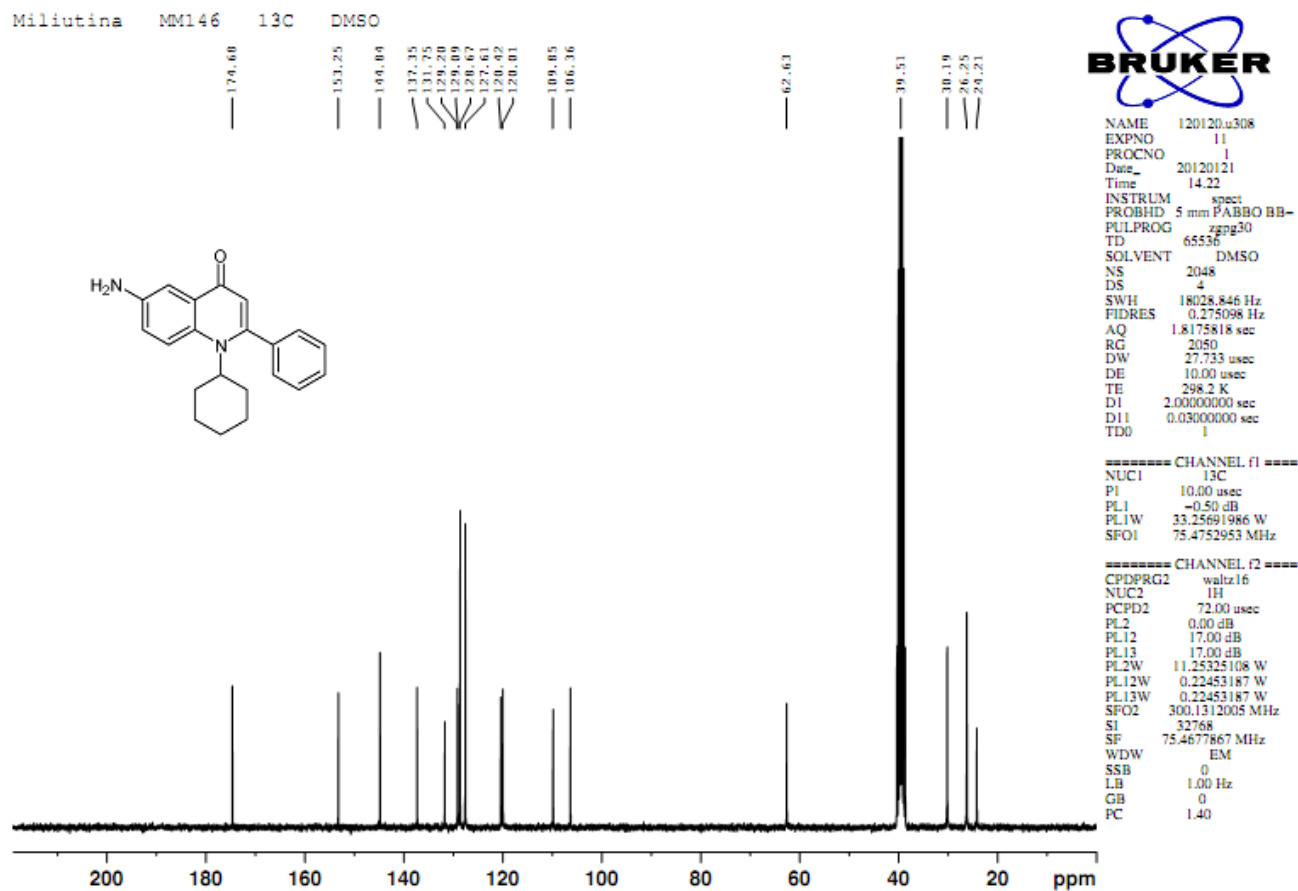
6-Amino-1-heptyl-2-phenylquinolin-4(1H)-one (8ber).



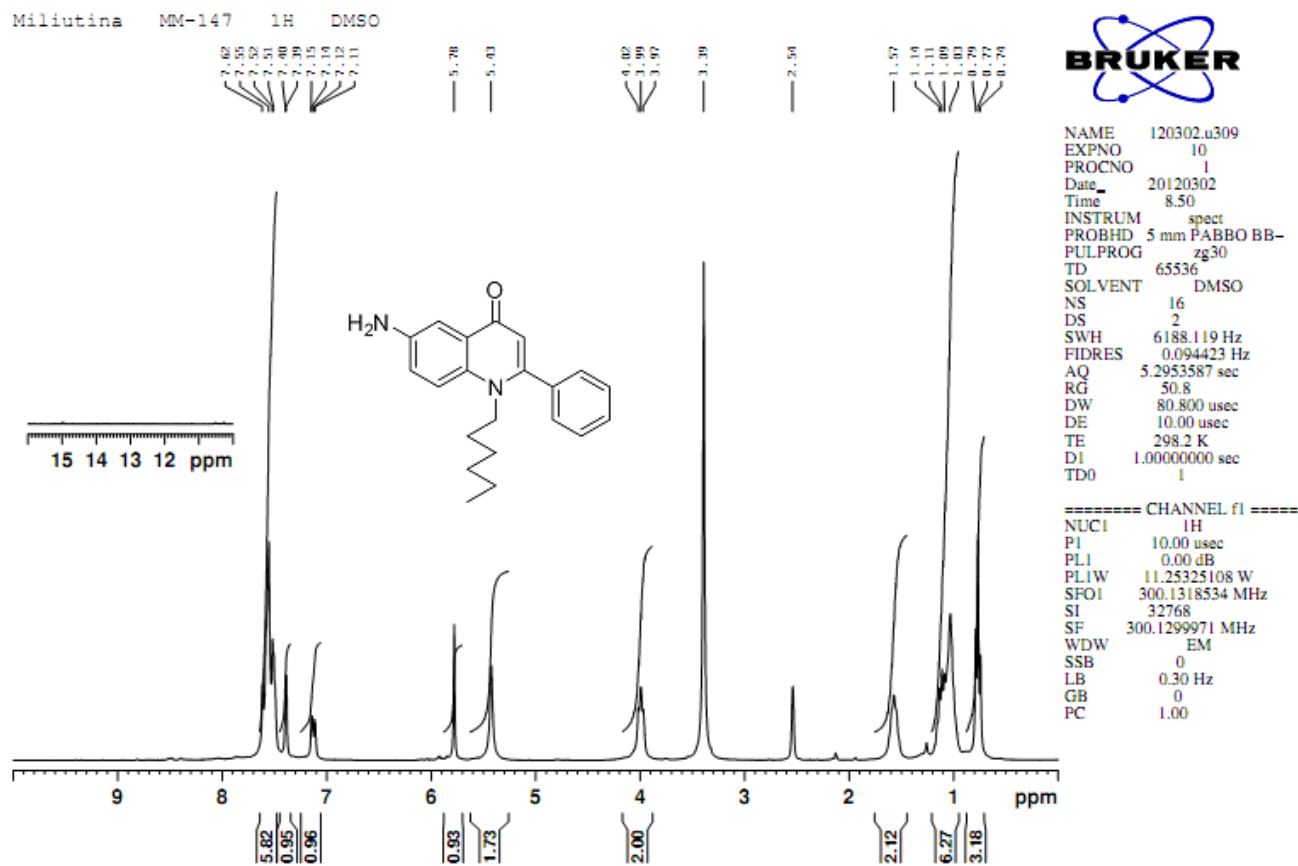
6-Amino-1-cyclohexyl-2-phenylquinolin-4(1H)-one (8bfs).



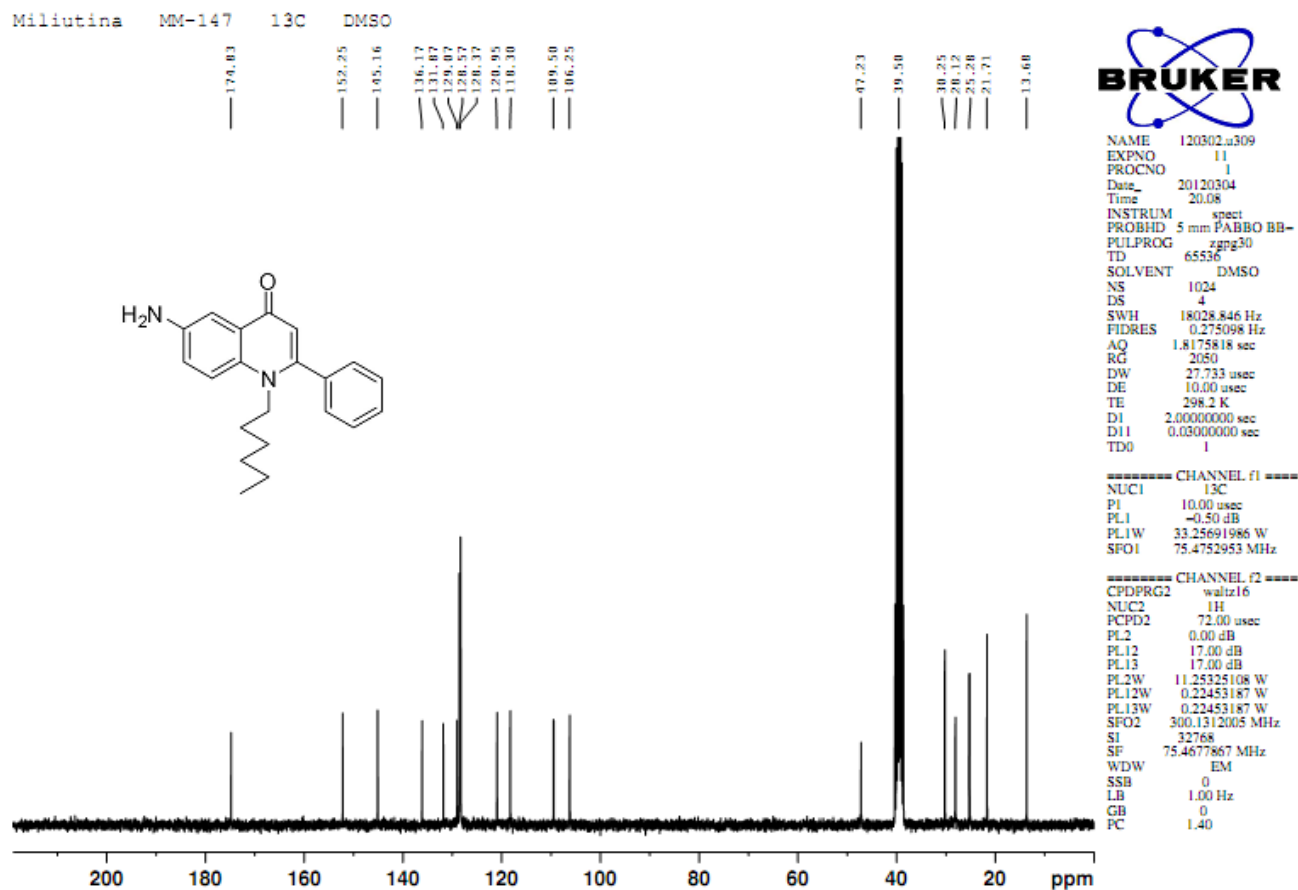
6-Amino-1-cyclohexyl-2-phenylquinolin-4(1H)-one (8bfs).



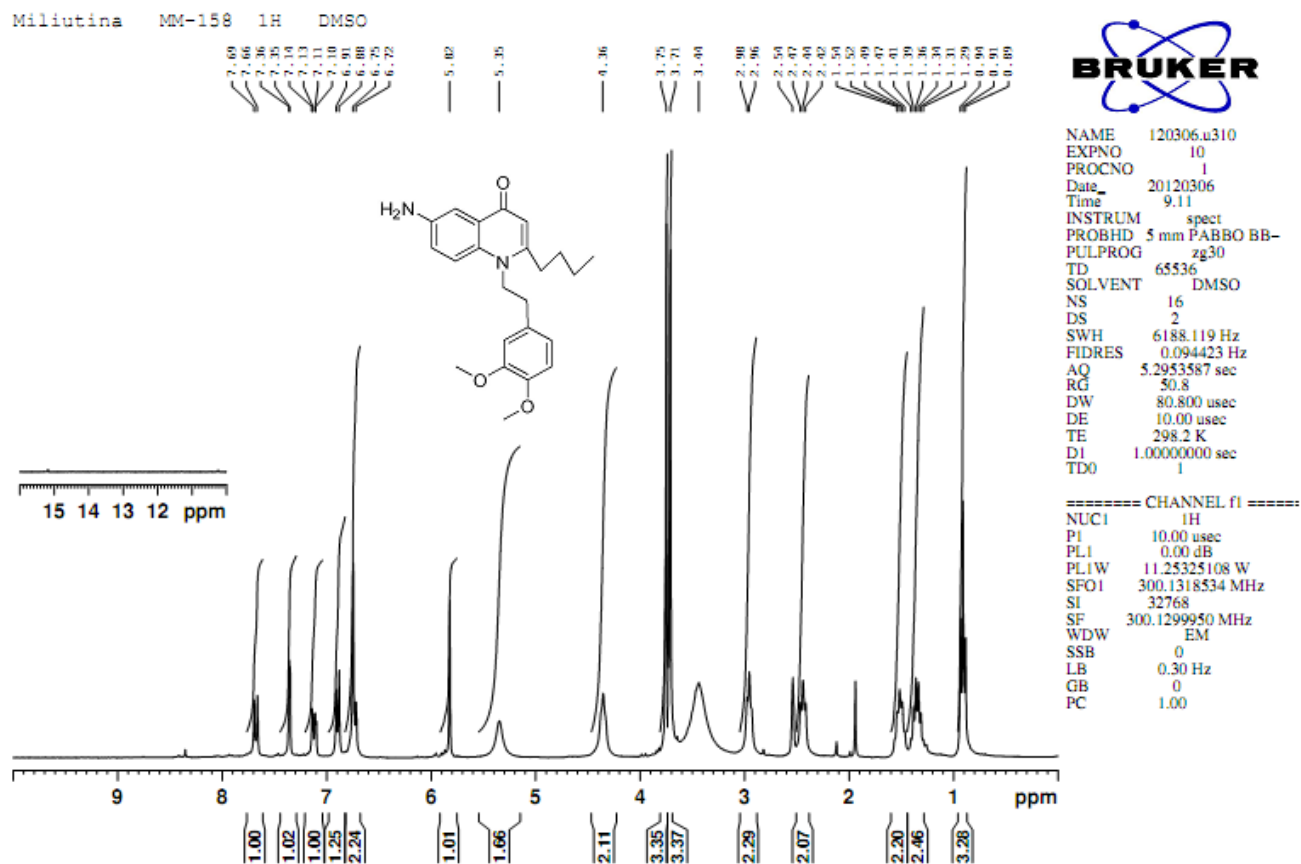
6-Amino-1-hexyl-2-phenylquinolin-4(1H)-one (8bgt).



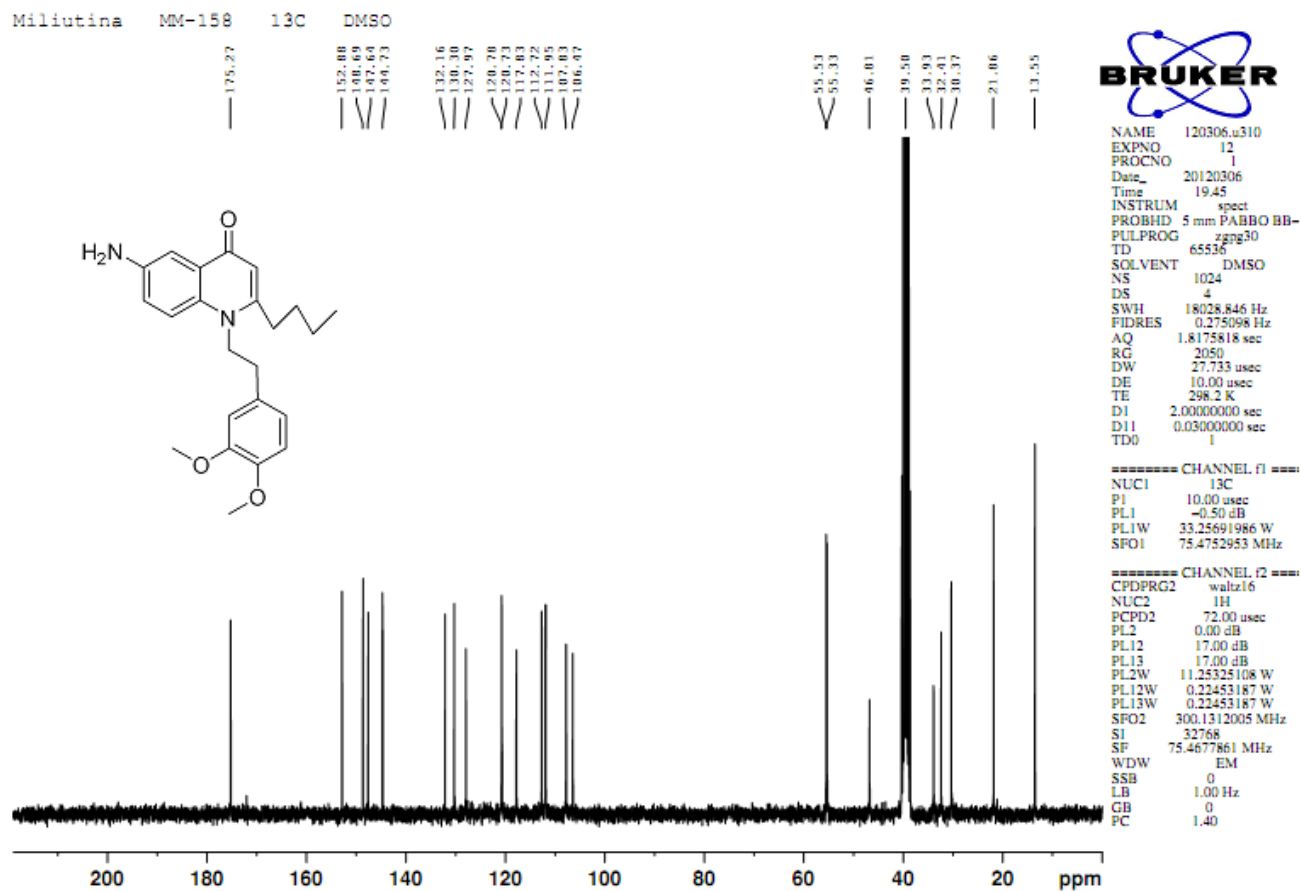
6-Amino-1-hexyl-2-phenylquinolin-4(1H)-one (8bgt).



