

Synthesis and application of imidazolium based ionic liquid supported on hydroxyapatite encapsulated γ -Fe₂O₃ nanocatalyst in preparation of pyrido[2,3-*d*]pyrimidines

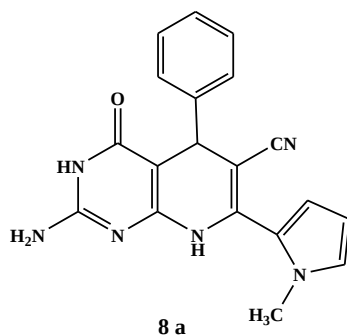
Forough Ramezanzadeh^a, Manouchehr Mamaghani^{b,*}, Hossein Fallah-Bagher Shaidaei^a, Mehdi Sheykhani^b

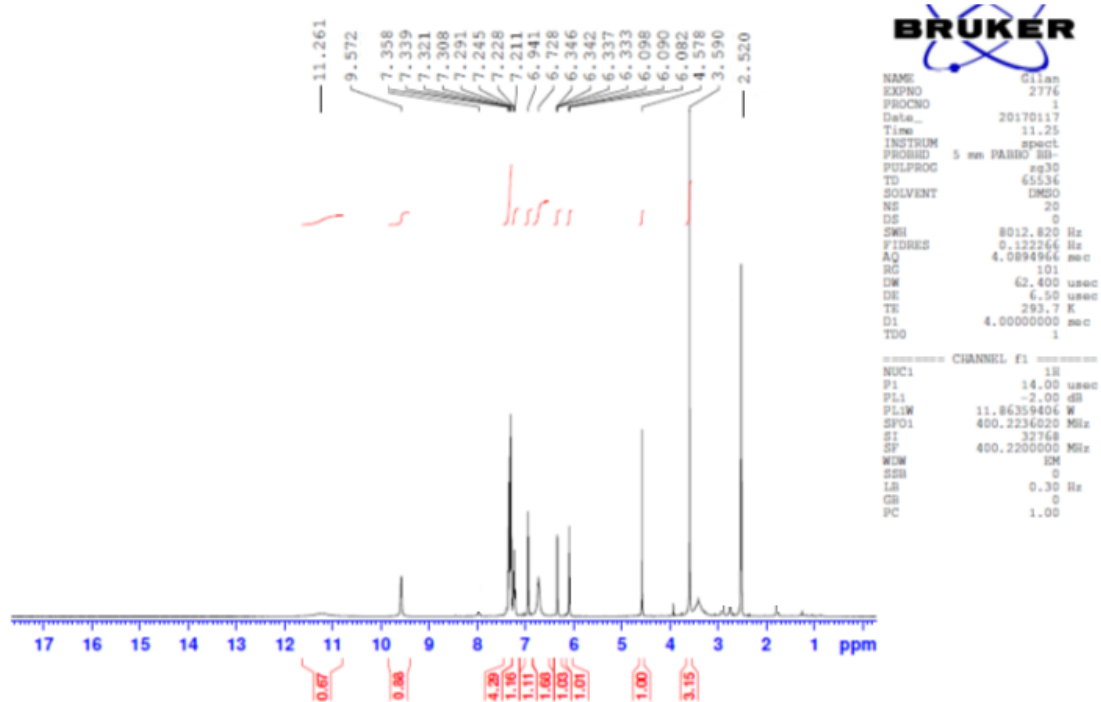
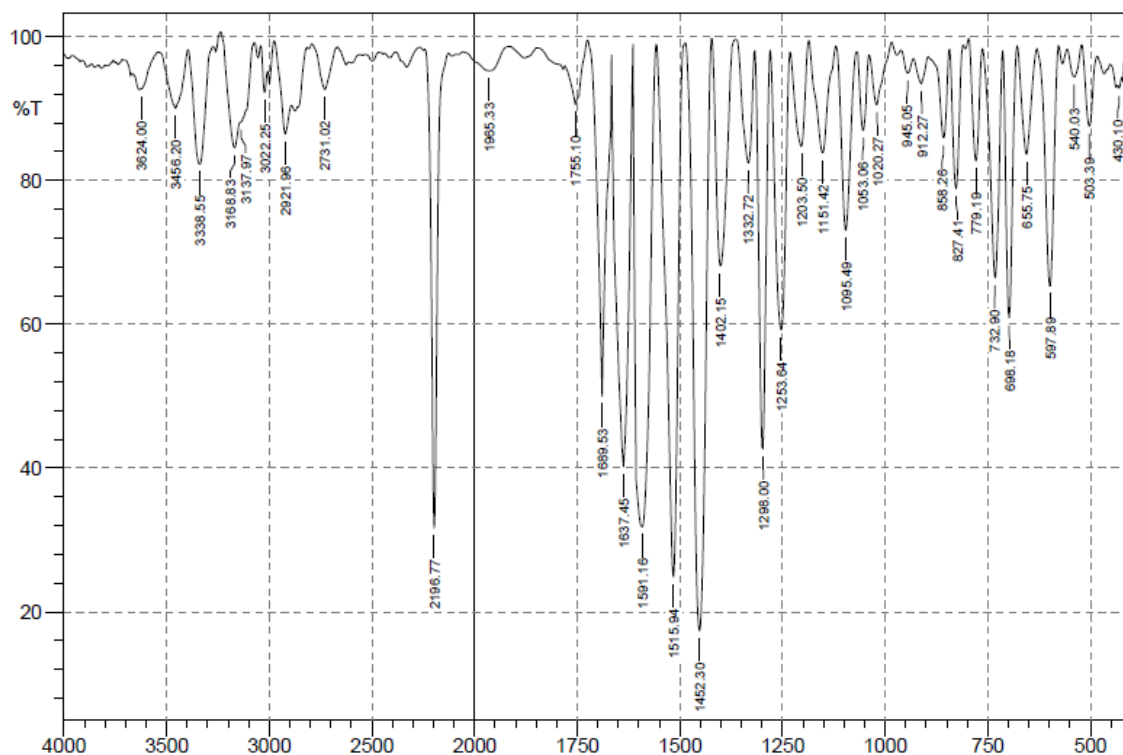
^aDepartment of Chemistry, Faculty of Sciences Islamic Azad University, Rasht Branch, Rasht, Iran.

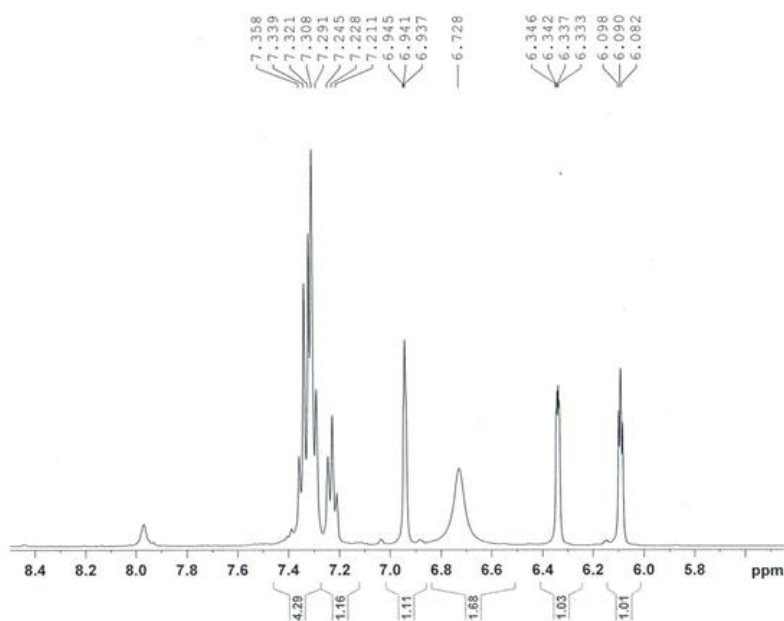
^bDepartment of Chemistry, Faculty of Sciences, University of Guilan, P.O. Box 41335-1914, Rasht, Iran.

*Corresponding author; E-mail address: m-chem41@guilan.ac.ir; mchem41@gmail.com

2-Amino-5-phenyl-7-(1-methyl-1H-pyrrol-2-yl)-4-oxo-3,4,5,8-tetrahydro-pyrido[2,3-*d*]pyrimidine-6- carbonitrile (8a)

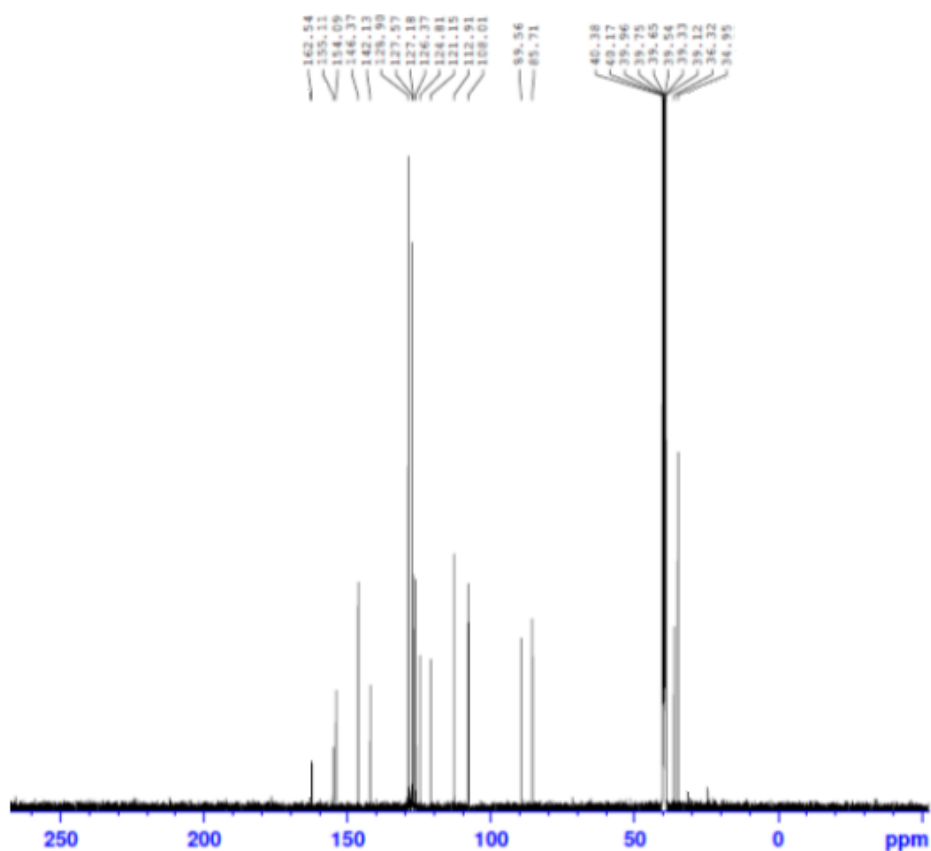






NAME Gilan UN
EXPNO 2776
PROCNO 1
Date_ 20170117
Time 11.25
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 20
DS 0
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894966 sec
RG 101
DW 62.400 usec
DE 6.50 usec
TE 293.7 K
D1 4.00000000 sec
TD0 1

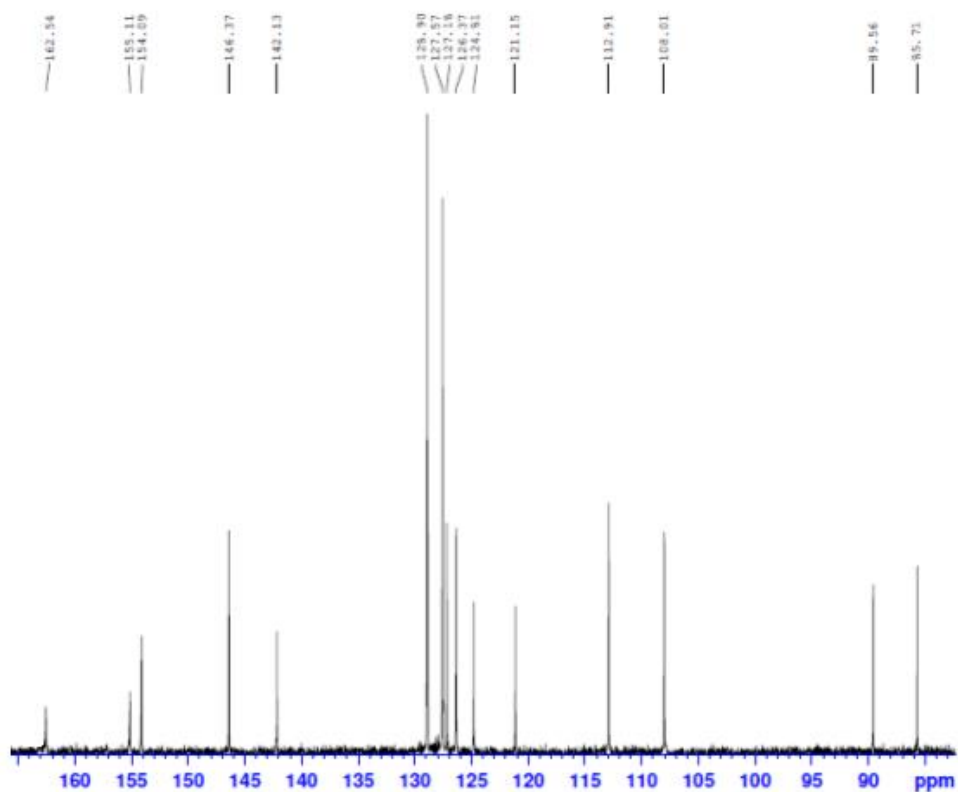
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NUC1 1H
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PL1 -2.00 dB
PL1W 11.86359406 W
SFO1 400.2236020 MHz
SI 32768
SF 400.2200000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



NAME Gilan UN
EXPNO 2796
PROCNO 1
Date_ 20170131
Time 16.59
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 2912
DS 0
SWH 35714.285 Hz
FIDRES 0.544957 Hz
AQ 0.9175540 sec
RG 2050
DW 14.000 usec
DE 6.50 usec
TE 293.7 K
D1 1.00000000 sec
D11 0.03000000 sec
TD0 1

----- CHANNEL f1 -----
NUC1 13C
P1 9.00 usec
PL1 -0.90 dB
PL1W 42.02801895 W
SFO1 100.6479784 MHz

----- CHANNEL f2 -----
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 -2.00 dB
PL12 14.16 dB
PL13 17.90 dB
PL2W 11.86359406 W
PL12W 0.28722104 W
PL13W 0.12139934 W
SFO2 400.2216009 MHz
SI 32768
SF 100.6353990 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40



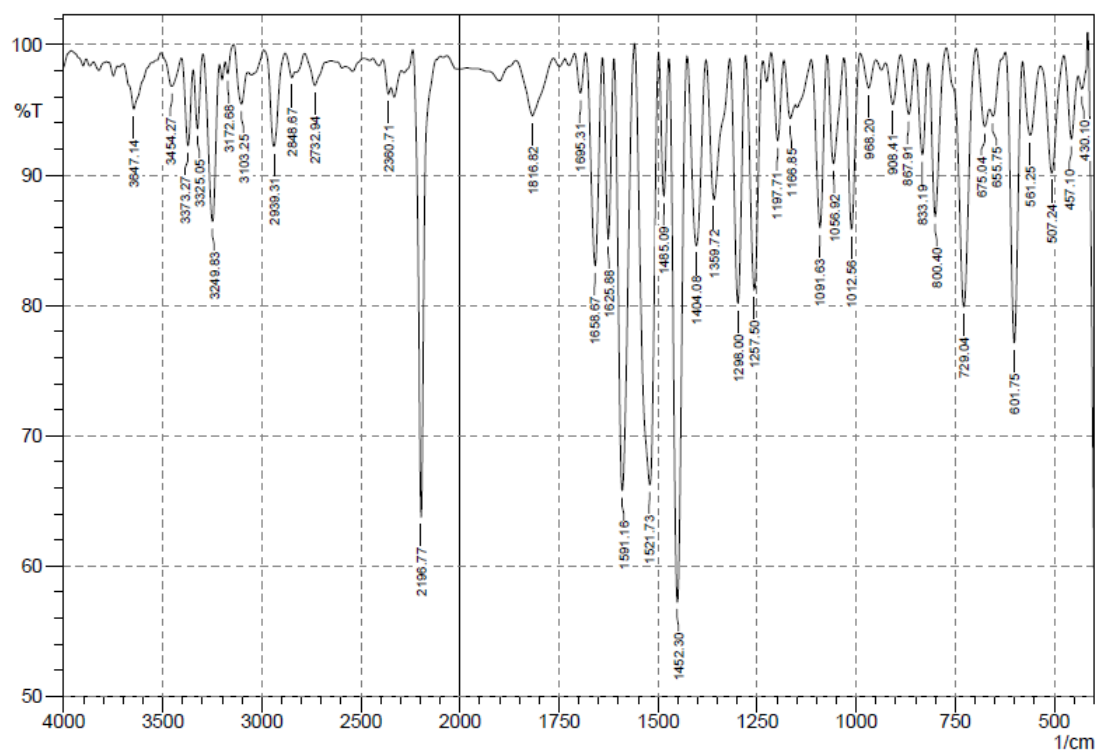
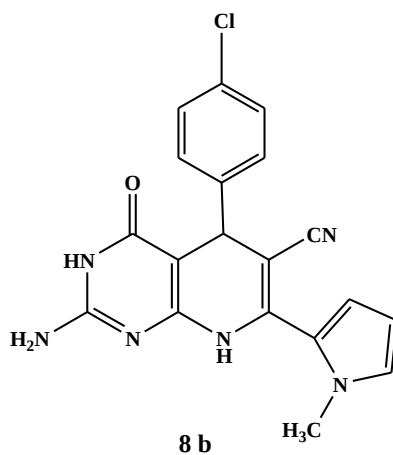
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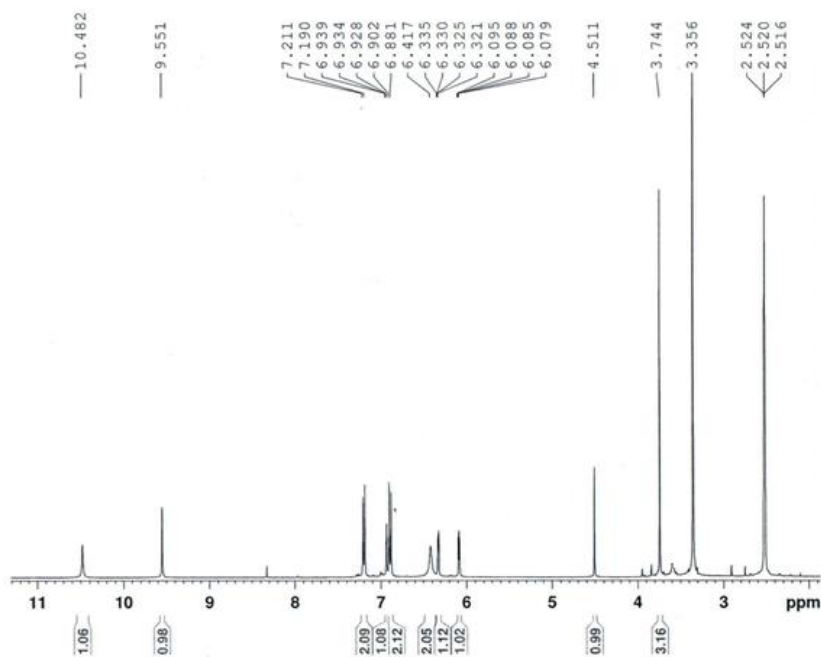
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EXPNO 2796
PROCNO 1
Date_ 20170131
Time 16.59
INSTRUM spect
PROBHD 5 mm PABBO HD-
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 2932
DS 0
SWH 35714.285 Hz
FIDRES 0.544957 Hz
AQ 0.9175540 sec
RG 2050
DM 14.000 usec
DE 6.50 usec
TE 293.7 K
D1 1.00000000 sec
D11 0.03000000 sec
TD0 1

===== CHANNEL f1 =====
NUC1 13C
P1 9.00 usec
PL1 -0.90 dB
PL1W 42.02801895 W
SFO1 100.6479784 MHz

===== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 -2.00 dB
PL12 14.16 dB
PL13 17.90 dB
PL2W 11.86359406 W
PL12W 0.28722104 W
PL13W 0.12139934 W
SFO2 400.2216009 MHz
SI 32768
SF 100.6353990 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

2-Amino-5-(4-chlorophenyl)-7-(1-methyl-1*H*-pyrrol-2-yl)-4-oxo-3,4,5,8-tetrahydropyrido [2,3-*d*]pyrimidine-6-carbonitrile (8b).



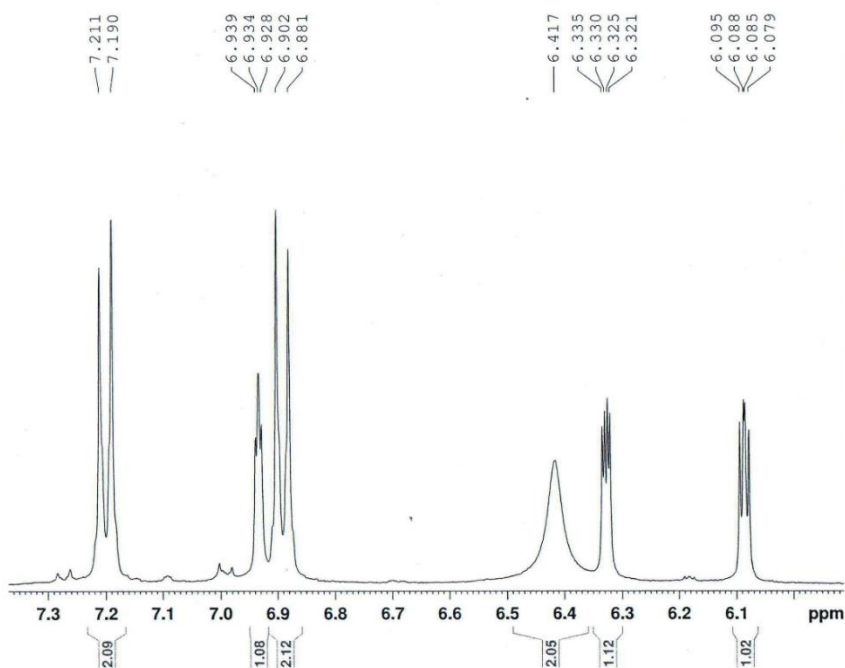


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NAME      Gilan UN
EXPNO     3175
PROCNO    1
Date_     20170927
Time      13.23
INSTRUM   spect
PROBHD    5 mm PABBO BB-
PULPROG   zg30
TD         65536
SOLVENT   DMSO
NS         20
DS         0
SWH        8012.820 Hz
FIDRES     0.122266 Hz
AQ         4.0894966 sec
RG         203
DW         62.400 usec
DE         6.50 usec
TE         295.1 K
D1         4.00000000 sec
TD0        1

===== CHANNEL f1 =====
NUC1       1H
P1         14.00 usec
PL1        -2.00 dB
PL1W       11.86359406 W
SFO1       400.2236020 MHz
SI         32768
SF         400.2200000 MHz
WDW        EM
SSB        0
LB         0.30 Hz
GB         0
PC         1.00
  
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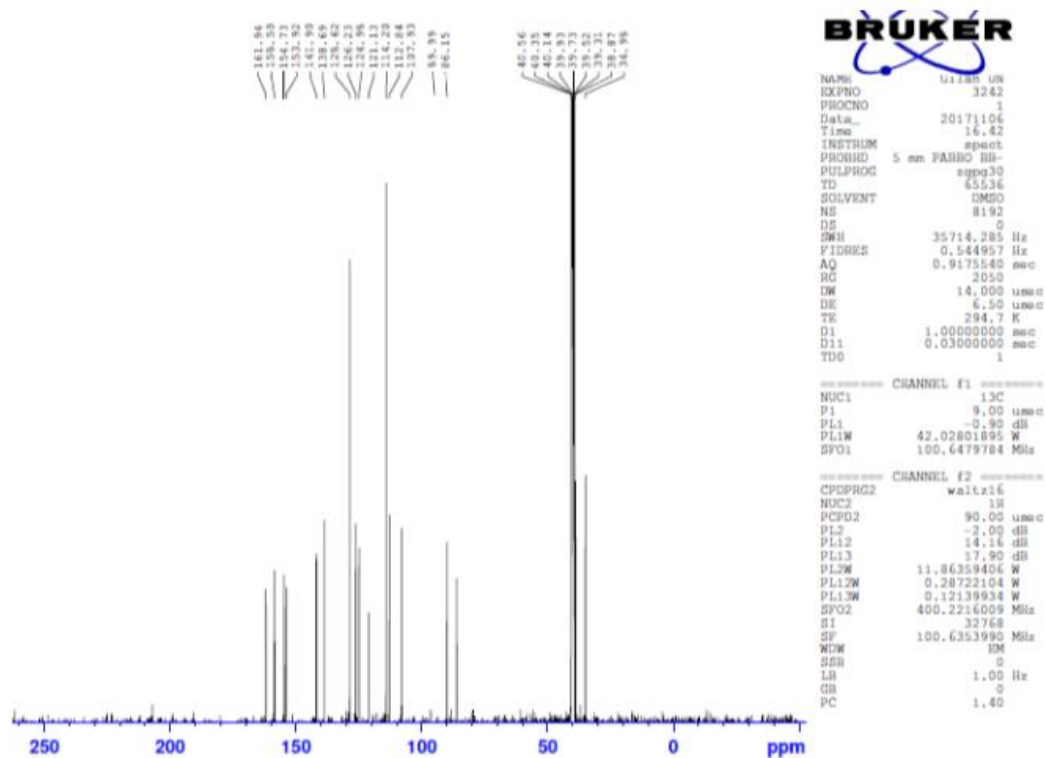


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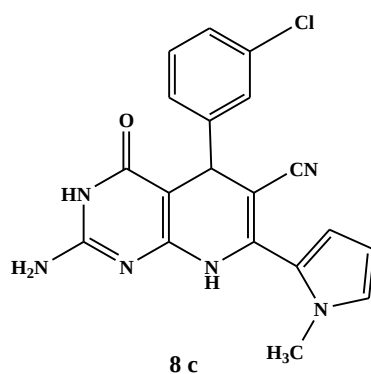
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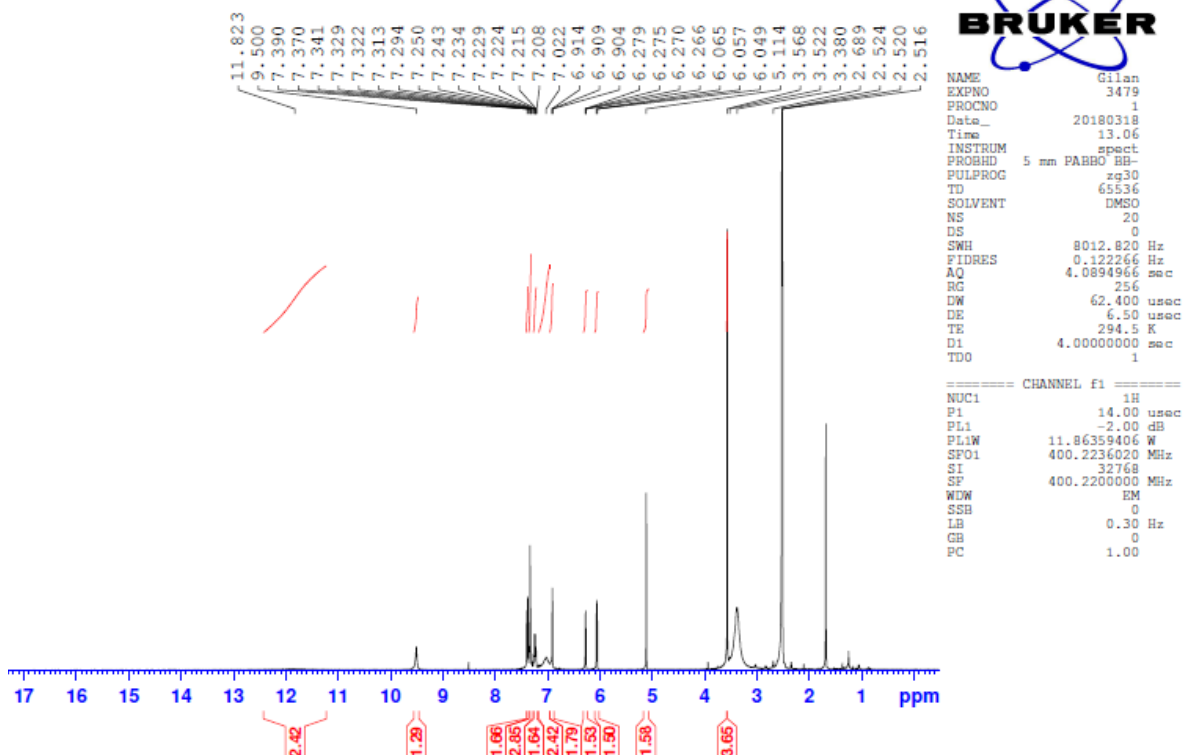
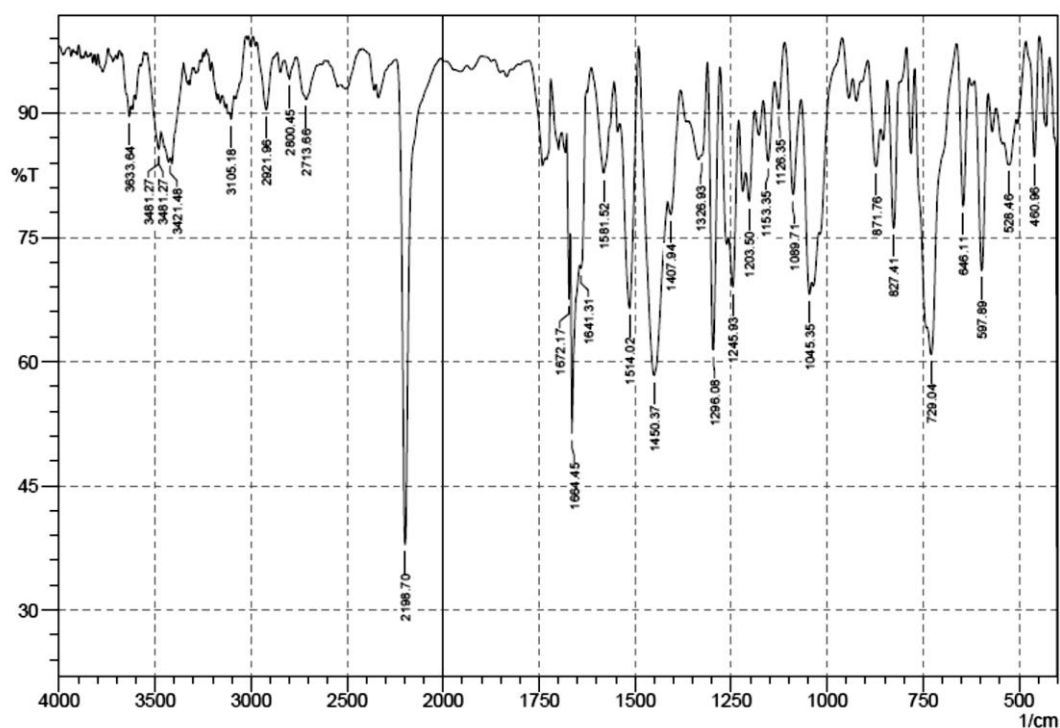
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EXPNO     3175
PROCNO    1
Date_     20170927
Time      13.23
INSTRUM   spect
PROBHD    5 mm PABBO BB-
PULPROG   zg30
TD         65536
SOLVENT   DMSO
NS         20
DS         0
SWH        8012.820 Hz
FIDRES     0.122266 Hz
AQ         4.0894966 sec
RG         203
DW         62.400 usec
DE         6.50 usec
TE         295.1 K
D1         4.00000000 sec
TD0        1

