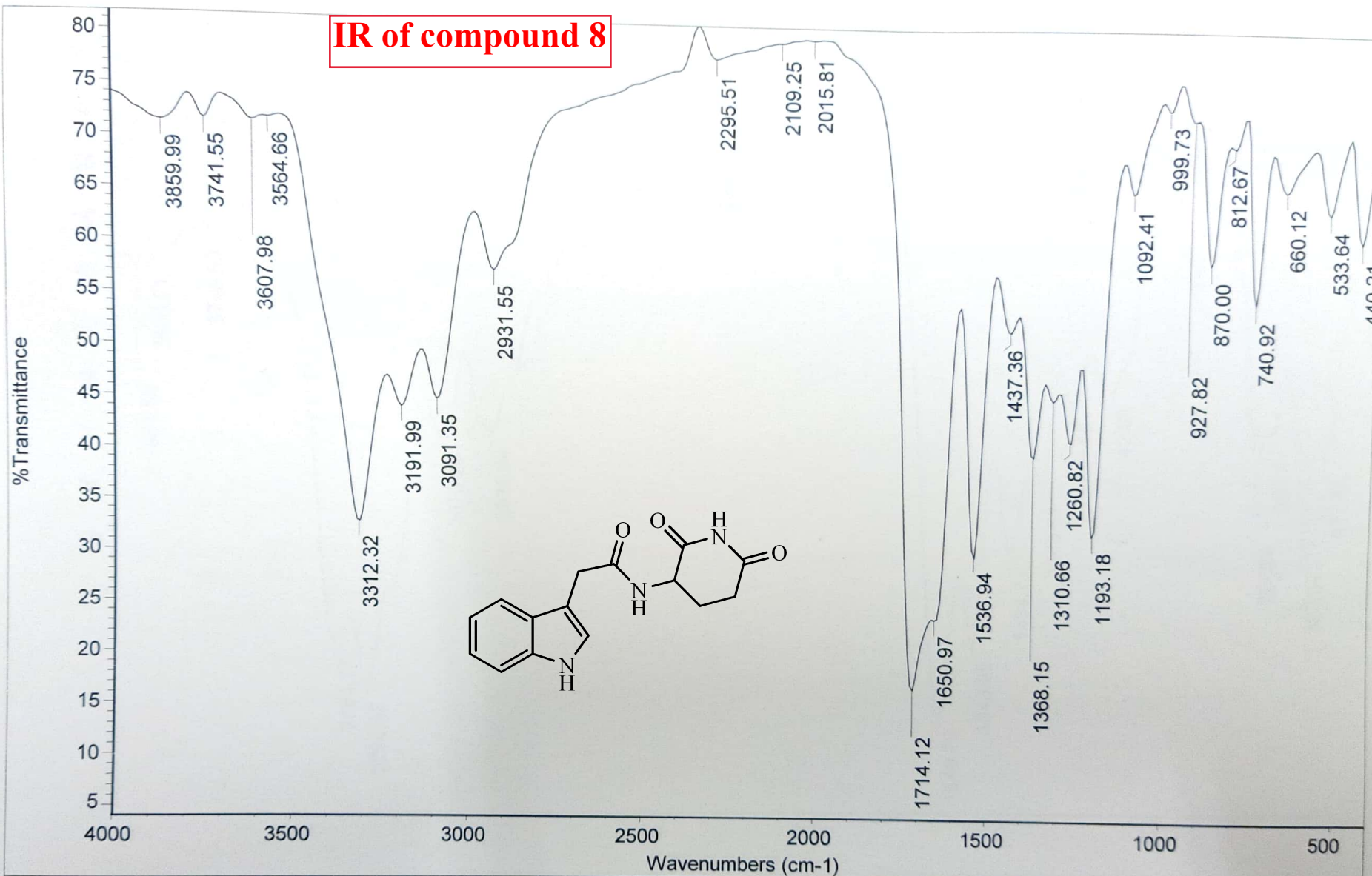


IR of compound 8



Date: Tue Jul 03 16:15:33 2018 (GMT-07:00)APD

Scans: 100

Resolution: 16.000



Dr_HazemElkady-IAPD

Dr_HazemElkady-IAPD

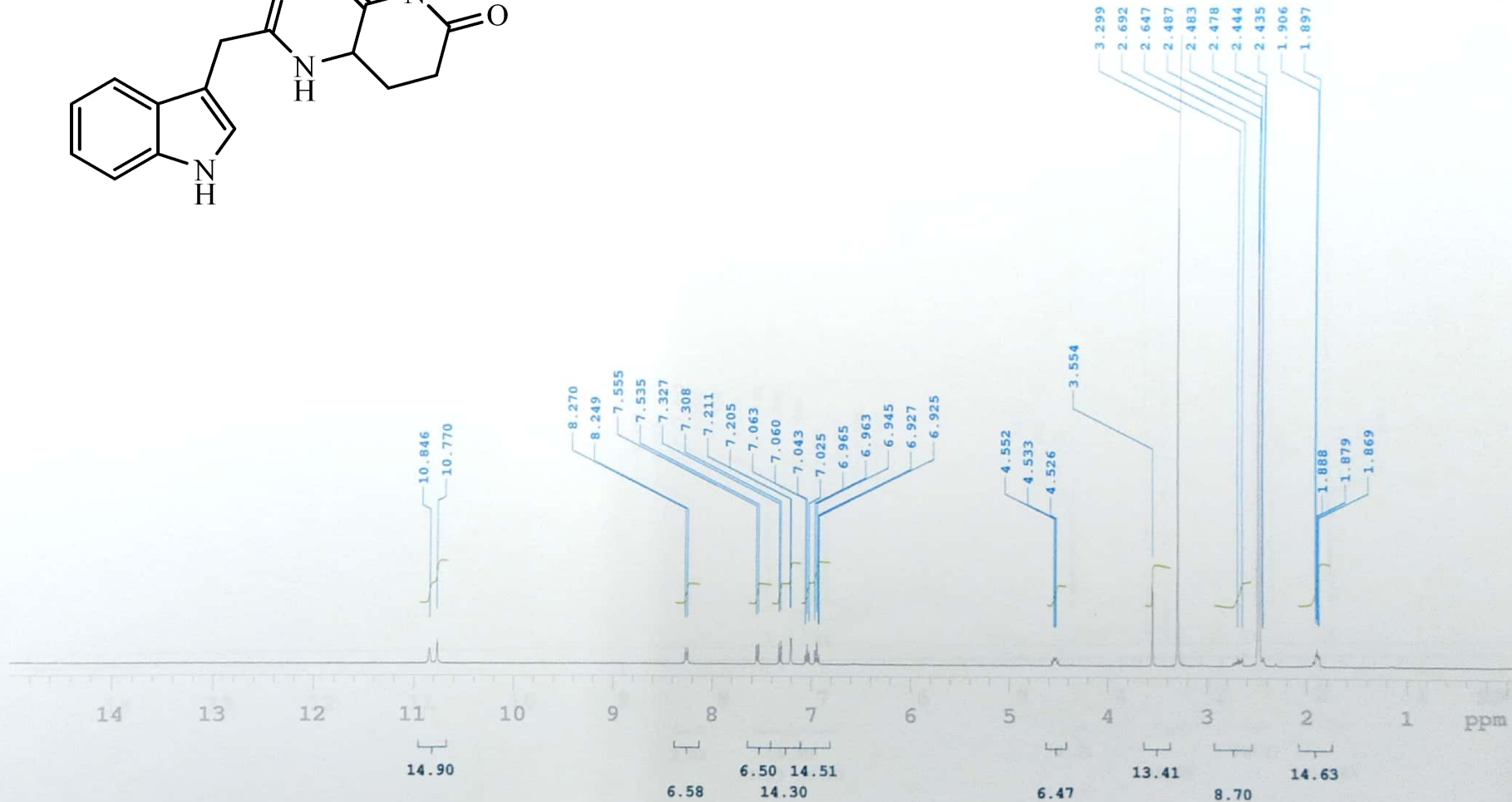
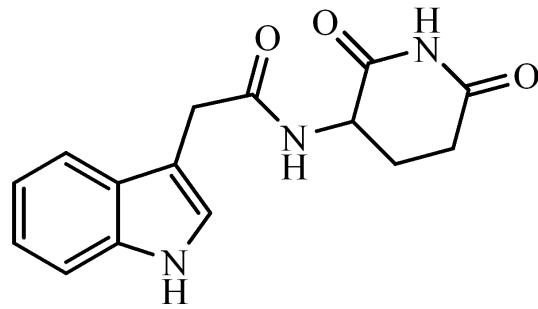
Sample Name Dr_HazemElkady-IAPD
Date collected 2017-11-19

Pulse sequence PROTON
Solvent dmso

Temperature 25
Spectrometer nmr400-mercury400

Study owner vnmr1
Operator vnmr1

¹H NMR of compound 8



Plotname: Dr_HazemElkady-IAPD_PROTON_01_plot02

Data file /home/data/NMRlab2017/Nov/Dr_HazemElkady-IAPD_20171119_01/Dr_HazemElkady-IAPD_PROTON_01

Plot date 2017-11-19

Dr_HazemElkady-IAPD-D20

Sample Name Dr_HazemElkady-IAPD-D20 Pulse sequence PROTON

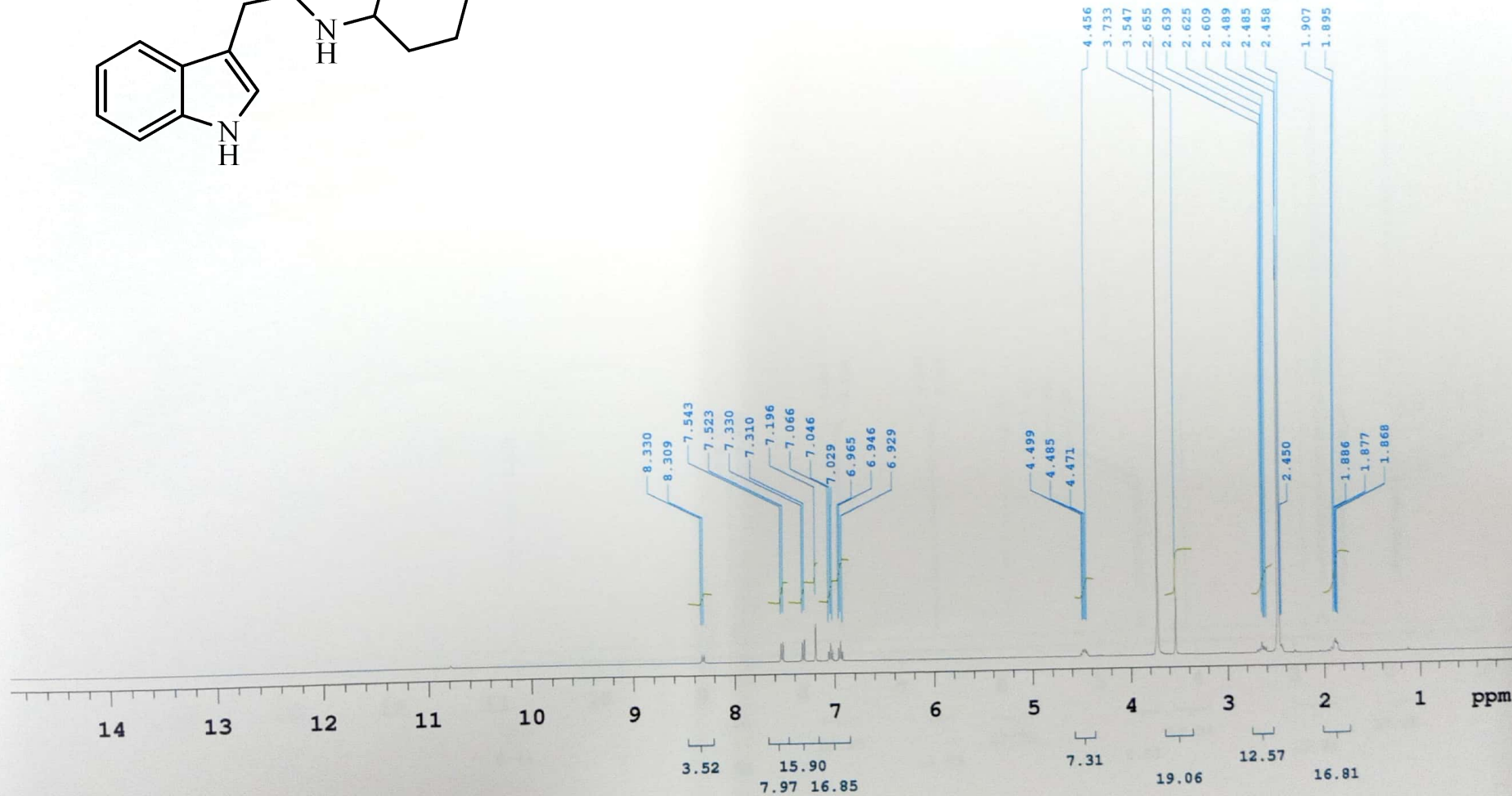
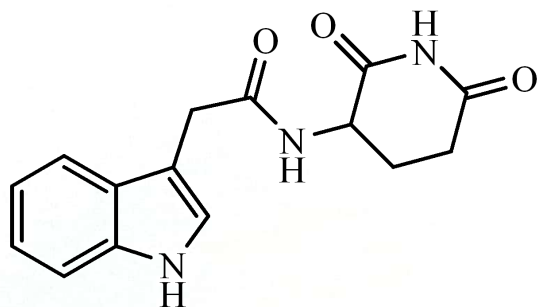
Date collected 2017-11-20

Temperature 25
Spectrometer nmr400-mercury400

Study owner vnmr1
Operator vnmr1

Dr_HazemElkady-IAPD-D20

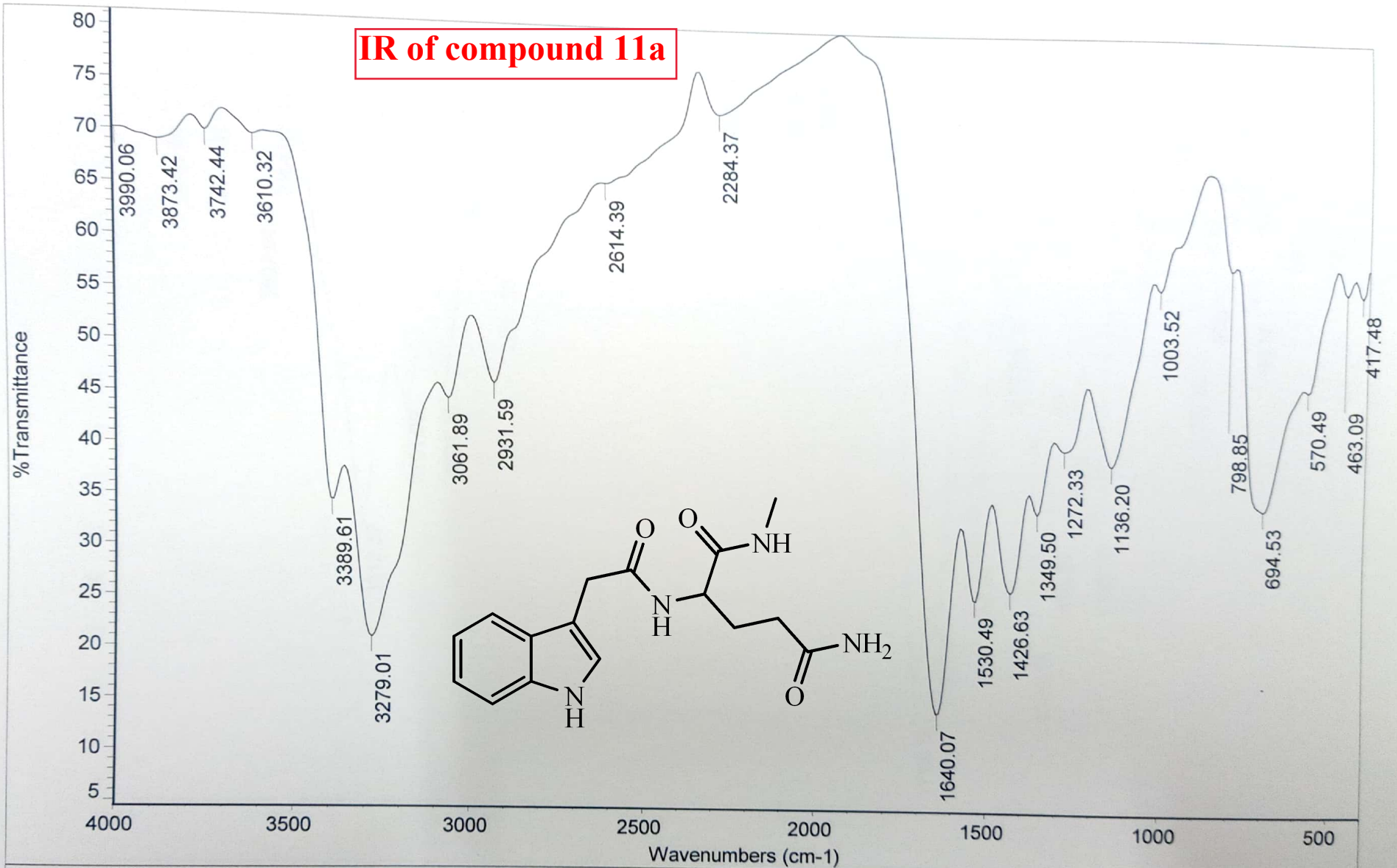
**¹H NMR of compound 8
(D₂O)**



Plotname: Dr_HazemElkady-IAPD-D20_PROTON_01_plot02

Plot date 2017-11-22

IR of compound 11a

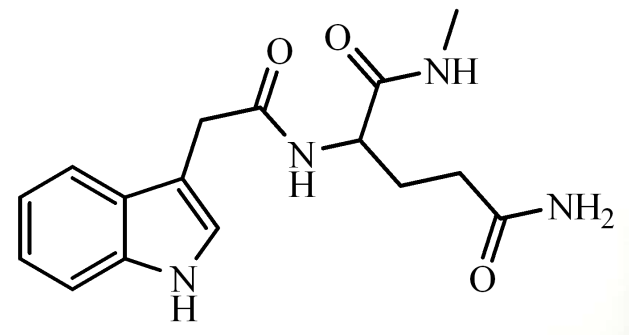


Date: Tue Jul 03 11:51:13 2018 (GMT-07:00) MA IAPD

Scans: 100

Resolution: 16.000

¹H NMR of compound 11a



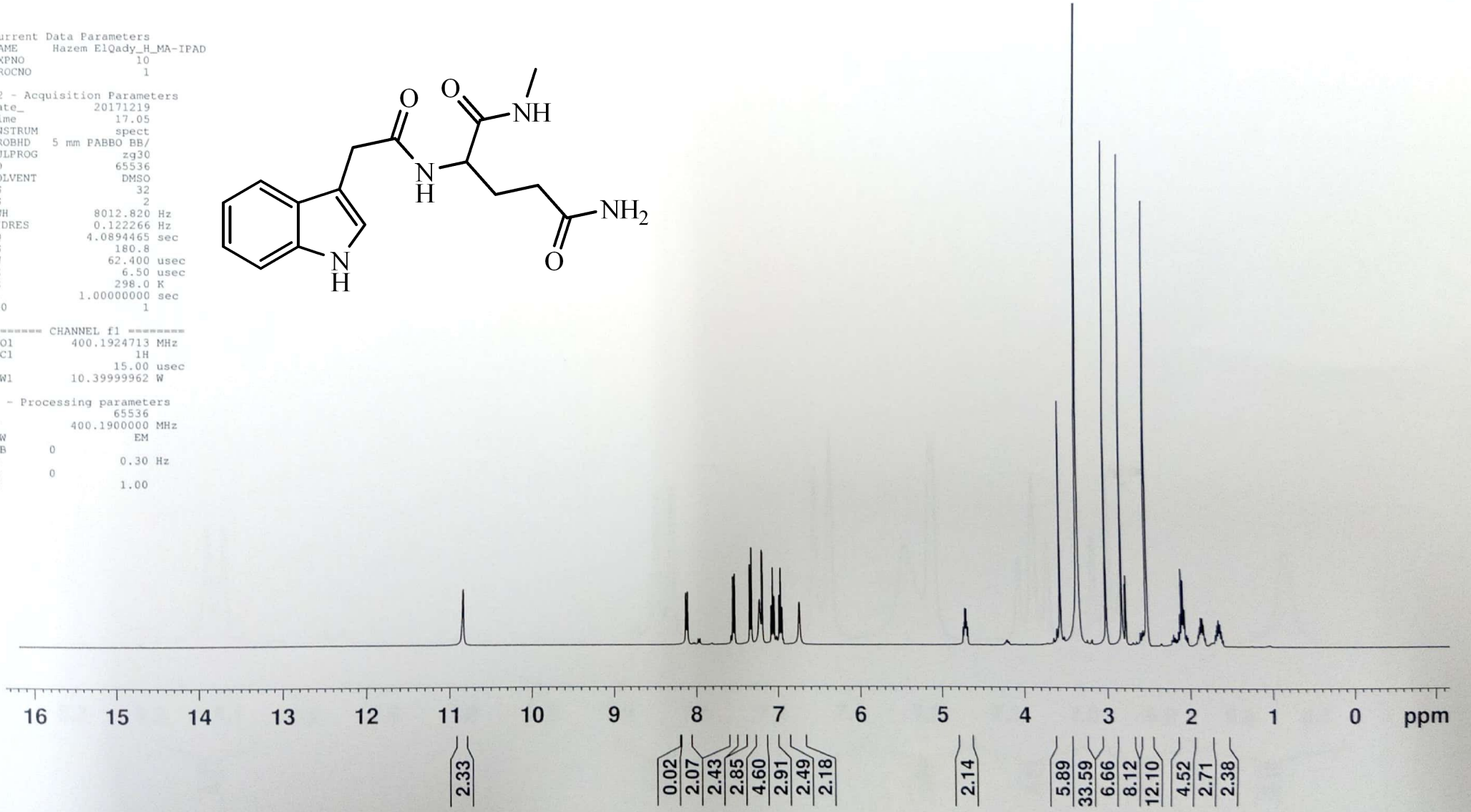
Current Data Parameters
NAME Hazem ElQady_H_MA-IPAD
EXPNO 10
PROCNO 1

F2 - Acquisition Parameters
Date_ 20171219
Time 17.05
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 32
DS 2
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894465 sec
RG 180.8
DW 62.400 usec
DE 6.50 usec
TE 298.0 K
D1 1.00000000 sec
TD0 1

===== CHANNEL f1 =====
SFO1 400.1924713 MHz
NUC1 1H
P1 15.00 usec
PLW1 10.39999962 W

F2 - Processing parameters
SI 65536
SF 400.1900000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

10.8461
8.1293
8.1087
7.5762
7.5515
7.5317
7.3457
7.3255
7.2273
7.1960
7.1906
7.0807
7.0631
7.0452
7.0431
6.9861
6.9844
6.9666
6.9492
6.7387
4.7335
4.7207
4.7122
4.6997
4.6913
4.6785
3.5524
3.3424
3.0025
2.8102
2.7710
2.7594
2.5141
2.5098
2.5054
2.1086
2.0891
2.0695
2.0534
1.8589
1.8389
1.6473



¹H NMR of compound 11a (D₂O)

Microanalytical Unit - FOPCU - NMR laboratory
www.pharma.cu.edu.eg dir-mau.fopcu@pharma.cu.edu.eg

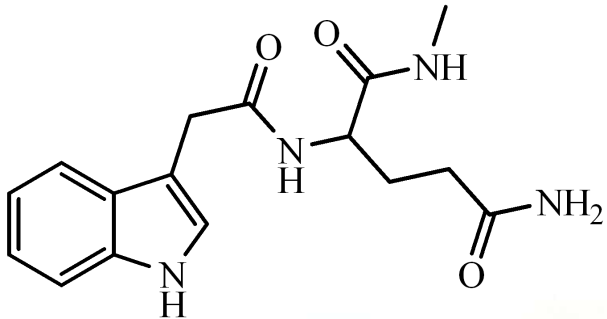


Current Data Parameters
NAME Hazem ElQady_H_MA-IPAD_D2O
EXFNO 10
PROCNO 1

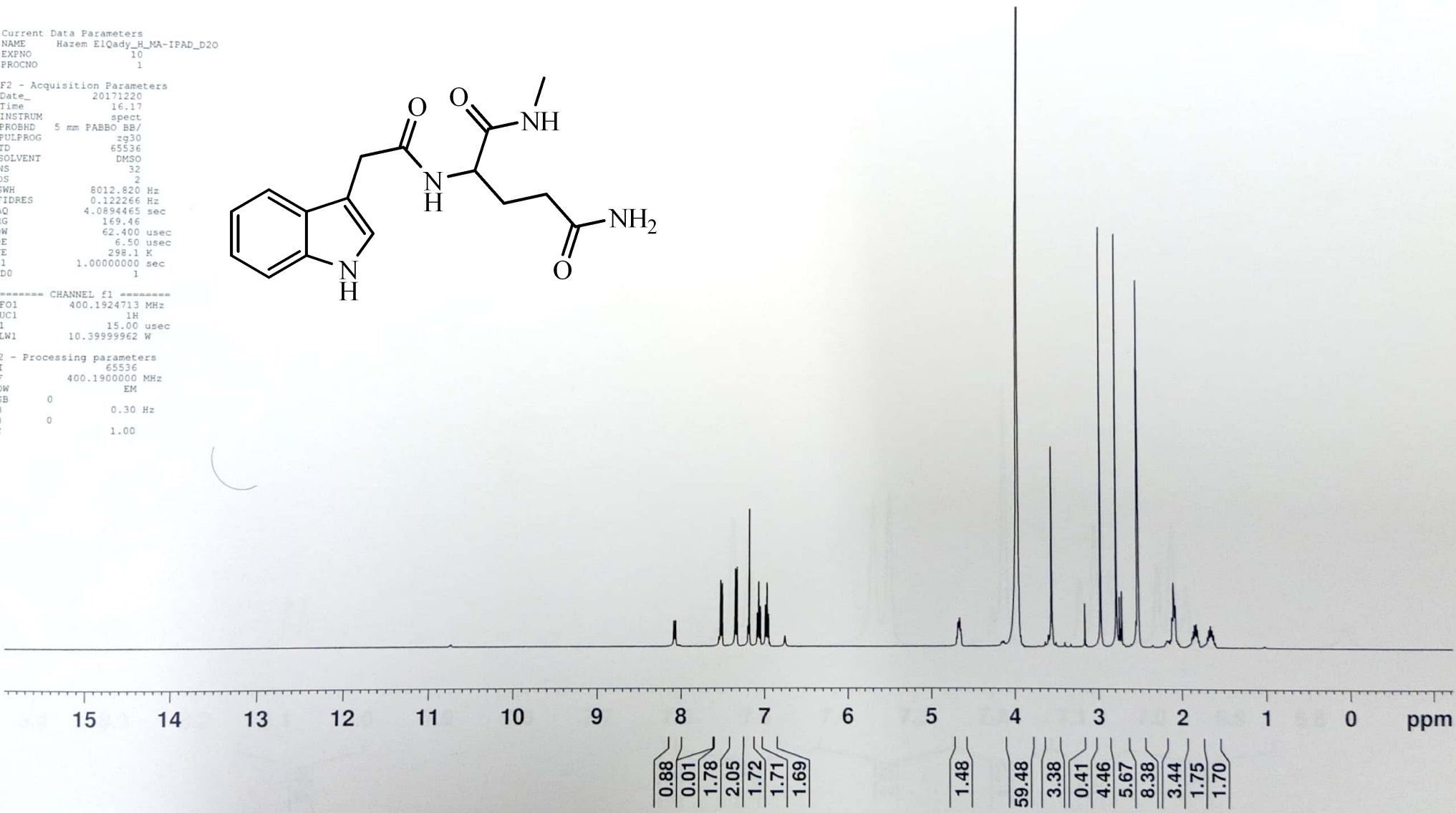
F2 - Acquisition Parameters
Date_ 20171220
Time 16.17
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 32
DS 2
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894465 sec
RG 169.46
DW 62.400 usec
DE 6.50 usec
TE 298.1 K
D1 1.00000000 sec
TDO 1

----- CHANNEL f1 -----
SFO1 400.1924713 MHz
NUC1 1H
P1 15.00 usec
PLW1 10.39999962 W