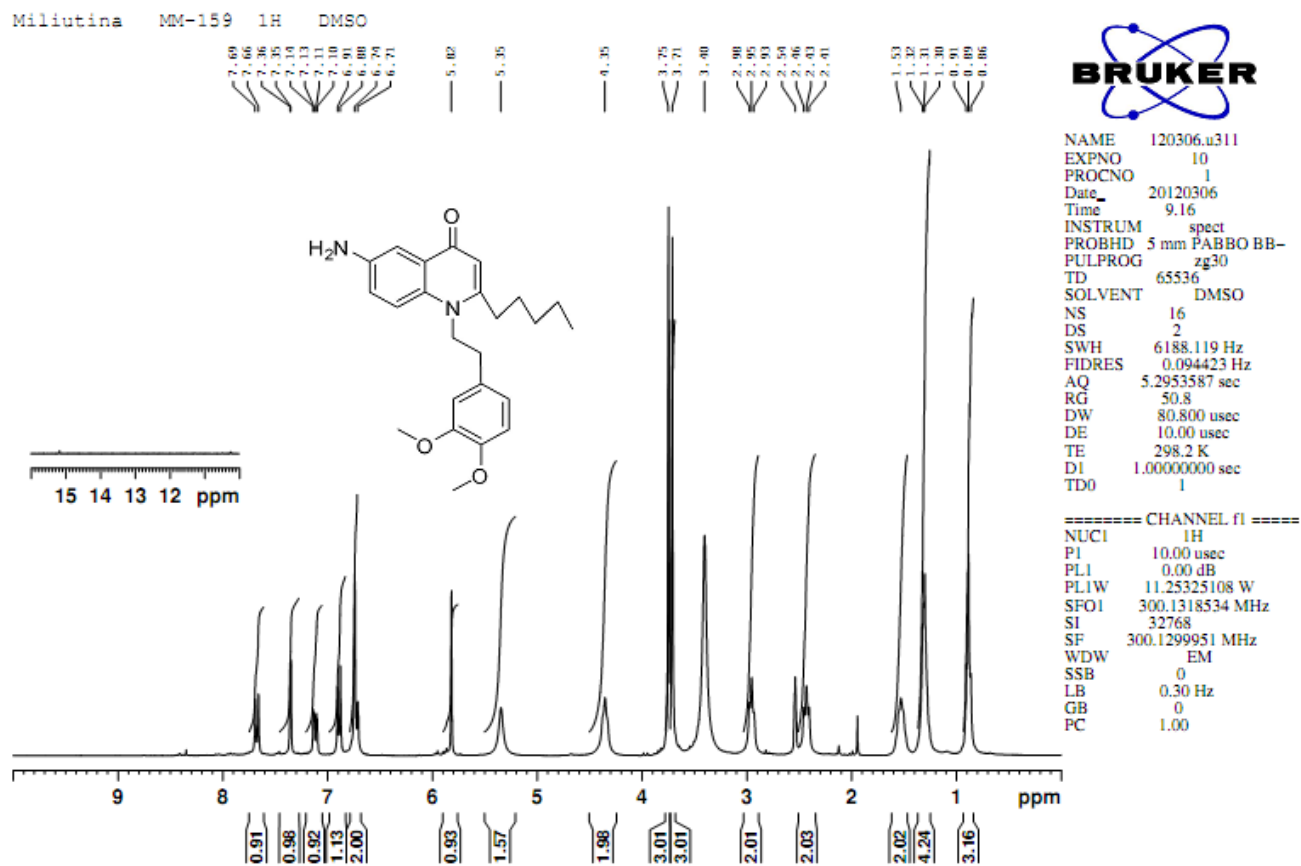
6-Amino-2-butyl-1-(3,4-dimethoxyphenethyl)quinolin-4(1H)-one (8ca⁺).



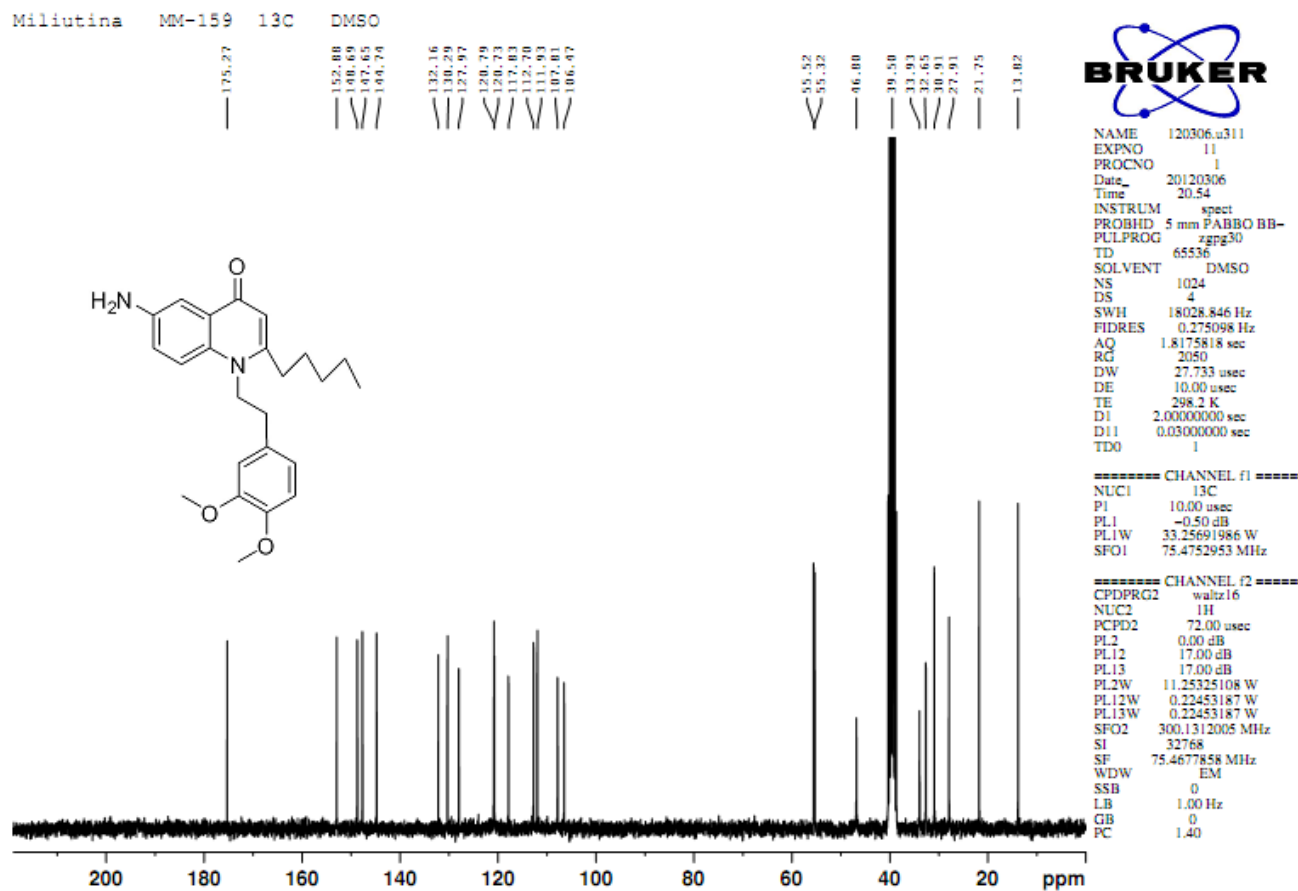
6-Amino-2-butyl-1-(3,4-dimethoxyphenethyl)quinolin-4(1H)-one (8ca⁺).



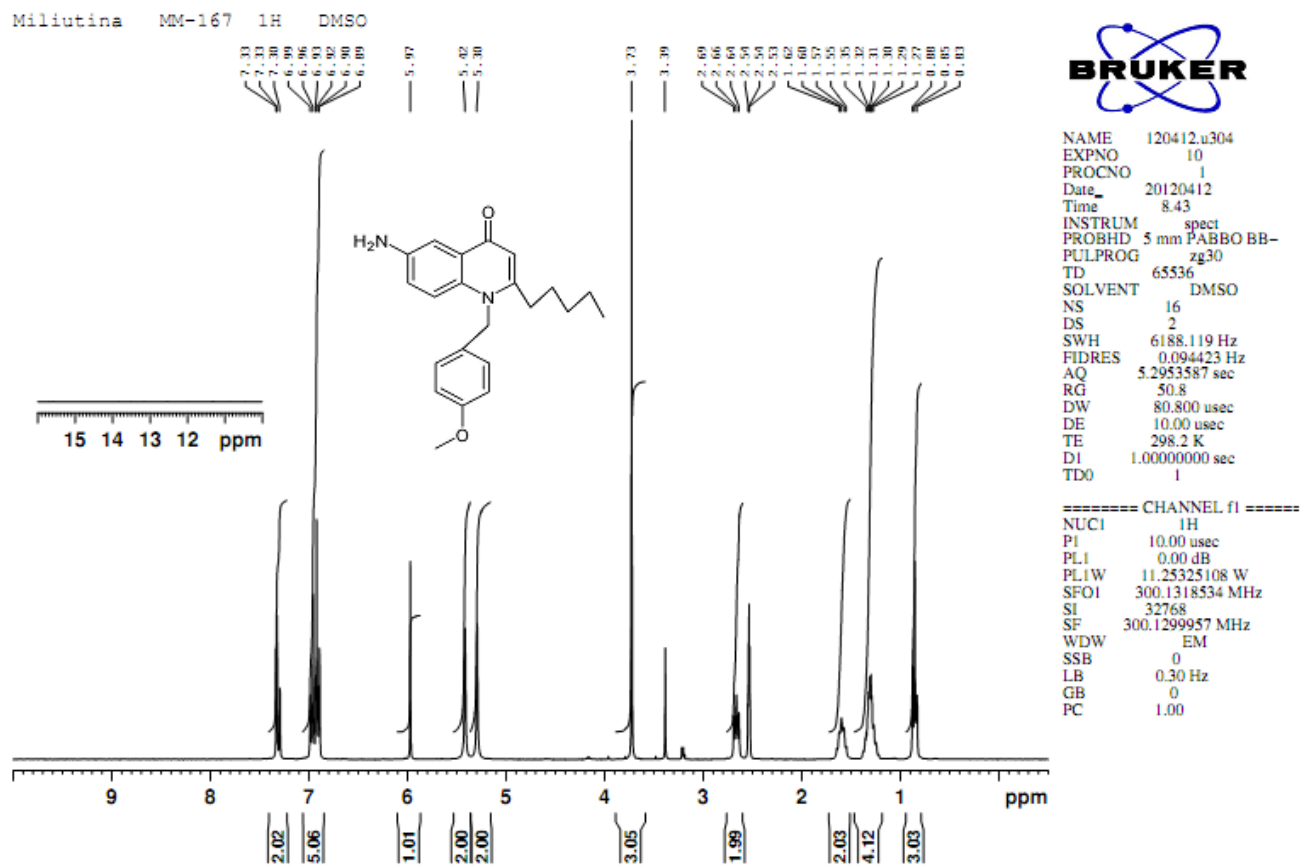
6-Amino-1-(3,4-dimethoxyphenethyl)-2-pentylquinolin-4(1H)-one (8da⁺).



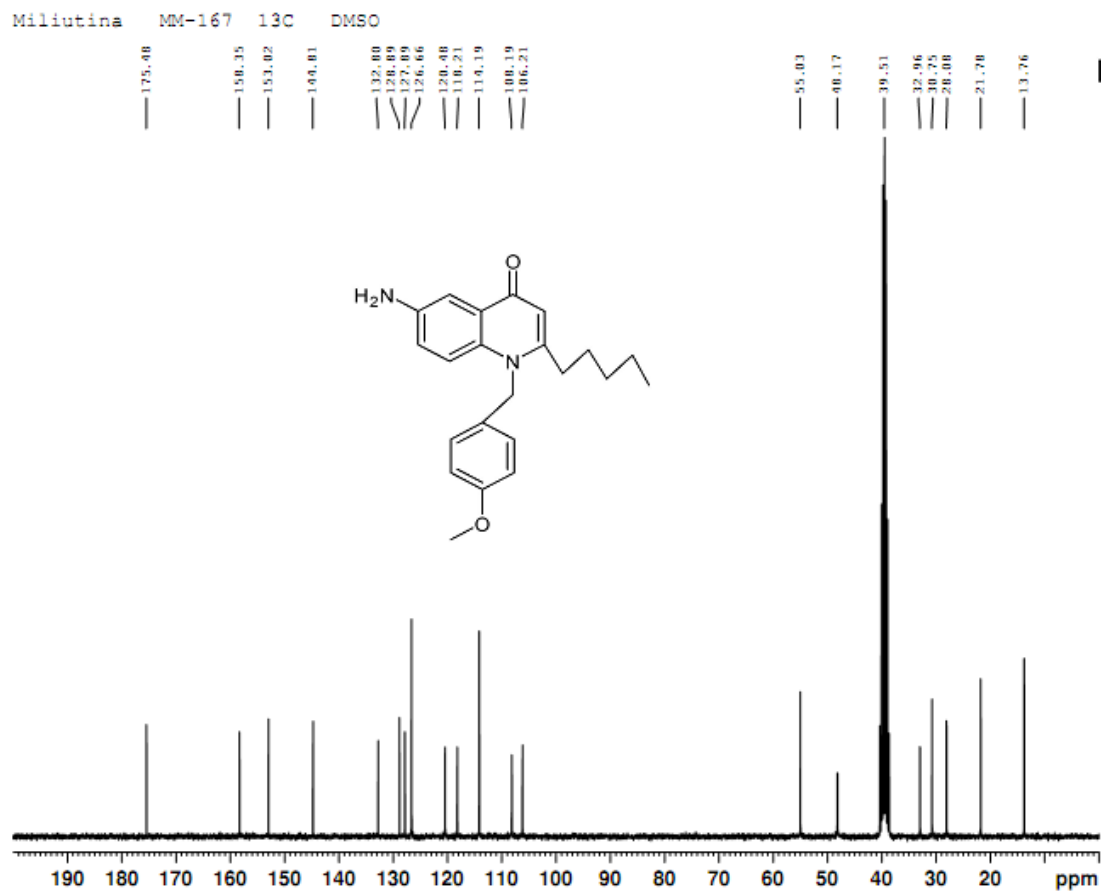
6-Amino-1-(3,4-dimethoxyphenethyl)-2-pentylquinolin-4(1H)-one (8da⁺).



6-Amino-1-(4-methoxybenzyl)-2-pentylquinolin-4(1H)-one (8wdb).



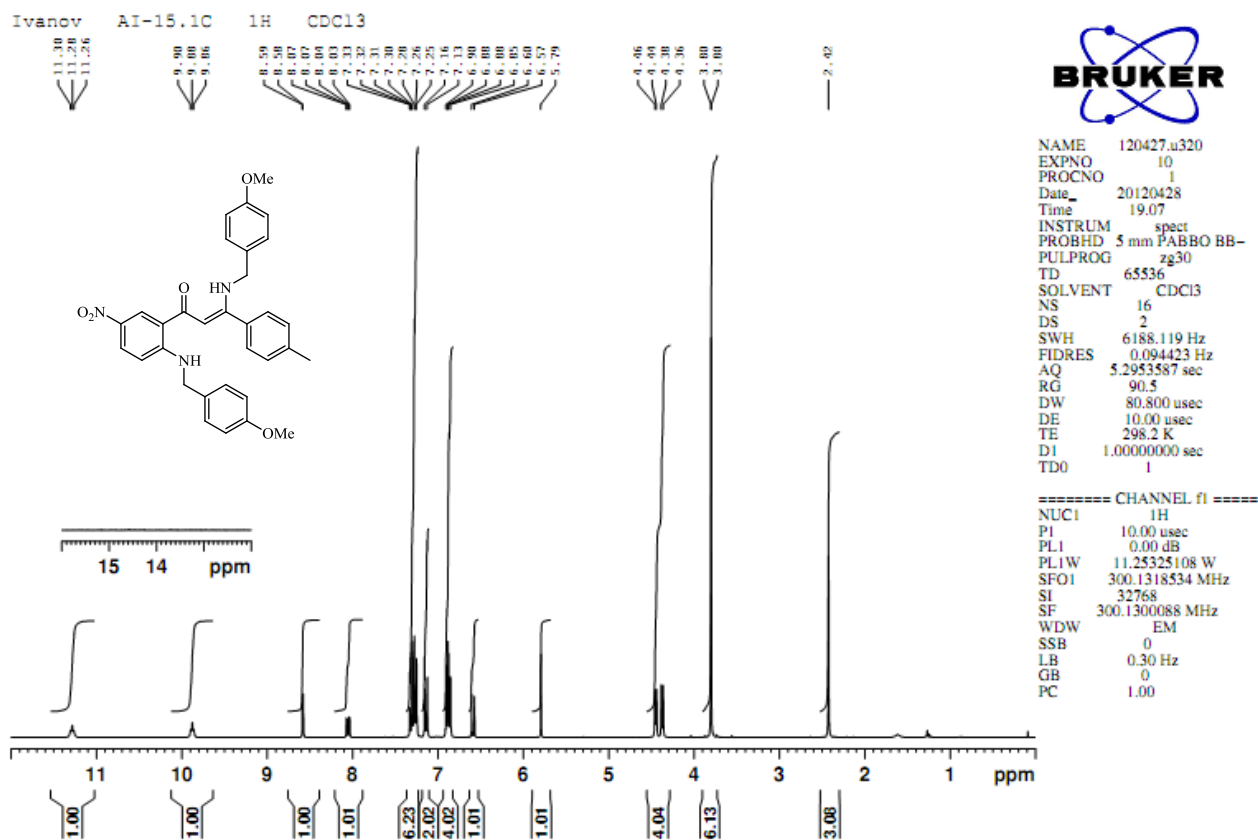
6-Amino-1-(4-methoxybenzyl)-2-pentylquinolin-4(1H)-one (8wdb).



