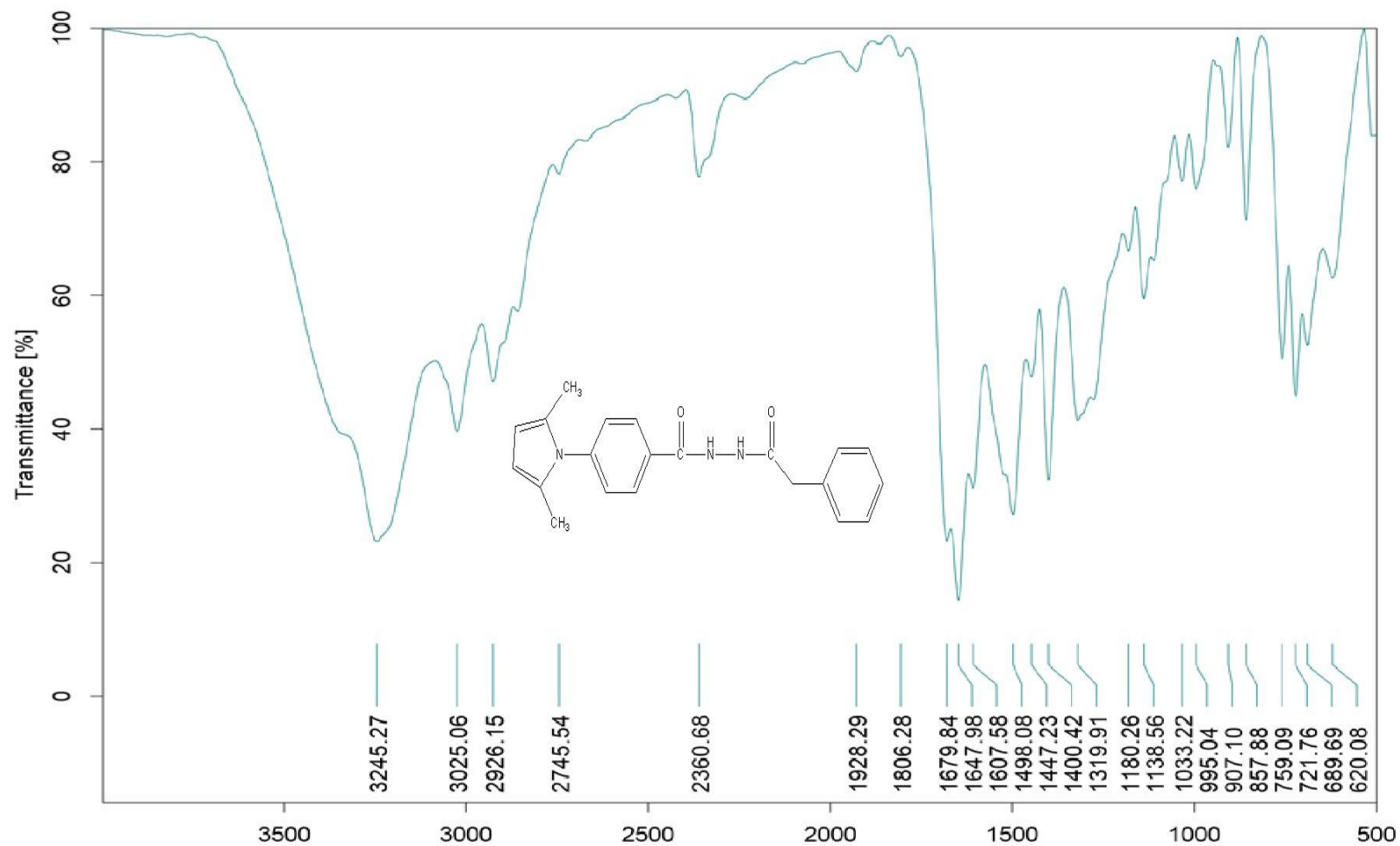
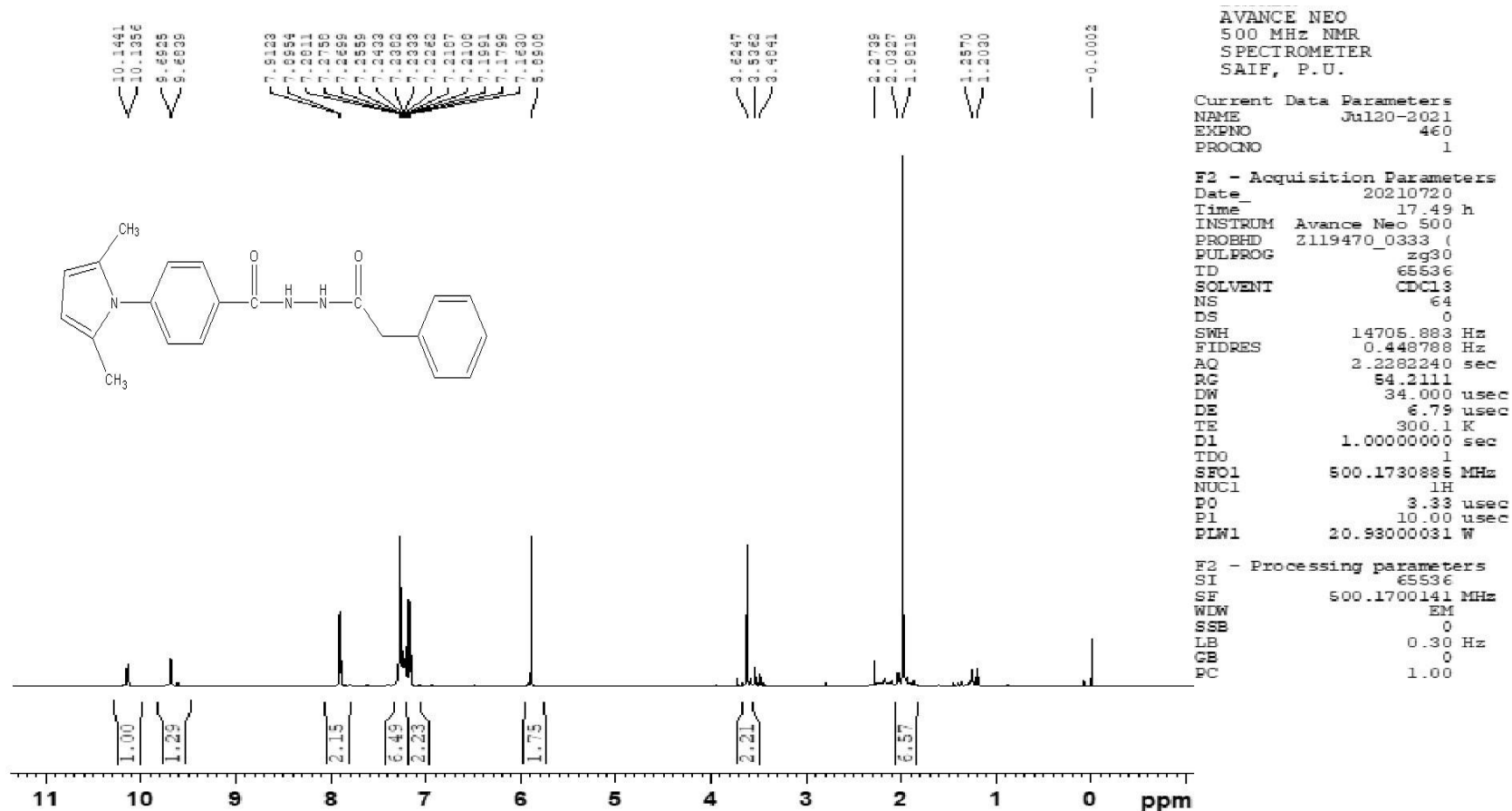


SPECTRUM NO:01 (IR spectrum of Compound 5a)



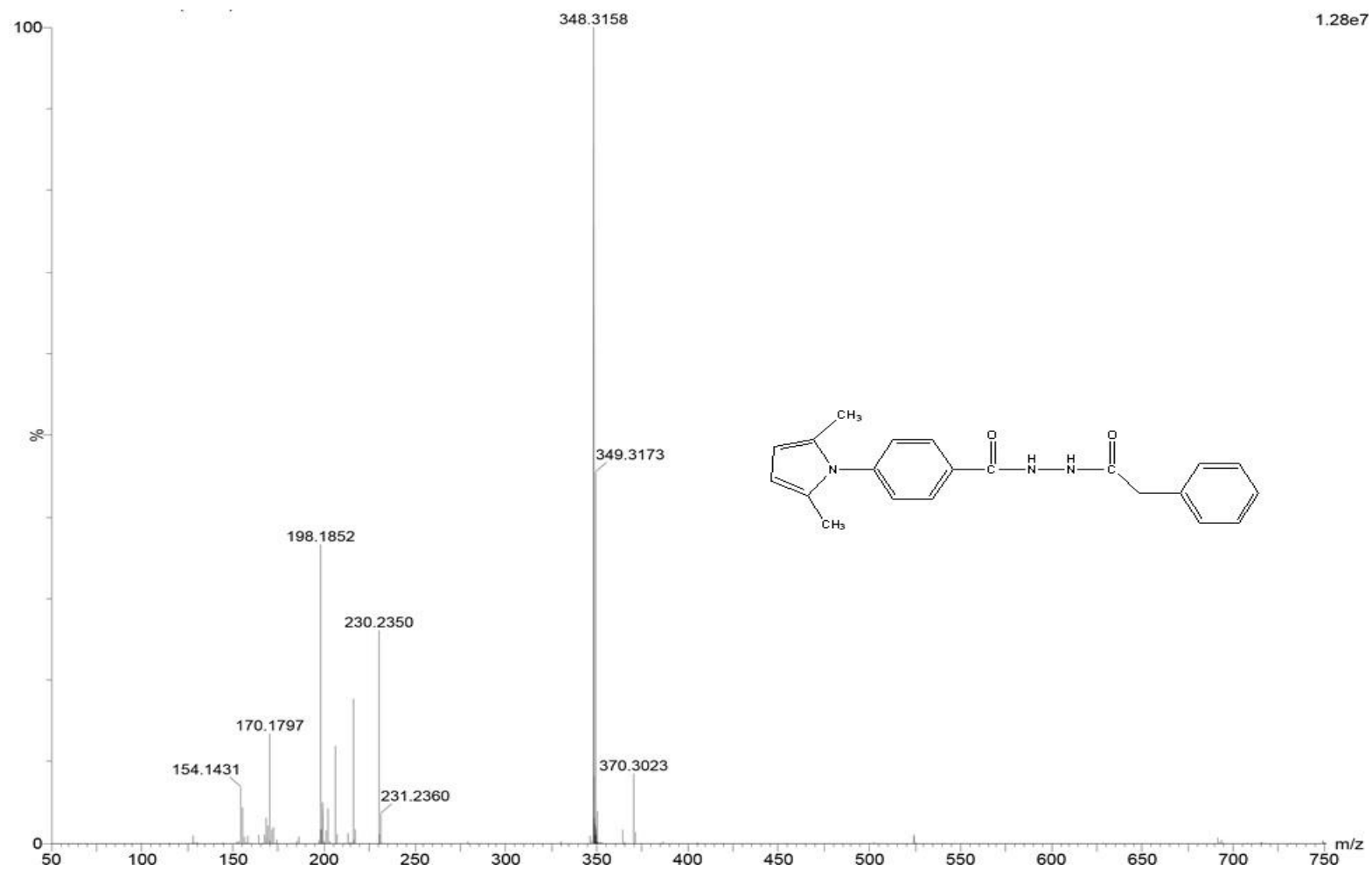
SPECTRUM NO :02 (¹H NMR spectrum of Compound 5a)



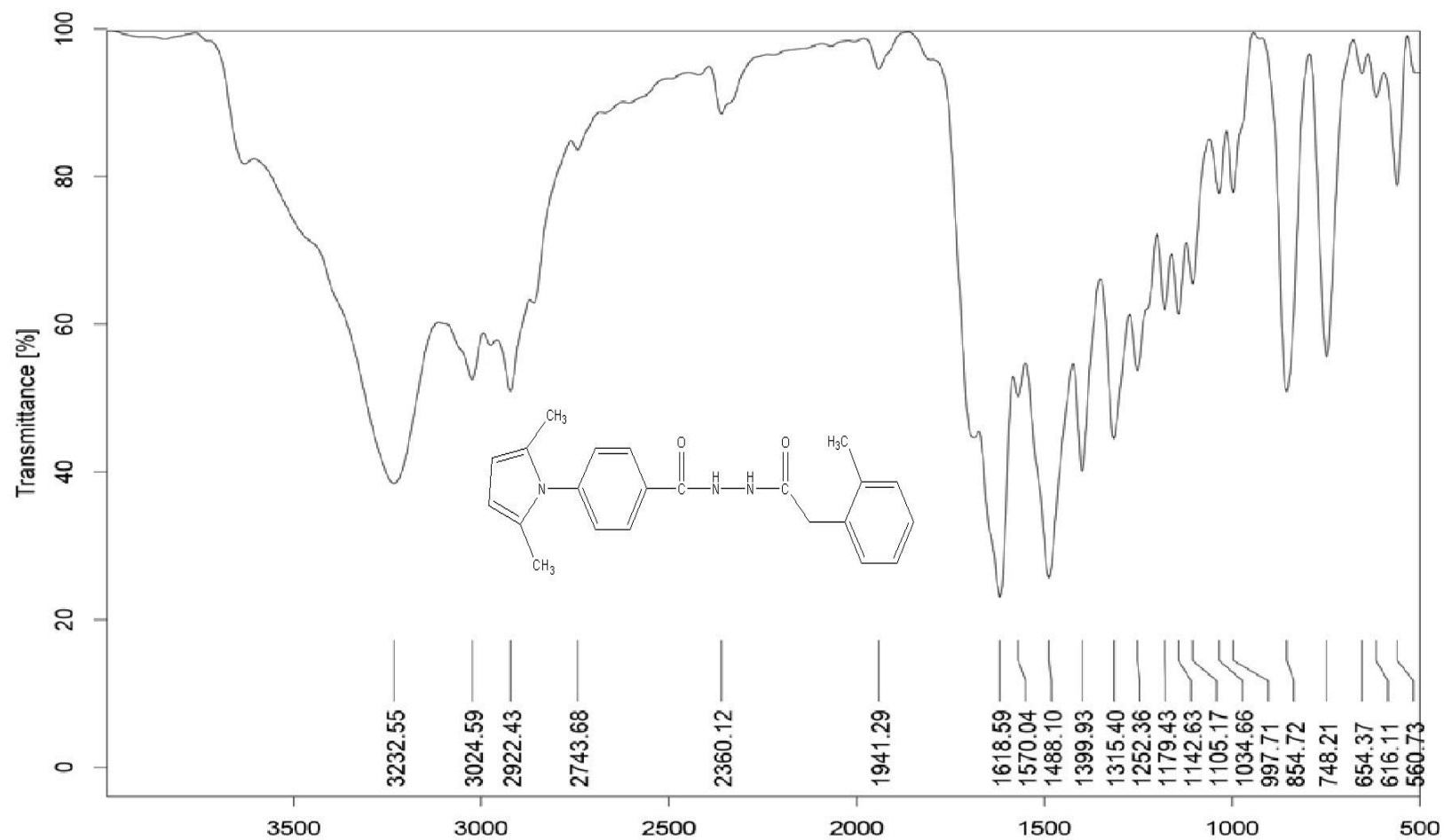
[illegible]