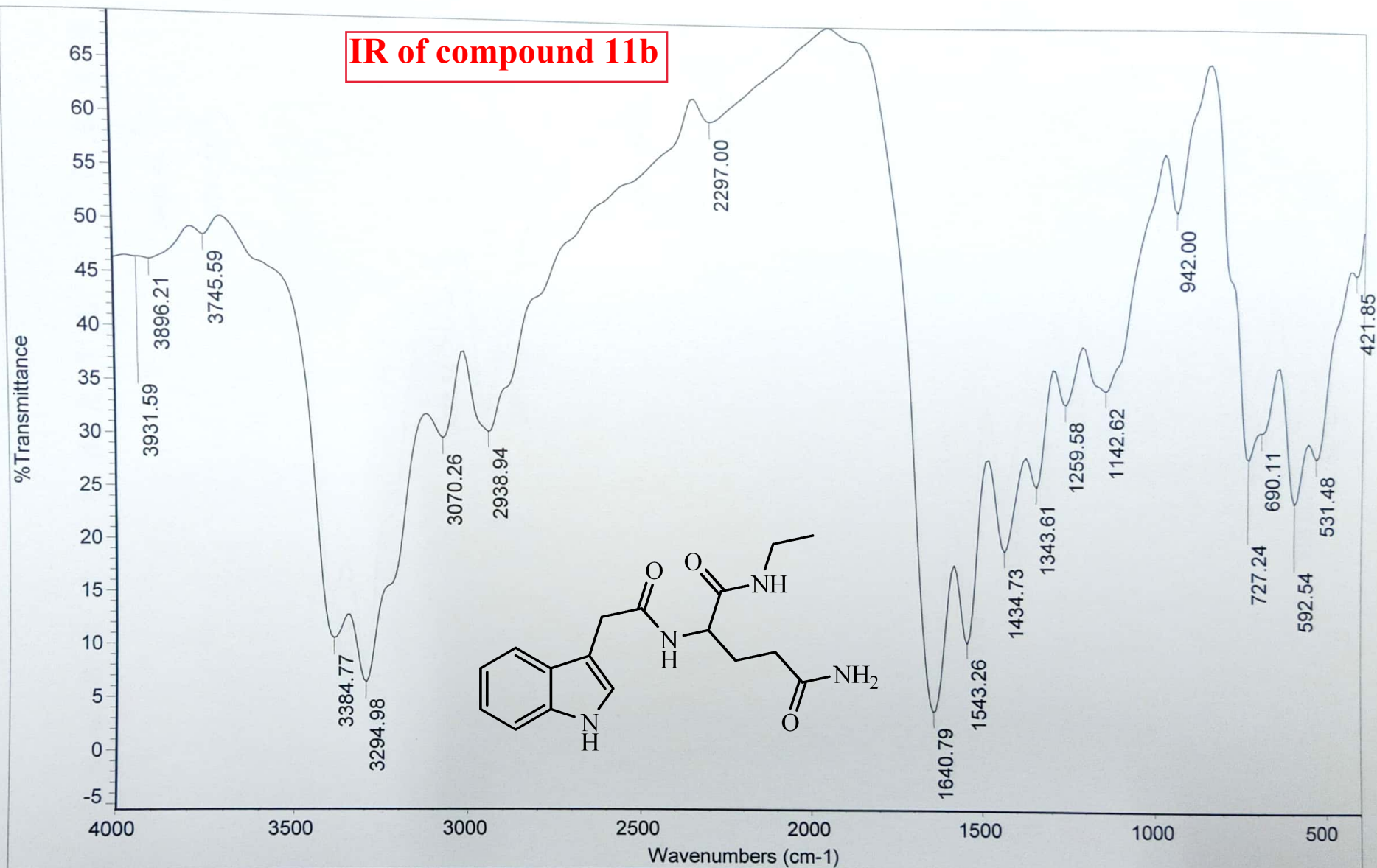
F2 - Processing parameters
SI 65536
SF 400.1900000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



8.0881
8.0679
7.5484
7.5296
7.5101
7.3509
7.3306
7.2001
7.1846
7.0869
7.0691
7.0510
6.9907
6.9712
6.9538
4.6777
4.6663
4.6557
4.6486
4.6429
3.9606
3.5512
3.1548
2.9630
2.7742
2.7362
2.7180
2.7087
2.5382
2.5163
2.5121
2.5080
2.1038
2.0965
2.0846
2.0727
2.0641
1.8369
1.8160
1.8032



IR of compound 11b



Date: Tue Jul 03 12:42:14 2018 (GMT-07:00) EA IAPD

Scans: 100

Resolution: 16.000

¹H NMR of compound 11b

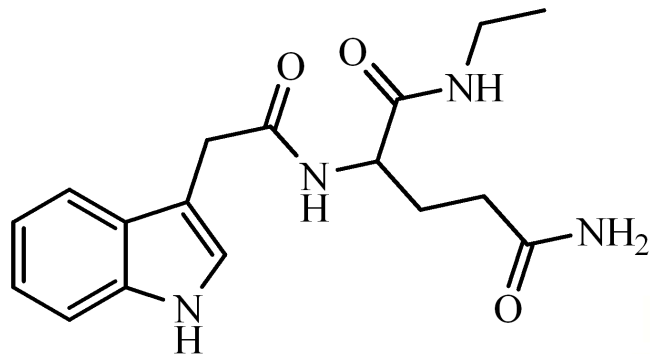


Current Data Parameters
NAME Hazem ElQady_H_EA-IPAD
EXPNO 10
PROCNO 1

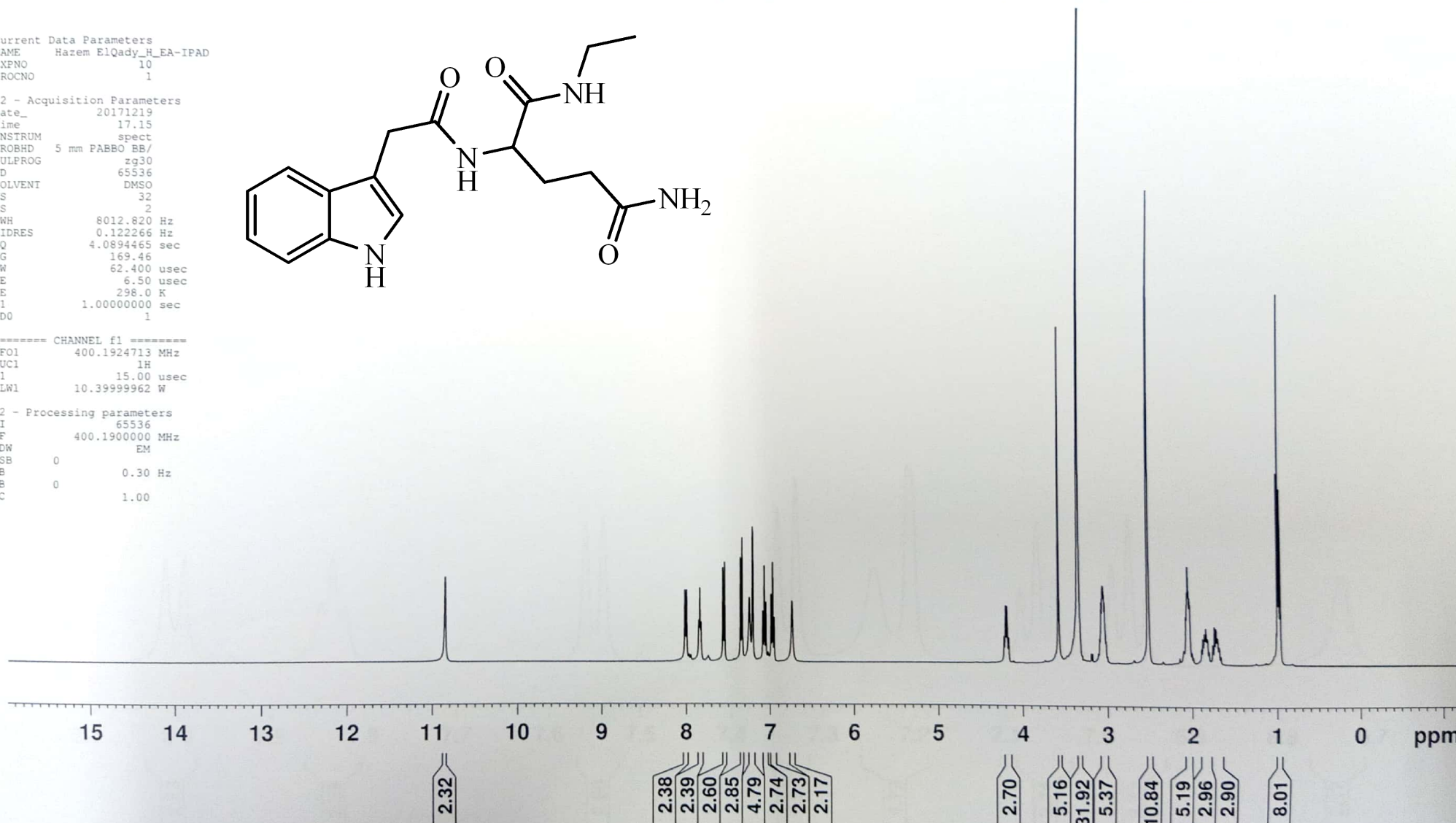
F2 - Acquisition Parameters
Date_ 20171219
Time 17.15
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 32
DS 2
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894465 sec
RG 169.46
DW 62.400 usec
DE 6.50 usec
TE 298.0 K
D1 1.00000000 sec
TD0 1

===== CHANNEL f1 =====
SFO1 400.1924713 MHz
NUC1 1H
P1 15.00 usec
PLW1 10.39999962 W

F2 - Processing parameters
SI 65536
SF 400.1900000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



10.8561
8.0131
7.9929
7.8474
7.8340
7.8205
7.5598
7.5402
7.3492
7.3290
7.2435
7.2059
7.2014
7.0831
7.0649
7.0466
6.9836
6.9653
6.9473
6.7348
4.2126
4.1925
4.1780
4.1578
3.5713
3.3400
3.0666
3.0484
3.0444
3.0264
2.5098
2.0570
2.0421
2.0256
1.8688
1.8339
1.8117
1.7531
1.7320
1.6800
1.0054
0.9935



¹H NMR of compound 11b



174.12
173.82
171.39
171.07

136.54
127.70
124.24
121.39
119.16
118.74
111.74
109.31

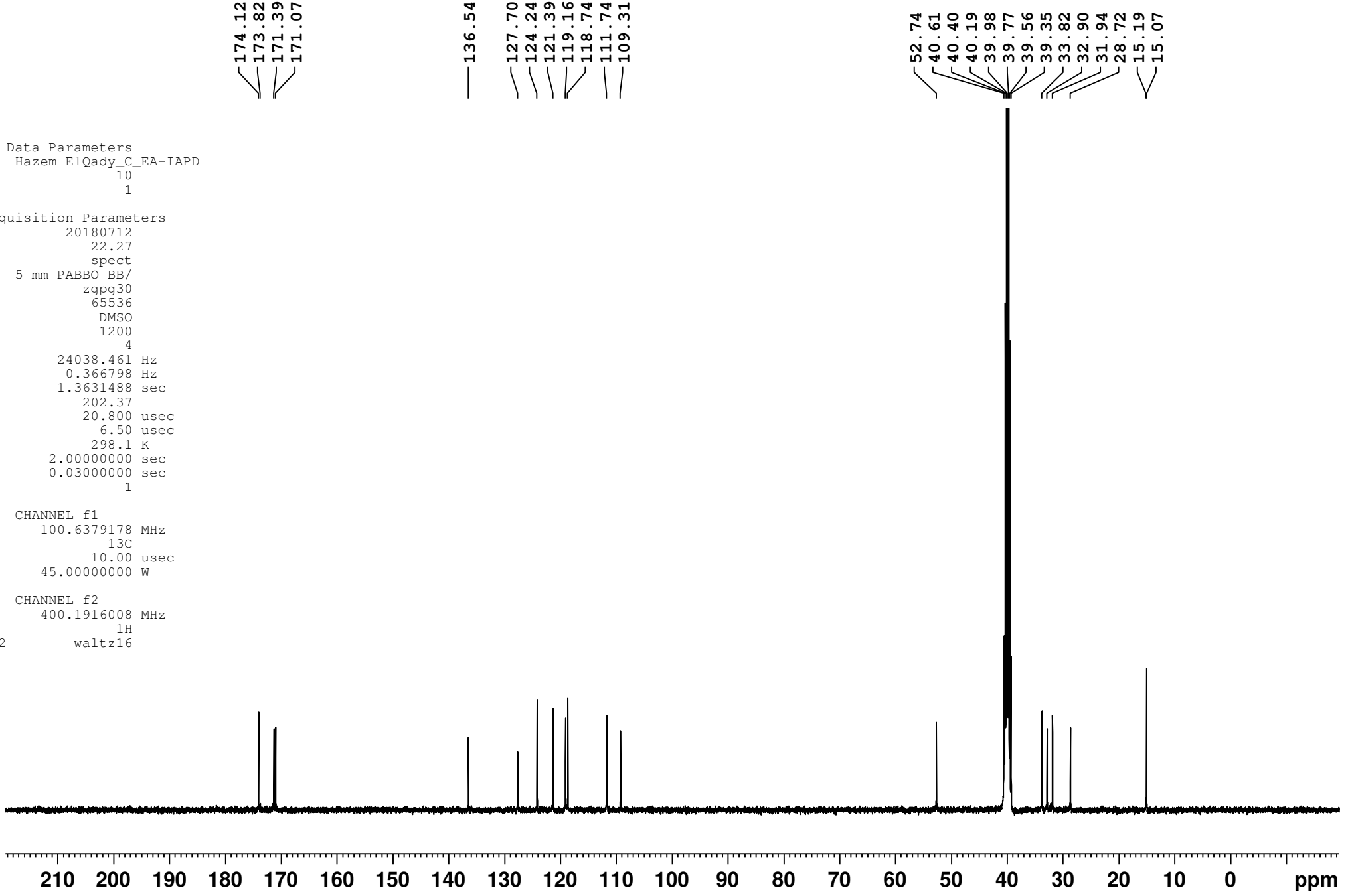
52.74
40.61
40.40
40.19
39.98
39.77
39.56
39.35
33.82
32.90
31.94
28.72
15.19
15.07

Current Data Parameters
NAME Hazem ElQady_C_EA-IAPD
EXPNO 10
PROCNO 1

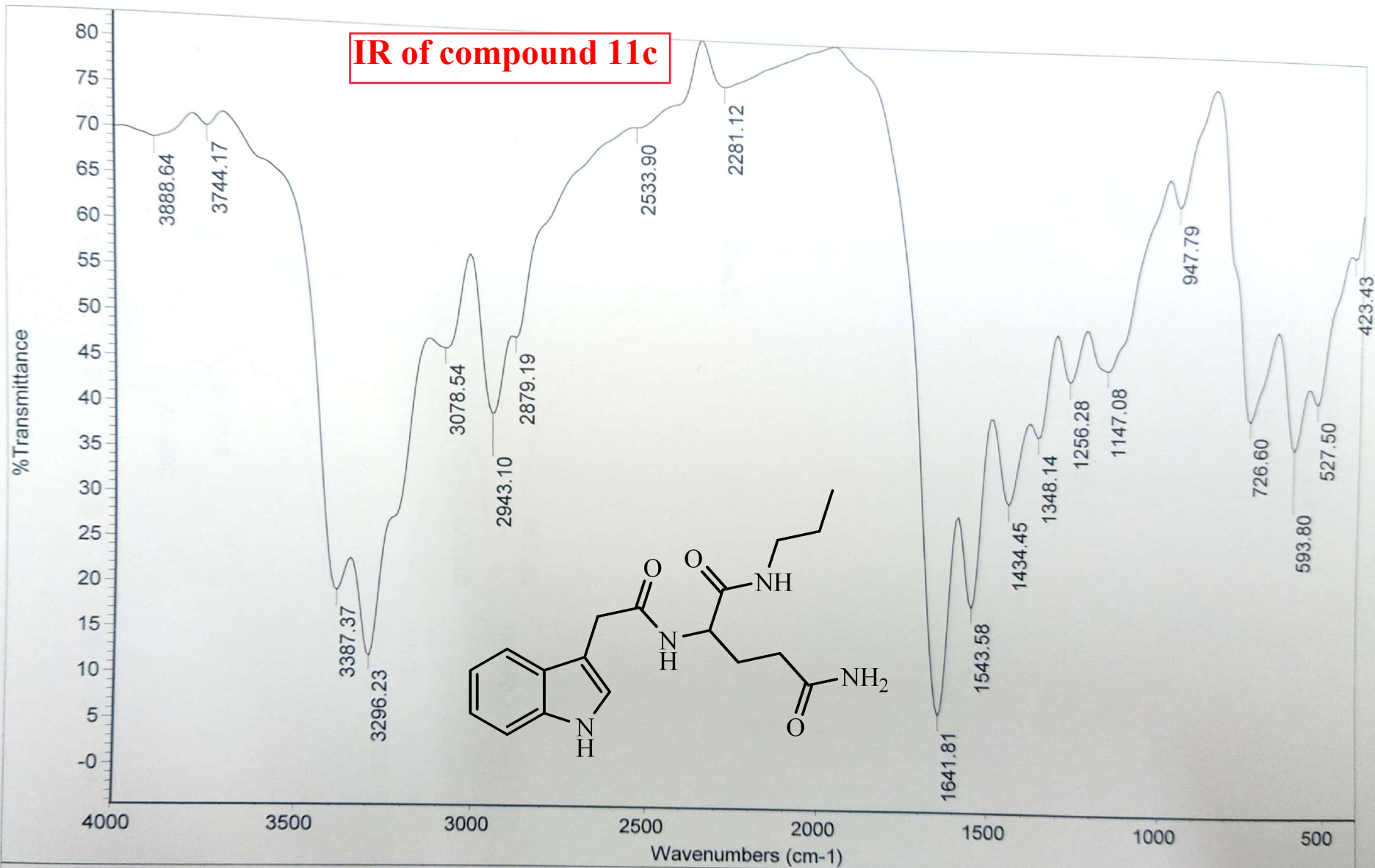
F2 - Acquisition Parameters
Date_ 20180712
Time 22.27
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 1200
DS 4
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 202.37
DW 20.800 usec
DE 6.50 usec
TE 298.1 K
D1 2.00000000 sec
D11 0.03000000 sec
TDO 1

==== CHANNEL f1 =====
SFO1 100.6379178 MHz
NUC1 13C
P1 10.00 usec
PLW1 45.00000000 W

==== CHANNEL f2 =====
SFO2 400.1916008 MHz
NUC2 1H
CPDPRG[2] waltz16



IR of compound 11c



Date: Tue Jul 03 11:39:37 2018 (GMT-07:00)PA IAPD

Scans: 100

Resolution: 16.000

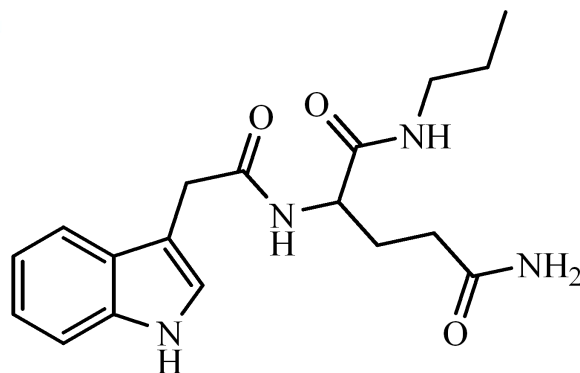
¹H NMR of compound 11c



10.8564
8.0173
7.9972
7.8276
7.8140
7.8001
7.5590
7.5394
7.3493
7.3292
7.2482
7.2050
7.0841
7.0653
7.0467
6.9826
6.9638
6.9458
6.7401
4.2331
4.2130
4.1984
4.1787
3.5718
3.3453
3.0187
3.0013
2.9829
2.9648
2.5094
2.0726
2.0647
2.0492
2.0416
2.0325
2.0267
1.8756
1.8568
1.8408
1.7392
1.7208
1.7031
1.3918
1.3738

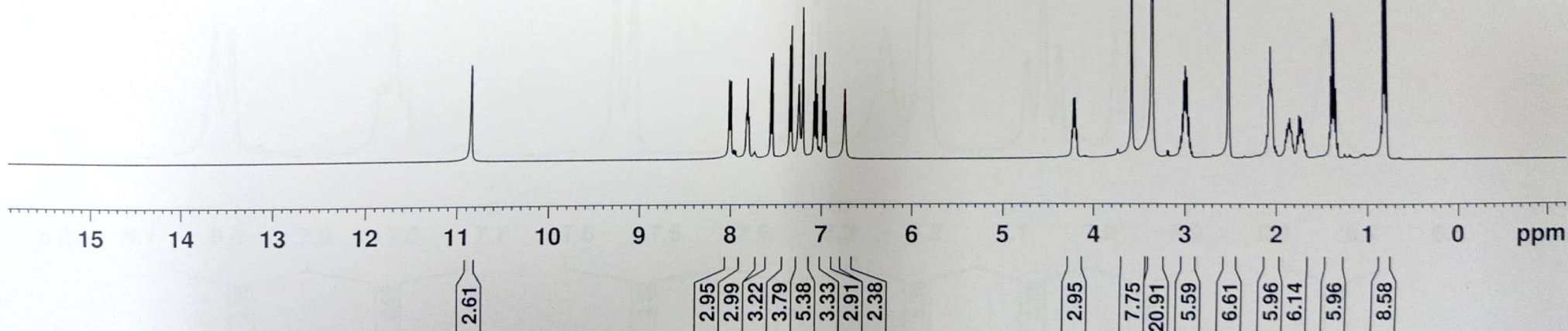
Current Data Parameters
NAME Hazem ElQady_H_PA-IPAD
EXPNO 10
PROCNO 1

F2 - Acquisition Parameters
Date_ 20171219
Time 17.20
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 32
DS 2
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894465 sec
RG 129.43
DW 62.400 usec
DE 6.50 usec
TE 298.1 K
D1 1.00000000 sec
TDO 1

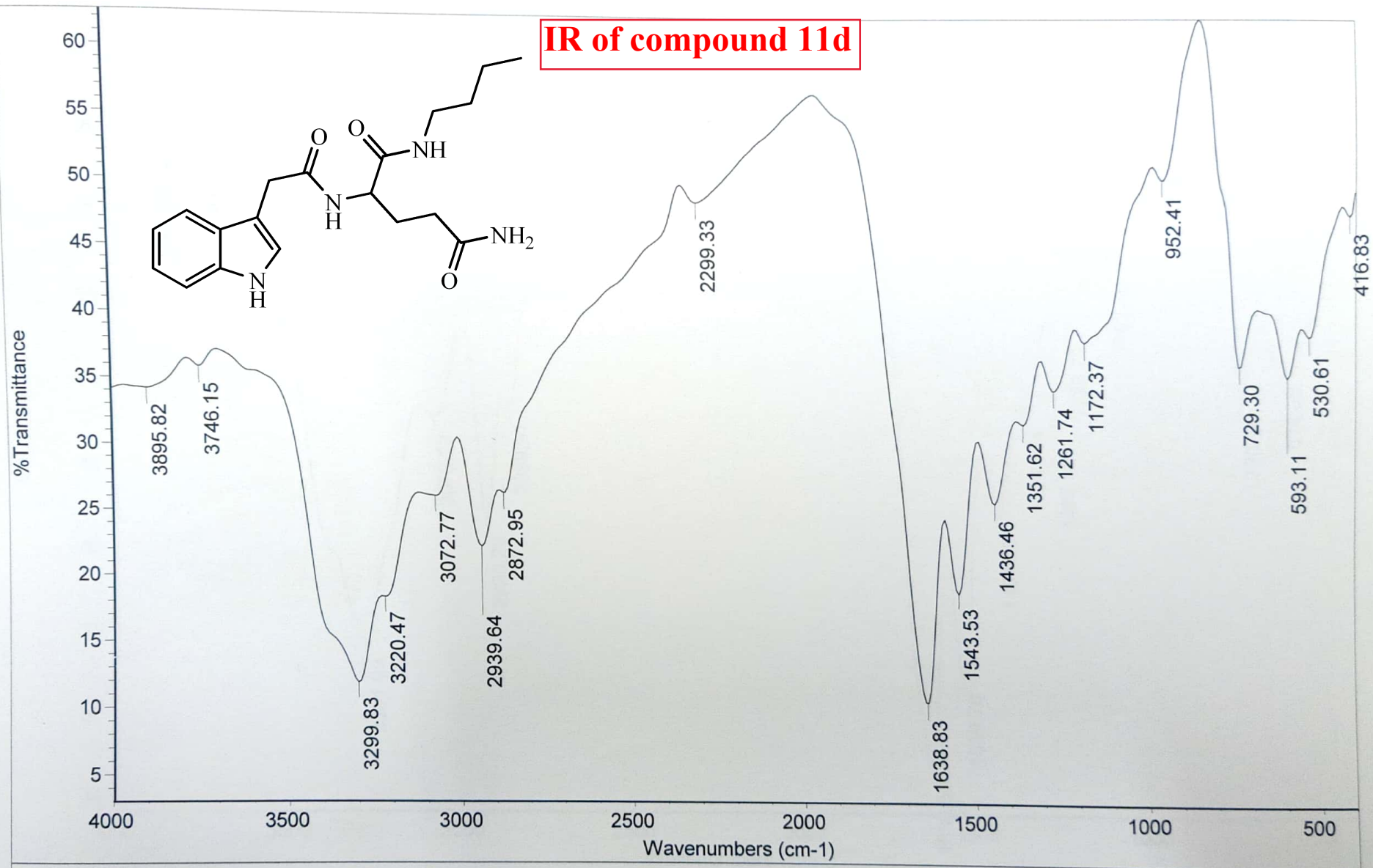


===== CHANNEL f1 =====
SF01 400.1924713 MHz
NUC1 1H
P1 15.00 usec
PLW1 10.39999962 W

F2 - Processing parameters
SI 65536
SF 400.1900000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



IR of compound 11d

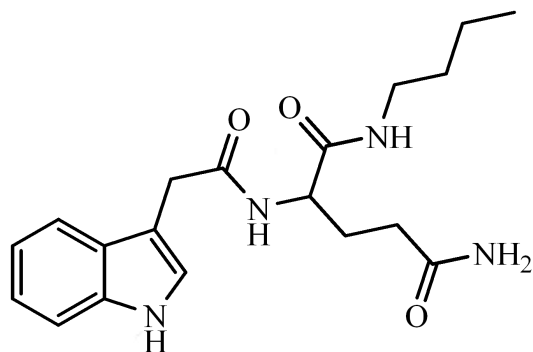


Date: Tue Jul 03 12:21:44 2018 (GMT-07:00) BUT IAPD

Scans: 100

Resolution: 16.000

¹H NMR of compound 11d



10.859
8.0140
7.9948
7.9641
7.9441
7.7869
7.7156
7.5585
7.5393
7.3489
7.3291
7.2481
7.2041
7.0829
7.0648
7.0457
7.0197
6.9808
6.9627
6.9452
6.7386
4.2028
4.1896
4.0872
4.0704
3.7275
3.5716
3.3404
3.0317
3.0166
3.0014
2.5099
2.0595
2.0440
1.8685
1.8489
1.8365
1.7326
1.7158
1.7025
1.3501
1.3333
1.3148
1.2579
1.2454

Current Data Parameters
NAME Hazem ElQady_H_But-IPAD
EXPNO 10
PROCNO 1

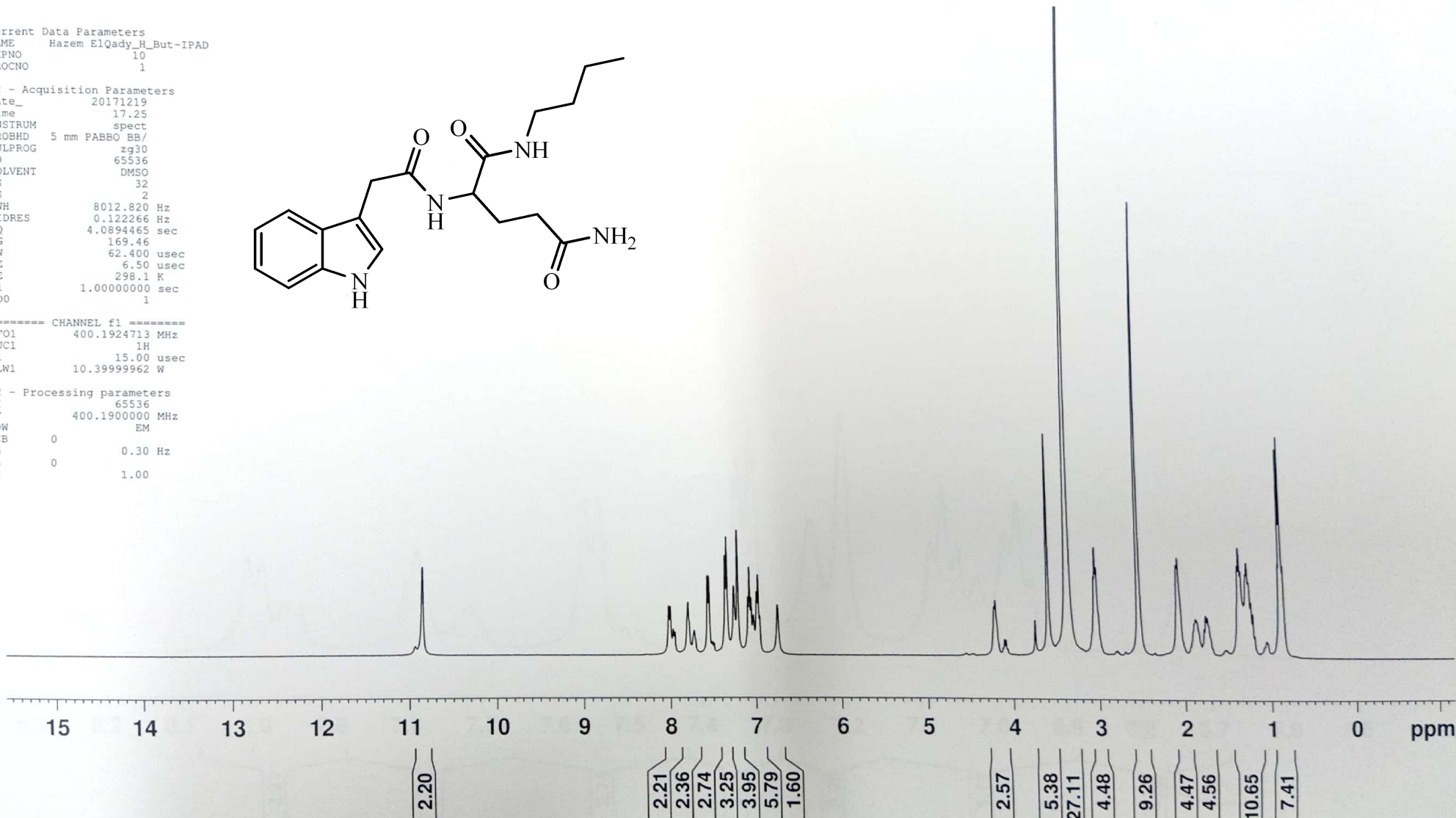
F2 - Acquisition Parameters

Date_ 20171219
Time 17.25
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 32
DS 2
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894465 sec
RG 169.46
DW 62.400 usec
DE 6.50 usec
TE 298.1 K
D1 1.00000000 sec
TDO 1