NAME 120412.u304
 EXPNO 12
 PROCNO 1
 Date_ 20120412
 Time 12.23
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 1024
 DS 4
 SWH 18028.846 Hz
 FIDRES 0.275098 Hz
 AQ 1.8175818 sec
 RG 2040
 DW 27.733 usec
 DE 10.00 usec
 TE 298.2 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

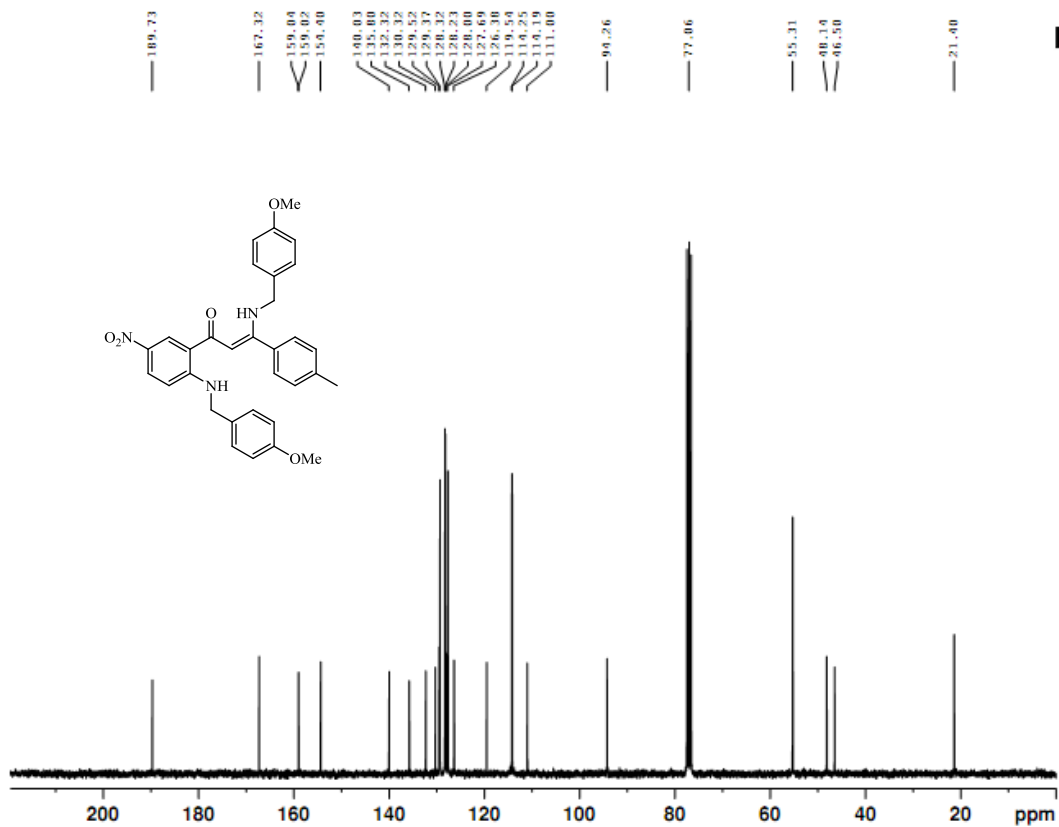
----- CHANNEL f1 -----
 NUC1 13C
 P1 10.00 usec
 PL1 -0.50 dB
 PL1W 33.25691986 W
 SFO1 75.4752943 MHz

----- CHANNEL f2 -----
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 72.00 usec
 PL2 0.00 dB
 PL12 17.00 dB
 PL13 17.00 dB
 PL2W 11.25324108 W
 PL12W 0.22443187 W
 PL13W 0.22443187 W
 SFO2 300.1312005 MHz
 SI 32768
 SF 75.4677867 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

(Z)-3-(4-Methoxybenzylamino)-1-(2-(4-methoxybenzylamino)-5-nitrophenyl)-3-*p*-tolylprop-2-en-1-one (9a).

(Z)-3-(4-Methoxybenzylamino)-1-(2-(4-methoxybenzylamino)-5-nitrophenyl)-3-*p*-tolylprop-2-en-1-one (9a).

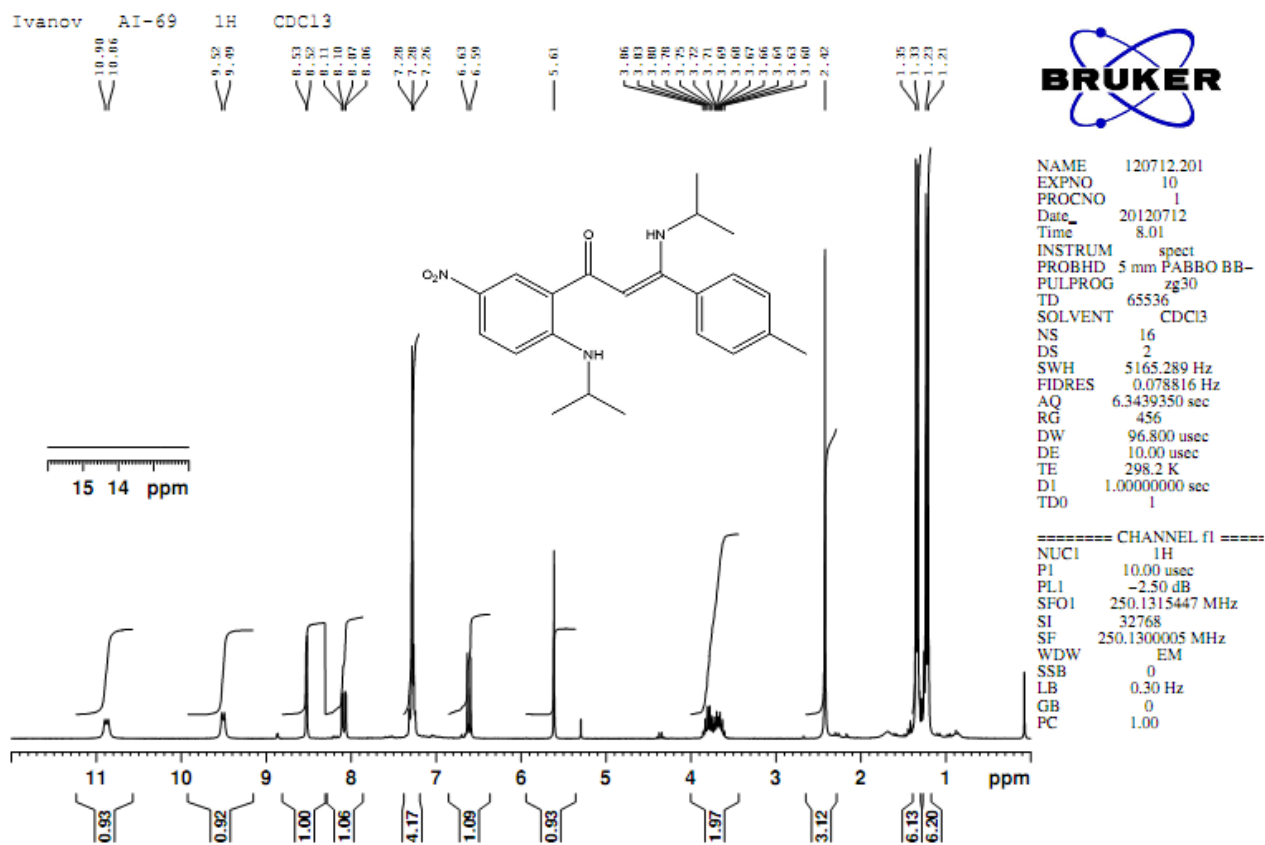
Ivanov AI-15.1C 13C CDCl3

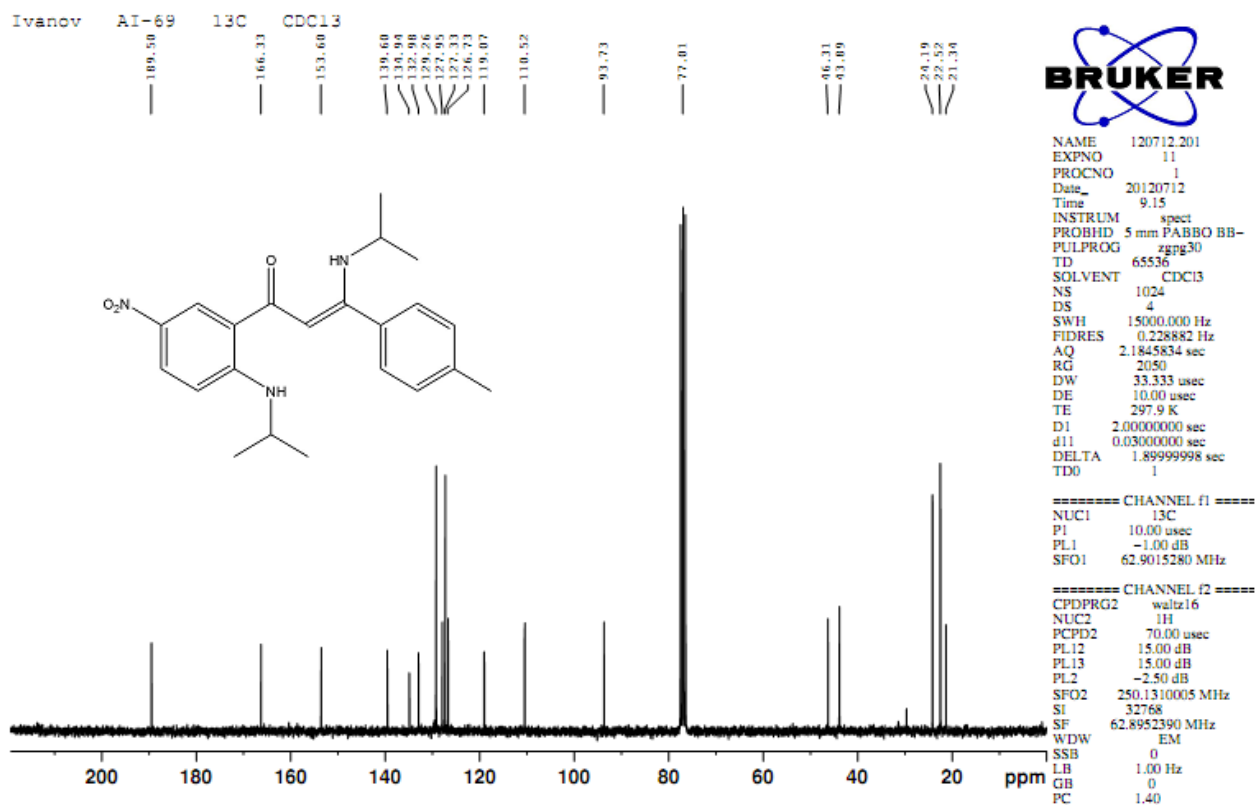


NAME 120427.d320
 EXPNO 12
 PROCNO 1
 Date_ 20120428
 Time 20.31
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 1024
 DS 4
 SWH 18028.846 Hz
 FIDRES 0.234098 Hz
 AQ 1.8175818 sec
 RG 2050
 DW 27.733 usec
 DE 10.00 usec
 TE 298.4 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

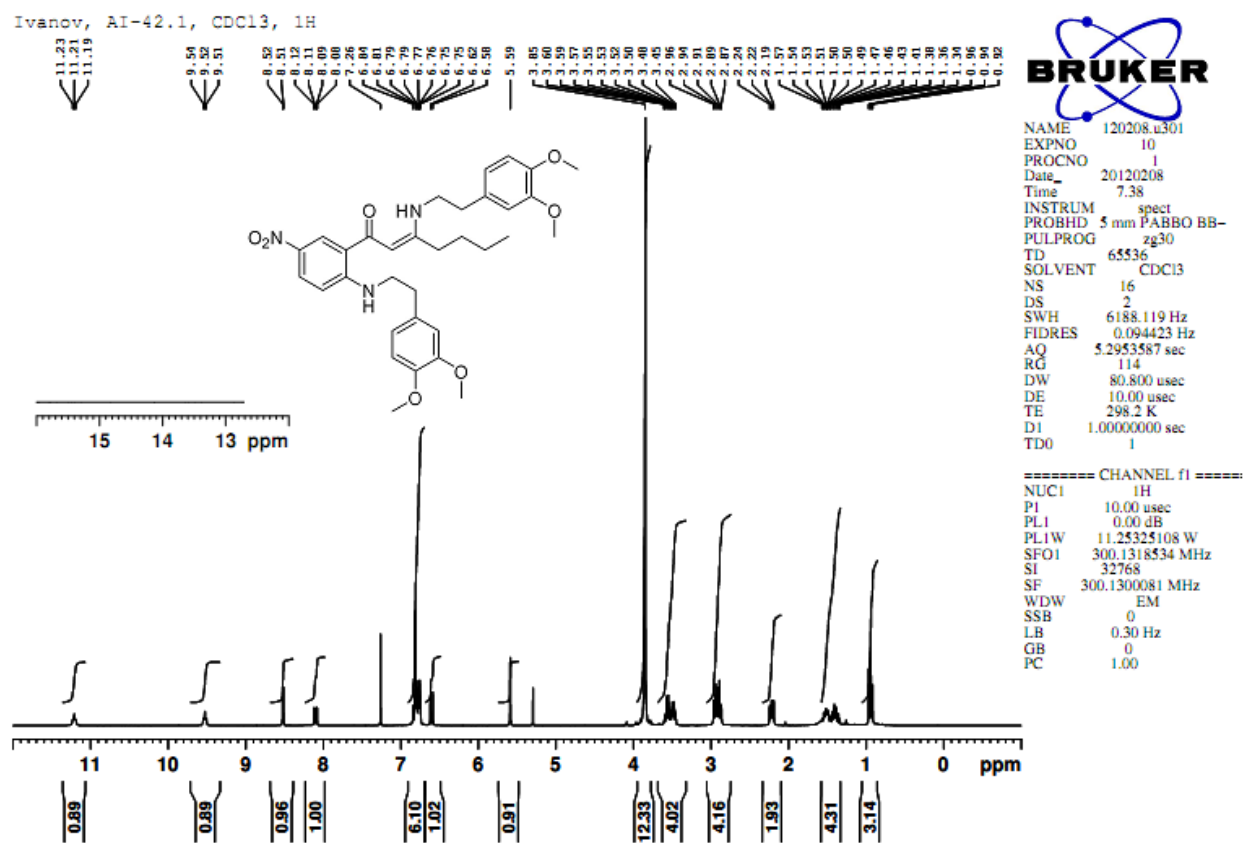
----- CHANNEL f1 -----
 NUC1 13C
 P1 10.00 usec
 PL1 -0.50 dB
 PL1W 33.25691986 W
 SFO1 75.4752953 MHz

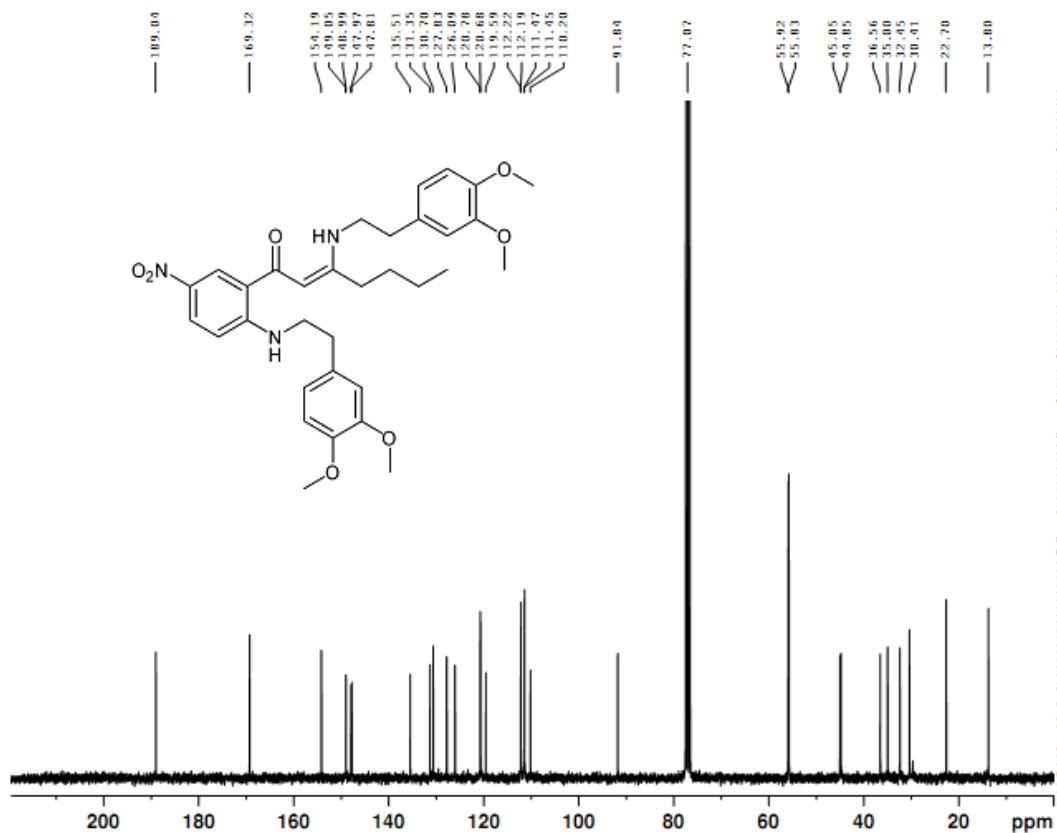
----- CHANNEL f2 -----
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 72.00 usec
 PL2 0.00 dB
 PL12 17.00 dB
 PL13 17.00 dB
 PL2W 11.24324108 W
 PL12W 0.22453187 W
 PL13W 0.22453187 W
 SFO2 300.1312005 MHz
 SI 32768
 SF 75.4677490 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

(Z)-3-(Isopropylamino)-1-(2-(isopropylamino)-5-nitrophenyl)-3-*p*-tolylprop-2-en-1-one (9b).