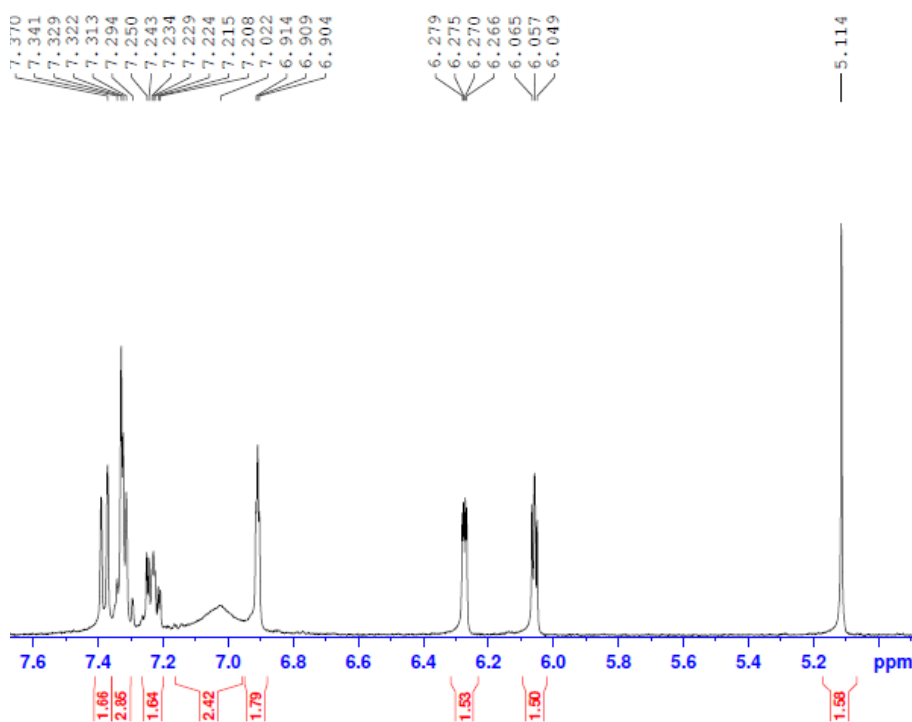
===== CHANNEL f1 =====
NUC1       1H
P1         14.00 usec
PL1        -2.00 dB
PL1W       11.86359406 W
SFO1       400.2236020 MHz
SI         32768
SF         400.2200000 MHz
WDW        EM
SSB        0
LB         0.30 Hz
GB         0
PC         1.00
  
```



2-Amino-5-(3-chlorophenyl)-7-(1-methyl-1*H*-pyrrol-2-yl)-4-oxo-3,4,5,8-tetrahydro-pyrido[2,3-*d*]pyrimidine-6-carbonitrile (8c)



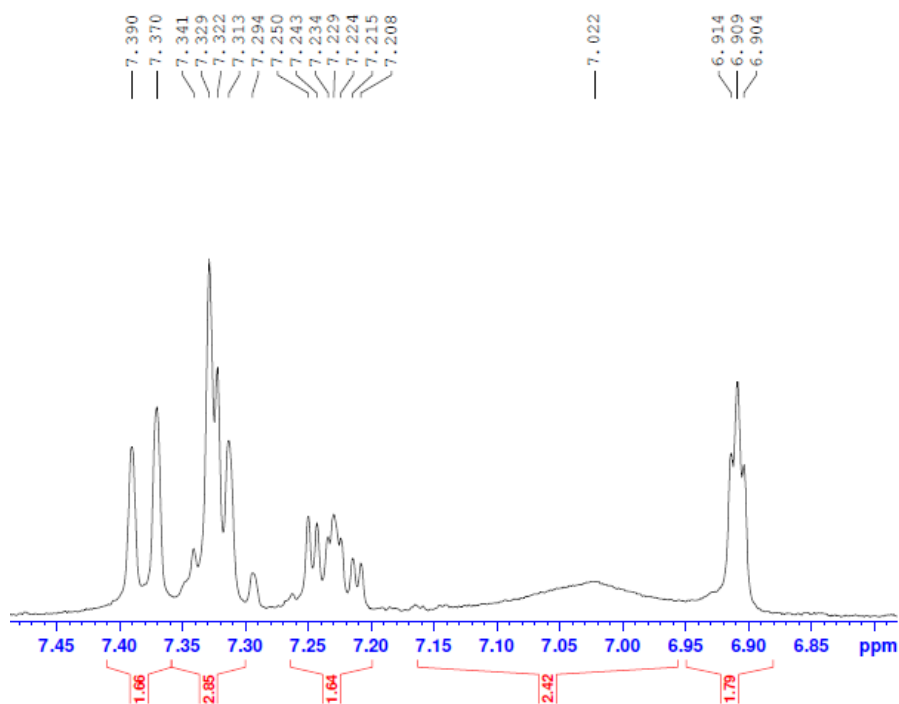




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NAME Gilan
EXPNO 3479
PROCNO 1
Date_ 20180318
Time 13.06
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 20
DS 0
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894966 sec
RG 256
DW 62.400 usec
DE 6.50 usec
TE 294.5 K
D1 4.00000000 sec
TDO 1

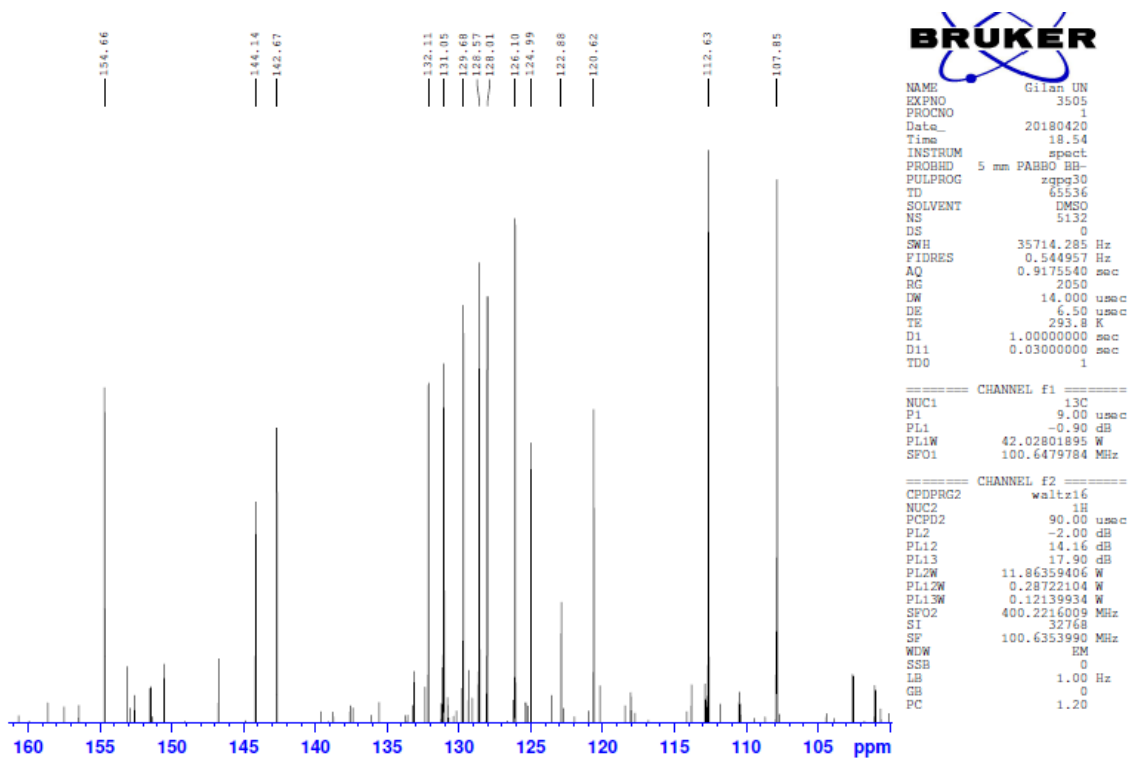
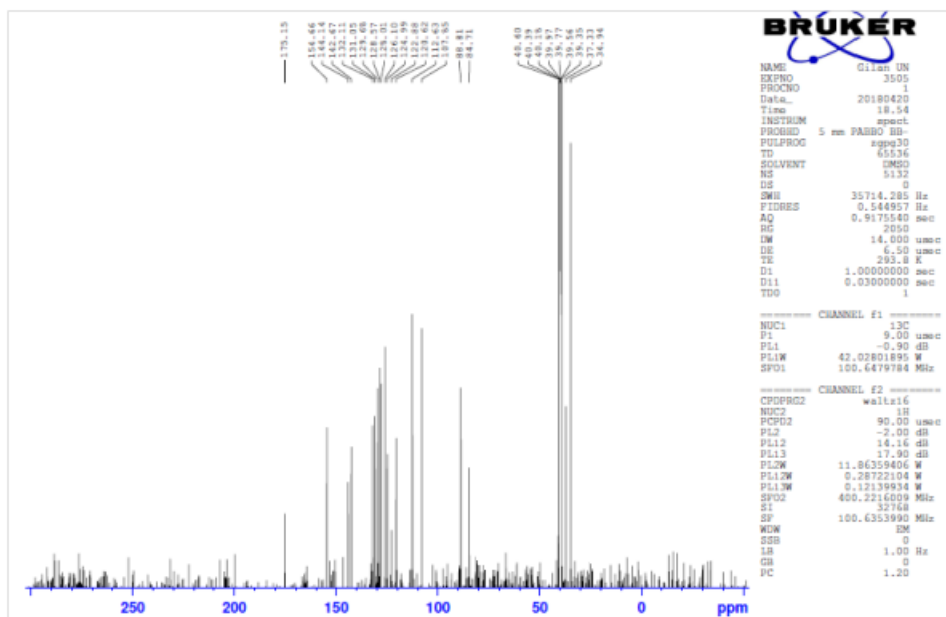
===== CHANNEL f1 =====
NUC1 1H
P1 14.00 usec
PL1 -2.00 dB
PL1W 11.86359406 W
SFO1 400.2236020 MHz
SI 32768
SF 400.2200000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



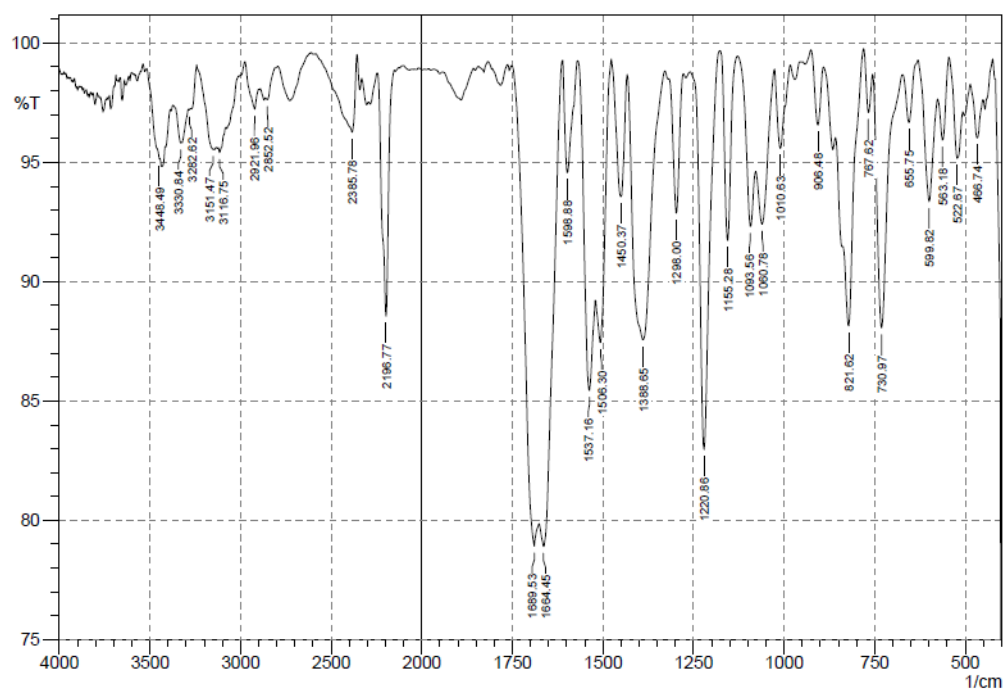
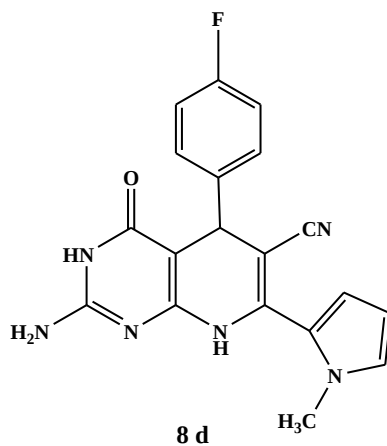
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NAME Gilan
EXPNO 3479
PROCNO 1
Date_ 20180318
Time 13.06
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 20
DS 0
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894966 sec
RG 256
DW 62.400 usec
DE 6.50 usec
TE 294.5 K
D1 4.00000000 sec
TDO 1

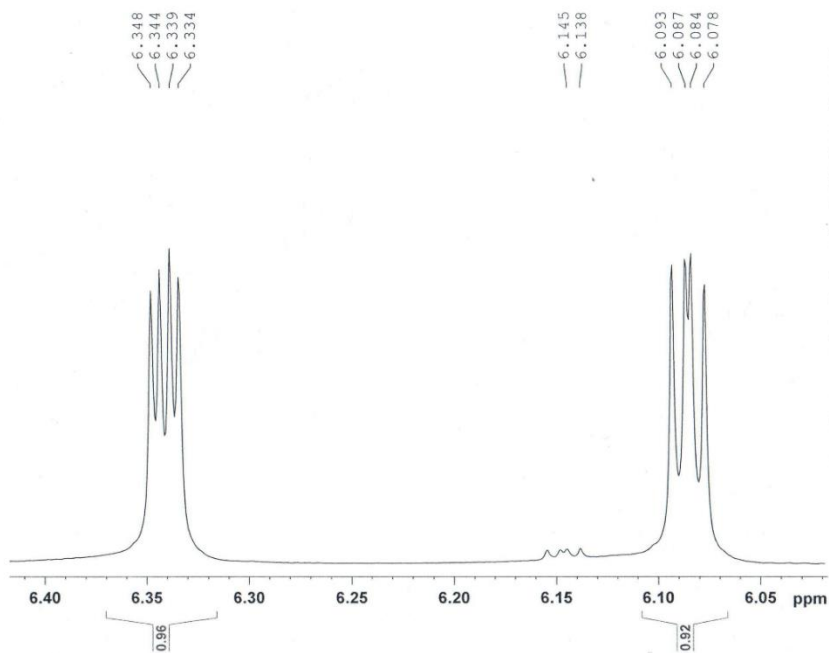
===== CHANNEL f1 =====
NUC1 1H
P1 14.00 usec
PL1 -2.00 dB
PL1W 11.86359406 W
SFO1 400.2236020 MHz
SI 32768
SF 400.2200000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



2-Amino-5-(4-fluorophenyl)-7-(1-methyl-1H-pyrrol-2-yl)-4-oxo-3,4,5,8-tetrahydropyrido[2,3-d]pyrimidine-6-carbonitrile (8d).





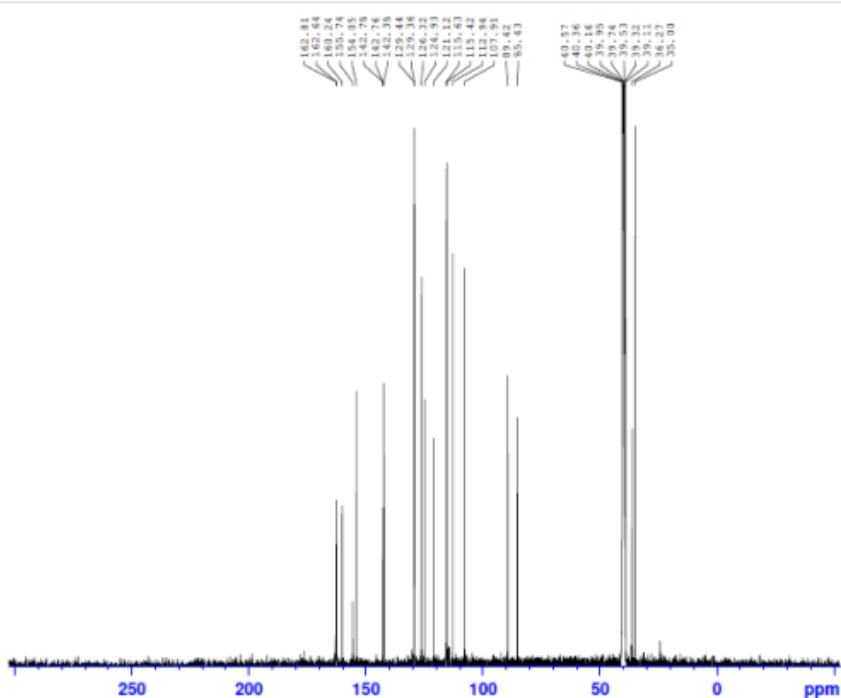


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EXPNO     2878
PROCNO    1
Date_     20170329
Time      12.56
INSTRUM   spect
PROBHD    5 mm PARBO BB-
PULPROG   zg30
TD        65536
SOLVENT   DMSO
NS        40
DS        0
SWH       8012.820 Hz
FIDRES    0.122266 Hz
AQ        4.0894966 sec
RG        114
DW        62.400 usec
DE        6.50 usec
TE        305.0 K
D1        4.00000000 sec
TD0       1

===== CHANNEL f1 =====
NUC1      1H
P1        14.00 usec
PL1       -2.00 dB
PL1W      11.86359406 W
SFO1      400.2236020 MHz
SI        32768
SF        400.2200000 MHz
WDW       EM
SSB       0
LB        0.30 Hz
GB        0
PC        1.00
  
```



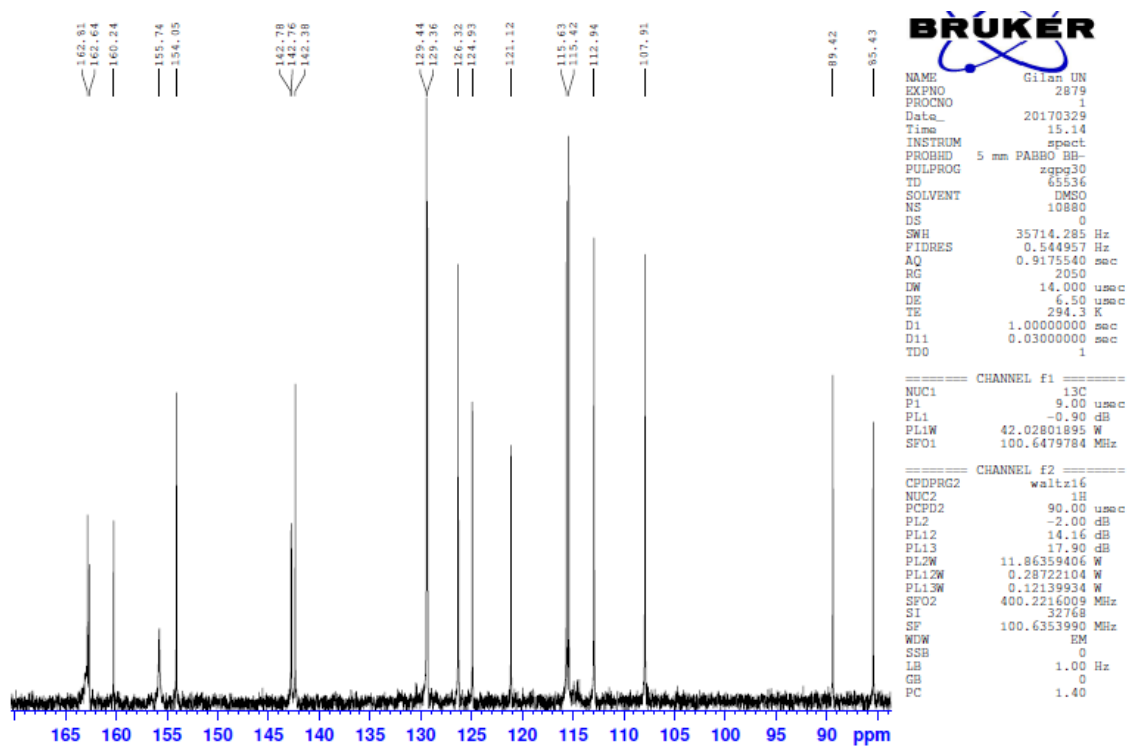
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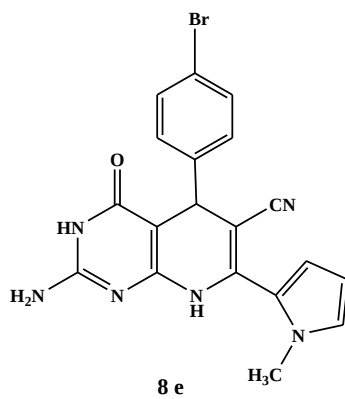
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EXPNO     2879
PROCNO    1
Date_     20170329
Time      15.14
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PULPROG   zgpg30
TD        65536
SOLVENT   DMSO
NS        10880
DS        0
SWH       35714.285 Hz
FIDRES    0.544957 Hz
AQ        0.9175540 sec
RG        2050
DW        14.000 usec
DE        6.50 usec
TE        294.3 K
D1        1.00000000 sec
D11       0.03000000 sec
TD0       1

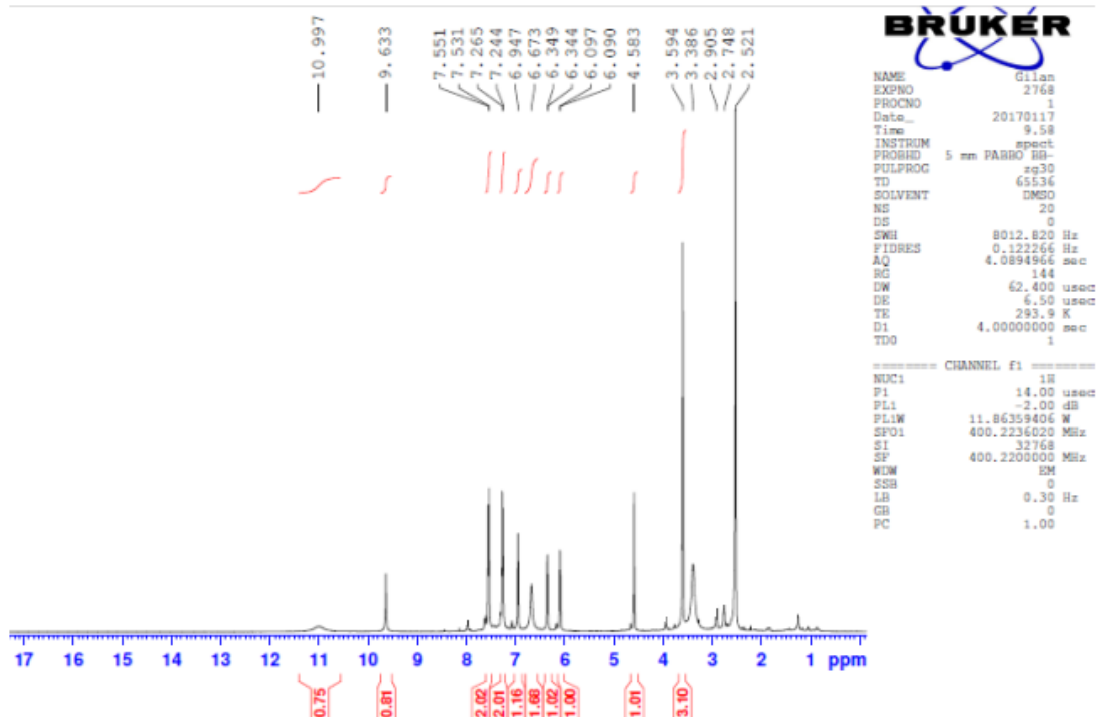
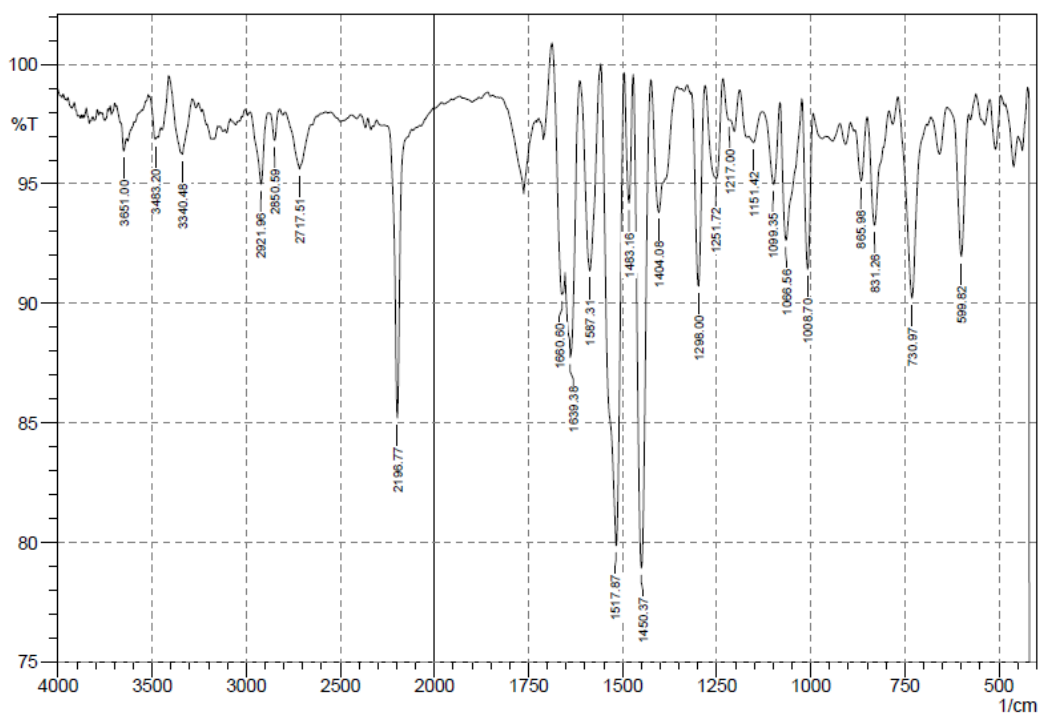
===== CHANNEL f1 =====
NUC1      13C
P1        9.00 usec
PL1       -0.90 dB
PL1W      42.02801895 W
SFO1      100.6479784 MHz

===== CHANNEL f2 =====
CPDPRG2   waltz16
NUC2      1H
PCPD2     90.00 usec
PL2       -2.00 dB
PL12      14.16 dB
PL13      17.90 dB
PL2W      11.86359406 W
PL12W     0.28722104 W
PL13W     0.12139934 W
SFO2      400.2216009 MHz
SI        32768
SF        100.6353990 MHz
WDW       EM
SSB       0
LB        1.00 Hz
GB        0
PC        1.40
  
```



2-Amino-5-(4-bromophenyl)-7-(1-methyl-1*H*-pyrrol-2-yl)-4-oxo-3,4,5,8-tetrahydro-pyrido[2,3-*d*]pyrimidine-6-carbonitrile (8e)

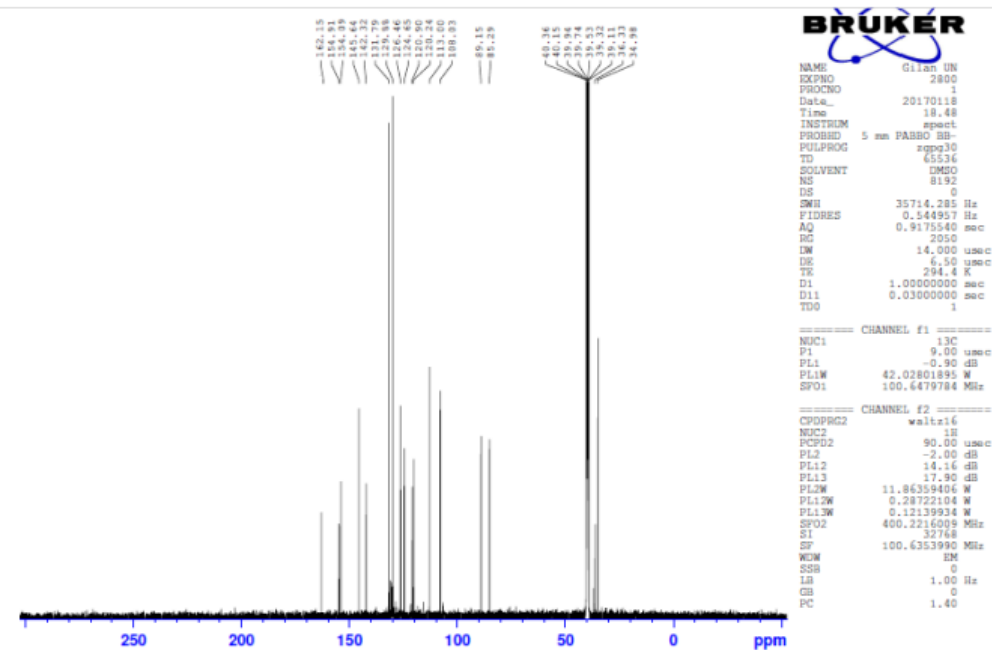






NAME	Gilan
EXPNO	2768
PROCNO	1
Date_	20170117
Time	9.58
INSTRUM	spect
PROBHD	5 mm PABBO
PULPROG	zg30
TD	65536
SOLVENT	DMSO
DS	20
NS	0
SWH	8012.820 Hz
FIDRES	0.122266 Hz
AQ	4.0894966 sec
RG	144
DW	62.400 usec
DE	6.50 usec
TE	293.9 K
D1	4.00000000 sec
TD0	1

```
===== CHANNEL f1 =====
NUC1                1H
P1                  14.00 usec
PL1                 -2.00 dB
PLIW                11.86359406 W
SFO1               400.2236020 MHz
SI                  32768
SF                 400.2200000 MHz
WDW                  EM
SSB                  0
LB                   0.30 Hz
GB                   0
PC                   1.00
```



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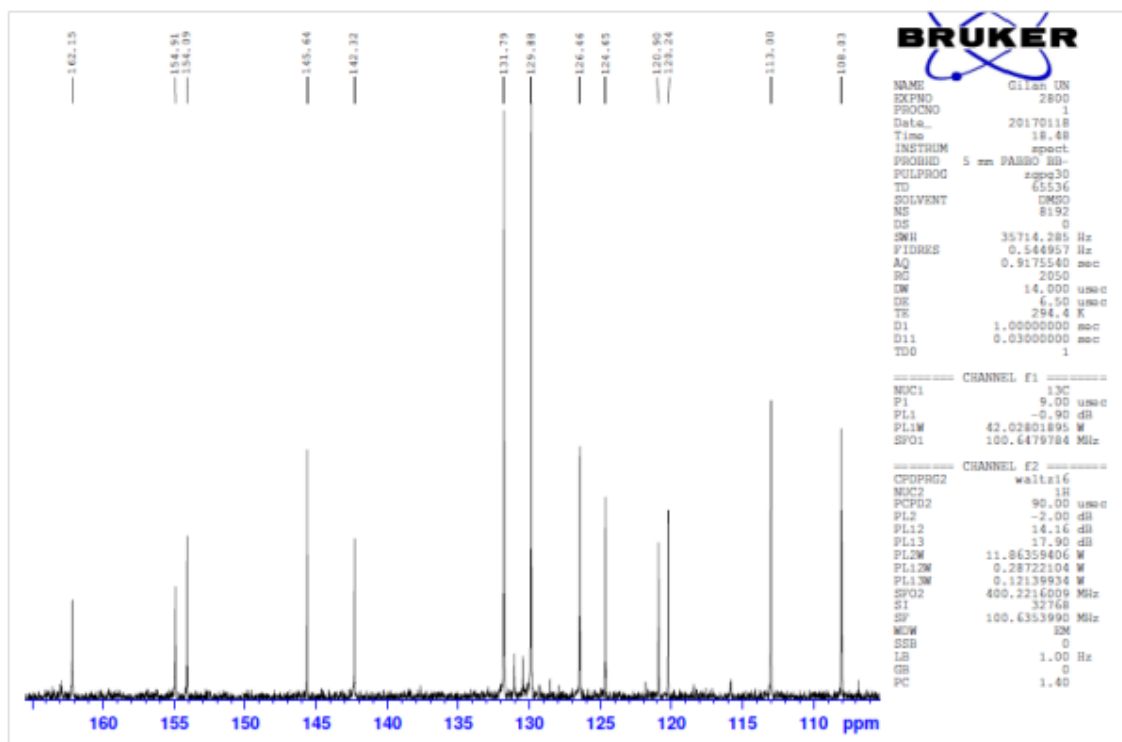
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PROCNO        1
Date_         20170111
Time          18.48
INSTRUM       aspect
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PULPROG       zgpg30
TD            65536
SOLVENT       DMSO
NS            8192
DS            0
SWH           35714.285 Hz
FIDRES        0.544957 Hz
AQ            0.9175540 sec
RG            2050
DW            14.000 usec
DE            6.50 usec
TE            294.4 K
D1            1.00000000 sec
D11           0.03000000 sec
TD0           1
```

```
===== CHANNEL f1 =====
NUC1          13C
P1             9.00 umol
PL1           -0.90 dB
PL1W          42.02801895 W
SFO1         100.6479784 MHz
```