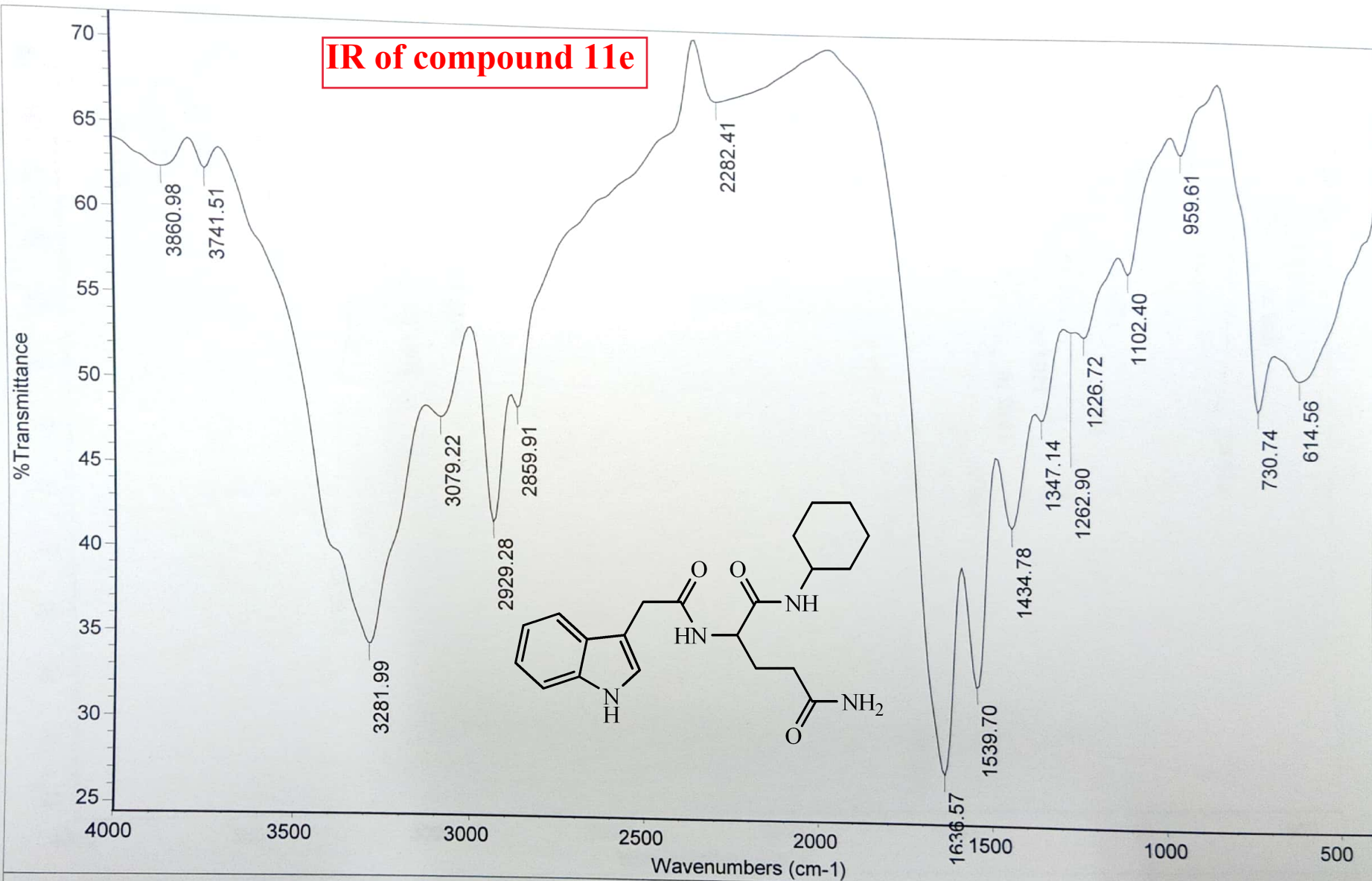
==== CHANNEL f1 =====
SFO1 400.1924713 MHz
NUC1 1H
P1 15.00 usec
PLW1 10.39999962 W

F2 - Processing parameters

SI 65536
SF 400.1900000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



IR of compound 11e



Date: Tue Jul 03 12:03:07 2018 (GMT-07:00)CH IAPD

Scans: 100

Resolution: 16.000

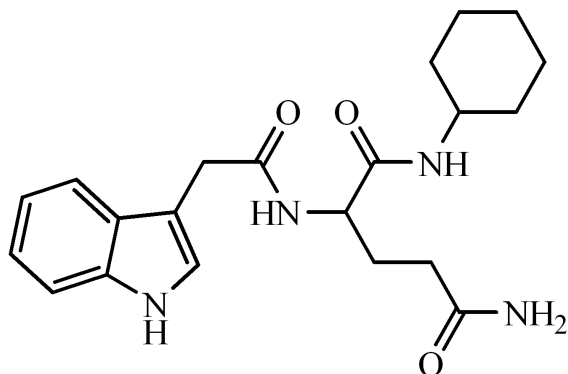
¹H NMR of compound 11e

Current Data Parameters
NAME Hazem ElQady_R_CH-IAPD
EXPNO 10
PROCNO 1

F2 - Acquisition Parameters
Date_ 20180114
Time 19.53
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 32
DS 2
SWH 8012.620 Hz
FIDRES 0.122266 Hz
AQ 4.0894465 sec
RG 84.65
DW 62.400 usec
DE 6.50 usec
TE 296.1 K
D1 1.00000000 sec
TD0 1

----- CHANNEL f1 -----
SF01 400.1924713 MHz
NUC1 1H
P1 15.00 usec
PLW1 10.39999962 W

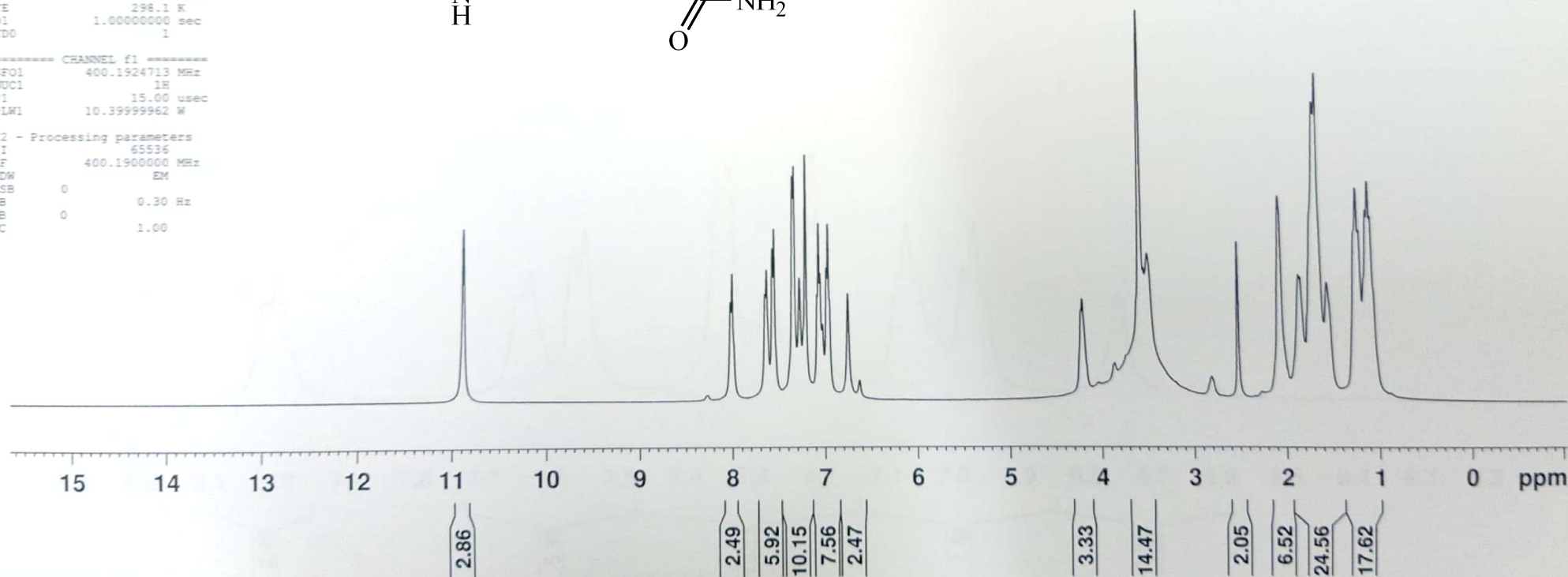
F2 - Processing parameters
SI 65536
SF 400.1900000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

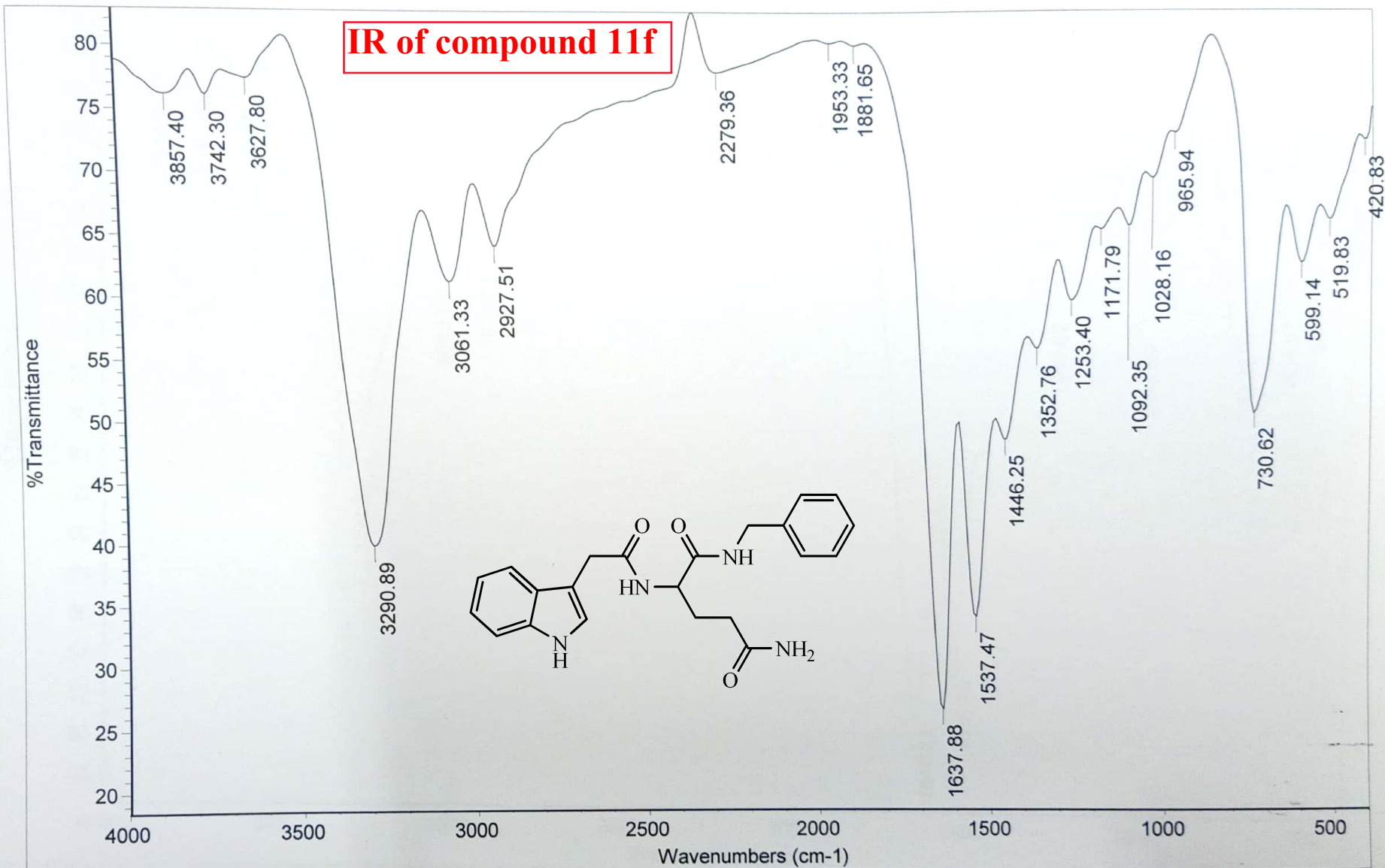


— 10.8867

8.0226
8.0037
7.6496
7.6330
7.5694
7.5506
7.3529
7.3356
7.2757
7.2099
7.0842
7.0676
7.0495
7.0245
6.9825
6.9649
6.9492
6.7489

4.2187
4.2033
3.5767
3.5318
3.4873
2.5105
2.0558
1.8428
1.8258
1.6765
1.6443
1.5397
1.2135
1.1880
1.1095
1.0845
1.0619





Date: Tue Jul 03 11:55:04 2018 (GMT-07:00)BA IAPD

Scans: 100

Resolution: 16.000

¹H NMR of compound 11f



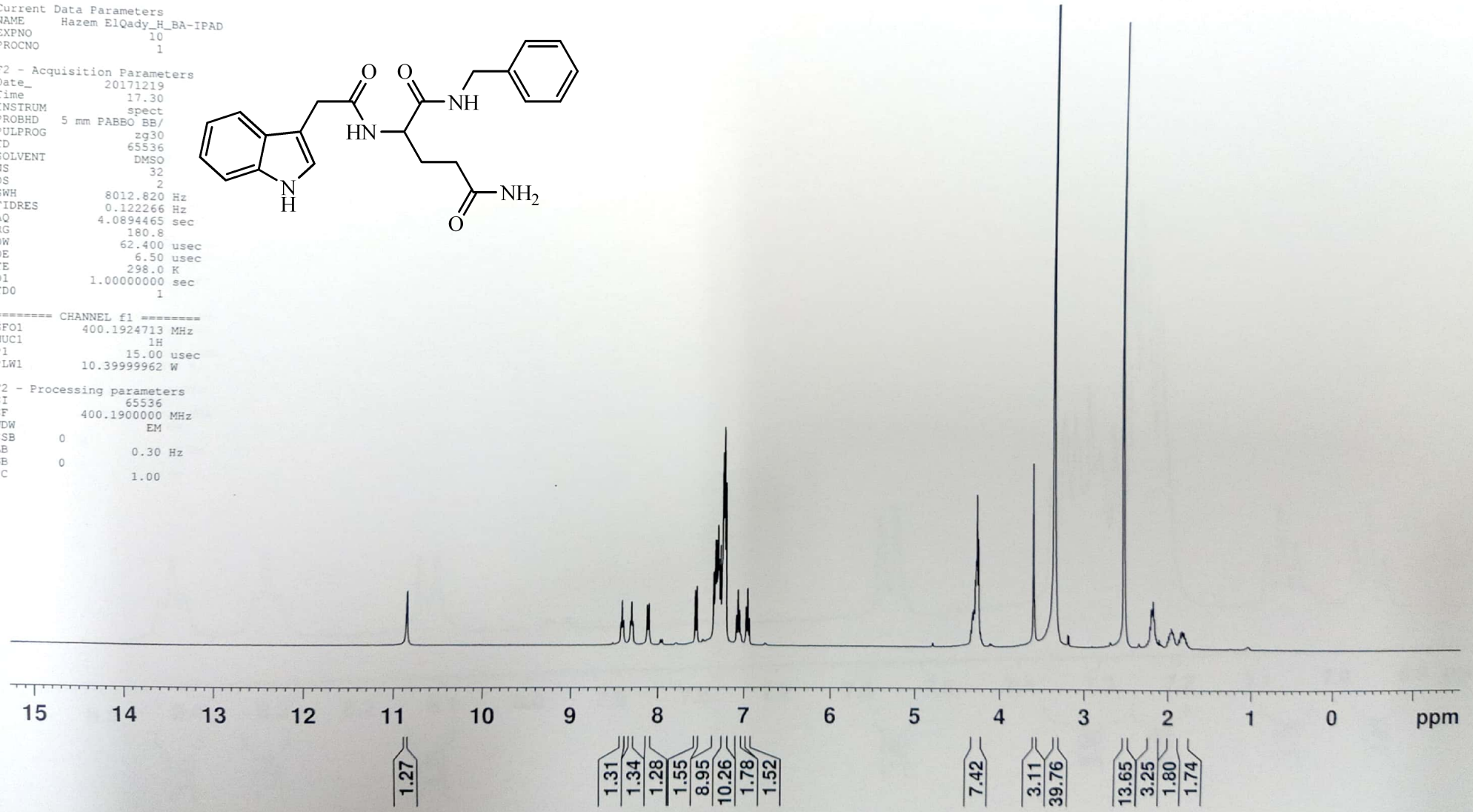
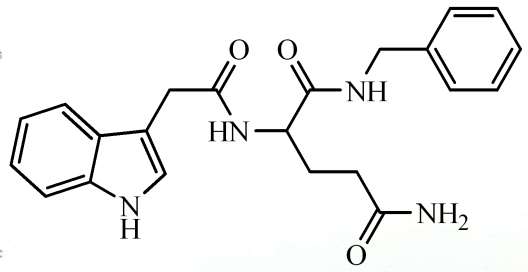
10.8579
8.4276
8.4130
8.3987
8.3184
8.3042
8.2897
8.1247
8.1047
7.5661
7.5464
7.3521
7.3322
7.3182
7.3005
7.2882
7.2708
7.2526
7.2423
7.2275
7.2098
7.0836
7.0659
7.0477
6.9717
6.9524
6.9346
4.2681
4.2574
4.2428
3.5896
3.3372
2.5137
2.5097
2.5057
2.1902
2.1803
2.1754
2.1653
2.1521
1.9650
1.9495
1.9352
1.8403
1.8245
1.8030

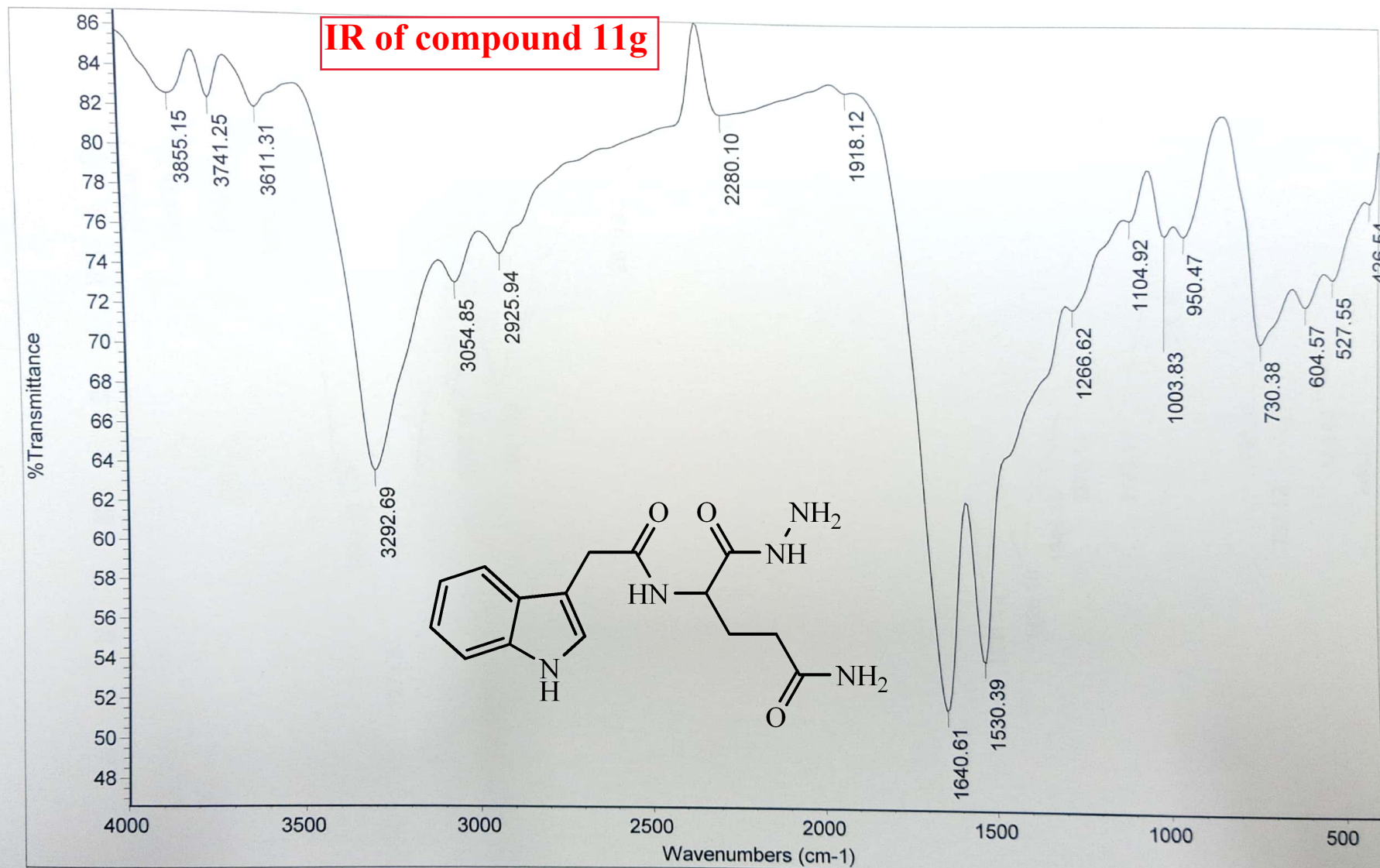
Current Data Parameters
NAME Hazem ElQady_H_BA-IPAD
EXPNO 10
PROCNO 1

F2 - Acquisition Parameters
Date_ 20171219
Time 17.30
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 32
DS 2
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894465 sec
RG 180.8
DW 62.400 usec
DE 6.50 usec
TE 298.0 K
D1 1.00000000 sec
TD0 1

==== CHANNEL f1 =====
SFO1 400.1924713 MHz
NUC1 1H
P1 15.00 usec
PLW1 10.39999962 W

F2 - Processing parameters
SI 65536
SF 400.1900000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00





Date: Tue Jul 03 12:38:56 2018 (GMT-07:00)HZ IAPD

Scans: 100

Resolution: 16.000

¹H NMR of compound 11g



Current Data Parameters
NAME Hazem ElQady_H_HZ-IPAD
EXPNO 10
PROCNO 1

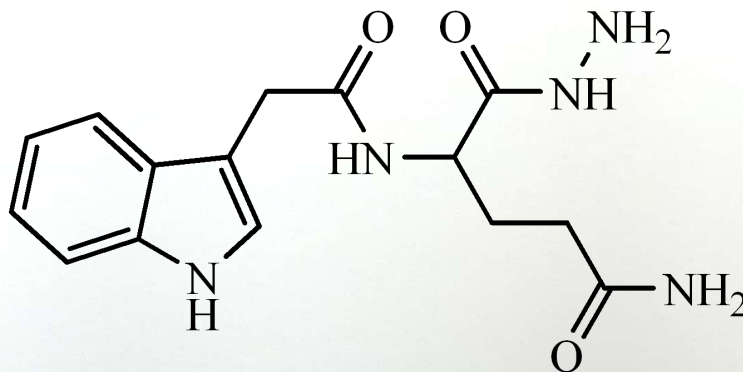
F2 - Acquisition Parameters

Date_ 20171219
Time 17.10
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 32
DS 2
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894465 sec
RG 169.46
DW 62.400 usec
DE 6.50 usec
TE 298.0 K
D1 1.00000000 sec
TD0 1

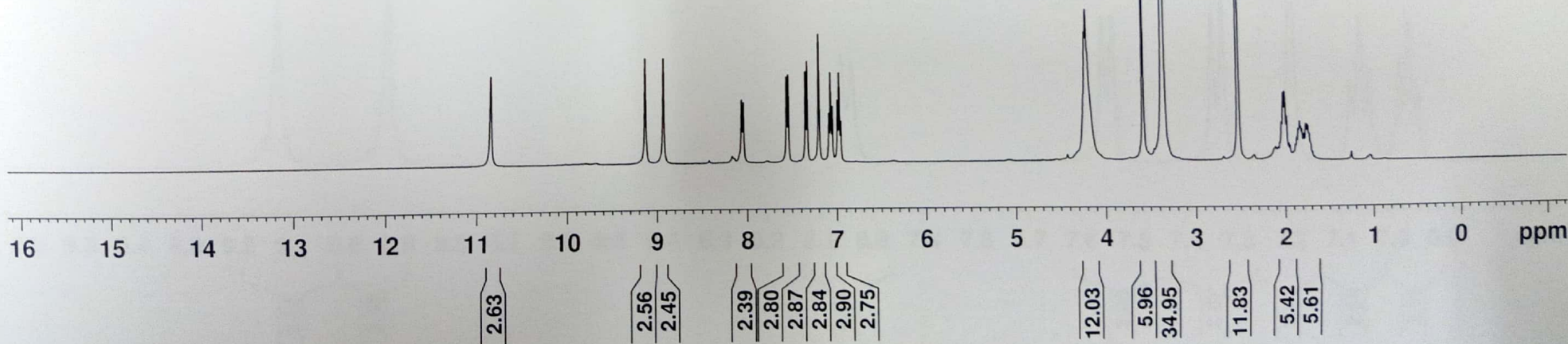
===== CHANNEL f1 =====
SFO1 400.1924713 MHz
NUC1 1H
P1 15.00 usec
PLW1 10.39999962 W

F2 - Processing parameters

SI 65536
SF 400.1900000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



10.8467
9.1305
8.9243
8.0578
8.0372
7.5558
7.5364
7.3460
7.3259
7.1954
7.0807
7.0627
7.0437
6.9858
6.9673
6.9491
4.2121
4.1965
3.5653
3.3423
2.5104
2.0069
1.9912
1.8401
1.8247
1.8137
1.7569
1.7390