(Z)-3-(Isopropylamino)-1-(2-(isopropylamino)-5-nitrophenyl)-3-*p*-tolylprop-2-en-1-one (9b).

(Z)-3-(3,4-Dimethoxyphenethylamino)-1-(2-(3,4-dimethoxyphenethylamino)-5-nitrophenyl)hept-2-en-1-one (9c).



(Z)-3-(3,4-Dimethoxyphenethylamino)-1-(2-(3,4-dimethoxyphenethylamino)-5-nitrophenyl)hept-2-en-1-one (9c).Ivanov, AI-42.1, CDCl₃, 13C

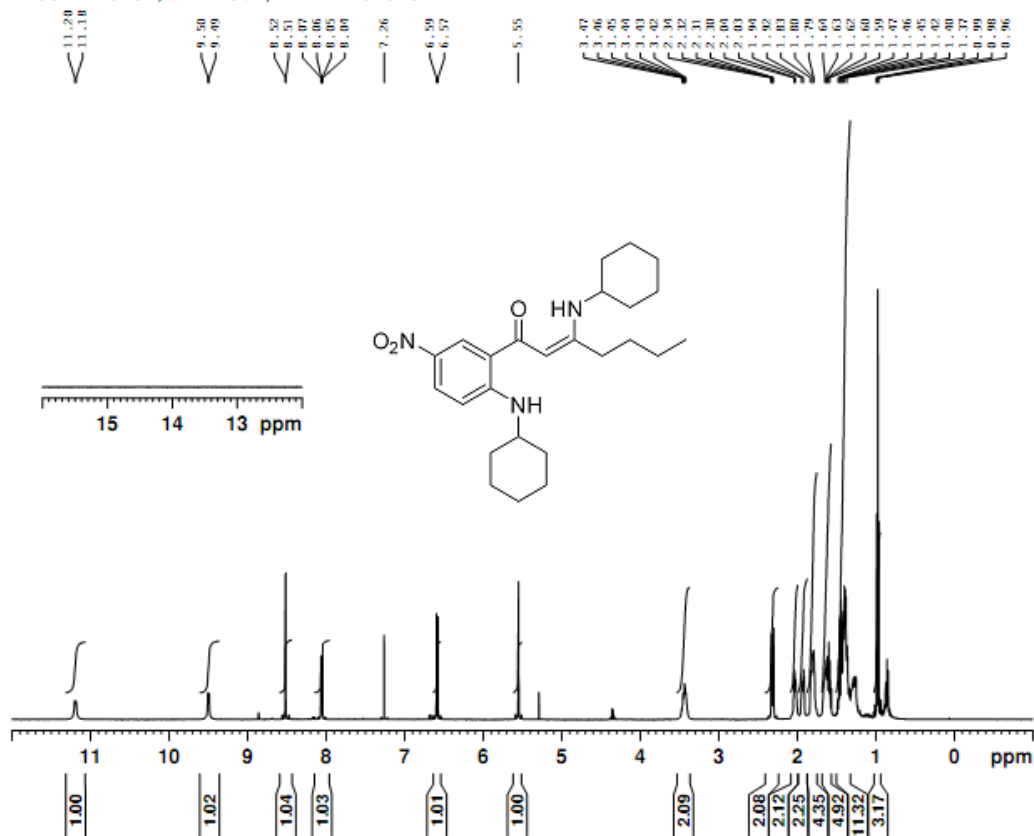
NAME 120210.u331
 EXPNO 10
 PROCNO 1
 Date_ 20120211
 Time 1.58
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 1024
 DS 4
 SWH 18028.846 Hz
 FIDRES 0.275098 Hz
 AQ 1.8175818 sec
 RG 2050
 DW 27.733 usec
 DE 10.00 usec
 TE 298.2 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

===== CHANNEL f1 =====
 NUC1 13C
 P1 10.00 usec
 PL1 -0.50 dB
 PL1W 33.25691986 W
 SFO1 75.4752953 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 72.00 usec
 PL2 0.00 dB
 PL12 17.00 dB
 PL13 17.00 dB
 PL2W 11.25325108 W
 PL12W 0.22453187 W
 PL13W 0.22453187 W
 SFO2 300.1312005 MHz
 SI 32768
 SF 75.4677490 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

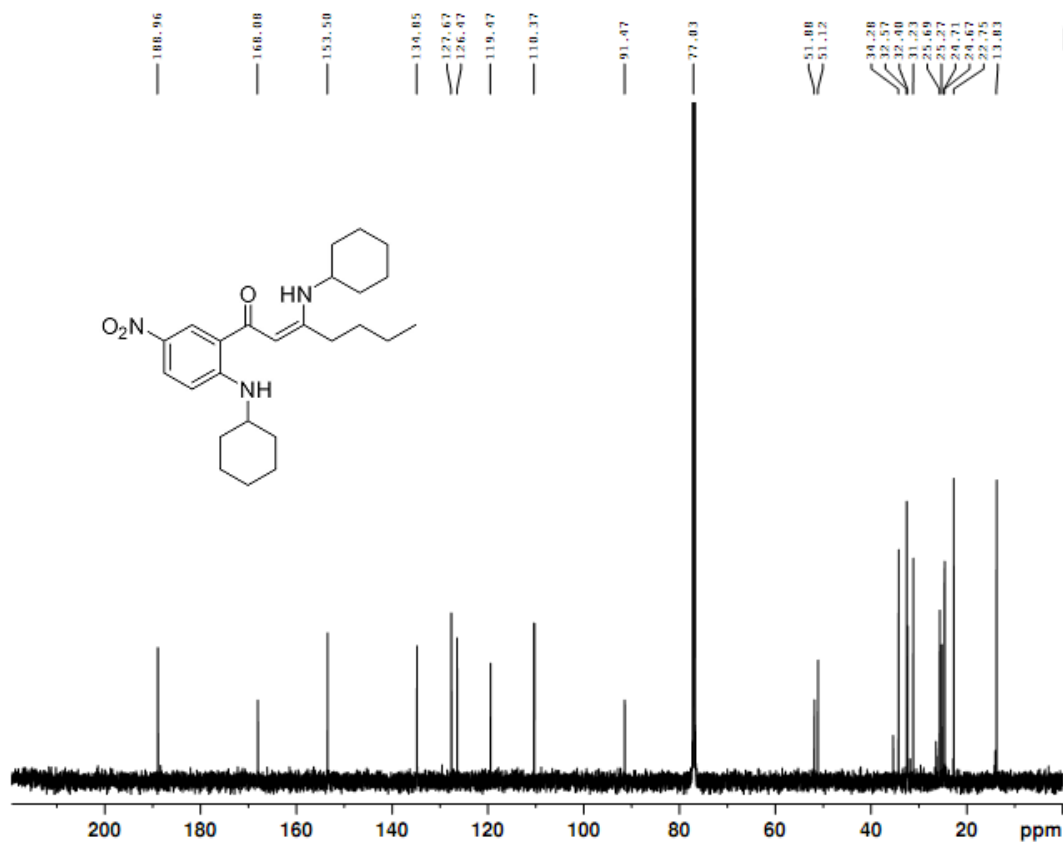
(Z)-3-(Cyclohexylamino)-1-(2-(cyclohexylamino)-5-nitrophenyl)hept-2-en-1-one (9d).

Anton Ivanov, AI-43.1, 1H in CDCl3



NAME 120306.502
 EXPNO 10
 PROCNO 1
 Date_ 20120306
 Time 11.09
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 10330.578 Hz
 FIDRES 0.157632 Hz
 AQ 3.1720407 sec
 RG 71.8
 DW 48.400 usec
 DE 6.50 usec
 TE 300.0 K
 D1 1.0000000 sec
 TD0 1

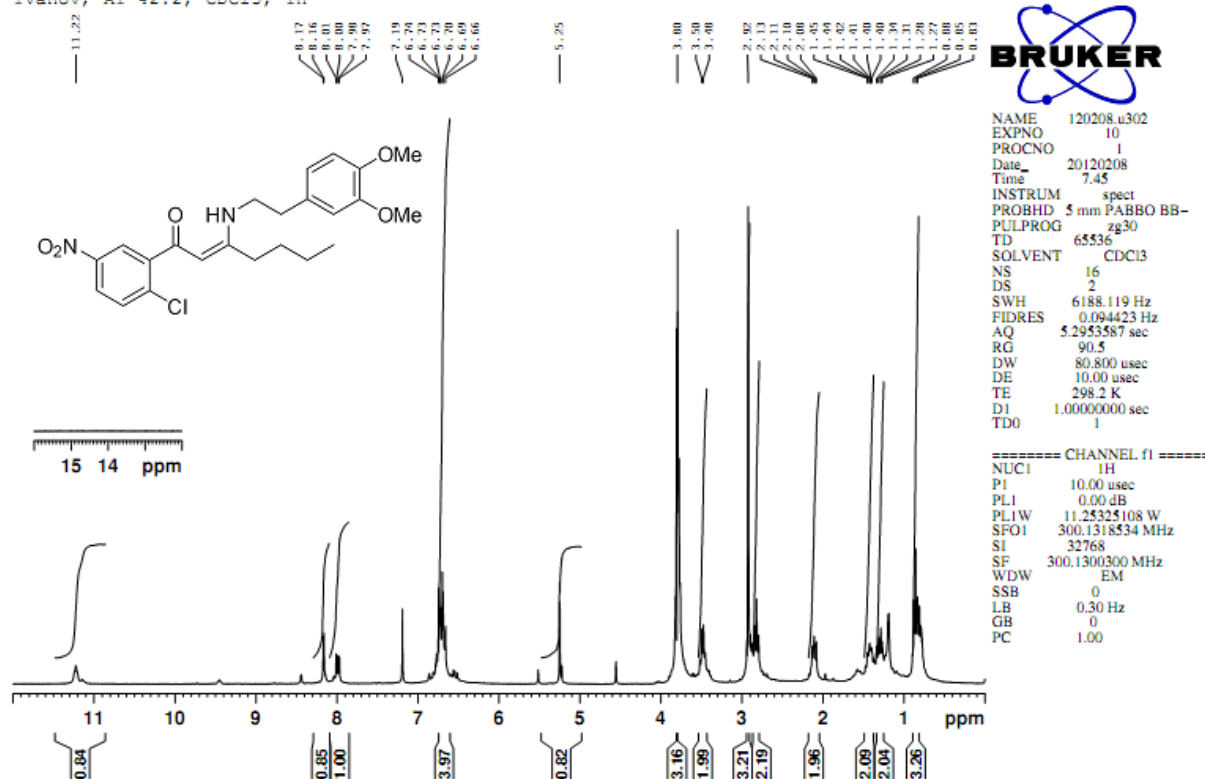
===== CHANNEL f1 =====
 NUC1 1H
 P1 9.80 usec
 PL1 -3.00 dB
 SFO1 500.1330885 MHz
 SI 32768
 SF 500.1300126 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

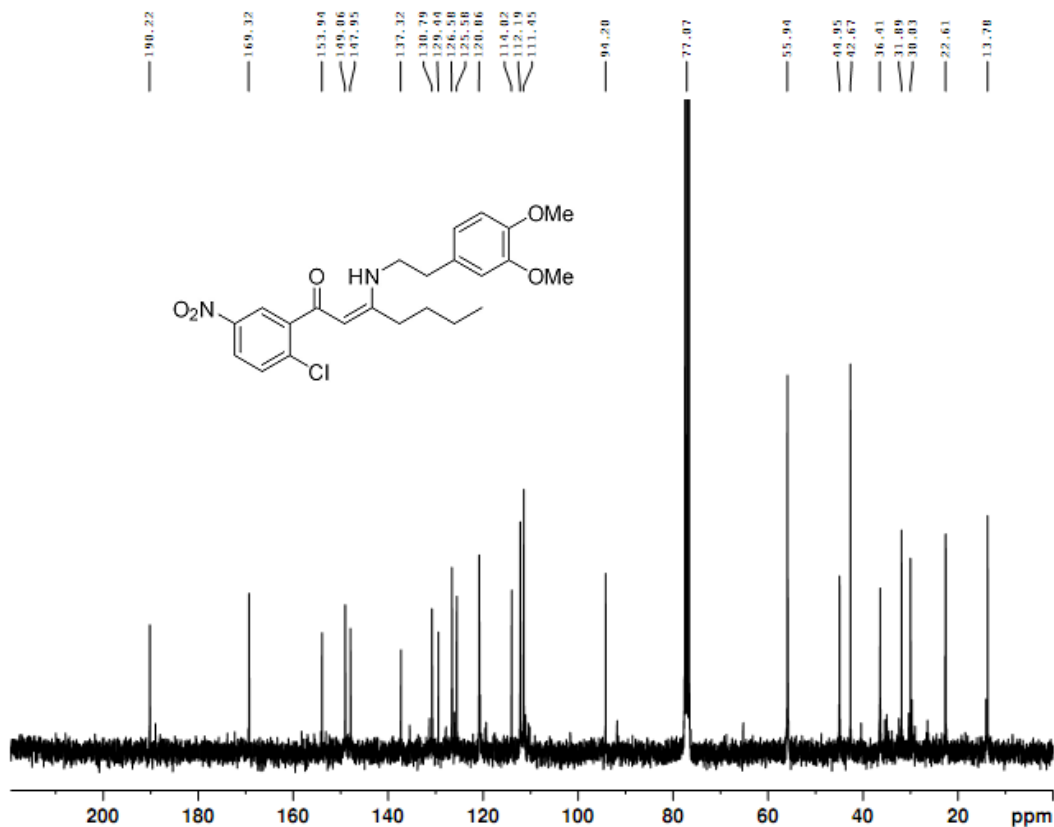
(Z)-3-(Cyclohexylamino)-1-(2-(cyclohexylamino)-5-nitrophenyl)hept-2-en-1-one (9d).Anton Ivanov, AI-43.1, ¹³C in CDCl₃

NAME 120306.502
 EXPNO 13
 PROCNO 1
 Date_ 20120306
 Time 12.03
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 256
 DS 4
 SWH 30030.029 Hz
 FIDRES 0.458222 Hz
 AQ 1.0912410 sec
 RG 2896.3
 DW 16.650 usec
 DE 6.50 usec
 TE 300.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

===== CHANNEL f1 =====
 NUC1 13C
 P1 9.00 usec
 PL1 4.50 dB
 SFO1 125.7703643 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 70.00 usec
 PL2 -3.00 dB
 PL12 14.08 dB
 PL13 120.00 dB
 SFO2 500.1320005 MHz
 SI 32768
 SF 125.7577890 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

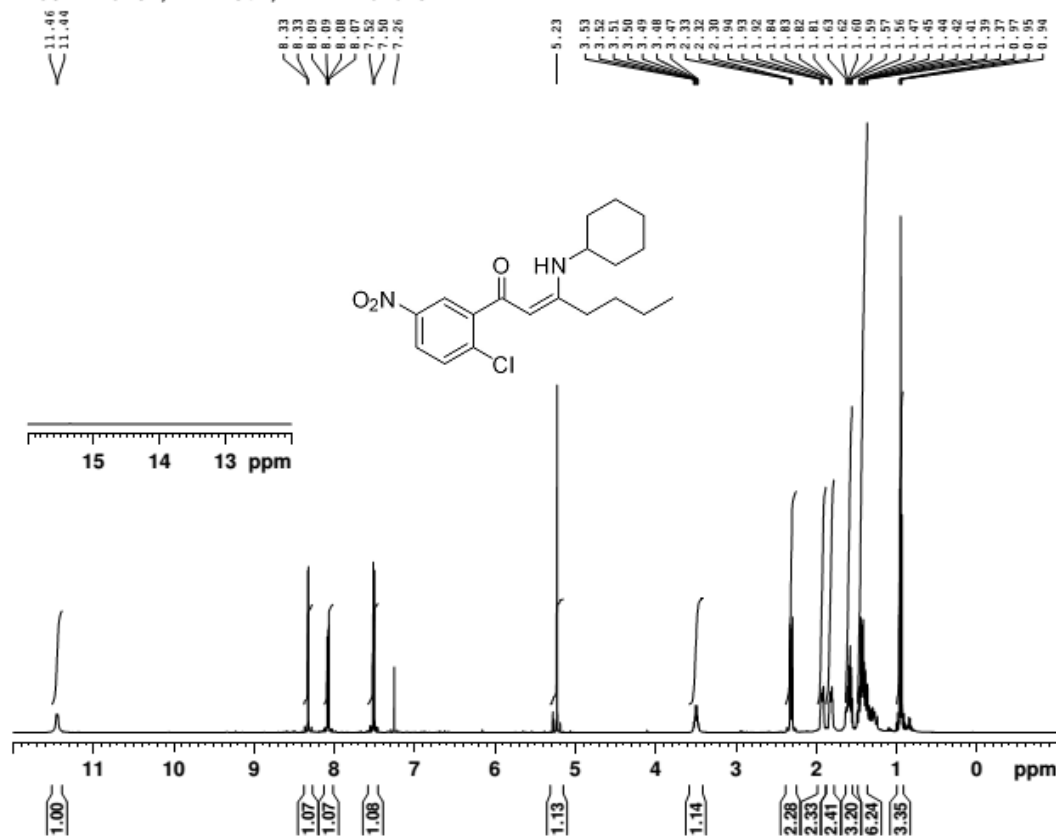
(Z)-1-(2-Chloro-5-nitrophenyl)-3-(3,4-dimethoxyphenethylamino)hept-2-en-1-one (10a).Ivanov, AI-42.2, CDCl₃, 1H

(Z)-1-(2-Chloro-5-nitrophenyl)-3-(3,4-dimethoxyphenethylamino)hept-2-en-1-one (10a).Ivanov, AI-42.2, CDCl₃, 13C

NAME 120210.a329
 EXPNO 10
 PROCNO 1
 Date_ 20120210
 Time 18.18
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 1024
 DS 4
 SWH 18028.846 Hz
 FIDRES 0.275098 Hz
 AQ 1.8175818 sec
 RG 2050
 DW 27.733 usec
 DE 10.00 usec
 TE 298.2 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