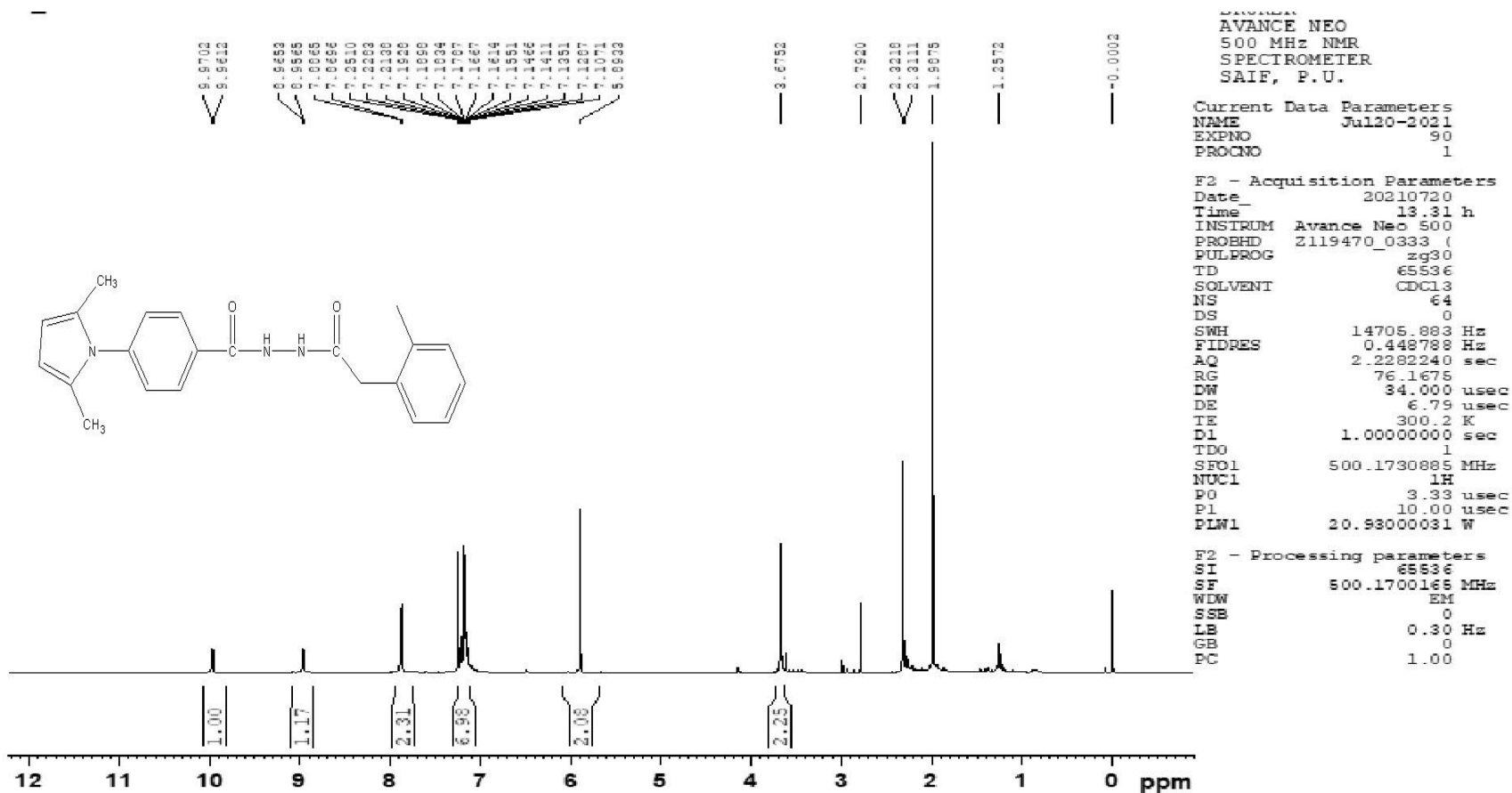
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F2 - Processing parameters
SI          327.68
SF          125.7678488 MHz
WDW          EM
SSE          0
LB          1.00 Hz
GB          0
FPC          1.40
```

SPECTRUM NO:04 (Mass spectrum of Compound 5a)



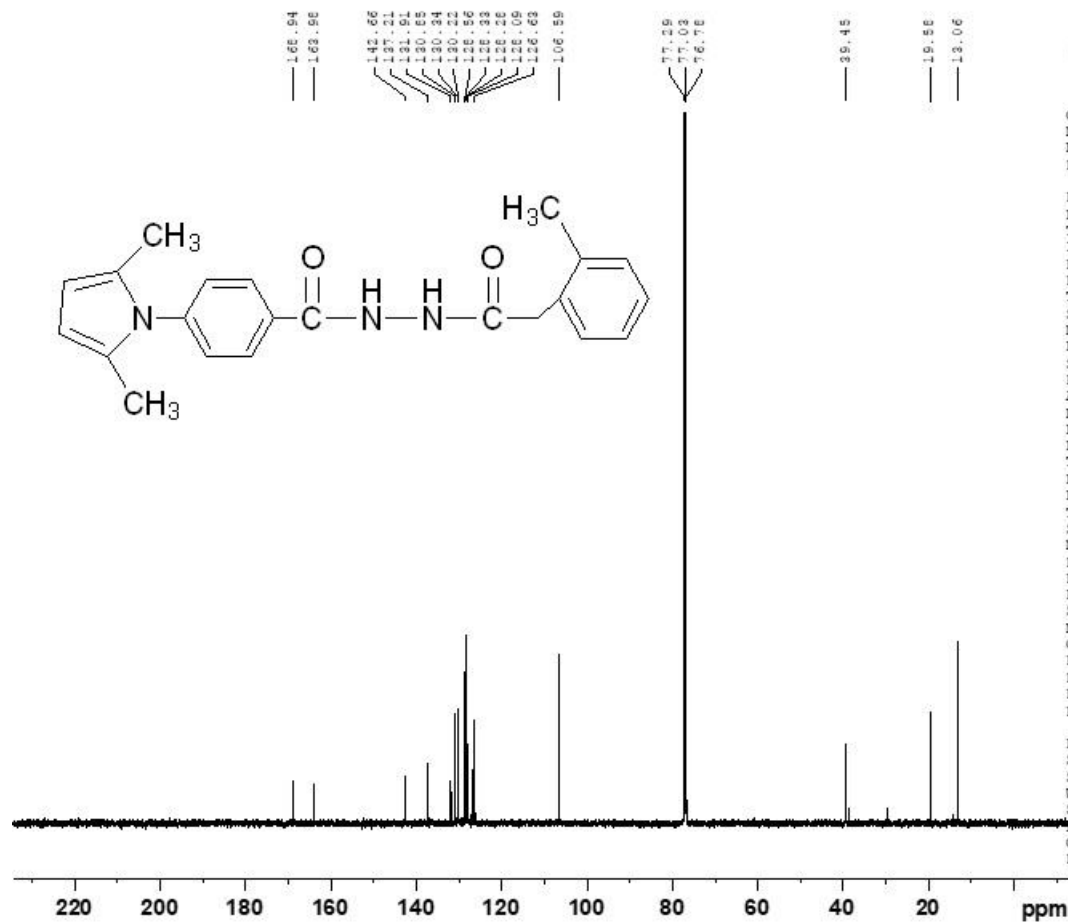
SPECTRUM NO:05 (IR spectrum of Compound 5b)





SPECTRUM NO:07 (¹³C NMR spectrum of Compound 5b)

4CH33c
C13CPD CDCl3 {D:\Spectra} nmr 38



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AVANCE NEO
500 MHz NMR SPECTROMETER
SAIF, PANJAB UNIVERSITY,
CHANDIGARH

Current Data Parameters

NAME Mar02-2023
EXPNO 381
PROCNO 1

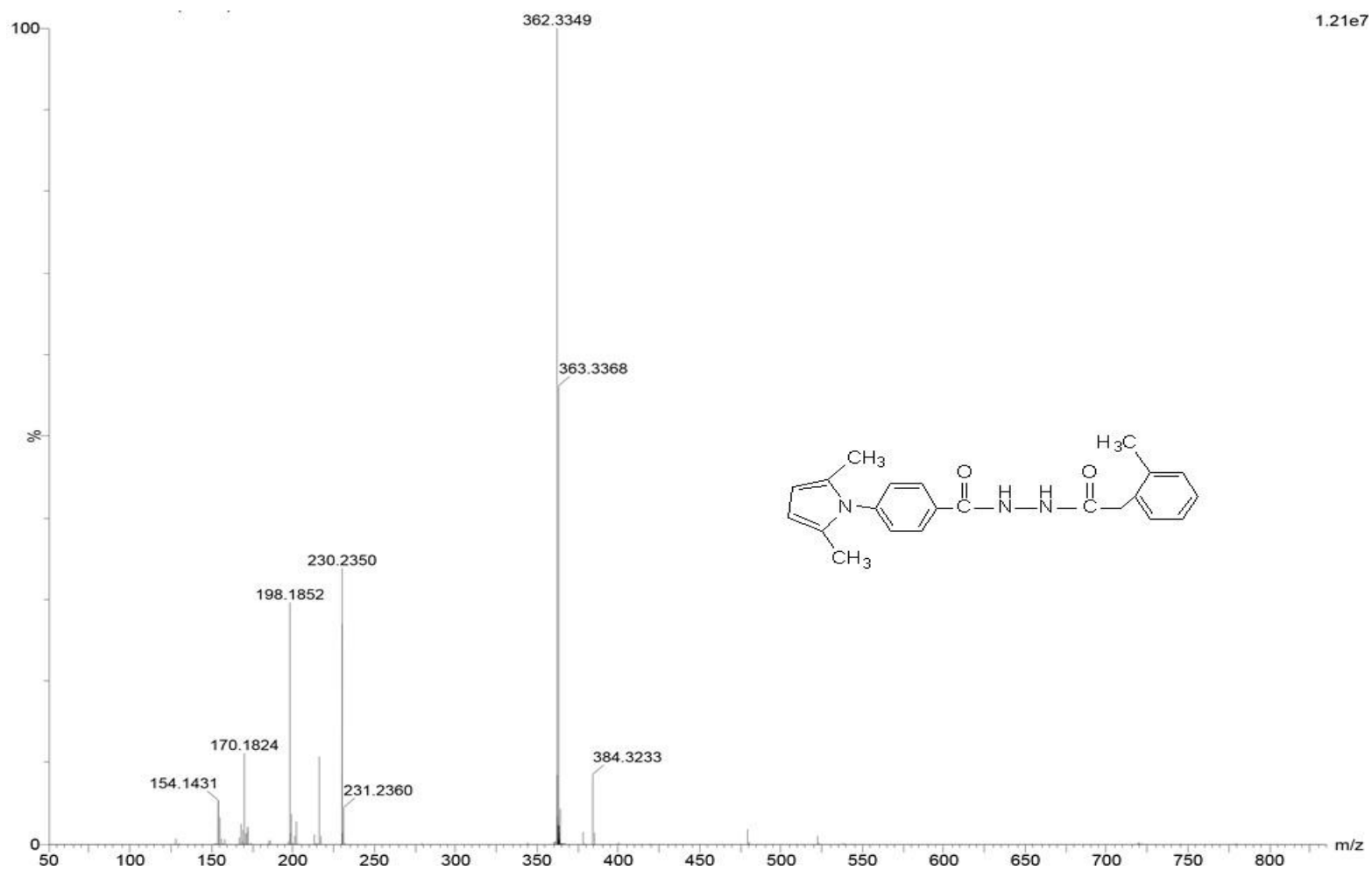
F2 - Acquisition Parameters

Date_ 20230302
Time 20.55 h
INSTRUM Avance Neo 500
PROBHD Z119470_0332 (
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 4
SWH 37037.035 Hz
FIDRES 1.130281 Hz
AQ 0.8847360 sec
RG 101
DW 13.500 usec
DE 6.50 usec
TE 300.1 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
SFO1 125.7804222 MHz
NUC1 13C
F0 3.32 usec
F1 10.00 usec
PLW1 83.14099884 W
SFO2 500.1720007 MHz
NUC2 1H
CPDPRG2 waltz65
PCPD2 80.00 usec
PLW2 20.92000031 W
PLW12 0.32703000 W
PLW13 0.16449000 W

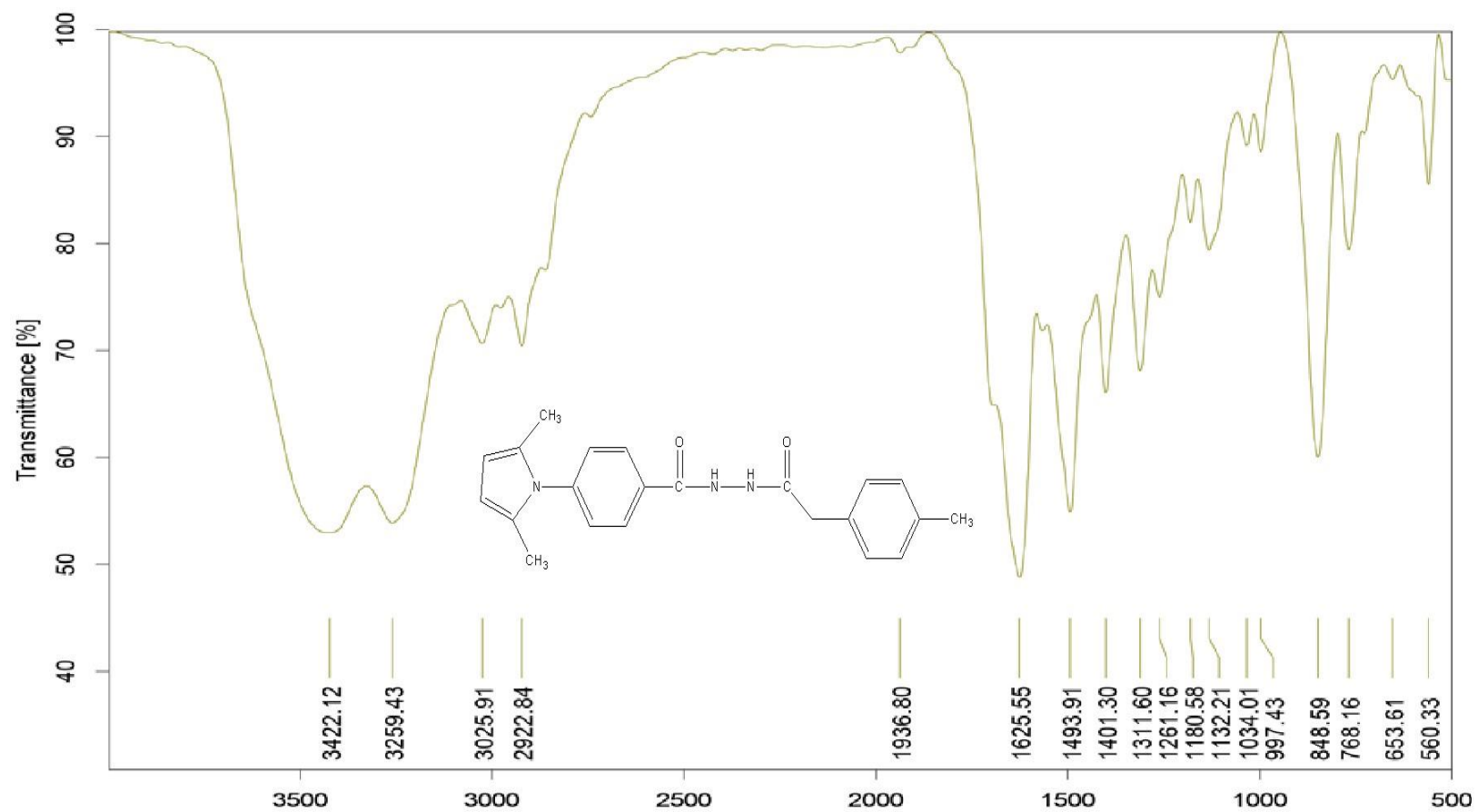
F2 - Processing parameters

SI 32768
SF 125.7678465 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

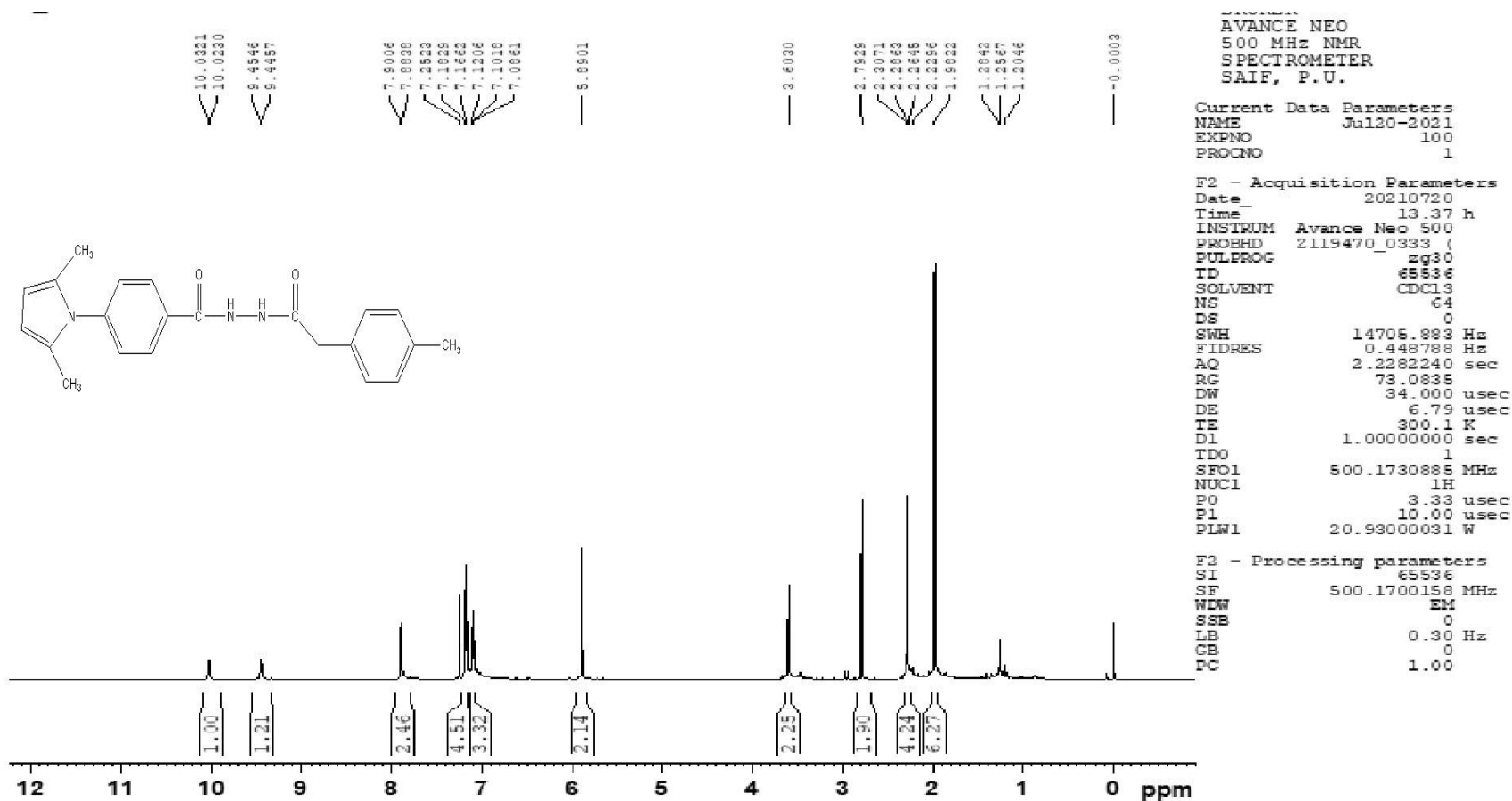
SPECTRUM NO:08 (Mass spectrum of Compound 5b)



SPECTRUM NO :09 (IR spectrum of Compound 5c)

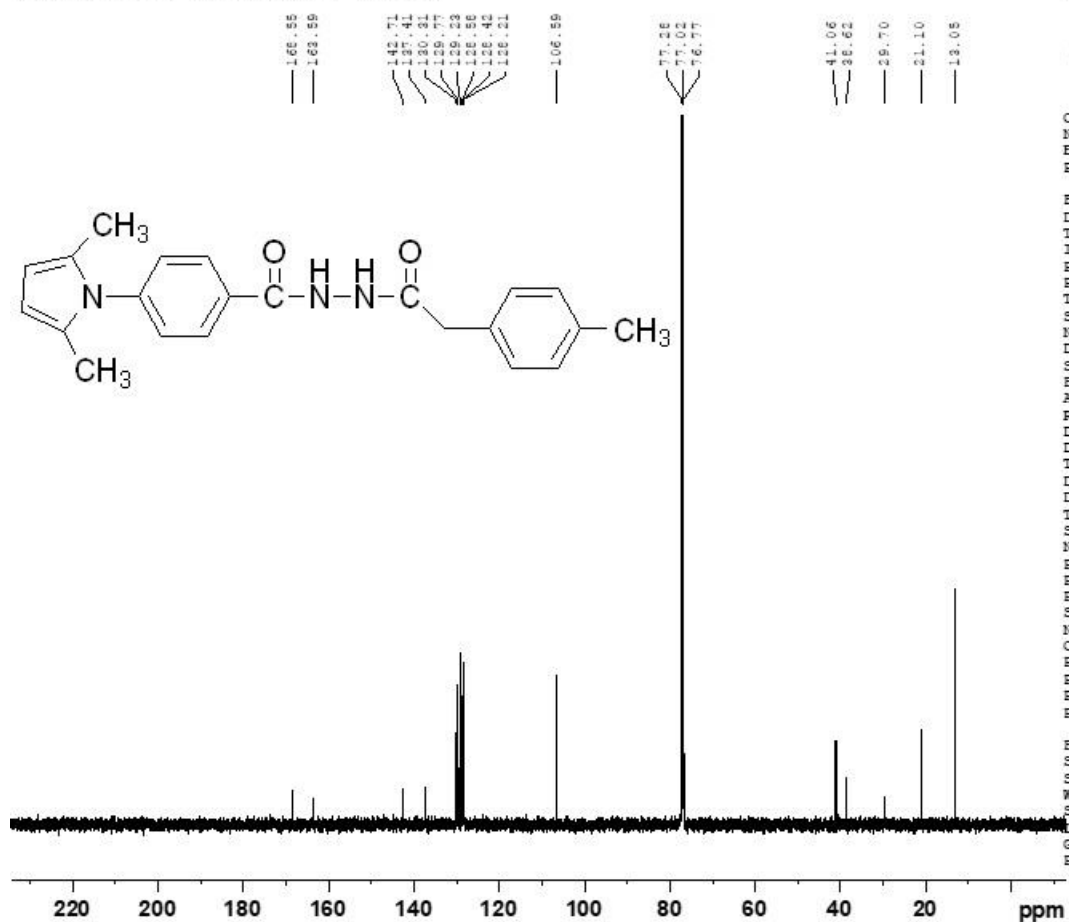


SPECTRUM NO:10 (¹H NMR spectrum of Compound 5c)



SPECTRUM NO:11 (^{13}C NMR spectrum of Compound 5c)

4CH33c
C13CPD CDC13 {D:\Spectra} nmr 37



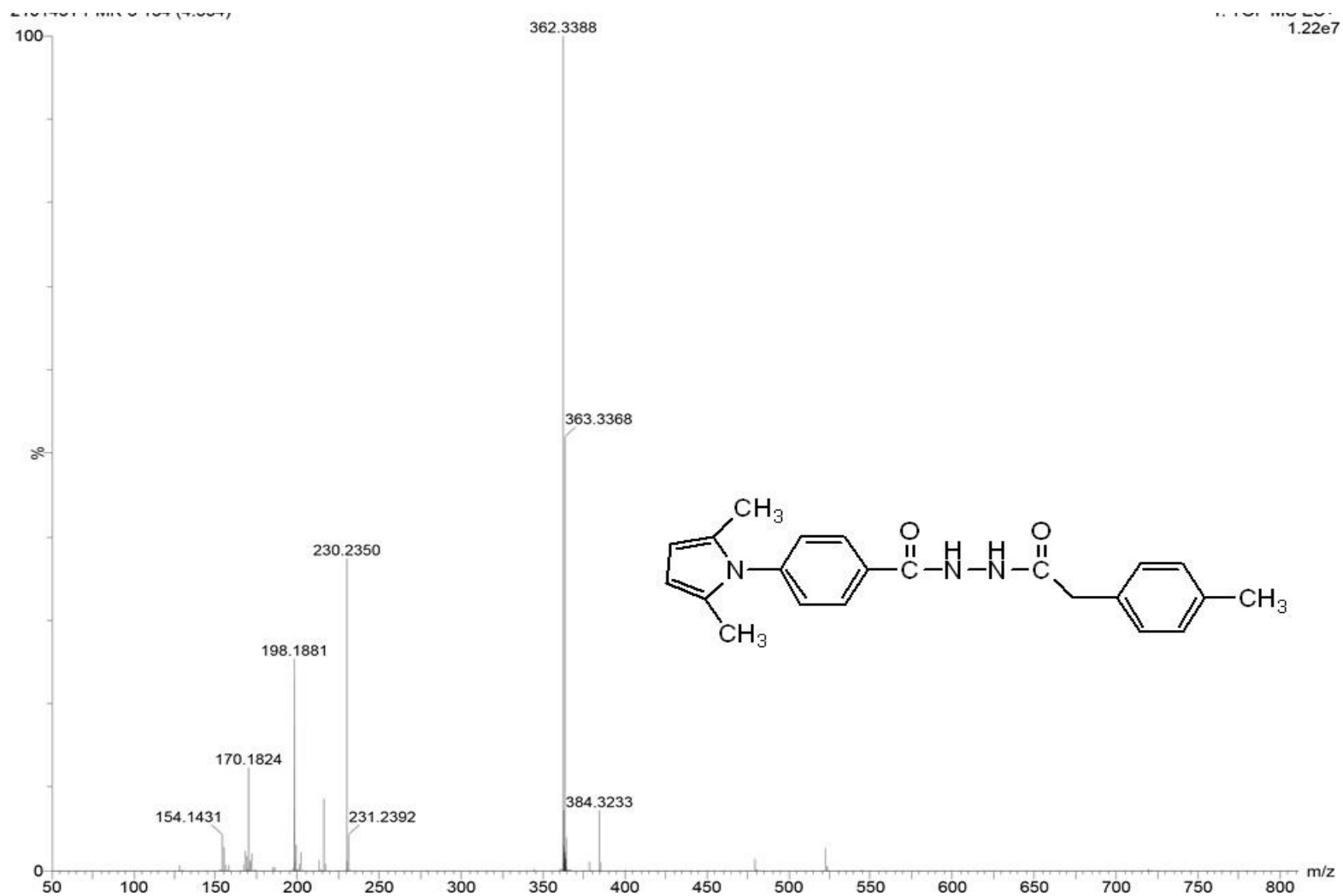
BRUKER
AVANCE NEO
500 MHz NMR SPECTROMETER
SAIF, PANJAB UNIVERSITY,
CHANDIGARH

Current Data Parameters
NAME Mar02-2023
EXPNO 371
PROCNO 1

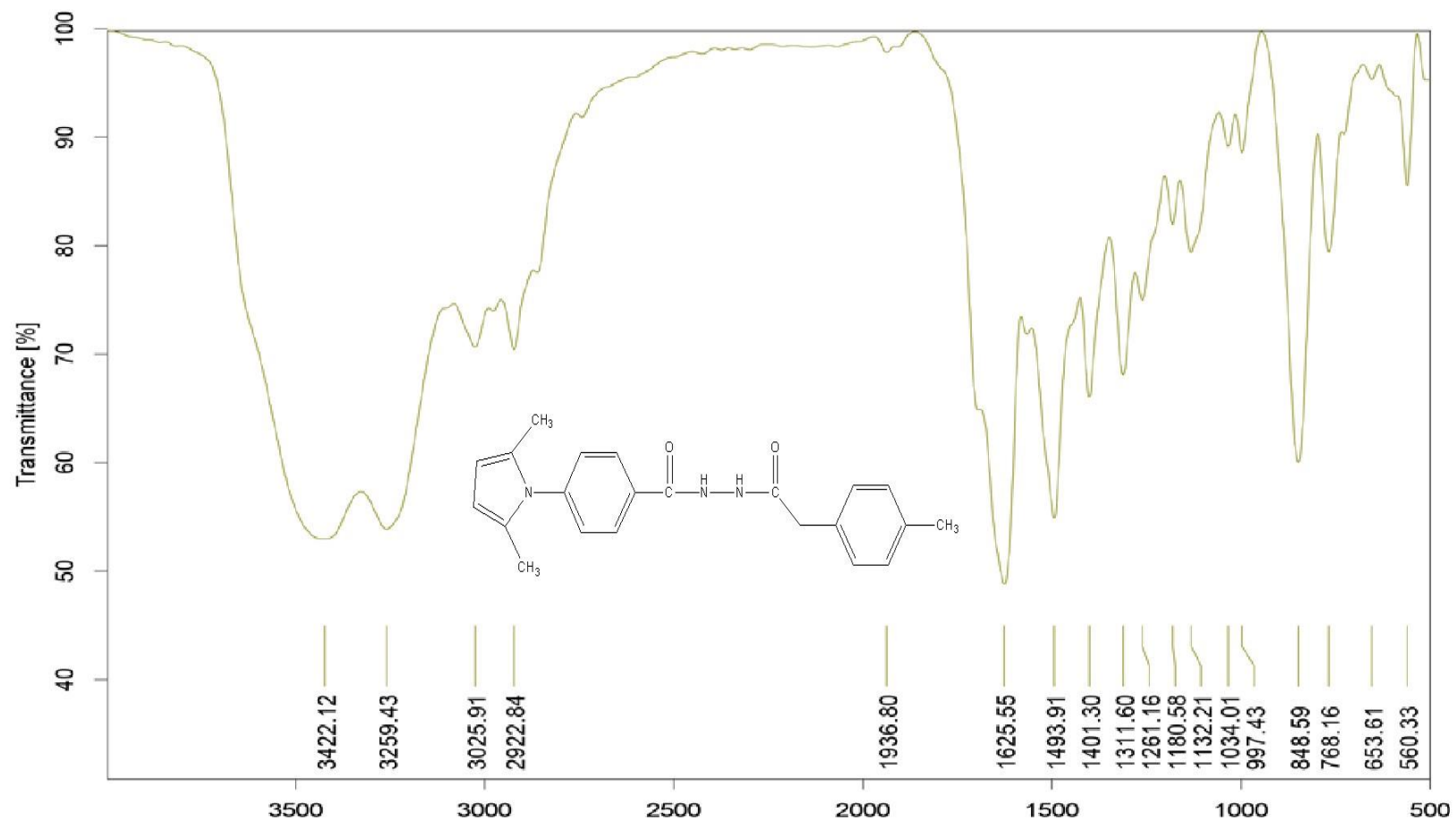
F2 - Acquisition Parameters
Date_ 20230302
Time_ 20.28 h
INSTRUM Avance Neo 500
PROBHD Z119470_0323 (
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 4
SWH 37037.035 Hz
FIDRES 1.130281 Hz
AQ 0.8847360 sec
RG 101
DW 13.500 usec
DE 6.50 usec
TE 300.2 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
SFO1 125.7804233 MHz
NUC1 13C
P0 3.23 usec
P1 10.00 usec
PLW1 83.14099884 W
SFO2 500.1720007 MHz
NUC2 1H
CPDPRG2 waltz65
PCPD2 80.00 usec
PLW2 20.92000031 W
PLW12 0.32703000 W
PLW13 0.16449000 W

F2 - Processing parameters
SI 32768
SF 125.7678465 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

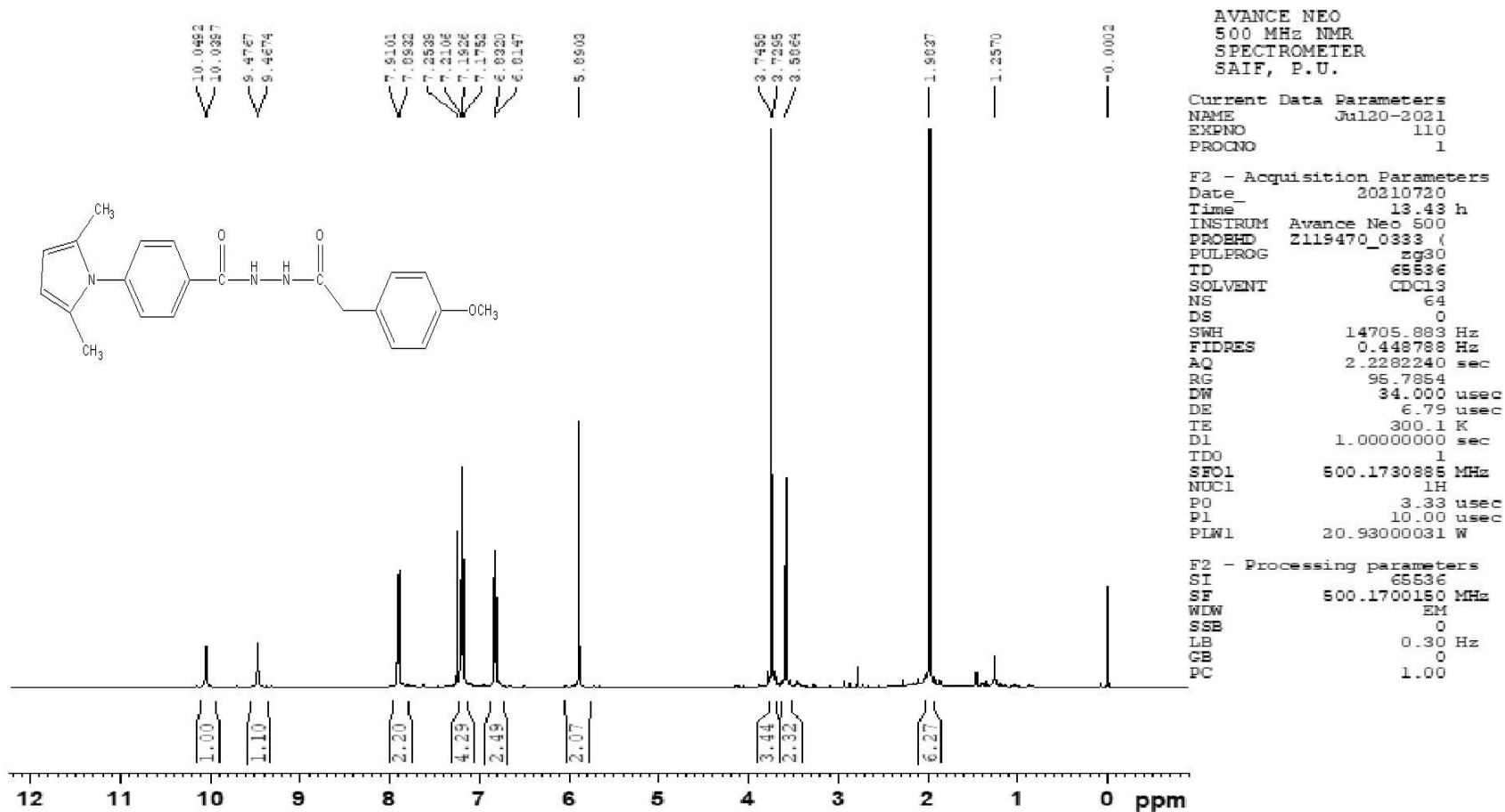
SPECTRUM NO:12 (Mass spectrum of Compound 5c)



SPECTRUM NO:13 (IR spectrum of Compound 5d)

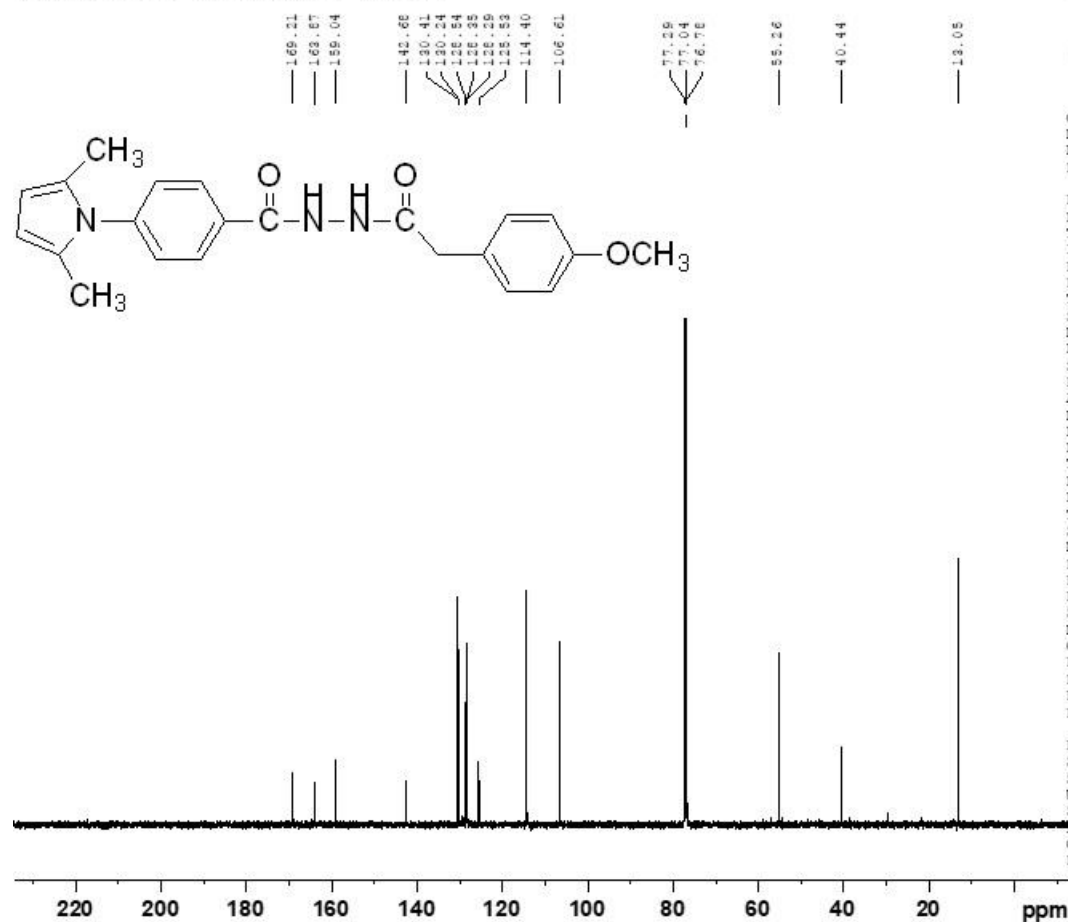


SPECTRUM NO:14 (¹H NMR spectrum of Compound 5d)



SPECTRUM NO:15 (¹³C NMR spectrum of Compound 5d)

40CH33d
C13CPD CDC13 {D:\Spectra} nmr 34



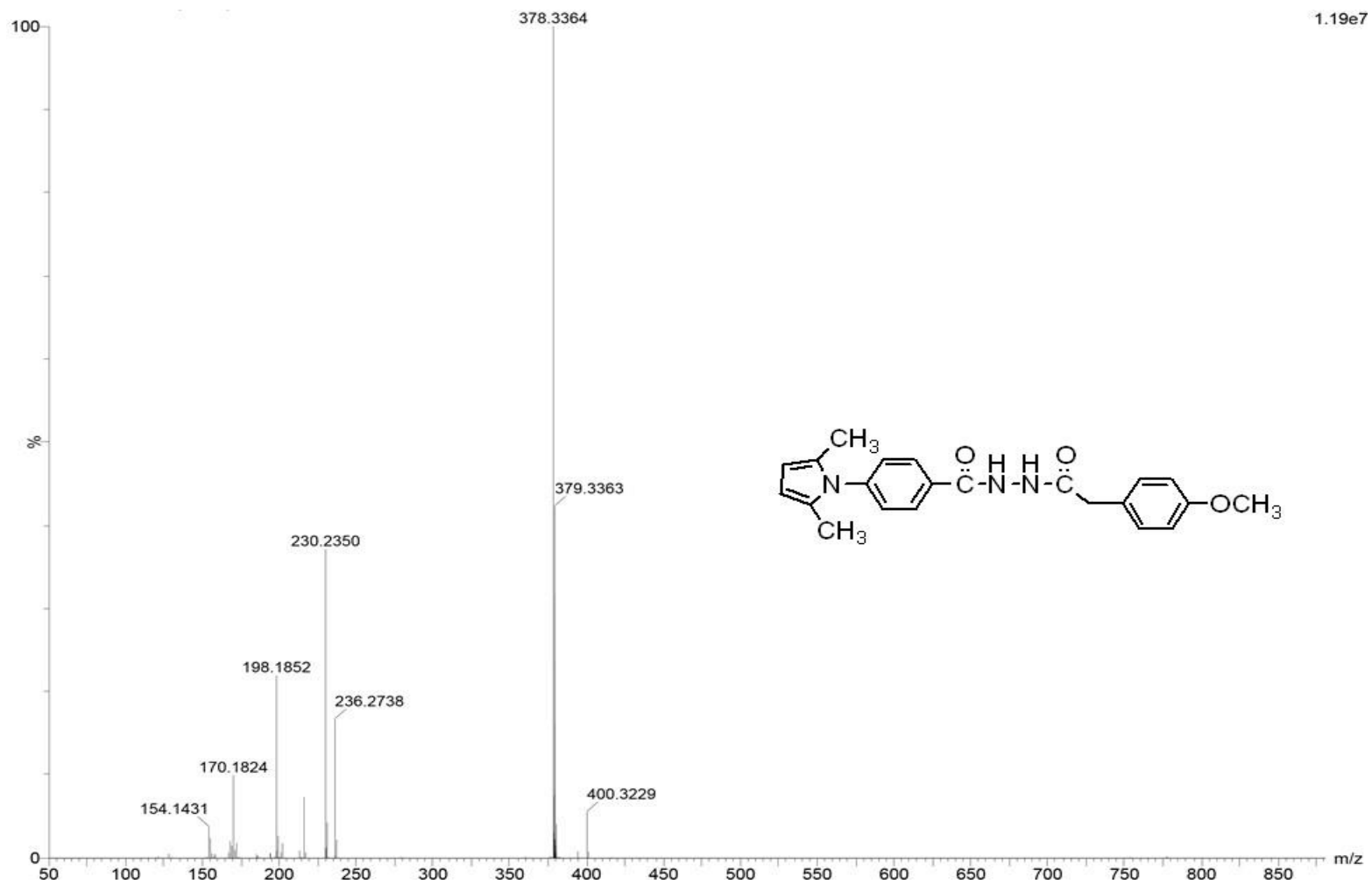
BRUKER
AVANCE NEO
500 MHz NMR SPECTROMETER
SAIF, PANJAB UNIVERSITY,
CHANDIGARH

Current Data Parameters
NAME Mar02-2023
EXPNO 341
PROCNO 1

F2 - Acquisition Parameters
Date 20230302
Time 19.06 h
INSTRUM Avance Neo 500
PROBHD Z119470_0323 (
PULPROG zgpg30
TD 65536
SOLVENT CDC13
NS 512
DS 4
SWH 37037.035 Hz
FIDRES 1.130281 Hz
AQ 0.8847260 sec
RG 101
DW 13.500 usec
DE 6.50 usec
TE 300.1 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
SFO1 125.7804233 MHz
NUC1 13C
P0 3.33 usec
P1 10.00 usec
PLW1 83.14099884 W
SFO2 500.1720007 MHz
NUC2 1H
CPDPRG2 waltz65
PCPD2 80.00 usec
PLW2 20.93000031 W
PLW12 0.32703000 W
PLW13 0.16449000 W

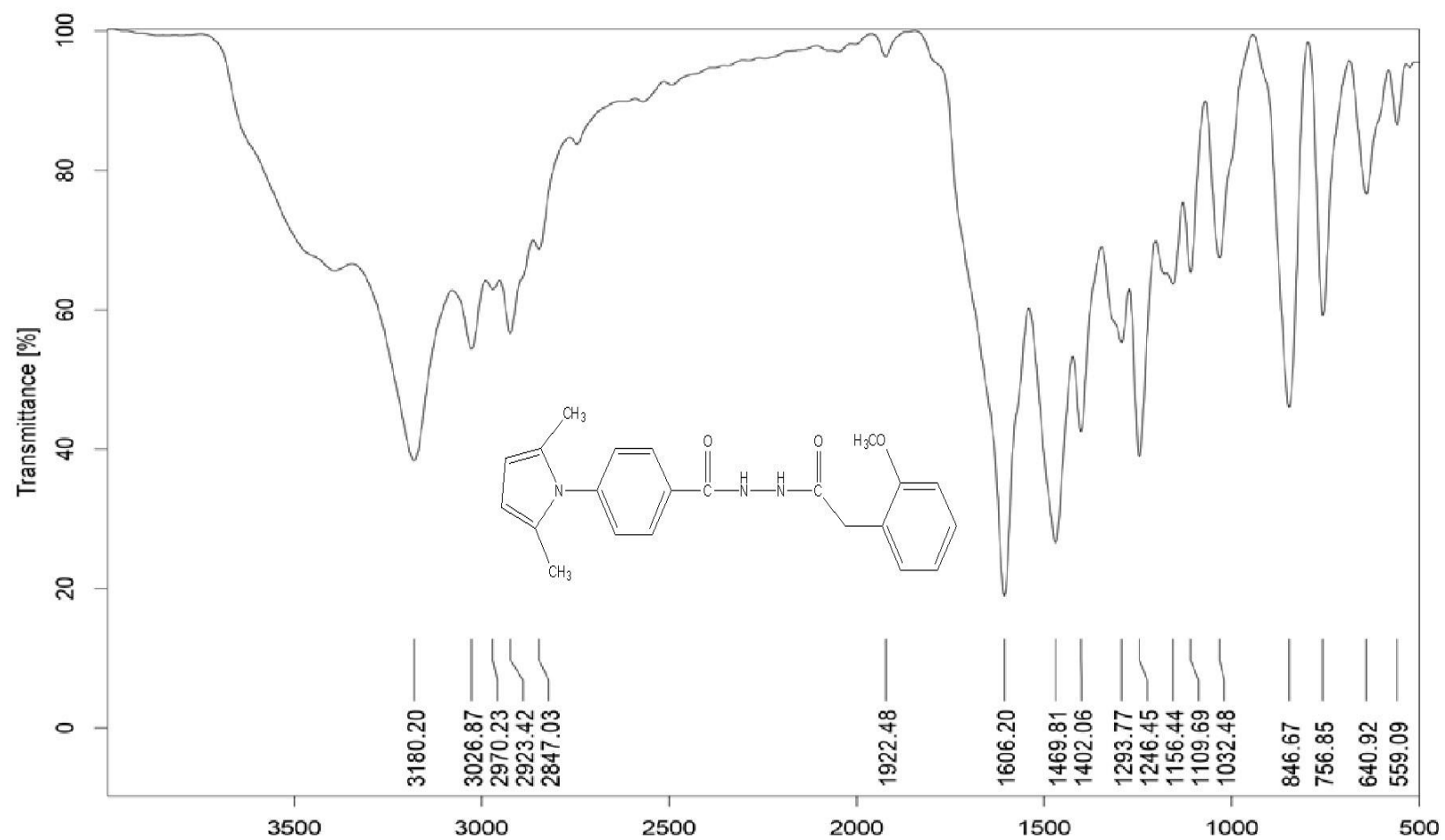
F2 - Processing parameters
SI 32768
SF 125.7678465 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

SPECTRUM NO:16 (Mass spectrum of Compound 5d)

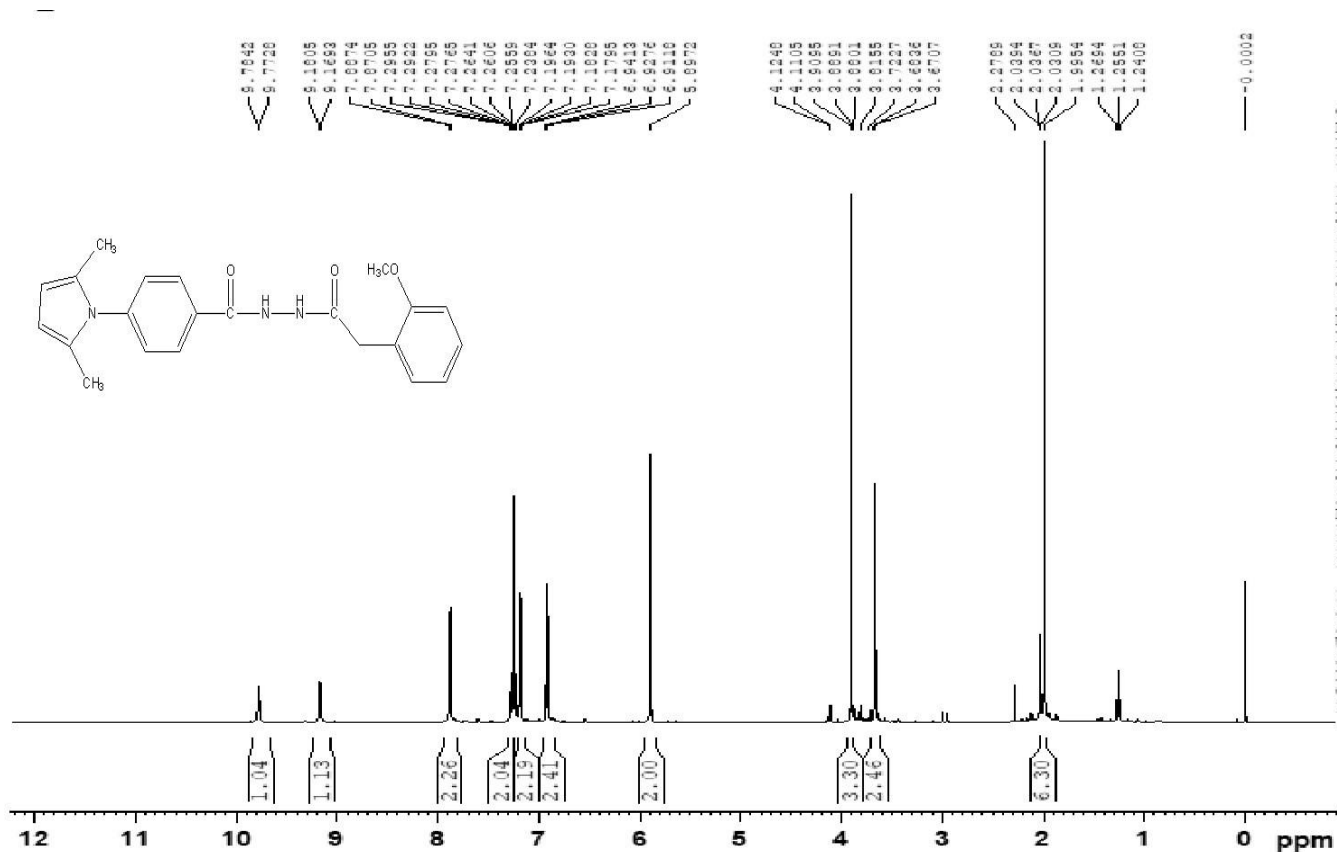
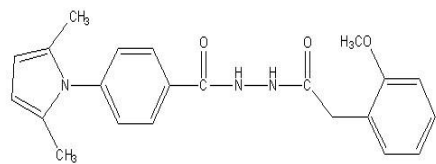


SPECTRUM NO:14

SPECTRUM NO :17 (IR spectrum of Compound 5e)



000001 -



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AVANCE NEO
500 MHz NMR
SPECTROMETER
SAIF, P.U.

Current Data Parameters
NAME      Jul20-2021
EXPNO     120
PROCNO    1

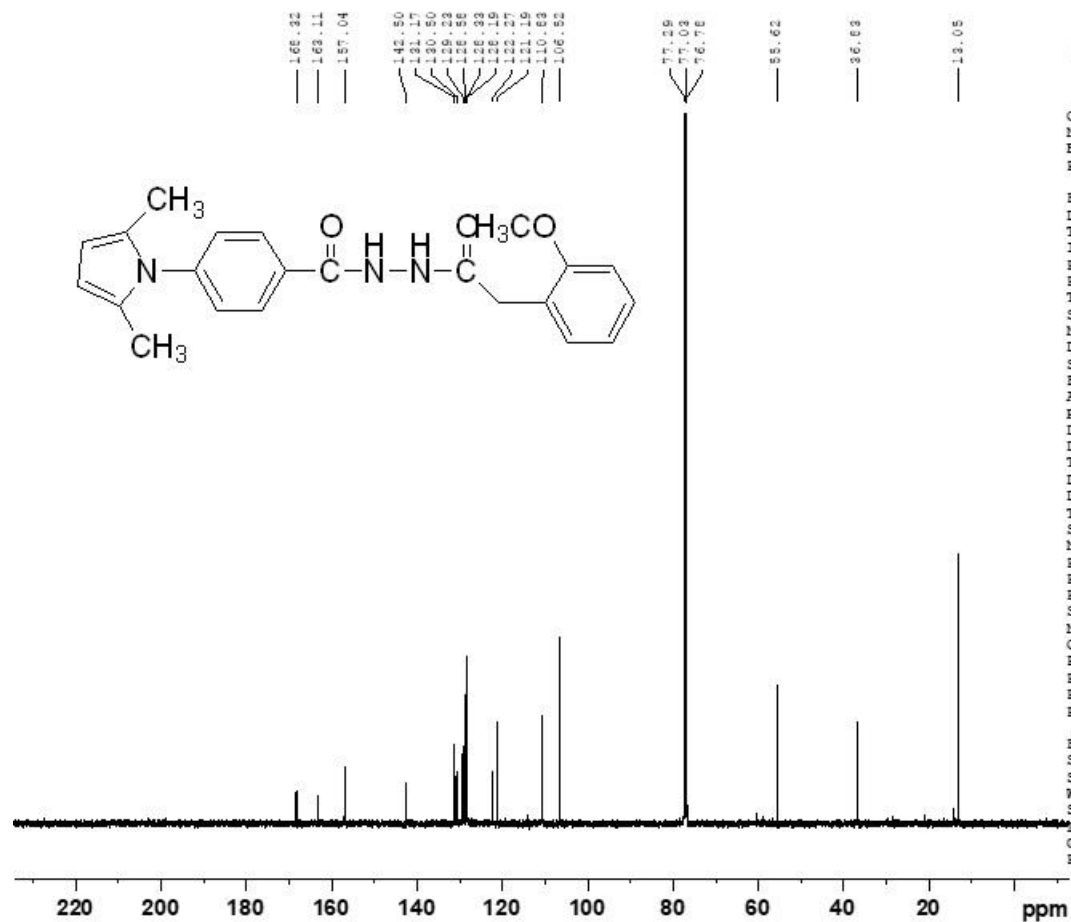
F2 - Acquisition Parameters
Date_     20210720
Time      13.48 h
INSTRUM   Avance Neo 500
PROBHD    Zll9470-0333 (
PULPROG   zg30
D         65536
SOLVENT   CDCl3
NS         64
DS         0
SWH        14705.883 Hz
FIDRES     0.448788 Hz
AQ         2.2382340 sec
RG         95.7854
AQW        34.000 usec
DE         6.75 usec
TE         300.1 K
D1         1.00000000 sec
DO         1
F01        500.1730885 MHz
FUC1       1H
FO        3.33 usec
P1         10.00 usec
PLW1       20.93000031 W

F2 - Processing parameters
SI         65536
F          500.1700141 MHz
WDW        EM
SSB        0
LB         0.30 Hz
GB         0
PC         1.00