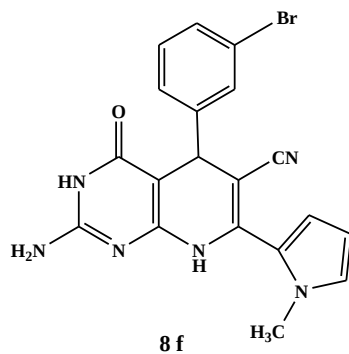
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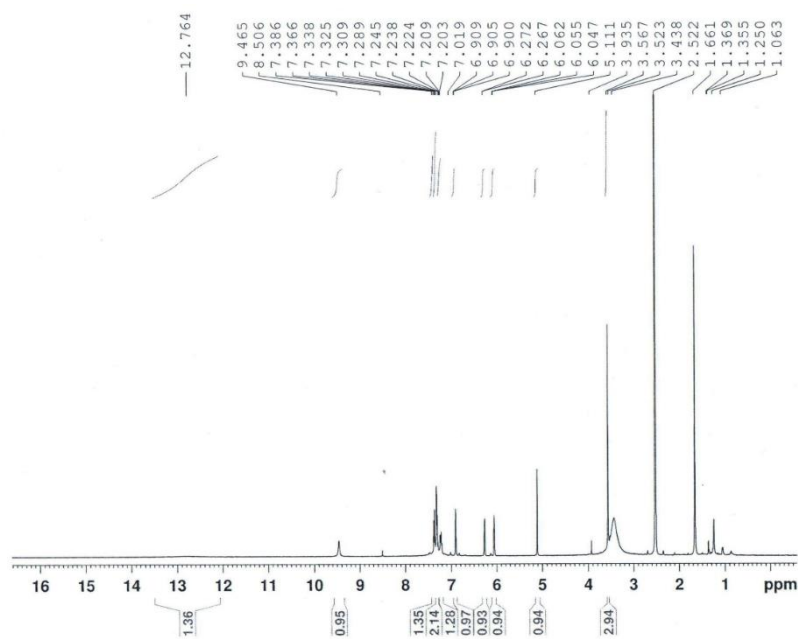
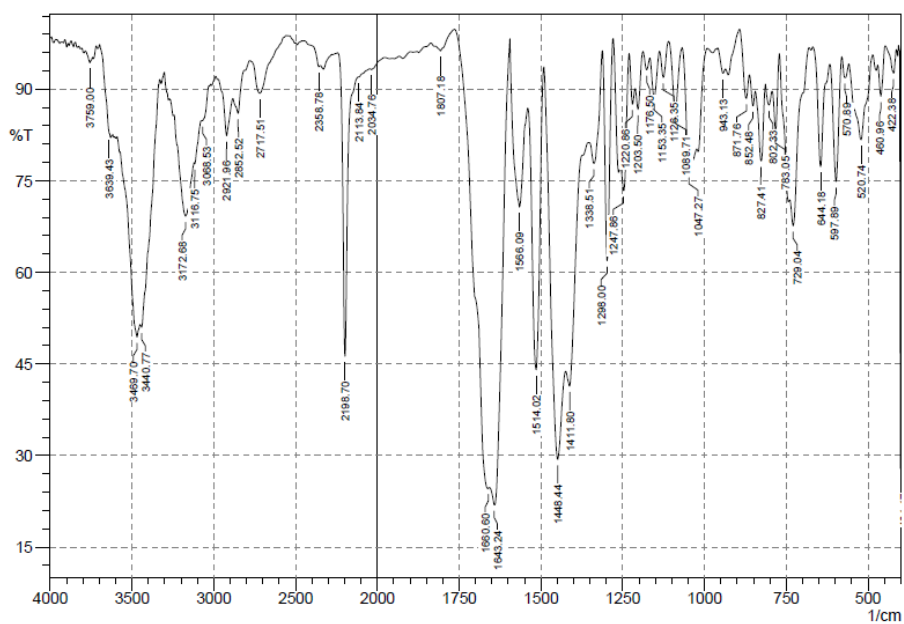
===== CHANNEL #2 =====
CPDPGR2          waitz16
NUC2              1H
PCPD2            90.00      USMC
PL2              -2.00      dB
PL12             14.16      dB
PL13             17.90      dB
PL2W             11.86359406  W
PL12W            0.28722104  W
PL13W            0.12139934  W
SFD2            400.2216009  MHz
SI               32768
SF              100.6353990  MHz
WDM              EM
SSB              0
LA               1.00      Hz
GB               0
PC               1.0

```

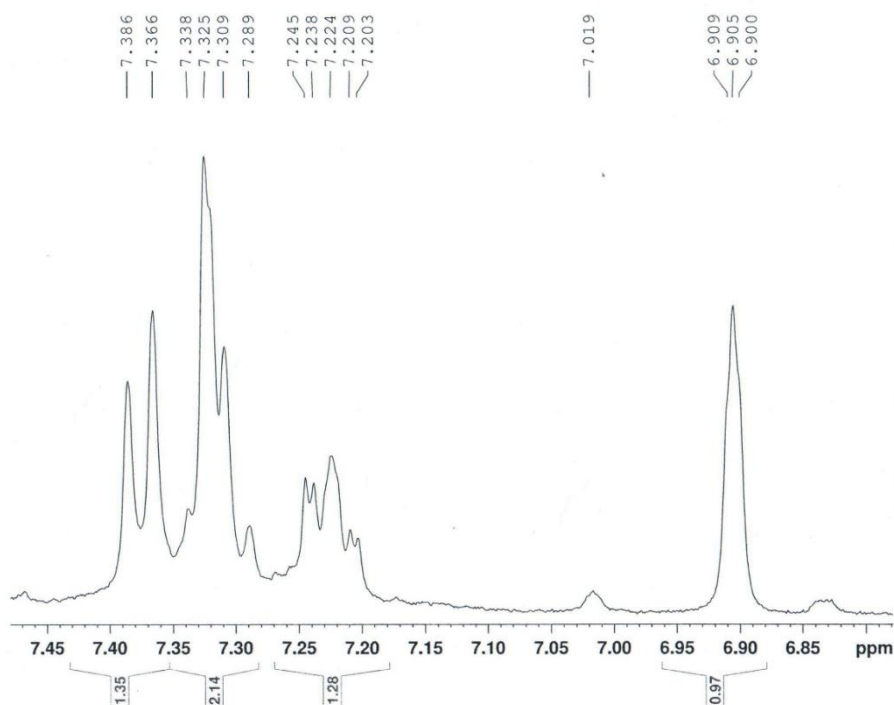
2-Amino-5-(3-bromophenyl)-7-(1-methyl-1H-pyrrol-2-yl)-4-oxo-3,4,5,8-tetrahydro-pyrido[2,3-*d*]pyrimidine-6-carbonitrile (8f)





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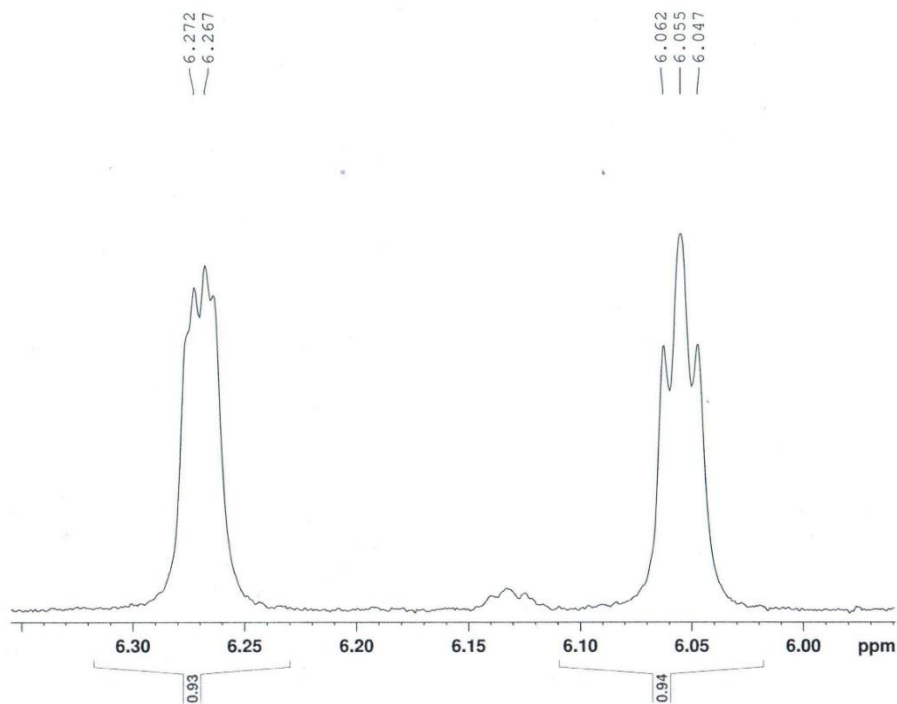
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 EXPNO 3482
 PROCNO 1
 Date_ 20190318
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 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 ID 65536
 SOLVENT DMSO
 NS 20
 DS 0
 SMH 8012.820 Hz
 FIDRES 0.122266 Hz
 AQ 4.0894366 sec
 RG 256
 DW 62.400 use
 DE 6.50 use
 TE 294.6 K
 D1 4.00000000 sec
 TDO 1
 ===== CHANNEL f1 =====
 NUC1 1H
 P1 14.00 use
 PL1 -2.00 dB
 PL1W 11.86359406 W
 SFO1 400.2236020 MHz
 SI 32768
 SF 400.2200000 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



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NAME Gilan UN
EXPNO 3482
PROCNO 1
Date_ 20180318
Time 14.01
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 20
DS 0
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894966 sec
RG 256
DW 62.400 usec
DE 6.50 usec
TE 294.6 K
D1 4.00000000 sec
TD0 1

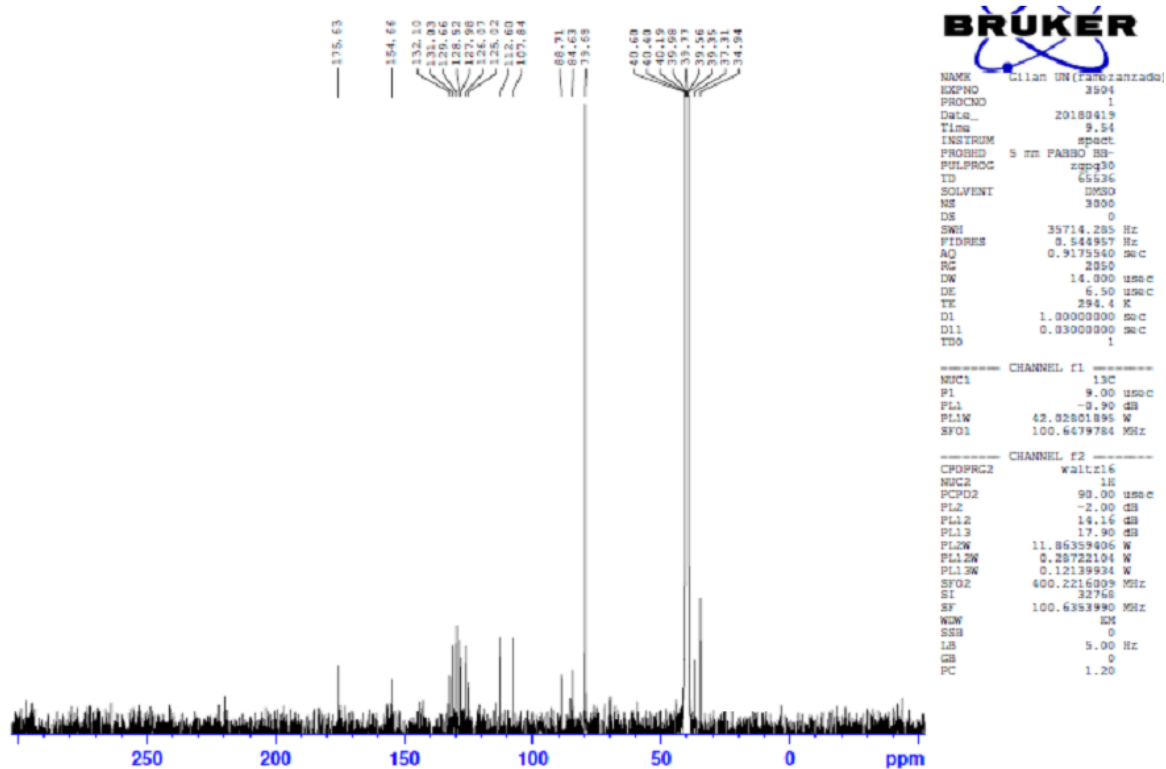
===== CHANNEL f1 =====
NUC1 1H
P1 14.00 usec
PL1 -2.00 dB
PL1W 11.86359406 W
SFO1 400.2236020 MHz
SI 32768
SF 400.2200000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



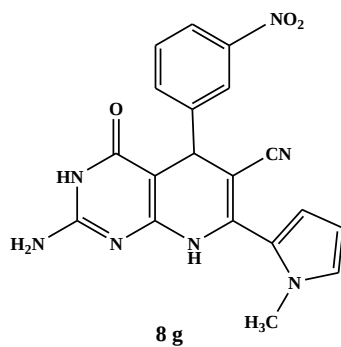
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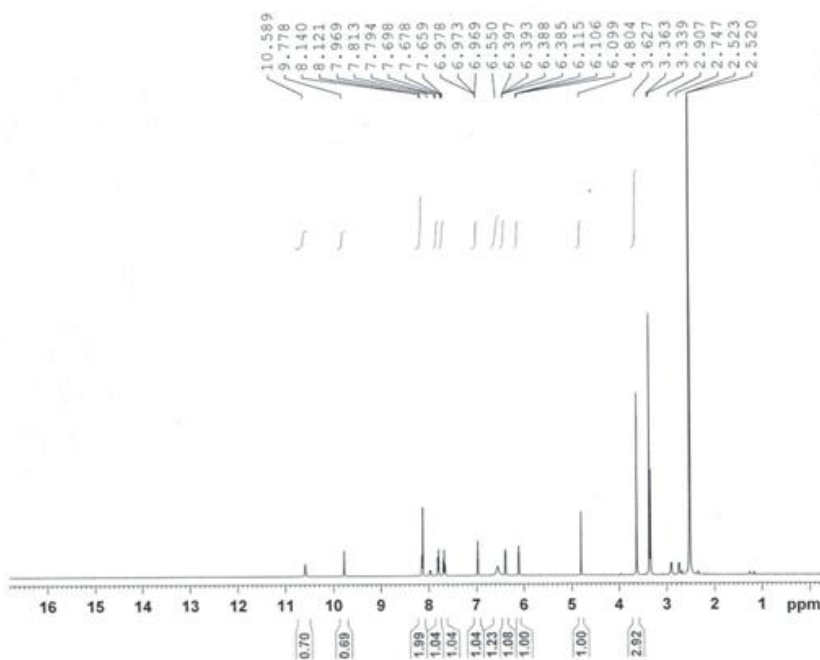
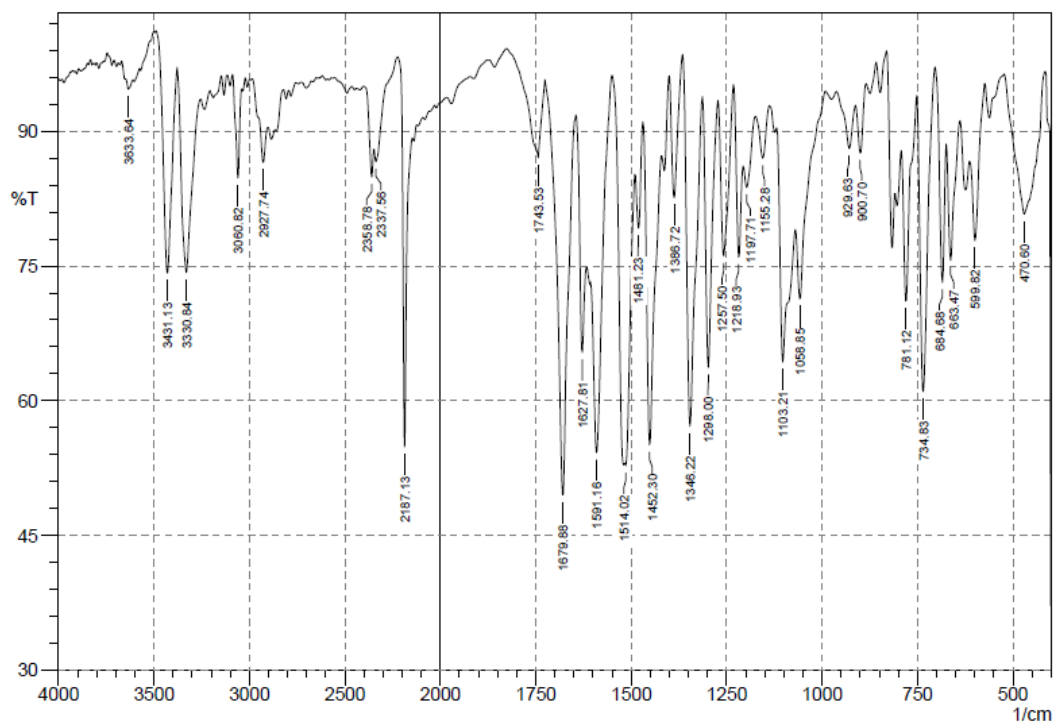
NAME Gilan UN
EXPNO 3482
PROCNO 1
Date_ 20180318
Time 14.01
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 20
DS 0
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894966 sec
RG 256
DW 62.400 usec
DE 6.50 usec
TE 294.6 K
D1 4.00000000 sec
TD0 1

===== CHANNEL f1 =====
NUC1 1H
P1 14.00 usec
PL1 -2.00 dB
PL1W 11.86359406 W
SFO1 400.2236020 MHz
SI 32768
SF 400.2200000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



2-Amino-5-(3-nitrophenyl)-7-(1-methyl-1H-pyrrol-2-yl)-4-oxo-3,4,5,8-tetrahydro-pyrido[2,3-*d*]pyrimidine-6-carbonitrile (8g).



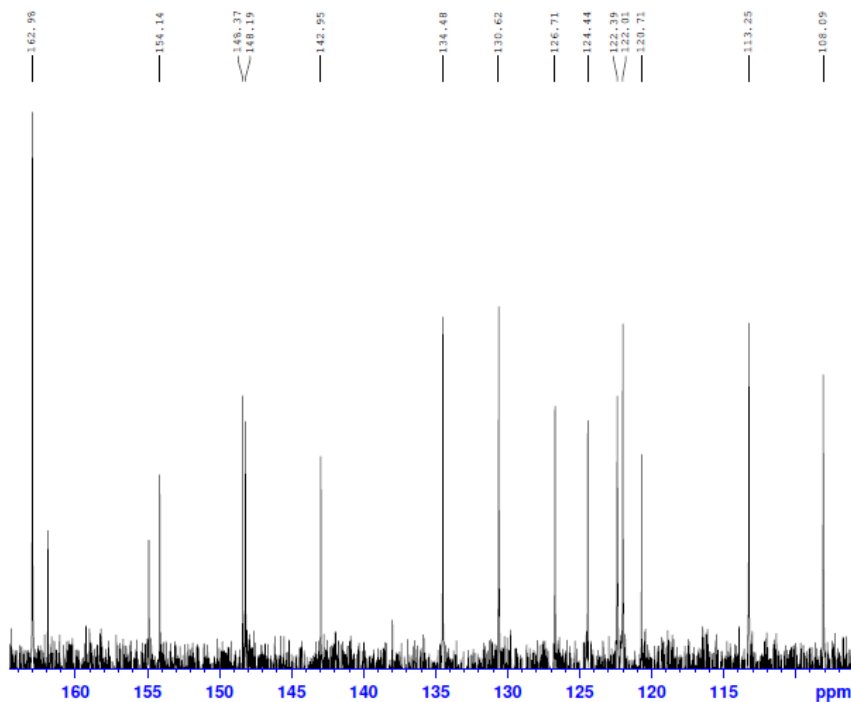
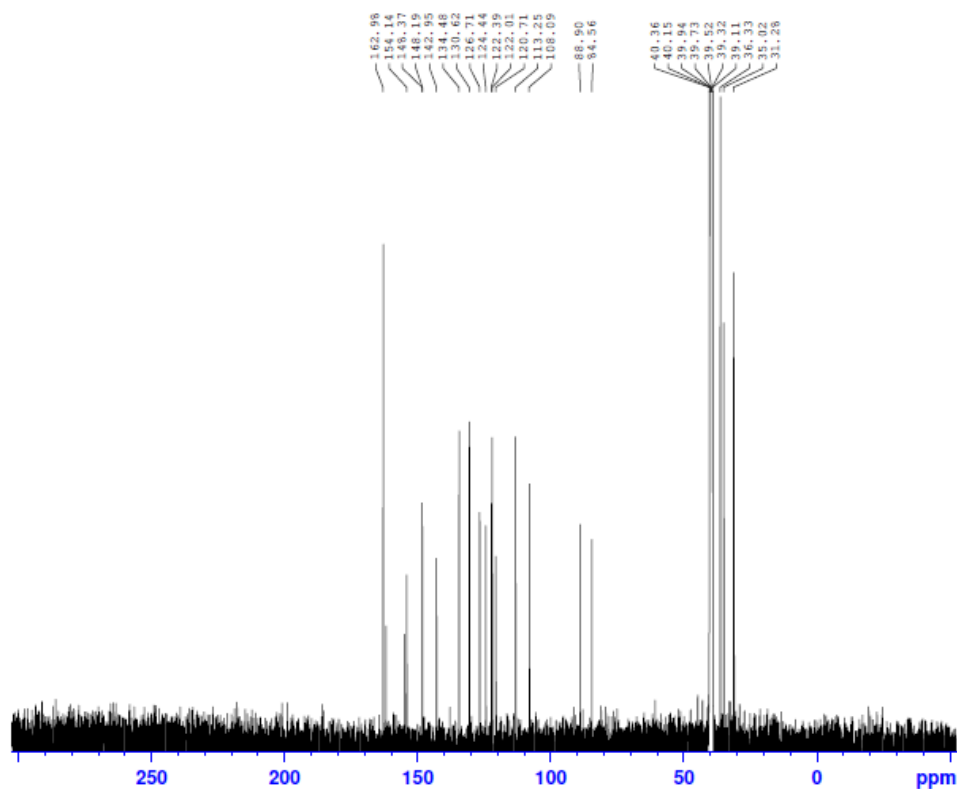


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NAME	Gilan UN
EXPNO	2773
PROCNO	1
Date_	20170117
Time	10.59
INSTRUM	spect
PROBHD	5 mm FATHO BB-
PULPROG	zgpg30
TD	65536
SOLVENT	DMSO
NS	20
DS	0
SWH	8012.820 Hz
FIDRES	0.122266 Hz
AQ	4.0894966 sec
RG	144
DN	62.400 usec
DE	6.50 usec
TE	293.6 K
D1	4.00000000 sec
TD0	1

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

HVC1	1H
P1	14.00 usec
PL1	-2.00 dB
PL1W	11.86359406 W
SFO1	400.2236020 MHz
SI	32768
SF	400.2200000 MHz
WDW	EM
SSB	0
LB	0.30 Hz
GB	0
PC	1.00

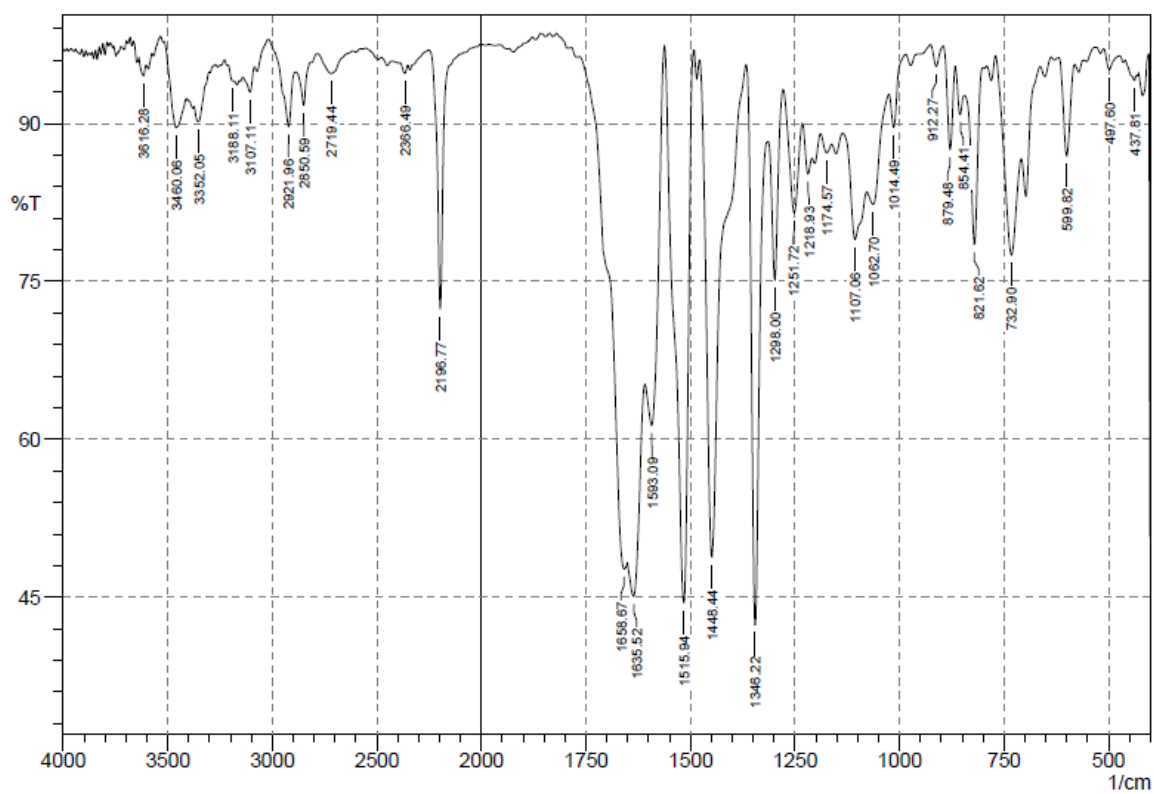
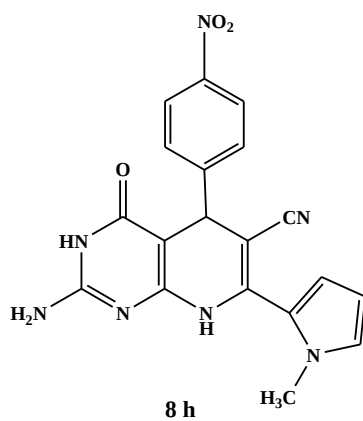


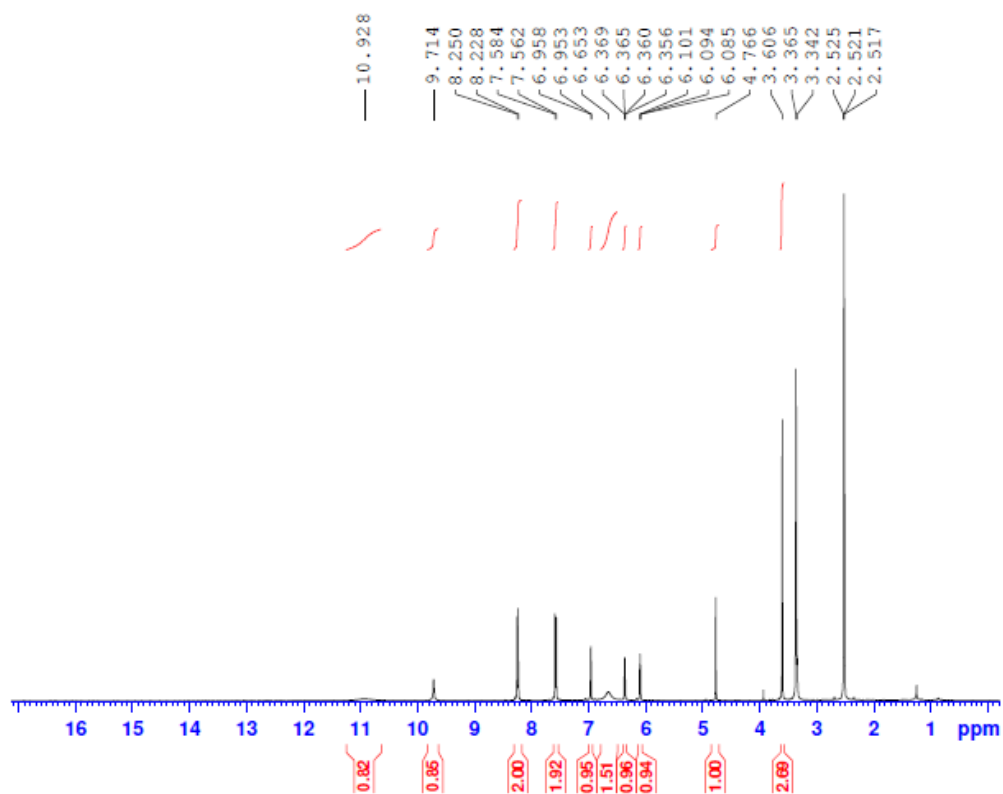
NAME: Gilan UN
 EXPNO: 2816
 PROCNO: 1
 Date_: 20170201
 Time: 15.09
 INSTRUM: spect
 PROBHD: 5 mm PABBO BB-
 PULPROG: zgpg30
 TD: 65536
 SOLVENT: DMSO
 NS: 5438
 DS: 0
 SWH: 35714.285 Hz
 FIDRES: 0.544957 Hz
 AQ: 0.9175540 sec
 RG: 2050
 DW: 14.000 usec
 DE: 6.50 usec
 TE: 294.0 K
 D1: 1.00000000 sec
 D11: 0.03000000 sec
 TDO: 1

===== CHANNEL f1 =====
 NUC1: 13C
 P1: 9.00 usec
 PL1: -0.90 dB
 PL1W: 42.02801895 W
 SFO1: 100.6479784 MHz

===== CHANNEL f2 =====
 CPDPRG2: waltz16
 NUC2: 1H
 PCPD2: 90.00 usec
 PL2: -2.00 dB
 PL12: 14.16 dB
 PL13: 17.90 dB
 PL2W: 11.86359406 W
 PL12W: 0.28722104 W
 PL13W: 0.12139934 W
 SFO2: 400.2216009 MHz
 SI: 32768
 SF: 100.6353990 MHz
 WDW: EM
 SSB: 0
 LB: 1.00 Hz
 GB: 0
 PC: 1.40

2-Amino-5-(4-nitrophenyl)-7-(1-methyl-1H-pyrrol-2-yl)-4-oxo-3,4,5,8-tetrahydropyrido[2,3-*d*]pyrimidine-6-carbonitrile (8h)

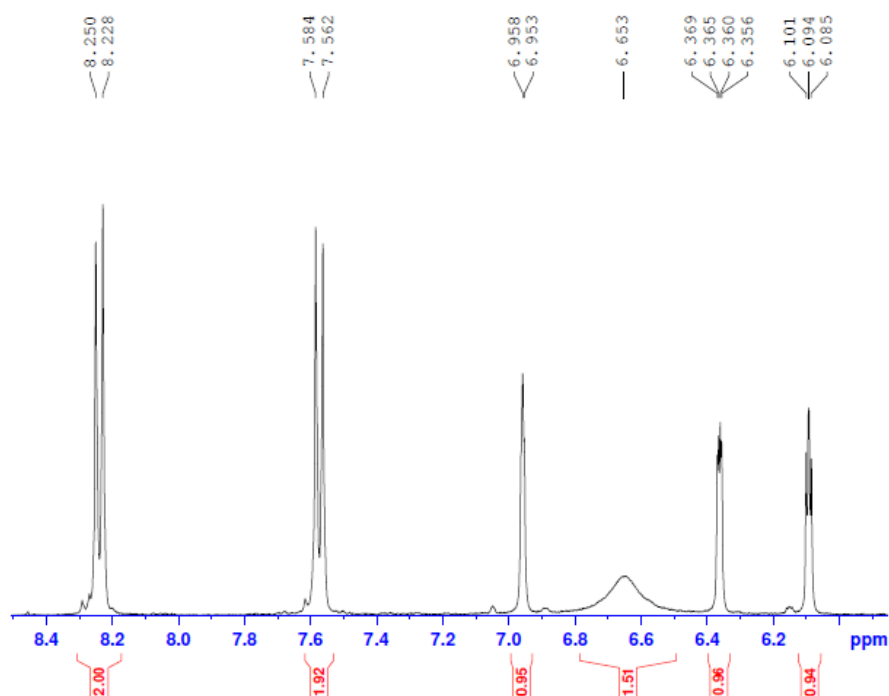




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NAME Gilan
EXPNO 3577
PROCNO 1
Date_ 20180505
Time 10.52
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 20
DS 0
SWH 8012.820
FIDRES 0.122266
AQ 4.0894966
RG 228
DW 62.400
DE 6.50
TE 293.4
D1 4.00000000
TDO 1

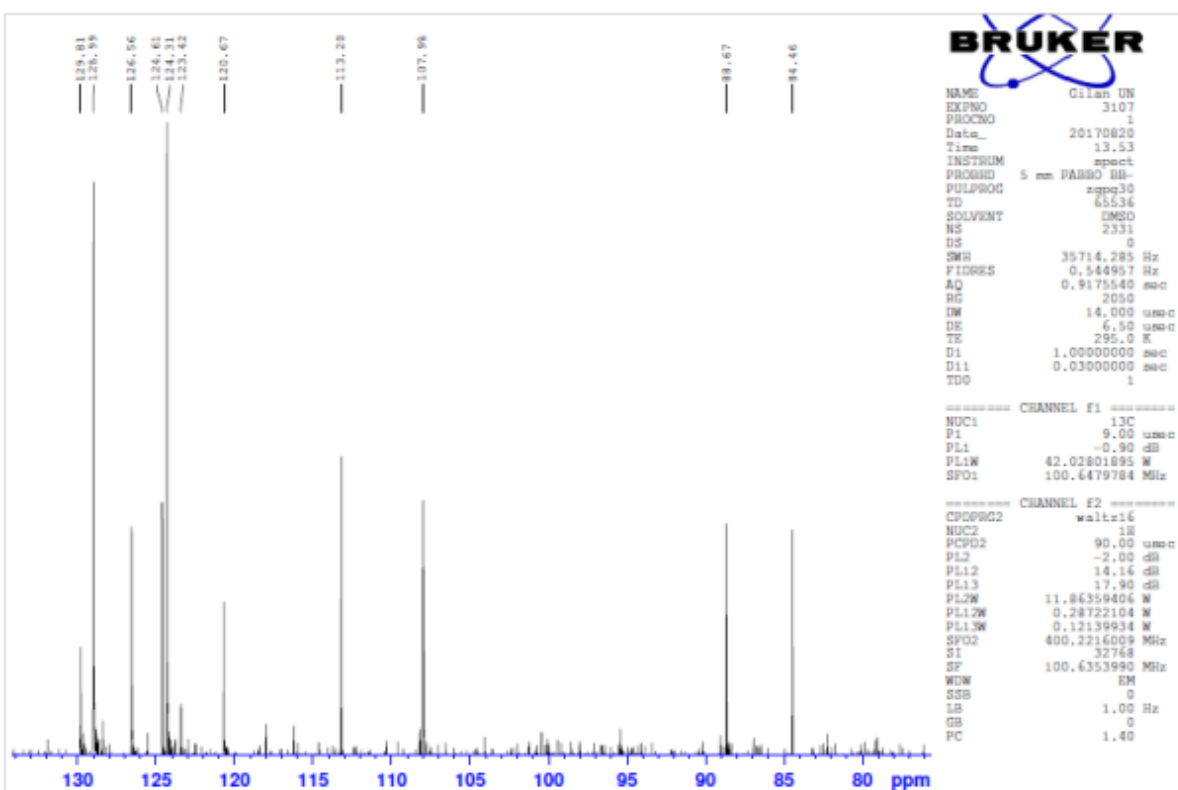
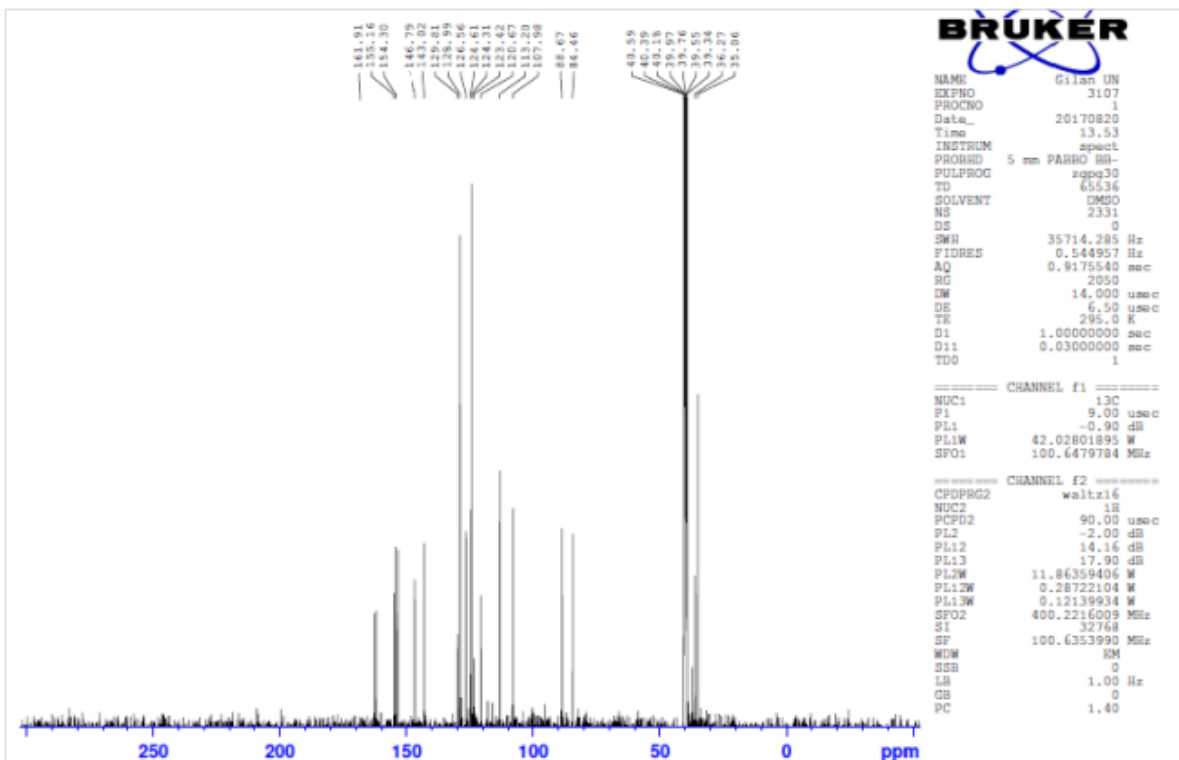
===== CHANNEL f1 =====
NUC1 1H
P1 14.00
PL1 -2.00
PL1W 11.86359406
SFO1 400.2236020
SI 32768
SF 400.2200000
WDW EM
SSB 0
LB 0.30
GB 0
PC 1.00



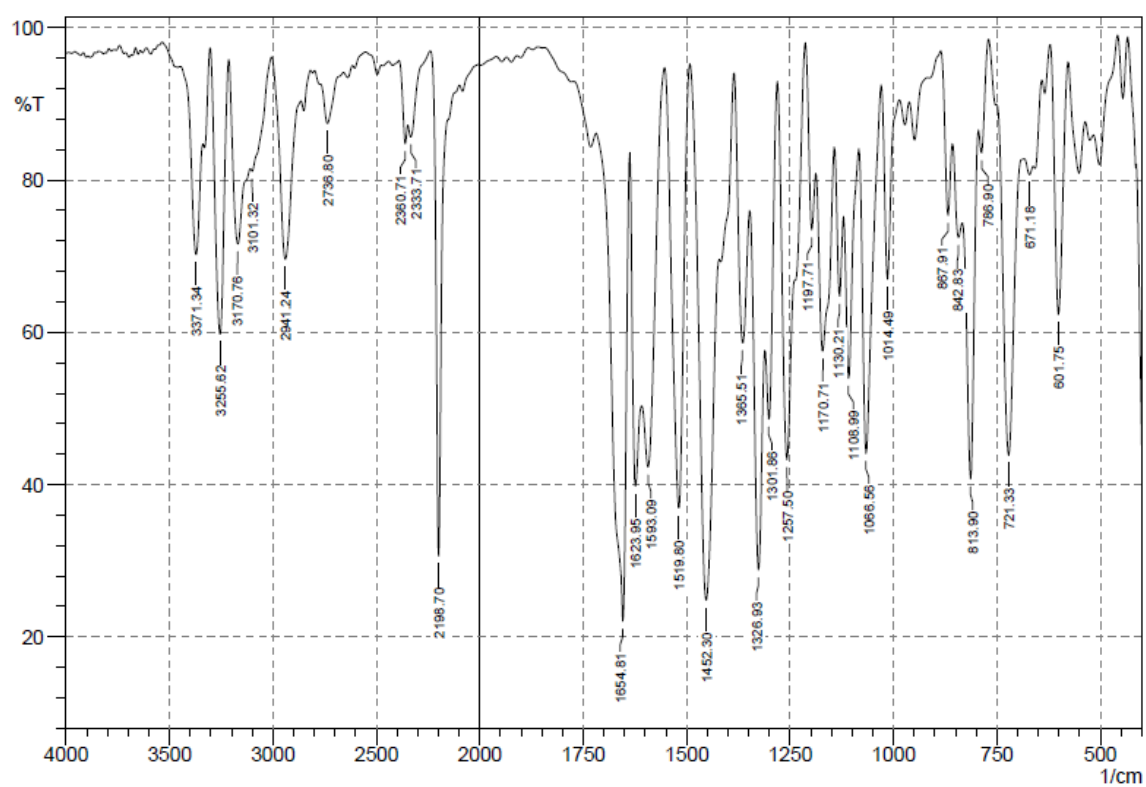
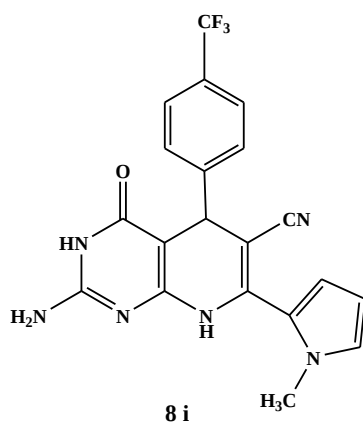
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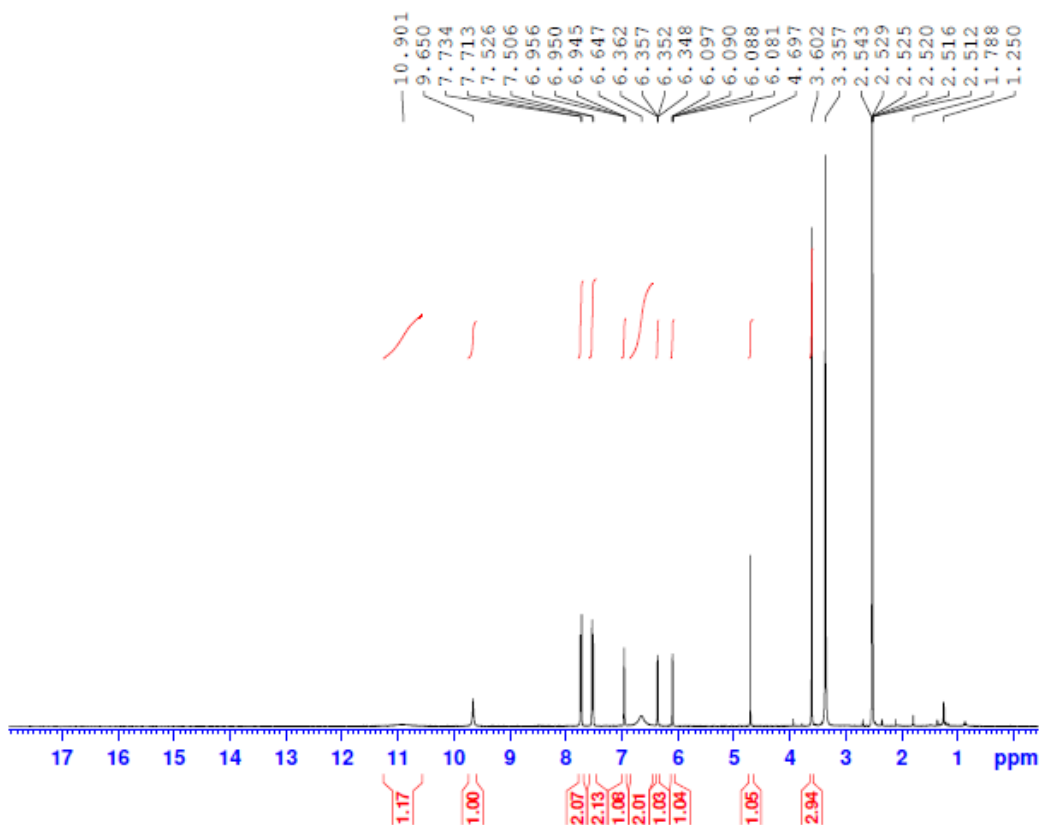
NAME Gilan
EXPNO 3577
PROCNO 1
Date_ 20180505
Time 10.52
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 20
DS 0
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894966 sec
RG 228
DW 62.400 usec
DE 6.50 usec
TE 293.4 K
D1 4.00000000 sec
TDO 1

===== CHANNEL f1 =====
NUC1 1H
P1 14.00 usec
PL1 -2.00 dB
PL1W 11.86359406 W
SFO1 400.2236020 MHz
SI 32768
SF 400.2200000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



2-Amino-5-(4-(trifluoromethyl)phenyl)-7-(1-methyl-1H-pyrrol-2-yl)-4-oxo-3,4,5,8-tetrahydro-pyrido[2,3-*d*]pyrimidine-6-carbonitrile (8i)

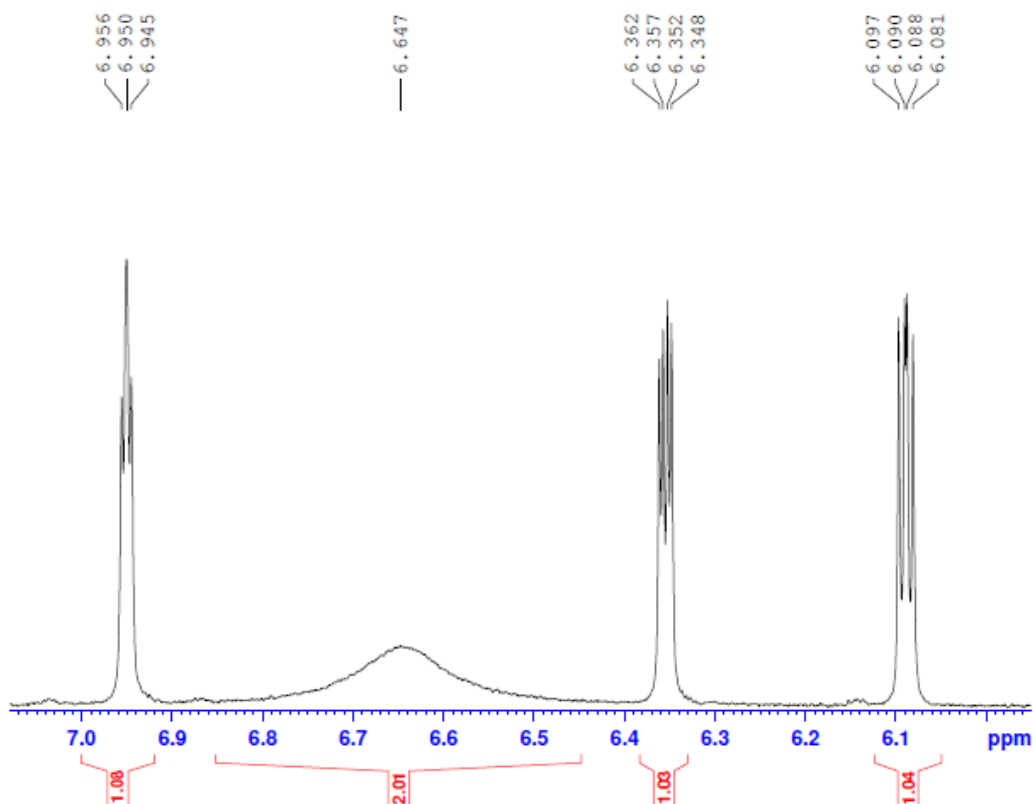




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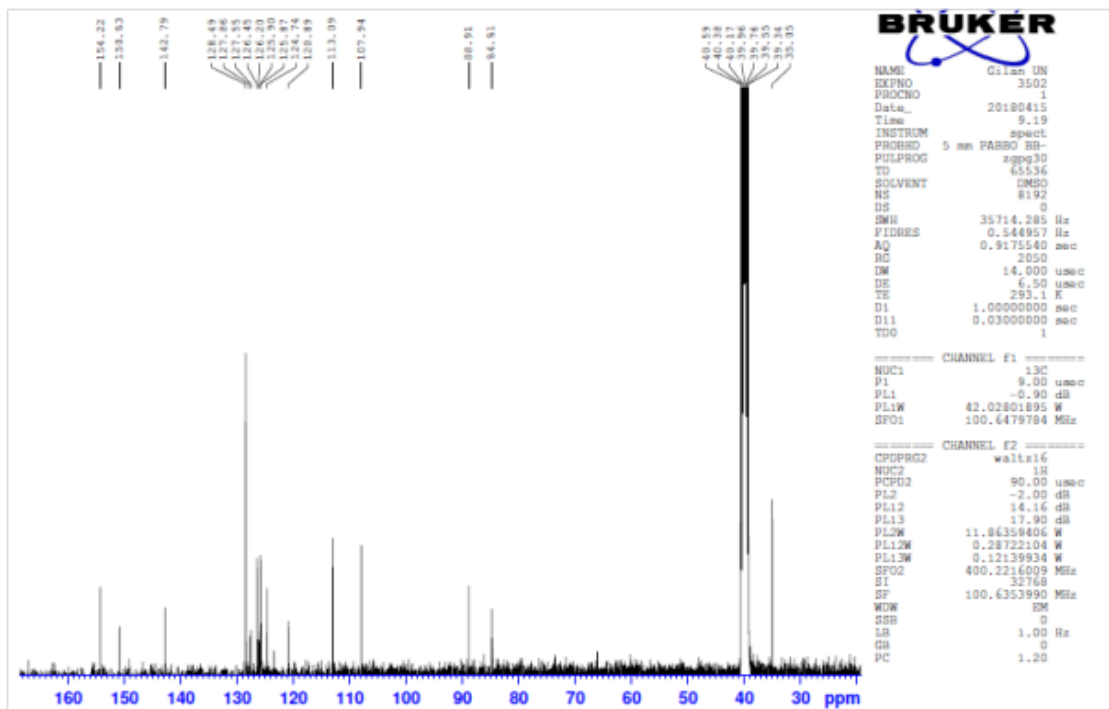
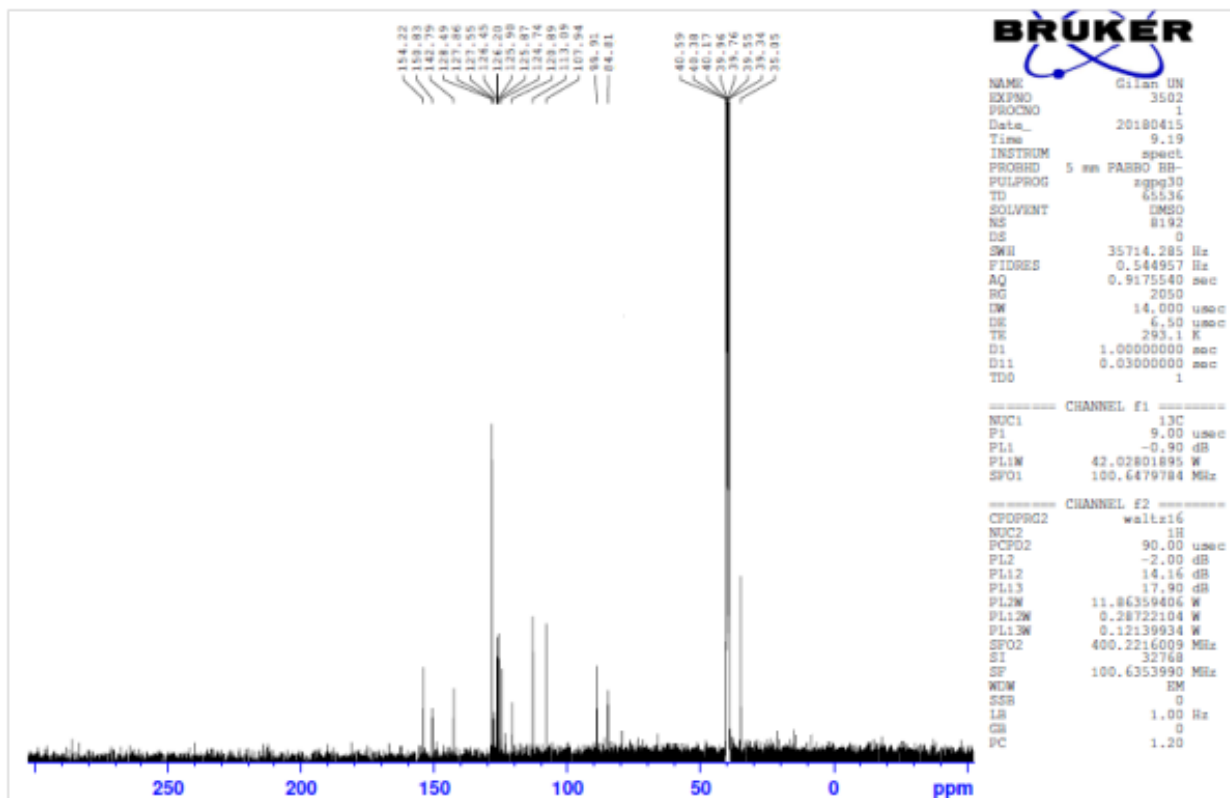
NAME      Gilan
EXPNO     3480
PROCNO    1
Date_     20180318
Time      13.13
INSTRUM   spect
PROBHD    5 mm PABBO BB-
PULPROG   zg30
TD         65536
SOLVENT   DMSO
NS         20
DS         0
SWH        8012.820 Hz
FIDRES     0.122266 Hz
AQ         4.0894966 sec
RG         287
DW         62.400 usec
DE         6.50 usec
TE         294.4 K
D1         4.00000000 sec
TD0        1
===== CHANNEL f1 =====
NUC1       1H
P1         14.00 usec
PL1        -2.00 dB
PL1W       11.86359406 W
SFO1       400.2236020 MHz
SI         32768
SF         400.2200000 MHz
WDW        EM
SSB        0
LB         0.30 Hz
GB         0
PC         1.00
  