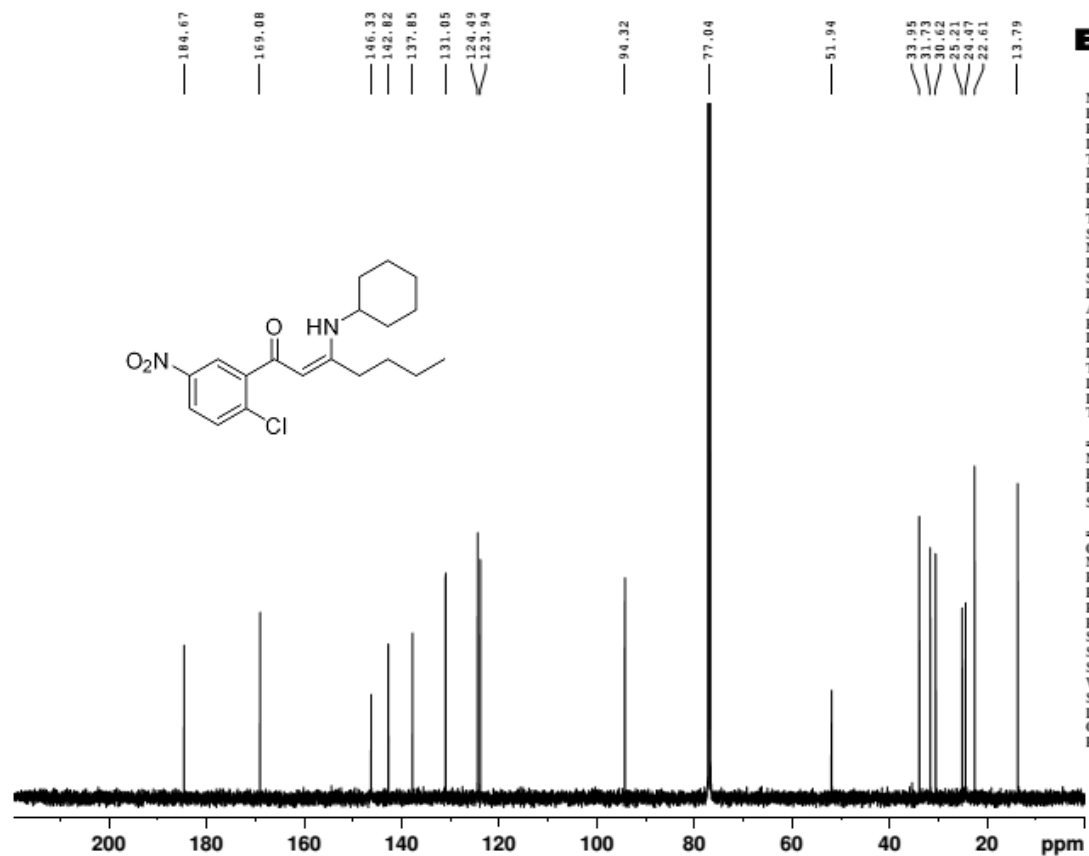
----- CHANNEL f1 -----
 NUC1 13C
 P1 10.00 usec
 PL1 -0.50 dB
 PL1W 33.25691986 W
 SFO1 75.4752953 MHz

----- CHANNEL f2 -----
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 72.00 usec
 PL2 0.00 dB
 PL12 17.00 dB
 PL13 17.00 dB
 PL2W 11.25325108 W
 PL12W 0.22453187 W
 PL13W 0.22453187 W
 SFO2 300.1312005 MHz
 SI 32768
 SF 75.4677490 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

(Z)-1-(2-Chloro-5-nitrophenyl)-3-(cyclohexylamino) hept-2-en-1-one (10b).Anton Ivanov, AI-43.2, 1H in CDCl₃

NAME 120306.503
 EXPNO 10
 PROCNO 1
 Date_ 20120306
 Time 12.09
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 10330.578 Hz
 FIDRES 0.157632 Hz
 AQ 3.1720407 sec
 RG 71.8
 DW 48.400 usec
 DE 6.50 usec
 TE 300.0 K
 D1 1.0000000 sec
 TD0 1

===== CHANNEL f1 =====
 NUC1 1H
 P1 9.80 usec
 PL1 -3.00 dB
 SFO1 500.1330885 MHz
 SI 32768
 SF 500.1300135 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

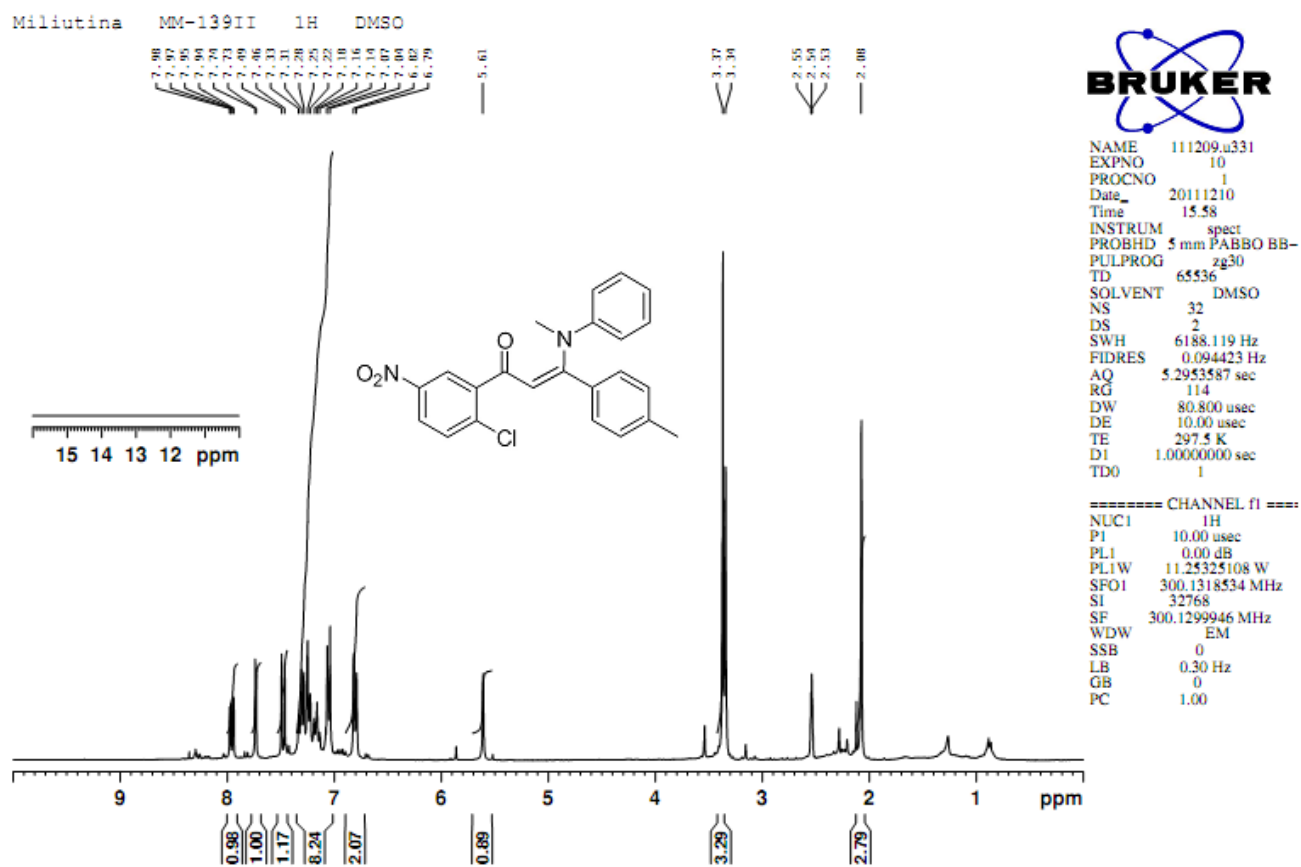
(Z)-1-(2-Chloro-5-nitrophenyl)-3-(cyclohexylamino) hept-2-en-1-one (10b).Anton Ivanov, AI-43.2, ¹³C in CDCl₃

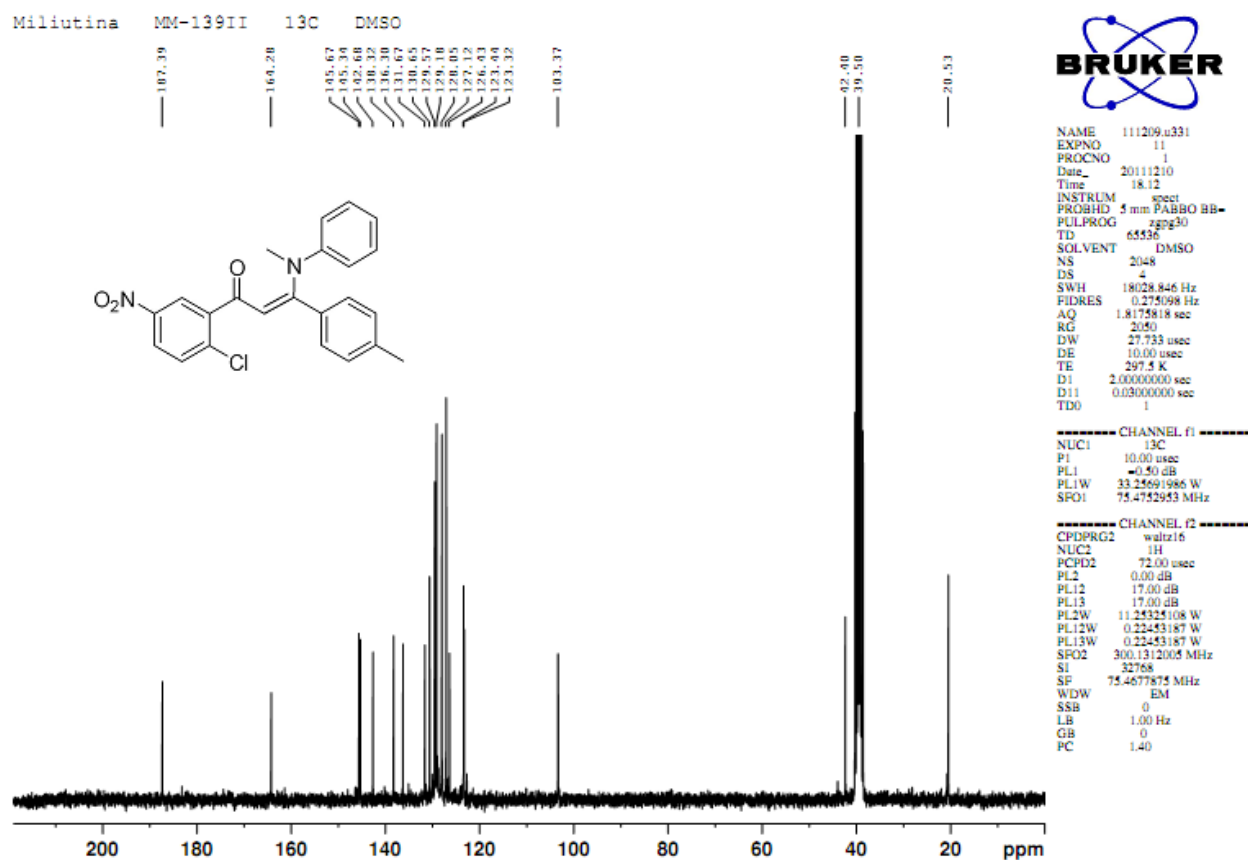
NAME 120306.503
 EXPNO 13
 PROCNO 1
 Date_ 20120306
 Time 13.04
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 256
 DS 4
 SWH 30030.029 Hz
 FIDRES 0.458222 Hz
 AQ 1.0912410 sec
 RG 3251
 DW 16.650 usec
 DE 6.50 usec
 TE 300.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

===== CHANNEL f1 =====
 NUC1 ¹³C
 P1 9.00 usec
 PL1 4.50 dB
 SFO1 125.7703643 MHz

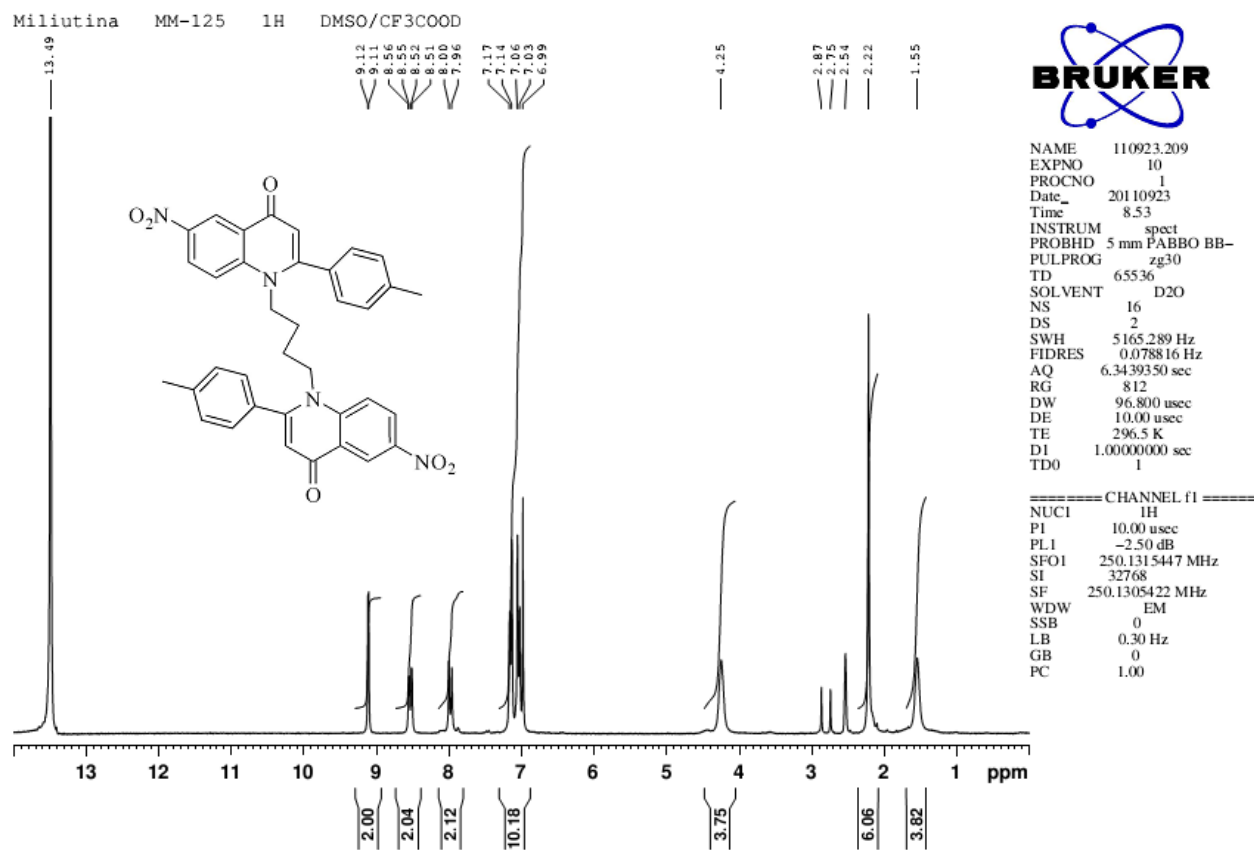
===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 ¹H
 PCPD2 70.00 usec
 PL2 -3.00 dB
 PL12 14.08 dB
 PL13 120.00 dB
 SFO2 500.1320005 MHz
 SI 32768
 SF 125.7577890 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

(Z)-1-(2-Chloro-5-nitrophenyl)-3-(methyl(phenyl)amino)-3-p-tolylprop-2-en-1-one (11).

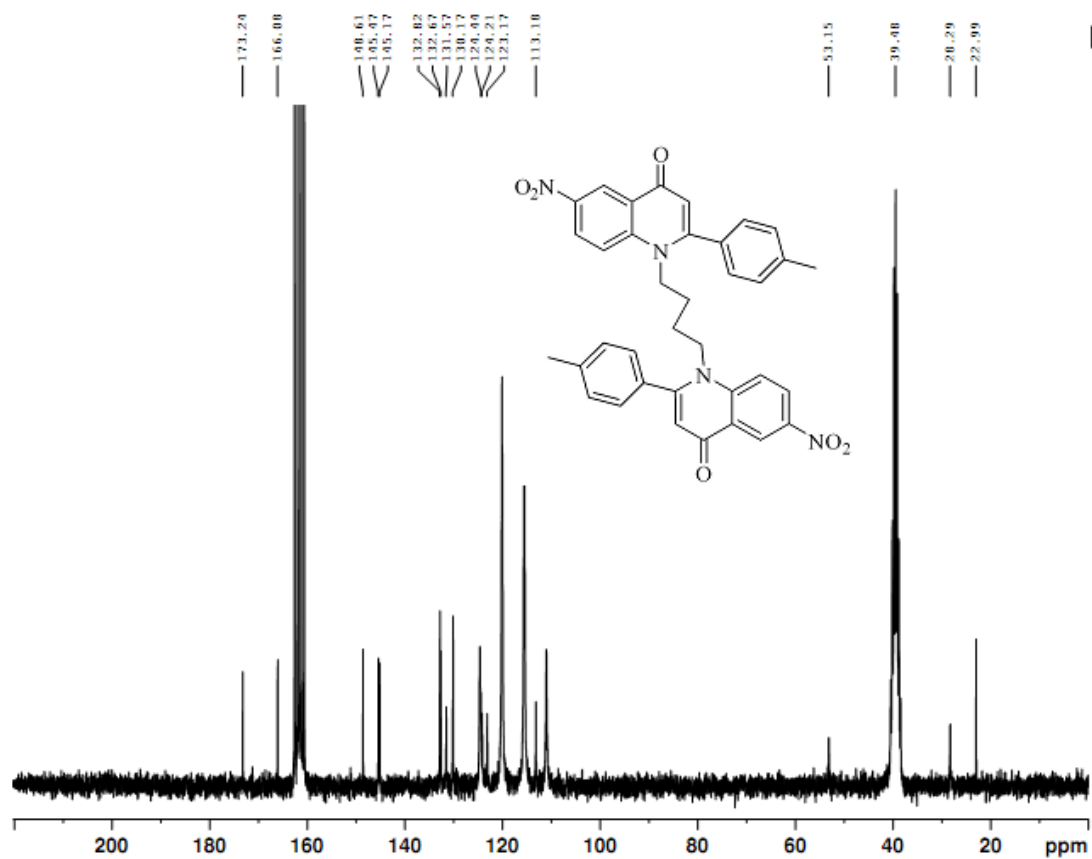


(Z)-1-(2-Chloro-5-nitrophenyl)-3-(methyl(phenyl)amino)-3-p-tolylprop-2-en-1-one (11).