```

SPECTRUM NO:19 (¹³C NMR spectrum of Compound 5e)

20CH33e
C13CPD CDC13 {D:\Spectra} nmr 36



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AVANCE NEO
500 MHz NMR SPECTROMETER
SAIF, PANJAB UNIVERSITY,
CHANDIGARH

Current Data Parameters
NAME Mar02-2023
EXPNO 361
PROCNO 1

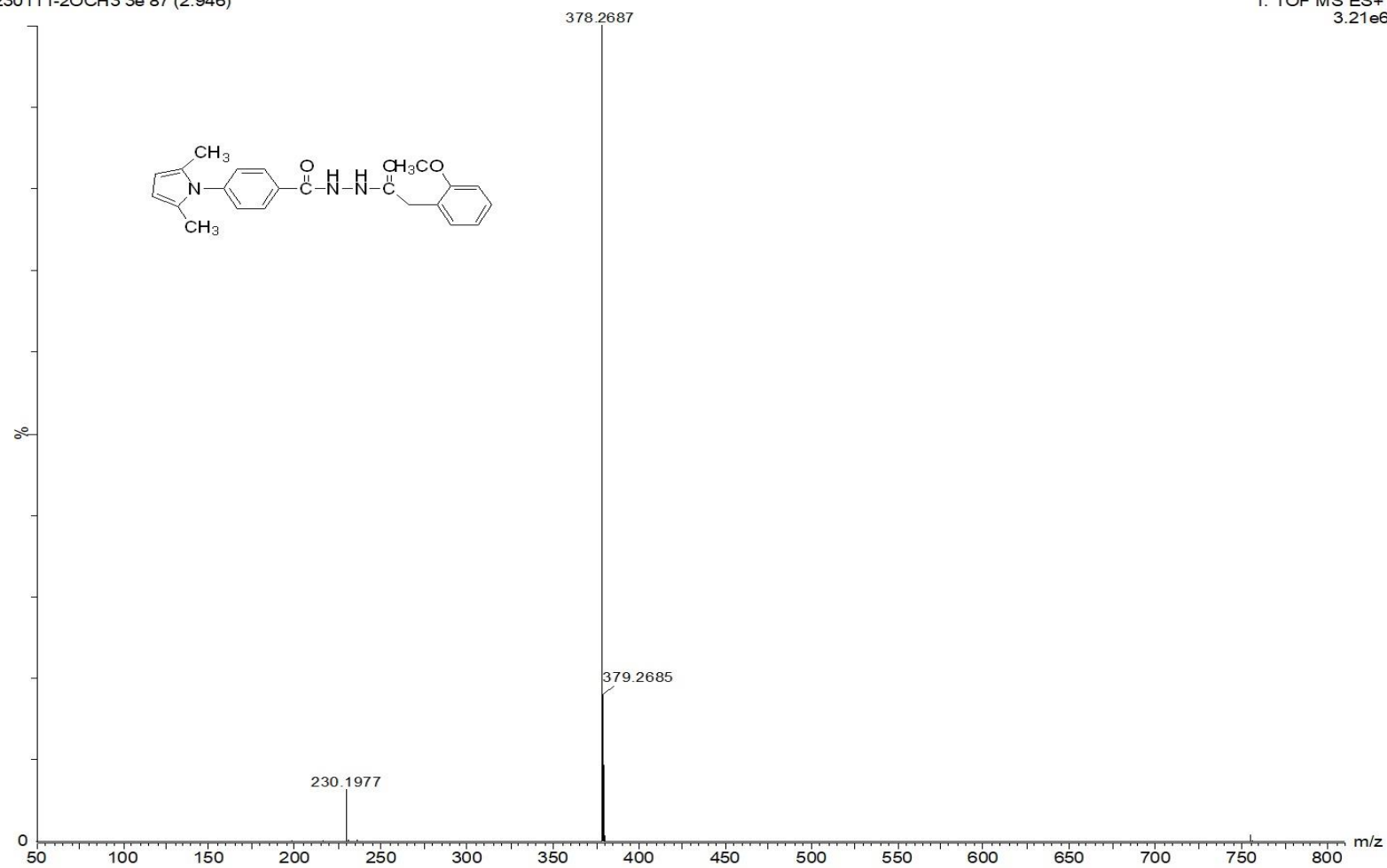
F2 - Acquisition Parameters
Date_ 20230302
Time_ 20.01 h
INSTRUM Avance Neo 500
PROBHD Z119470_0323 (
PULPROG zgpg30
TD 65536
SOLVENT CDC13
NS 512
DS 4
SWH 37037.035 Hz
FIDRES 1.130281 Hz
AQ 0.8847360 sec
RG 101
DW 13.500 usec
DE 6.50 usec
TE 300.1 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
SFO1 125.7804233 MHz
NUC1 13C
P0 3.32 usec
P1 10.00 usec
PLW1 83.14099884 W
SFO2 500.1720007 MHz
NUC2 1H
CPDPRG[2] waltz65
PCPD2 80.00 usec
PLW2 20.92000031 W
PLW12 0.32703000 W
PLW13 0.16449000 W