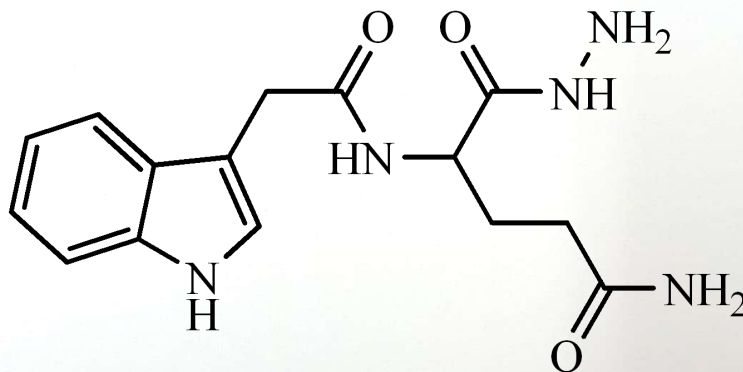
**¹H NMR of compound 11g
(D₂O)**

Current Data Parameters
NAME Hazem ElQady_HZ-IPAD_D2O
EXPNO 10
PROCNO 1

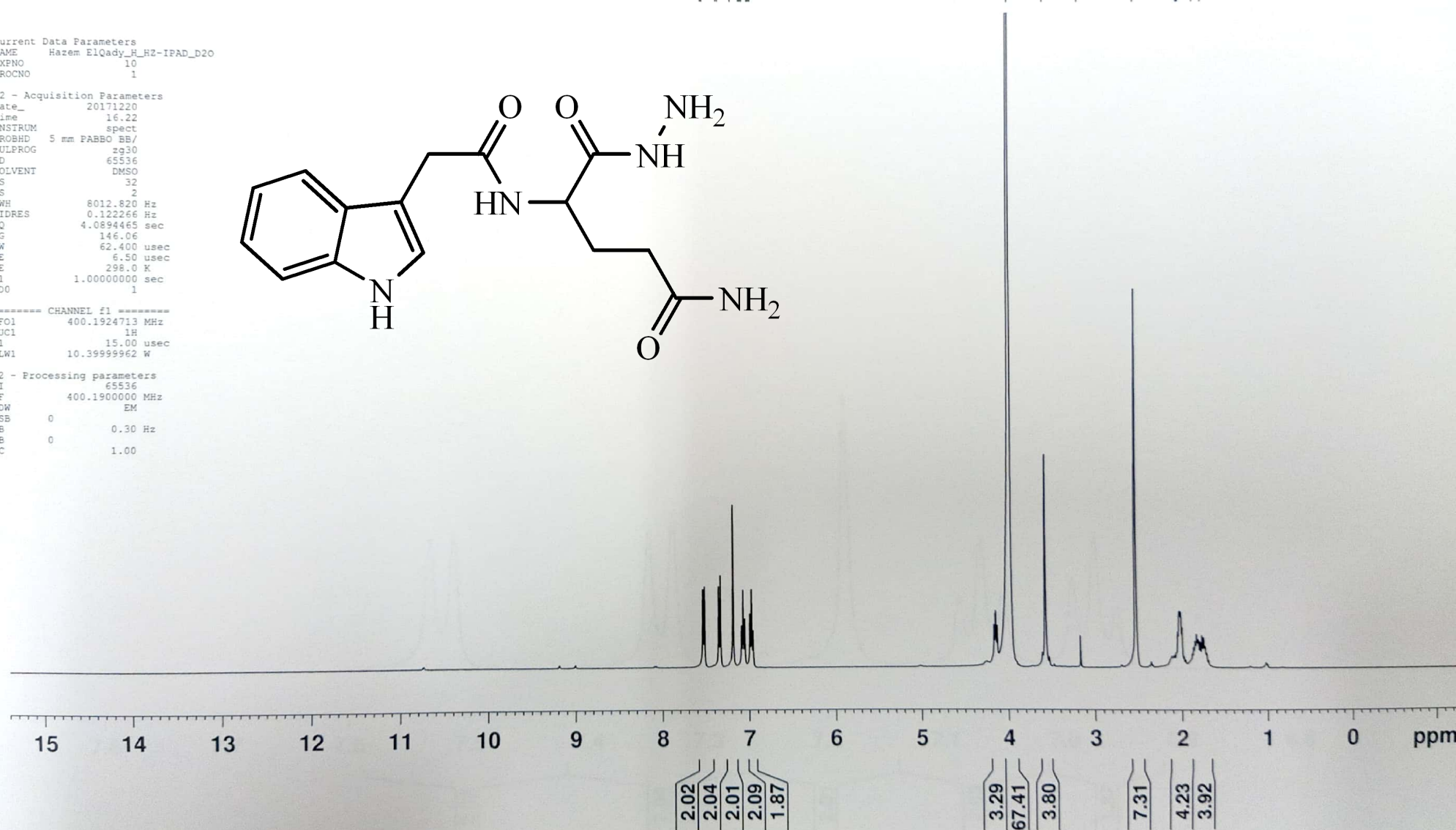
F2 - Acquisition Parameters
Date_ 20171220
Time 16.22
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 32
DS 2
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894465 sec
RG 146.06
DW 62.400 usec
DE 6.50 usec
TE 298.0 K
D1 1.0000000 sec
TD0 1

CHANNEL f1
SFO1 400.1924713 MHz
NUC1 1H
P1 15.00 usec
PLW1 10.39999962 W

F2 - Processing parameters
SI 65536
SF 400.1900000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



7.5337
7.5142
7.3505
7.3304
7.1841
7.0868
7.0689
7.0495
6.9909
6.9724
6.9542
3.9697
3.5575
3.1557
2.5127
2.0173
2.0104
2.0060
1.9980
1.8342
1.7372



¹³CNMR of compound 11g



171.39
171.01
170.96

136.51
127.74
124.21
121.36
119.18
118.74
111.72
109.28

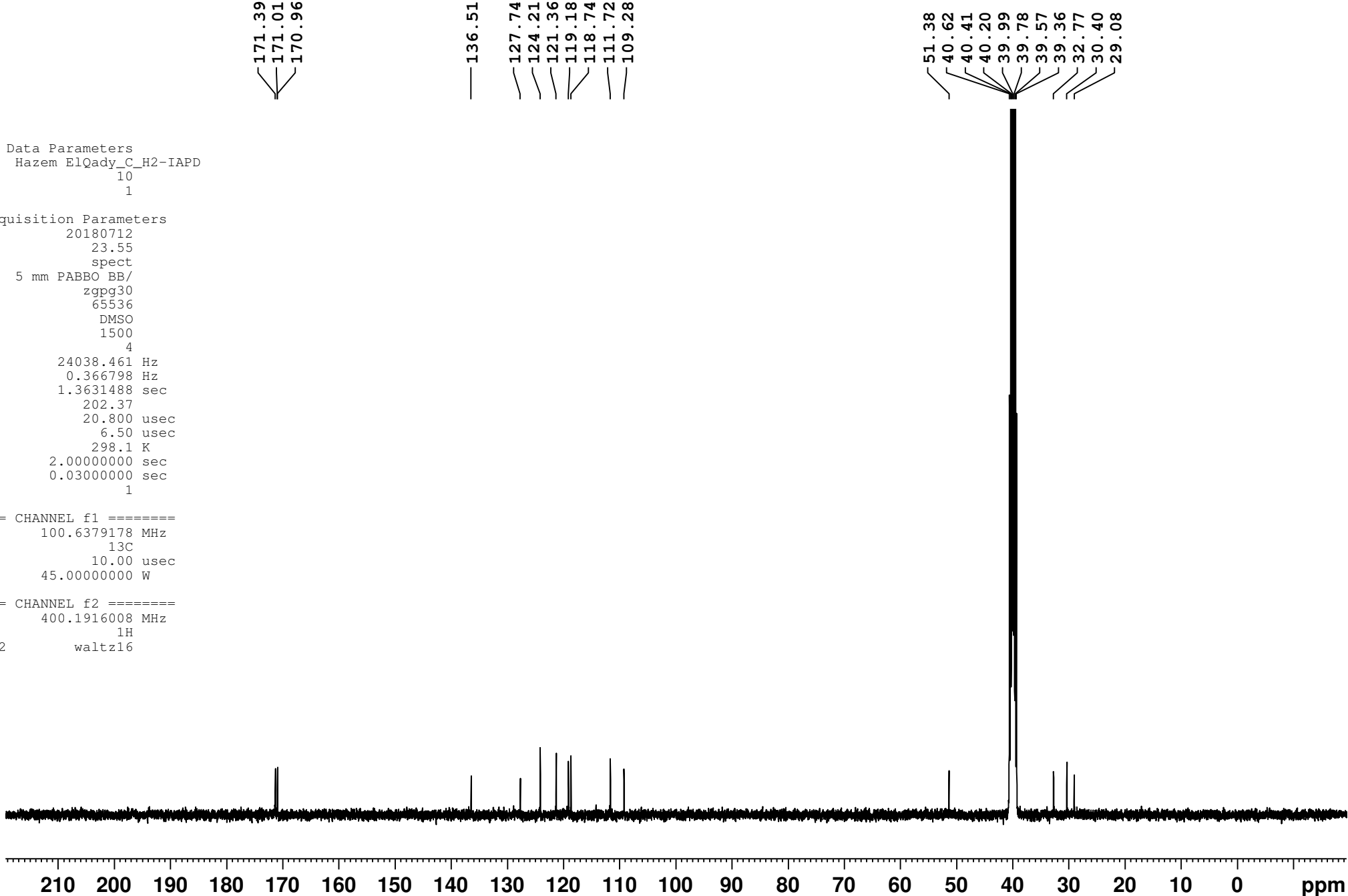
51.38
40.62
40.41
40.20
39.99
39.78
39.57
39.36
32.77
30.40
29.08

Current Data Parameters
NAME Hazem ElQady_C_H2-IAPD
EXPNO 10
PROCNO 1

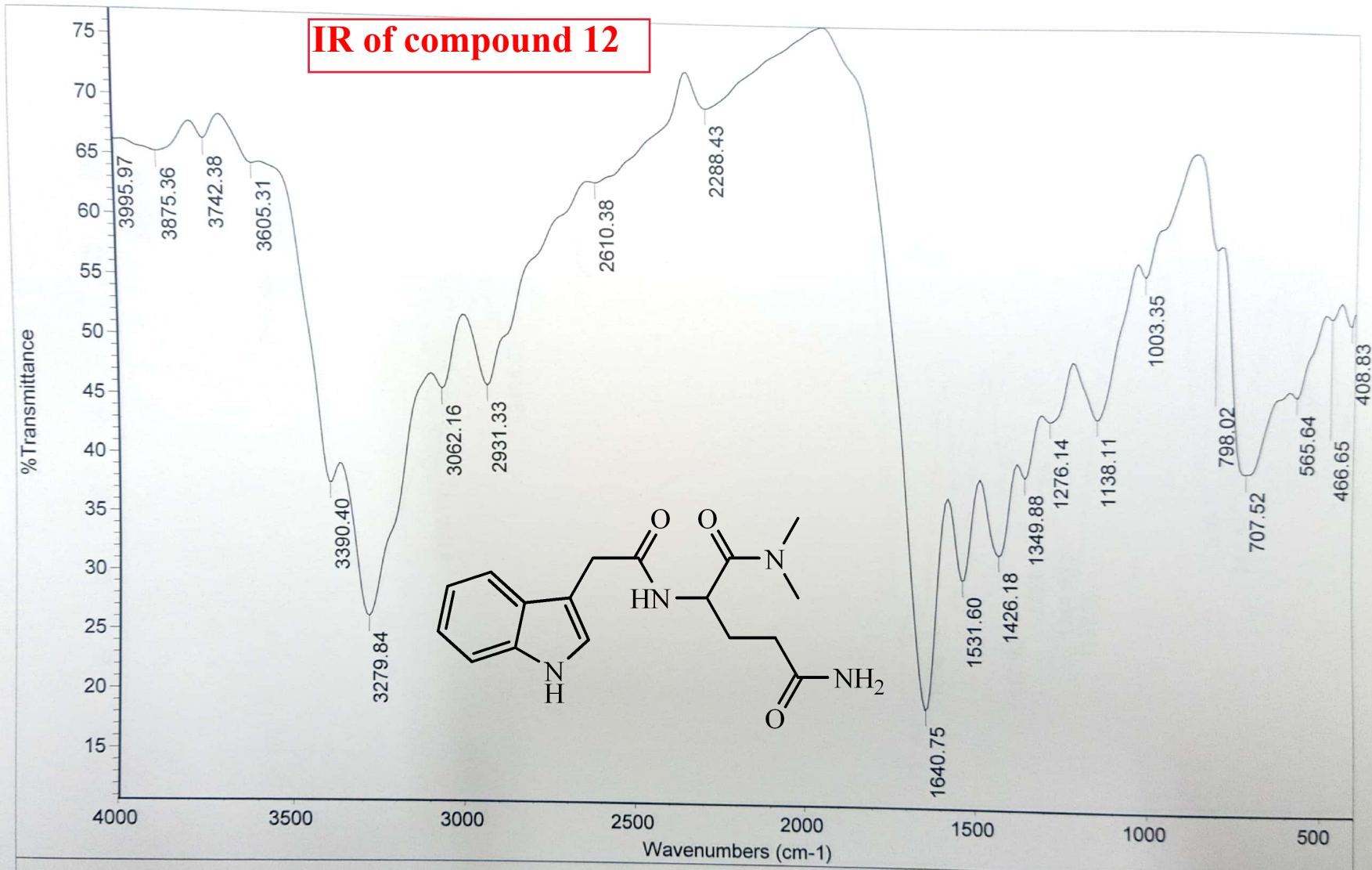
F2 - Acquisition Parameters
Date_ 20180712
Time 23.55
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 1500
DS 4
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 202.37
DW 20.800 usec
DE 6.50 usec
TE 298.1 K
D1 2.00000000 sec
D11 0.03000000 sec
TDO 1

==== CHANNEL f1 =====
SFO1 100.6379178 MHz
NUC1 13C
P1 10.00 usec
PLW1 45.00000000 W

==== CHANNEL f2 =====
SFO2 400.1916008 MHz
NUC2 1H
CPDPRG[2] waltz16



IR of compound 12



Date: Tue Jul 03 12:33:02 2018 (GMT-07:00)DM IAPD

Scans: 100

Resolution: 16.000

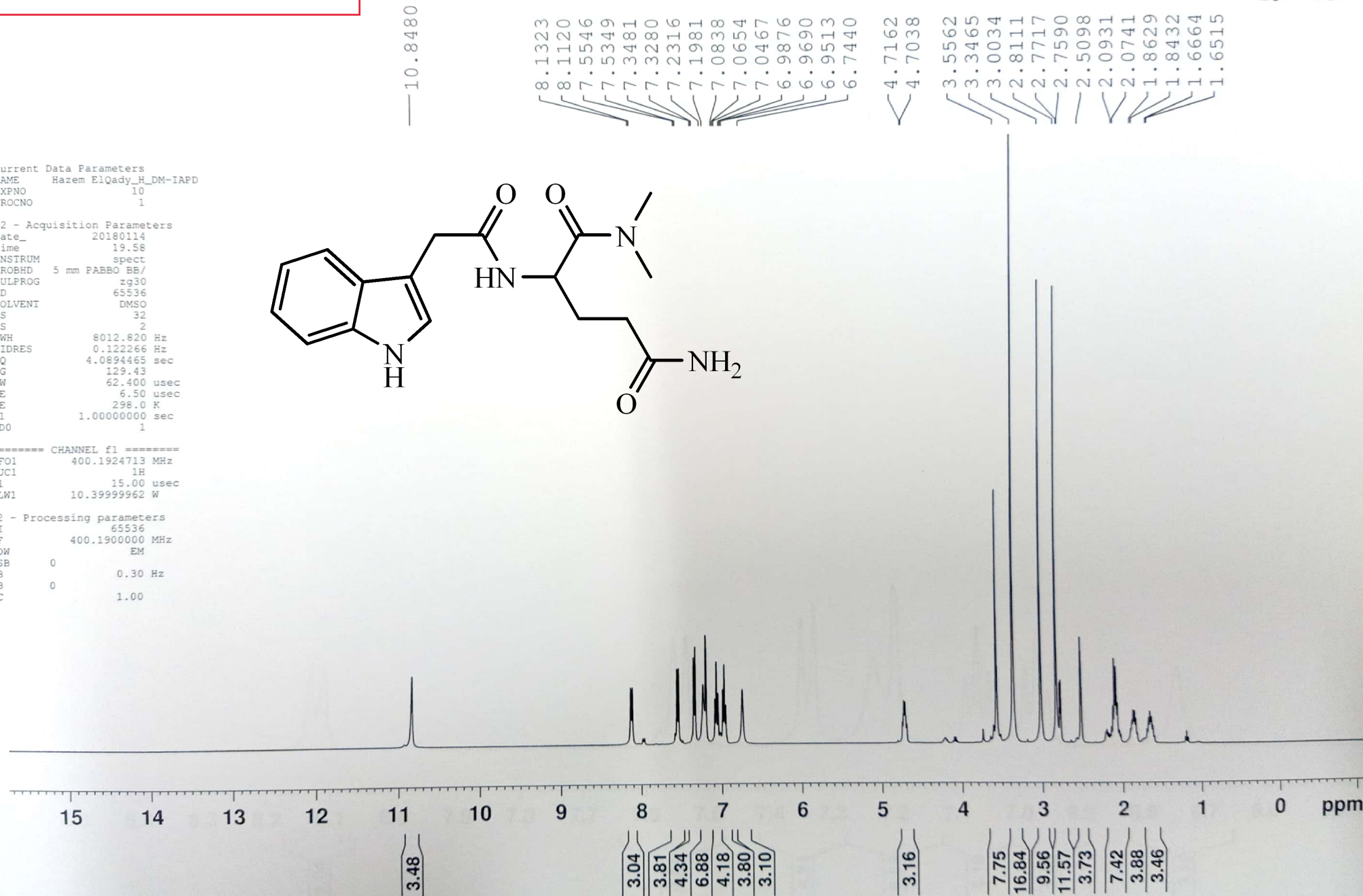
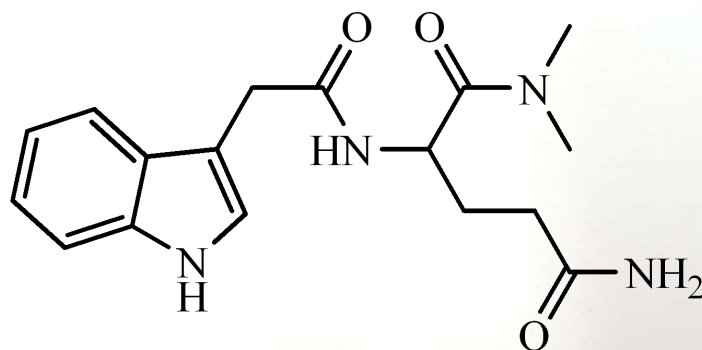
¹H NMR of compound 12

Current Data Parameters
NAME Hazem ElQady_H_DM-IAPD
EXPNO 10
PROCNO 1

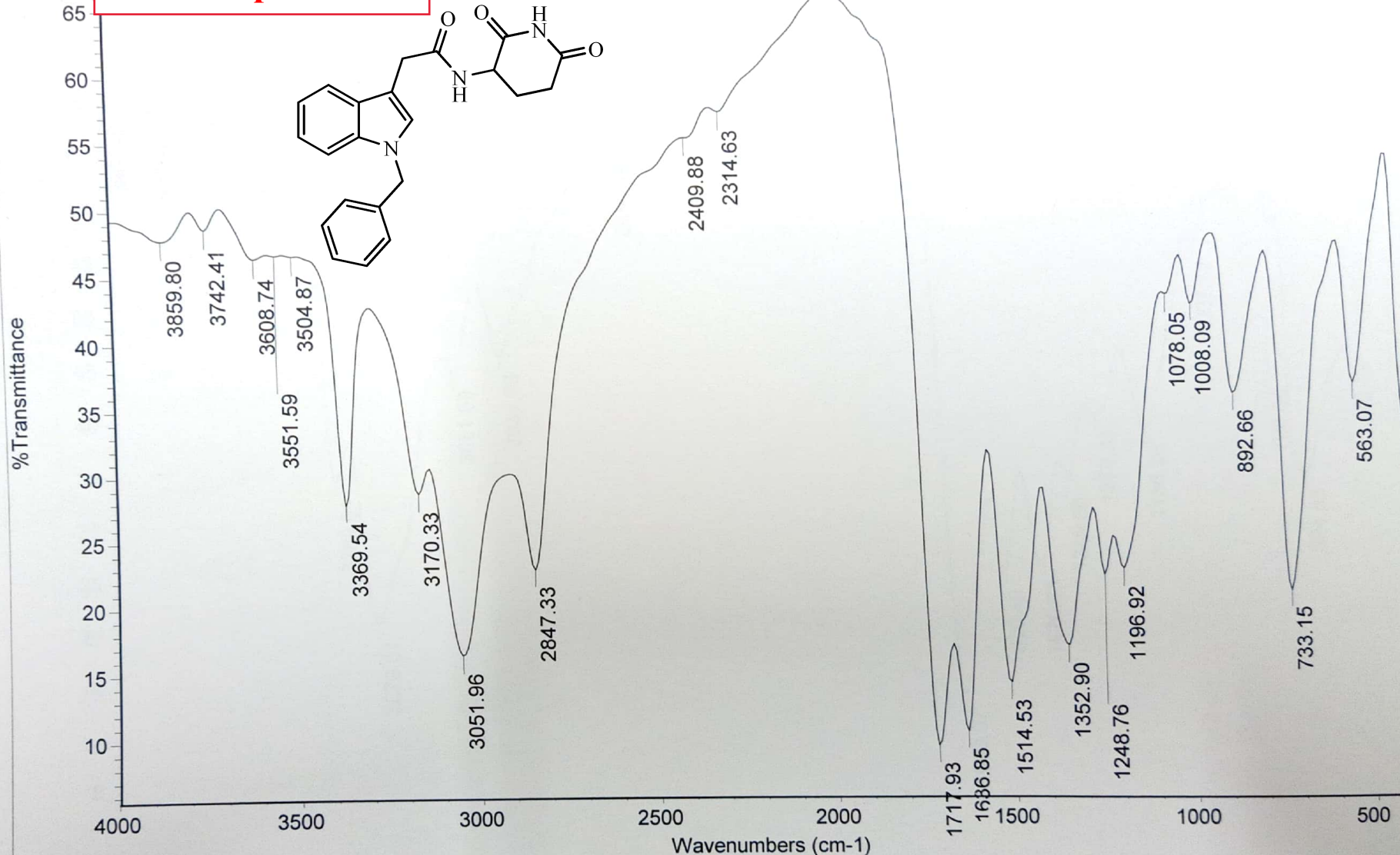
F2 - Acquisition Parameters
Date_ 20180114
Time 19.58
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 32
DS 2
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894465 sec
RG 129.43
DW 62.400 usec
DE 6.50 usec
TE 298.0 K
D1 1.00000000 sec
TD0 1

===== CHANNEL f1 =====
SFO1 400.1924713 MHz
NUC1 1H
P1 15.00 usec
PLW1 10.39999962 W

F2 - Processing parameters
SI 65536
SF 400.1900000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



IR of compound 15

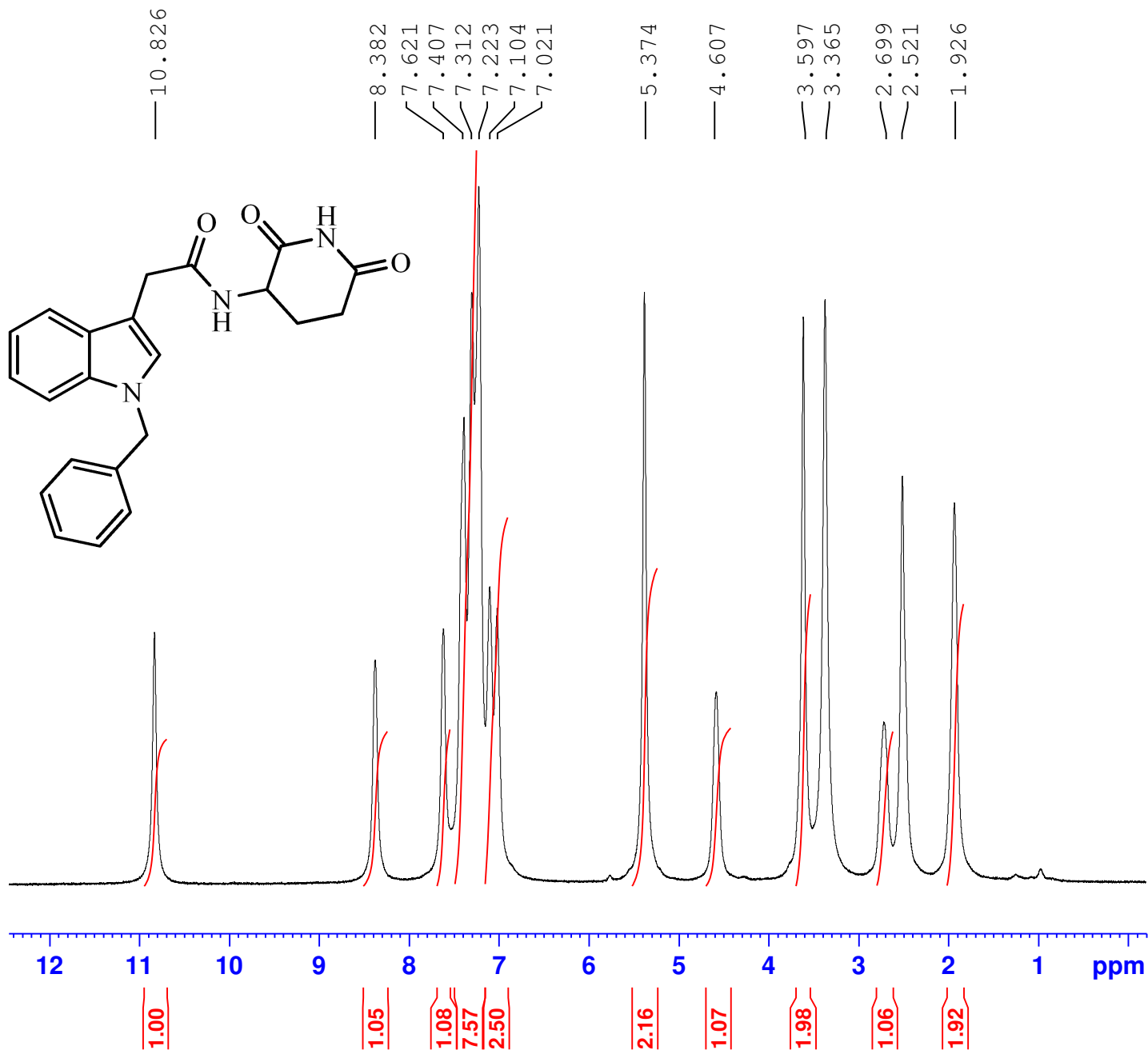


Date: Tue Jul 03 15:38:53 2018 (GMT-07:00)INA BZ PD

Scans: 100

Resolution: 16.000

¹H NMR of compound 15



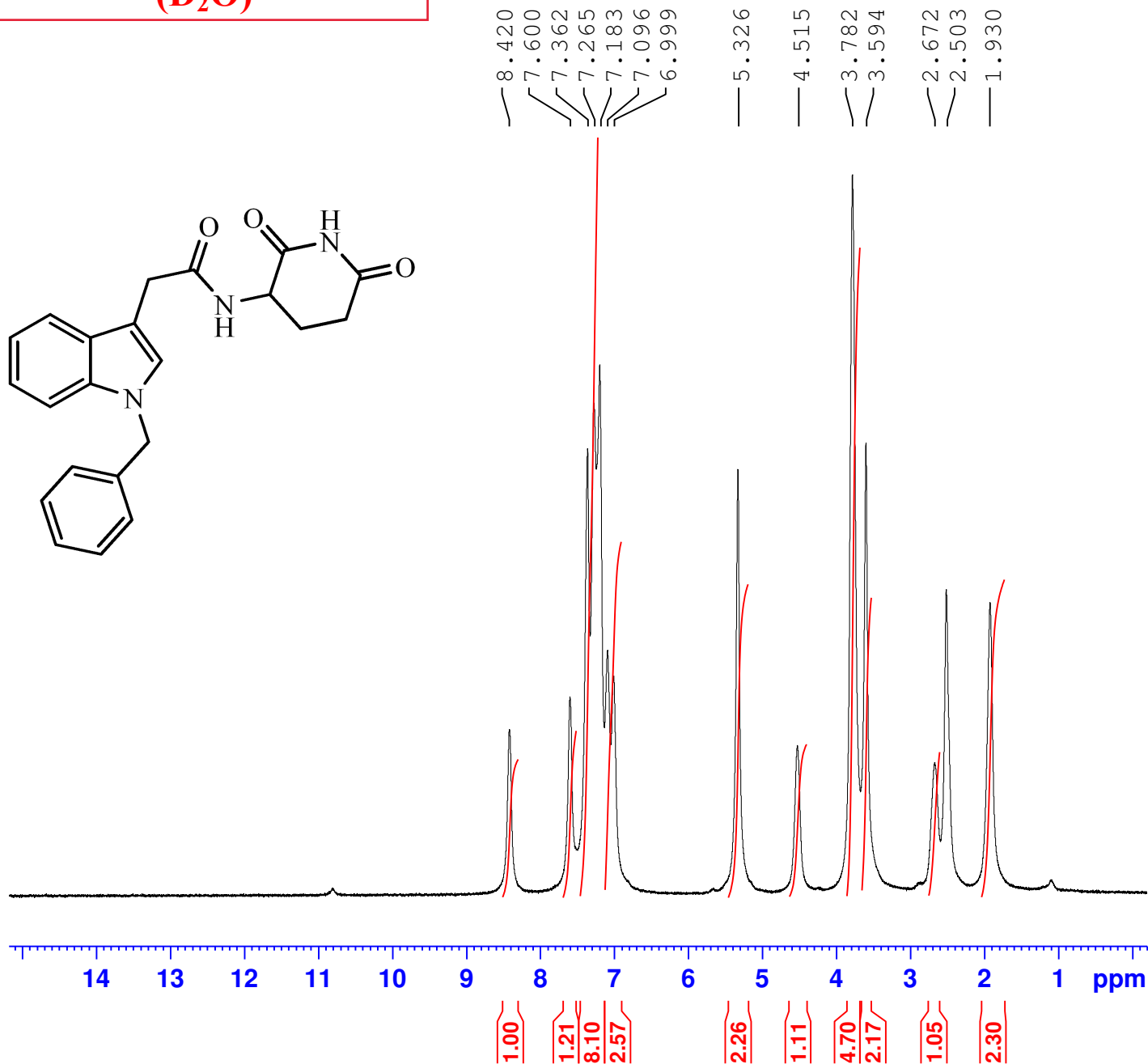
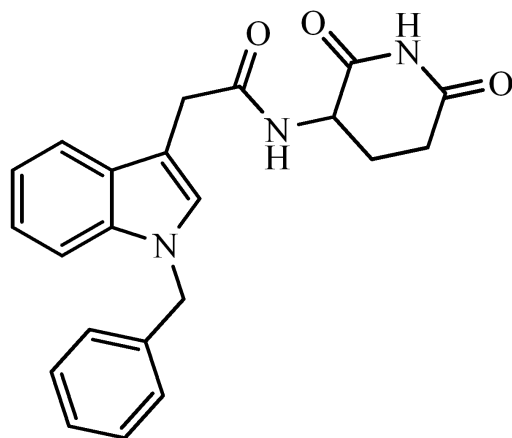
Current Data Parameters
NAME hazem-INA-BZ-PD
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20180307
Time 8.53
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 58
DS 2
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894465 sec
RG 205.37
DW 62.400 usec
DE 6.50 usec
TE 298.0 K
D1 1.00000000 sec
TD0 1