```



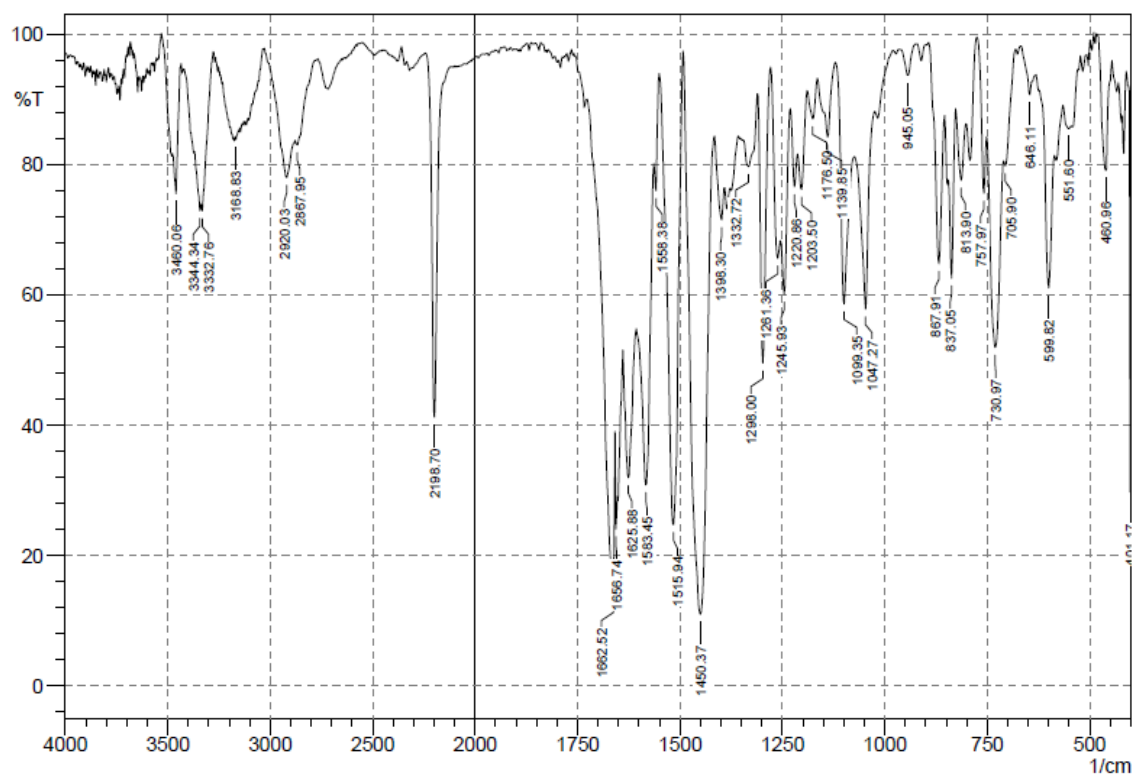
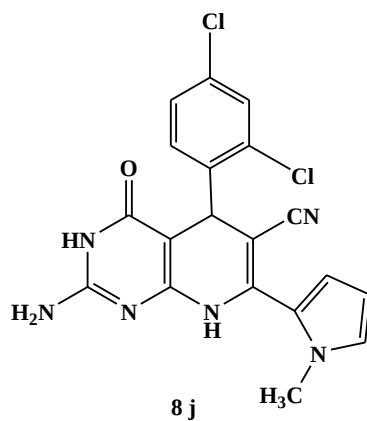
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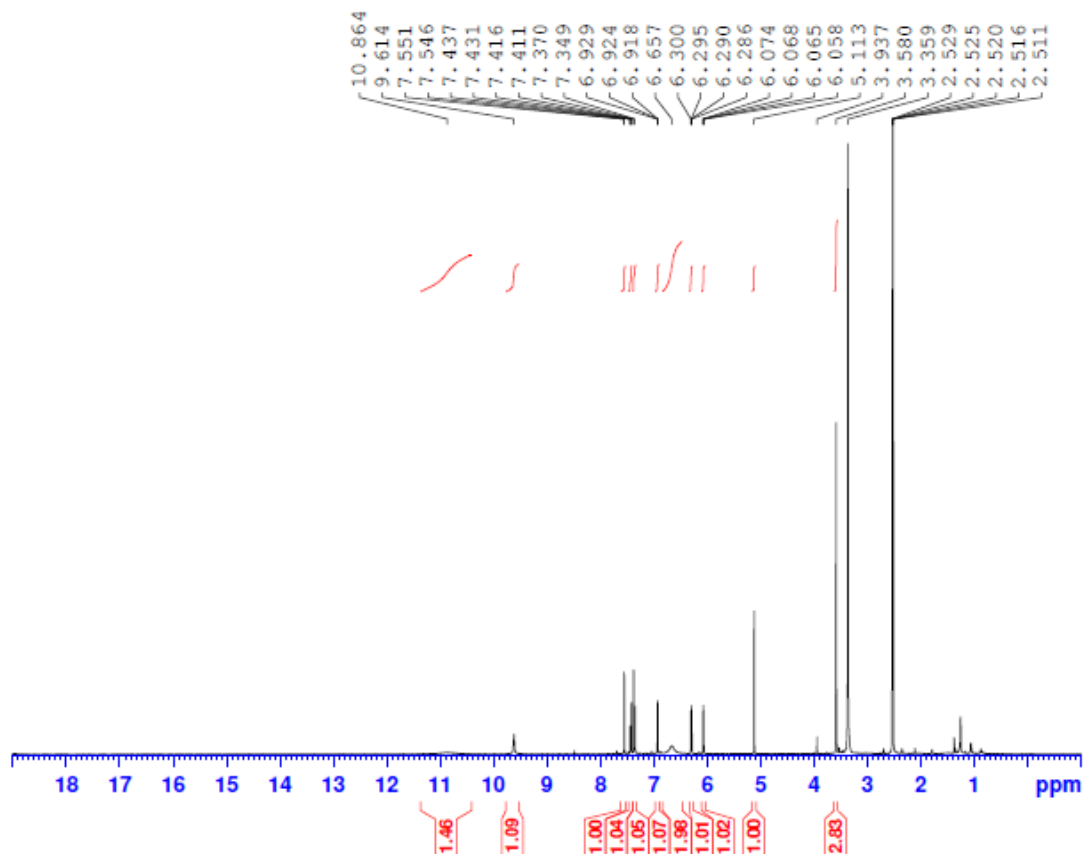
```

NAME      Gilan
EXPNO     3480
PROCNO    1
Date_     20180318
Time      13.13
INSTRUM   spect
PROBHD    5 mm PABBO BB-
PULPROG   zg30
TD         65536
SOLVENT   DMSO
NS         20
DS         0
SWH        8012.820 Hz
FIDRES     0.122266 Hz
AQ         4.0894966 sec
RG         287
DW         62.400 usec
DE         6.50 usec
TE         294.4 K
D1         4.00000000 sec
TD0        1
===== CHANNEL f1 =====
NUC1       1H
P1         14.00 usec
PL1        -2.00 dB
PL1W       11.86359406 W
SFO1       400.2236020 MHz
SI         32768
SF         400.2200000 MHz
WDW        EM
SSB        0
LB         0.30 Hz
GB         0
PC         1.00
  
```



2-Amino-5-(2,4-dichlorophenyl)-7-(1-methyl-1H-pyrrol-2-yl)-4-oxo-3,4,5,8-tetrahydropyrido[2,3-*d*]pyrimidine-6-carbonitrile (8j)





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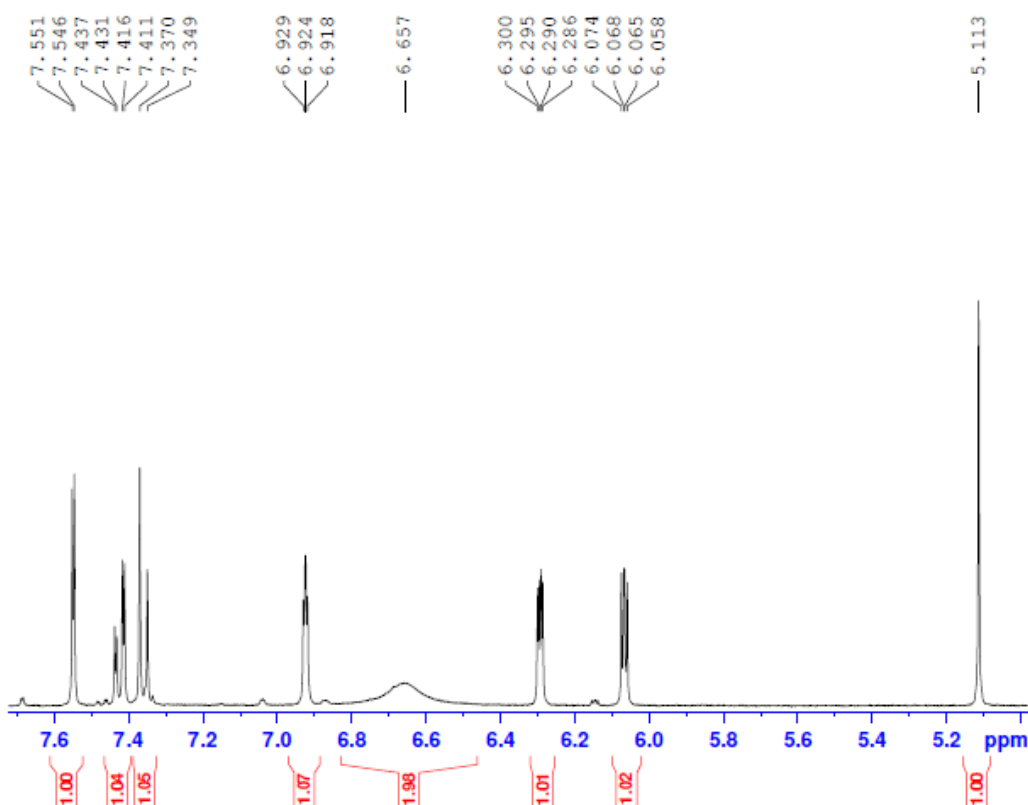
NAME      Gilan
EXPNO     3481
PROCNO    1
Date_     20180318
Time      13.22
INSTRUM   spect
PROBHD    5 mm PABBO BB-
PULPROG   zg30
TD         65536
SOLVENT   DMSO
NS         20
DS         0
SWH        8012.820 Hz
FIDRES     0.122266 Hz
AQ         4.0894966 sec
RG         287
DW         62.400 usec
DE         6.50 usec
TE         294.4 K
D1         4.00000000 sec
TDO        1

```

```

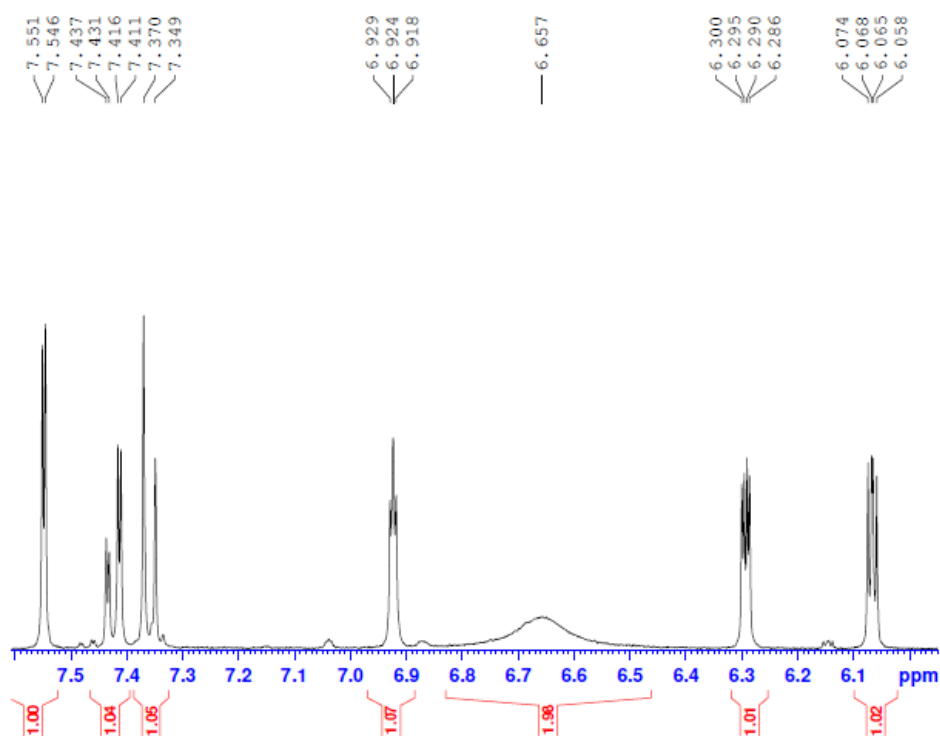
===== CHANNEL f1 =====
NUC1       1H
P1         14.00 usec
PL1        -2.00 dB
PL1W       11.86359406 W
SFO1       400.2236020 MHz
SI         32768
SF         400.2200000 MHz
WDW        EM
SSB        0
LB         0.30 Hz
GB         0
PC         1.00

```



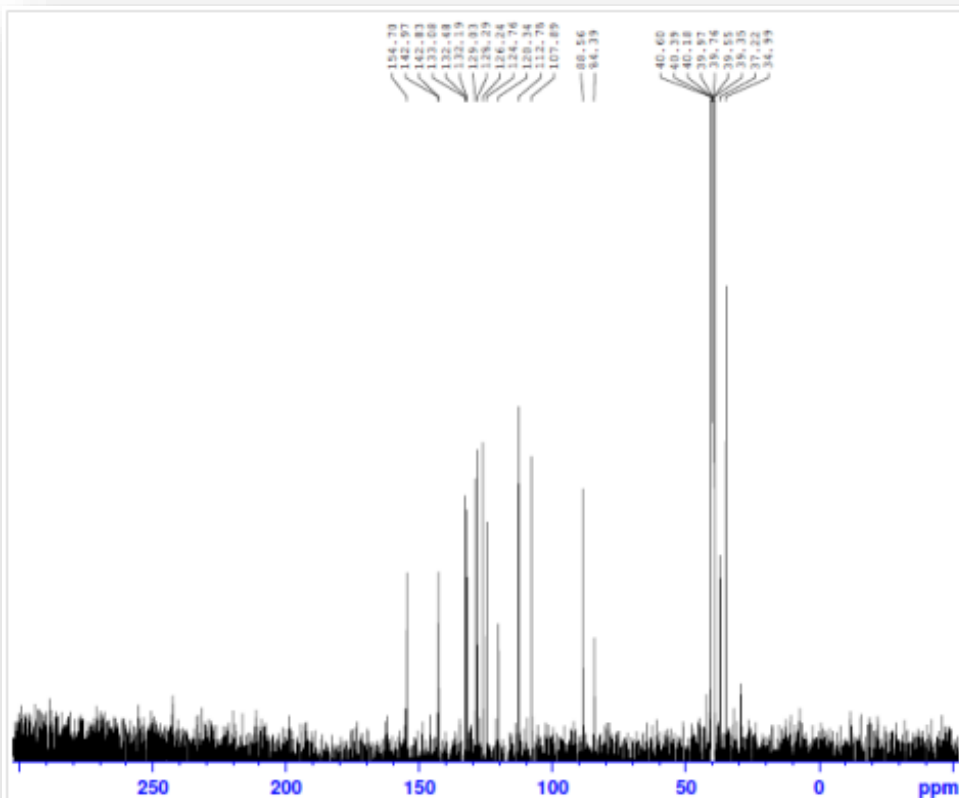
NAME Gilan
EXPNO 3481
PROCNO 1
Date_ 20180318
Time 13.22
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 20
DS 0
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894966 sec
RG 287
DW 62.400 usec
DE 6.50 usec
TE 294.4 K
D1 4.00000000 sec
TDO 1

===== CHANNEL f1 =====
NUC1 1H
P1 14.00 usec
PL1 -2.00 dB
PL1W 11.86359406 W
SFO1 400.2236020 MHz
SI 32768
SF 400.2200000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



NAME Gilan
EXPNO 3481
PROCNO 1
Date_ 20180318
Time 13.22
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 20
DS 0
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894966 sec
RG 287
DW 62.400 usec
DE 6.50 usec
TE 294.4 K
D1 4.00000000 sec
TDO 1

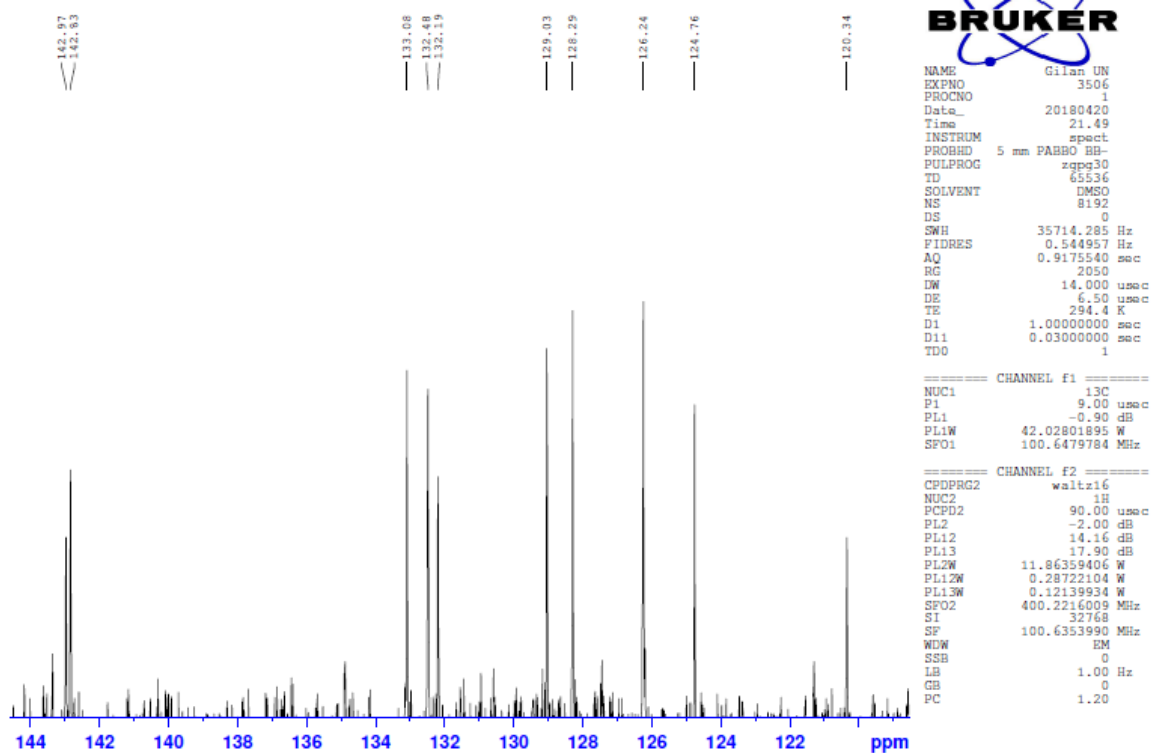
===== CHANNEL f1 =====
NUC1 1H
P1 14.00 usec
PL1 -2.00 dB
PL1W 11.86359406 W
SFO1 400.2236020 MHz
SI 32768
SF 400.2200000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



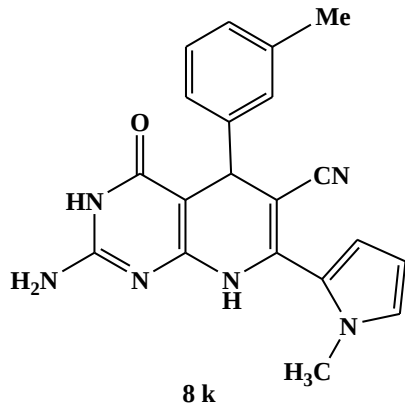
NAME: Glinn UN
 EXPNO: 3506
 PROCNO: 1
 Date_: 20180420
 Time: 21.49
 INSTRUM: spect
 PROBRD: 5 mm PASBO BB-
 PULPROG: zgpg30
 TD: 65536
 SOLVENT: DMSO
 NS: 8192
 DS: 0
 SWH: 35714.286 Hz
 FIDRES: 0.544957 Hz
 AQ: 0.9175540 sec
 RG: 2050
 DW: 14.000 umsec
 DE: 6.50 umsec
 TE: 294.4 K
 D1: 1.00000000 sec
 D11: 0.03000000 sec
 TD0: 1

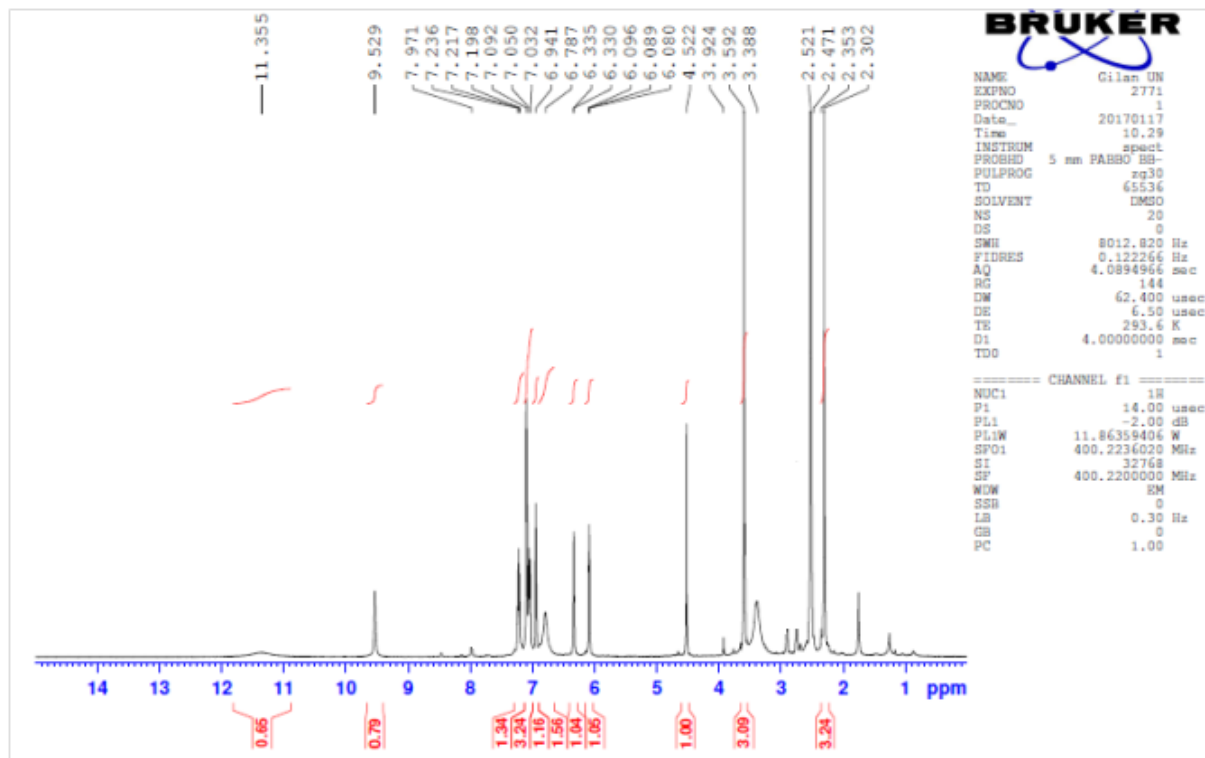
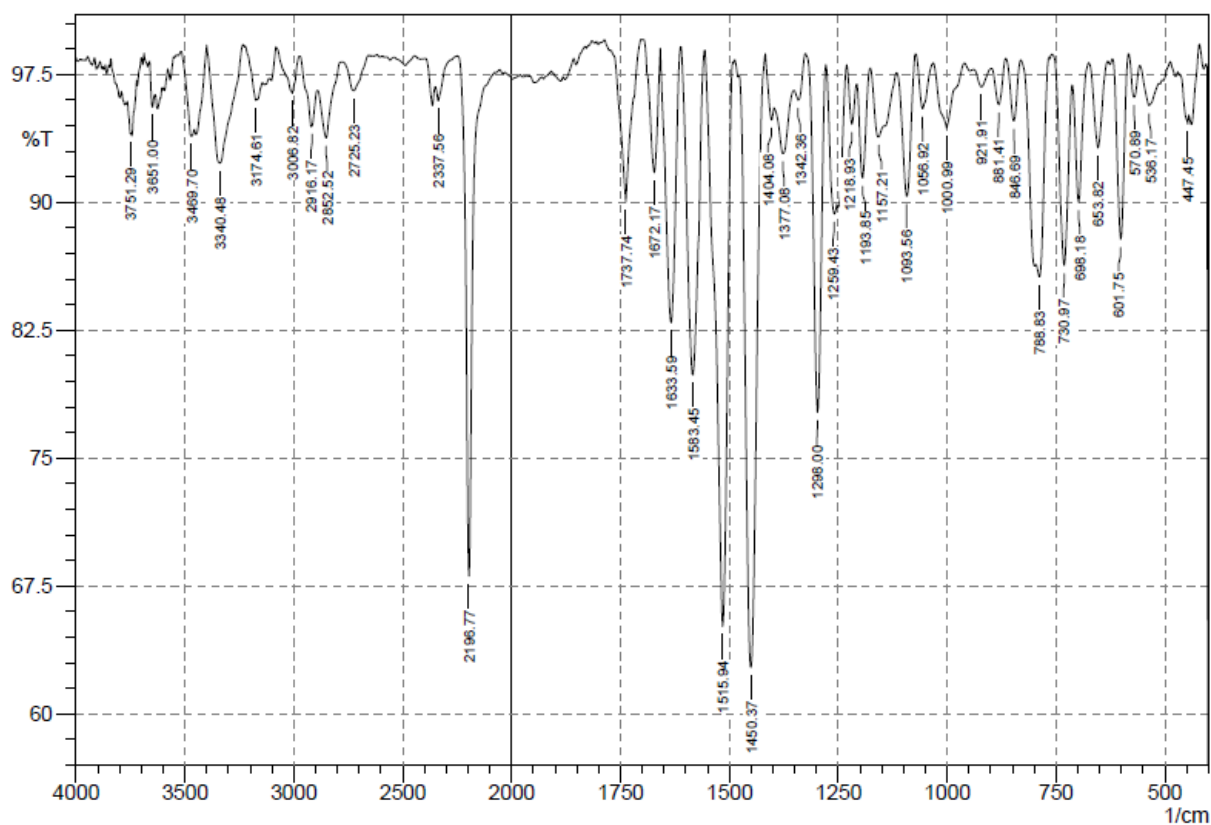
===== CHANNEL f1 =====
 NUC1: 13C
 P1: 9.00 umsec
 PL1: -0.90 dB
 PL1W: 42.02801895 W
 SFO1: 100.6479784 MHz

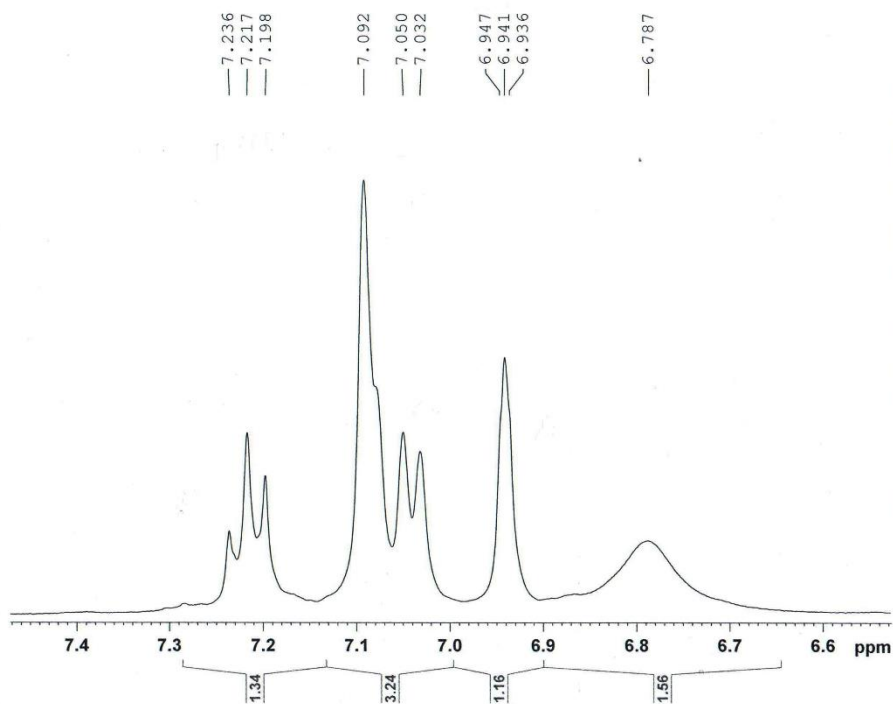
===== CHANNEL f2 =====
 CPDPRG2: waltz16
 NUC2: 1H
 PCPD2: 90.00 umsec
 PL2: -2.00 dB
 PL12: 14.16 dB
 PL13: 17.90 dB
 PL12W: 11.86359406 W
 PL13W: 0.28722104 W
 SFO2: 0.12139934 W
 SFO2: 400.2216009 MHz
 S1: 32768
 SF: 100.6353990 MHz
 WCW: EM
 SSB: 0
 LB: 1.00 Hz
 GB: 0
 PC: 1.20



2-Amino-5-(3-methylphenyl)-7-(1-methyl-1H-pyrrol-2-yl)-4-oxo-3,4,5,8-tetrahydro-pyrido[2,3-*d*]pyrimidine-6-carbonitrile (8k)

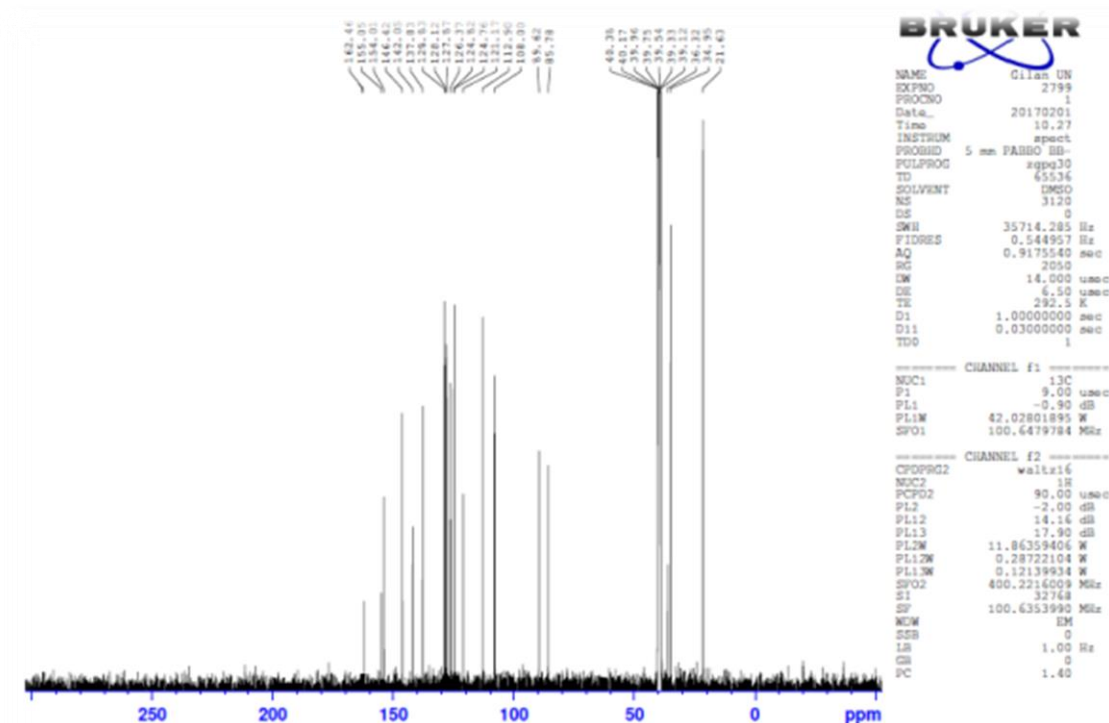
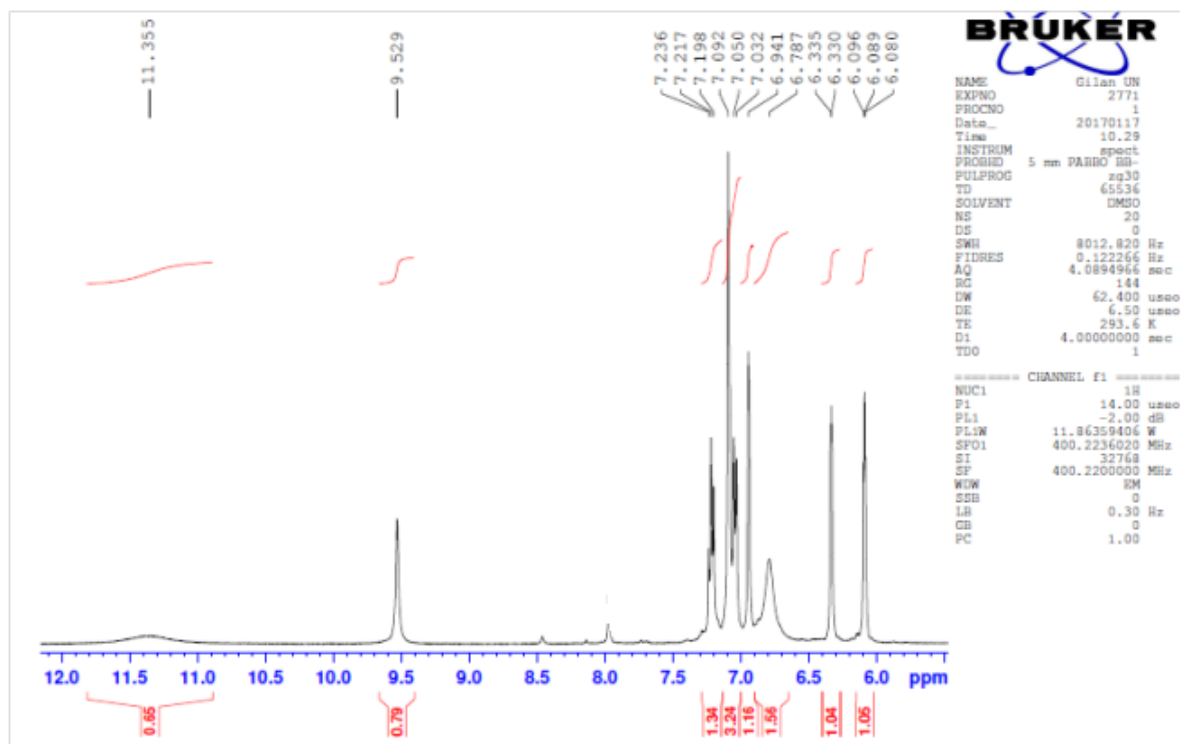


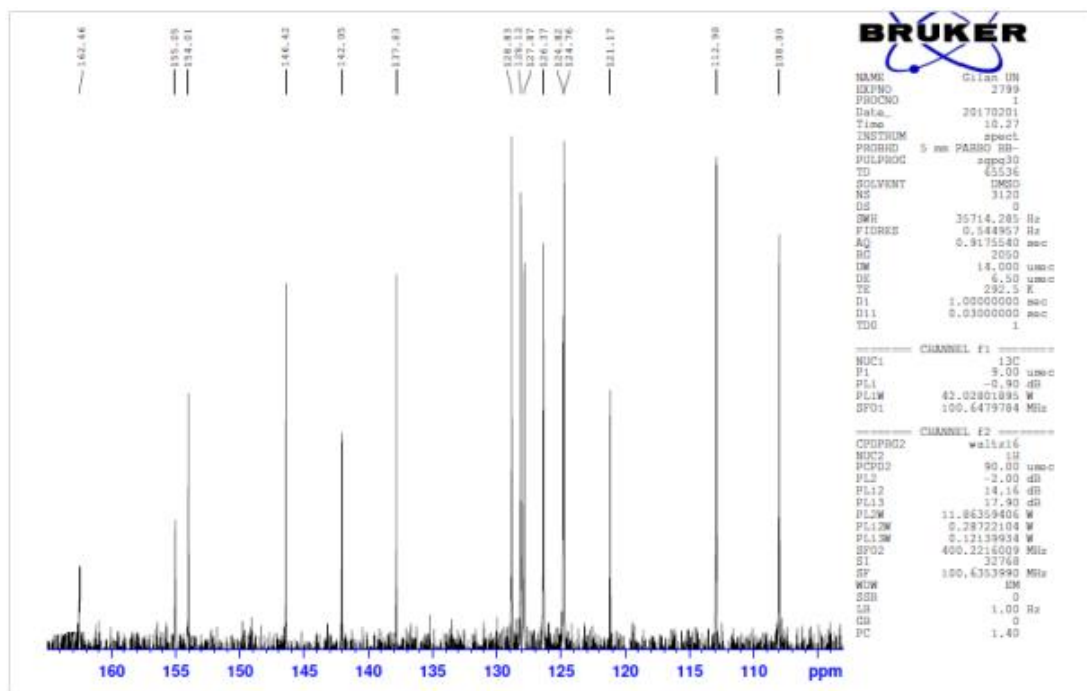




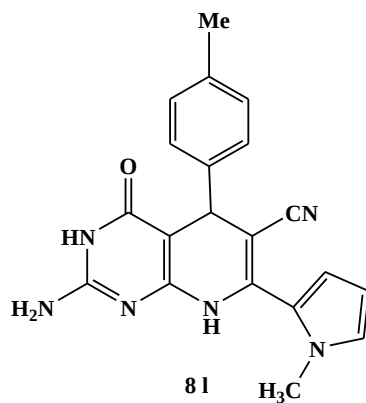
NAME Gilan UN
 EXPNO 2771
 PROCNO 1
 Date_ 20170117
 Time 10.29
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 20
 DS 0
 SWH 8012.820 Hz
 FIDRES 0.122266 Hz
 AQ 4.0894966 sec
 RG 144
 DW 62.400 usec
 DE 6.50 usec
 TE 293.6 K
 D1 4.00000000 sec
 TDO 1

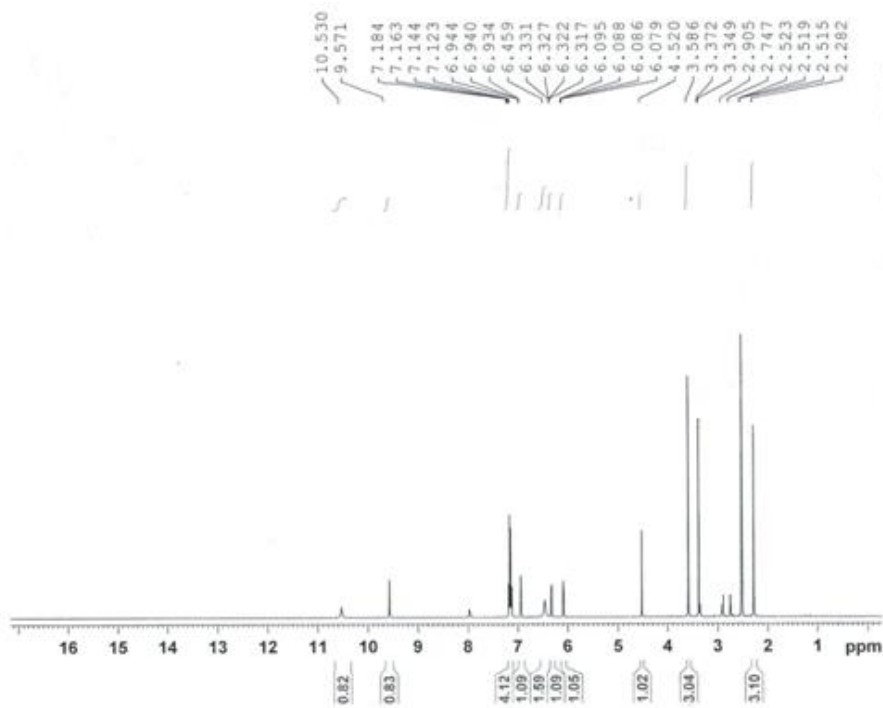
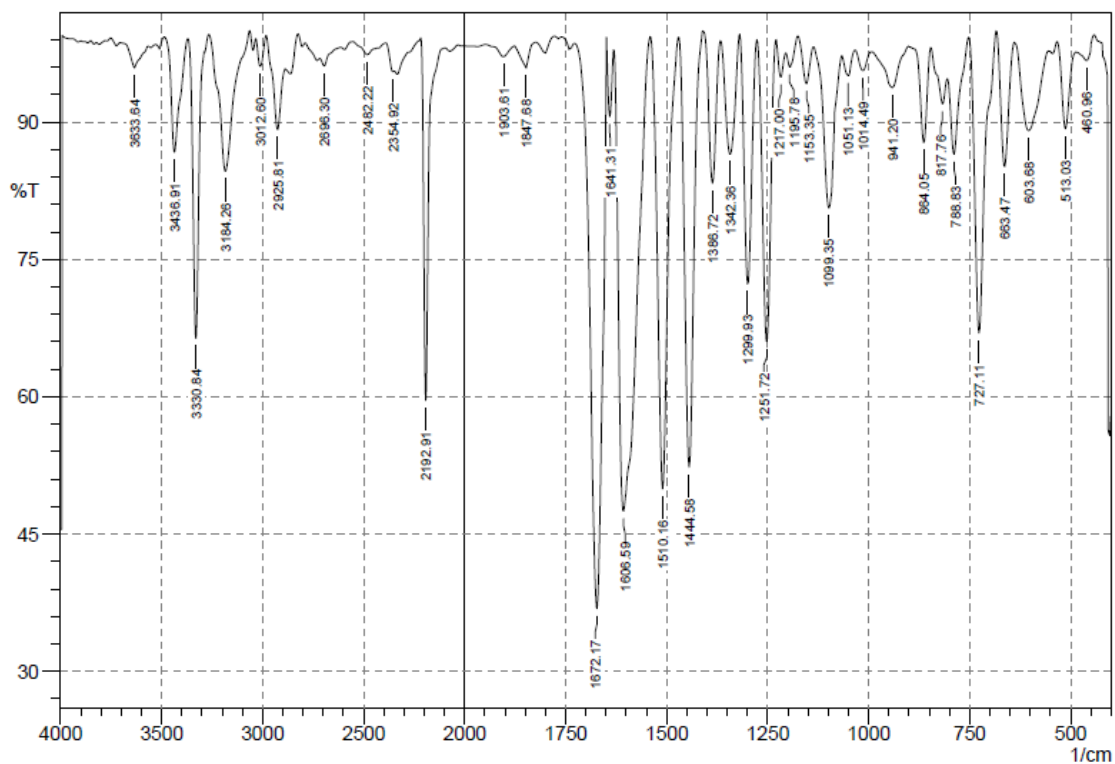
===== CHANNEL f1 =====
 NUC1 1H
 P1 14.00 usec
 PL1 -2.00 dB
 PL1W 11.86359406 W
 SFO1 400.2236020 MHz
 SI 32768
 SF 400.2200000 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00





2-Amino-5-(4-methylphenyl)-7-(1-methyl-1H-pyrrol-2-yl)-4-oxo-3,4,5,8-tetrahydro-pyrido[2,3-*d*]pyrimidine-6-carbonitrile (81).



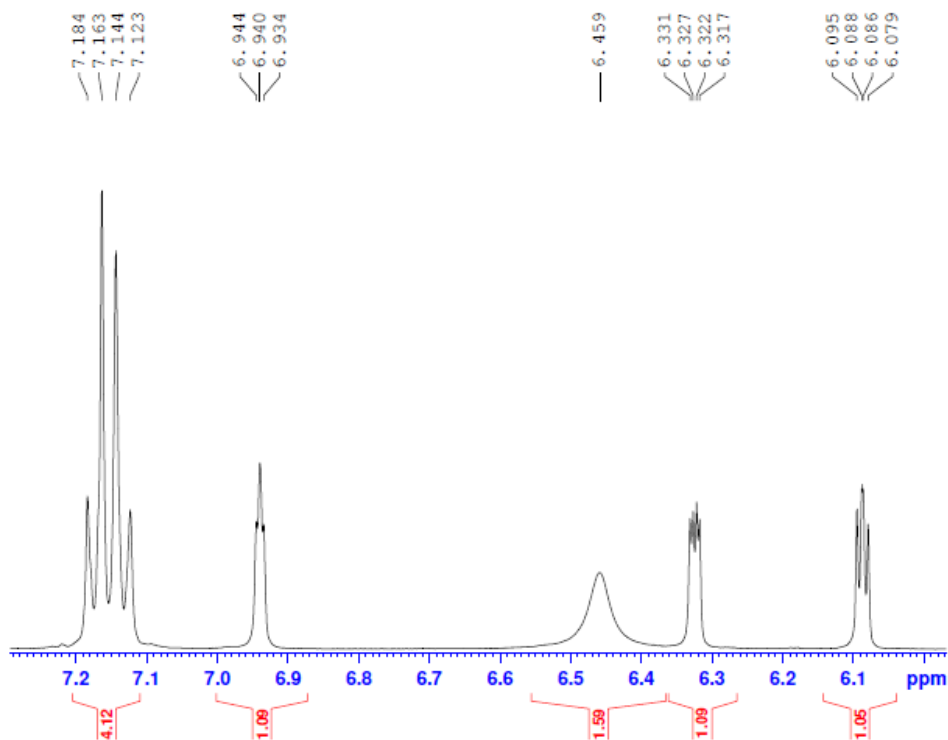


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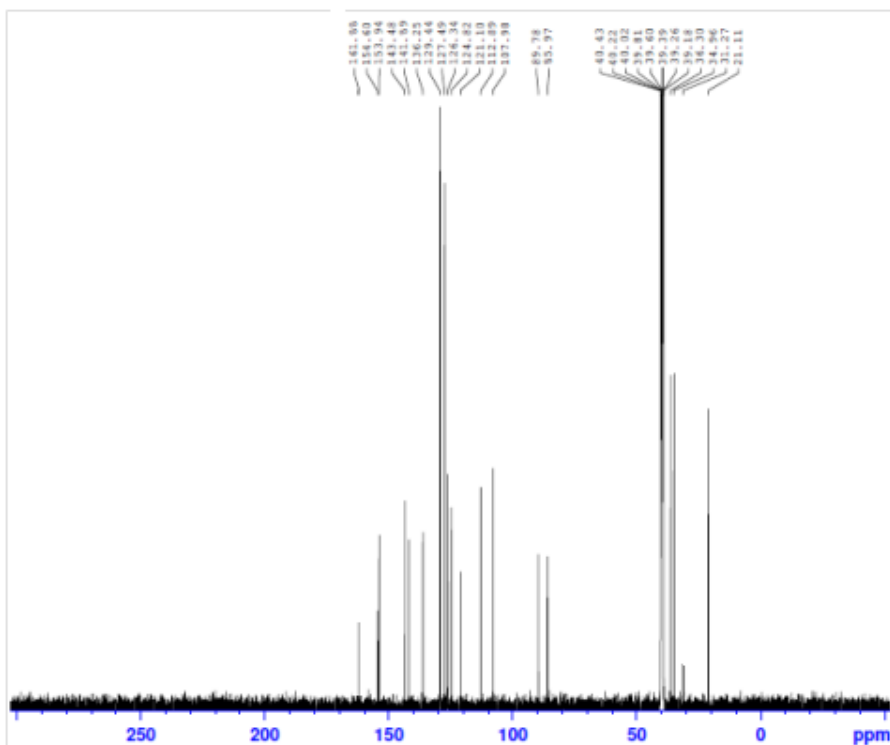
NAME      G11an LW
EXPNO     2770
PROCNO    1
Date_     20170117
Time      10.18
INSTRUM   spect
PROBHD    5 mm PABBO BB-
PULPROG   zg30
TD         65536
SOLVENT   DMSO
NS         20
DS         2
SWH        8012.820 Hz
FIDRES     0.122266 Hz
AQ         4.0894966 sec
RG         144
CW         62.400 use
DE         6.50 use
TE         293.7 K
D1         4.00000000 sec
TD0        1

===== CHANNEL f1 =====
NUC1       1H
P1         14.00 use
PL1        -2.00 dB
PL1W       11.86359404 W
SFO1       400.2236020 MHz
SI         32768
SF         400.2200000 MHz
WDW        EM
SSB        0
LB         0.30 Hz
GB         0
PC         1.00
  