F2 - Processing parameters
SI 32768
SF 125.7678465 MHz
WDW EM
SSE 0
LB 1.00 Hz
GB 0
PC 1.40

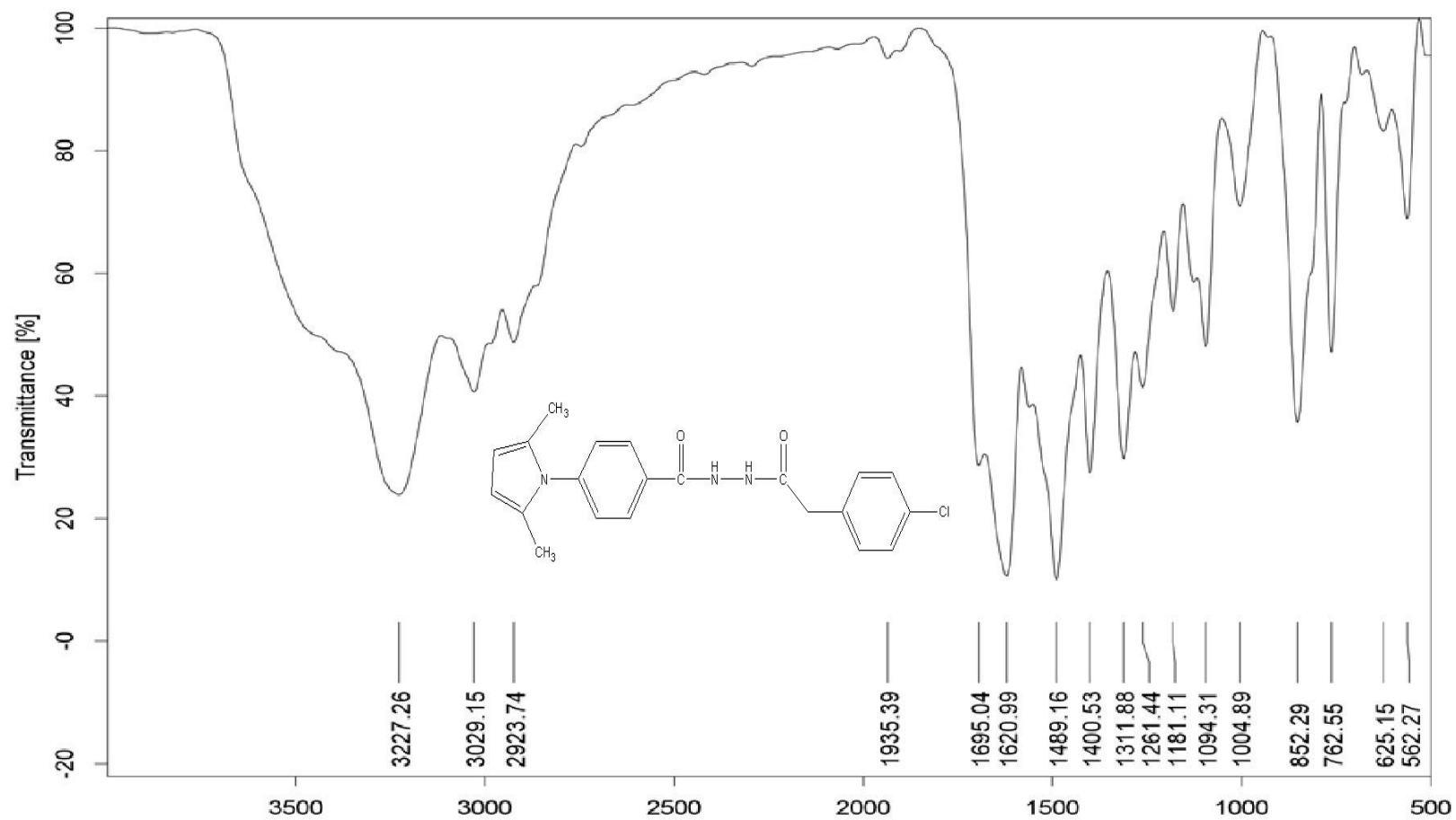
SPECTRUM NO:20 (Mass spectrum of Compound 5e)

230111-2OCH3 3e 87 (2.946)

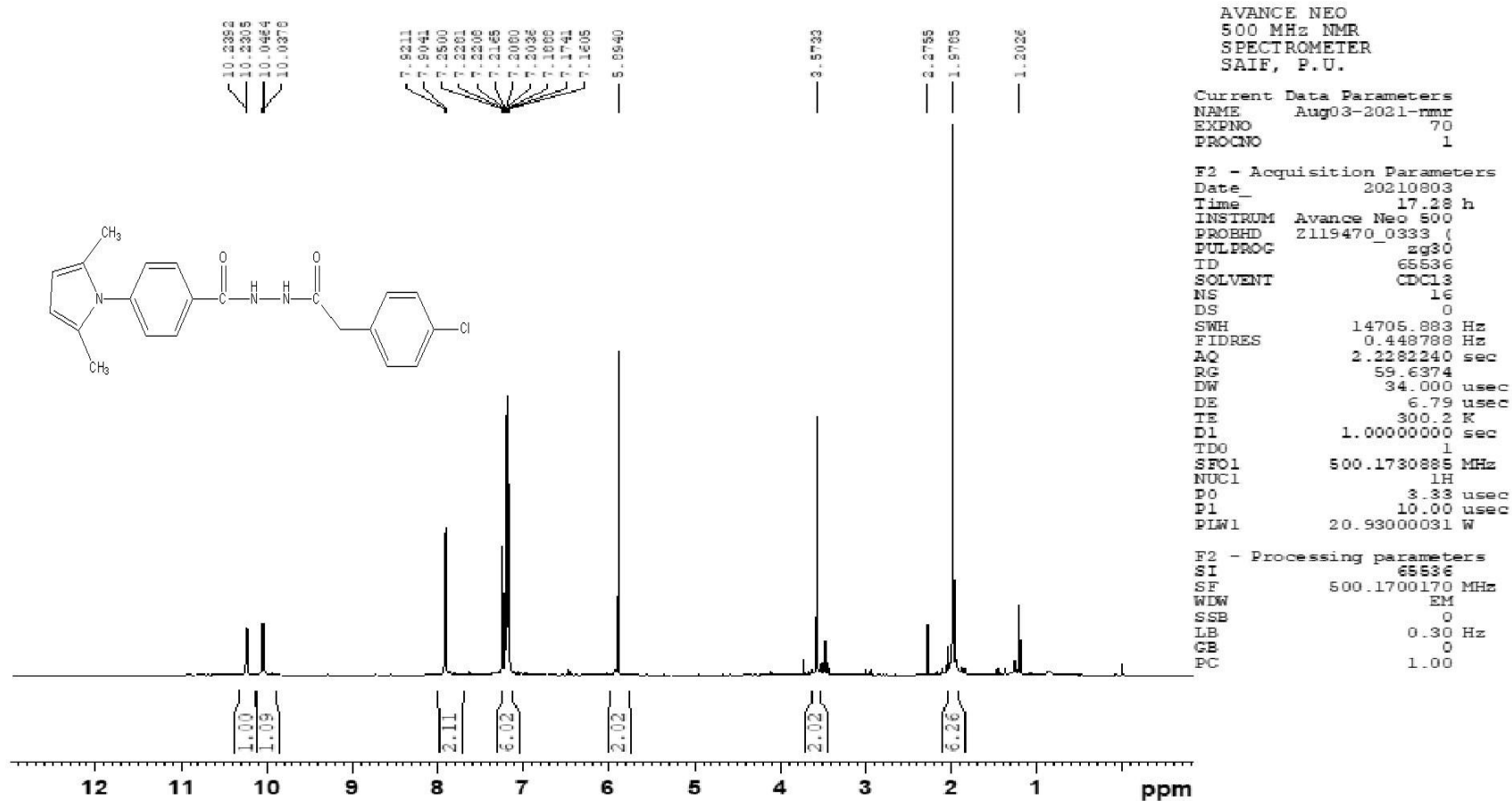
1: TOF MS ES+
3.21e6



SPECTRUM NO: 21(IR spectrum of Compound 5f)

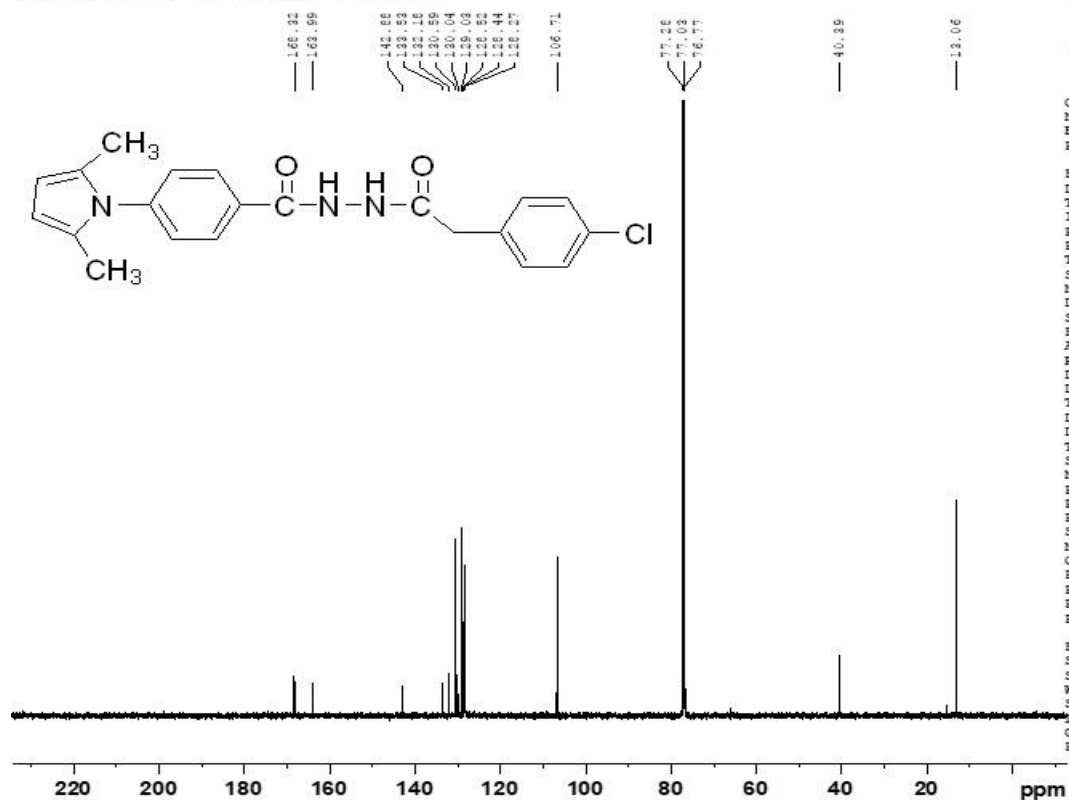


SPECTRUM NO: 22 (¹H NMR spectrum of Compound 5f)



SPECTRUM NO: 23 (¹³C NMR spectrum of Compound 5f)

4C13F
C13CPD CDC13 {D:\Spectra} nmr 35



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500 MHz NMR SPECTROMETER
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CHANDIGARH

Current Data Parameters

NAME Mar02-2023
EXPNO 351
PROCNO 1

F2 - Acquisition Parameters

Date_ 20230302
Time 19.24 h
INSTRUM Avance Neo 500
PROBHD Z119470_0333 (
PULPROG zgpg30
TD 65536
SOLVENT CDC13
NS 512
DS 4
SWH 37037.035 Hz
FIDRES 1.130281 Hz
AQ 0.8847360 sec
RG 101
DW 13.500 usec
DE 6.50 usec
TE 300.2 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
SFO1 125.7804233 MHz
NUC1 13C
P0 3.33 usec
P1 10.00 usec
PLW1 83.14099884 W
SFO2 500.1720007 MHz
NUC2 1H
CPDPRG2 waltz65
PCPD2 80.00 usec
PLW2 20.93000031 W
PLW12 0.32703000 W
PLW13 0.16449000 W

F2 - Processing parameters

SI 32768
SF 125.7678465 MHz
WDW EM
SSE 0
LB 1.00 Hz
GB 0
PC 1.40

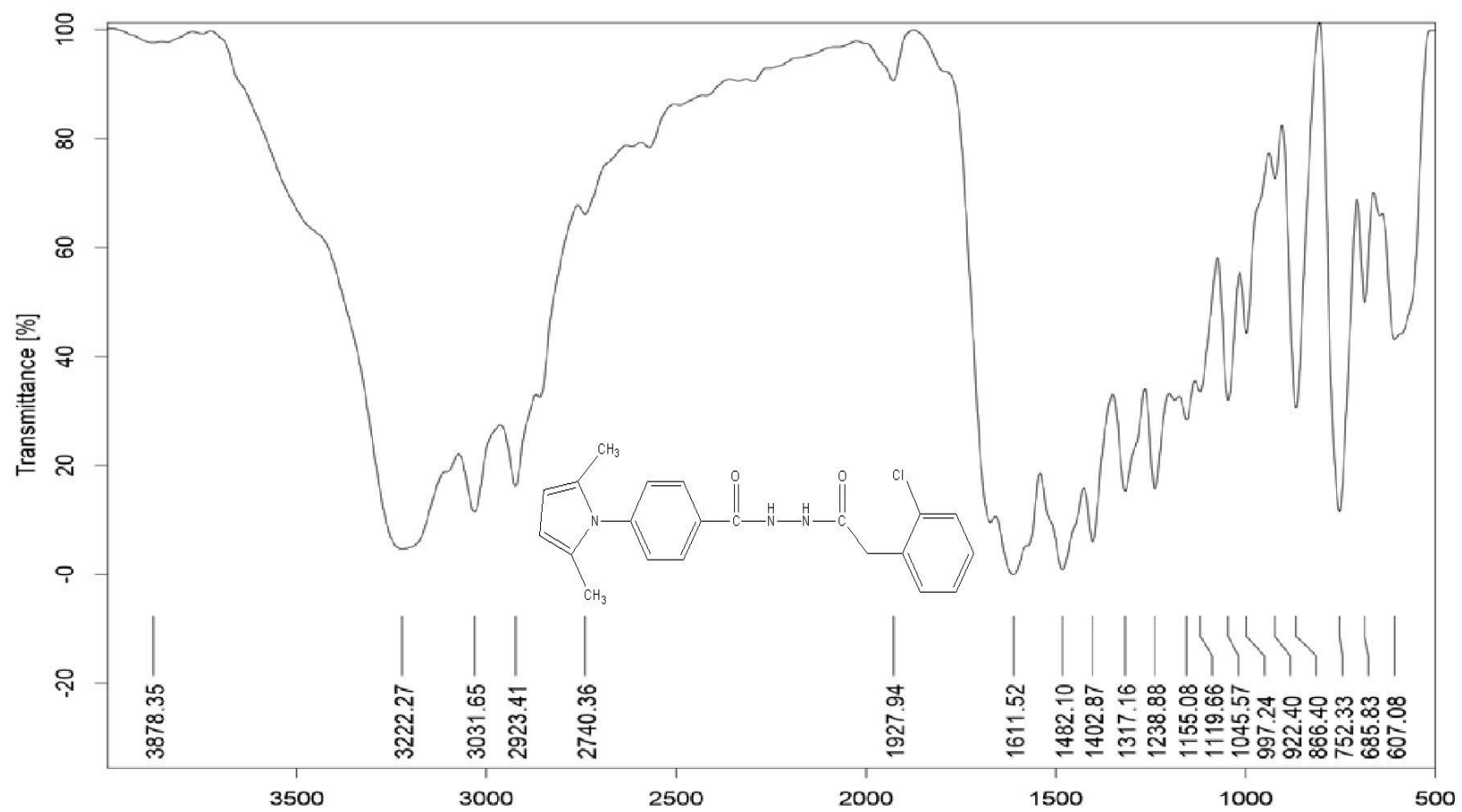
SPECTRUM NO:24 (Mass spectrum of Compound 5f)

230113-4Cl 3f 91 (3.081)

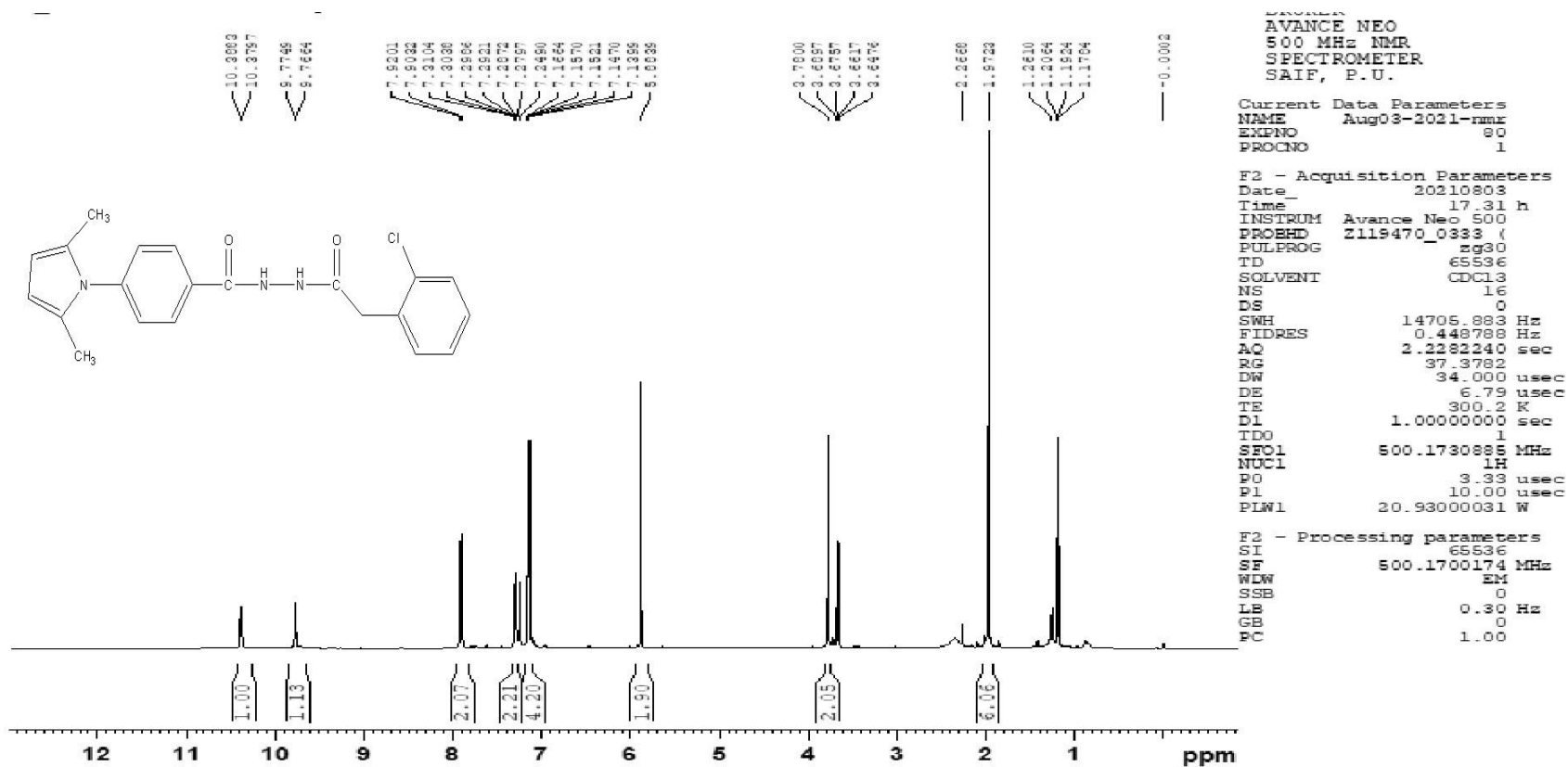
1: TOF MS ES+
6.54e5



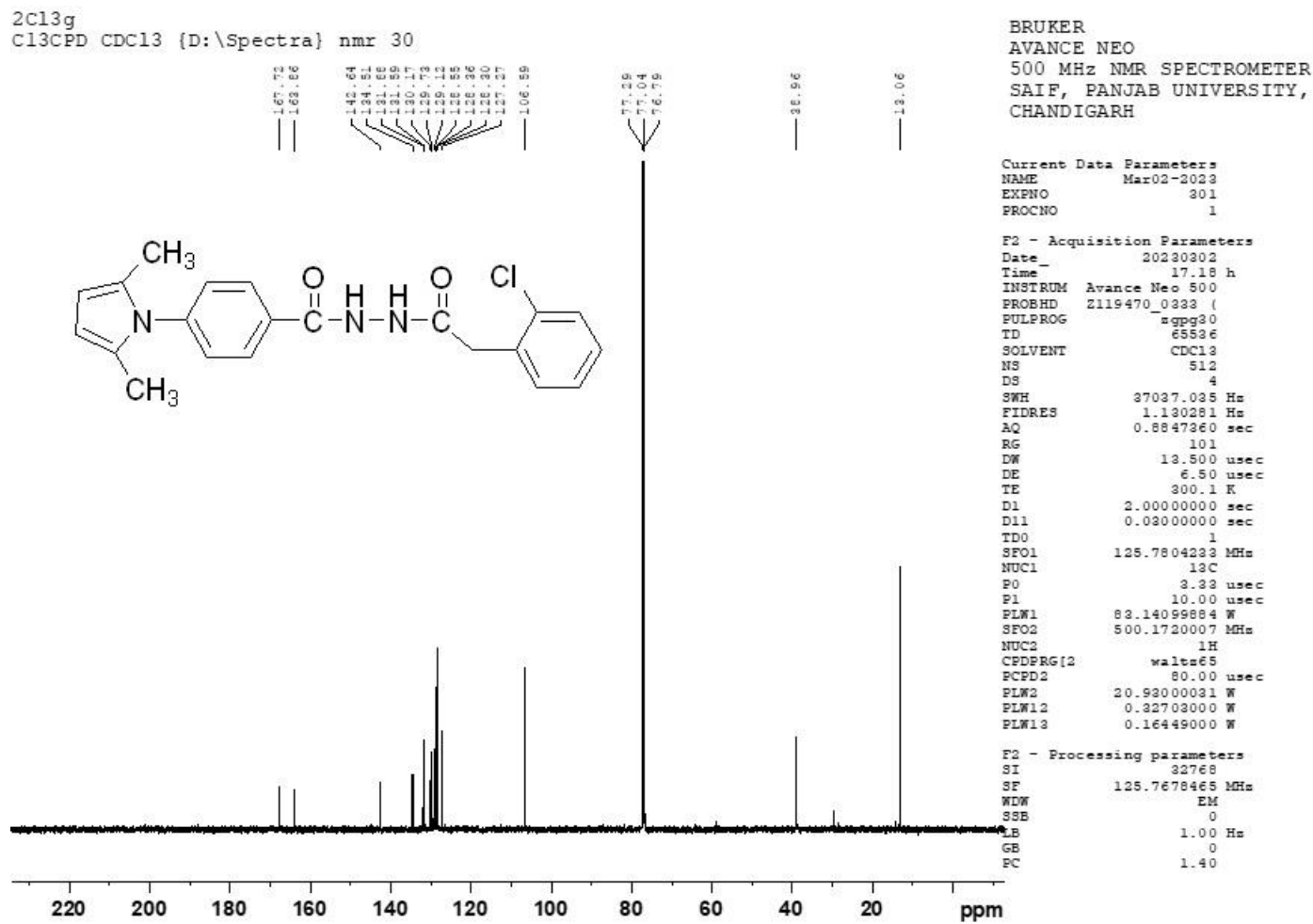
SPECTRUM NO: 25 (IR spectrum of Compound 5g)



SPECTRUM NO: 26 (¹H NMR spectrum of Compound 5g)



SPECTRUM NO: 27 (¹³C NMR spectrum of Compound 5g)