1,1'-(Butane-1,4-diyl)bis(6-nitro-2-p-tolylquinolin-4(1H)-one) (12a).



1,1'-(Butane-1,4-diyl)bis(6-nitro-2-p-tolylquinolin-4(1H)-one) (12a).

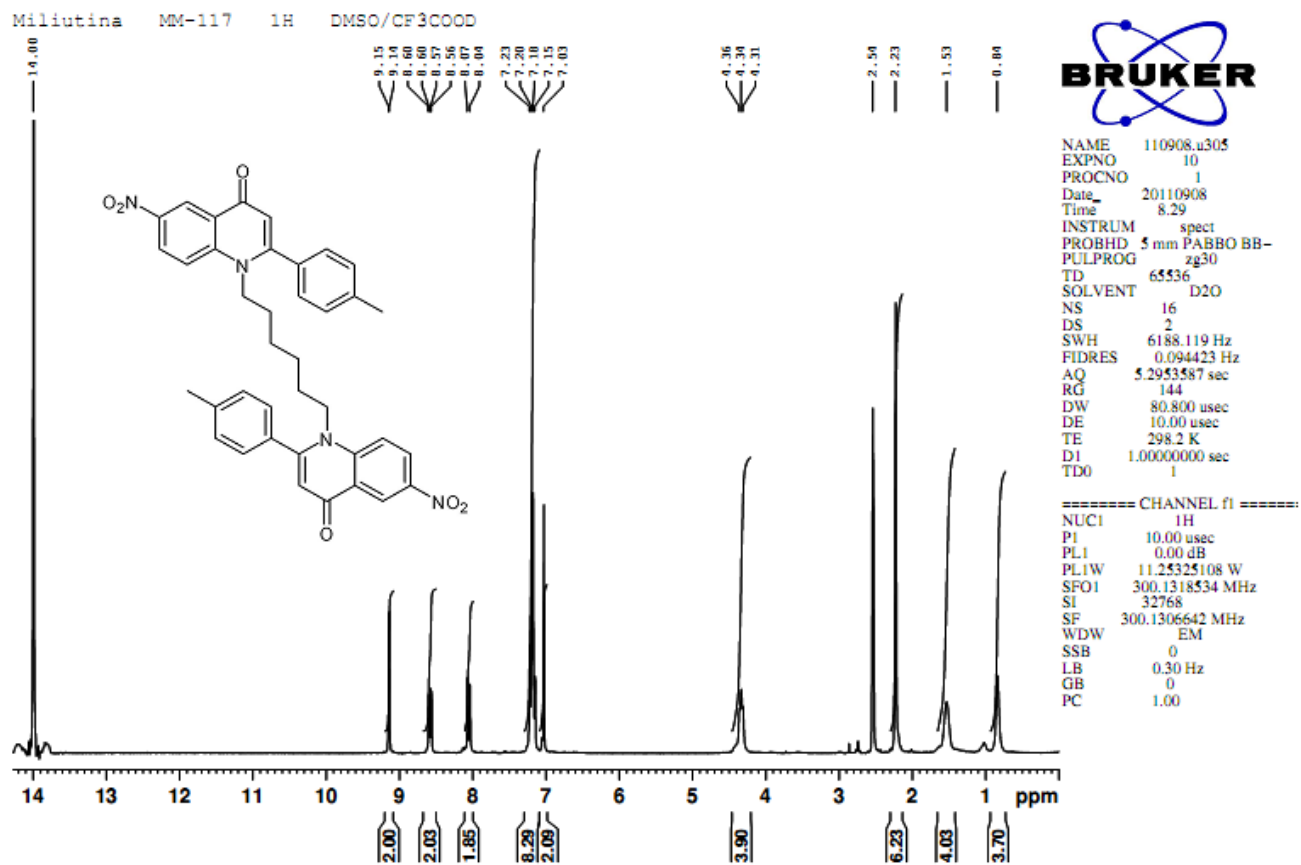
Miliutina MM-125 13C DMSO-*d*₆

NAME 110923.209
EXPNO 11
PROCNO 1
Date_ 20110923
Time 15.15
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT D2O
NS 1024
DS 4
SWH 15000.000 Hz
FIDRES 0.228882 Hz
AQ 2.1845834 sec
RG 2050
DW 33.333 usec
DE 10.00 usec
TE 298.9 K
D1 2.0000000 sec
d11 0.0300000 sec
DELTA 1.89999998 sec
TD0 1

===== CHANNEL f1 =====
NUC1 13C
P1 10.00 usec
PL1 -1.00 dB
SFO1 62.9015280 MHz

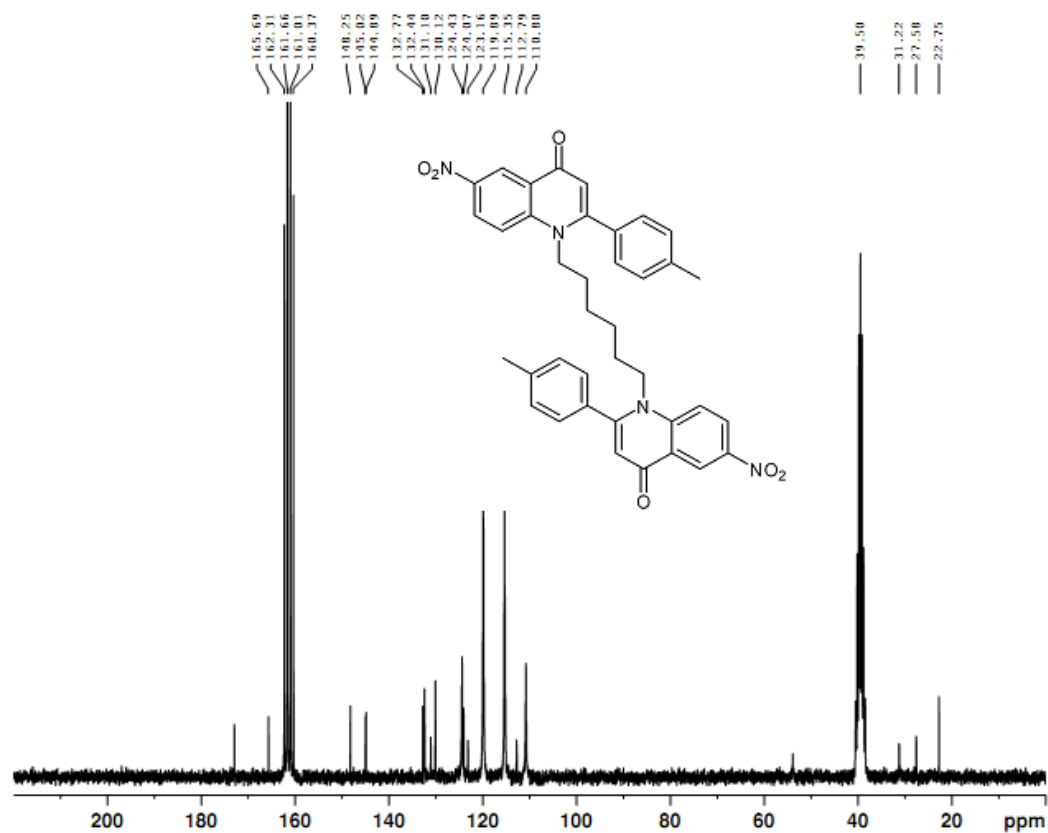
===== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 70.00 usec
PL12 15.00 dB
PL13 15.00 dB
PL2 -2.50 dB
SFO2 250.1310005 MHz
SI 32768
SF 62.8951757 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

1,1'-(Hexane-1,6-diyl)bis(6-nitro-2-p-tolylquinolin-4(1H)-one) (12b).



1,1'-(Hexane-1,6-diyl)bis(6-nitro-2-p-tolylquinolin-4(1H)-one) (12b).

Miliutina MM-117 13C DMSO-CP3COOD



NAME 110914.209
EXPNO 10
PROCNO 1
Date_ 20110914
Time 16.57
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT D2O
NS 1024
DS 4
SWH 15000.000 Hz
FIDRES 0.228882 Hz
AQ 2.1845834 sec
RG 2050
DW 33.333 usec
DE 10.00 usec
TE 298.1 K
D1 2.0000000 sec
d11 0.0300000 sec
DELTA 1.89999998 sec
TD0 1

===== CHANNEL f1 =====
NUC1 13C
P1 10.00 usec
PL1 -1.00 dB
SFO1 62.9015280 MHz

===== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 70.00 usec
PL12 15.00 dB
PL13 15.00 dB
PL2 -2.50 dB
SFO2 250.1310005 MHz
S1 32768
SF 62.8951970 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

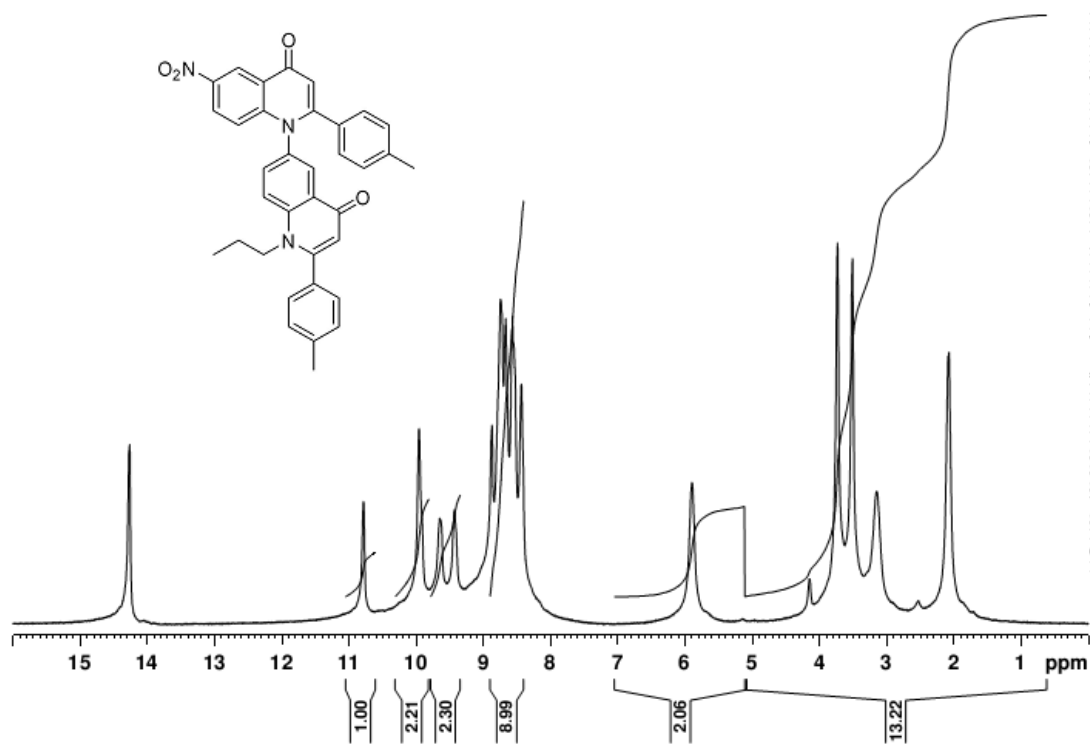
6-Nitro-1'-propyl-2,2'-di*p*-tolyl-4*H*-1,6'-biquinoline-4,4'(1'*H*)-dione (13a).Miliutina MM-137 1H DMSO-*d*₆/CF₃COOD

14.27
 10.79
 9.96
 9.65
 9.44
 8.88
 8.75
 8.67
 8.57
 8.44
 5.90
 3.73
 3.51
 3.15
 2.09
 2.08



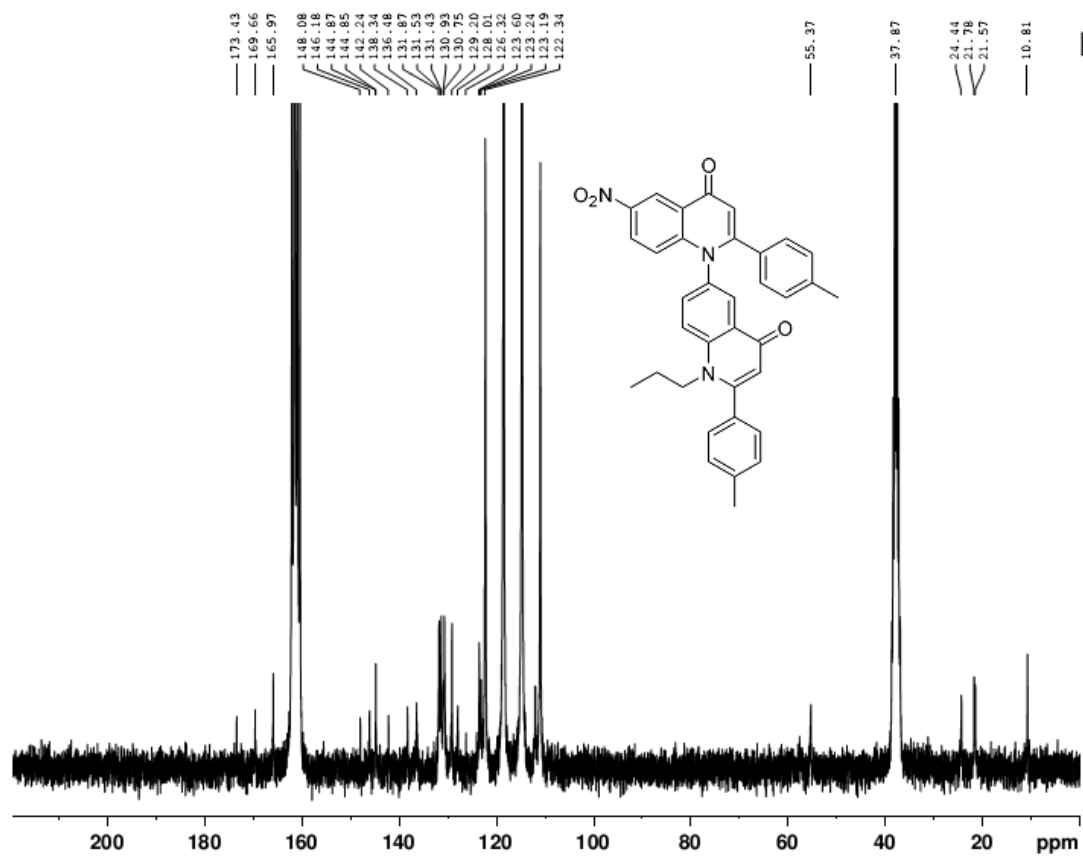
NAME 111209.a330
 EXPNO 10
 PROCNO 1
 Date_ 20111210
 Time 13.45
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT D2O
 NS 32
 DS 2
 SWH 9014.423 Hz
 FIDRES 0.137549 Hz
 AQ 3.6351135 sec
 RG 114
 DW 55.467 usec
 DE 10.00 usec
 TE 297.1 K
 D1 1.0000000 sec
 TD0 1

===== CHANNEL f1 =====
 NUC1 1H
 P1 10.00 usec
 PL1 0.00 dB
 PL1W 11.25325108 W
 SFO1 300.1318534 MHz
 SI 32768
 SF 300.1302026 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



6-Nitro-1'-propyl-2,2'-di-p-tolyl-4H-1,6'-biquinoline-4,4'(1'H)-dione (13a).