```



NAME Gilan
EXPNO 2770
PROCNO 1
Date_ 20170117
Time 10.18
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 20
DS 0
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894966 sec
RG 144
DW 62.400 usec
DE 6.50 usec
TE 293.7 K
D1 4.00000000 sec
TD0 1

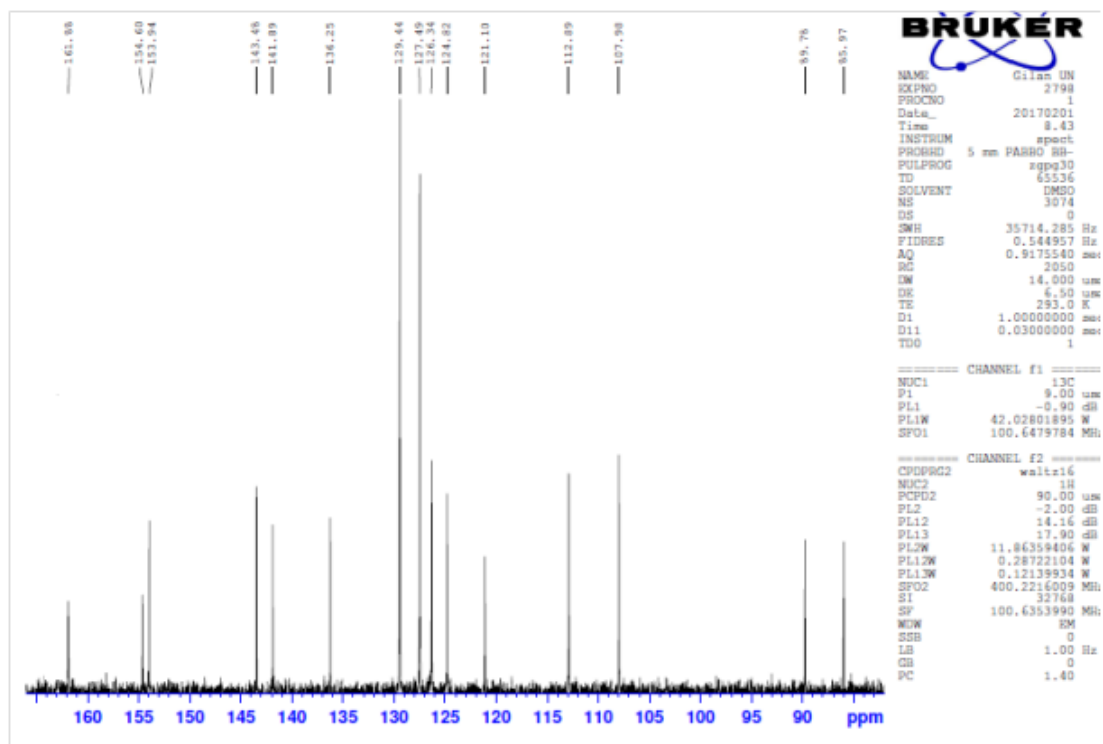
===== CHANNEL f1 =====
NUC1 1H
P1 14.00 usec
PL1 -2.00 dB
PL1W 11.86359406 W
SFO1 400.2236020 MHz
SI 32768
SF 400.2200000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



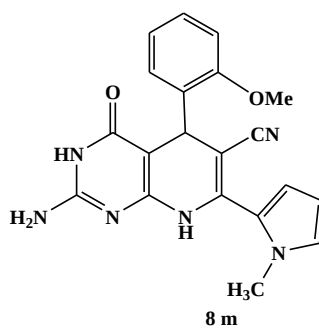
NAME Gilan UN
EXPNO 2798
PROCNO 1
Date_ 20170201
Time 8.43
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 3074
DS 0
SWH 35714.285 Hz
FIDRES 0.544967 Hz
AQ 0.9175540 sec
RG 2050
DW 14.000 usec
DE 6.50 usec
TE 293.0 K
D1 1.00000000 sec
D11 0.03000000 sec
TD0 1

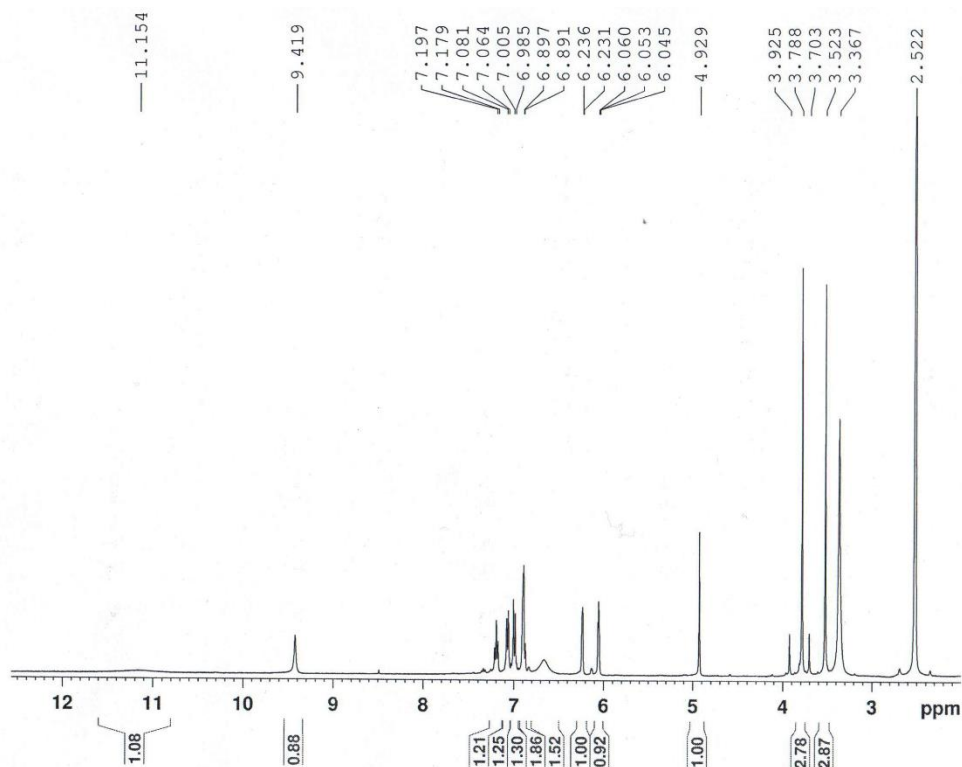
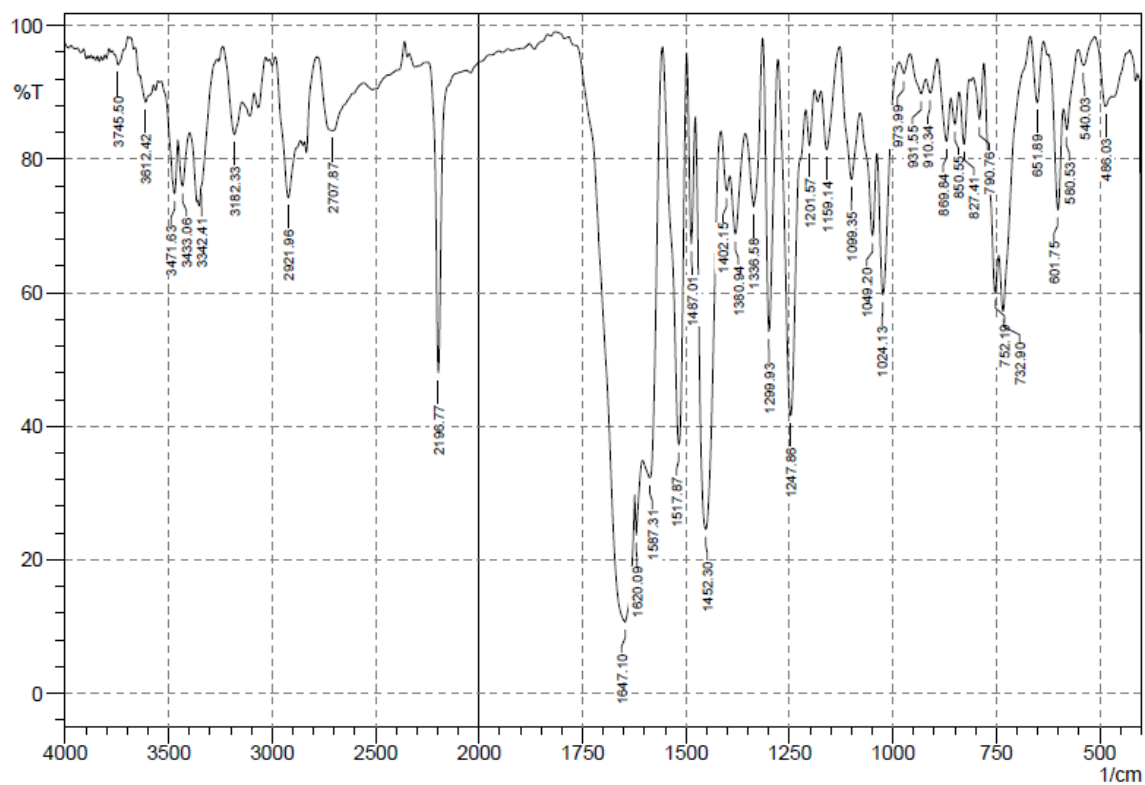
===== CHANNEL f1 =====
NUC1 13C
P1 9.00 usec
PL1 -0.90 dB
PL1W 42.02801895 W
SFO1 100.6479784 MHz

===== CHANNEL f2 =====
CPDPRG2 waitz16
NUC2 1H
PCPD2 90.00 usec
PL2 -2.00 dB
PL12 14.16 dB
PL13 17.90 dB
PL1W 11.86359406 W
PL12W 0.28722104 W
PL13W 0.12139934 W
SFO2 400.2216009 MHz
SI 32768
SF 100.6353990 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40



2-Amino-5-(2-methoxyphenyl)-7-(1-methyl-1H-pyrrol-2-yl)-4-oxo-3,4,5,8-tetrahydro-pyrido[2,3-*d*]pyrimidine-6-carbonitrile (8m).

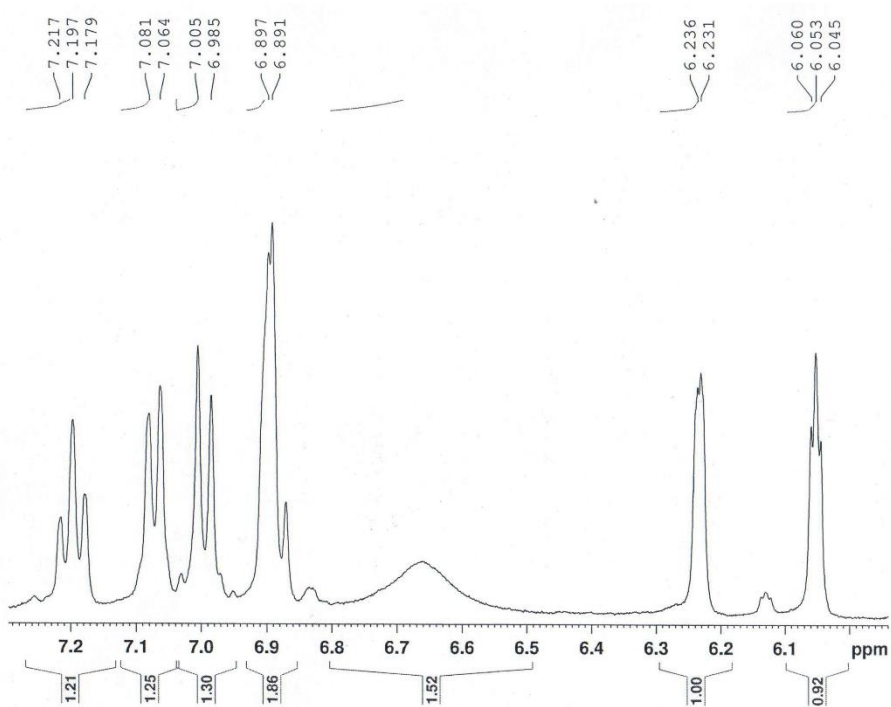




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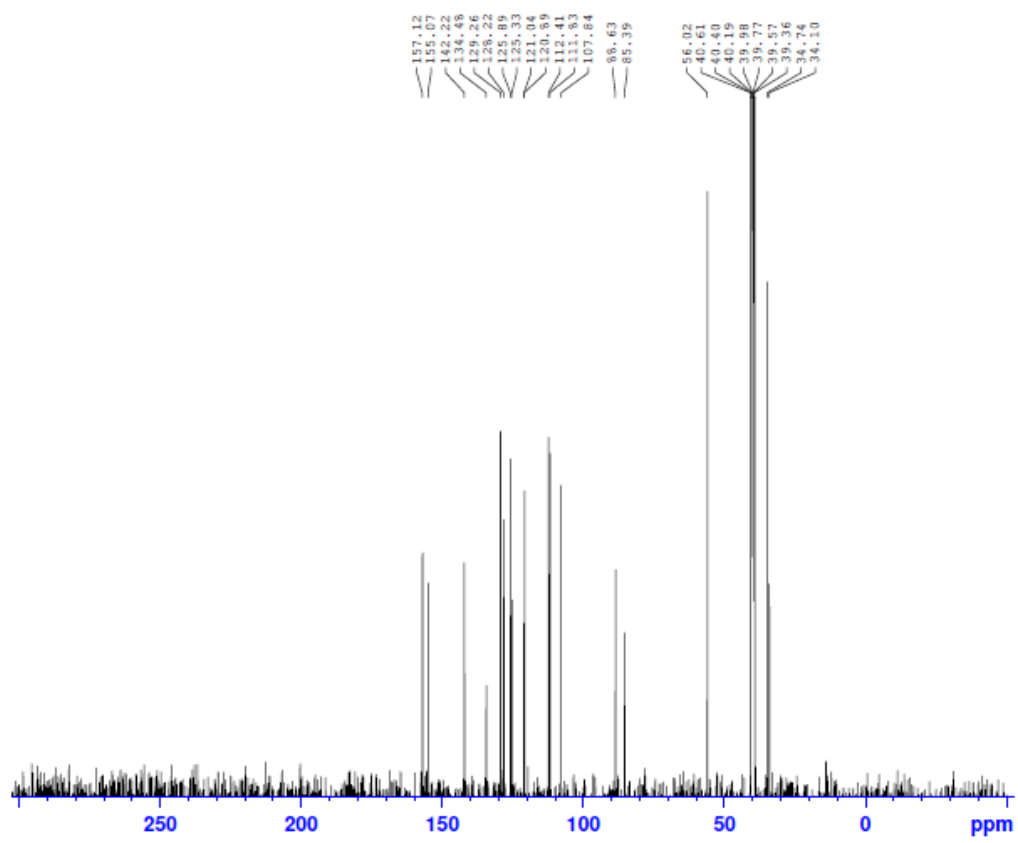
NAME Gilan UN
EXPNO 3574
PROCNO 1
Date_ 20180505
Time 10.26
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 20
DS 0
SWH 8012.820 H
FIDRES 0.122266 H
AQ 4.0894966 s
RG 228
DW 62.400 u
DE 6.50 u
TE 293.3 K
D1 4.0000000 s
TD0 1

===== CHANNEL f1 =====
NUC1 1H
P1 14.00 u
PL1 -2.00 d
PL1W 11.86359406 W
SFO1 400.2236020 M
SI 32768
SF 400.2200000 M
WDW EM
SSB 0
LB 0.30 H
GB 0
PC 1.00



NAME Gilan UN
 EXPNO 3574
 PROCNO 1
 Date_ 20180505
 Time 10.26
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 20
 DS 0
 SWH 8012.820
 FIDRES 0.122266
 AQ 4.0894966
 RG 228
 DW 62.400
 DE 6.50
 TE 293.3
 D1 4.00000000
 TDO 1

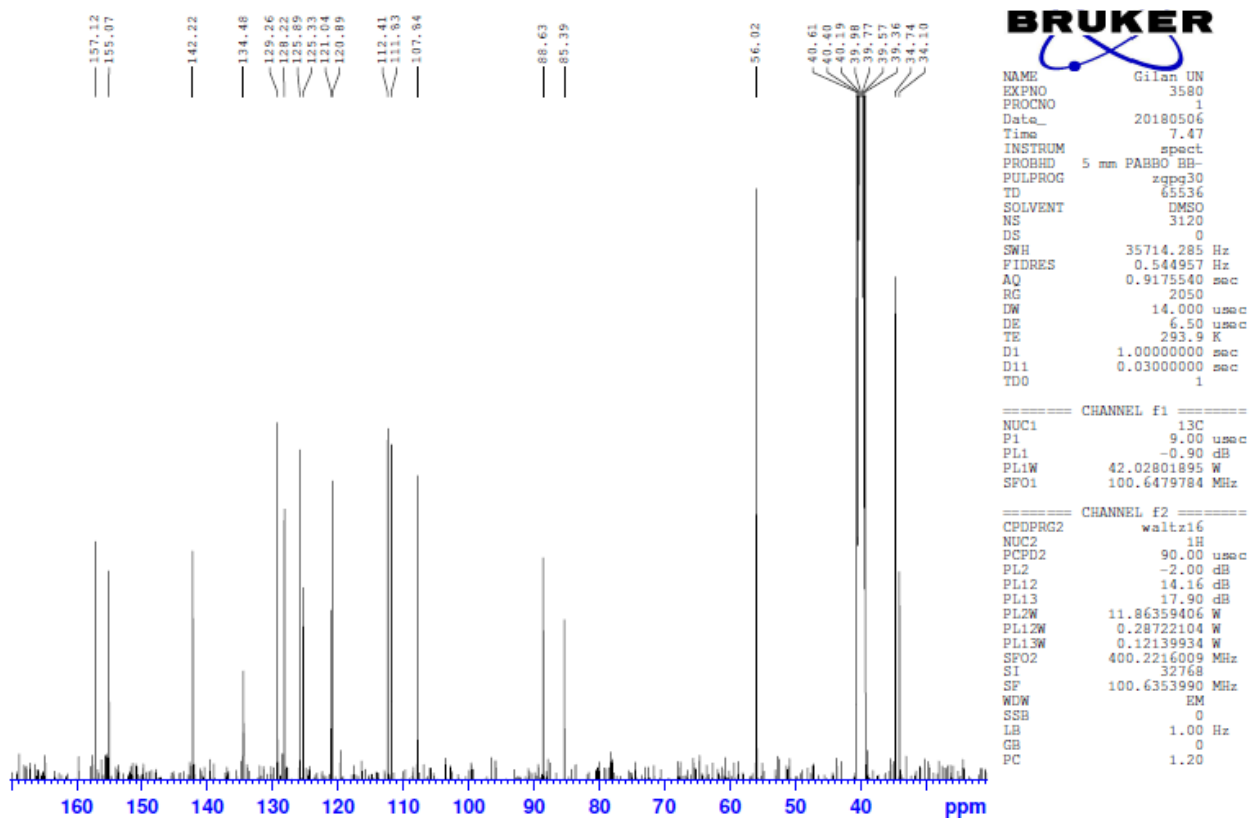
===== CHANNEL f1 =====
 NUC1 1H
 P1 14.00
 PL1 -2.00
 PL1W 11.86359406
 SFO1 400.2236020
 SI 32768
 SF 400.2200000
 WDW EM
 SSB 0
 LB 0.30
 GB 0
 PC 1.00