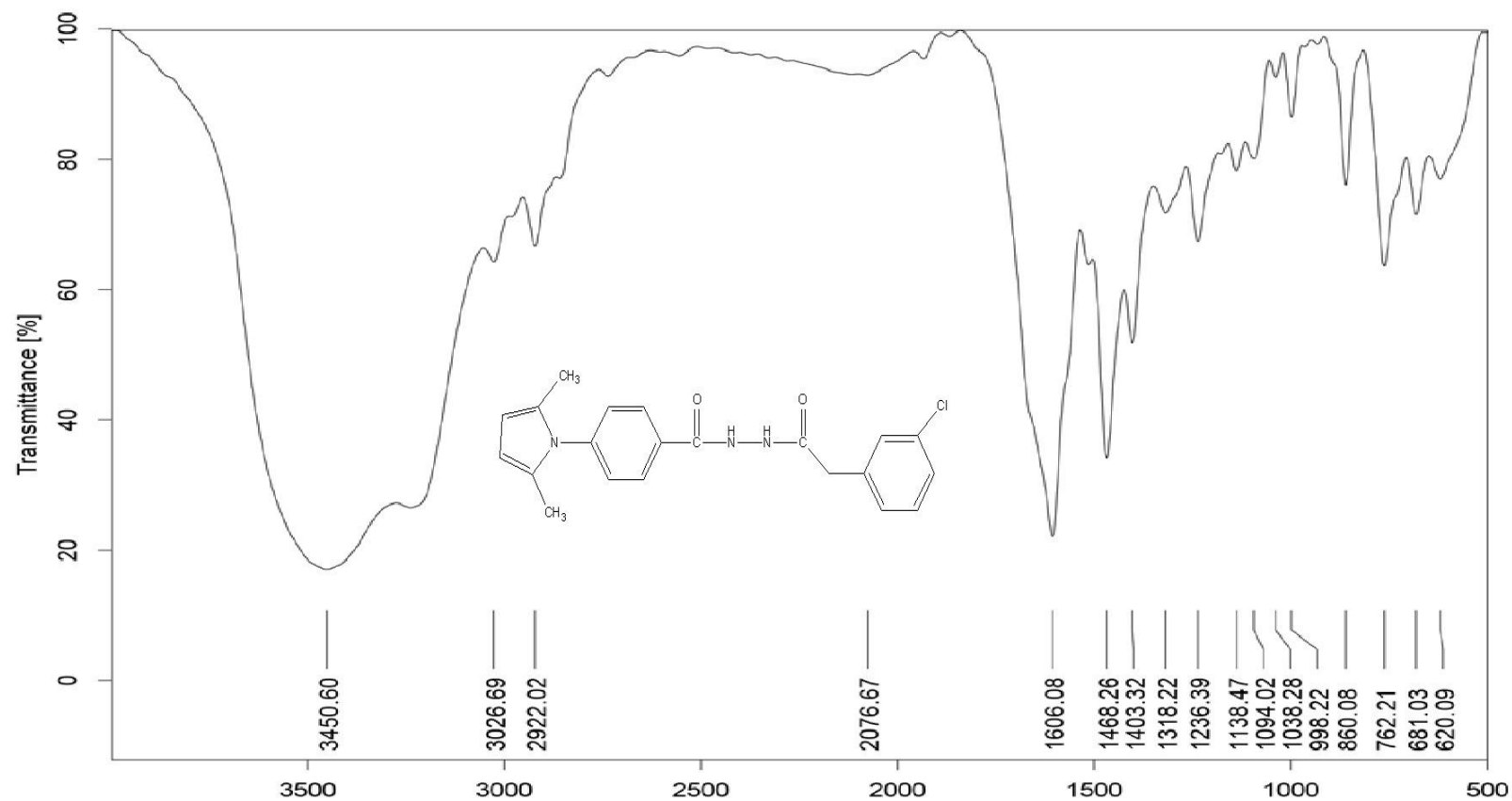
SPECTRUM NO: 28 (^{13}C NMR spectrum of Compound 5g)

230109-2Cl 3g 89 (3.013)

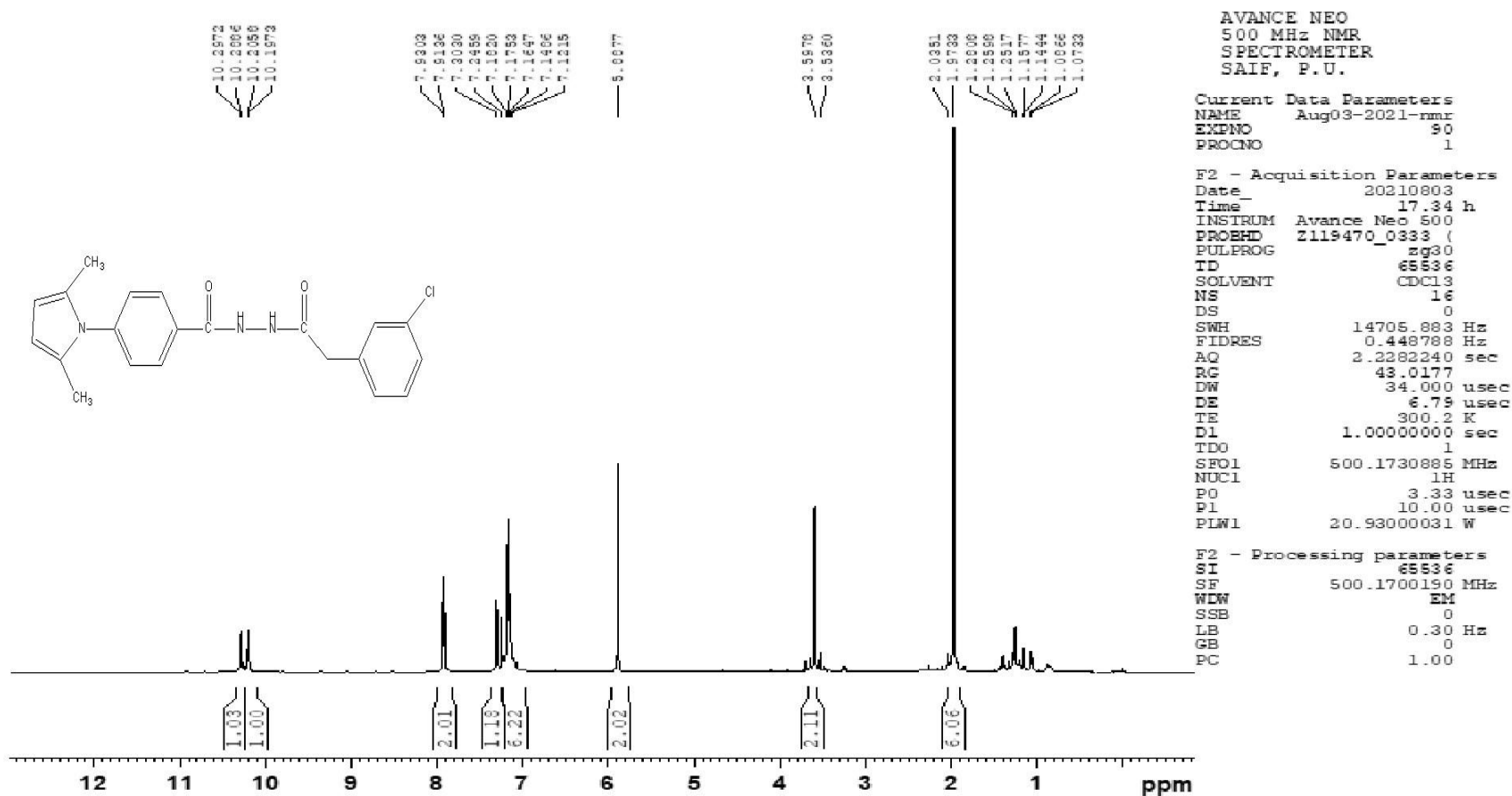
1: TOF MS ES+
1.34e6



SPECTRUM NO: 29 (IR spectrum of Compound 5h)

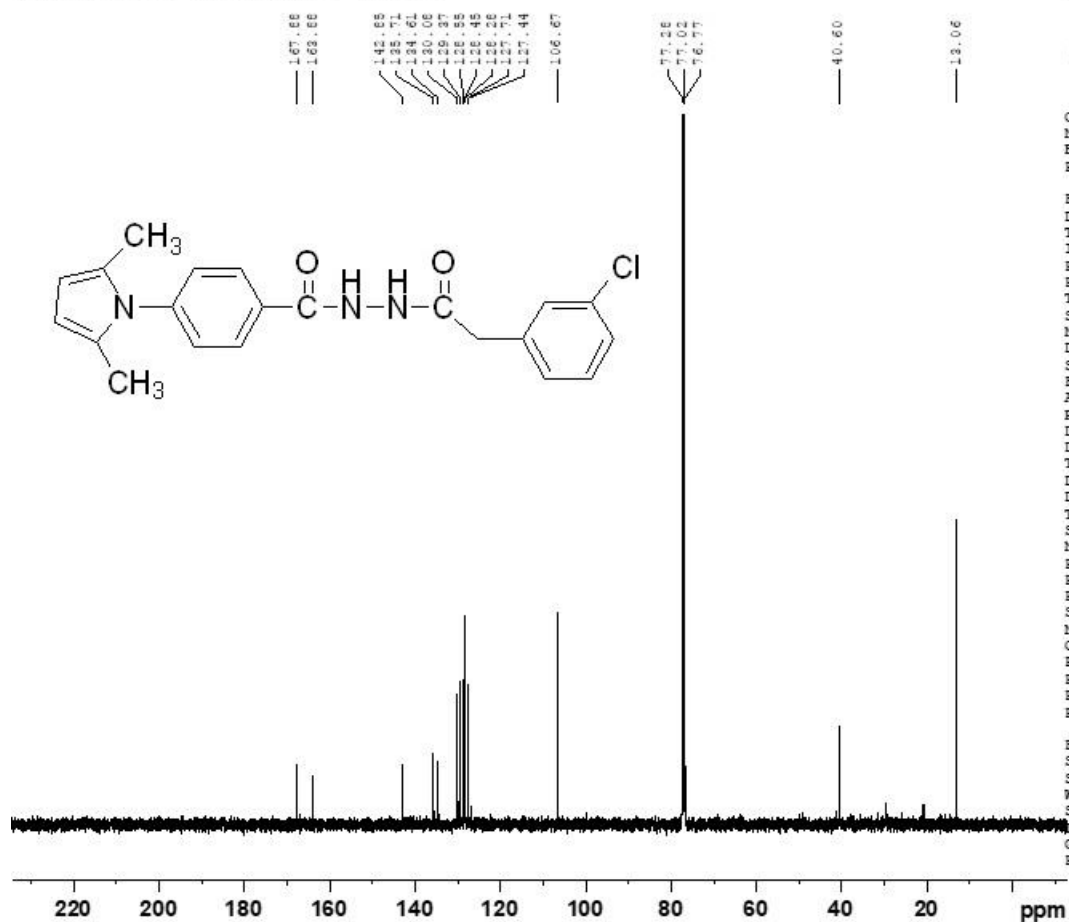


SPECTRUM NO: 30 (¹H NMR spectrum of Compound 5h)



SPECTRUM NO: 31 (¹³C NMR spectrum of Compound 5h)

2C13h
C13CPD CDC13 {D:\Spectra} nmr 32



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500 MHz NMR SPECTROMETER
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Current Data Parameters
NAME Mar02-2023
EXPNO 321
PROCNO 1

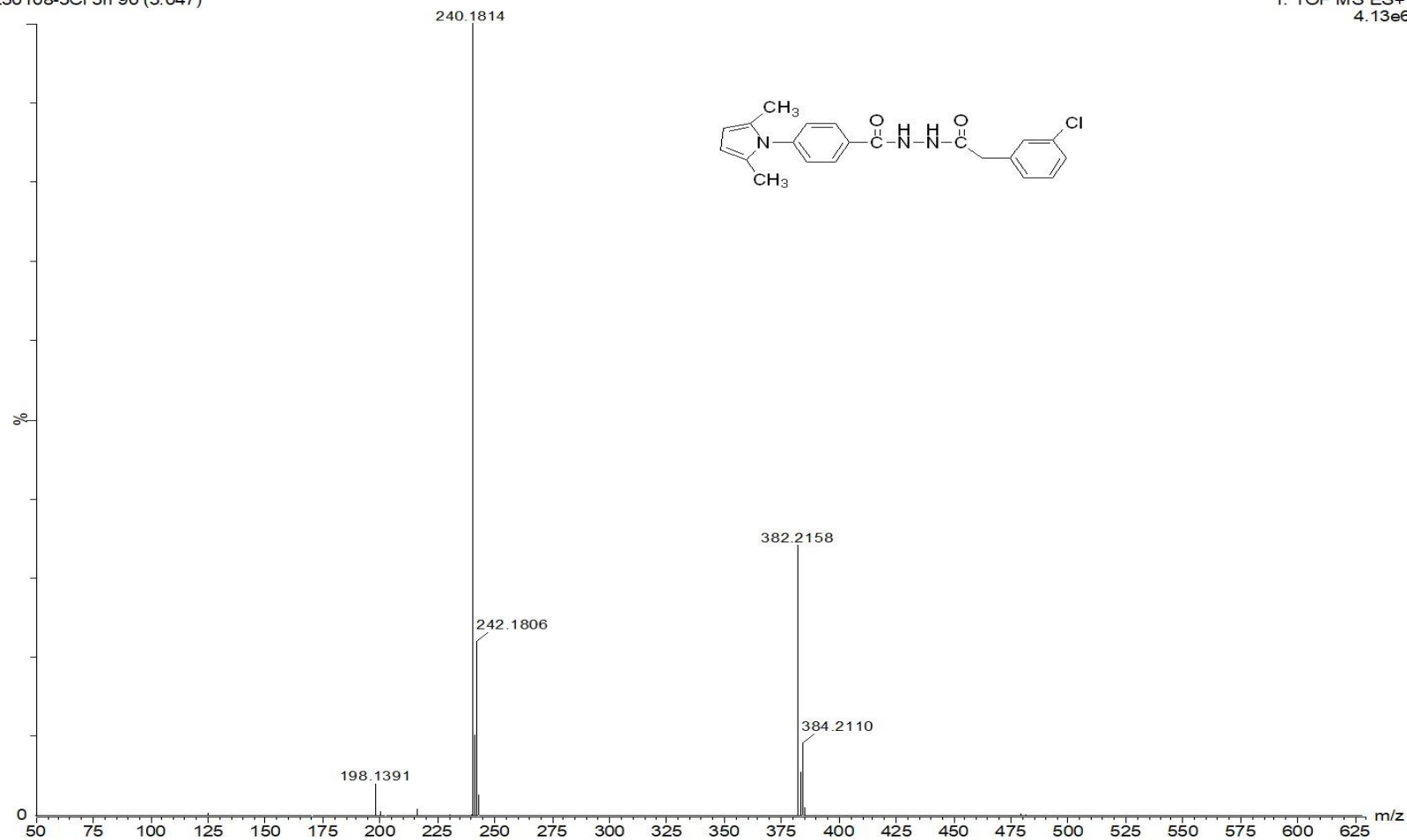
F2 - Acquisition Parameters
Date_ 20230302
Time_ 18.12 h
INSTRUM Avance Neo 500
PROBHD Z119470_0323 (
PULPROG zgpg30
TD 65536
SOLVENT CDC13
NS 512
DS 4
SWH 37037.035 Hz
FIDRES 1.130281 Hz
AQ 0.8847260 sec
RG 101
DW 13.500 usec
DE 6.50 usec
TE 300.1 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
SFO1 125.7804233 MHz
NUC1 13C
P0 3.32 usec
P1 10.00 usec
PLW1 83.14099884 W
SFO2 500.1720007 MHz
NUC2 1H
CPDPRG[2] waltz65
PCPD2 80.00 usec
PLW2 20.93000031 W
PLW12 0.32703000 W
PLW13 0.16449000 W

F2 - Processing parameters
SI 32768
SF 125.7678465 MHz
WDW EM
SSE 0
LB 1.00 Hz
GB 0
PC 1.40

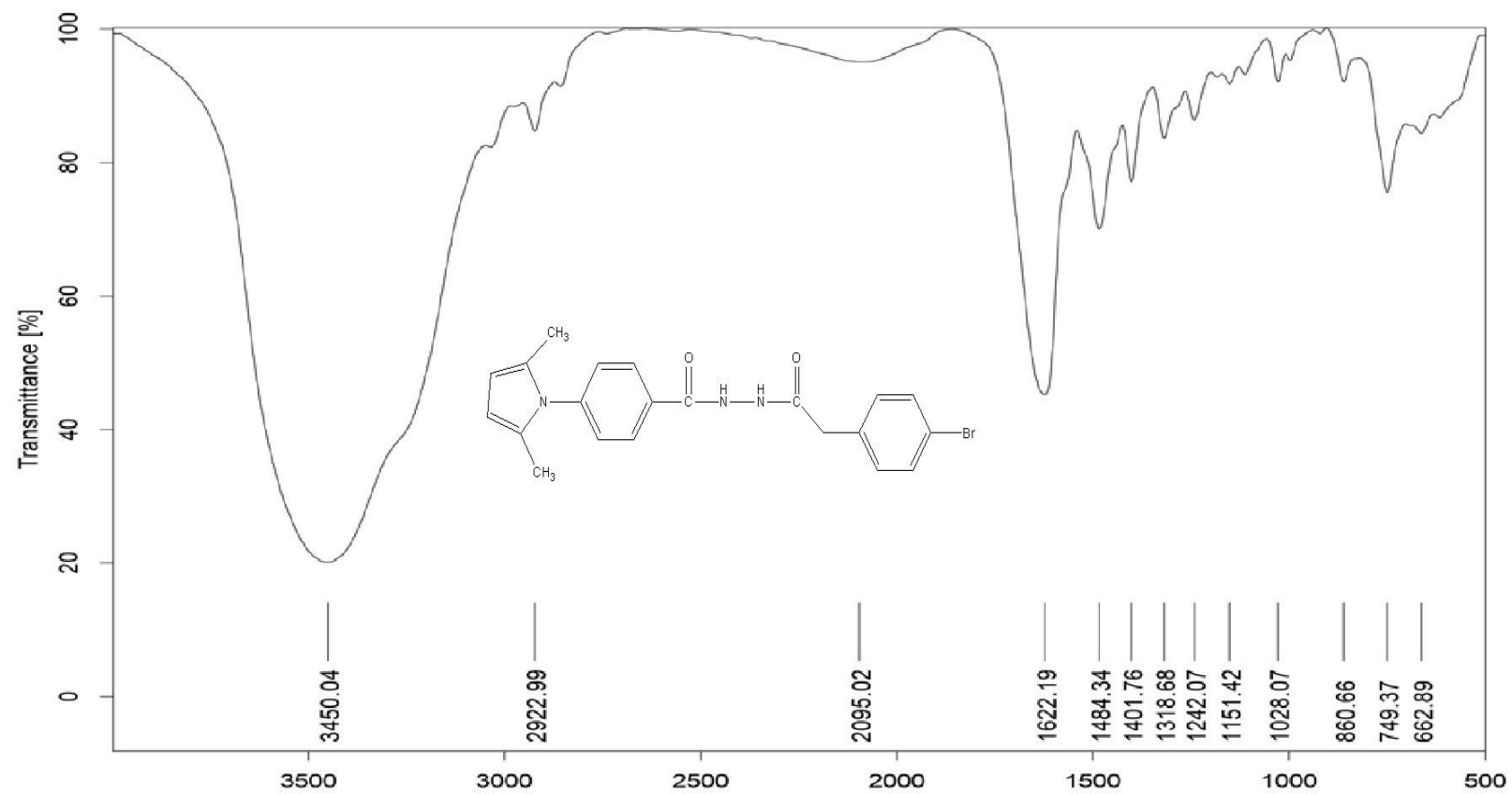
SPECTRUM NO: 32 (Mass spectrum of Compound 5h)

230108-3Cl 3h 90 (3.047)

1: TOF MS ES+
4.13e6

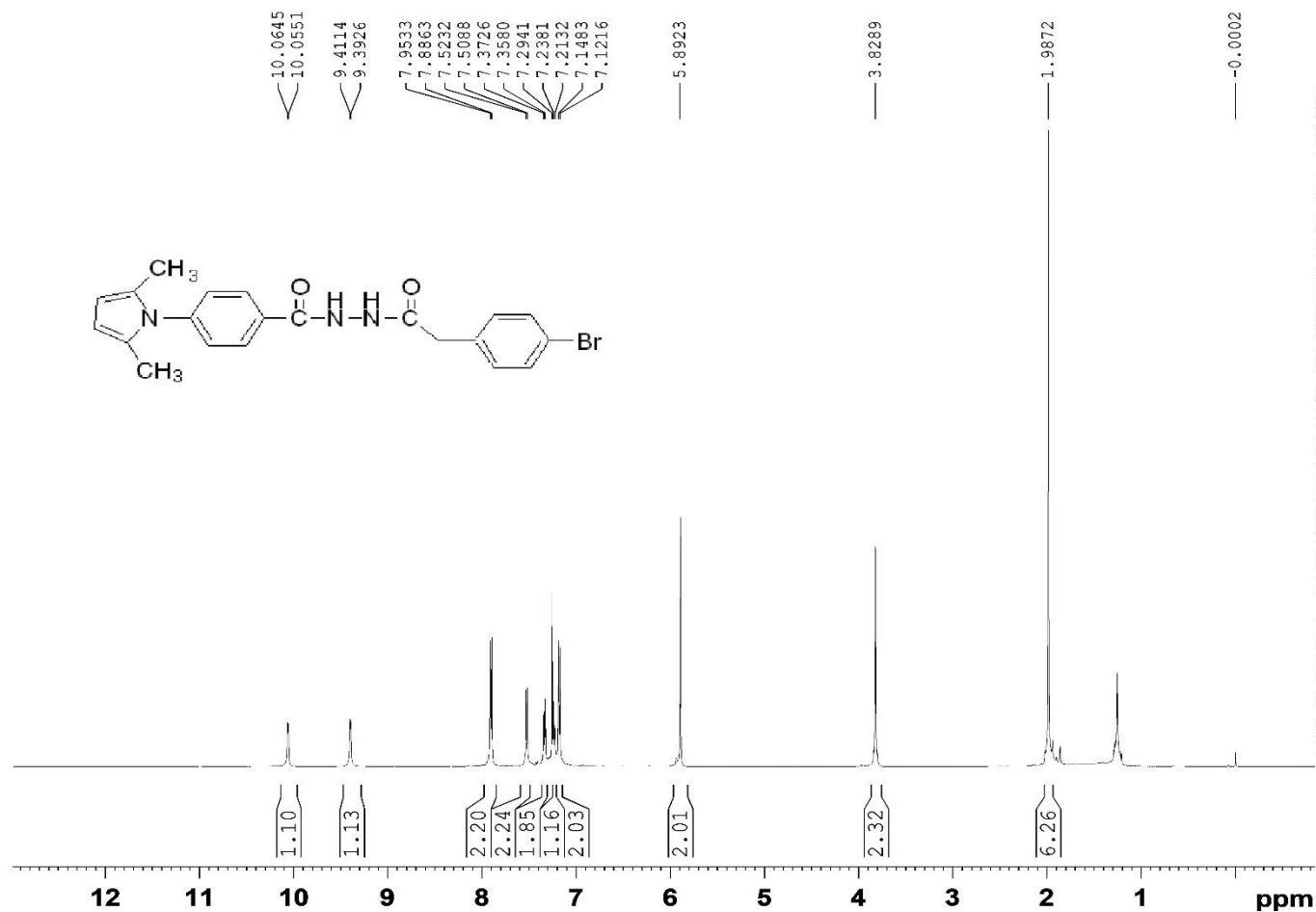
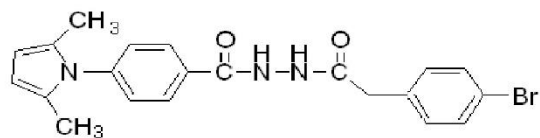


SPECTRUM NO: 33 (IR spectrum of Compound 5i)



SPECTRUM NO: 34 (¹H NMR spectrum of Compound 5i)

1H_8scan CDC13 {D:\Spectra} nmr110



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500 MHz NMR
SPECTROMETER
SAIF, P.U.