Miliutina MM-137 13C DMSO/CF3COOD

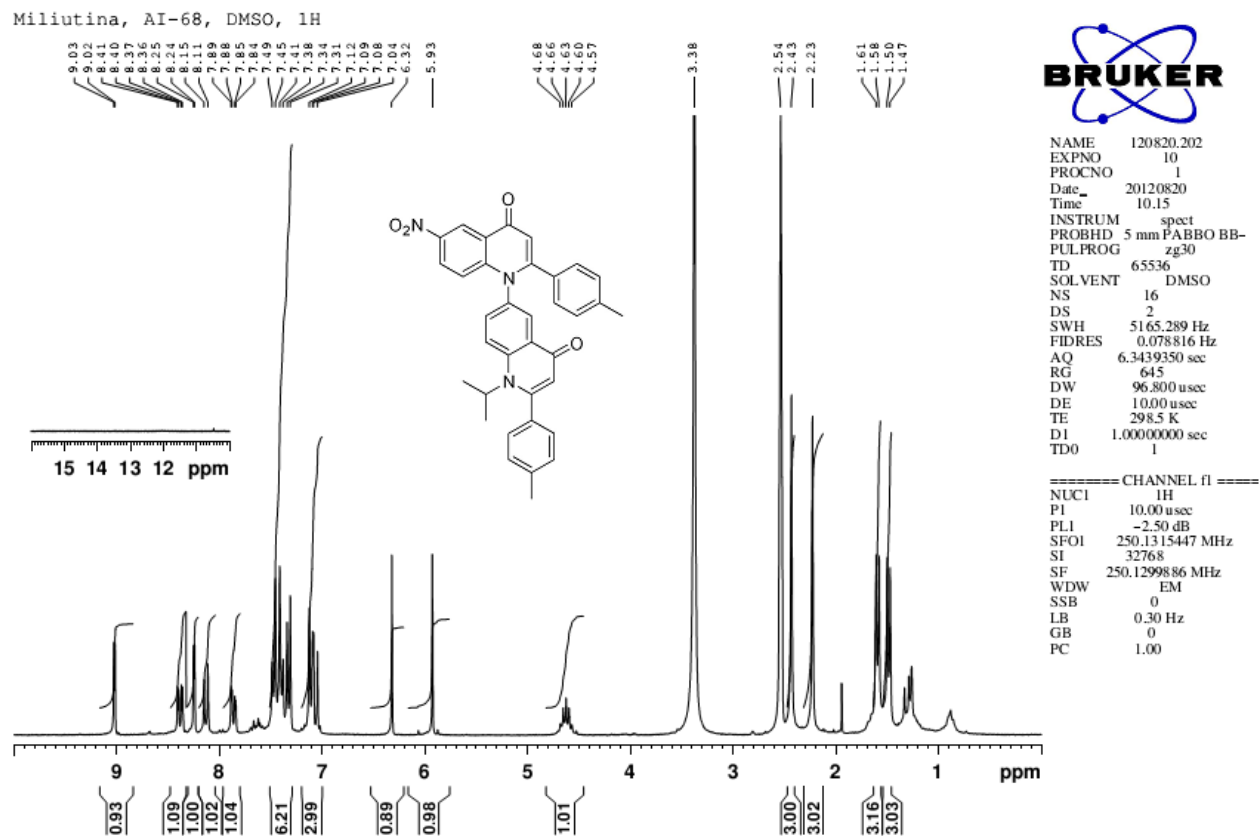


NAME 111209.u330
 EXPNO 1
 PROCNO 1
 Date_ 20111210
 Time 15.17
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT D2O
 NS 1400
 DS 4
 SWH 18028.846 Hz
 FIDRES 0.275098 Hz
 AQ 1.8175818 sec
 RG 2080
 DW 27.733 usec
 DE 10.00 usec
 TE 298.6 K
 D1 2.0000000 sec
 D11 0.0300000 sec
 TD0 1

===== CHANNEL f1 =====
 NUC1 13C
 P1 10.00 usec
 PL1 -0.50 dB
 PL1W 33.25691986 W
 SFO1 75.4752953 MHz

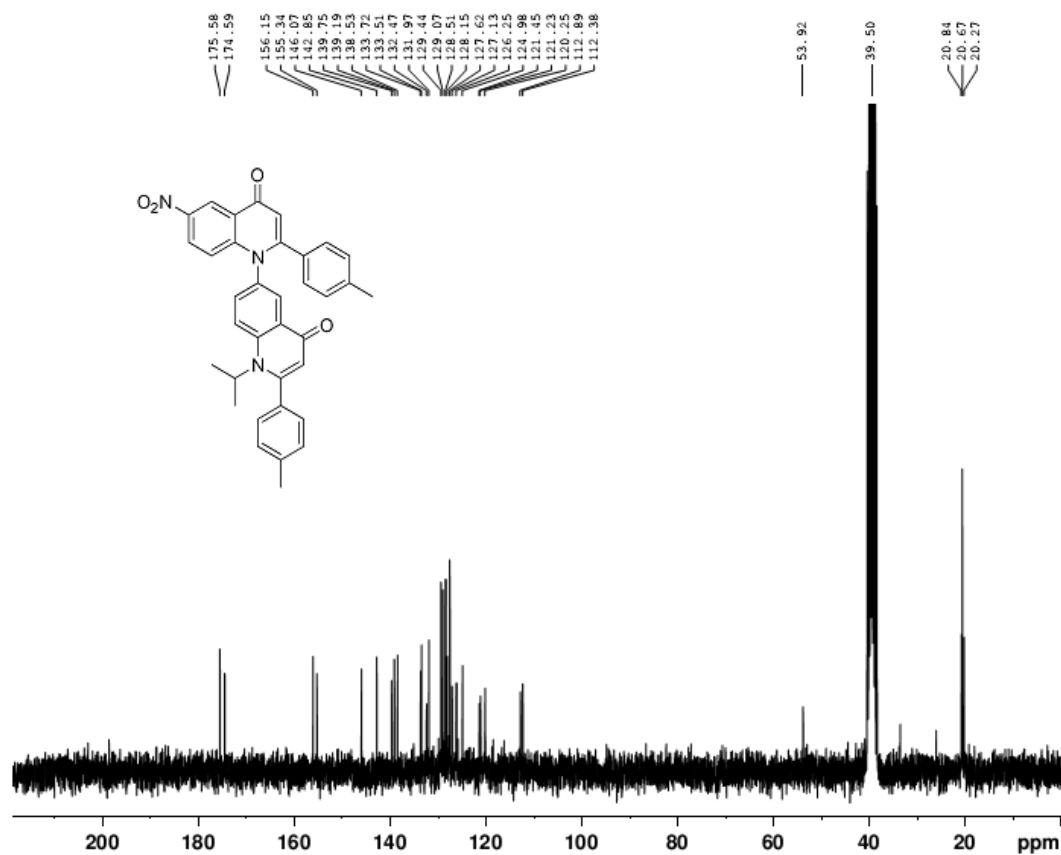
===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 72.00 usec
 PL2 0.00 dB
 PL12 17.00 dB
 PL13 17.00 dB
 PL2W 11.25325108 W
 PL12W 0.22453187 W
 PL13W 0.22453187 W
 SFO2 300.1312005 MHz
 SI 32768
 SF 75.4677888 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1'-Isopropyl-6-nitro-2,2'-di*p*-tolyl-4*H*-1,6'-biquinoline-4,4'(1'*H*)-dione (13b).



1'-Isopropyl-6-nitro-2,2'-dip-tolyl-4H-1,6'-biquinoline-4,4'(1'H)-dione (13b).

Miliutina, AI-68, DMSO, 13C



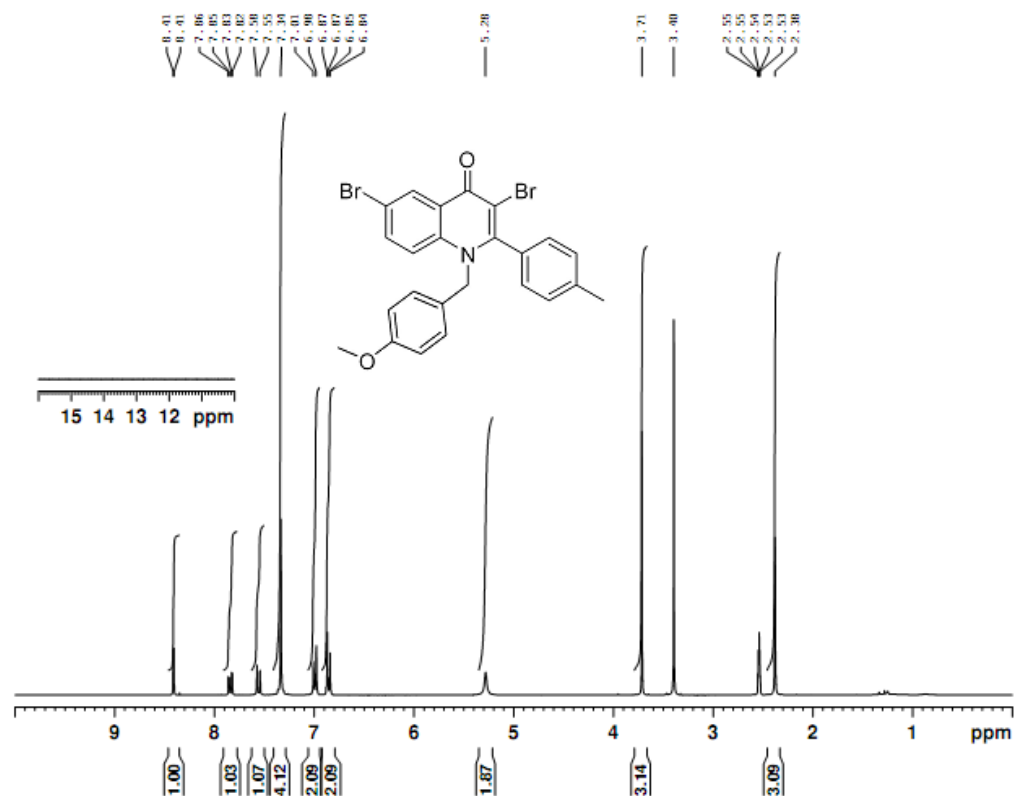
NAME 120820.202
 EXPNO 11
 PROCNO 1
 Date_ 20120820
 Time 11.30
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 1024
 DS 4
 SWH 15000.000 Hz
 FIDRES 0.228882 Hz
 AQ 2.1845834 sec
 RG 2050
 DW 33.333 usec
 DE 10.00 usec
 TE 299.6 K
 D1 2.0000000 sec
 d11 0.0300000 sec
 DELTA 1.89999998 sec
 TD0 1

===== CHANNEL f1 =====
 NUC1 13C
 P1 10.00 usec
 PL1 -1.00 dB
 SFO1 62.9015280 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 RCPD2 70.00 usec
 PL12 15.00 dB
 PL13 15.00 dB
 PL2 -2.50 dB
 SFO2 250.1310005 MHz
 SI 32768
 SF 62.8952695 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

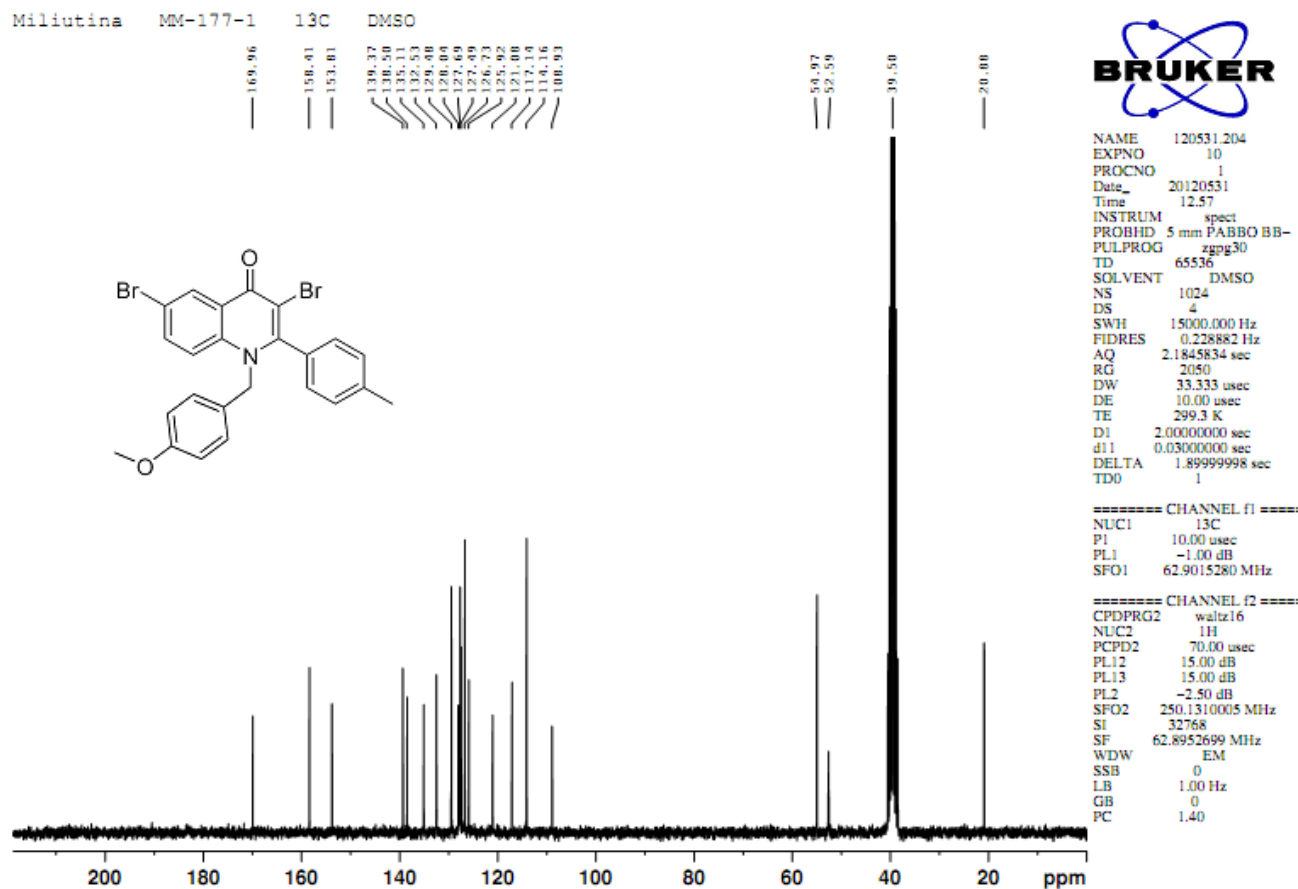
3,6-Dibromo-1-(4-methoxybenzyl)-2-*p*-tolylquinolin-4(1*H*)-one (14).

Miliutina MM-177-1 1H DMSO



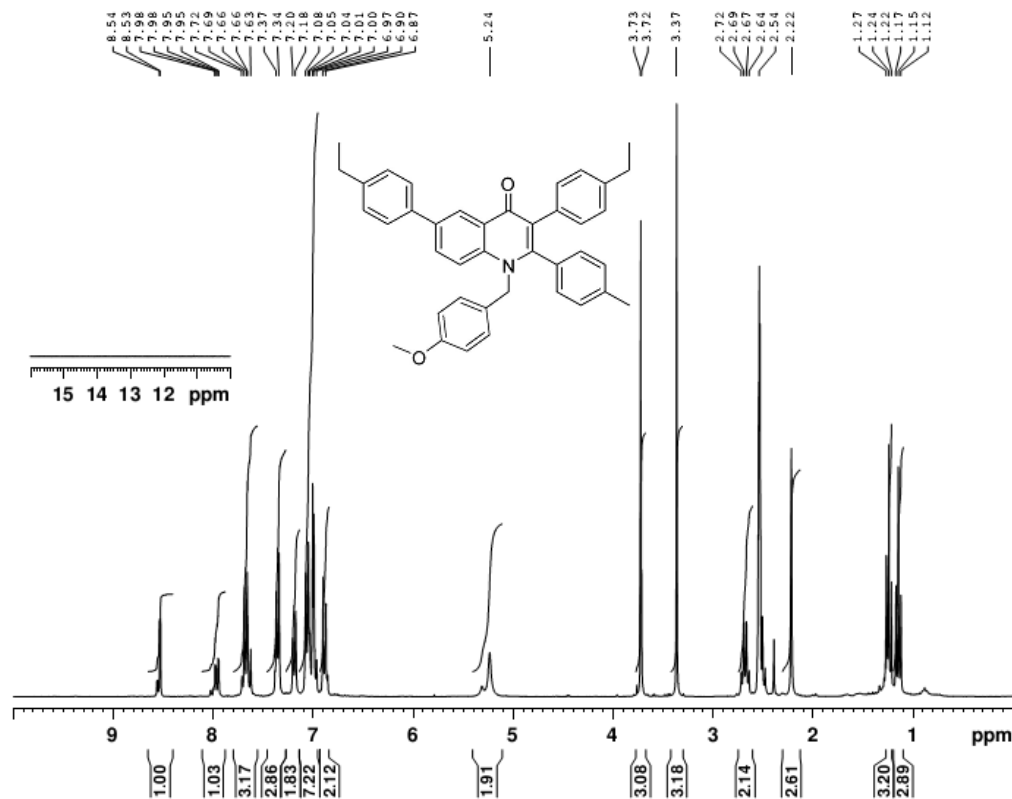
NAME 120531.u304
 EXPNO 10
 PROCNO 1
 Date_ 20120531
 Time 8.18
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 16
 DS 2
 SWH 6188.119 Hz
 FIDRES 0.094423 Hz
 AQ 5.2953587 sec
 RG 50.8
 DW 80.800 usec
 DE 10.00 usec
 TE 297.8 K
 D1 1.0000000 sec
 TD0 1

===== CHANNEL f1 =====
 NUC1 1H
 P1 10.00 usec
 PL1 0.00 dB
 PL1W 11.25325108 W
 SFO1 300.1318534 MHz
 SI 32768
 SF 300.1299953 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

3,6-Dibromo-1-(4-methoxybenzyl)-2-*p*-tolylquinolin-4(1*H*)-one (14).

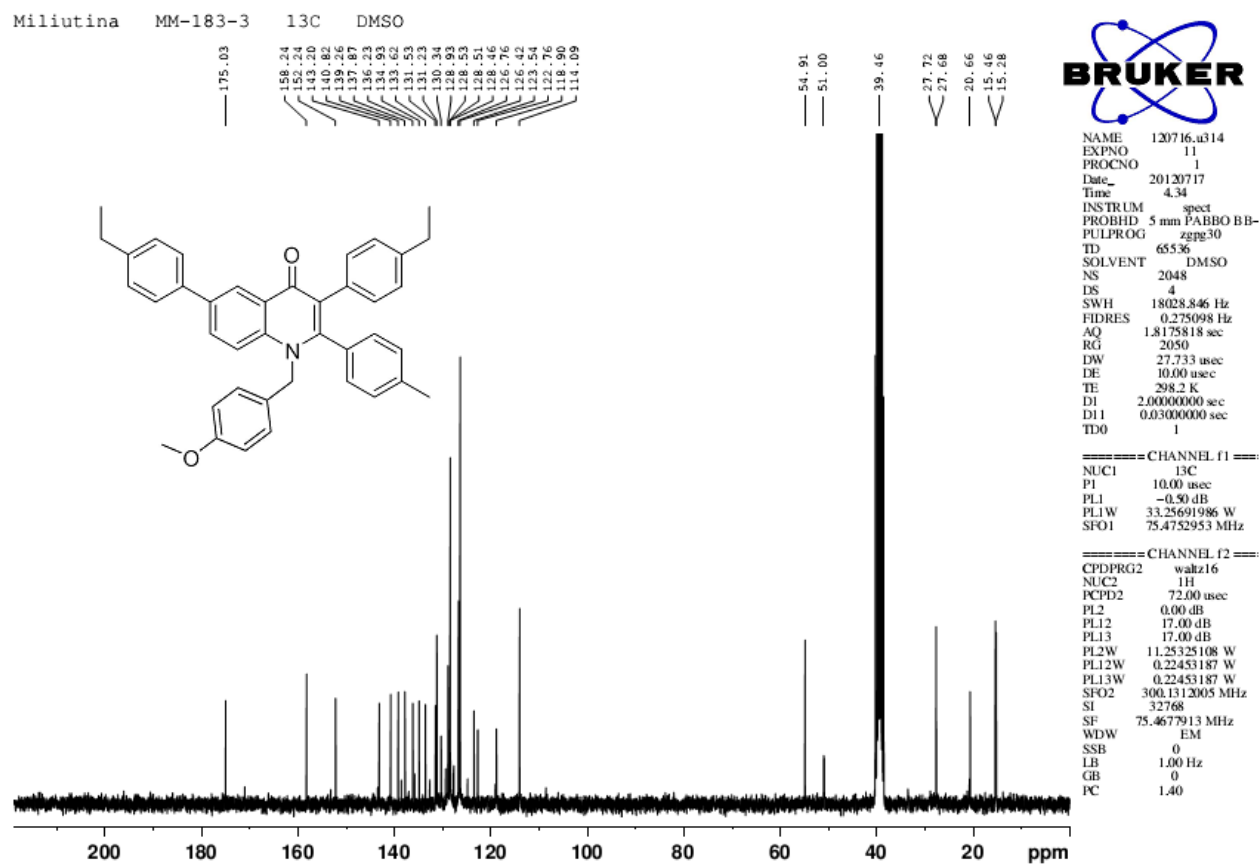
3,6-Bis(4-ethylphenyl)-1-(4-methoxybenzyl)-2-*p*-tolylquinolin-4(1*H*)-one (15).