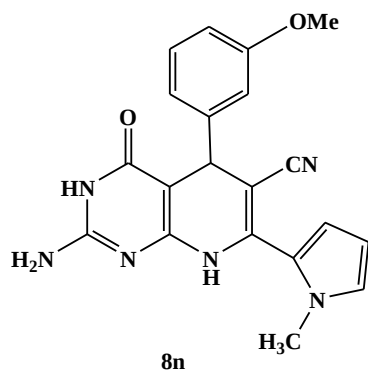
NAME Gilan UN
 EXPNO 3580
 PROCNO 1
 Date_ 20180506
 Time 7.47
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 3120
 DS 0
 SWH 35714.285 Hz
 FIDRES 0.544957 Hz
 AQ 0.9175540 sec
 RG 2050
 DW 14.000 usec
 DE 6.50 usec
 TE 293.9 K
 D1 1.00000000 sec
 D11 0.03000000 sec
 TDO 1

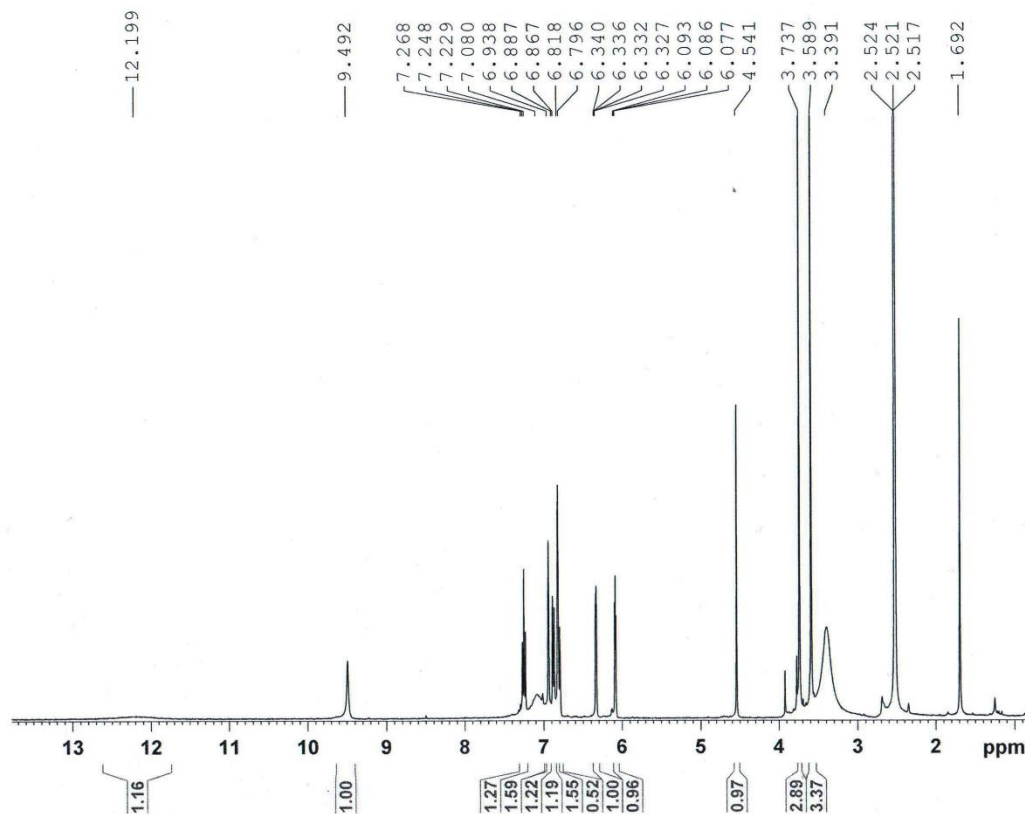
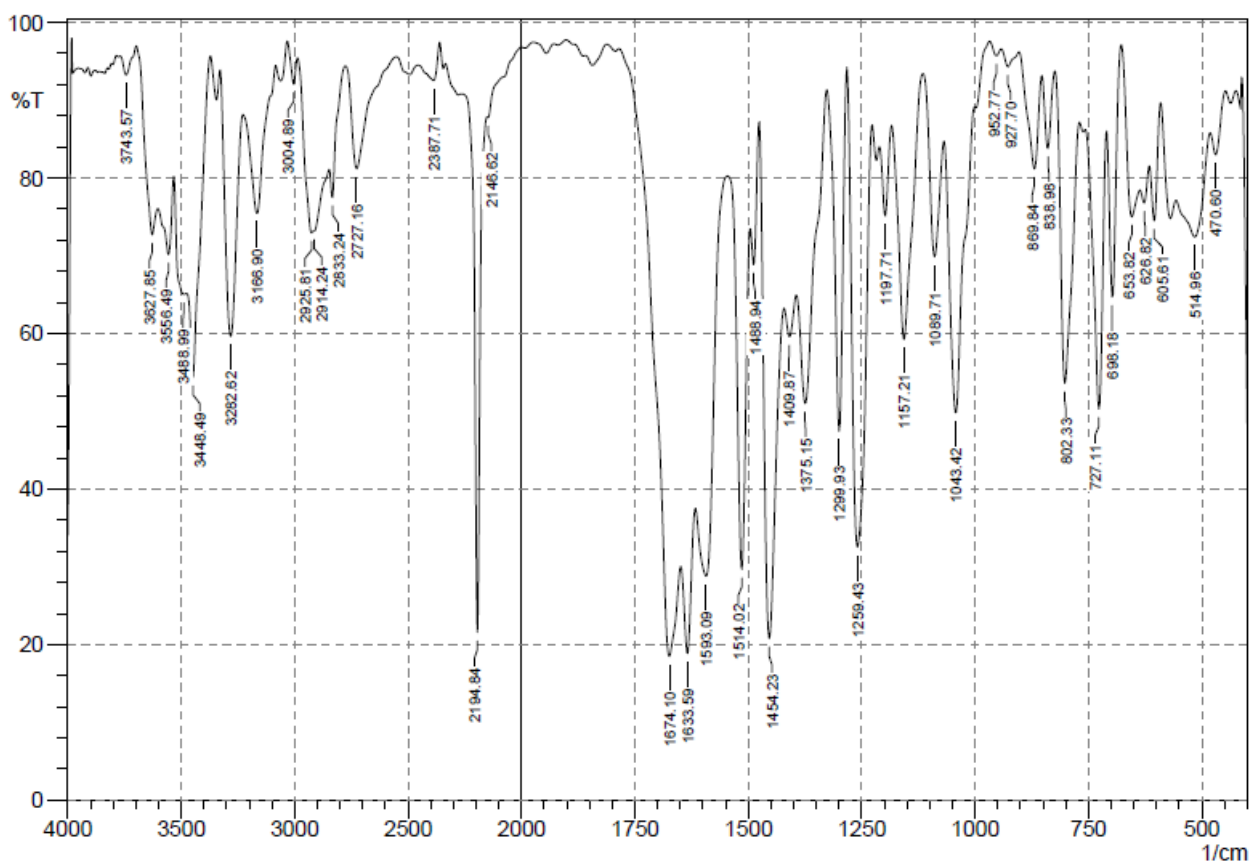
===== CHANNEL f1 =====
 NUC1 13C
 P1 9.00 usec
 PL1 -0.90 dB
 PL1W 42.02801895 W
 SFO1 100.6479784 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 90.00 usec
 PL2 -2.00 dB
 PL12 14.16 dB
 PL13 17.90 dB
 PL2W 11.86359406 W
 PL12W 0.28722104 W
 PL13W 0.12139934 W
 SFO2 400.2216009 MHz
 SI 32768
 SF 100.6353990 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.20



2-Amino-5-(3-methoxyphenyl)-7-(1-methyl-1H-pyrrol-2-yl)-4-oxo-3,4,5,8-tetrahydro-pyrido[2,3-*d*]pyrimidine-6-carbonitrile (8n)

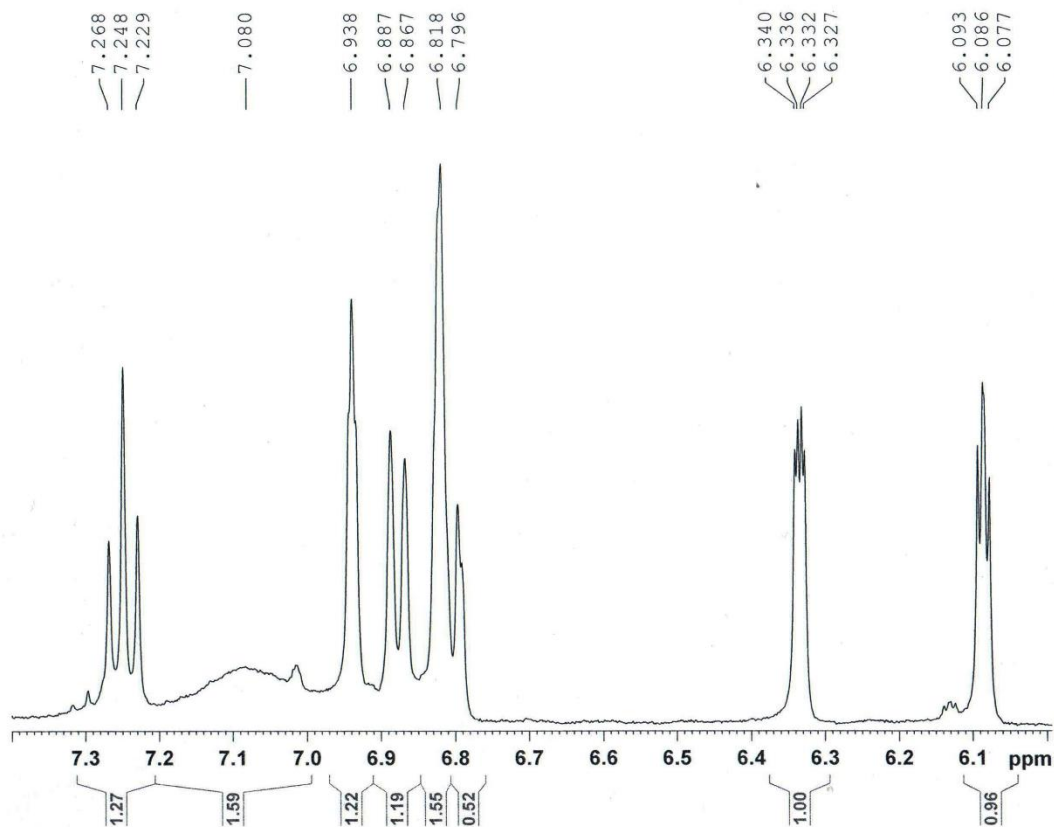




BRÜKER

NAME Gilan UN
EXPNO 3575
PROCNO 1
Date_ 20180505
Time_ 10.36
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 20
DS 0
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894966 sec
RG 228
DW 62.400 usec
DE 6.50 usec
TE 293.3 K
D1 4.0000000 sec
TD0 1

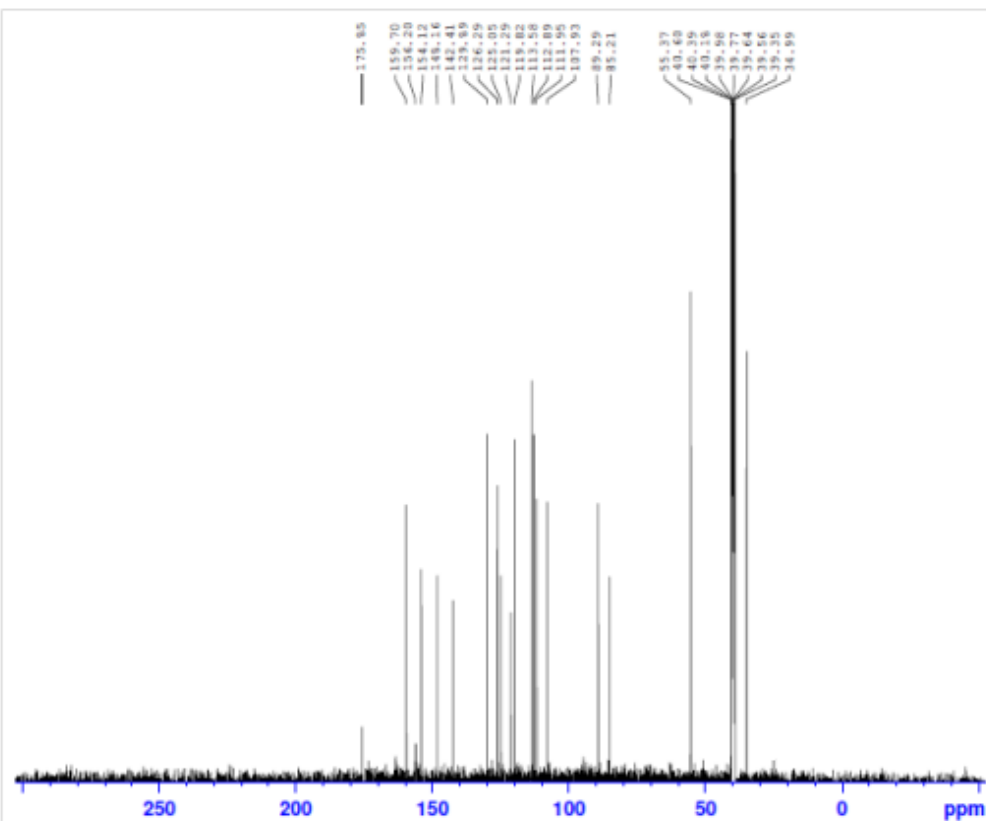
===== CHANNEL f1 =====
NUC1 1H
P1 14.00 usec
PL1 -2.00 dB
PL1W 11.86359406 W
SFO1 400.2236020 MHz
SI 32768
SF 400.2200000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



BRUKER

NAME Gilan UN
EXPNO 3575
PROCNO 1
Date_ 20180505
Time_ 10.36
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 20
DS 0
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894966 sec
RG 228
DW 62.400 use
DE 6.50 use
TE 293.3 K
D1 4.00000000 sec
TD0 1

===== CHANNEL f1 =====
NUC1 1H
P1 14.00 use
PL1 -2.00 dB
PL1W 11.86359406 W
SFO1 400.2236020 MHz
SI 32768
SF 400.2200000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

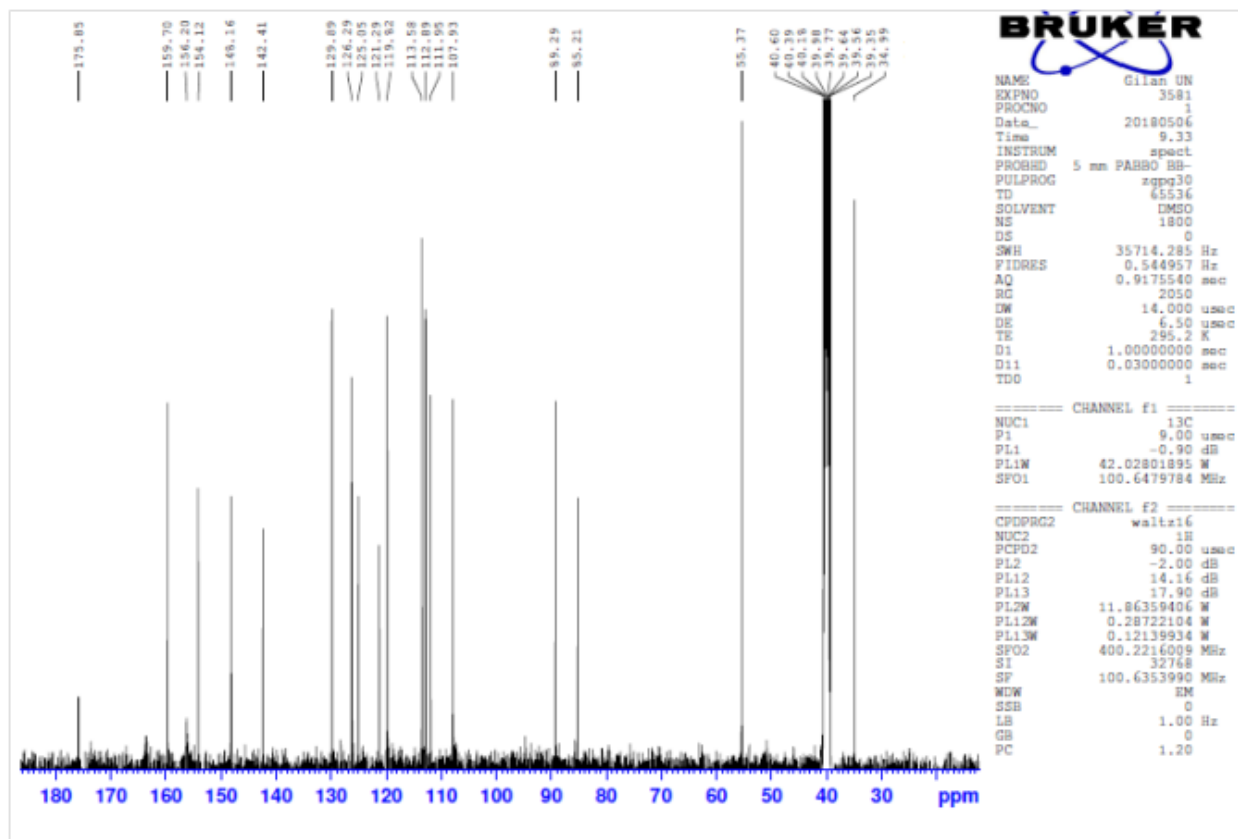


BRUKER

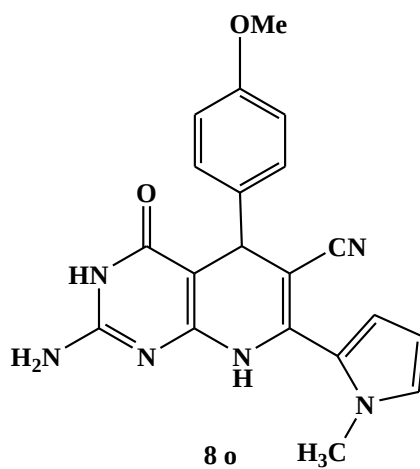
NAME Gilan UN
EXPNO 3581
PROCNO 1
Date_ 20180506
Time_ 9.33
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 1800
DS 0
SWH 35714.285 Hz
FIDRES 0.544957 Hz
AQ 0.9175540 sec
RG 2050
DW 14.000 usec
DE 6.50 usec
TE 295.2 K
D1 1.00000000 sec
D11 0.03000000 sec
TD0 1

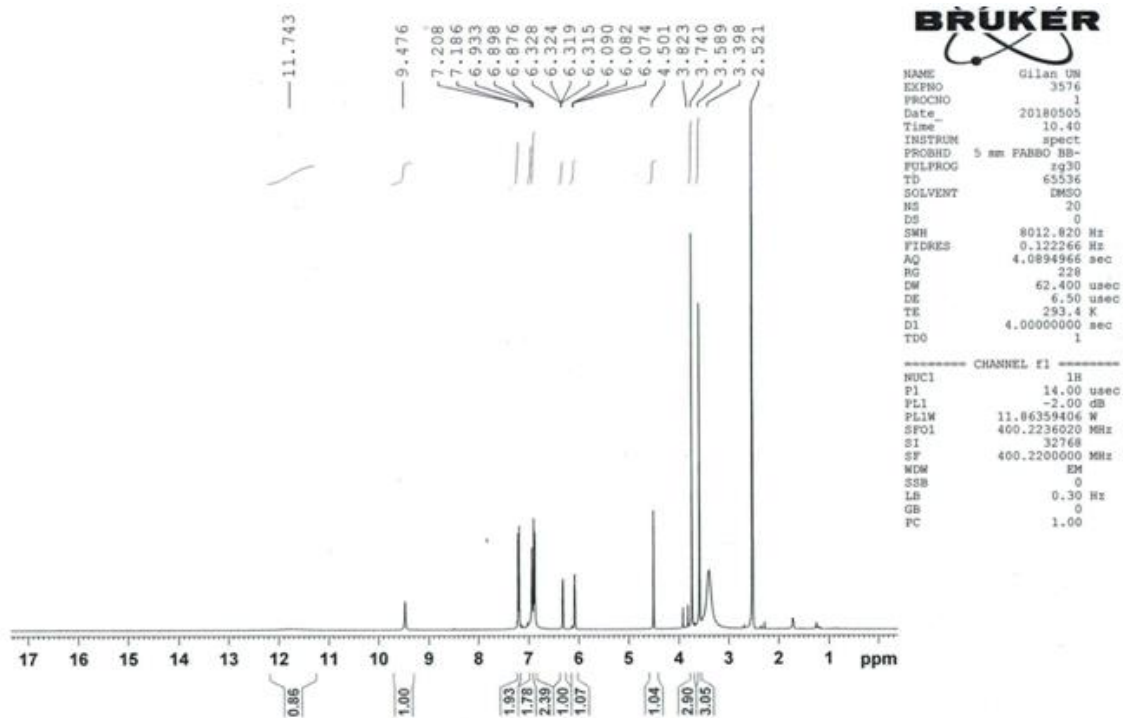
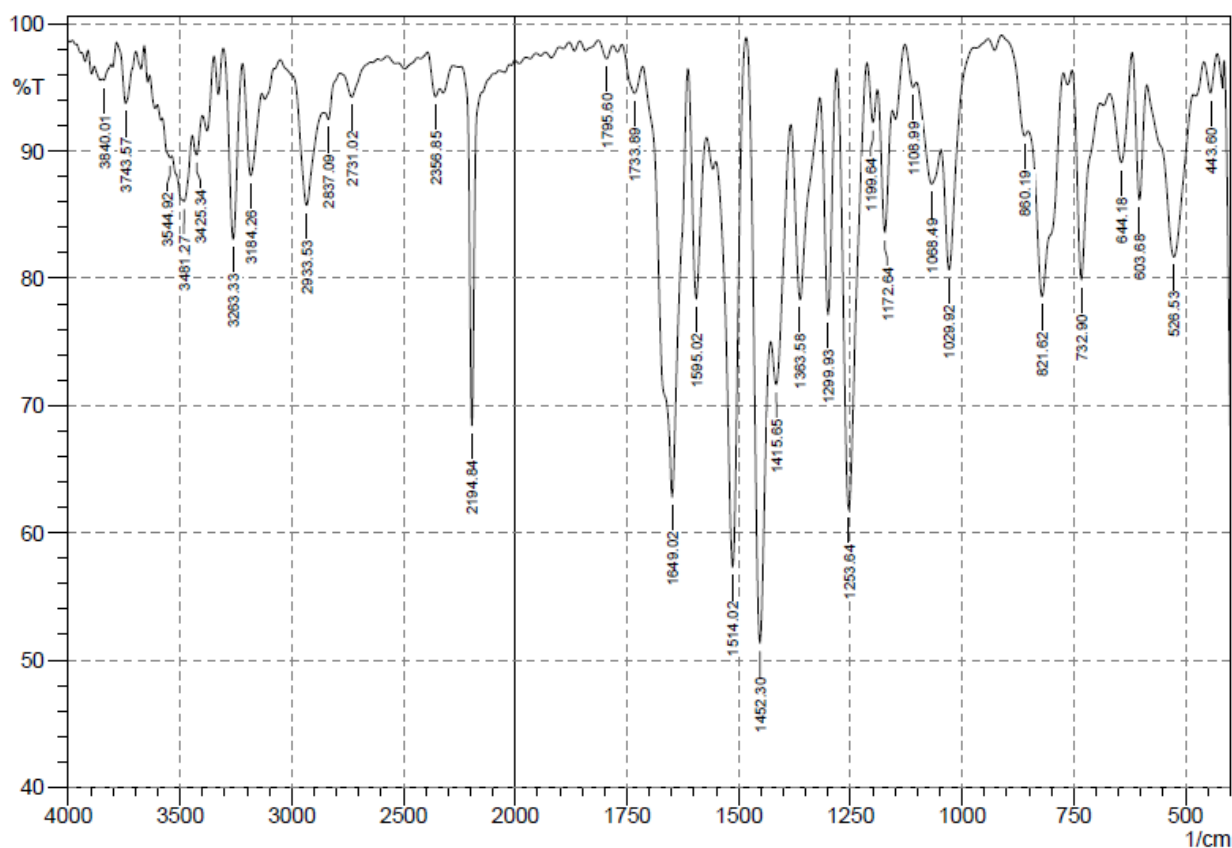
===== CHANNEL f1 =====
NUC1 13C
P1 9.00 usec
PL1 -0.90 dB
PL1W 42.02801895 W
SFO1 100.6479784 MHz

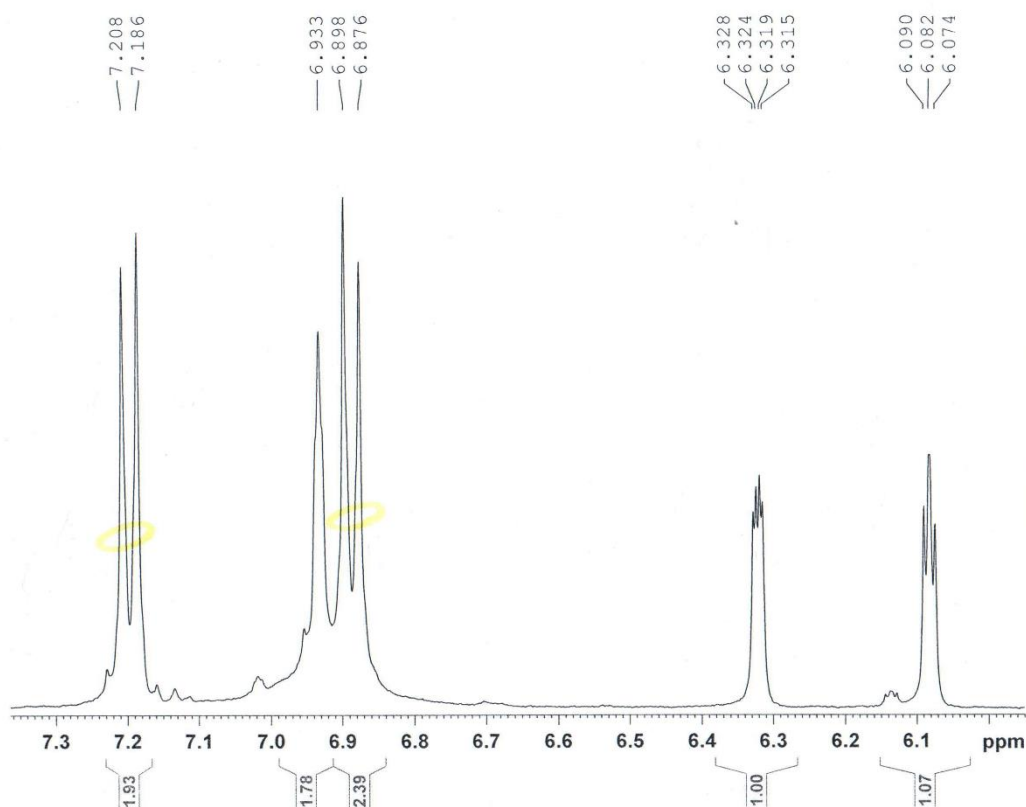
===== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 -2.00 dB
PL12 14.16 dB
PL13 17.90 dB
PL2W 11.86359406 W
PL12W 0.28722104 W
PL13W 0.12139934 W
SFO2 400.2216009 MHz
SI 32768
SF 100.6353990 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.20



2-Amino-5-(4-methoxyphenyl)-7-(1-methyl-1H-pyrrol-2-yl)-4-oxo-3,4,5,8-tetrahydro-pyrido[2,3-*d*]pyrimidine-6-carbonitrile (8o)





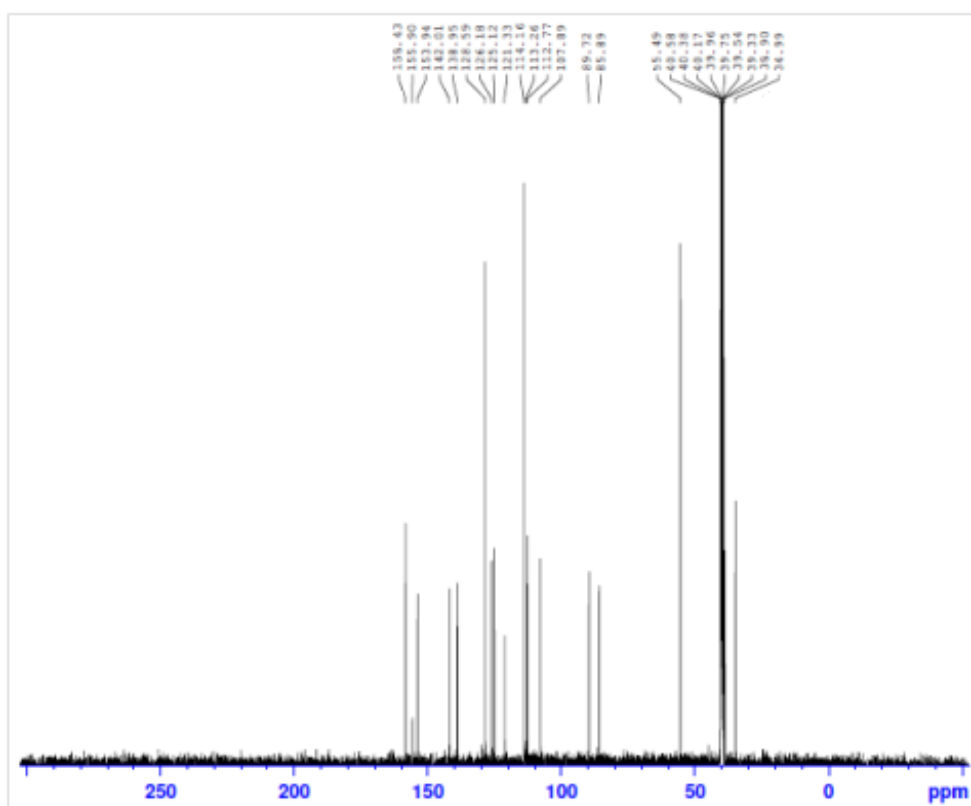


BRUKER

```

NAME      Gilan UN
EXPNO     3576
PROCNO    1
Date_     20180505
Time      10.40
INSTRUM   spect
PROBHD    5 mm PABBO BB-
PULPROG   zg30
TD         65536
SOLVENT   DMSO
NS         20
DS         0
SWH        8012.820 Hz
FIDRES     0.122266 Hz
AQ         4.0894966 sec
RG         228
DW         62.400 usec
DE         6.50 usec
TE         293.4 K
D1         4.00000000 sec
TD0        1

===== CHANNEL f1 =====
NUC1       1H
P1         14.00 usec
PL1        -2.00 dB
PL1W       11.86359406 W
SFO1       400.2236020 MHz
SI         32768
SF         400.2200000 MHz
WDW        EM
SSB        0
LB         0.30 Hz
GB         0
PC         1.00
  
```



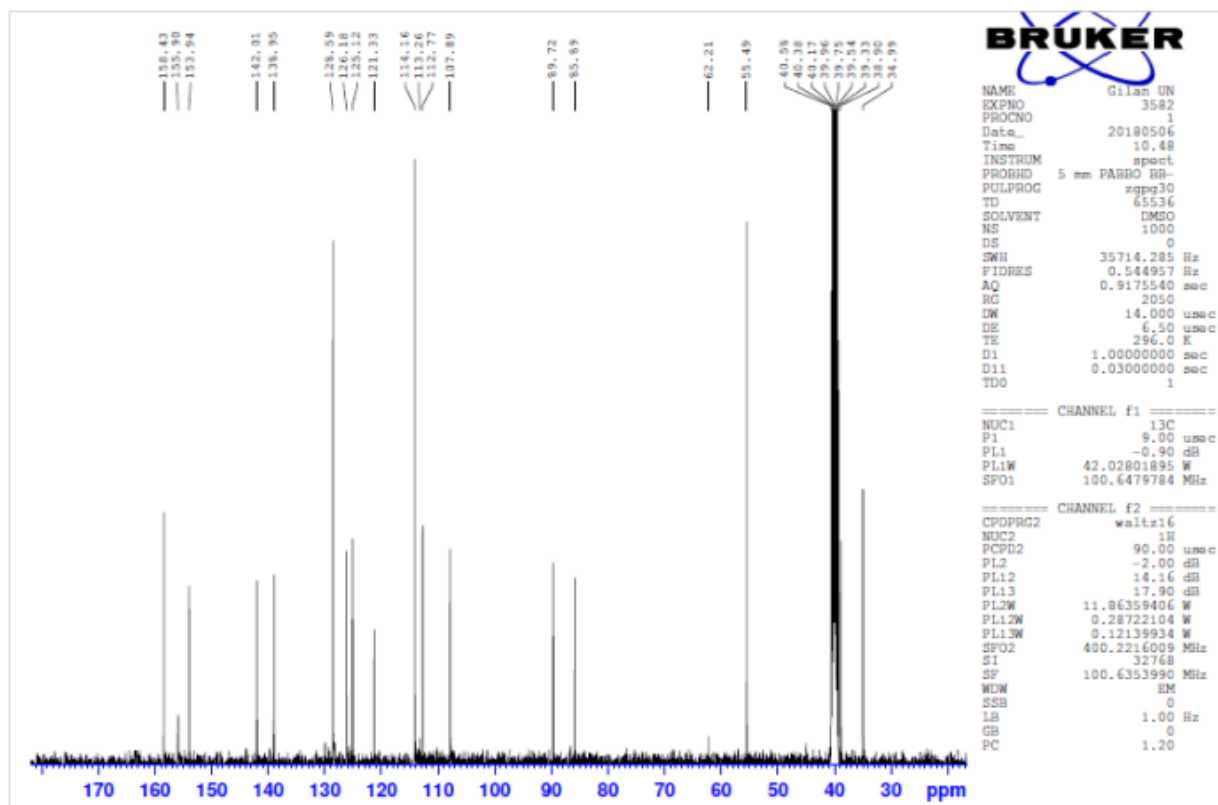
BRUKER

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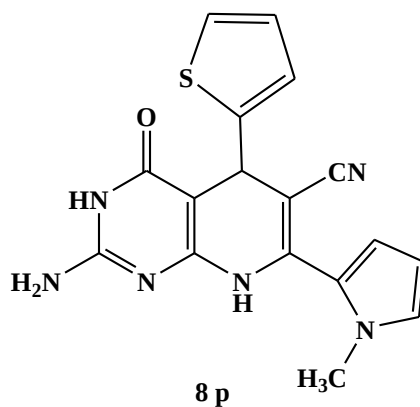
NAME      Gilan UN
EXPNO     3582
PROCNO    1
Date_     20180506
Time      10.48
INSTRUM   spect
PROBHD    5 mm PABBO BB-
PULPROG   zgpg30
TD         65536
SOLVENT   DMSO
NS         1000
DS         0
SWH        35714.285 Hz
FIDRES     0.544957 Hz
AQ         0.9175540 sec
RG         2050
DW         14.000 usec
DE         6.50 usec
TE         296.0 K
D1         1.00000000 sec
D11        0.03000000 sec
TD0        1