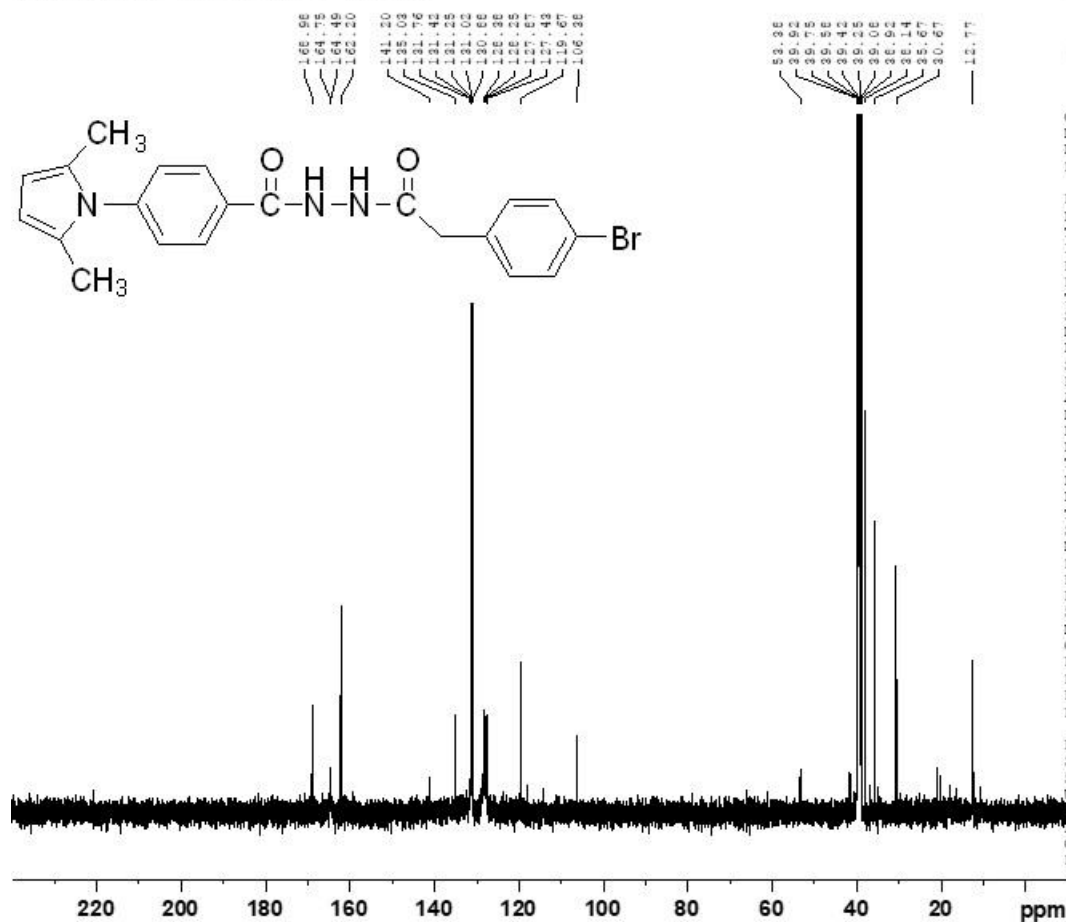
Current Data Parameters
NAME Mar03-2023-nmr
EXPNO 10
PROCNO 1

F2 - Acquisition Parameters
Date_ 20230303
Time_ 10.07 h
INSTRUM Avance Neo 500
PROBHD Z119470_0333 (zg30
PULPROG 65536
TD 65536
SOLVENT CDC13
NS 16
DS 0
SWH 14705.883 Hz
FIDRES 0.448788 Hz
AQ 2.2282240 sec
RG 95.7854
DW 34.000 usec
DE 6.79 usec
TE 300.1 K
D1 1.00000000 sec
TD0 1
SFO1 500.1730885 MHz
NUC1 1H
P0 3.33 usec
P1 10.00 usec
PLW1 20.93000031 W

F2 - Processing parameters
SI 65536
SF 500.1700148 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

SPECTRUM NO: 35 (^{13}C NMR spectrum of Compound 5i)

4Br3i
Cl3CPD DMSO {D:\Spectra} nmr 22



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500 MHz NMR SPECTROMETER
SAIF, PANJAB UNIVERSITY,
CHANDIGARH

Current Data Parameters
NAME Mar03-2023
EXPNO 220
PROCNO 1

F2 - Acquisition Parameters
Date_ 20230303
Time 23.19 h
INSTRUM Avance Neo 500
PROBHD Z119470_0323 (4
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 512
DS 4
SWH 37037.035 Hz
FIDRES 1.130281 Hz
AQ 0.8847260 sec
RG 101
DW 13.500 usec
DE 6.50 usec
TE 300.1 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
SFO1 125.7804233 MHz
NUC1 13C
P0 3.32 usec
P1 10.00 usec
PLW1 83.14099884 W
SFO2 500.1720007 MHz
NUC2 1H
CPDPRG[2] waltz65
PCPD2 80.00 usec
PLW2 20.93000031 W
PLW12 0.32703000 W
PLW13 0.16449000 W

F2 - Processing parameters
SI 32768
SF 125.7679191 MHz
WDW EM
SSE 0
LB 1.00 Hz
GB 0
PC 1.40

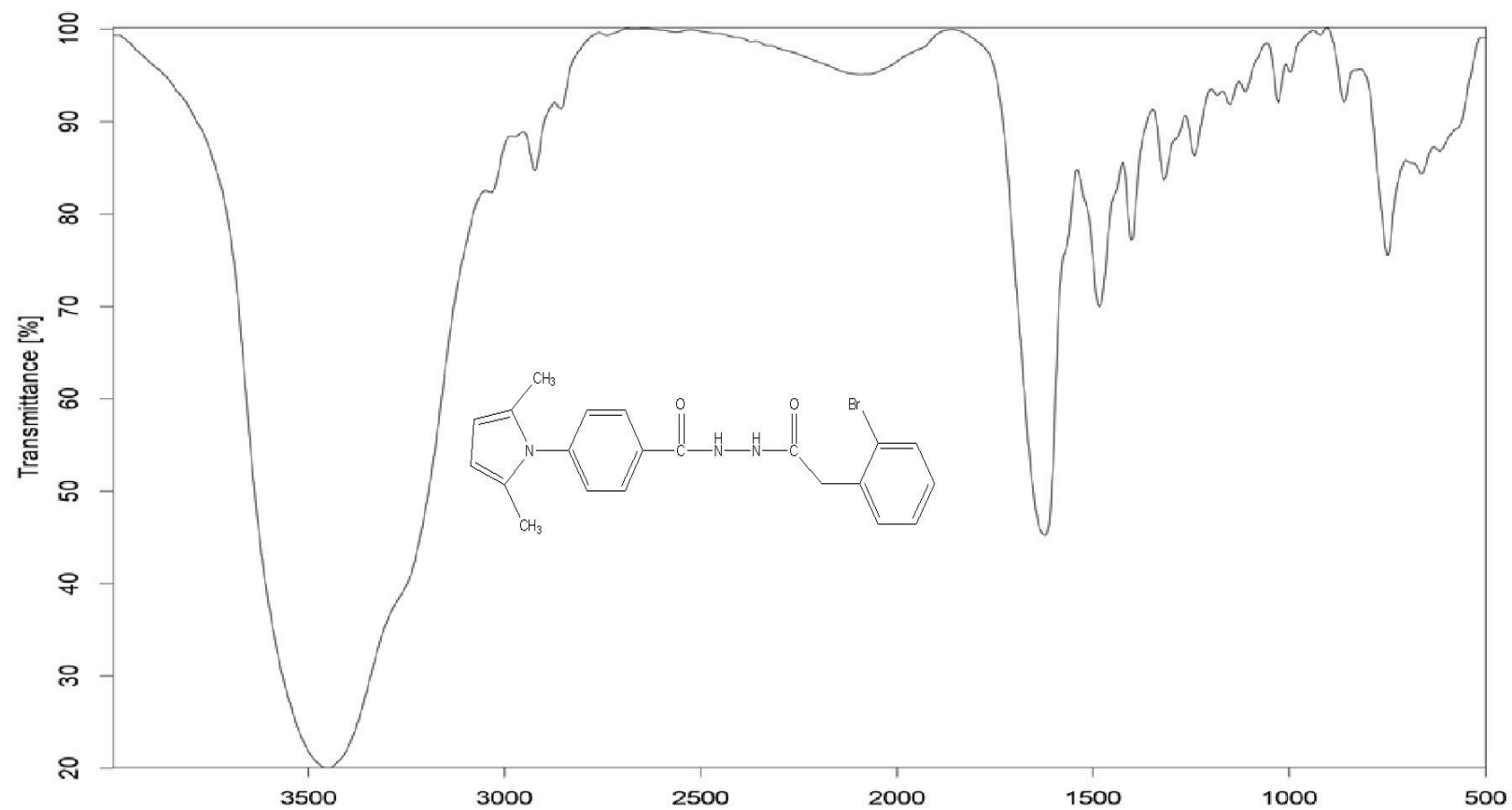
SPECTRUM NO: 36 (Mass spectrum of Compound 5i)

230114-4Br 3i 91 (3.081)

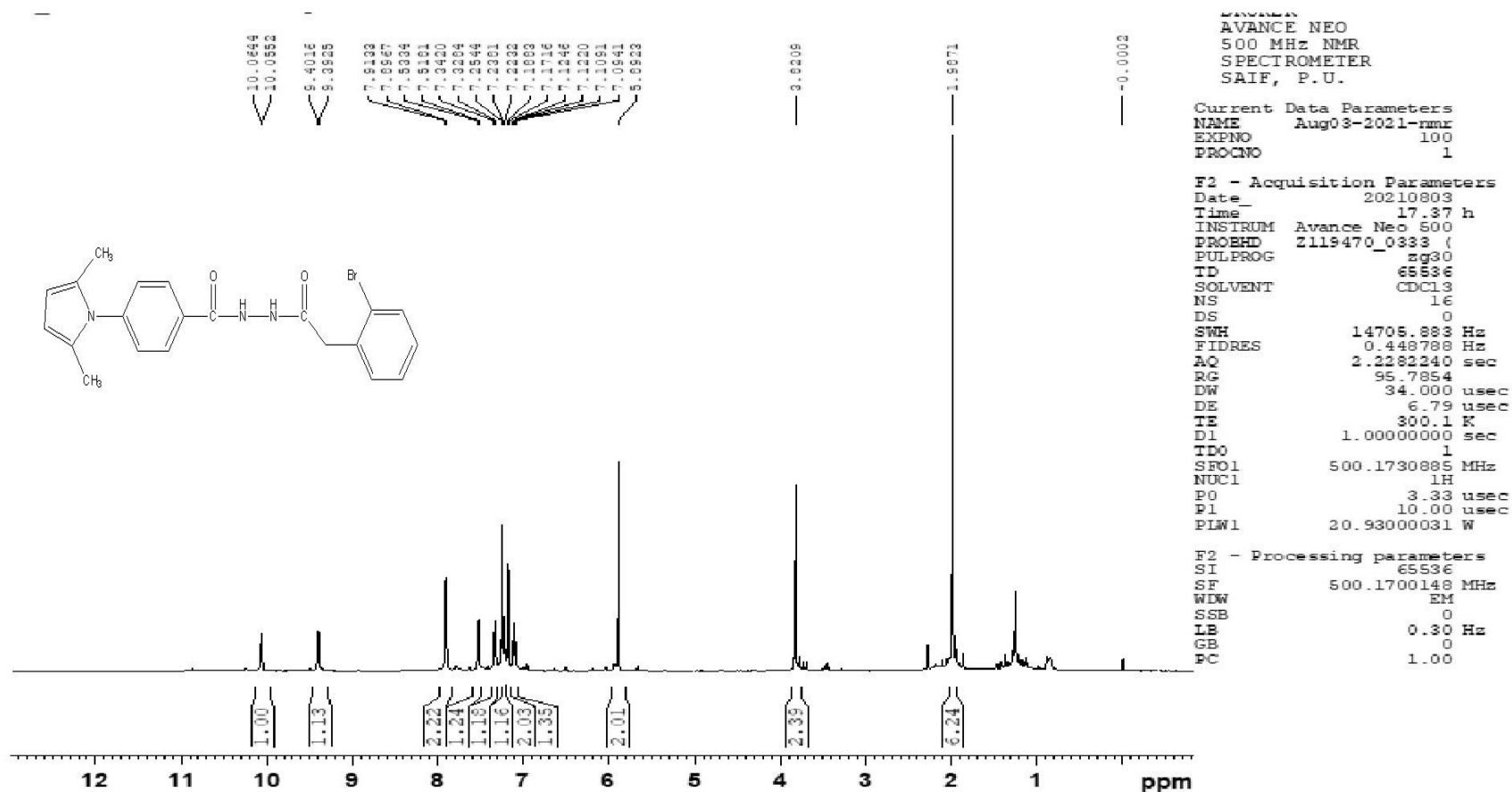
1: TOF MS ES+
3.68e5



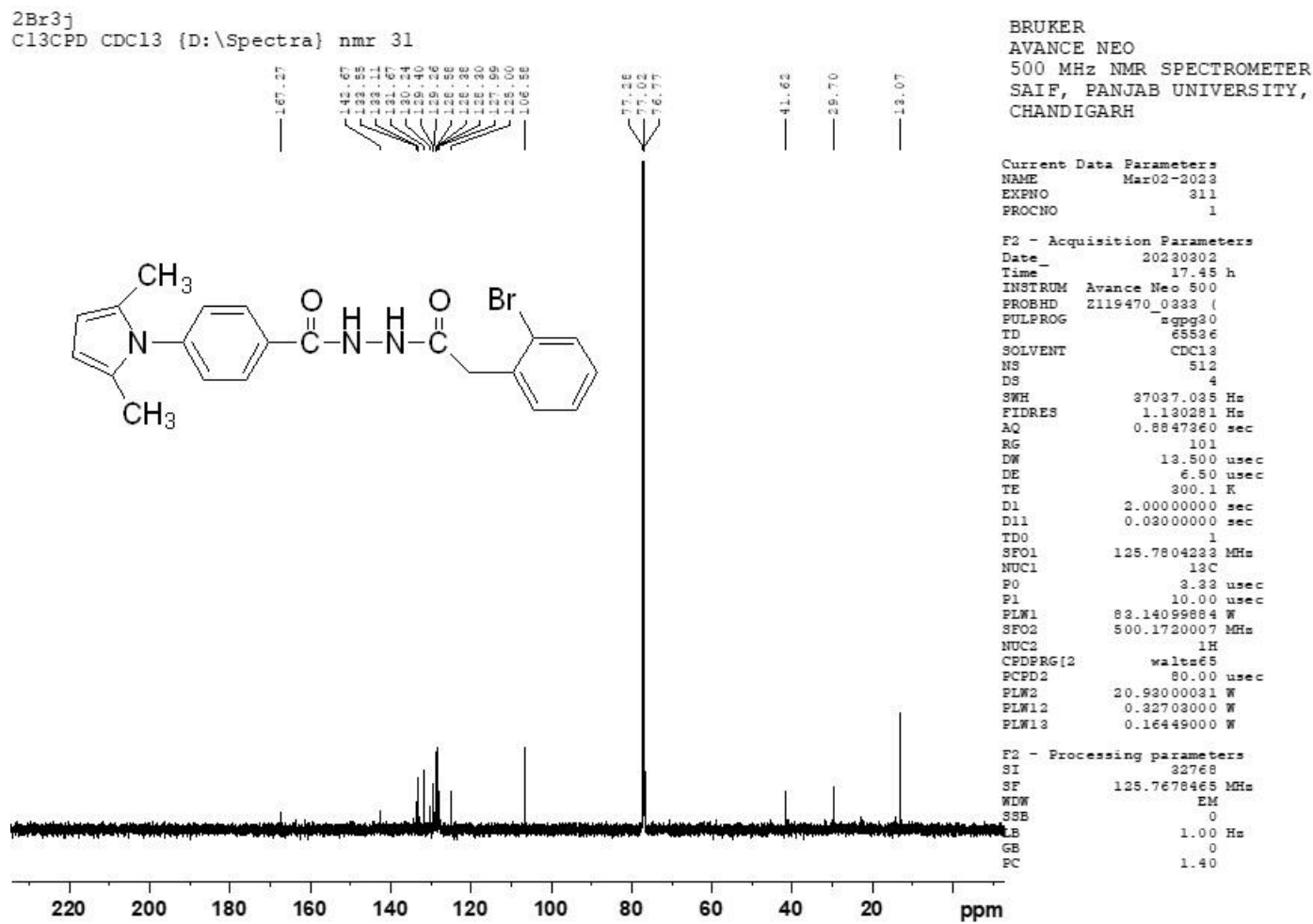
SPECTRUM NO: 37 (IR spectrum of Compound 5j)



SPECTRUM NO: 38 (¹H NMR spectrum of Compound 5j)



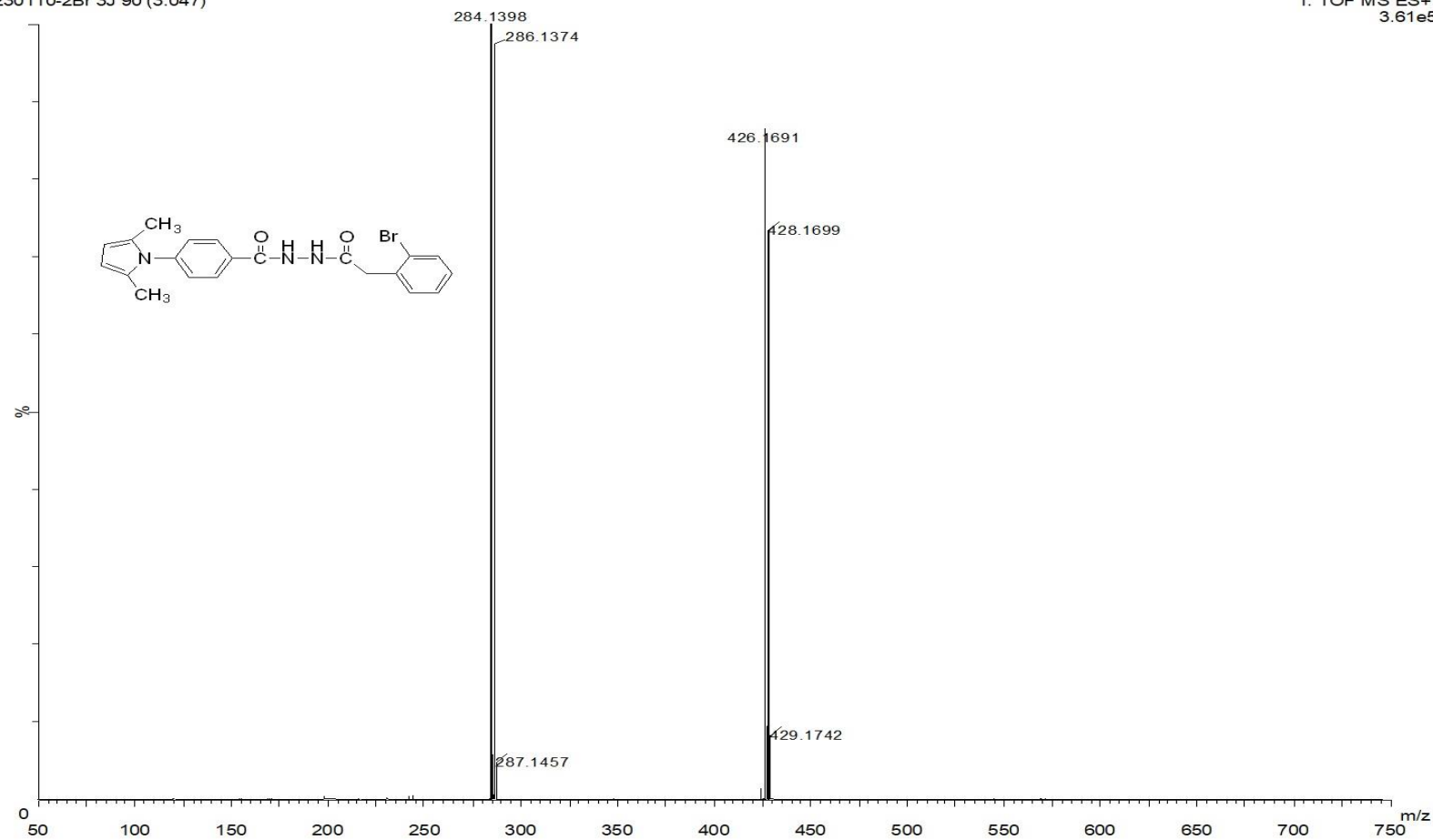
SPECTRUM NO: 39 (¹³C NMR spectrum of Compound 5j)



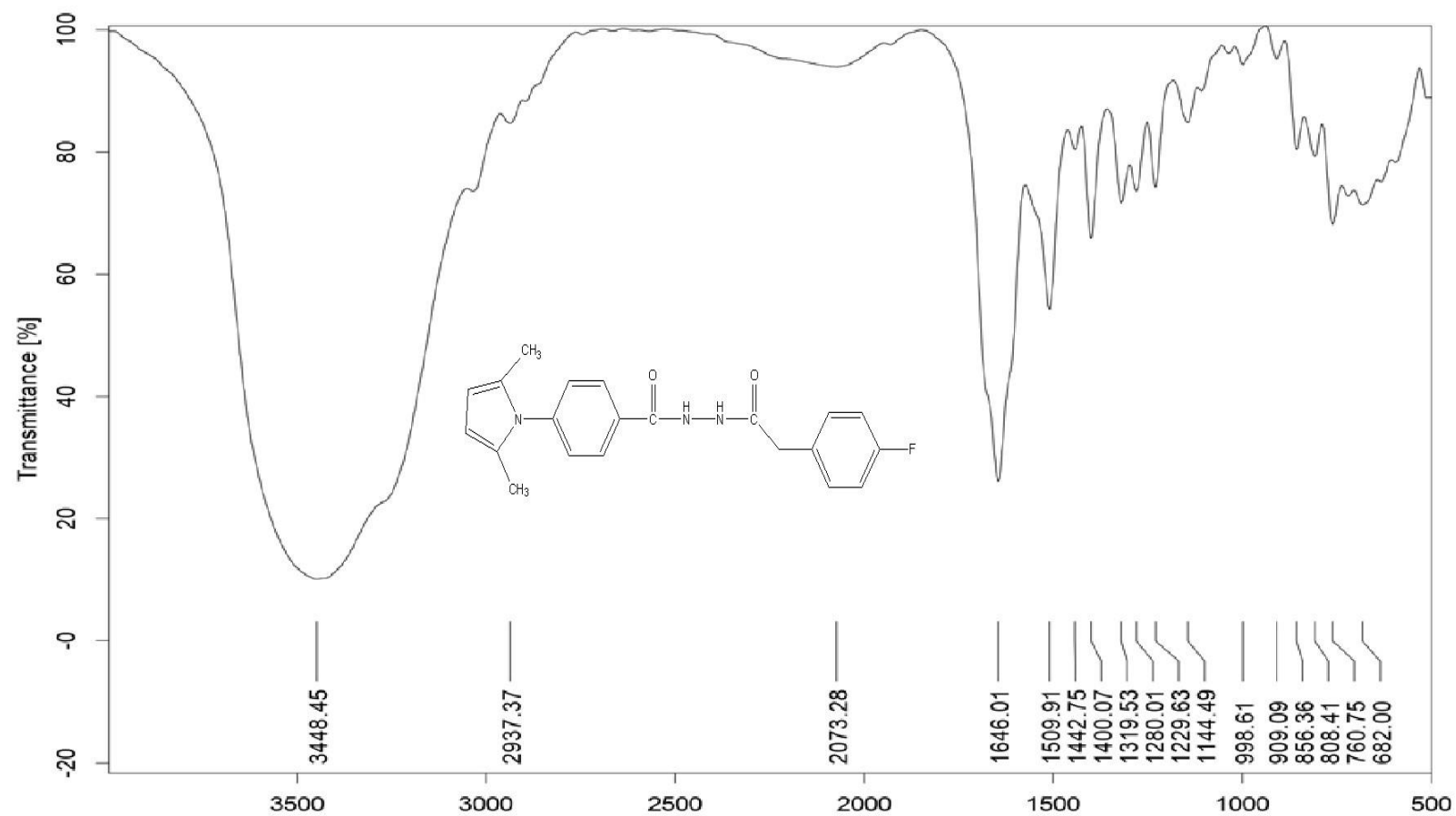
SPECTRUM NO: 40 (Mass spectrum of Compound 5j)

230110-2Br 3J 90 (3.047)

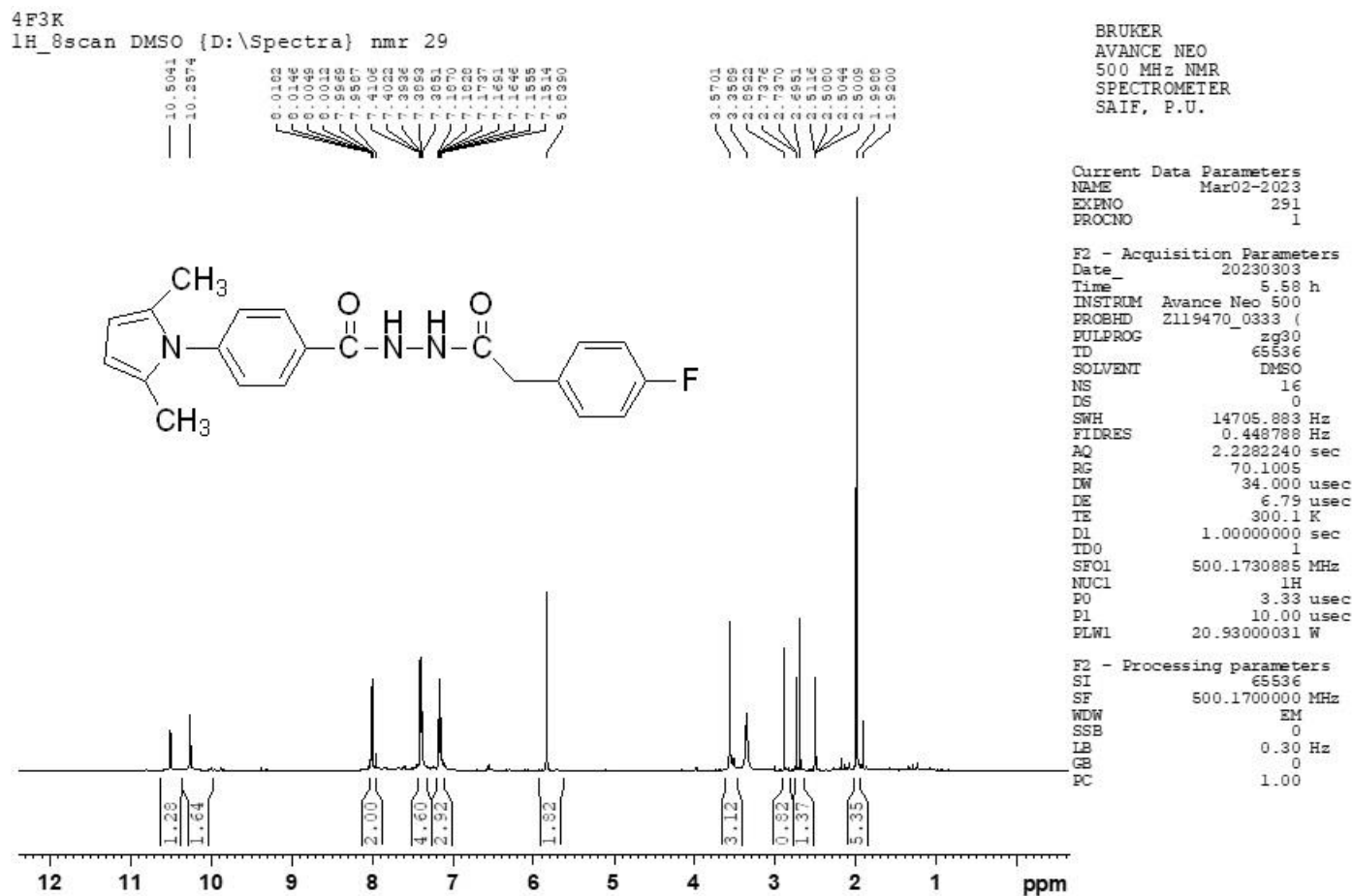
1: TOF MS ES+
3.61e5



SPECTRUM NO: 41 (IR spectrum of Compound 5k)