Miliutina MM-183-3 1H DMSO



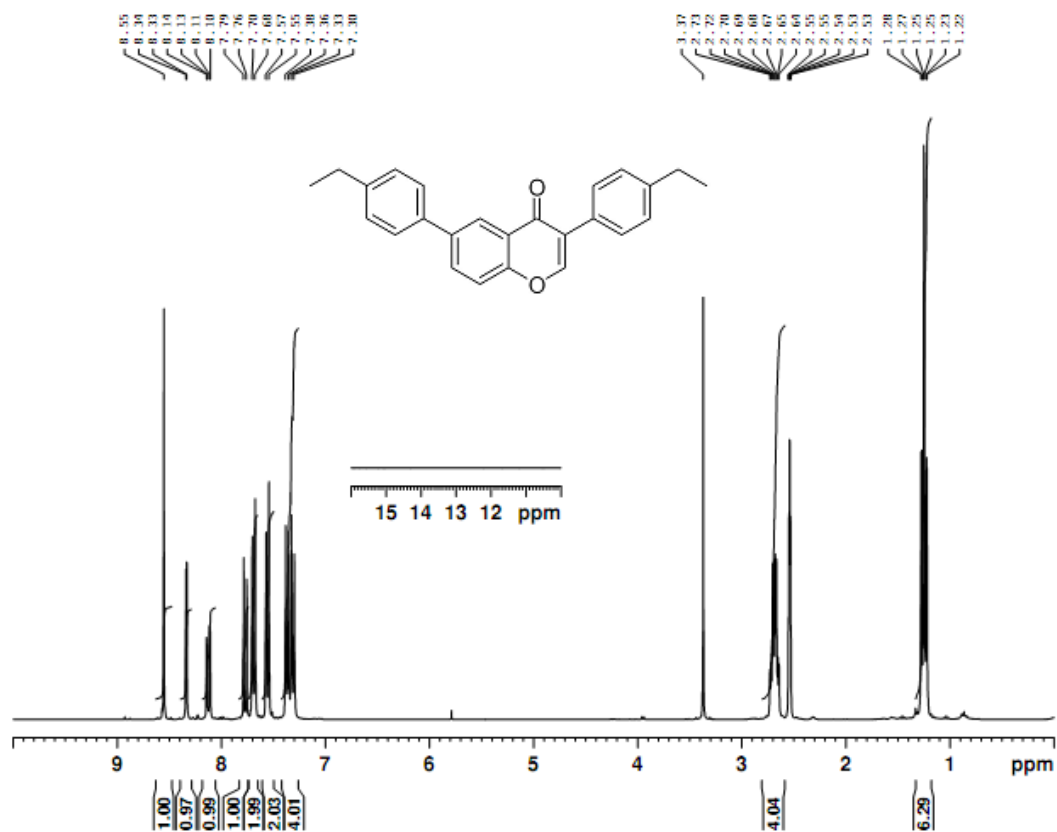
NAME 120716.a314
 EXPNO 10
 PROCNO 1
 Date_ 20120716
 Time 11.39
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 32
 DS 2
 SWH 6188.119 Hz
 FIDRES 0.094423 Hz
 AQ 5.2953587 sec
 RG 90.5
 DW 80.800 usec
 DE 10.00 usec
 TE 298.2 K
 D1 1.00000000 sec
 TD0 1

===== CHANNEL f1 =====
 NUC1 1H
 P1 10.00 usec
 PL1 0.00 dB
 PL1W 11.25325108 W
 SFO1 300.1318534 MHz
 SI 32768
 SF 300.1299965 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

3,6-Bis(4-ethylphenyl)-1-(4-methoxybenzyl)-2-*p*-tolylquinolin-4(1*H*)-one (15).

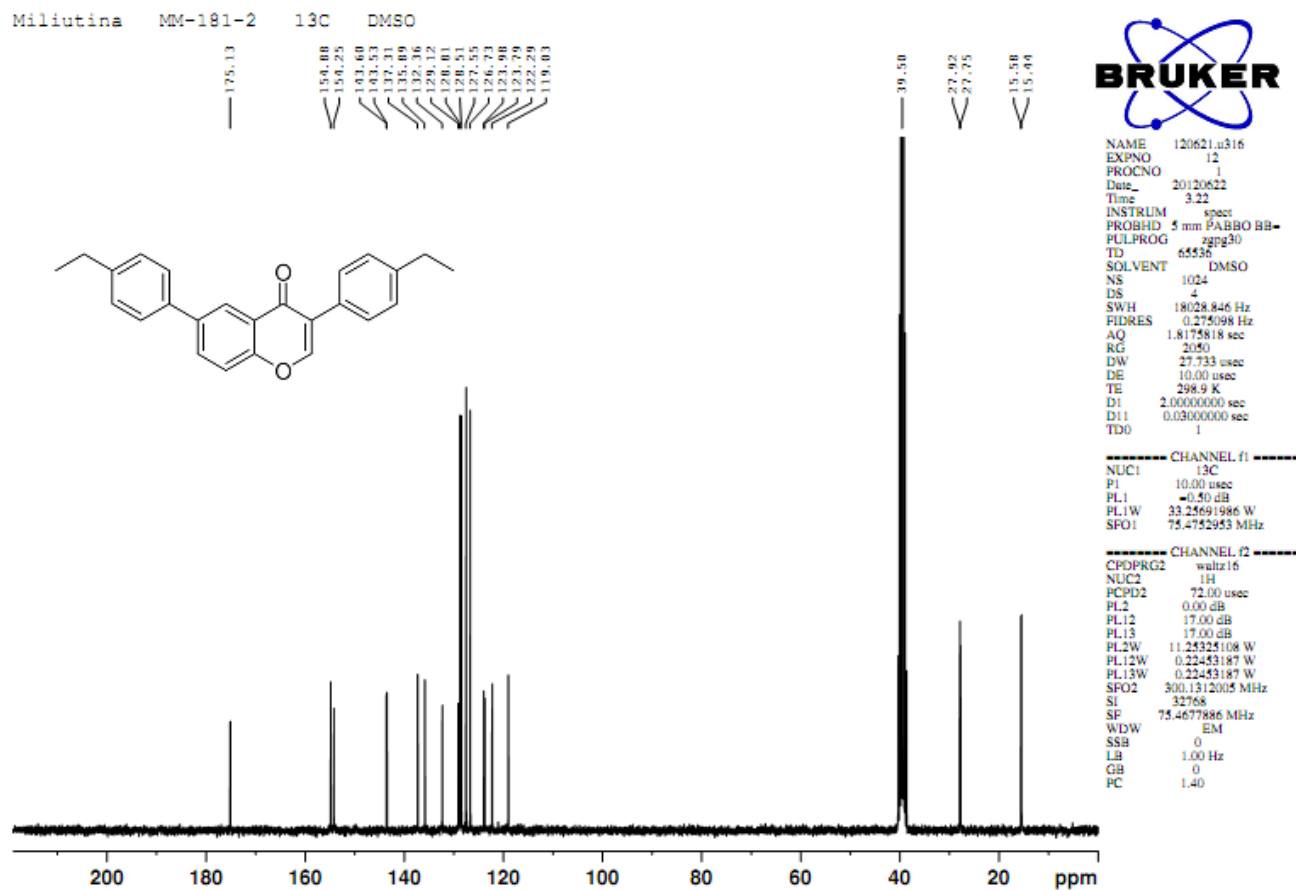
3,6-Bis(4-ethylphenyl)-4*H*-chromen-4-one (16).

Miliutina MM-181-2 1H DMSO



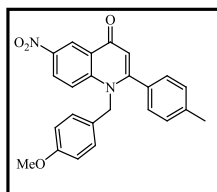
NAME 120621.u316
 EXPNO 10
 PROCNO 1
 Date_ 20120621
 Time 12.32
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 16
 DS 2
 SWH 6188.119 Hz
 FIDRES 0.094423 Hz
 AQ 5.2953587 sec
 RG 50.8
 DW 80.800 usec
 DE 10.00 usec
 TE 298.6 K
 D1 1.0000000 sec
 TD0 1

===== CHANNEL f1 =====
 NUC1 1H
 P1 10.00 usec
 PL1 0.00 dB
 PL1W 11.25325108 W
 SFO1 300.1318534 MHz
 SI 32768
 SF 300.1299964 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

3,6-Bis(4-ethylphenyl)-4*H*-chromen-4-one (16).

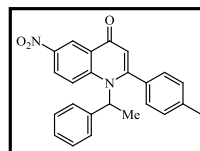
X-Ray structure of compound 7ab

Identification code	is_mm127	
Empirical formula	C ₂₄ H ₂₀ N ₂ O ₄	
Formula weight	400.42	
Temperature	173(2) K	
Wavelength	0.71073 Å	
Crystal system	monoclinic	
Space group (H.-M.)	<i>P</i> 2 ₁ / <i>c</i>	
Space group (Hall)	- <i>P</i> 2ybc	
Unit cell dimensions	<i>a</i> = 10.4745(6) Å	$\alpha = 90.00^\circ$
	<i>b</i> = 10.6976(6) Å	$\beta = 91.384(3)^\circ$
	<i>c</i> = 17.8031(11) Å	$\gamma = 90.00^\circ$
Volume	1994.3(2) Å ³	
Z	4	
Calculated density	1.334 mg/m ³	
Absorption coefficient	0.092 mm ⁻¹	
F(000)	840	
Crystal size	0.37 x 0.13 x 0.07 mm ³	
Θ range for data collection	1.94 to 28.00°	
Index ranges	-13 ≤ <i>h</i> ≤ 13, -9 ≤ <i>k</i> ≤ 14, -23 ≤ <i>l</i> ≤ 22	
Reflections collected	19220	
Independent reflections	4810 [R(int) = 0.0664]	
Completeness to $\Theta = 28.00^\circ$	100.0%	
Absorption correction	Multi-scan	
Max. and min. transmission	0.9936 and 0.9668	
Refinement method	Full-matrix least-squares on F ²	
Data / restraints / parameters	2565 / 0 / 273	
Goodness-of-fit on F ²	1.000	
Final R indices [I > 2 σ (I)]	R1 = 0.0505, wR2 = 0.1045	
R indices (all data)	R1 = 0.1164, wR2 = 0.1328	
Largest diff. peak and hole	0.167 and -0.270 e.Å ⁻³	



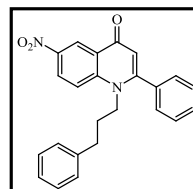
X-Ray structure of compound 7ac

Identification code	is_mm115_118	
Empirical formula	C ₂₄ H ₂₀ N ₂ O ₃	
Formula weight	384.42	
Temperature	173(2) K	
Wavelength	0.71073 Å	
Crystal system	orthorhombic	
Space group (H.-M.)	<i>P</i> 2 ₁ 2 ₁ 2 ₁	
Space group (Hall)	<i>P</i> 2ac 2ab	
Unit cell dimensions	a = 9.9322(10) Å	α = 90°
	b = 13.6154(10) Å	β = 90°
	c = 14.4052(15) Å	γ = 90°
Volume	1948.0(3) Å ³	
Z	4	
Calculated density	1.311 mg/m ³	
Absorption coefficient	0.087 mm ⁻¹	
F(000)	808	
Crystal size	0.430 x 0.170 x 0.140 mm ³	
Θ range for data collection	3.628 to 28.999°	
Index ranges	-13 ≤ h ≤ 13, -11 ≤ k ≤ 17, -19 ≤ l ≤ 19	
Reflections collected	15463	
Independent reflections	5004 [R(int) = 0.0466]	
Completeness to Θ = 28.00°	96.9%	
Absorption correction	Multi-scan	
Max. and min. transmission	0.7460 and 0.6977	
Refinement method	Full-matrix least-squares on F ²	
Data / restraints / parameters	3347 / 0 / 265	
Goodness-of-fit on F ²	1.074	
Final R indices [I > 2σ (I)]	R1 = 0.0414, wR2 = 0.0724	
R indices (all data)	R1 = 0.0851, wR2 = 0.0959	
Largest diff. peak and hole	0.191 and -0.178 e.Å ⁻³	



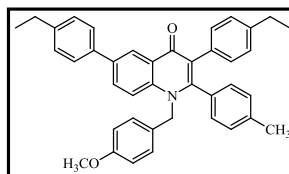
X-Ray structure of compound 7bd

Identification code	av_mm89	
Empirical formula	C ₂₄ H ₂₀ N ₂ O ₃	
Formula weight	384.42	
Temperature	173(2) K	
Wavelength	0.71073 Å	
Crystal system	orthorhombic	
Space group (H.-M.)	P b c a	
Space group (Hall)	-P 2ac 2ab	
Unit cell dimensions	a = 10.4213(5) Å	$\alpha = 90.00^\circ$
	b = 15.0974(8) Å	$\beta = 90.00^\circ$
	c = 24.6279(14) Å	$\gamma = 90.00^\circ$
Volume	3874.8(4) Å ³	
Z	8	
Calculated density	1.318 mg/m ³	
Absorption coefficient	0.088 mm ⁻¹	
F(000)	1616	
Crystal size	0.68 x 0.20 x 0.15 mm ³	
Θ range for data collection	2.51 to 30.00°	
Index ranges	-14 ≤ h ≤ 12, -19 ≤ k ≤ 21, -34 ≤ l ≤ 24	
Reflections collected	22580	
Independent reflections	5541 [R(int) = 0.0292]	
Completeness to $\Theta = 28.00^\circ$	98.0%	
Absorption correction	Multi-scan	
Max. and min. transmission	0.9870 and 0.9427	
Refinement method	Full-matrix least-squares on F ²	
Data / restraints / parameters	3855 / 0 / 262	
Goodness-of-fit on F ²	1.049	
Final R indices [I > 2 σ (I)]	R1 = 0.0493, wR2 = 0.1103	
R indices (all data)	R1 = 0.0799, wR2 = 0.1234	
Largest diff. peak and hole	0.208 and -0.245 e.Å ⁻³	



X-Ray structure of compound 15

Identification code	is_mm183	
Empirical formula	C ₃₉ .74 H ₃₆ .71 Br ₀ .03 N O ₂	
Formula weight	562.69	
Temperature	173(2) K	
Wavelength	0.71073 Å	
Crystal system	triclinic	
Space group (H.-M.)	$P\bar{1}$	
Space group (Hall)	-P 1	
Unit cell dimensions	a = 10.5670(5) Å	$\alpha = 109.863(2)^\circ$
	b = 12.7739(5) Å	$\beta = 101.516(2)^\circ$
	c = 12.9152(5) Å	$\gamma = 105.361(2)^\circ$
Volume	1498.23(11) Å ³	
Z	2	
Calculated density	1.247 mg/m ³	
Absorption coefficient	0.115 mm ⁻¹	
F(000)	598	
Crystal size	0.24 x 0.22 x 0.05 mm ³	
Θ range for data collection	2.80 to 30.00°	
Index ranges	-14 ≤ h ≤ 14, -17 ≤ k ≤ 17, -18 ≤ l ≤ 18	
Reflections collected	39715	
Independent reflections	8694 [R(int) = 0.0471]	
Completeness to $\Theta = 28.00^\circ$	99.6%	
Absorption correction	Multi-scan	
Max. and min. transmission	0.9943 and 0.9728	
Refinement method	Full-matrix least-squares on F ²	
Data / restraints / parameters	5050 / 0 / 396	
Goodness-of-fit on F ²	1.013	
Final R indices [I > 2σ (I)]	R1 = 0.0558, wR2 = 0.1135	
R indices (all data)	R1 = 0.1178, wR2 = 0.1406	
Largest diff. peak and hole	0.445 and -0.255 e.Å ⁻³	



X-Ray structure of compound 16

Identification code	ch_mm181	
Empirical formula	C ₂₅ H ₂₂ O ₂	
Formula weight	354.43	
Temperature	173(2) K	
Wavelength	0.71073 Å	
Crystal system	monoclinic	
Space group (H.-M.)	<i>P</i> 2 ₁ / <i>n</i>	
Space group (Hall)	-P 2yn	
Unit cell dimensions	a = 5.8177(4) Å	$\alpha = 90.00^\circ$
	b = 10.2341(6) Å	$\beta = 94.982(2)^\circ$
	c = 31.4579(18) Å	$\gamma = 90.00^\circ$
Volume	1865.9(2) Å ³	
Z	4	
Calculated density	1.262 mg/m ³	
Absorption coefficient	0.079 mm ⁻¹	
F(000)	752	
Crystal size	0.57 x 0.16 x 0.15 mm ³	
Θ range for data collection	1.30 to 28.00°	
Index ranges	-7 ≤ h ≤ 7, -13 ≤ k ≤ 13, -41 ≤ l ≤ 41	
Reflections collected	24058	
Independent reflections	4514 [R(int) = 0.0339]	
Completeness to $\Theta = 28.00^\circ$	99.9%	
Absorption correction	Multi-scan	
Max. and min. transmission	0.9883 and 0.9566	
Refinement method	Full-matrix least-squares on F ²	
Data / restraints / parameters	3522 / 0 / 273	
Goodness-of-fit on F ²	1.017	
Final R indices [I > 2 σ (I)]	R1 = 0.0513, wR2 = 0.1247	
R indices (all data)	R1 = 0.0674, wR2 = 0.1374	
Largest diff. peak and hole	0.488 and -0.350 e.Å ⁻³	