==== CHANNEL f1 =====
SFO1 400.1524711 MHz
NUC1 1H
P1 12.00 usec
PLW1 18.00000000 W

F2 - Processing parameters
SI 65536
SF 400.1500000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

**¹H NMR of compound 15
(D₂O)**



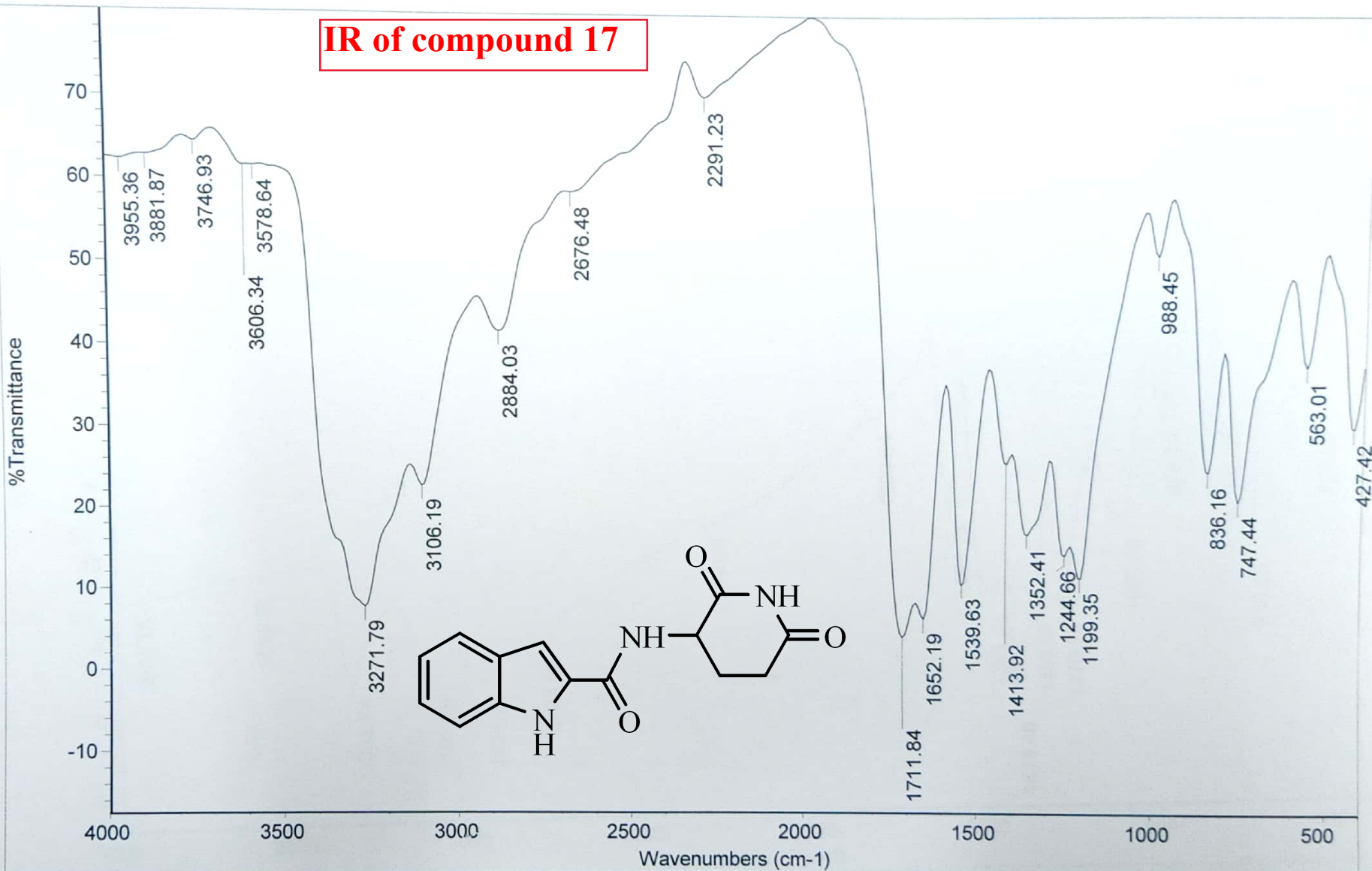
Current Data Parameters
 NAME hazem-INA-BZ-PD-d2o
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20180307
 Time 9.08
 INSTRUM spect
 PROBHD 5 mm PABBO BB/
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 30
 DS 2
 SWH 8012.820 Hz
 FIDRES 0.122266 Hz
 AQ 4.0894465 sec
 RG 205.37
 DW 62.400 usec
 DE 6.50 usec
 TE 298.0 K
 D1 1.00000000 sec
 TD0 1

===== CHANNEL f1 =====
 SFO1 400.1524711 MHz
 NUC1 1H
 P1 12.00 usec
 PLW1 18.00000000 W

F2 - Processing parameters
 SI 65536
 SF 400.1500000 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

IR of compound 17

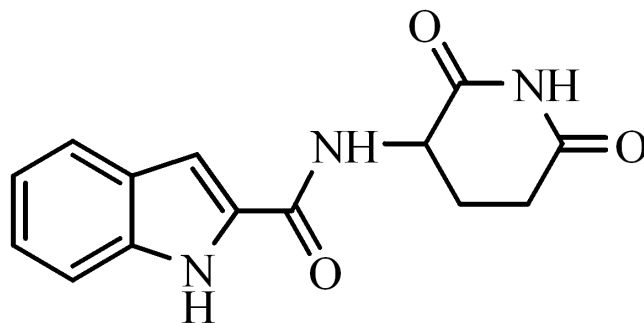


Date: Tue Jul 03 10:53:32 2018 (GMT-07:00)IN2PD

Scans: 100

Resolution: 16.000

¹H NMR of compound 17

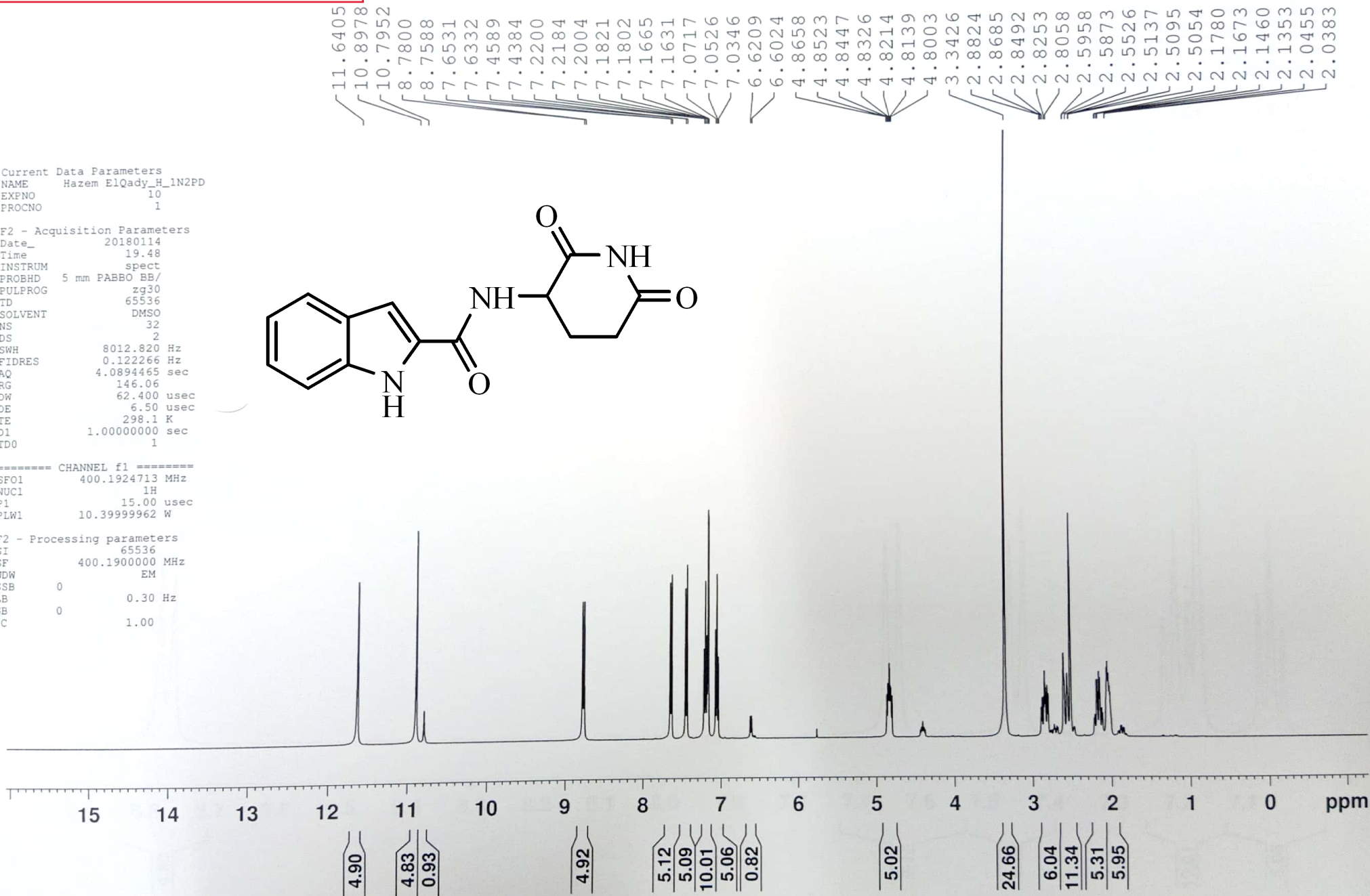


Current Data Parameters
NAME Hazem ElQady_H_1N2PD
EXPNO 10
PROCNO 1

F2 - Acquisition Parameters
Date_ 20180114
Time 19.48
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 32
DS 2
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894465 sec
RG 146.06
DW 62.400 usec
DE 6.50 usec
TE 298.1 K
D1 1.00000000 sec
TD0 1

===== CHANNEL f1 =====
SFO1 400.1924713 MHz
NUC1 1H
P1 15.00 usec
PLW1 10.39999962 W

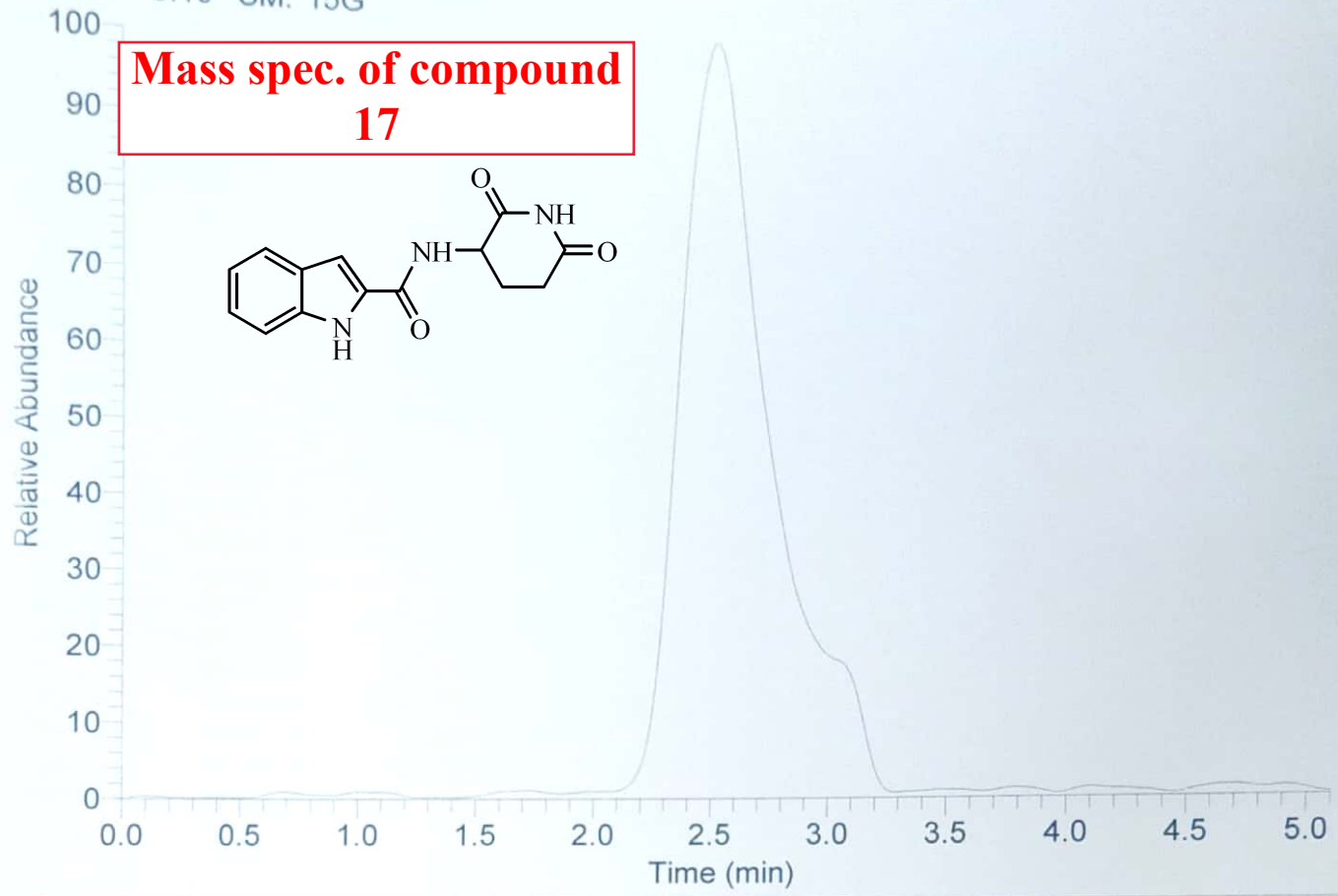
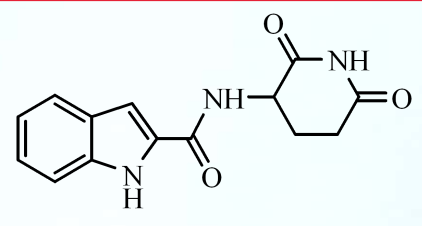
F2 - Processing parameters
SI 65536
SF 400.1900000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



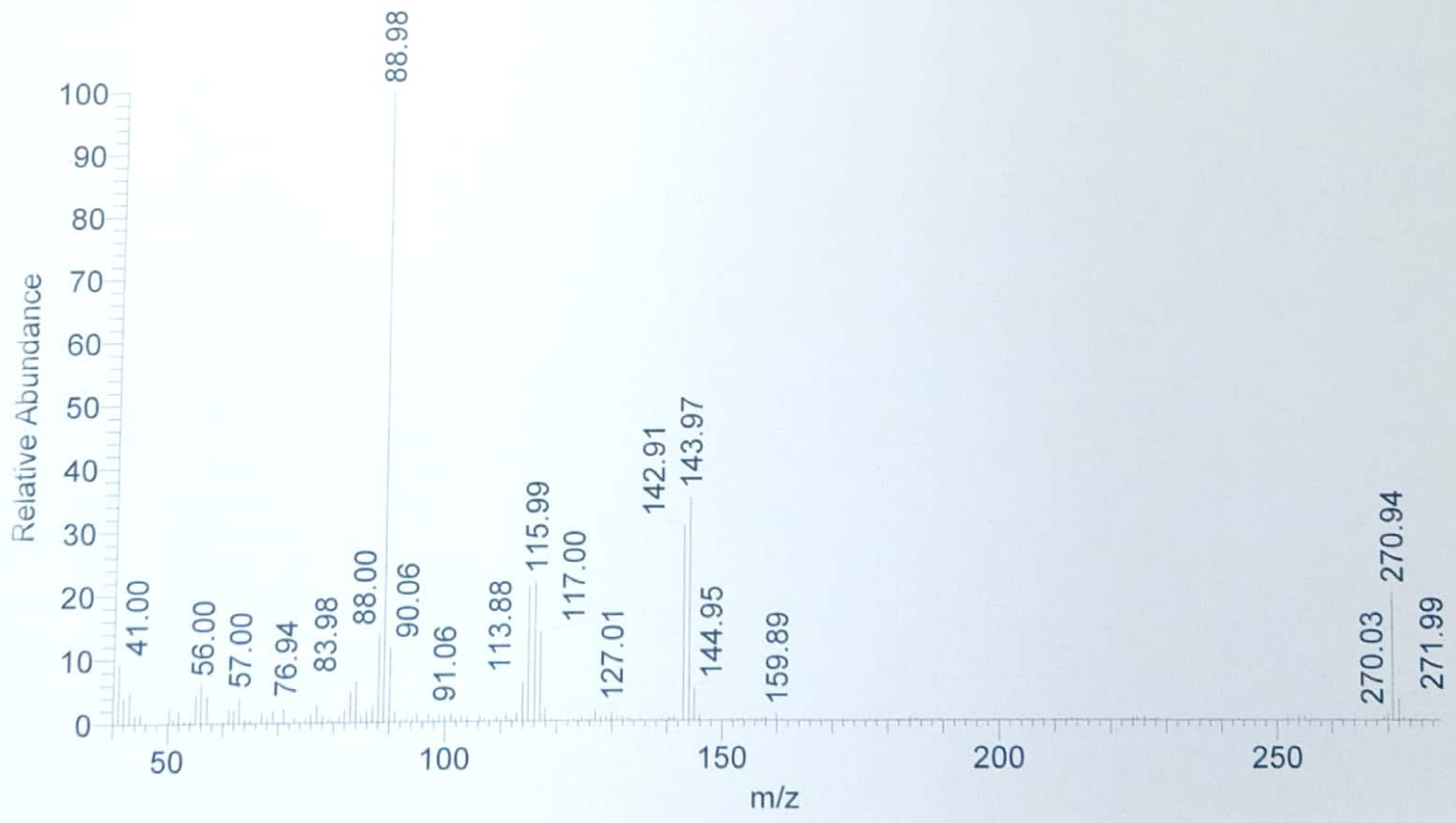
RT: 0.00 - 5.10 SM: 15G

NL:
2.48E6
TIC MS
HAZEM-
ELKADY-
IN2PD

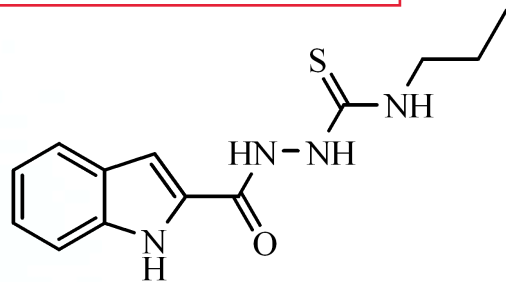
**Mass spec. of compound
17**



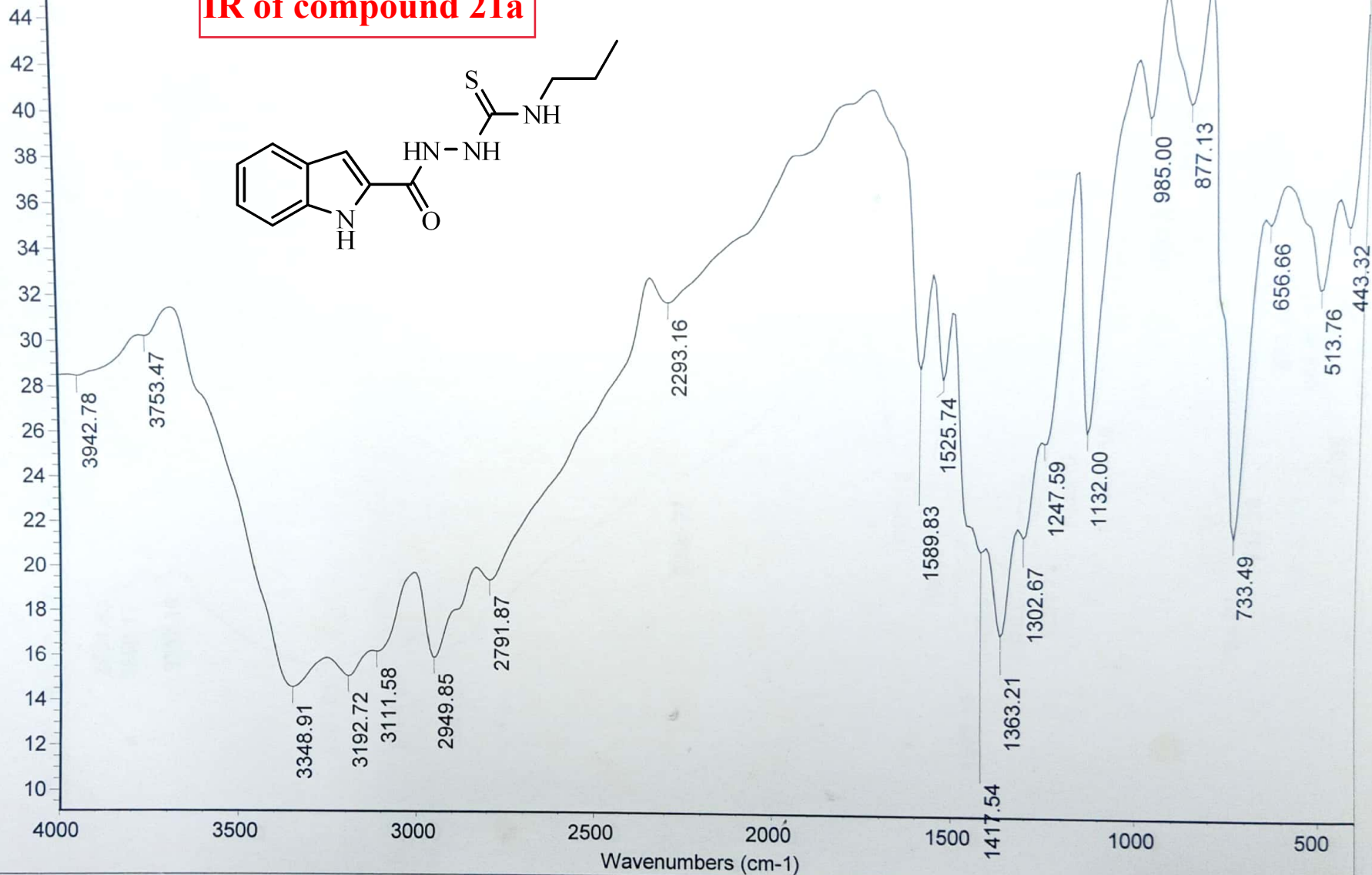
HAZEM-ELKADY-IN2PD #143 RT: 2.41 AV: 1 SB: 5 2.73 , 2.71-2.76 NL: 2.77E5
T: {0,0} + c EI Full ms [40.00-1000.00]