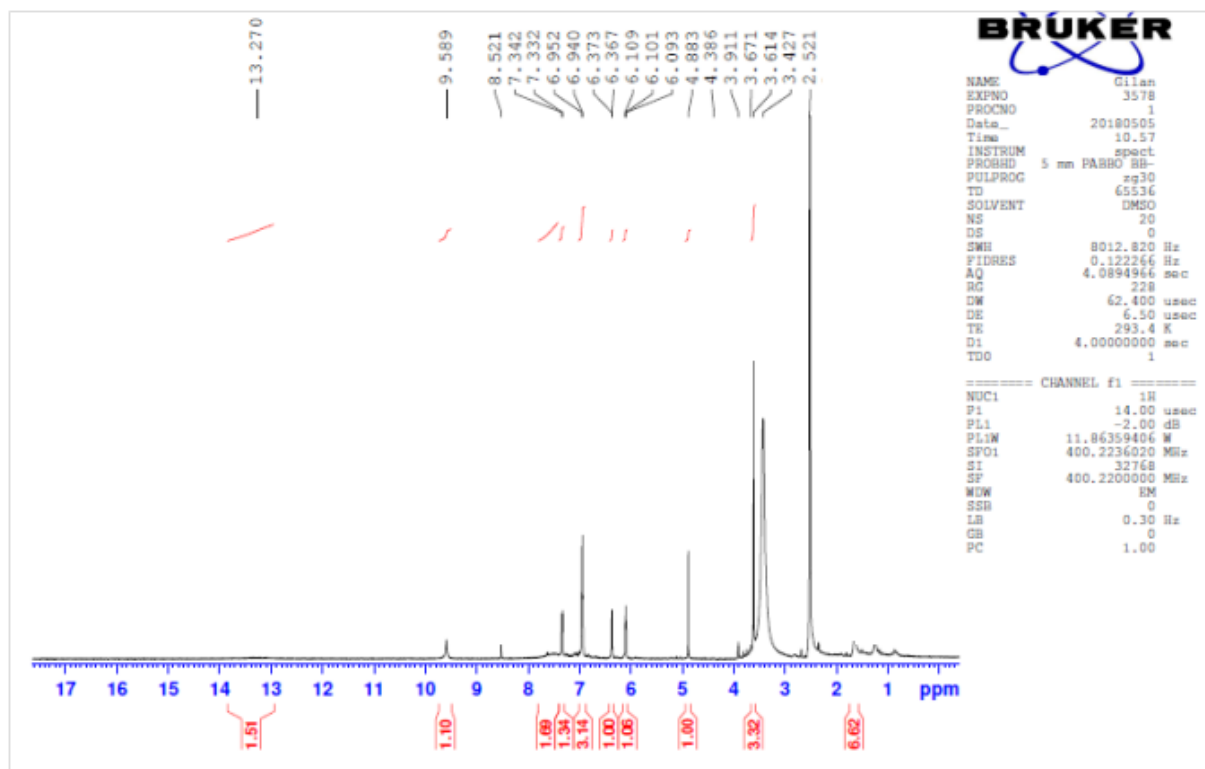
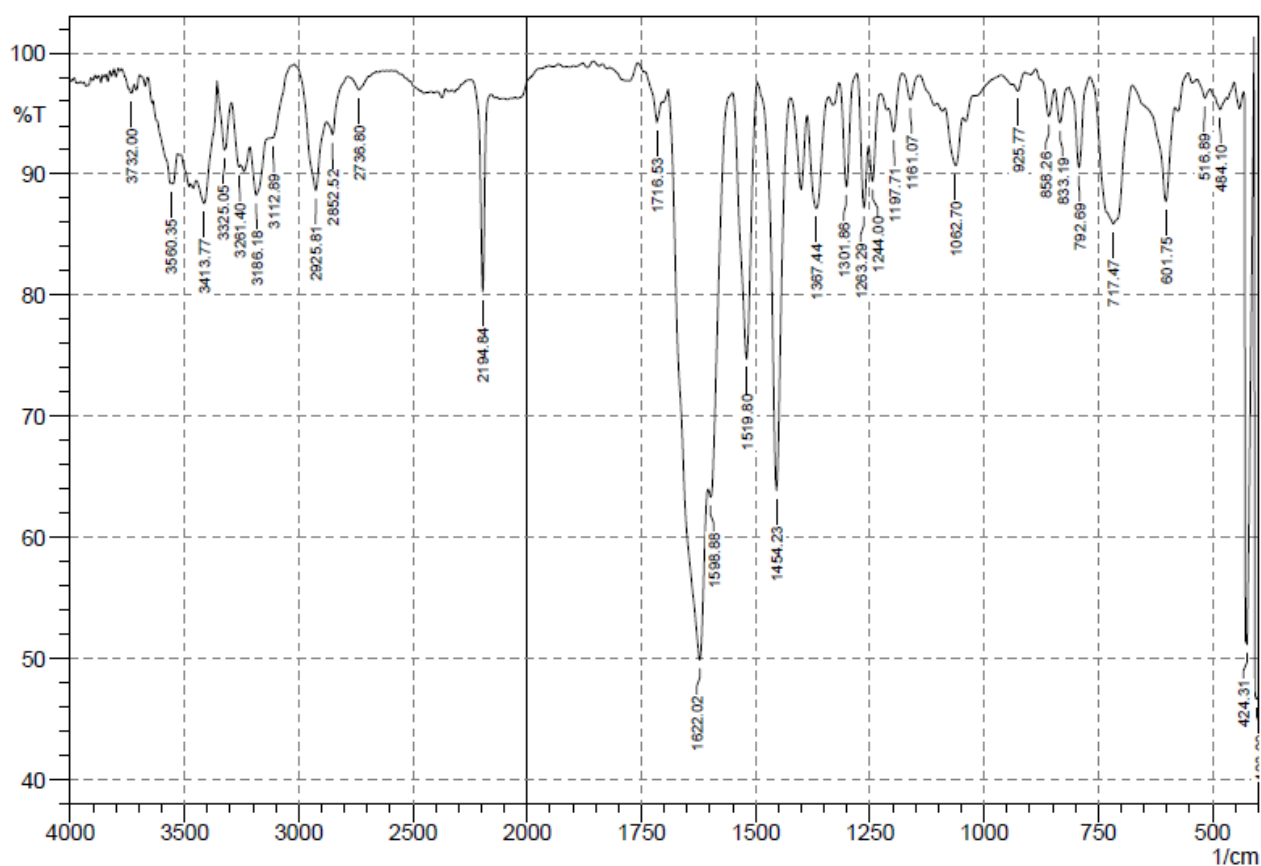
===== CHANNEL f1 =====
NUC1       13C
P1         9.00 usec
PL1        -0.90 dB
PL1W       42.02801895 W
SFO1       100.6479784 MHz

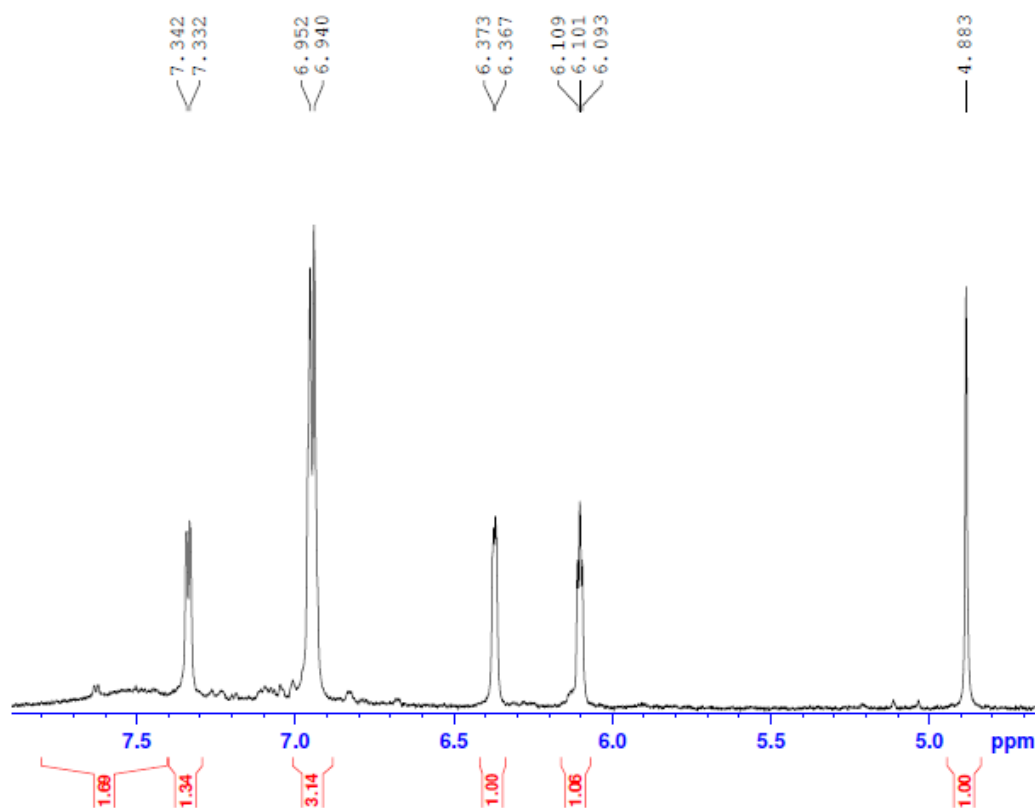
===== CHANNEL f2 =====
CPDPRG2   waltz16
NUC2       1H
PCPD2     90.00 usec
PL2        -2.00 dB
PL12       14.16 dB
PL13       17.90 dB
PL12W      11.86359406 W
PL12W      0.28722104 W
PL13W      0.12139934 W
SFO2       400.2216009 MHz
SI         32768
SF         100.6353990 MHz
WDW        EM
SSB        0
LB         1.00 Hz
GB         0
PC         1.20
  
```

2-Amino-5-(thiophen-2-yl)-7-(1-methyl-1H-pyrrol-2-yl)-4-oxo-3,4,5,8-tetrahydropyrido[2,3-*d*]pyrimidine-6-carbonitrile (8p)





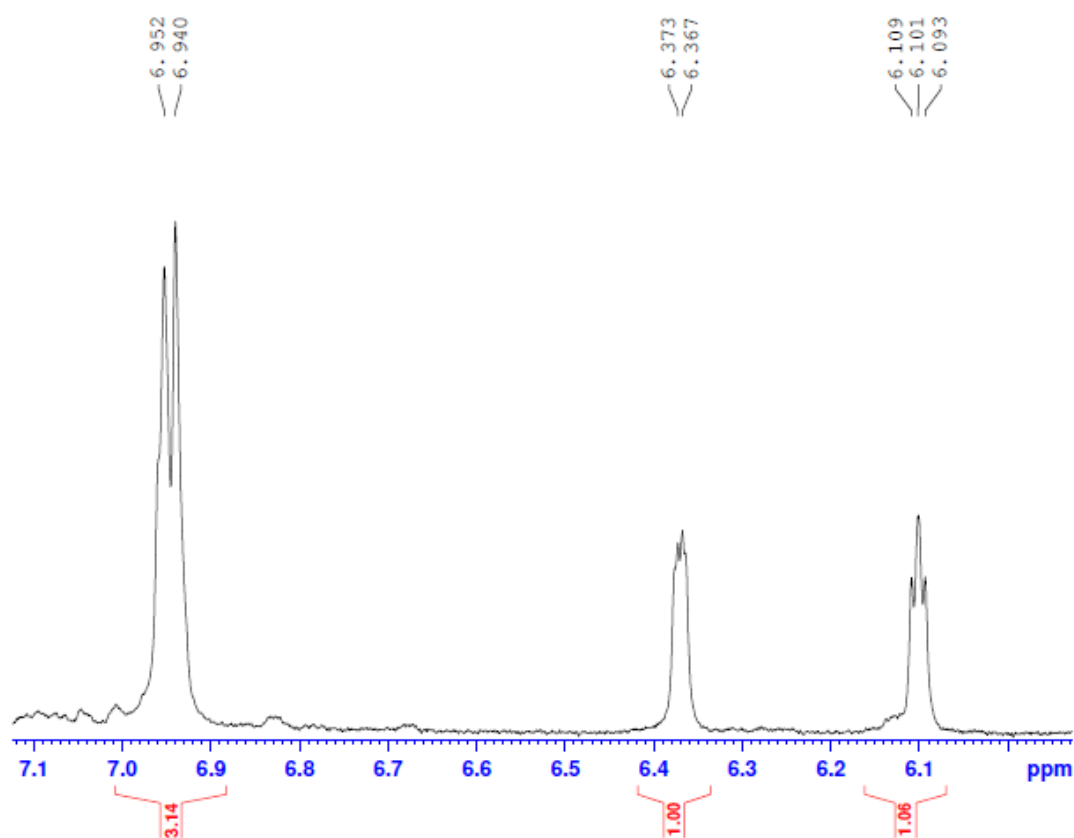


```

NAME      Gilan
EXPNO     3578
PROCNO    1
Date_     20180505
Time      10.57
INSTRUM   spect
PROBHD    5 mm PABBO BB-
PULPROG   zg30
TD         65536
SOLVENT   DMSO
NS         20
DS         0
SWH        8012.820 Hz
FIDRES     0.122266 Hz
AQ         4.0894966 sec
RG         228
DW         62.400 usec
DE         6.50 usec
TE         293.4 K
D1         4.00000000 sec
TD0        1
  
```

```

===== CHANNEL f1 =====
NUC1      1H
P1        14.00 usec
PL1       -2.00 dB
PL1W      11.86359406 W
SFO1      400.2236020 MHz
SI        32768
SF        400.2200000 MHz
WDW        EM
SSB        0
LB         0.30 Hz
GB         0
PC         1.00
  
```

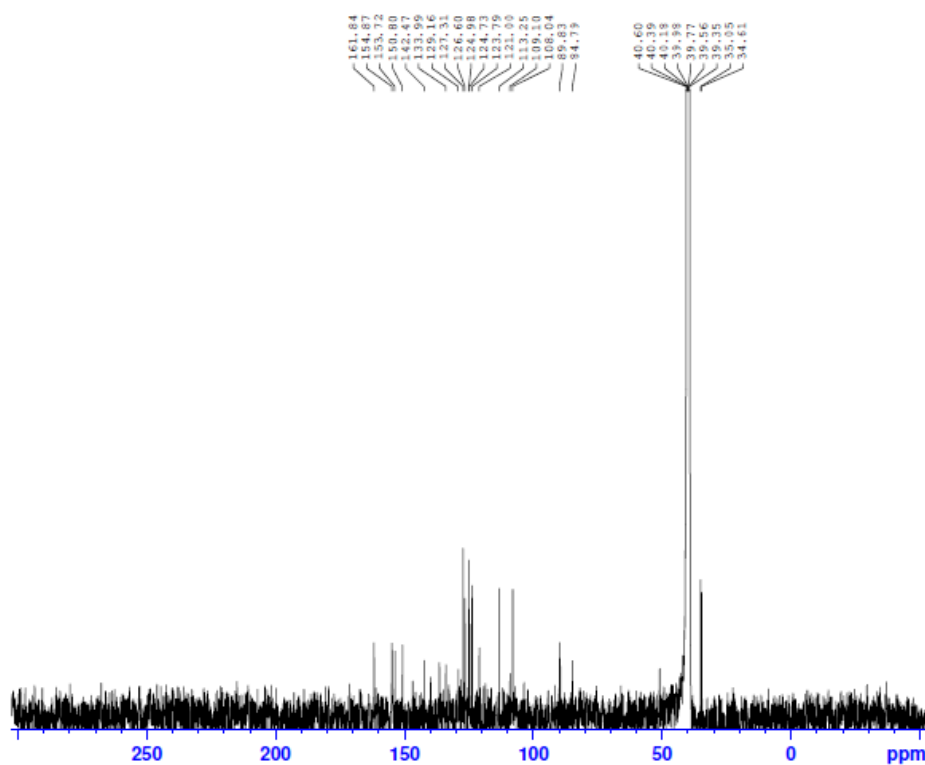


```

NAME      Gilan
EXPNO     3578
PROCNO    1
Date_     20180505
Time      10.57
INSTRUM   spect
PROBHD    5 mm PABBO BB-
PULPROG   zg30
TD         65536
SOLVENT   DMSO
NS         20
DS         0
SWH        8012.820 Hz
FIDRES     0.122266 Hz
AQ         4.0894966 sec
RG         228
DW         62.400 usec
DE         6.50 usec
TE         293.4 K
D1         4.00000000 sec
TD0        1
  
```