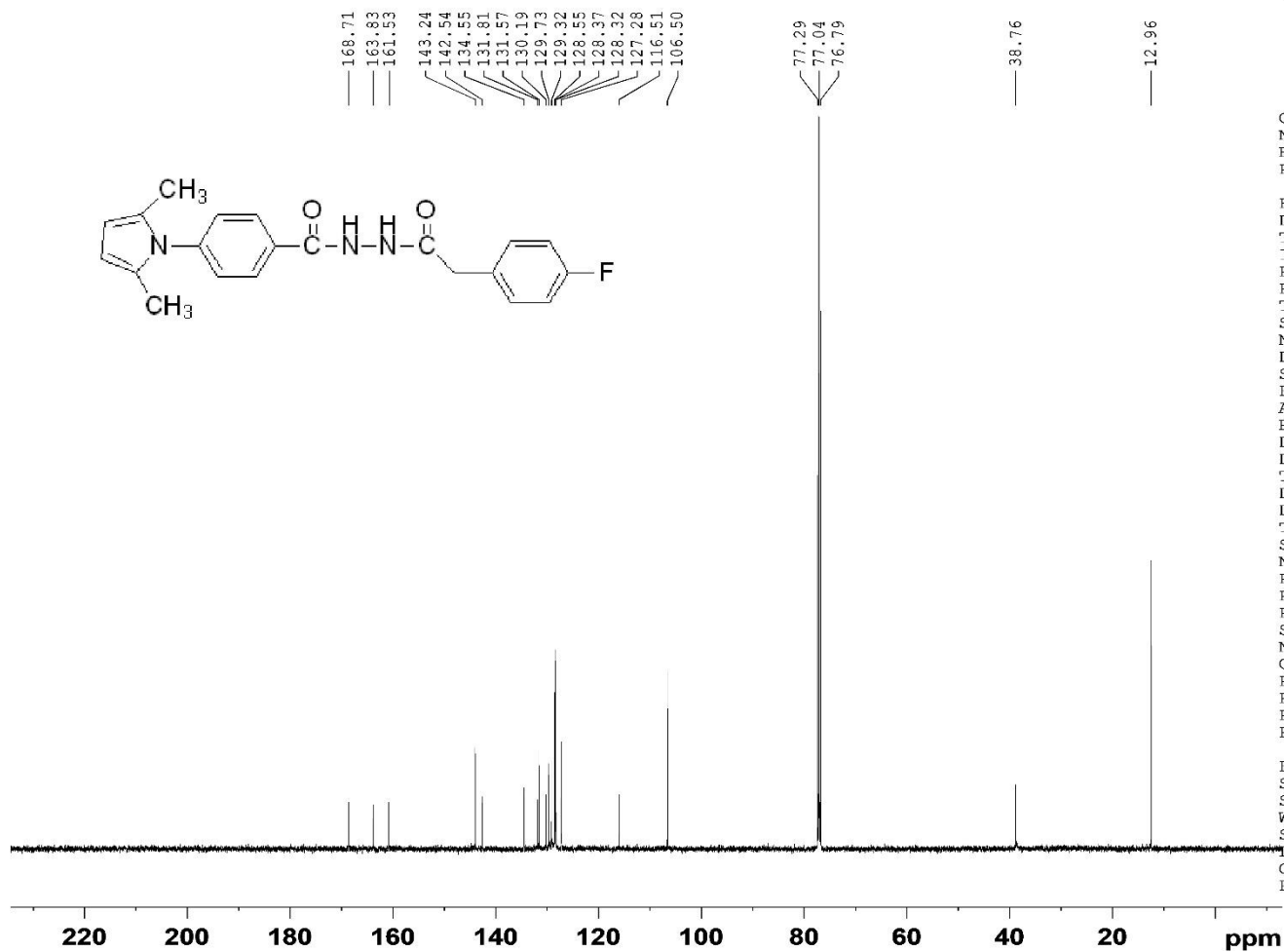
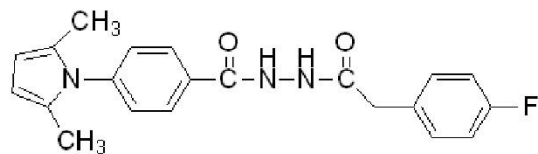


SPECTRUM NO: 42 (¹H NMR spectrum of Compound 5k)



SPECTRUM NO: 43 (^{13}C NMR spectrum of Compound 5k)

4F-5K
C13CPD CDCl3 {D:\Spectra} nmr 53



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500 MHz NMR SPECTROMETER
SAIF, PANJAB UNIVERSITY,
CHANDIGARH

Current Data Parameters
NAME Mar30-2023
EXPNO 01
PROCNO 1

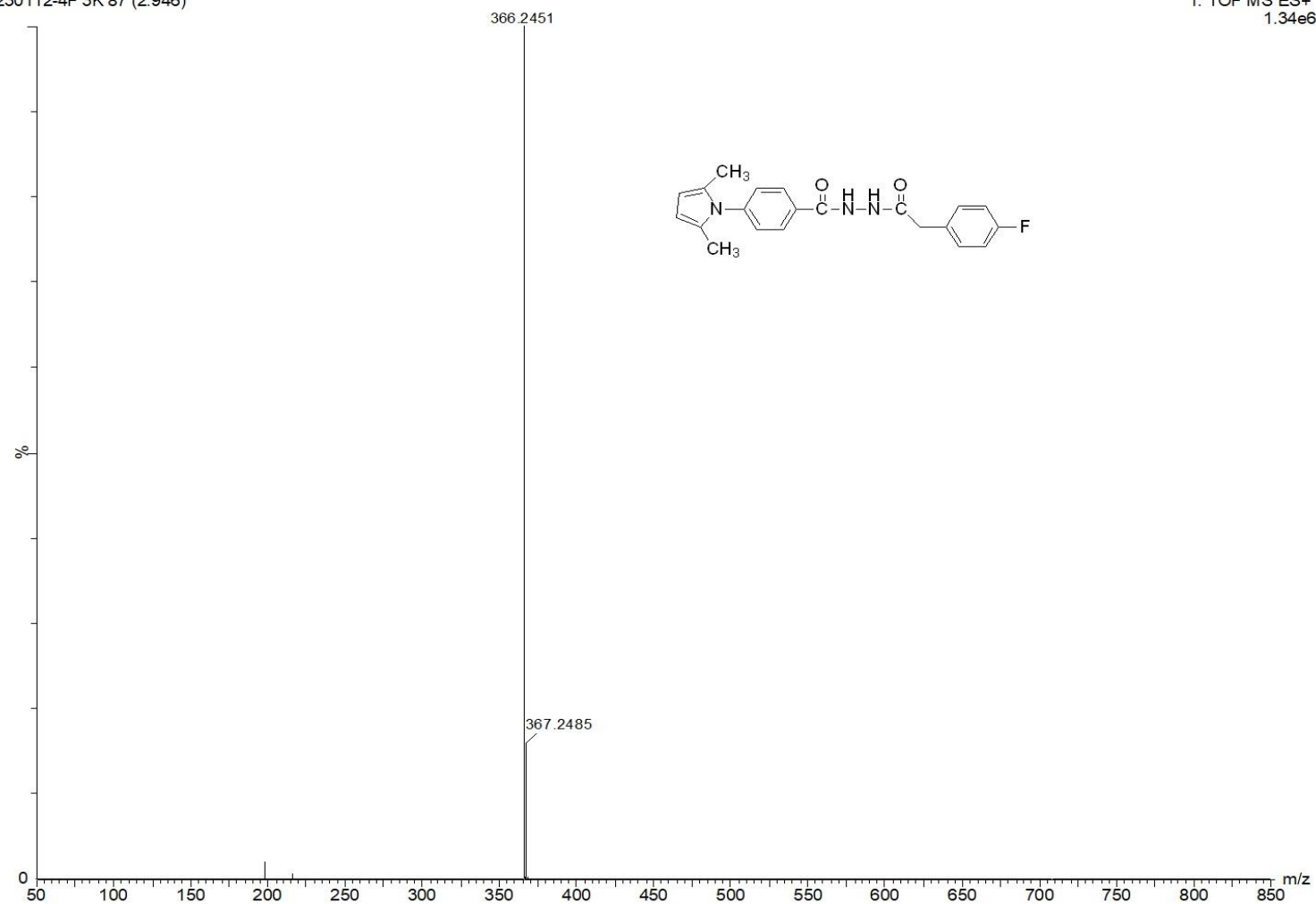
F2 - Acquisition Parameters
Date_ 20230330
Time_ 10.18 h
INSTRUM Avance Neo 500
PROBHD Z119470_0333 (zpgpg30)
TD 65536
SOLVENT CDCl3
NS 512
DS 4
SWH 37037.035 Hz
FIDRES 1.130281 Hz
AQ 0.8847360 sec
RG 101
DW 13.500 usec
DE 6.50 usec
TE 300.1 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
SFO1 125.7804233 MHz
NUC1 13C
P0 3.33 usec
P1 10.00 usec
PLW1 83.14099884 W
SFO2 500.1720007 MHz
NUC2 1H
CPDPRG[2] waltz65
PCPD2 80.00 usec
PLW2 20.93000031 W
PLW12 0.32703000 W
PLW13 0.16449000 W

F2 - Processing parameters
SI 32768
SF 125.7678465 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

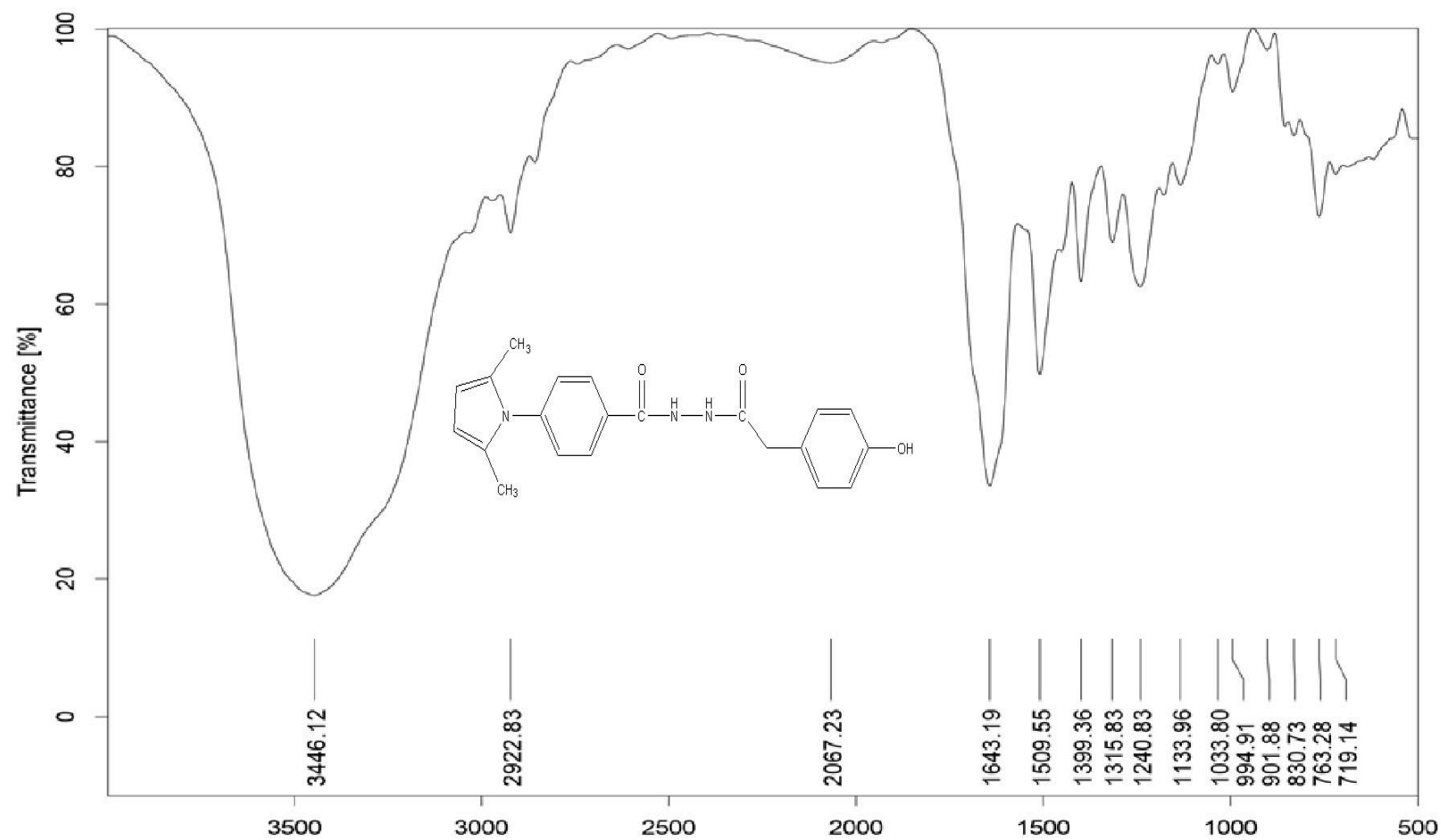
SPECTRUM NO: 44 (Mass spectrum of Compound 5k)

230112-4F 3K 87 (2.946)

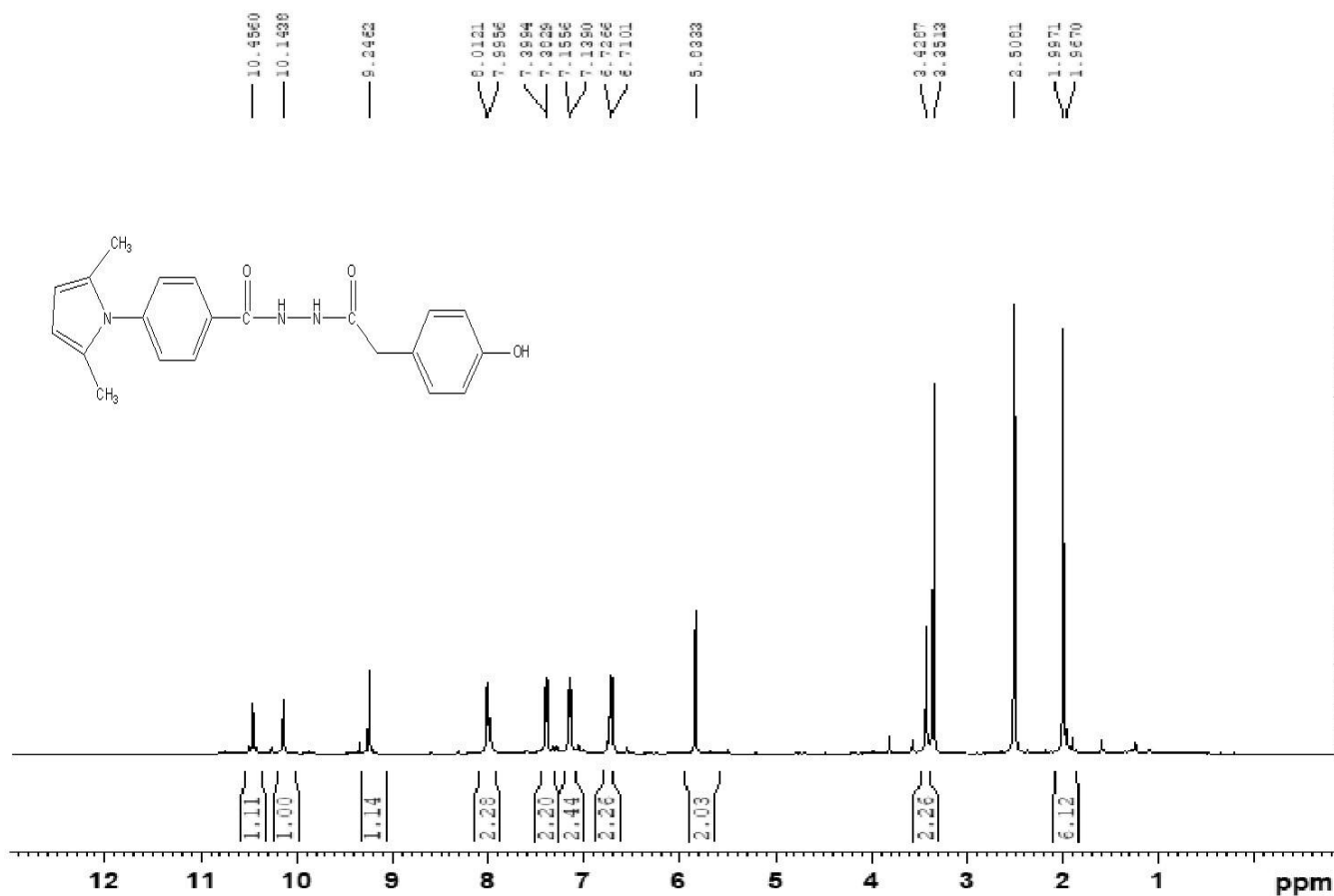
1: TOF MS ES+
1.34e6



SPECTRUM NO: 45 (IR spectrum of Compound 5l)



SPECTRUM NO: 46 (¹H NMR spectrum of Compound 5l)



AVANCE NEO
500 MHz NMR
SPECTROMETER
SAIF, P.U.

Current Data Parameters
NAME Aug03-2021-nmr
EXPNO 110
PROCNO 1

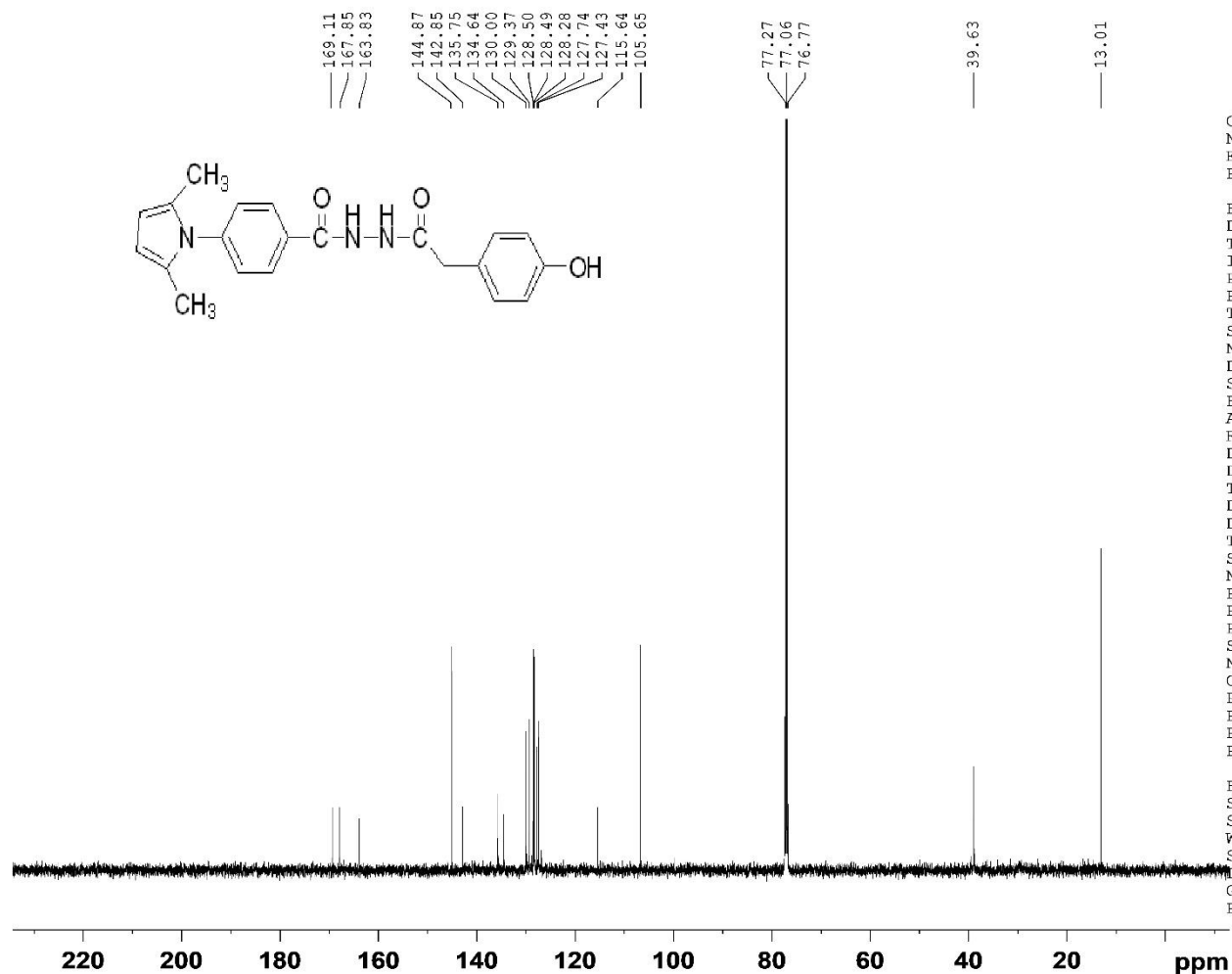
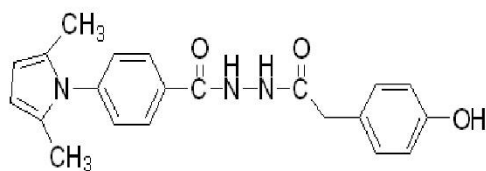
F2 - Acquisition Parameters
Date_ 20210803
Time_ 17.41 h
INSTRUM Avance Neo 500
PROBHD Z119470_0333 (
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 16
DS 0
SWH 14705.883 Hz
FIDRES 0.448788 Hz
AQ 2.2282240 sec
RG 95.7854
DW 34.000 usec
DE 6.79 usec
TE 300.1 K
D1 1.00000000 sec
TD0 1
SFO1 500.1730885 MHz
NUC1 1H
P0 3.33 usec
P1 10.00 usec
PLW1 20.93000031 W

F2 - Processing parameters
SI 65536
SF 500.1700000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

SPECTRUM NO: 47 (¹³C NMR spectrum of Compound 5l)