IR of compound 21a



% Transmittance

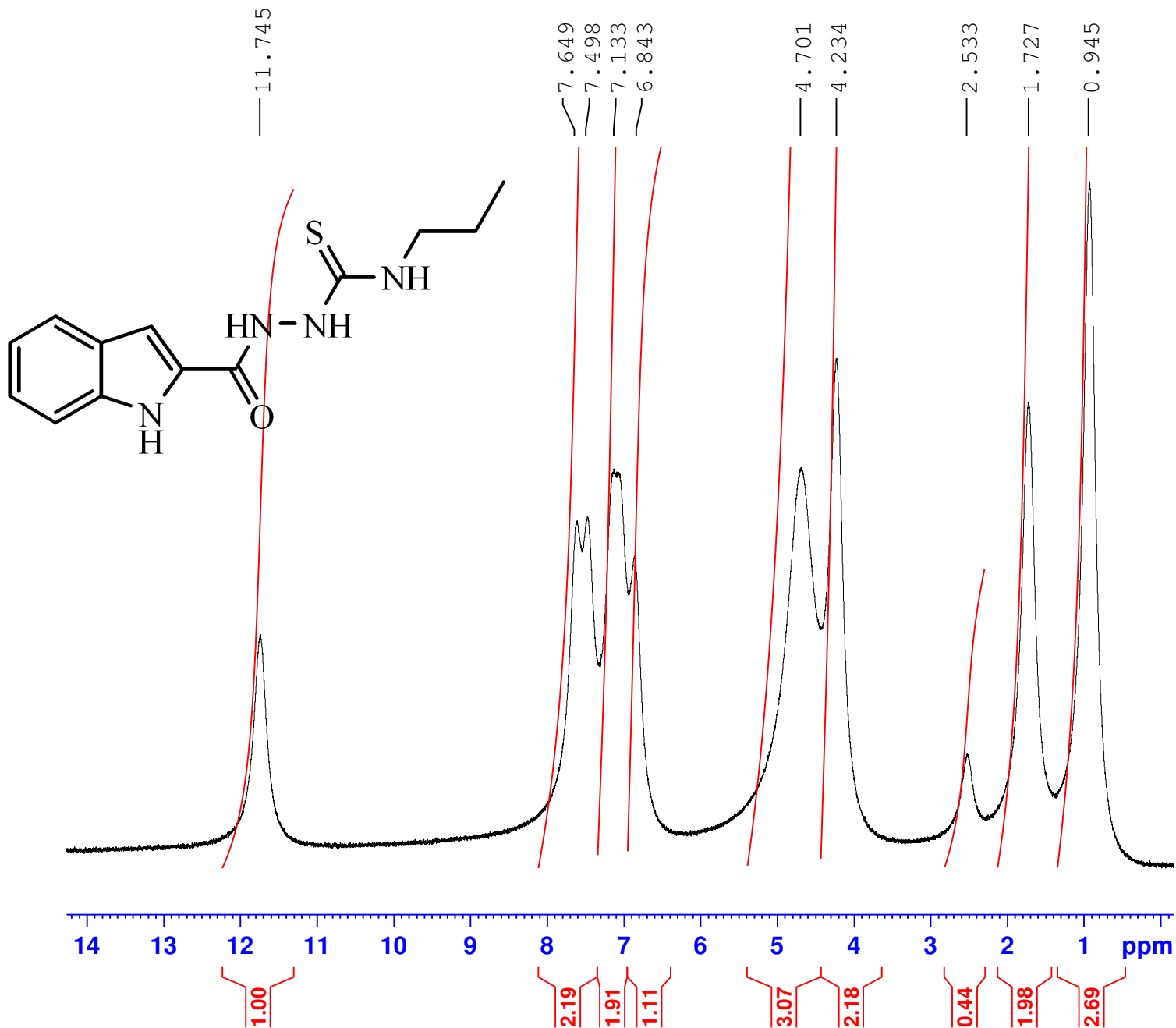


Date: Mon Jul 02 13:58:53 2018 (GMT-07:00)IN2-PROP

Scans: 100

Resolution: 16.000

¹H NMR of compound 21a



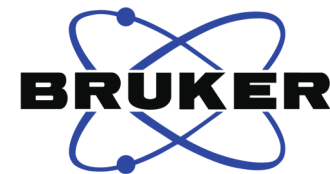
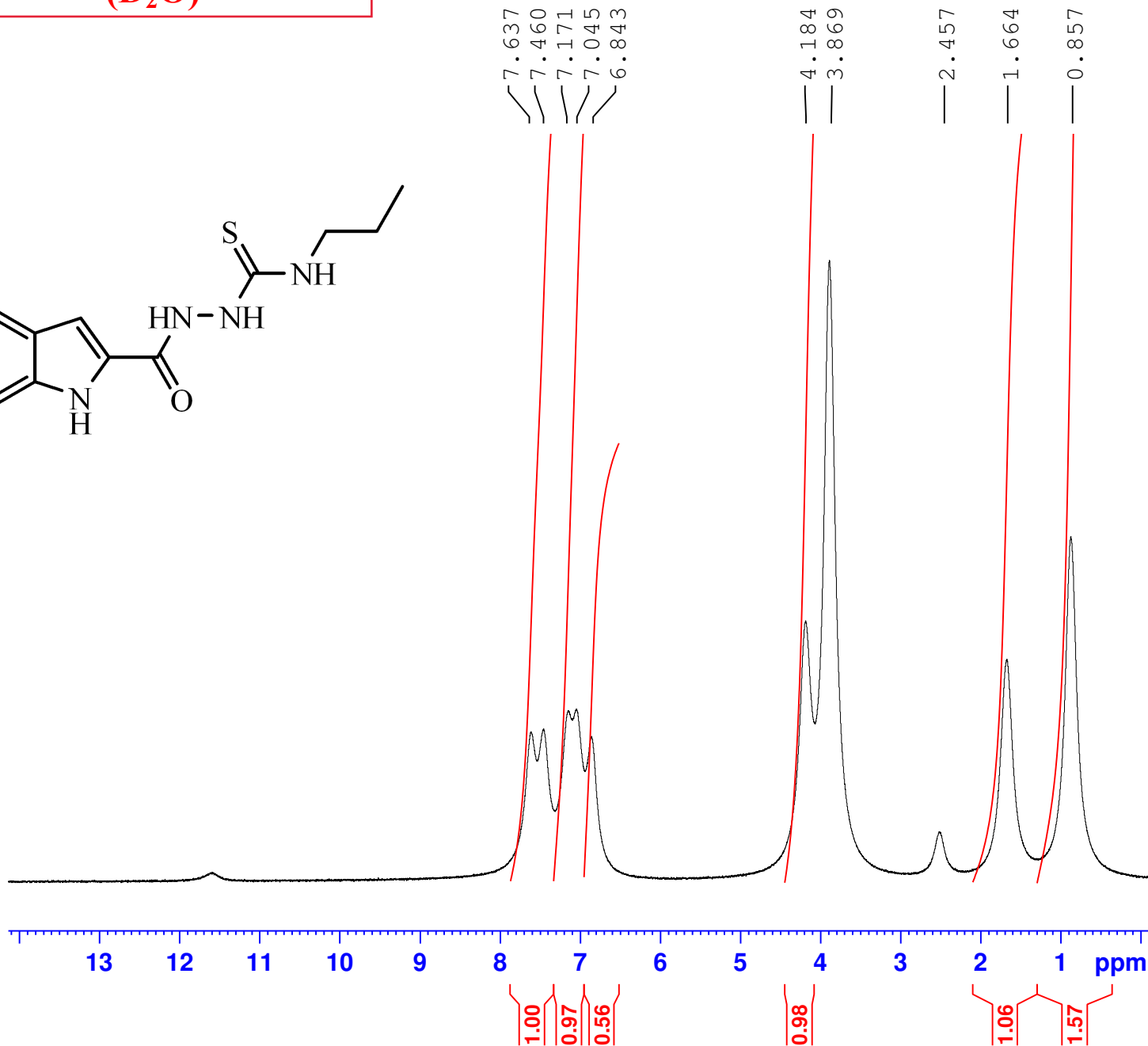
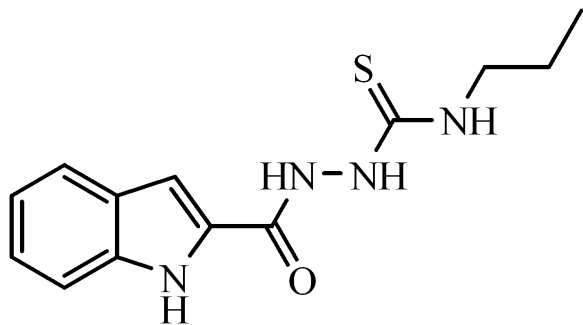
Current Data Parameters
NAME hazem-IN2-propyl
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20180606
Time 8.28
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 32
DS 2
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894465 sec
RG 205.37
DW 62.400 usec
DE 6.50 usec
TE 298.0 K
D1 1.00000000 sec
TD0 1

===== CHANNEL f1 =====
SFO1 400.1524711 MHz
NUC1 1H
P1 12.00 usec
PLW1 18.00000000 W

F2 - Processing parameters
SI 65536
SF 400.1500000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

**¹H NMR of compound 21a
(D₂O)**



Current Data Parameters
NAME hazem-IN2-propyl-d2o
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20180606
Time 8.48
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 42
DS 2
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894465 sec
RG 205.37
DW 62.400 usec
DE 6.50 usec
TE 298.0 K
D1 1.00000000 sec
TD0 1

==== CHANNEL f1 =====
SFO1 400.1524711 MHz
NUC1 1H
P1 12.00 usec
PLW1 18.00000000 W

F2 - Processing parameters
SI 65536
SF 400.1500000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

¹³CNMR of compound 21a

Microanalytical Unit - FOPCU - NMR laboratory
www.pharma.cu.edu.eg dir-mau.fopcu@pharma.cu.edu.eg



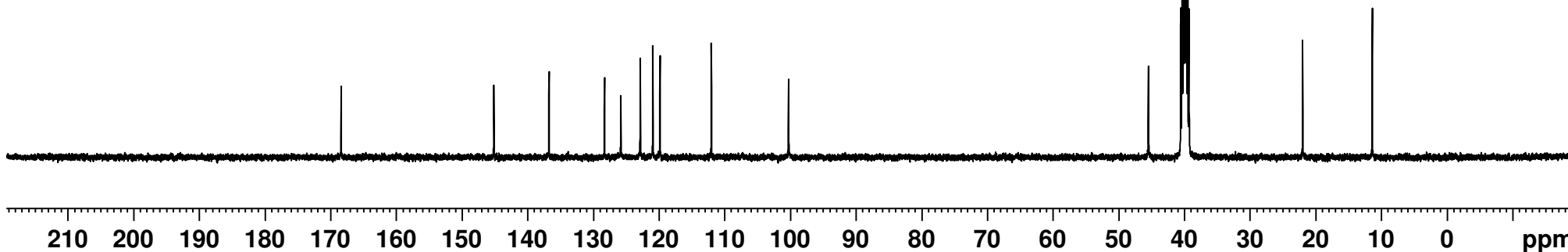
— 168.48
— 145.23
— 136.83
— 128.38
— 125.90
— 122.94
— 121.02
— 119.93
— 112.10
— 100.34
45.54
40.61
40.40
40.19
39.98
39.77
39.56
39.35
— 22.05
— 11.45

Current Data Parameters
NAME Hazem ElQady_C_IN2-prop
EXPNO 10
PROCNO 1

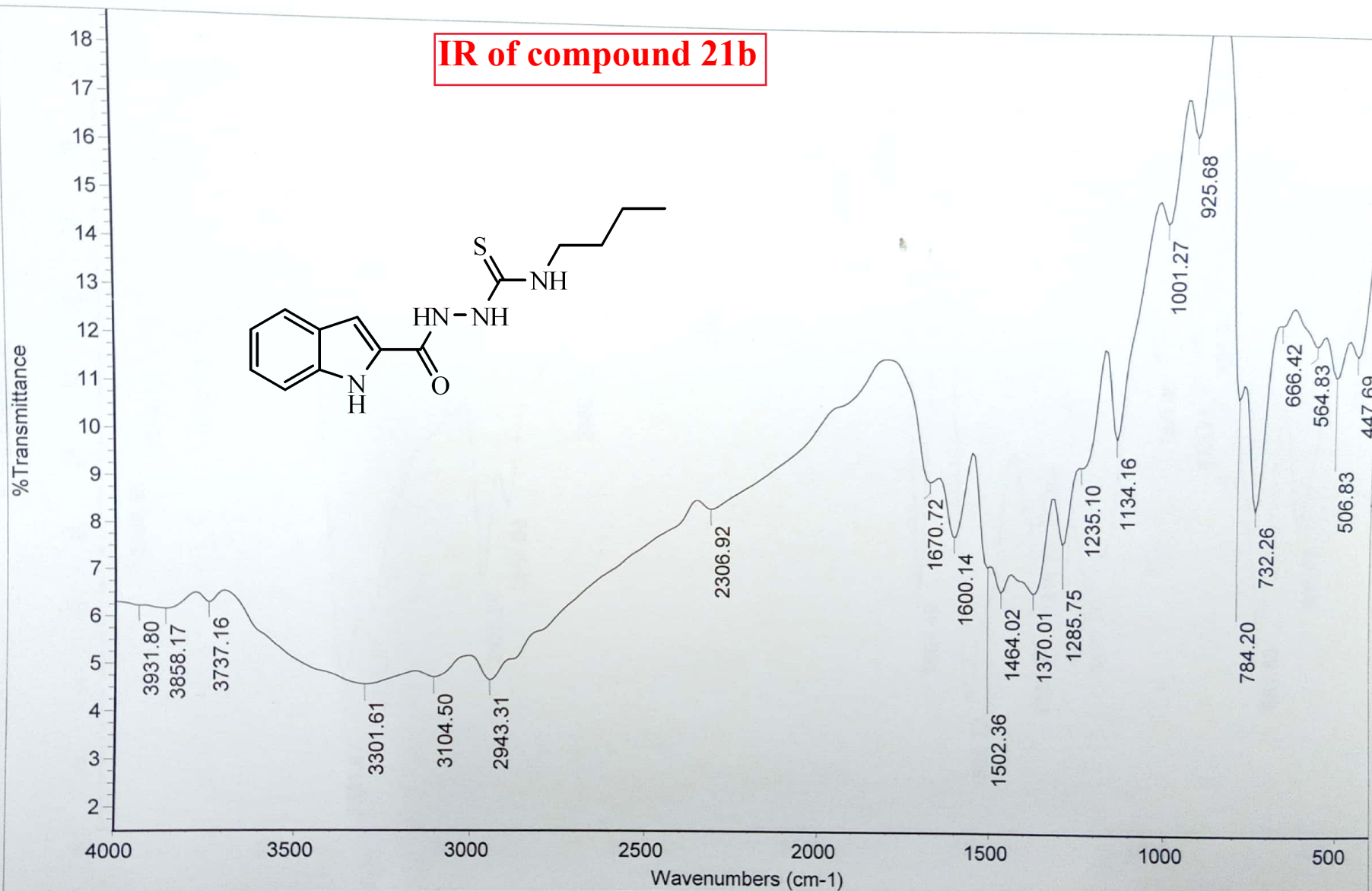
F2 - Acquisition Parameters
Date_ 20180712
Time 20.04
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 1200
DS 4
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631488 sec
RG 202.37
DW 20.800 usec
DE 6.50 usec
TE 298.1 K
D1 2.00000000 sec
D11 0.03000000 sec
TDO 1

==== CHANNEL f1 =====
SFO1 100.6379178 MHz
NUC1 13C
P1 10.00 usec
PLW1 45.00000000 W

==== CHANNEL f2 =====
SFO2 400.1916008 MHz
NUC2 1H
CPDPRG[2] waltz16



IR of compound 21b

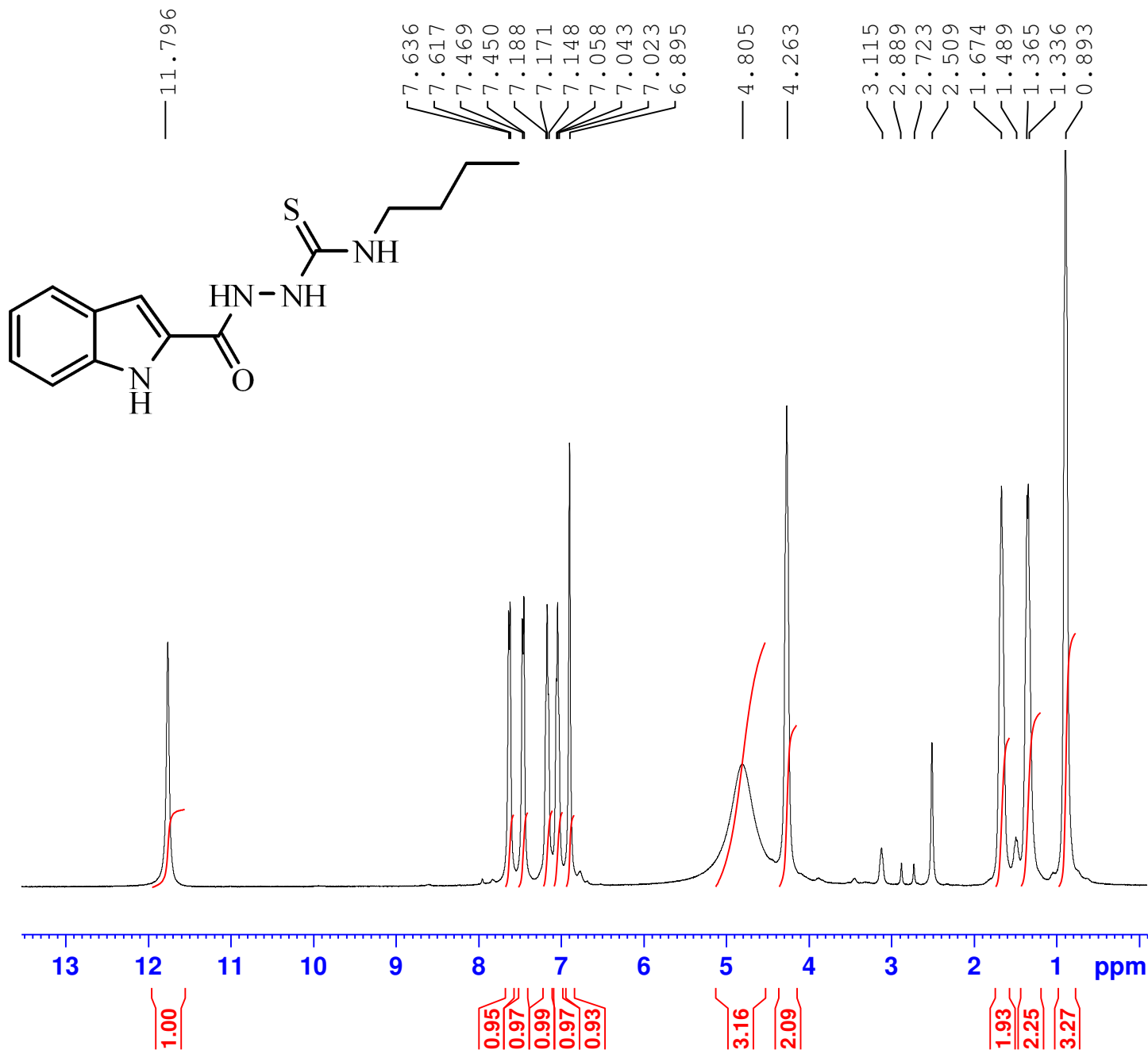


Date: Tue Jul 03 15:32:33 2018 (GMT-07:00) IN2 BUTYL

Scans: 100

Resolution: 16.000

¹H NMR of compound 21b



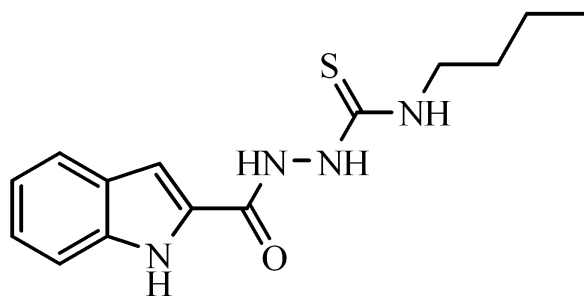
Current Data Parameters
NAME hazem-IN2-butyl
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20180606
Time 8.42
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 62
DS 2
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894465 sec
RG 205.37
DW 62.400 usec
DE 6.50 usec
TE 298.0 K
D1 1.00000000 sec
TD0 1

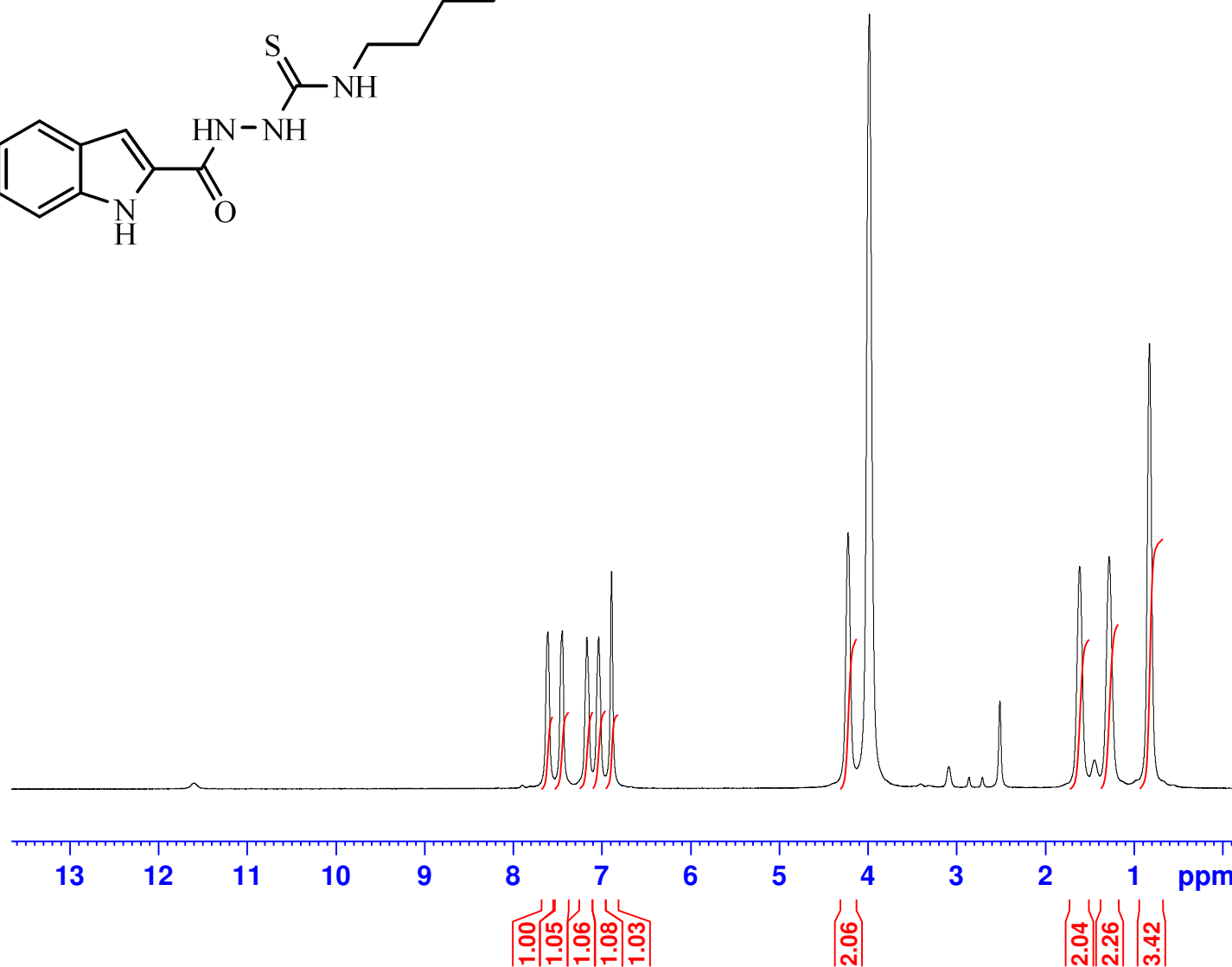
==== CHANNEL f1 =====
SFO1 400.1524711 MHz
NUC1 1H
P1 12.00 usec
PLW1 18.00000000 W

F2 - Processing parameters
SI 65536
SF 400.1500000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

¹H NMR of compound 21b (D₂O)



7.628
7.464
7.163
7.045
6.895
4.228
3.983
2.516
1.618
1.270
0.823



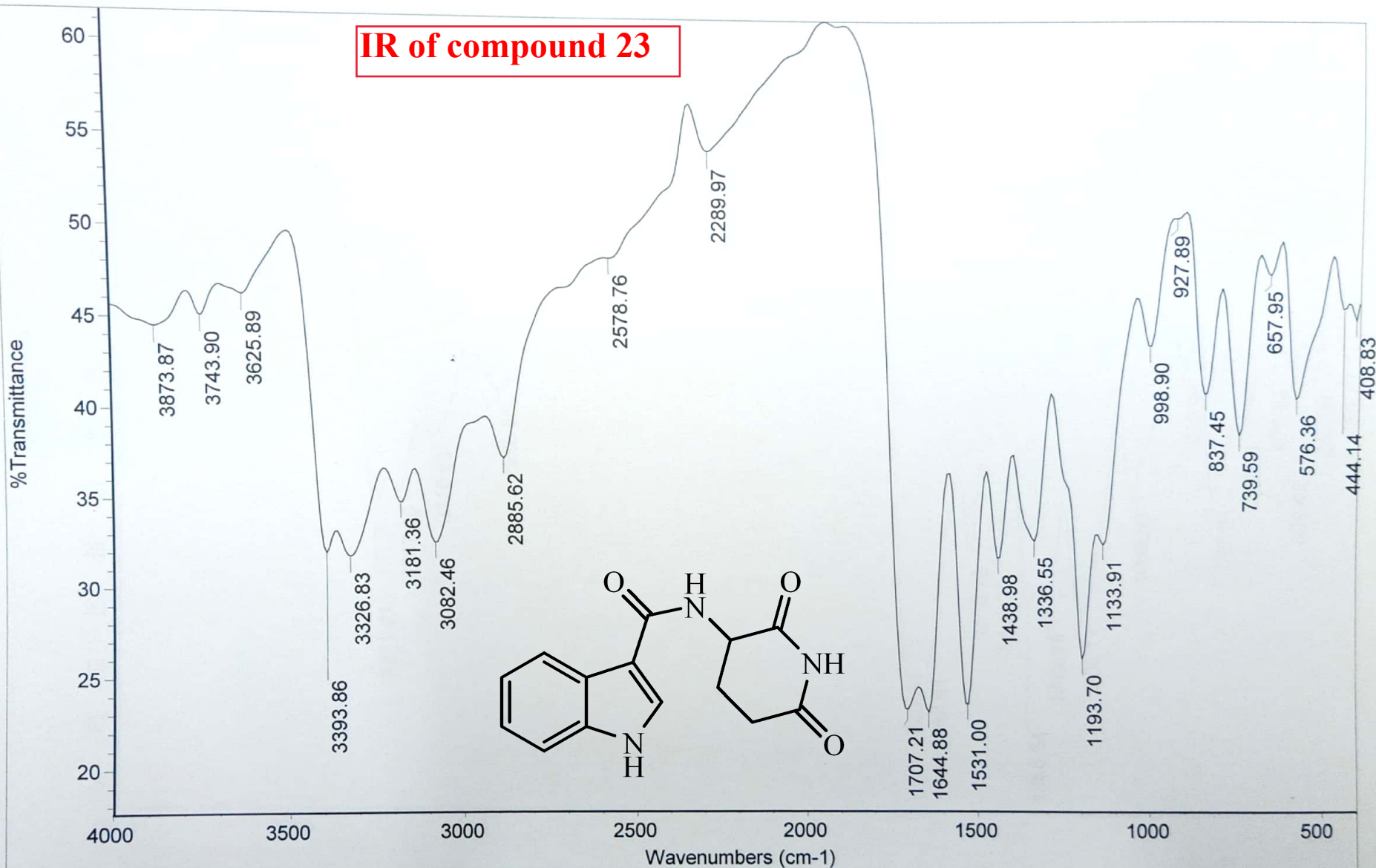
Current Data Parameters
NAME hazem-IN2-butyl-d2o
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20180606
Time 8.57
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 64
DS 2
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894465 sec
RG 205.37
DW 62.400 usec
DE 6.50 usec
TE 298.0 K
D1 1.00000000 sec
TD0 1

==== CHANNEL f1 =====
SFO1 400.1524711 MHz
NUC1 1H
P1 12.00 usec
PLW1 18.00000000 W

F2 - Processing parameters
SI 65536
SF 400.1500000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

IR of compound 23

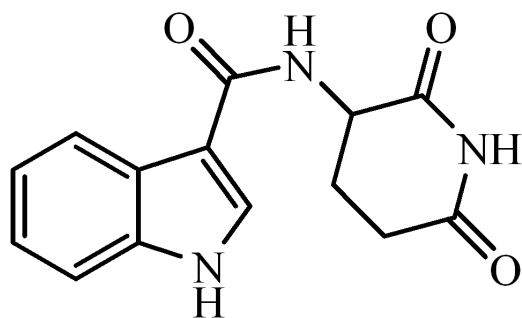


Date: Mon Jul 02 17:46:59 2018 (GMT-07:00IN3PD)

Scans: 100

Resolution: 16.000

¹H NMR of compound 23

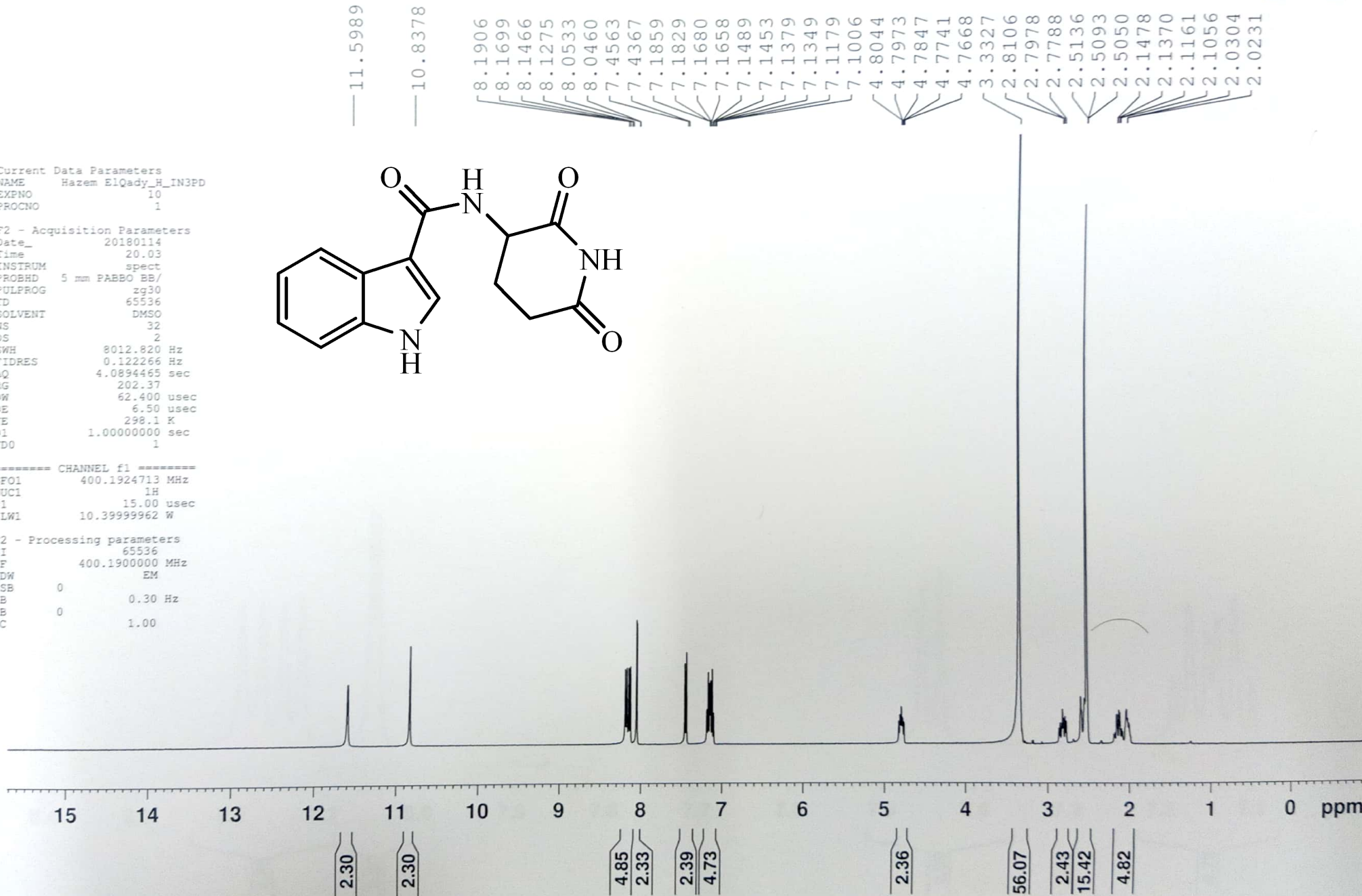


Current Data Parameters
NAME Hazem ElQady_H_IN3PD
EXPNO 10
PROCNO 1

F2 - Acquisition Parameters
Date_ 20180114
Time 20.03
INSTRUM spect
PROBHD 5 mm PABBO BB/
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 32
DS 2
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894465 sec
RG 202.37
DW 62.400 usec
DE 6.50 usec
TE 298.1 K
D1 1.00000000 sec
TD0 1