```

===== CHANNEL f1 =====
NUC1      1H
P1        14.00 usec
PL1       -2.00 dB
PL1W      11.86359406 W
SFO1      400.2236020 MHz
SI        32768
SF        400.2200000 MHz
WDW        EM
SSB        0
LB         0.30 Hz
GB         0
PC         1.00
  
```

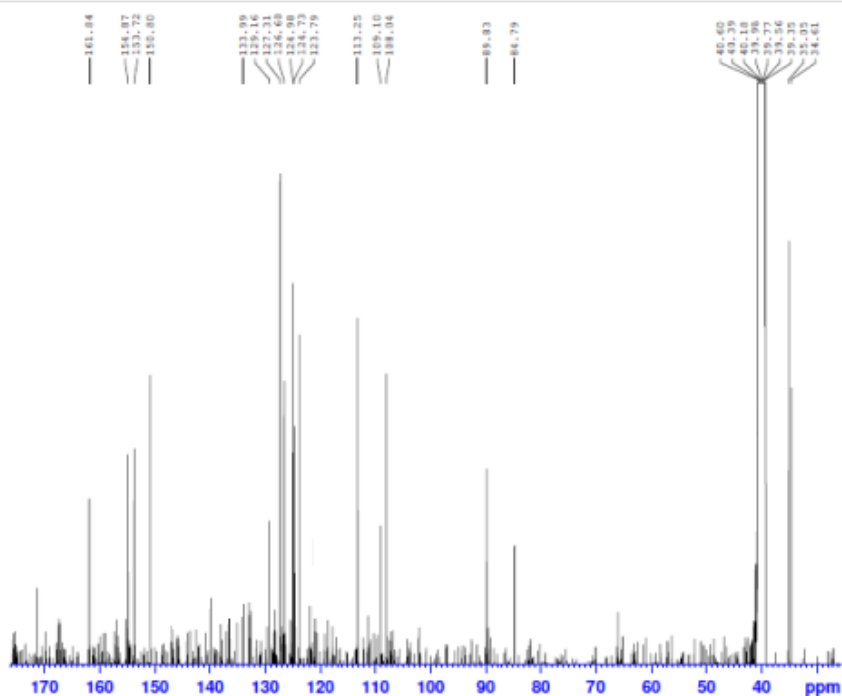


BRUKER

NAME Cilan UN (ramazanazade)
EXNO 3503
PROCNO 1
Date_ 20180417
Time 22.38
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 8192
DS 0
SWH 35714.285 Hz
FIDRES 0.544957 Hz
AQ 0.9175540 sec
RG 2050
DW 14.000 usec
DE 6.50 usec
TE 294.6 K
D1 1.00000000 sec
D11 0.03000000 sec
TDO 1

CHANNEL f1
NUC1 13C
P1 9.00 usec
PL1 -0.90 dB
PL1W 42.02801895 W
SFO1 100.6479784 MHz

CHANNEL f2
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 -2.00 dB
PL12 14.16 dB
PL13 17.90 dB
PL2W 11.86359406 W
PL12W 0.28722104 W
PL13W 0.12139934 W
SFO2 400.2216009 MHz
SI 32768
SF 100.6353990 MHz
WVW EM
SSB 0
LB 5.00 Hz
GB 0
PC 1.20



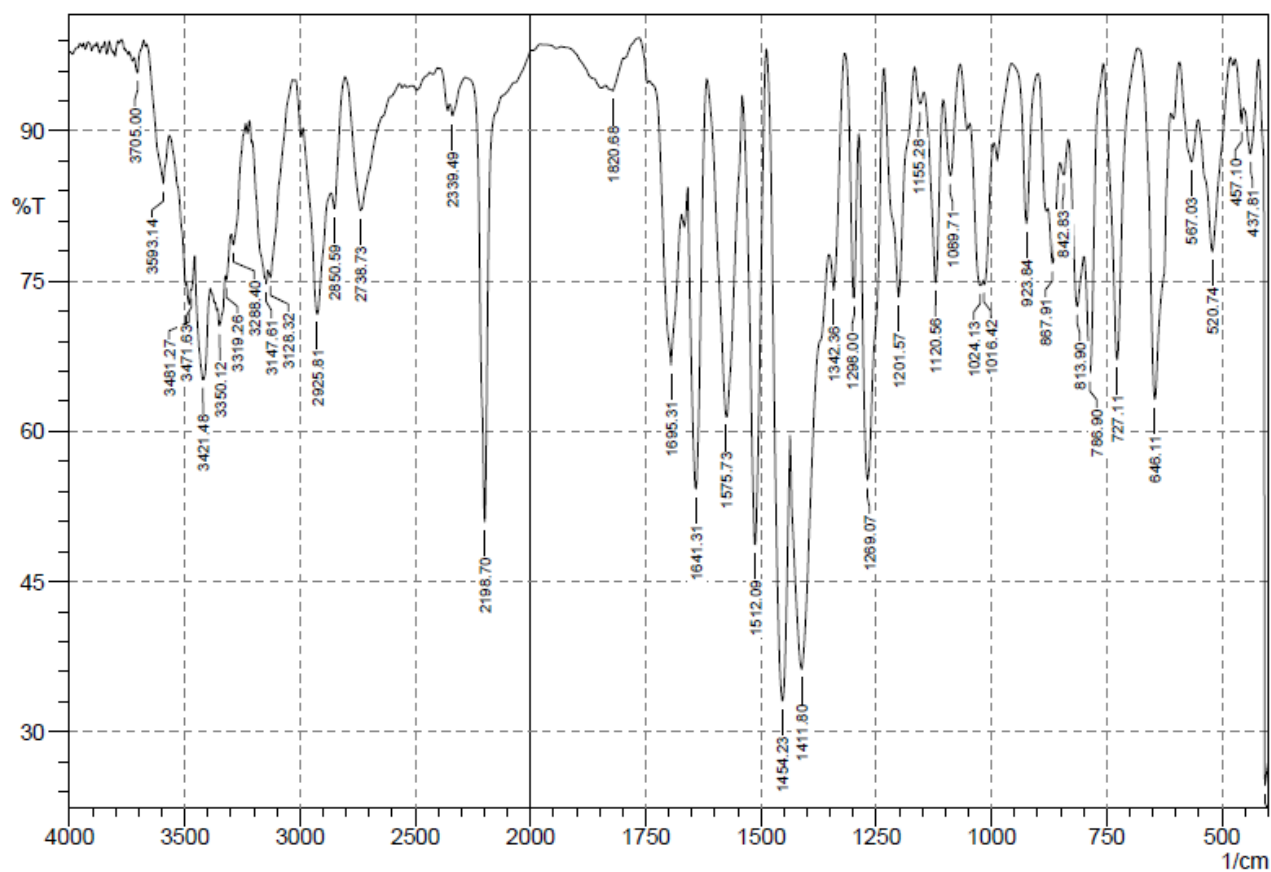
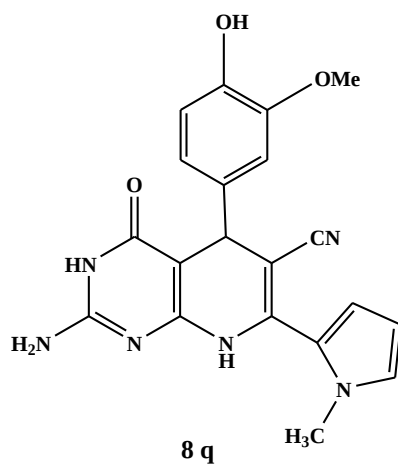
BRUKER

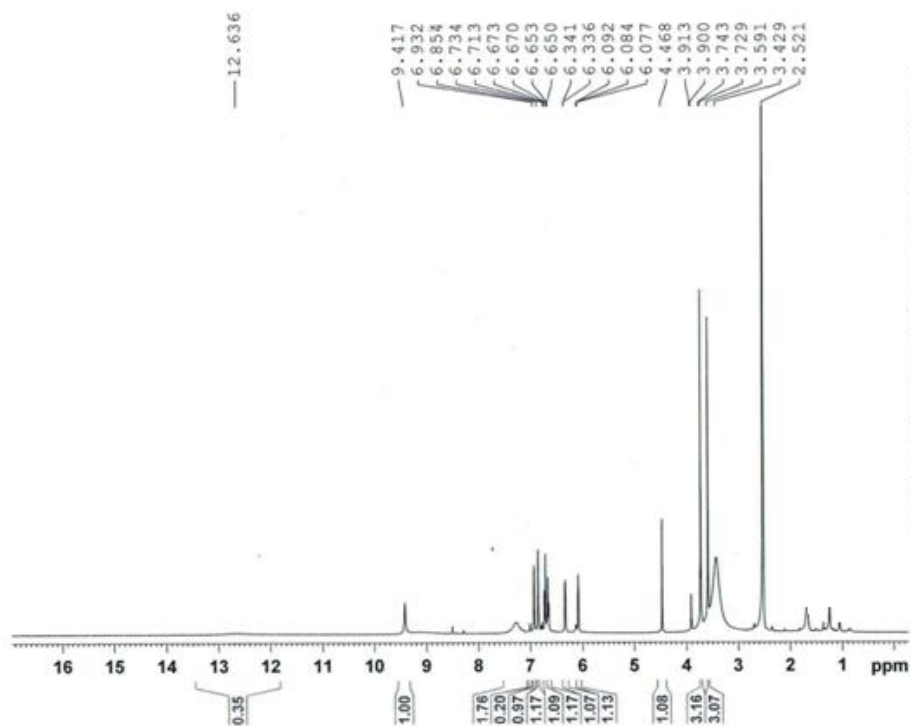
NAME Cilan UN
EXNO 3503
PROCNO 1
Date_ 20180417
Time 22.38
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 8192
DS 0
SWH 35714.285 Hz
FIDRES 0.544957 Hz
AQ 0.9175540 sec
RG 2050
DW 14.000 usec
DE 6.50 usec
TE 294.6 K
D1 1.00000000 sec
D11 0.03000000 sec
TDO 1

CHANNEL f1
NUC1 13C
P1 9.00 usec
PL1 -0.90 dB
PL1W 42.02801895 W
SFO1 100.6479784 MHz

CHANNEL f2
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 -2.00 dB
PL12 14.16 dB
PL13 17.90 dB
PL2W 11.86359406 W
PL12W 0.28722104 W
PL13W 0.12139934 W
SFO2 400.2216009 MHz
SI 32768
SF 100.6353990 MHz
WVW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.20

2-Amino-5-(4-hydroxy-3-methoxyphenyl)-7-(1-methyl-1H-pyrrol-2-yl)-4-oxo-3,4,5,8-tetrahydro-pyrido[2,3-d]pyrimidine-6-carbonitrile (8q)

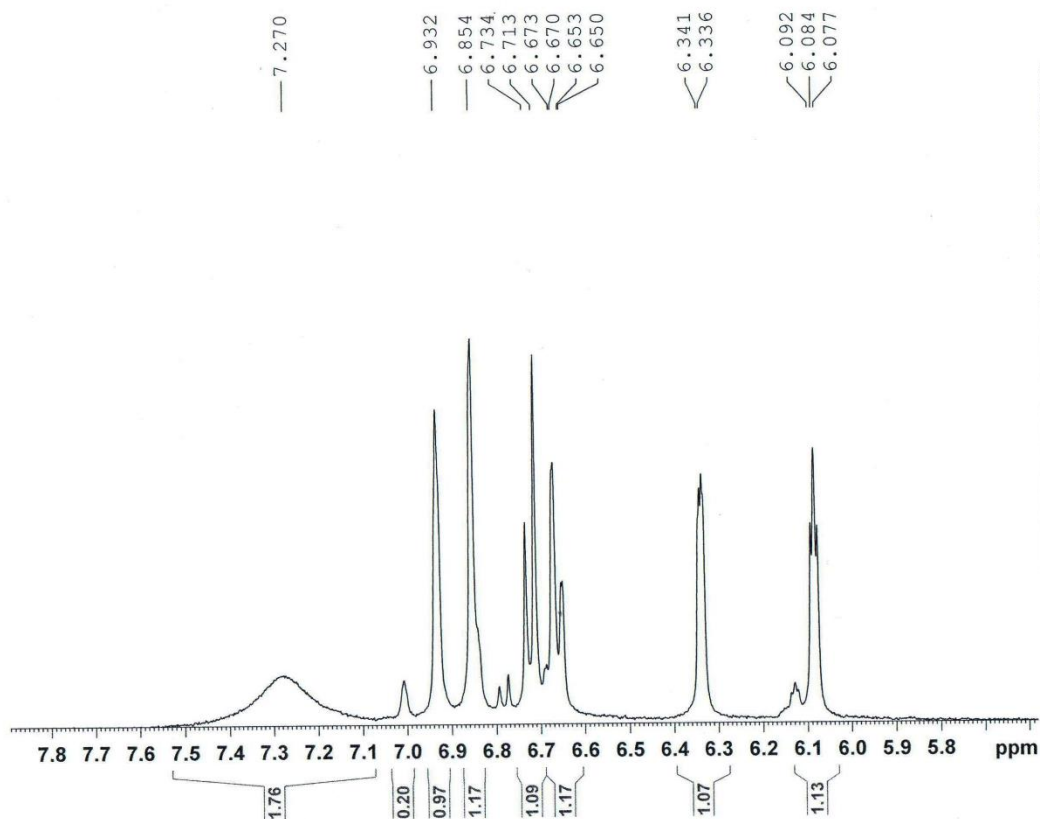




BRUKER

NAME Gilan UN
EXPNO 3485
PROCNO 1
Date 20180318
Time 13.48
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 20
DS 0
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894966 sec
RG 228
DW 62.400 usec
DE 6.50 usec
TE 294.5 K
D1 4.00000000 sec
TD0 1

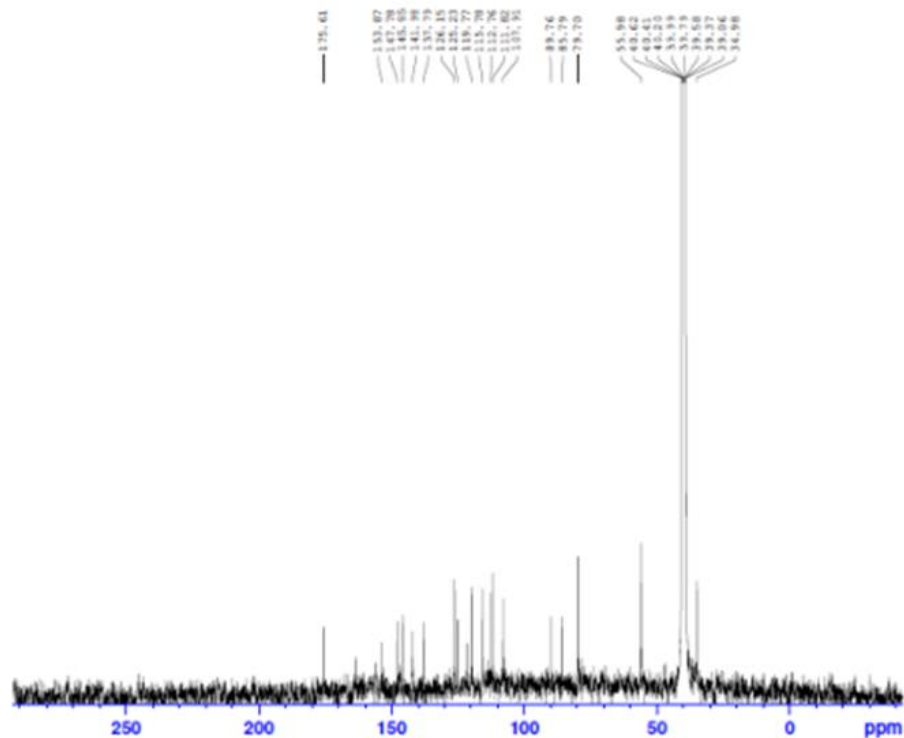
===== CHANNEL f1 =====
NUC1 1H
P1 14.00 usec
PL1 -2.00 dB
PL1W 11.86359406 W
SFO1 400.2236020 MHz
SI 32768
SF 400.2200000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



BRUKER

NAME Gilan UN
EXPNO 3485
PROCNO 1
Date 20180318
Time 13.48
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 20
DS 0
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894966 sec
RG 228
DW 62.400 usec
DE 6.50 usec
TE 294.5 K
D1 4.00000000 sec
TD0 1

===== CHANNEL f1 =====
NUC1 1H
P1 14.00 usec
PL1 -2.00 dB
PL1W 11.86359406 W
SFO1 400.2236020 MHz
SI 32768
SF 400.2200000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

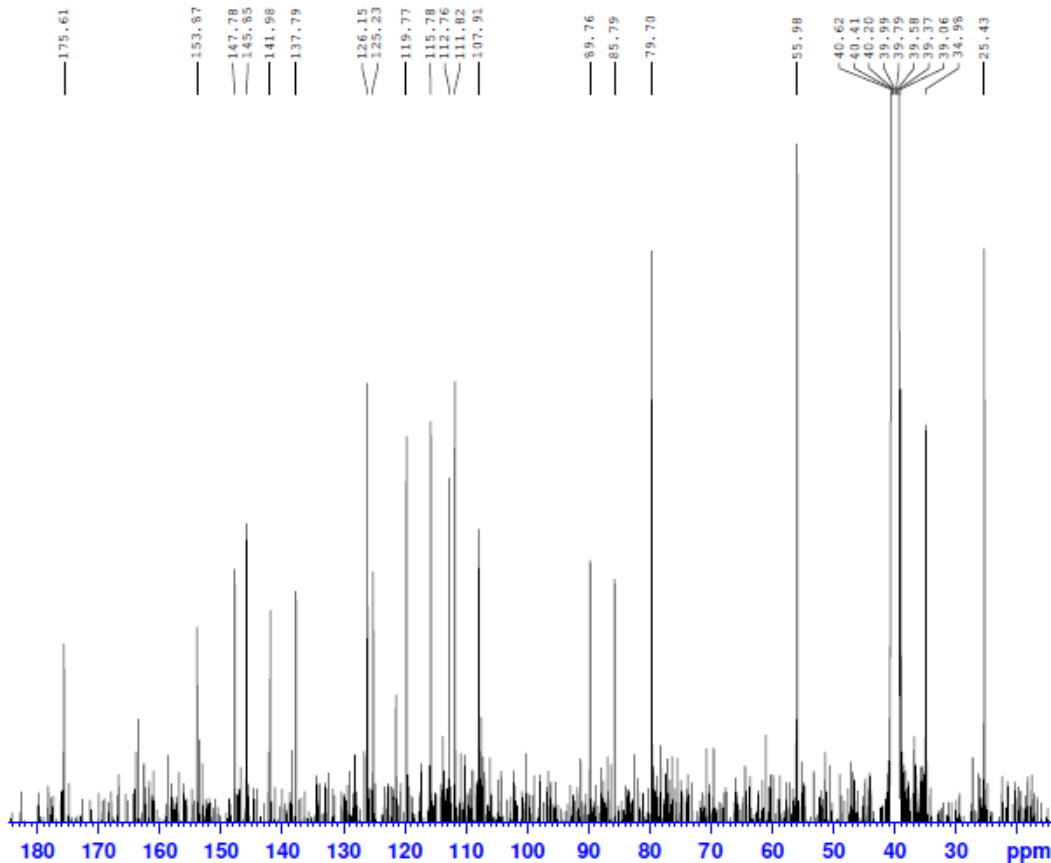


BRUKER

NAME Gilman UN (racetamsadu)
EXPNO 3501
PROCNO 1
Date_ 20180412
Time 12.52
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 7876
DS 0
SWH 35714.285 Hz
FIDRES 0.544957 Hz
AQ 0.9175540 sec
RG 2050
DW 14.000 usec
DE 6.50 usec
TE 295.4 K
D1 1.00000000 sec
D11 0.03000000 sec
TD0 1

===== CHANNEL f1 =====
NUC1 13C
P1 9.00 usec
PL1 -0.90 dB
PL1W 42.02801895 W
SFO1 100.6479784 MHz

===== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 -2.00 dB
PL12 14.16 dB
PL13 17.90 dB
PL2W 11.86359406 W
PL12W 0.28722104 W
PL13W 0.12139934 W
SFO2 400.2216009 MHz
S1 32768
SF 100.6353990 MHz
WDW EM
SSB 0
LB 6.00 Hz
GB 0
PC 1.20



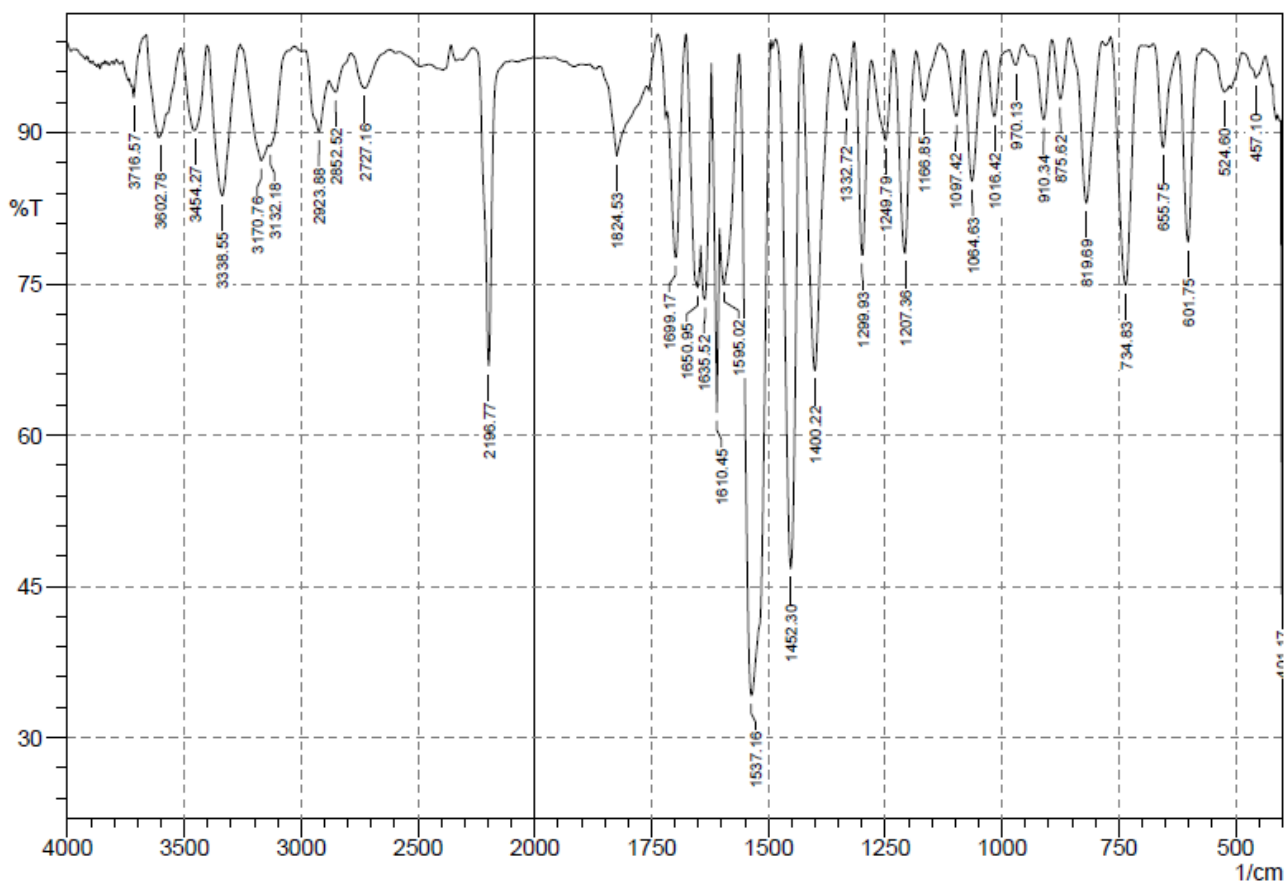
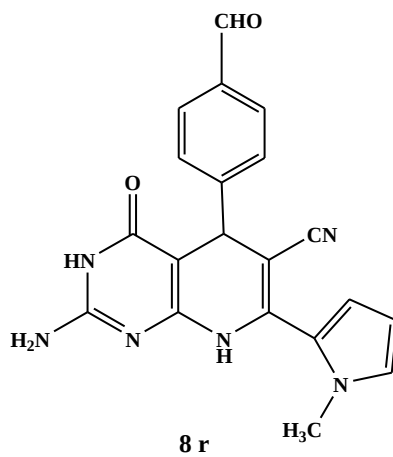
BRUKER

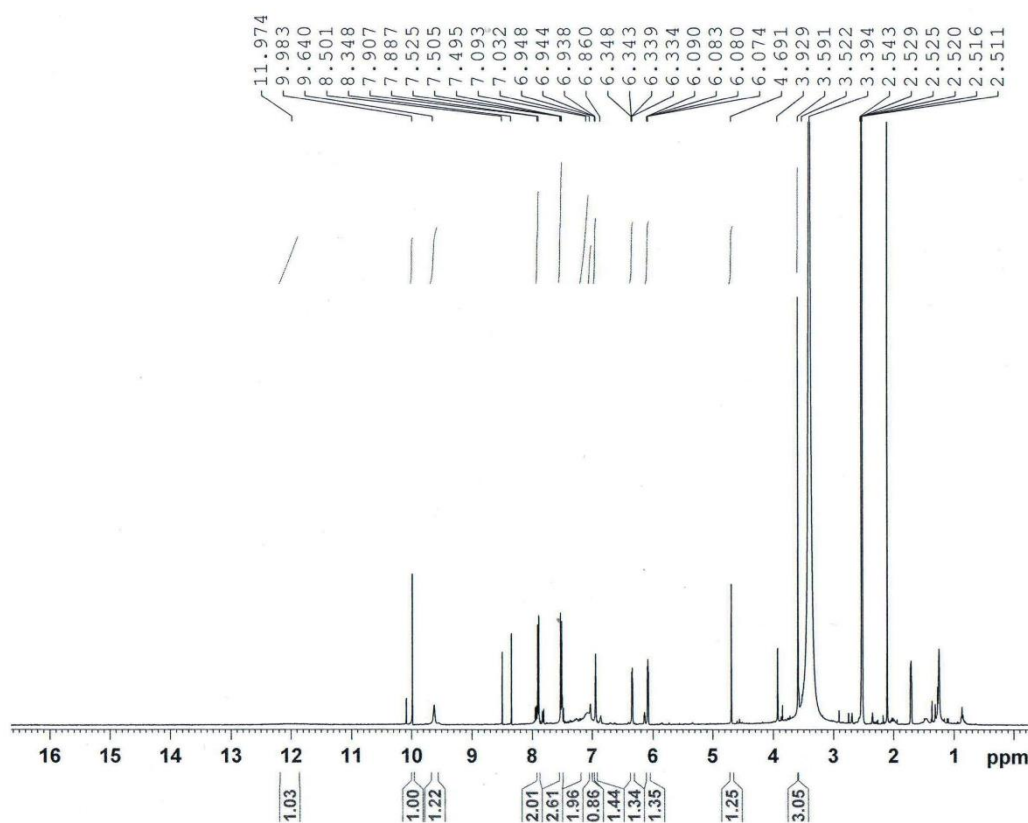
NAME Gilman UN
EXPNO 3501
PROCNO 1
Date_ 20180412
Time 12.52
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 7876
DS 0
SWH 35714.285 Hz
FIDRES 0.544957 Hz
AQ 0.9175540 sec
RG 2050
DW 14.000 usec
DE 6.50 usec
TE 295.4 K
D1 1.00000000 sec
D11 0.03000000 sec
TD0 1

===== CHANNEL f1 =====
NUC1 13C
P1 9.00 usec
PL1 -0.90 dB
PL1W 42.02801895 W
SFO1 100.6479784 MHz

===== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 -2.00 dB
PL12 14.16 dB
PL13 17.90 dB
PL2W 11.86359406 W
PL12W 0.28722104 W
PL13W 0.12139934 W
SFO2 400.2216009 MHz
S1 32768
SF 100.6353990 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.20

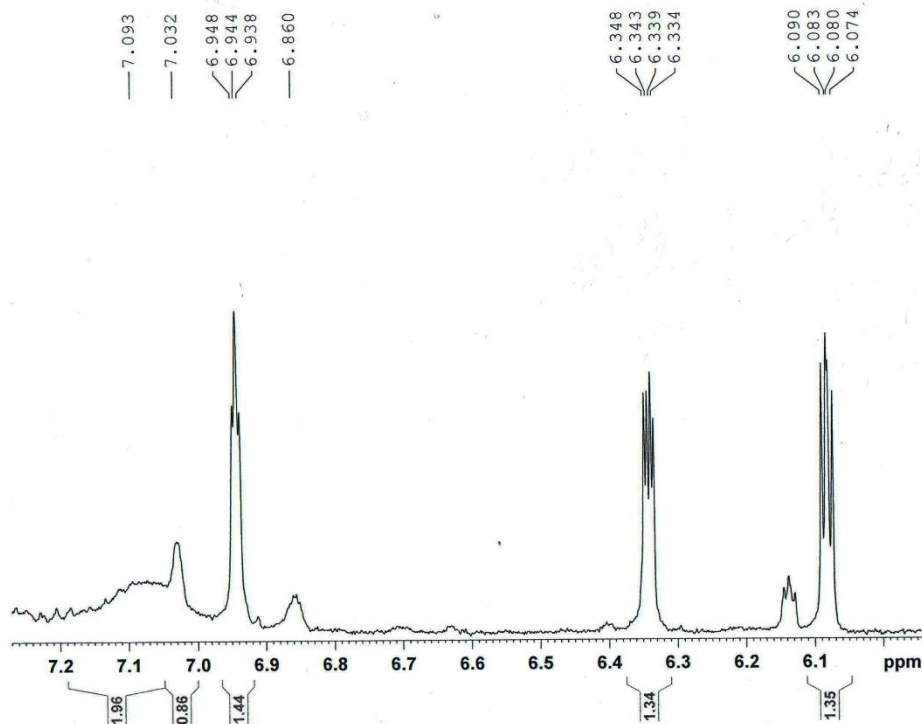
2-Amino-5-(4-formylphenyl)-7-(1-methyl-1H-pyrrol-2-yl)-4-oxo-3,4,5,8-tetrahydropyrido[2,3-d]pyrimidine-6-carbonitrile (8r)





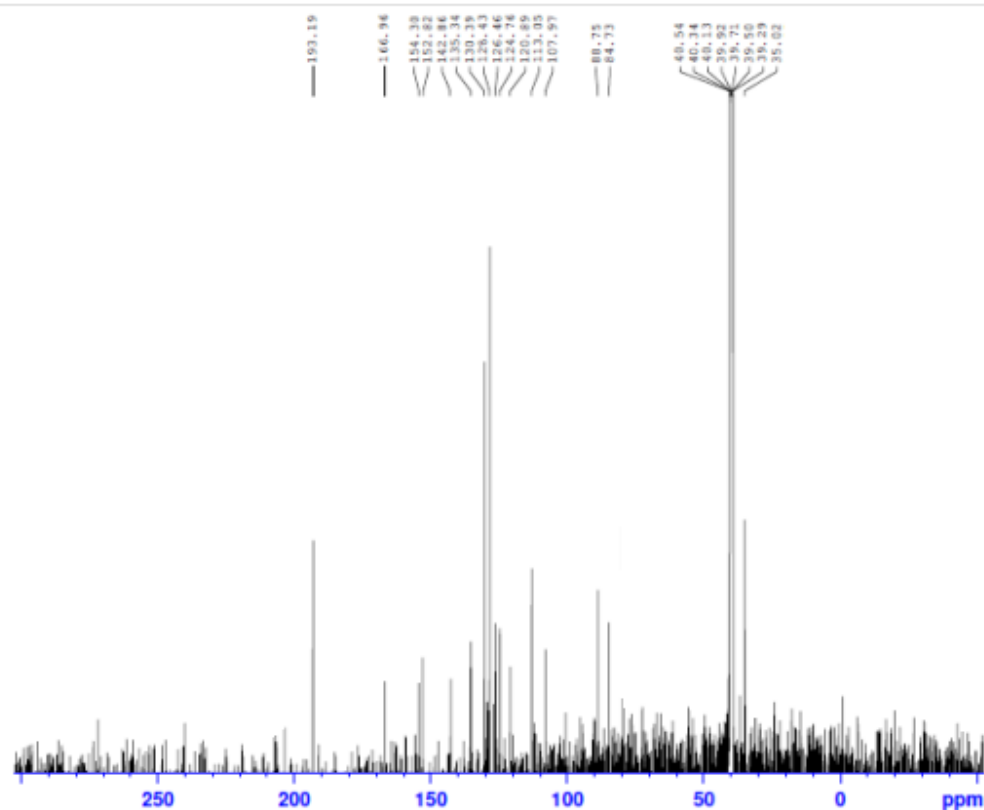
NAME Gilan UN
EXPNO 3019
PROCNO 1
Date 20170716
Time 10.49
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 20
DS 0
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894966 sec
RG 161
DW 62.400 usec
DE 6.50 usec
TE 293.6 K
D1 4.00000000 sec
TD0 1

===== CHANNEL f1 =====
NUC1 1H
P1 14.00 usec
PL1 -2.00 dB
PL1W 11.86359406 W
SFO1 400.2236020 MHz
SI 32768
SF 400.2200000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



NAME Gilan UN
EXPNO 3019
PROCNO 1
Date 20170716
Time 10.49
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 20
DS 0
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894966 sec
RG 161
DW 62.400 usec
DE 6.50 usec
TE 293.6 K
D1 4.00000000 sec
TD0 1

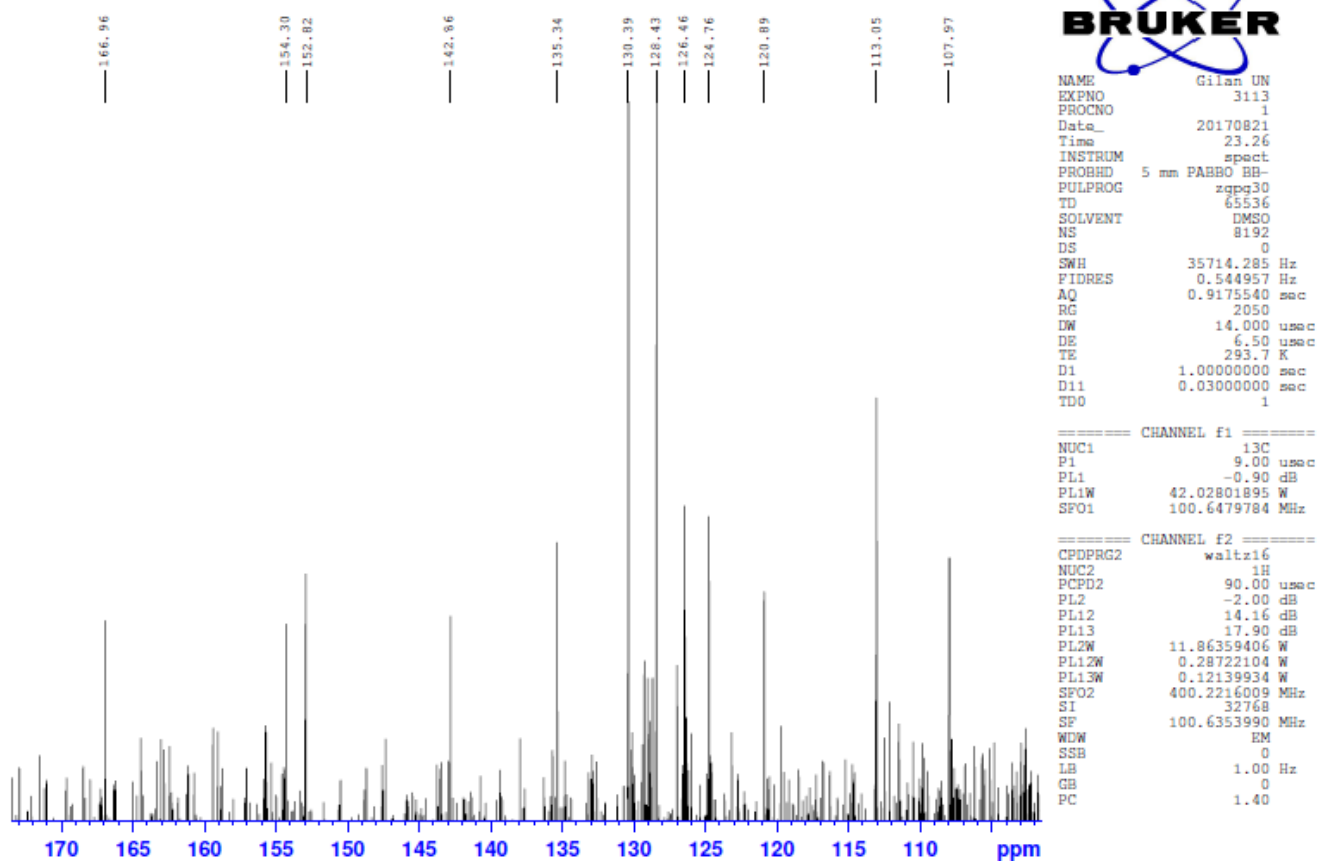
===== CHANNEL f1 =====
NUC1 1H
P1 14.00 usec
PL1 -2.00 dB
PL1W 11.86359406 W
SFO1 400.2236020 MHz
SI 32768
SF 400.2200000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



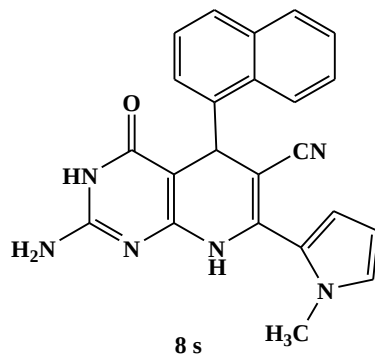
NAME Giam UN
EXPNO 3113
PROCNO 1
Data_ 20170821
Time 23.26
INSTRUM spect
PROBHD 5 mm PARRO BB-
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 8192
DS 0
SWH 35714.285 Hz
FIDRES 0.544957 Hz
AQ 0.9175540 sec
RG 2050
UW 14.000 usec
DE 6.50 usec
TE 293.7 K
D1 1.00000000 sec
D11 0.03000000 sec
TD0 1

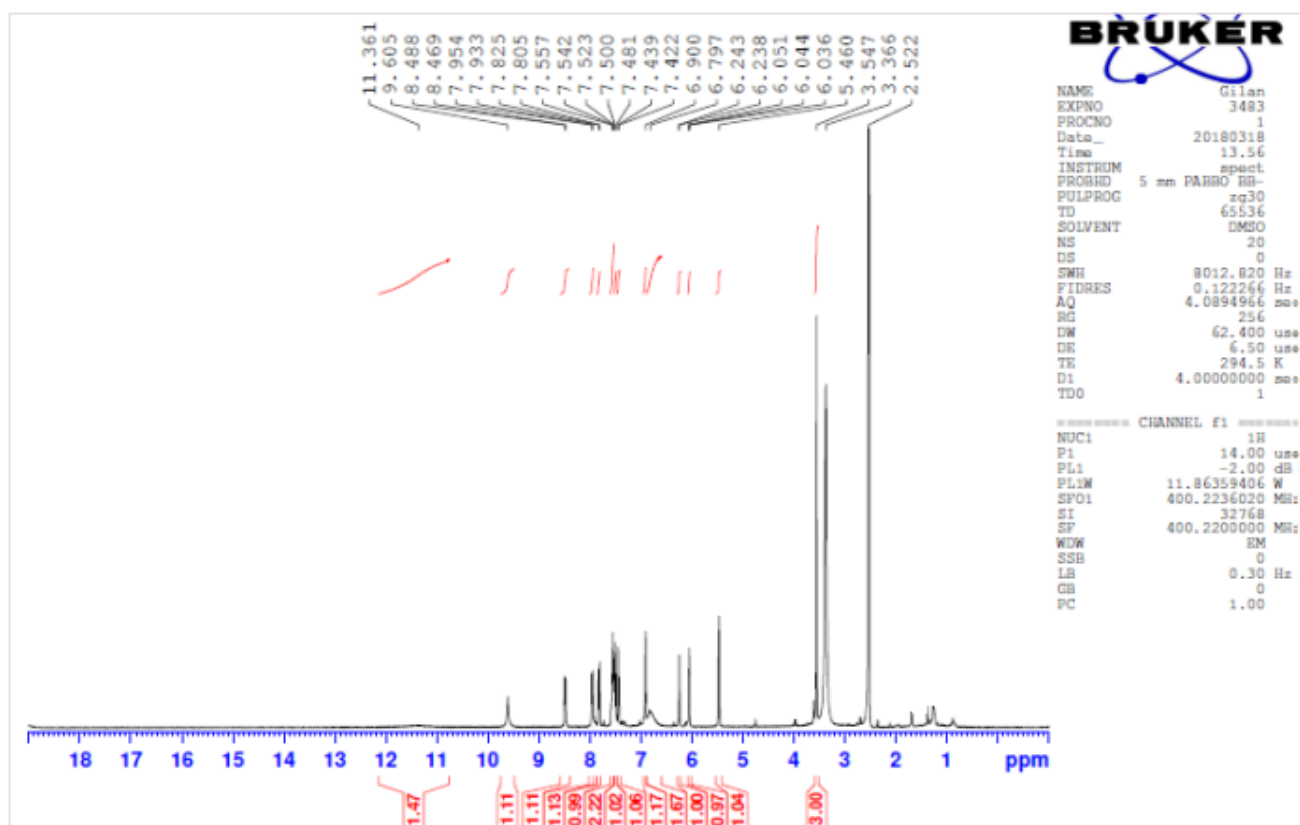
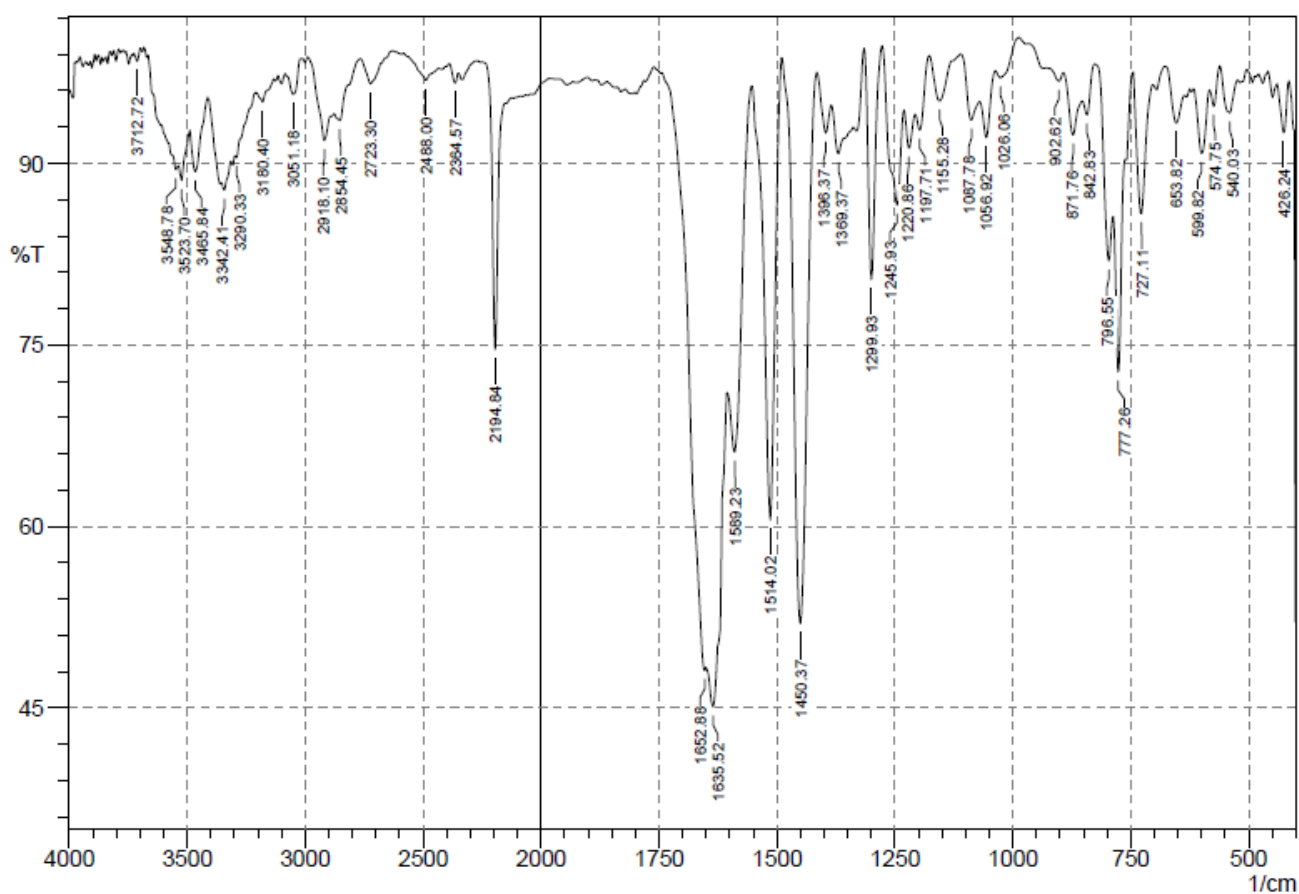
===== CHANNEL f1 =====
NUC1 13C
P1 9.00 usec
PL1 -0.90 dB
PL1W 42.02801895 W
SFO1 100.6479784 MHz

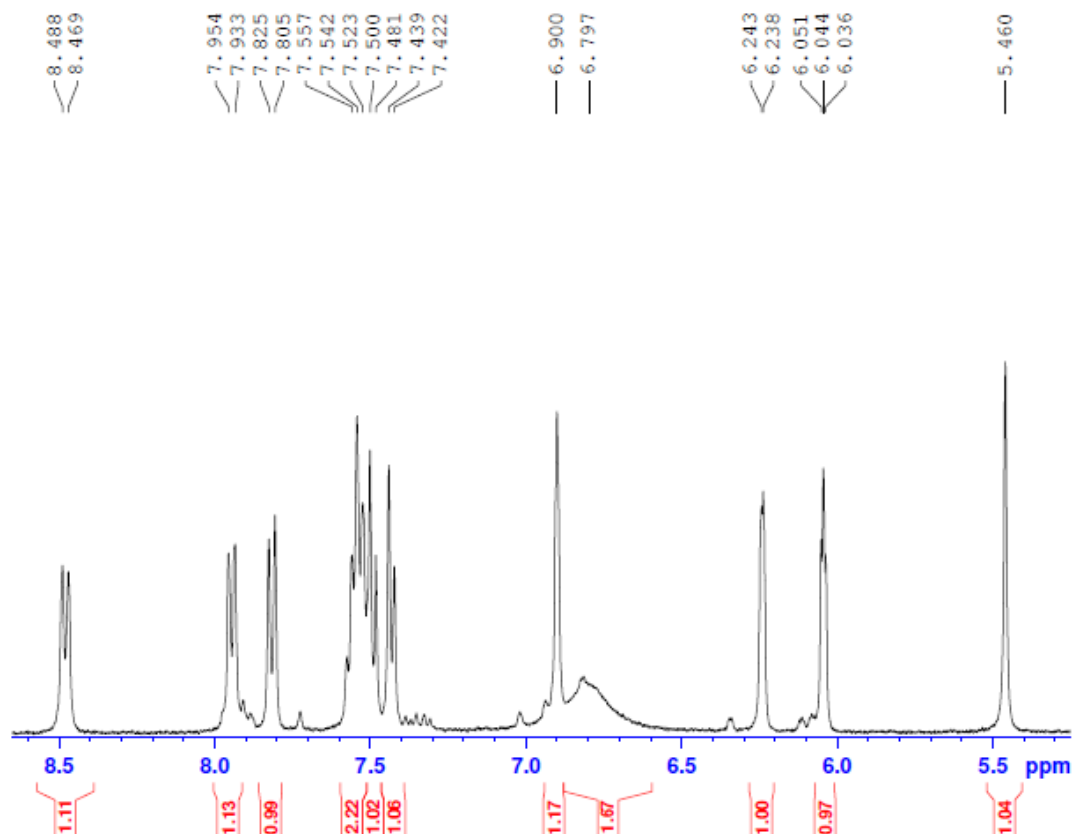
===== CHANNEL f2 =====
CPOPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 -2.00 dB
PL12 14.16 dB
PL13 17.90 dB
PL2W 11.86359406 W
PL12W 0.28722104 W
PL13W 0.12139934 W
SFO2 400.2216009 MHz
SI 32768
SF 100.6353990 MHz
WDW RM
SSB 0
LB 1.00 Hz
CB 0
PC 1.40



2-Amino-5-(naphthalen-1-yl)-7-(1-methyl-1H-pyrrol-2-yl)-4-oxo-3,4,5,8-tetrahydro-pyrido[2,3-*d*]pyrimidine-6-carbonitrile (8s)

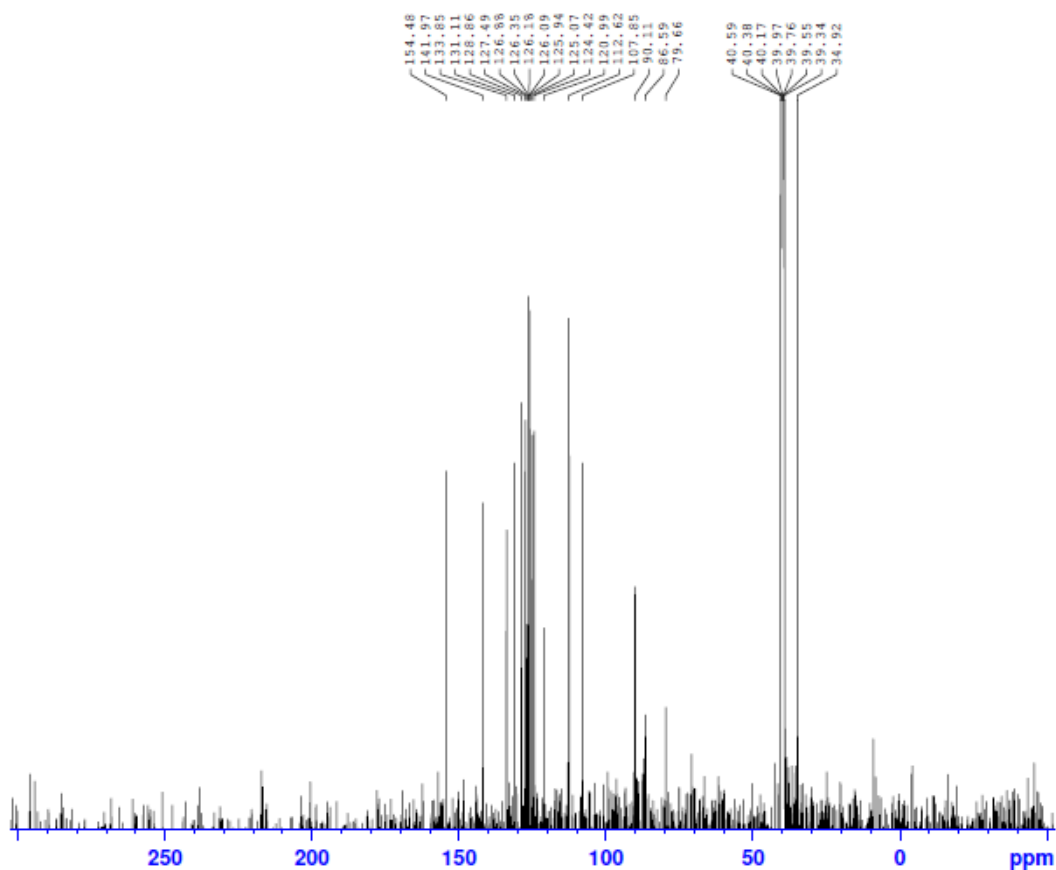






NAME Gilan
 EXPNO 3483
 PROCNO 1
 Date_ 20180318
 Time 13.56
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 20
 DS 0
 SWH 8012.820 Hz
 FIDRES 0.122266 Hz
 AQ 4.0894966 sec
 RG 256
 DW 62.400 usec
 DE 6.50 usec
 TE 294.5 K
 D1 4.00000000 sec
 TD0 1

===== CHANNEL f1 =====
 NUC1 1H
 P1 14.00 usec
 PL1 -2.00 dB
 PL1W 11.86359406 W
 SFO1 400.2236020 MHz
 SI 32768
 SF 400.2200000 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

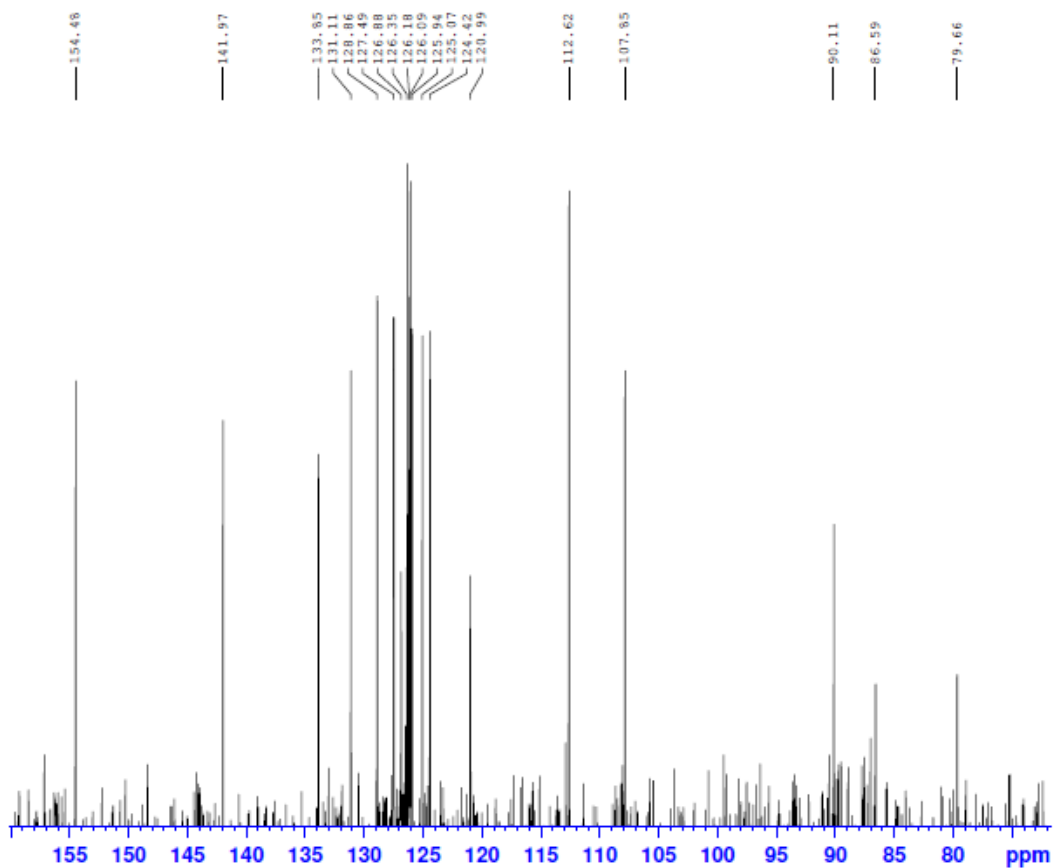


BRUKER

NAME Gilan UN
 EXPNO 3507
 PROCNO 1
 Date_ 20180421
 Time 8.58
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 6446
 DS 0
 SWH 35714.285 Hz
 FIDRES 0.544957 Hz
 AQ 0.9175540 sec
 RG 2050
 DW 14.000 usec
 DE 6.50 usec
 TE 293.5 K
 D1 1.00000000 sec
 D11 0.03000000 sec
 TDO 1

==== CHANNEL f1 =====
 NUC1 13C
 P1 9.00 usec
 PL1 -0.90 dB
 PL1W 42.02801895 W
 SFO1 100.6479784 MHz

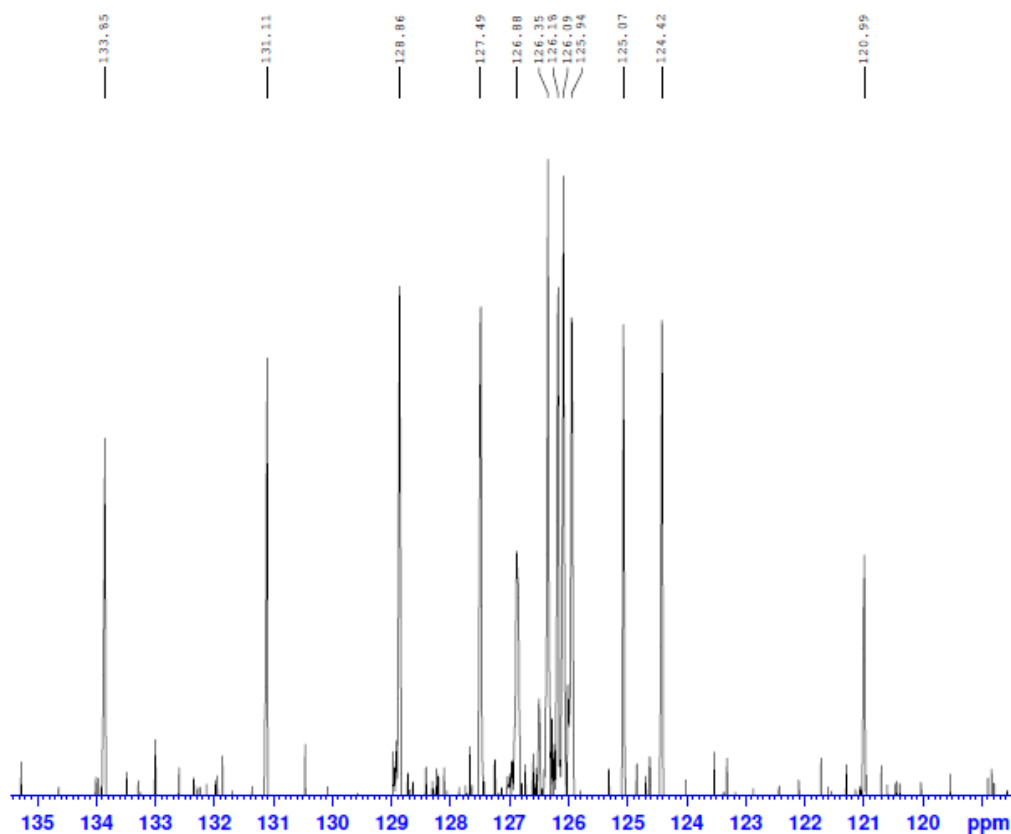
==== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 90.00 usec
 PL2 -2.00 dB
 PL12 14.16 dB
 PL13 17.90 dB
 PL2W 11.86359406 W
 PL12W 0.28722104 W
 PL13W 0.12139934 W
 SFO2 400.2216009 MHz
 S1 32768
 SF 100.6353990 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.20



NAME Gilan UN
 EXPNO 3507
 PROCNO 1
 Date_ 20180421
 Time 8.58
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 6446
 DS 0
 SWH 35714.285 Hz
 FIDRES 0.544957 Hz
 AQ 0.9175540 sec
 RG 2050
 DW 14.000 usec
 DE 6.50 usec
 TE 293.5 K
 D1 1.00000000 sec
 D11 0.03000000 sec
 TD0 1

===== CHANNEL f1 =====
 NUC1 13C
 P1 9.00 usec
 PL1 -0.90 dB
 PL1W 42.02801895 W
 SFO1 100.6479784 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 90.00 usec
 PL2 -2.00 dB
 PL12 14.16 dB
 PL13 17.90 dB
 PL2W 11.86359406 W
 PL12W 0.28722104 W
 PL13W 0.12139934 W
 SFO2 400.2216009 MHz
 SI 32768
 SF 100.6353990 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.20



NAME Gilan UN
EXPNO 3507
PROCNO 1
Date_ 20180421
Time 8.58
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 6446
DS 0
SWH 35714.285 Hz
FIDRES 0.544957 Hz
AQ 0.9175540 sec
RG 2050
DW 14.000 usec
DE 6.50 usec
TE 293.5 K
D1 1.00000000 sec
D11 0.03000000 sec
TD0 1

===== CHANNEL f1 =====
NUC1 13C
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PL1 -0.90 dB
PL1W 42.02801895 W
SFO1 100.6479784 MHz

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PL12W 0.28722104 W
PL13W 0.12139934 W
SFO2 400.2216009 MHz
SI 32768
SF 100.6353990 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.20