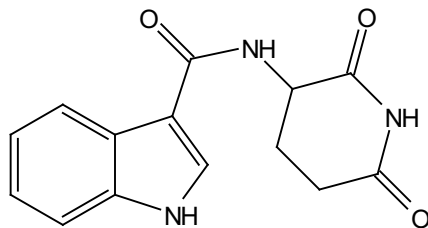
===== CHANNEL f1 =====
SFO1 400.1924713 MHz
NUC1 1H
P1 15.00 usec
PLW1 10.39999962 W

F2 - Processing parameters
SI 65536
SF 400.1900000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



¹³CNMR of compound 23

Hazem ElQady_C_IN3PD



173.63
173.32

164.87

136.60

128.66

126.51

122.42

121.40

120.92

112.36

110.58

49.36

40.60 DMSO

40.39 DMSO

40.18 DMSO

39.97 DMSO

39.76 DMSO

39.55 DMSO

39.35 DMSO

31.58

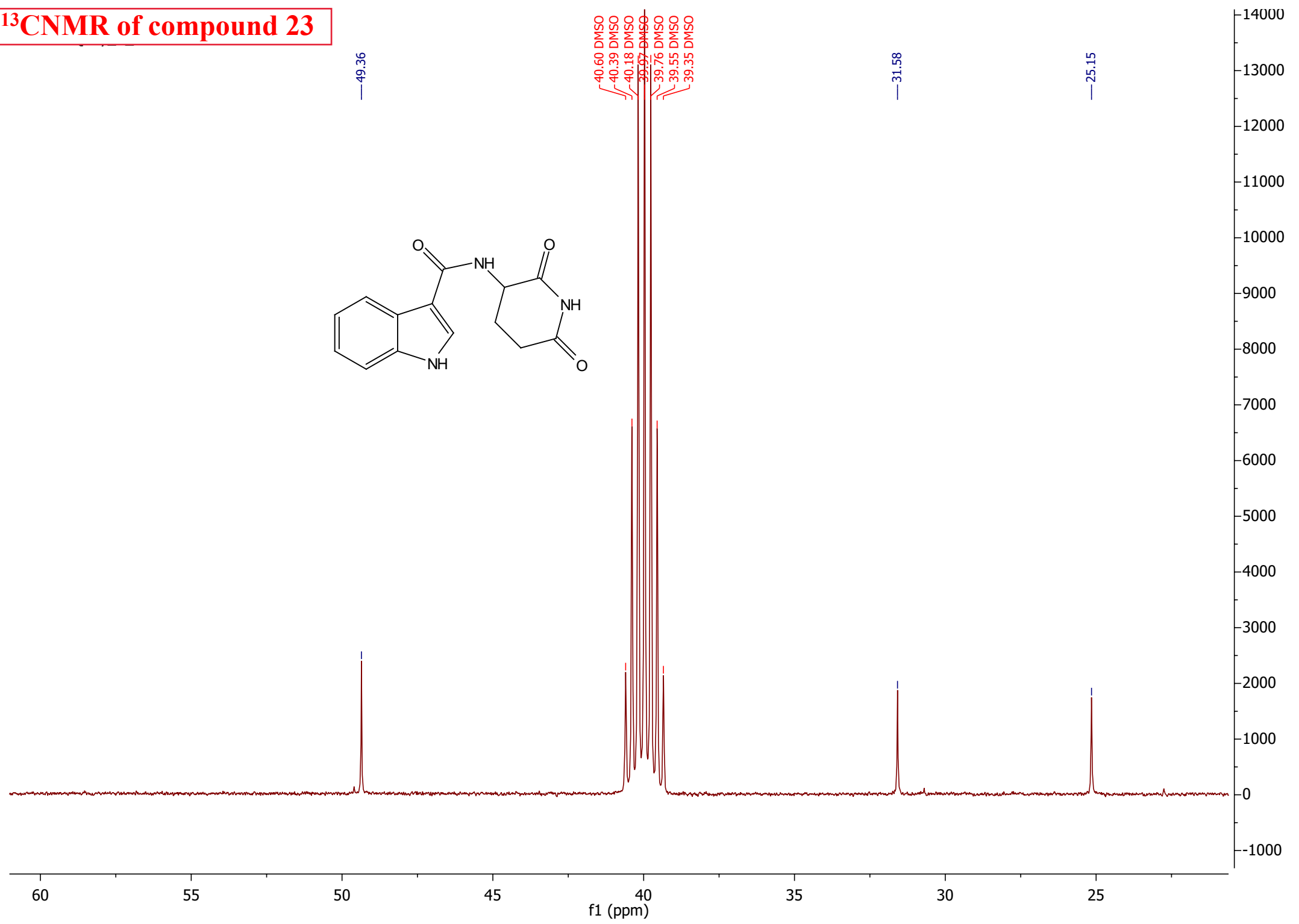
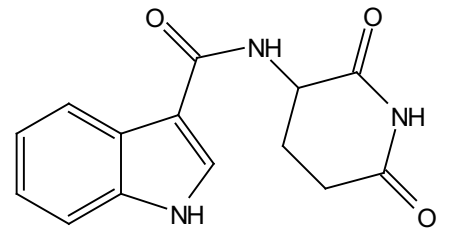
25.15

210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 -10

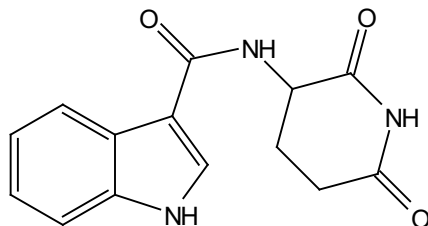
f1 (ppm)

16000
15000
14000
13000
12000
11000
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
-1000

¹³CNMR of compound 23



¹³CNMR of compound 23



173.63
173.32

164.87

136.60

128.66

126.51

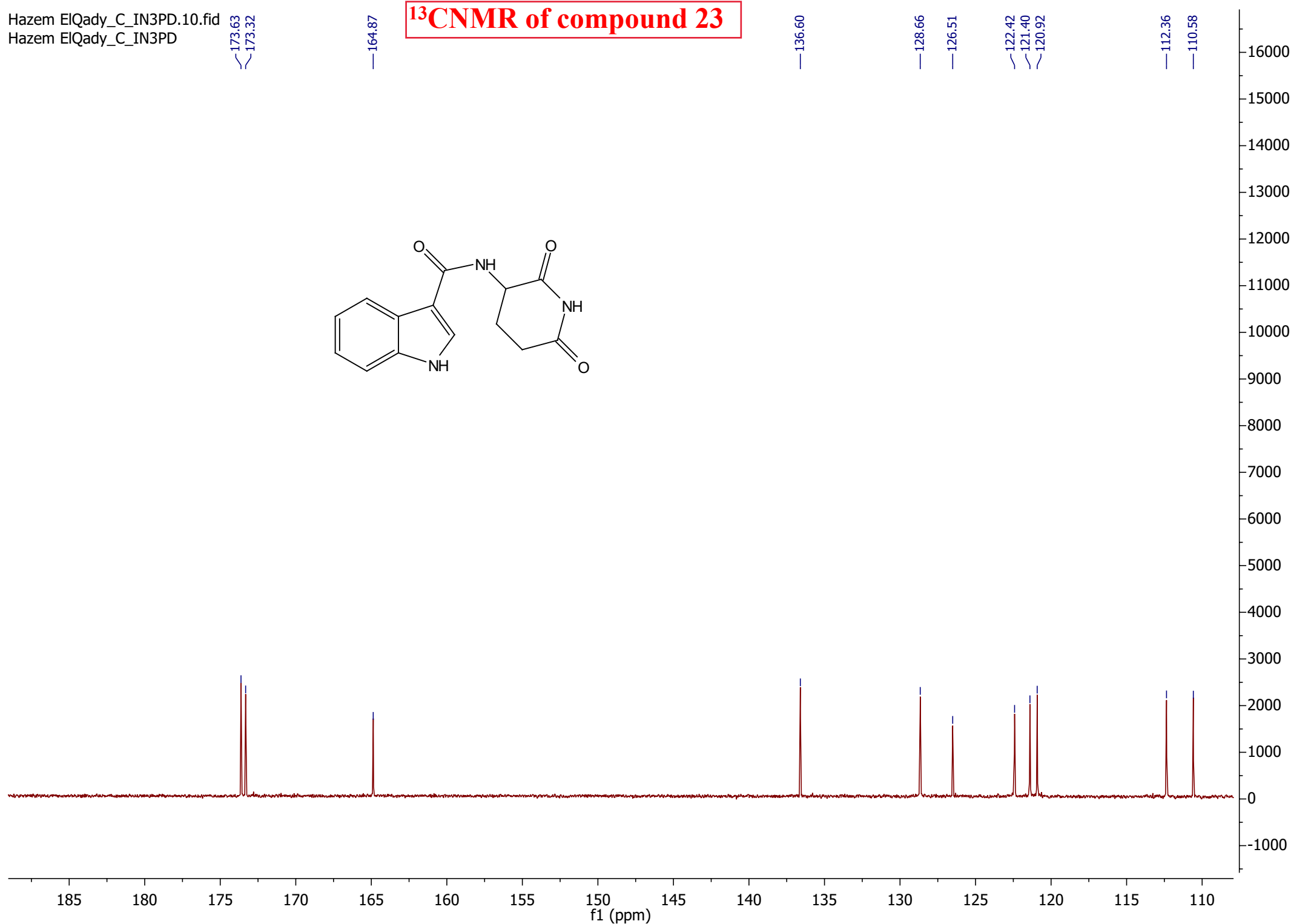
122.42

121.40

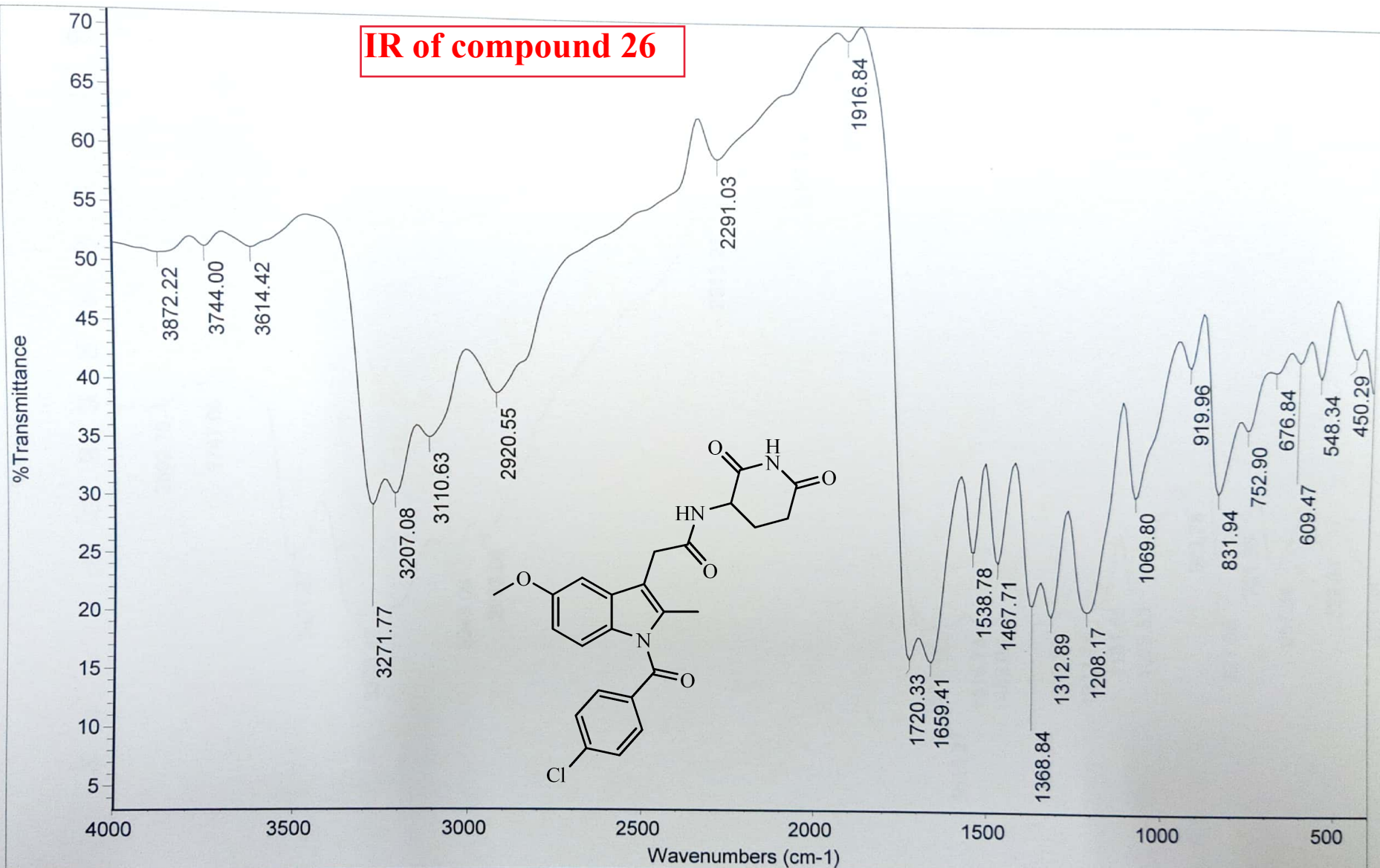
120.92

112.36

110.58



IR of compound 26



Date: Tue Jul 03 11:07:36 2018 (GMT-07:00)INDOM 1

Scans: 100

Resolution: 16.000

¹H NMR of compound 26

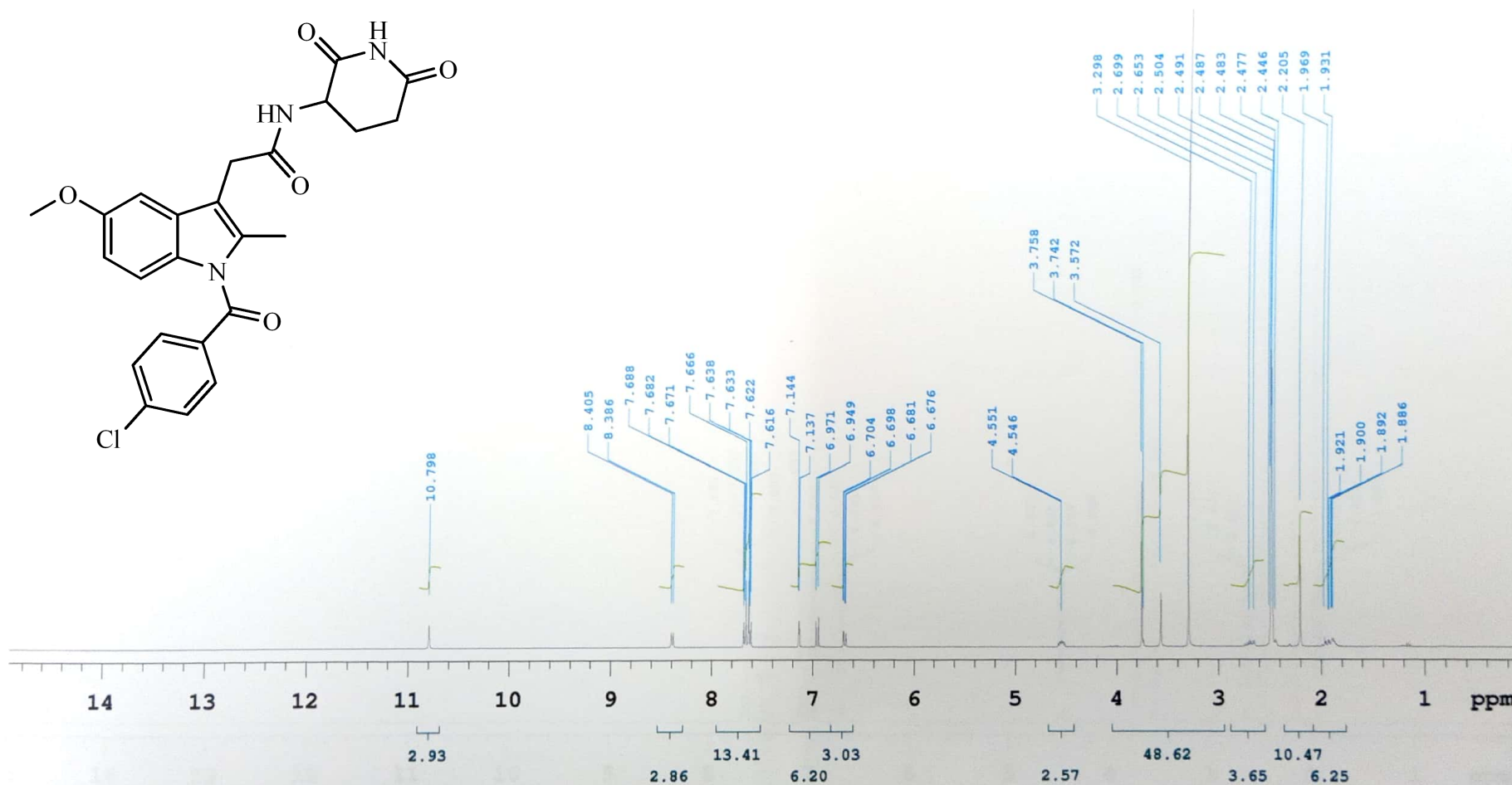
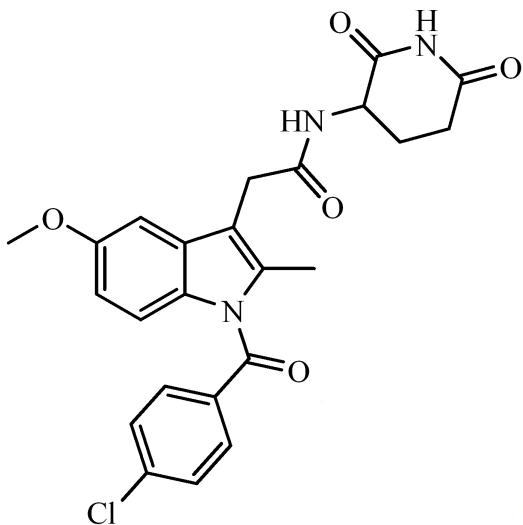
Dr_HazemElkady-indome1

Sample Name Dr_HazemElkady-indome1
Date collected 2017-11-19
Pulse sequence PROTON
Solvent dms0

Temperature 25
Spectrometer nmr400-mercury400

Study owner vnmr1
Operator vnmr1

Dr_HazemElkady-indome1



Plotname: Dr_HazemElkady-indome1_PROTON_01_plot05

Data file /home/data/NMRlab2017/Nov/Dr_HazemElkady-indome1_20171119_01/Dr_HazemElkady-indome1_PROTON_01

Plot date 2017-11-22

¹H NMR of compound 26

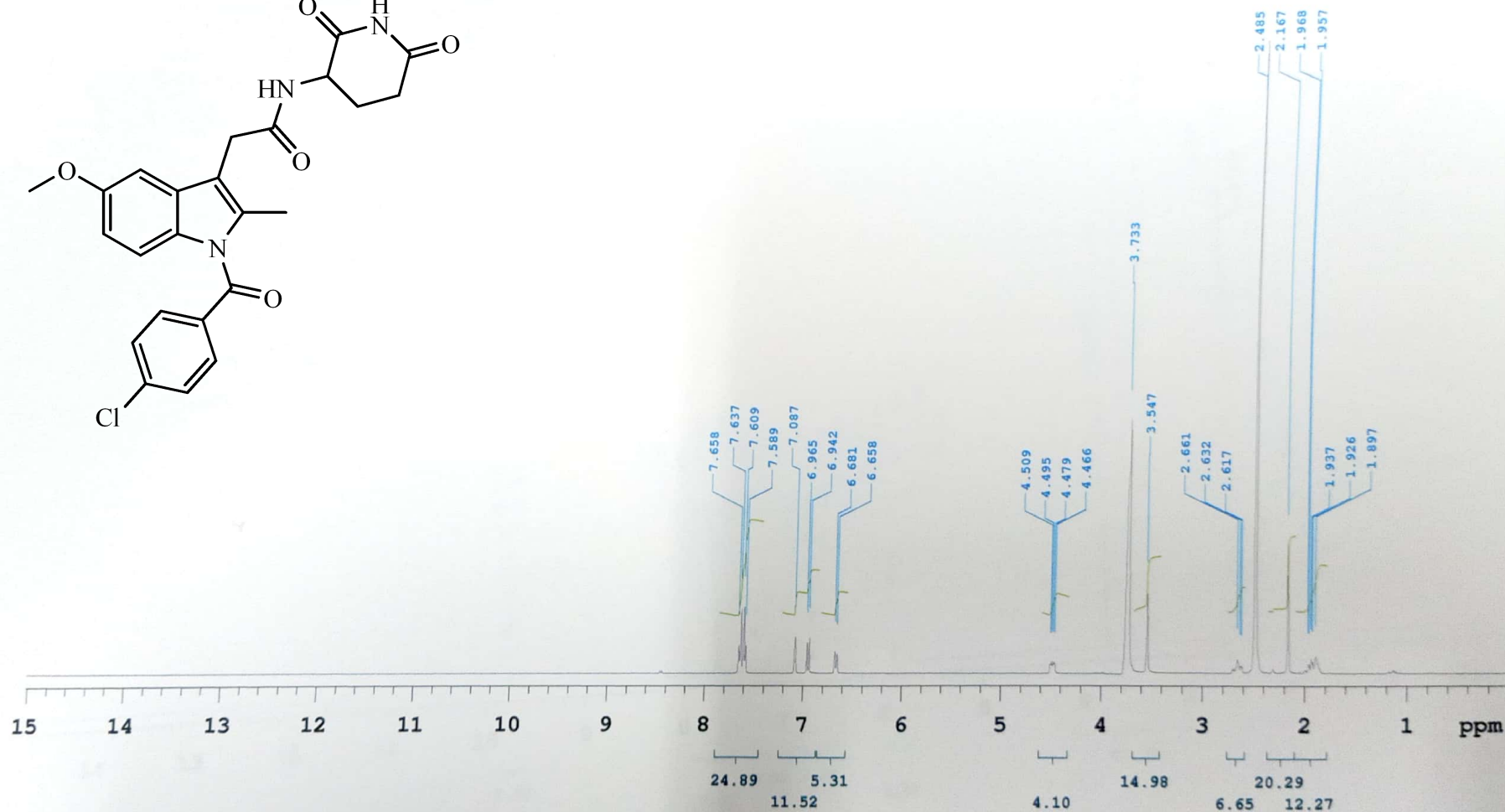
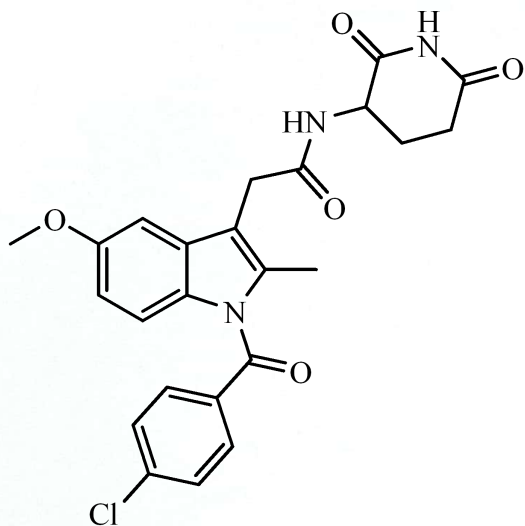
Dr_HazemElkady-indome1-D2O

Sample Name Dr_HazemElkady-indome1-D2O Pulse sequence PROTON
Date collected 2017-11-20 Solvent dms0

Temperature 25
Spectrometer nmr400-mercury400

Study owner vnmr1
Operator vnmr1

Dr_HazemElkady-indome1-D2O



Plotname: Dr_HazemElkady-indome1-D2O_PROTON_01_plot04

Data file /home/data/NMRlab2017/Nov/Dr_HazemElkady-indome1-D2O_20171120_01/Dr_HazemElkady-indome1-D2O_PROTON_01

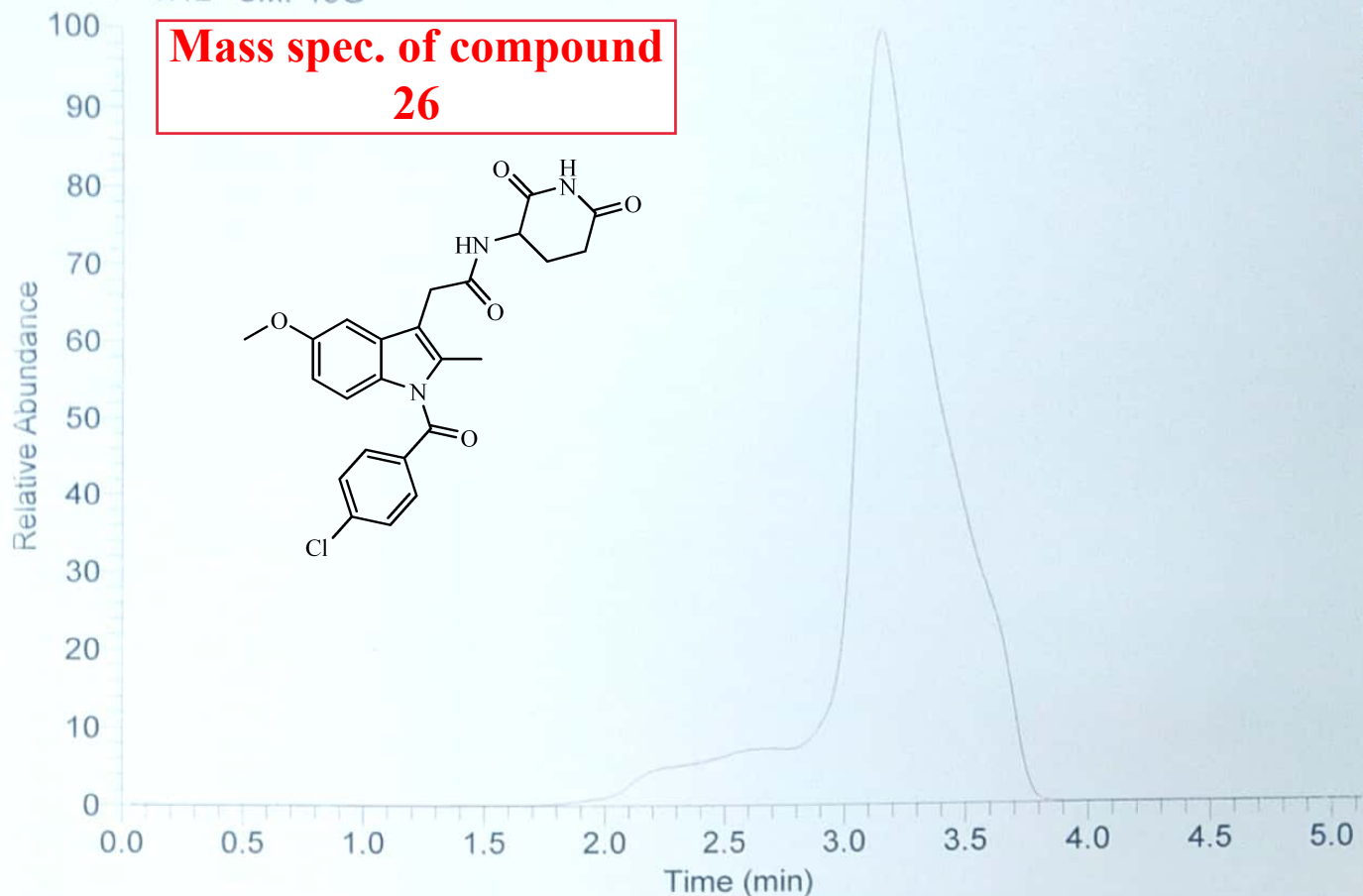
Plot date 2017-11-22

Plotname: ---

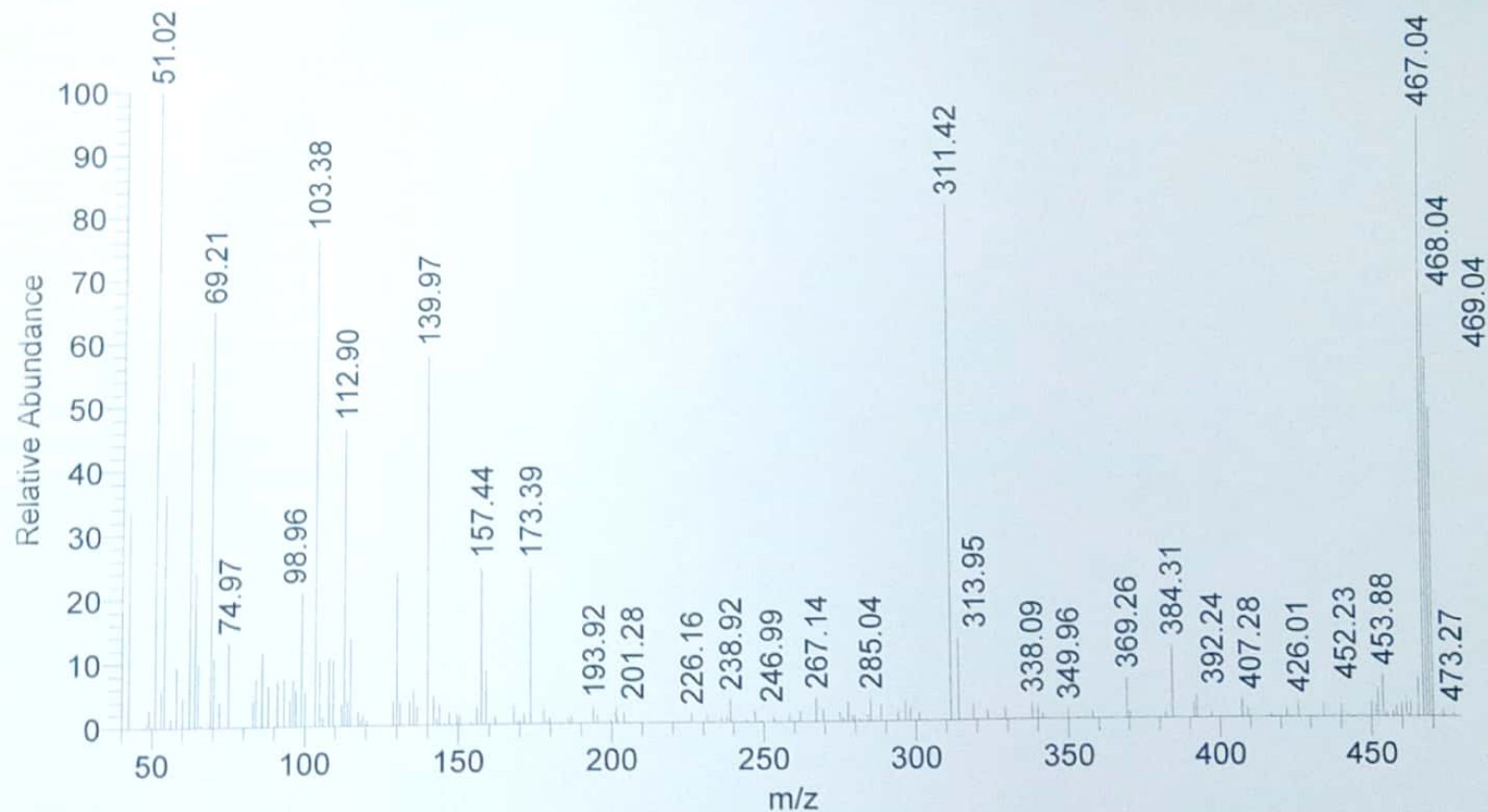
Dr_HazemElkady-indome2_20171119_01/Dr_HazemElkady-indome2_20171119_01

RT: 0.00 - 5.12 SM: 15G

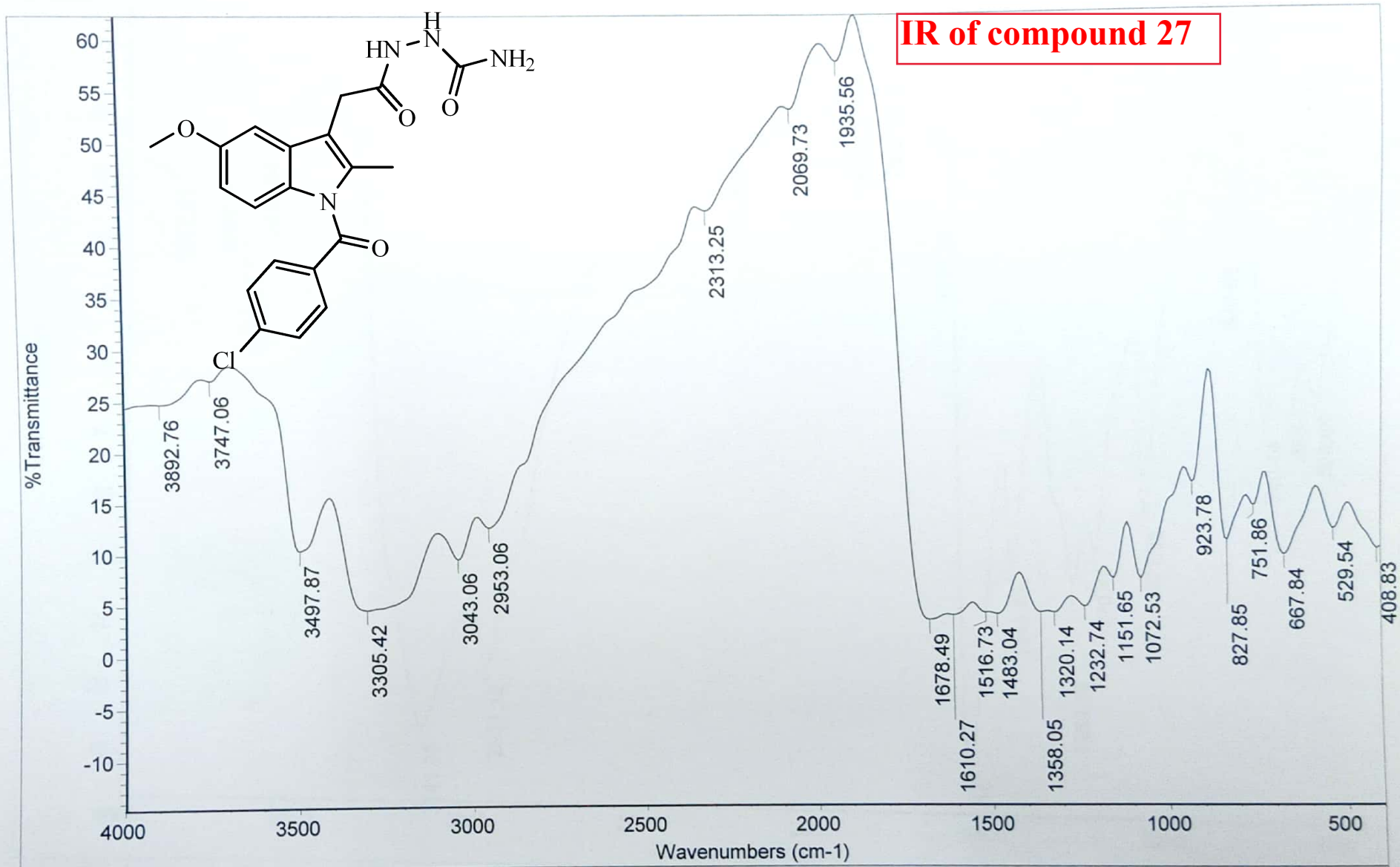
NL:
2.84E7
TIC MS
HAZEM-
ELKADY-
INDOME1



HAZEM-ELKADY-INDOME1 #163 RT: 2.74 AV: 1 SB: 5 2.73 , 2.71-2.76 NL: 1.61E4
T: {0,0} + c EI Full ms [40.00-1000.00]



IR of compound 27



Date: Tue Jul 03 15:22:54 2018 (GMT-07:00)indom 2

Scans: 100

Resolution: 16.000

¹H NMR of compound 27

Dr_HazemElkady-indome2

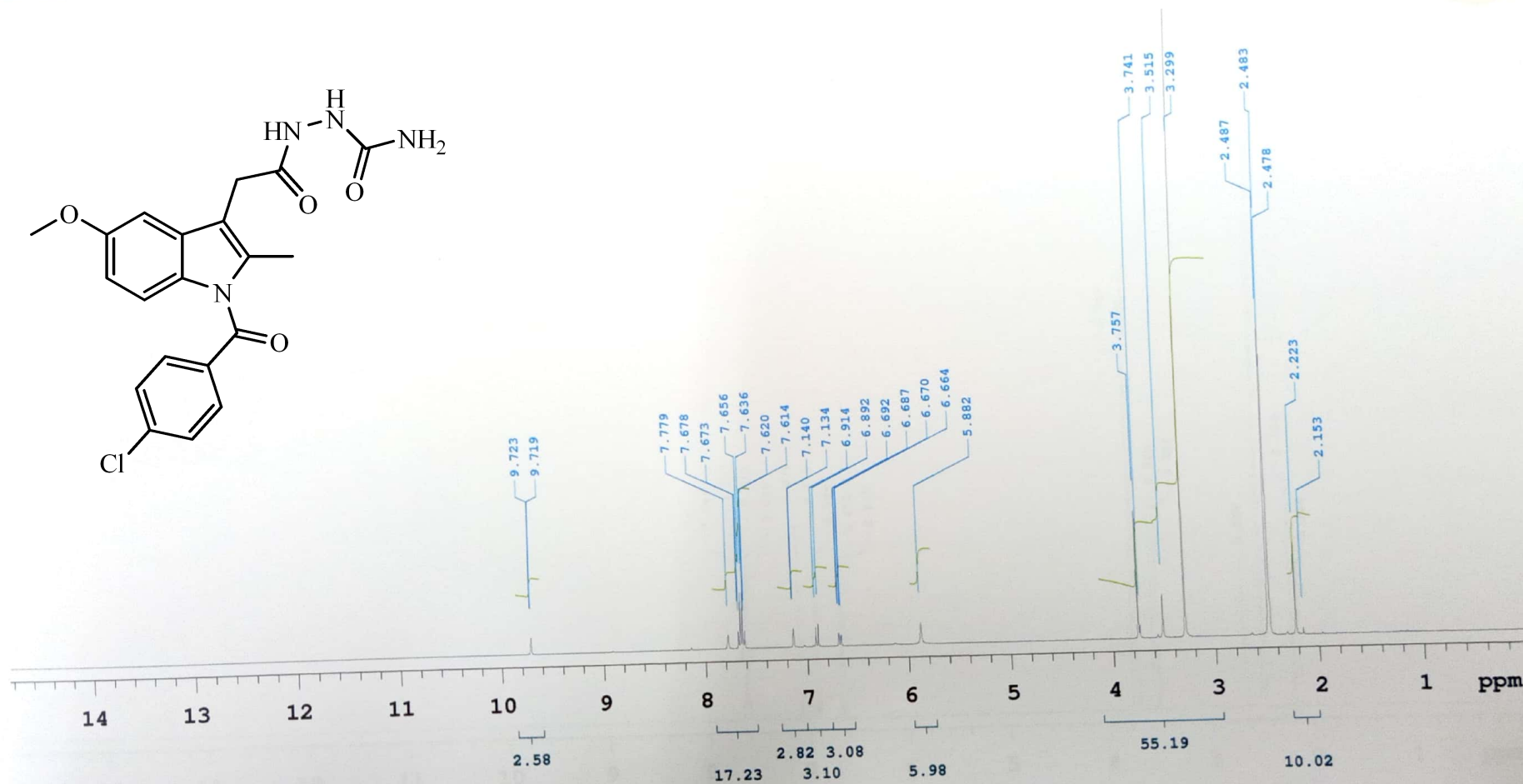
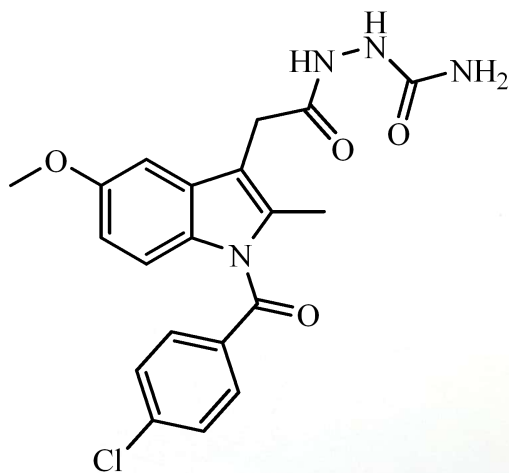
Name: Dr_HazemElkady-indome2
Date collected: 2017-11-19

Pulse sequence: PROTON
Solvent: dms0

Temperature: 25
Spectrometer: nmr400-mercury400

Study owner: vnmr1
Operator: vnmr1

Dr_HazemElkady-indome2



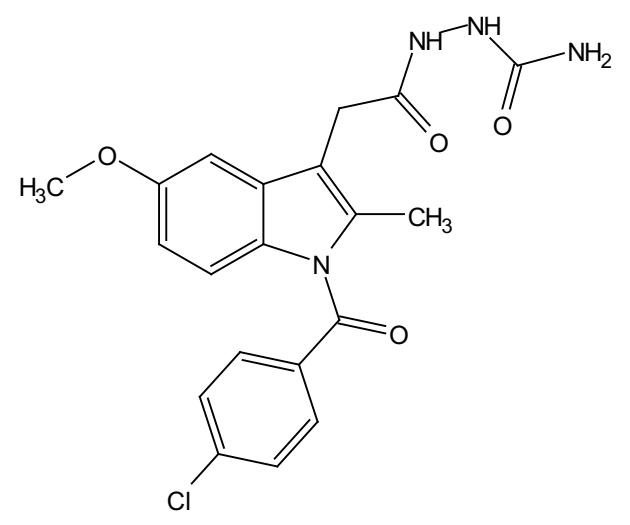
Plotname: Dr_HazemElkady-indome2_PROTON_01_plot04

Plot date 2017-11-22

Data file /home/data/NMRlab2017/Nov/Dr_HazemElkady-indome2_20171119_01/Dr_HazemElkady-indome2_PROTON_01

¹³CNMR of compound 27

hazem ElQady_C_indomiz



169.74
168.32

159.28
156.03
155.99

138.06
137.99
135.72
134.75
134.69
131.64
131.26
130.70
129.51

114.94
114.24
111.86

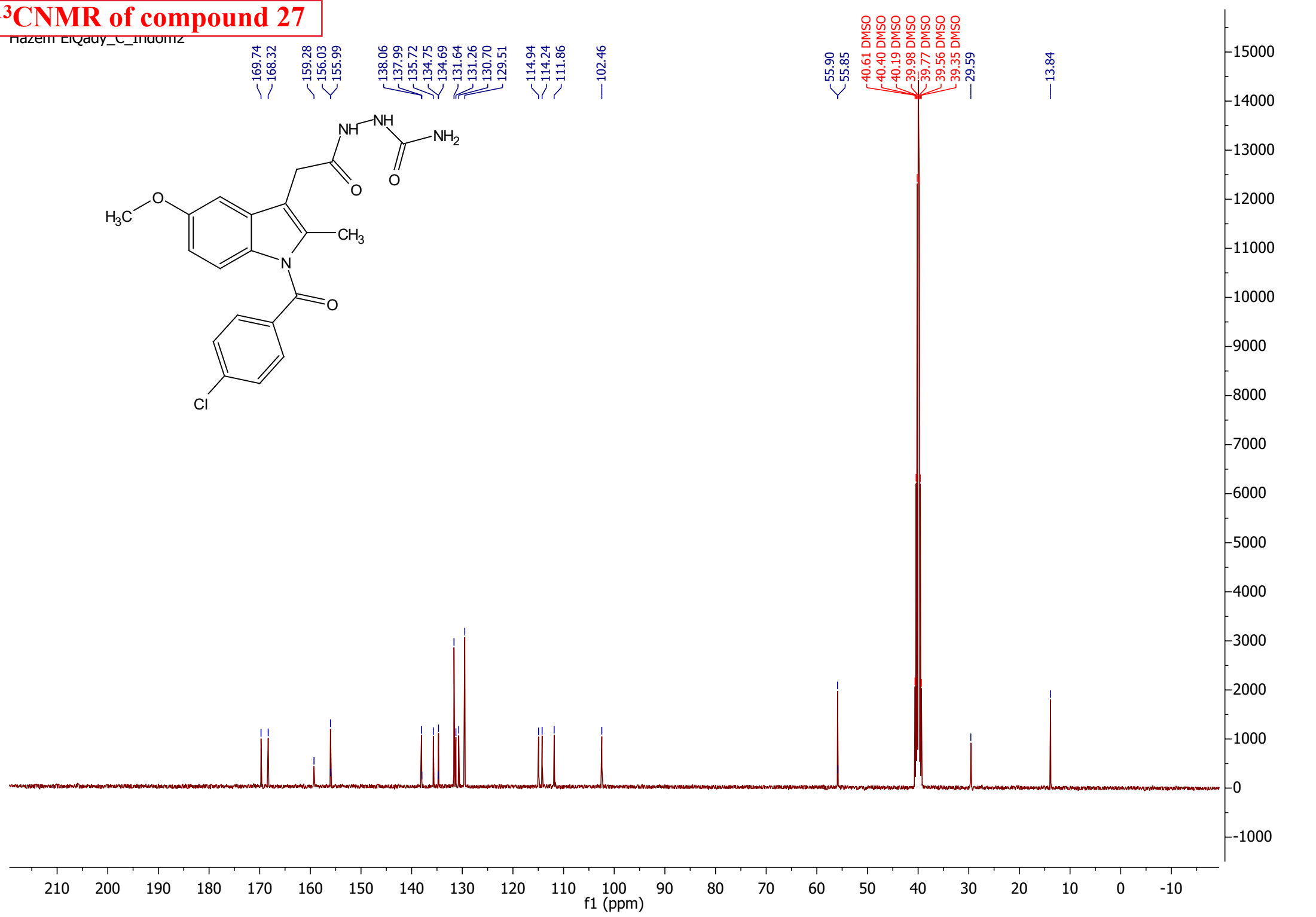
102.46

55.90
55.85

40.61 DMSO
40.40 DMSO
40.19 DMSO
39.98 DMSO
39.77 DMSO
39.56 DMSO
39.35 DMSO

29.59

13.84



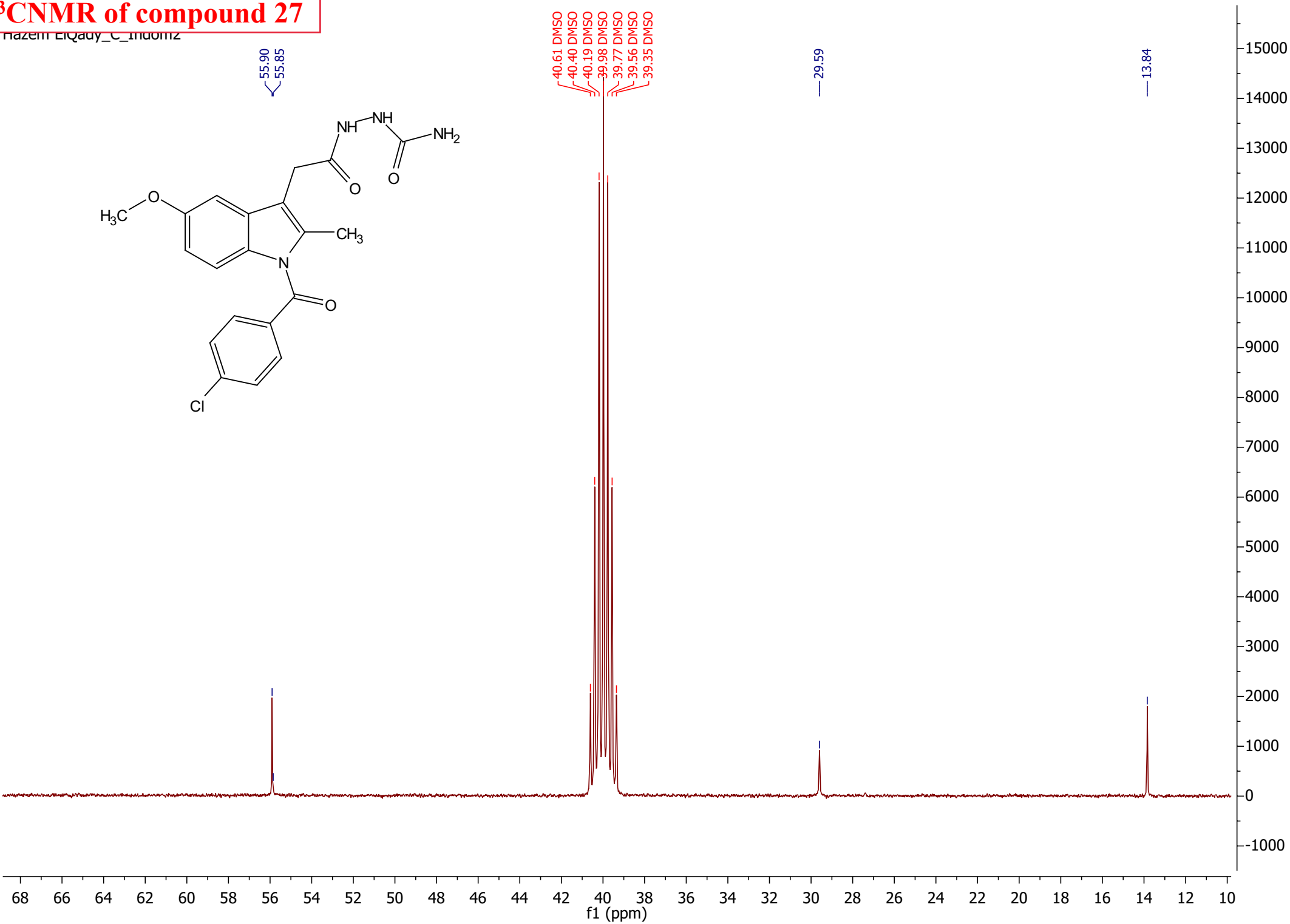
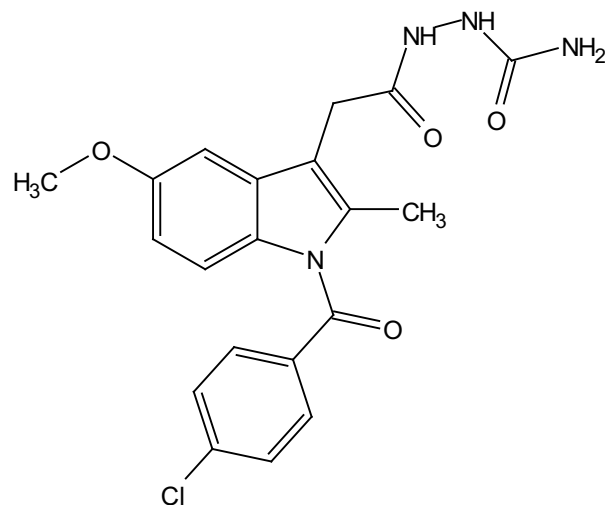
210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 -10

f1 (ppm)

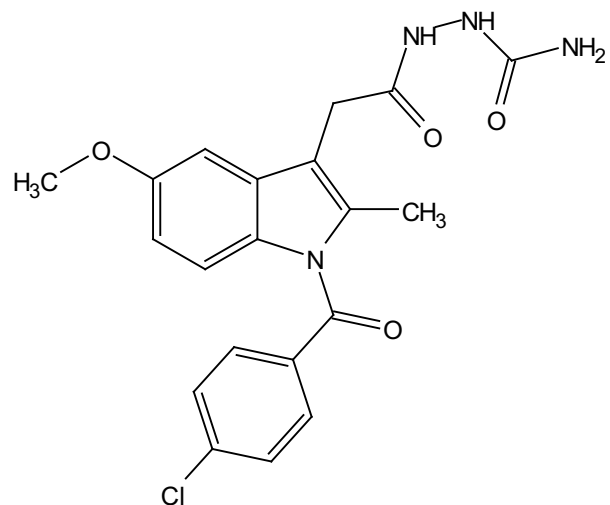
15000
14000
13000
12000
11000
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
-1000

¹³CNMR of compound 27

hazem ElQady_C_indomiz



¹³CNMR of compound 27



138.06
137.99

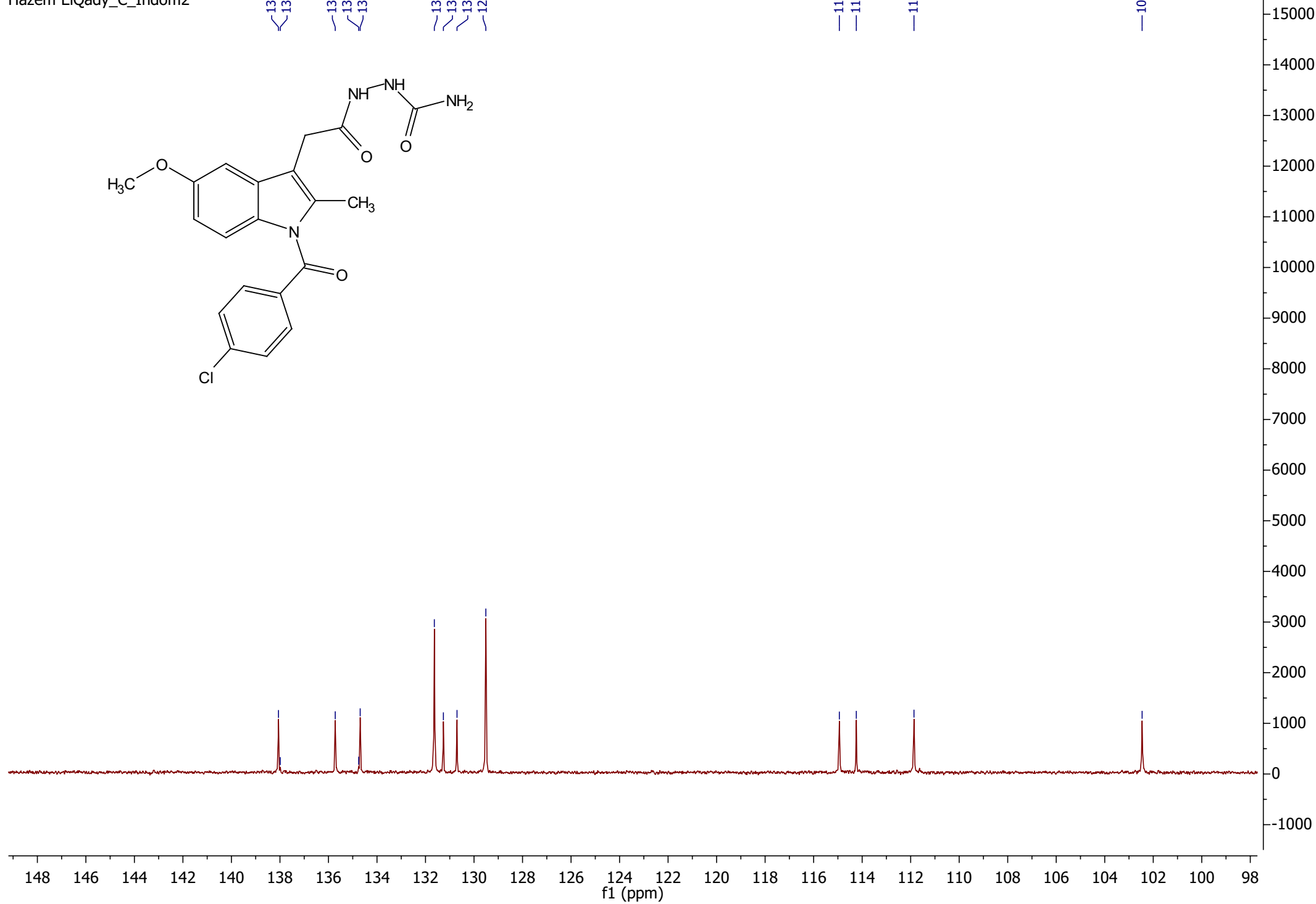
135.72
134.75
134.69

131.64
131.26
130.70
129.51

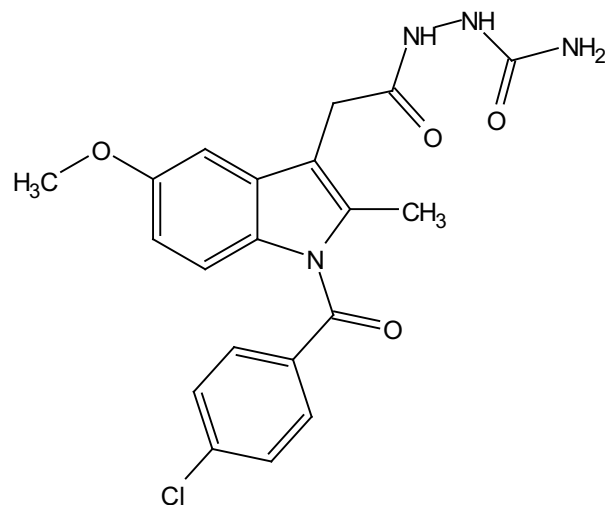
114.94
114.24

111.86

102.46



**^{13}C NMR of
compound 27**



—169.74

—168.32

—159.28

156.03
155.99