4OH-5L

C13CPD CDCl3 {D:\Spectra} nmr 54



BRUKER
AVANCE NEO
500 MHz NMR SPECTROMETER
SAIF, PANJAB UNIVERSITY,
CHANDIGARH

Current Data Parameters
NAME Mar30-2023
EXPNO 02
PROCNO 1

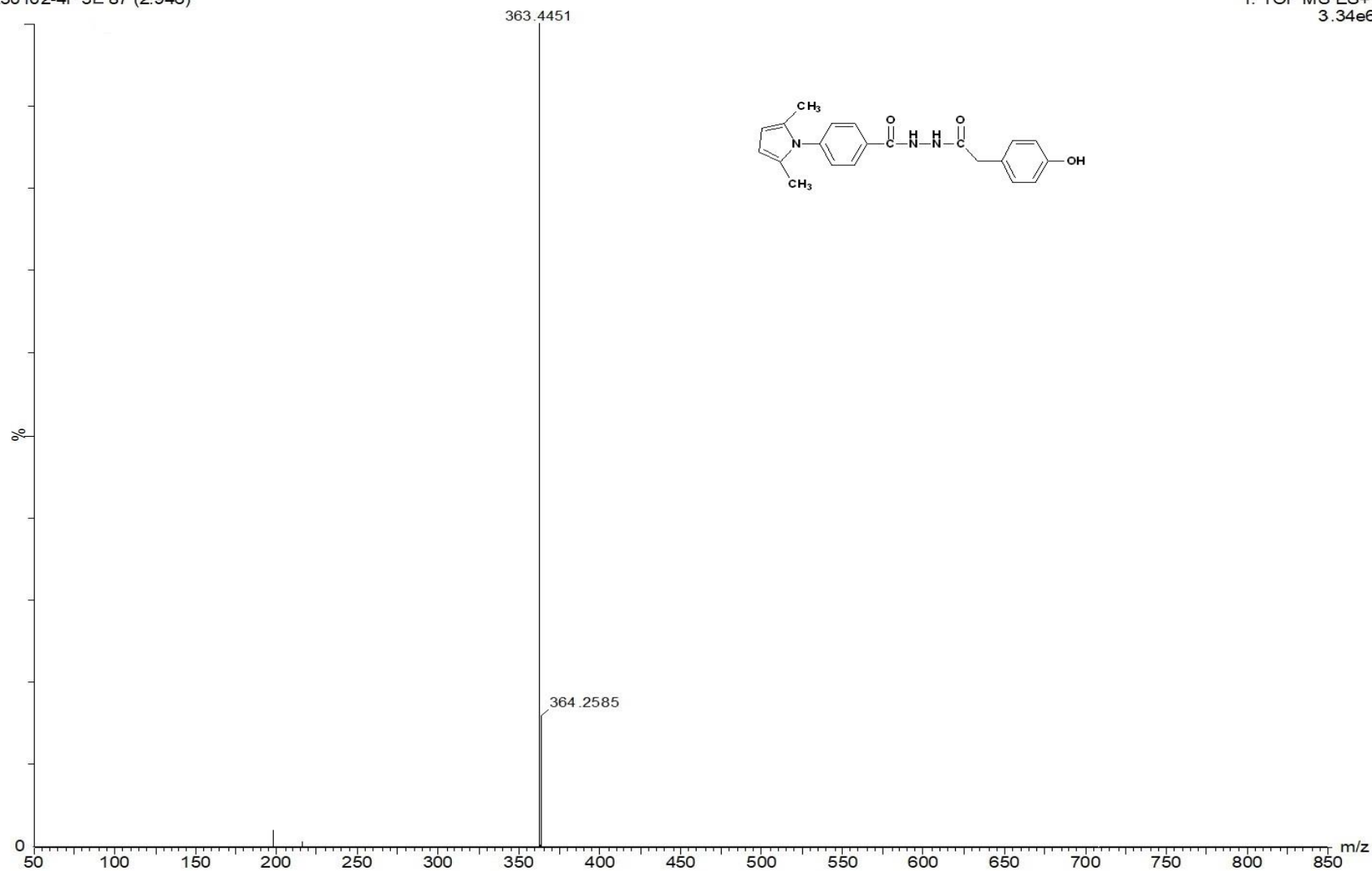
F2 - Acquisition Parameters
Date 20230330
Time 13.12 h
INSTRUM Avance Neo 500
PROBHD z119470_0333 (
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 4
SWH 37037.035 Hz
FIDRES 1.130281 Hz
AQ 0.8847360 sec
RG 101
DW 13.500 usec
DE 6.50 usec
TE 300.1 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
SFO1 125.7804233 MHz
NUC1 13C
P0 3.33 usec
P1 10.00 usec
PLW1 83.14099884 W
SFO2 500.1720007 MHz
NUC2 1H
CPDPRG[2] waltz65
PCPD2 80.00 usec
PLW2 20.93000031 W
PLW12 0.32703000 W
PLW13 0.16449000 W

F2 - Processing parameters
SI 32768
SF 125.7678465 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

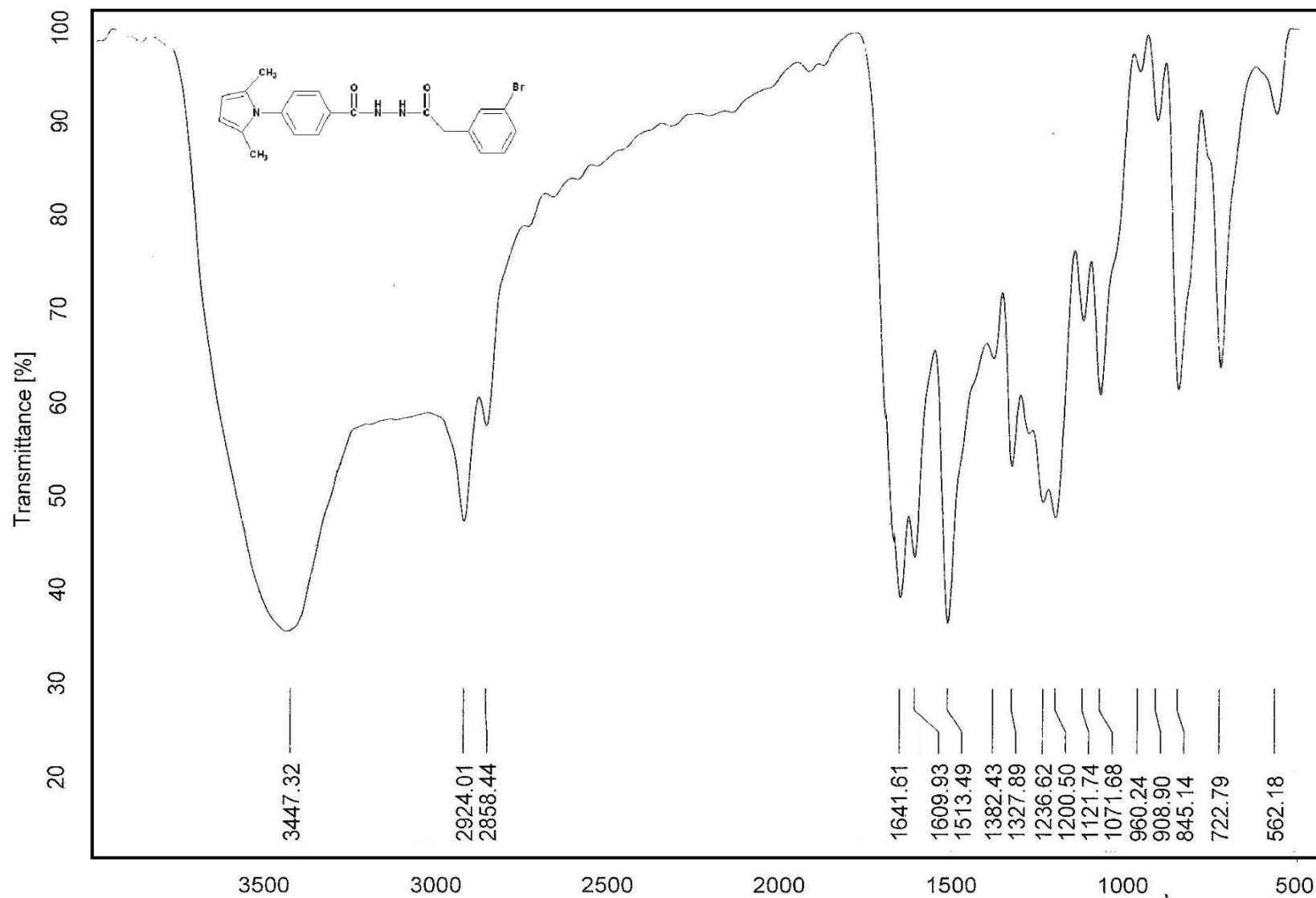
SPECTRUM NO: 48 (Mass spectrum of Compound 5l)

230102-4F 3L 87 (2.946)

1: TOF MS ES+
3.34e6

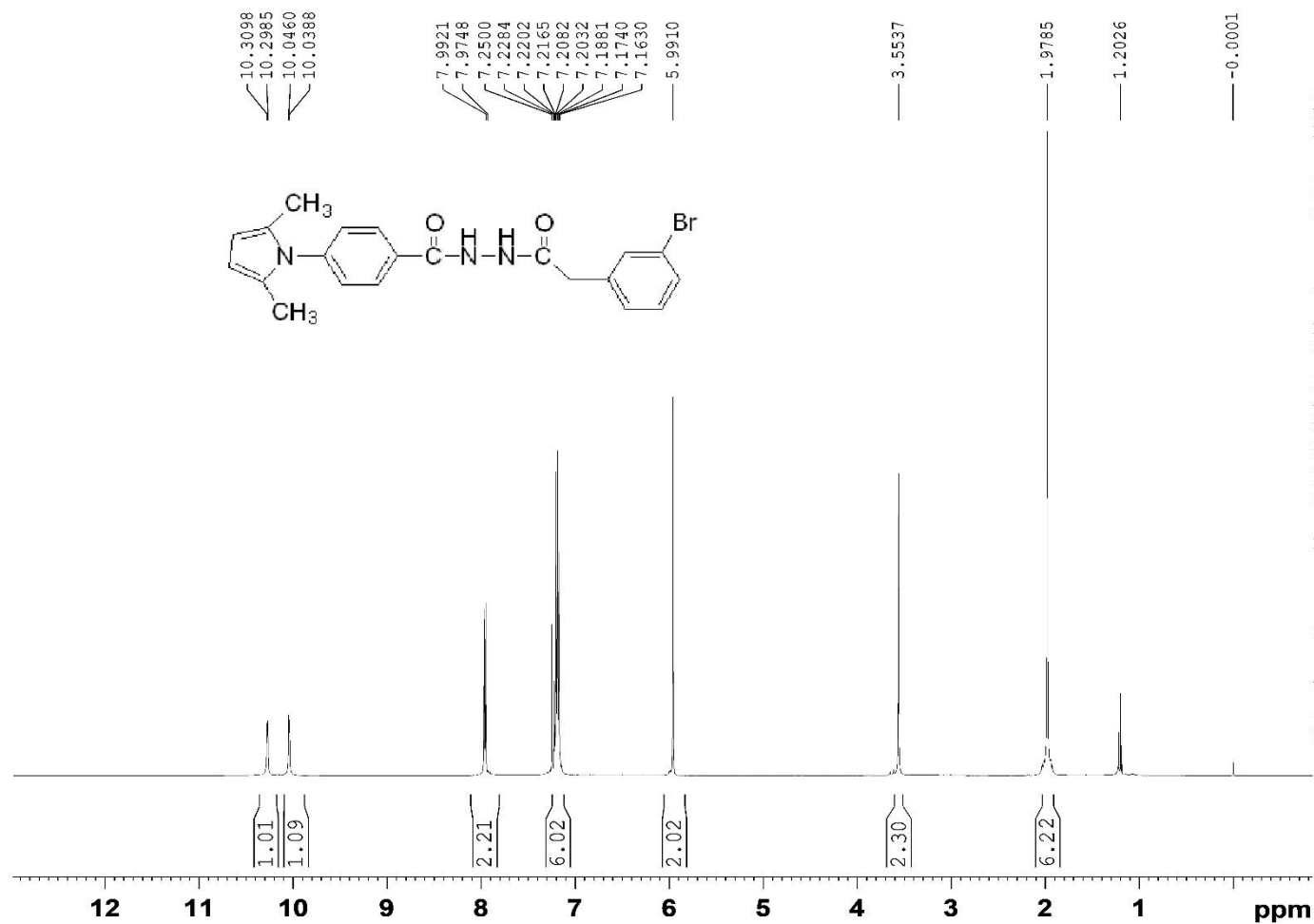


SPECTRUM NO: 49 (IR spectrum of Compound 5m)



SPECTRUM NO: 50 (¹H NMR spectrum of Compound 5m)

1H_8scan CDC13 {D:\Spectra} nmr 111



BRUKER
AVANCE NEO
500 MHz NMR
SPECTROMETER
SAIF, P.U.

Current Data Parameters
NAME Mar03-2023-nmr
EXPNO 11
PROCNO 1

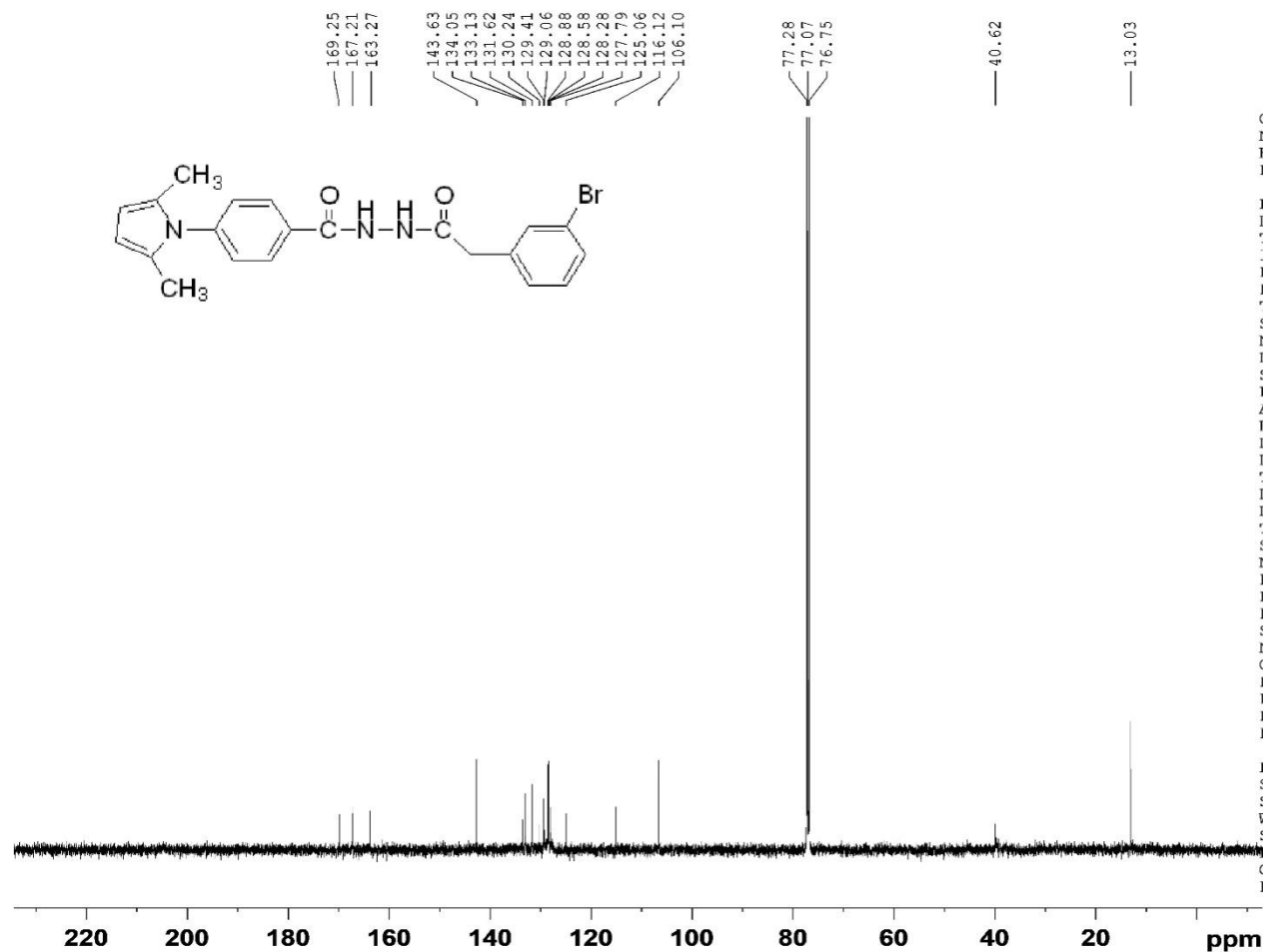
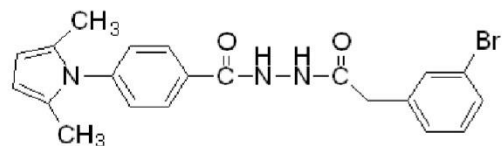
F2 - Acquisition Parameters
Date_ 20230303
Time_ 11.28 h
INSTRUM Avance Neo 500
PROBHD Z119470_0333 (zg30)
PULPROG zg30
TD 65536
SOLVENT CDC13
NS 16
DS 0
SWH 14705.883 Hz
FIDRES 0.448788 Hz
AQ 2.2282240 sec
RG 59.6374
DW 34.000 usec
DE 6.79 usec
TE 300.2 K
D1 1.00000000 sec
TD0 1
SFO1 500.1730885 MHz
NUC1 1H
P0 3.33 usec
P1 10.00 usec
PLW1 20.93000031 W

F2 - Processing parameters
SI 65536
SF 500.1700170 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

SPECTRUM NO: 51 (¹³C NMR spectrum of Compound 5m)

3Br-5M

C13CPD CDCl3 {D:\Spectra} nmr 55



BRUKER
AVANCE NEO
500 MHz NMR SPECTROMETER
SAIF, PANJAB UNIVERSITY,
CHANDIGARH

Current Data Parameters
NAME Mar30-2023
EXPNO 03
PROCNO 1

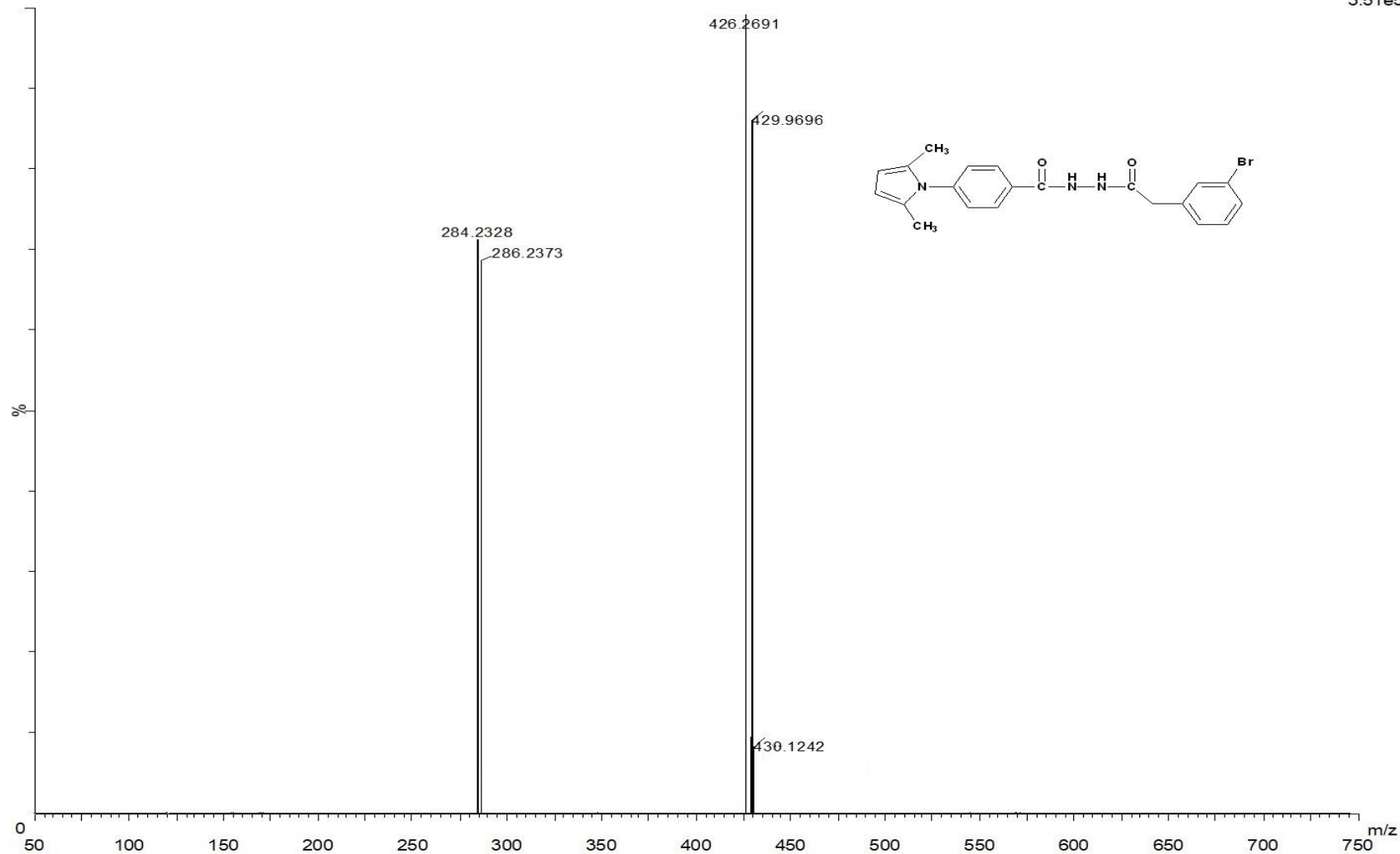
F2 - Acquisition Parameters
Date_ 20230330
Time_ 15.55 h
INSTRUM Avance Neo 500
PROBHD Z119470_0333 (
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 4
SWH 37037.035 Hz
FIDRES 1.130281 Hz
AQ 0.8847360 sec
RG 101
DW 13.500 usec
DE 6.50 usec
TE 300.1 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
SFO1 125.7804233 MHz
NUC1 13C
P0 3.33 usec
P1 10.00 usec
PLW1 83.14099884 W
SFO2 500.1720007 MHz
NUC2 1H
CPDPRG[2] waltz65
PCPD2 80.00 usec
PLW2 20.93000031 W
PLW12 0.32703000 W
PLW13 0.16449000 W

F2 - Processing parameters
ST 32768
SF 125.7678465 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

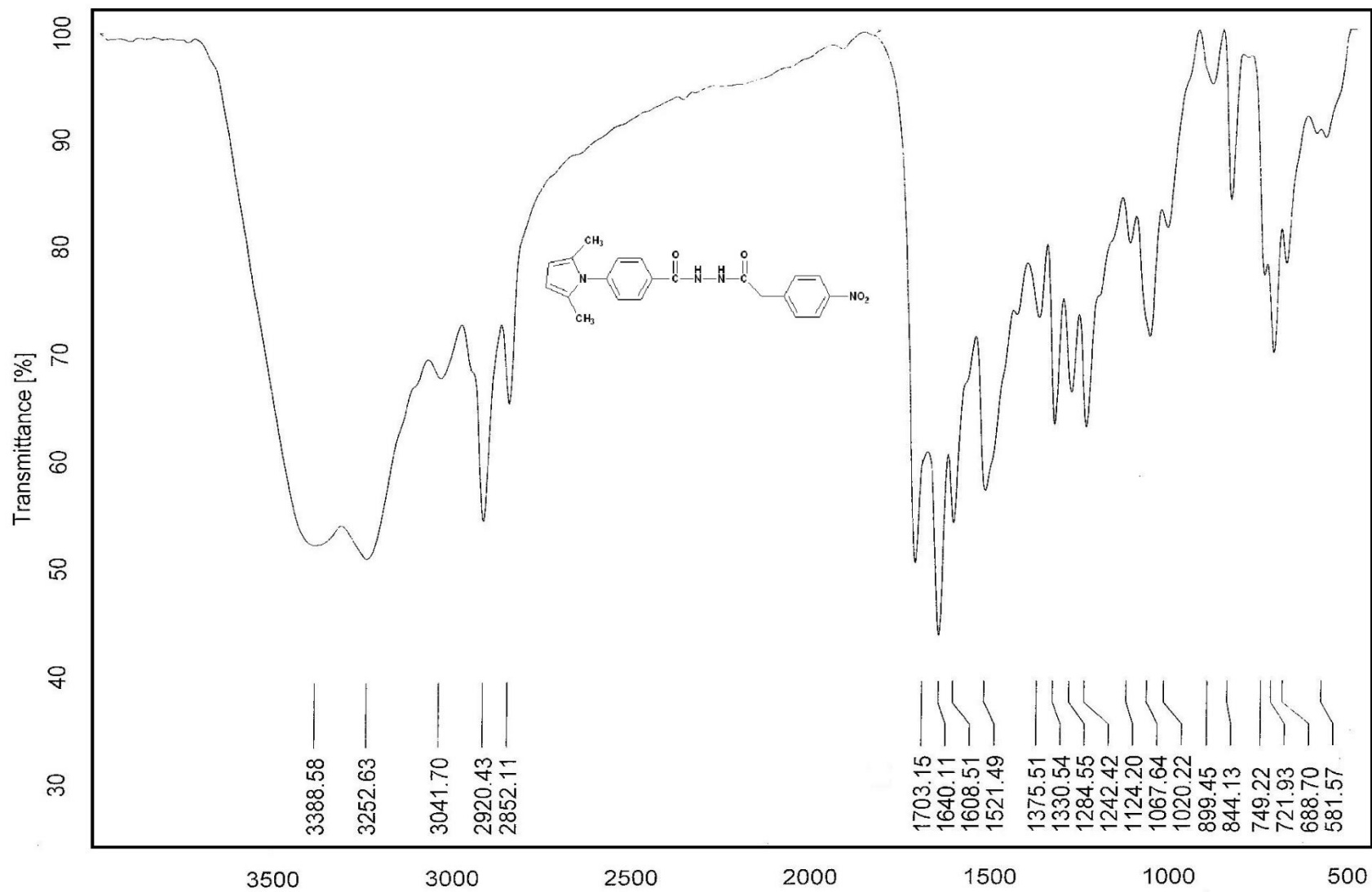
SPECTRUM NO: 52 (Mass spectrum of Compound 5m)

230110-3Br 3M 90 (3.047)

1: TOF MS ES+
3.51e5

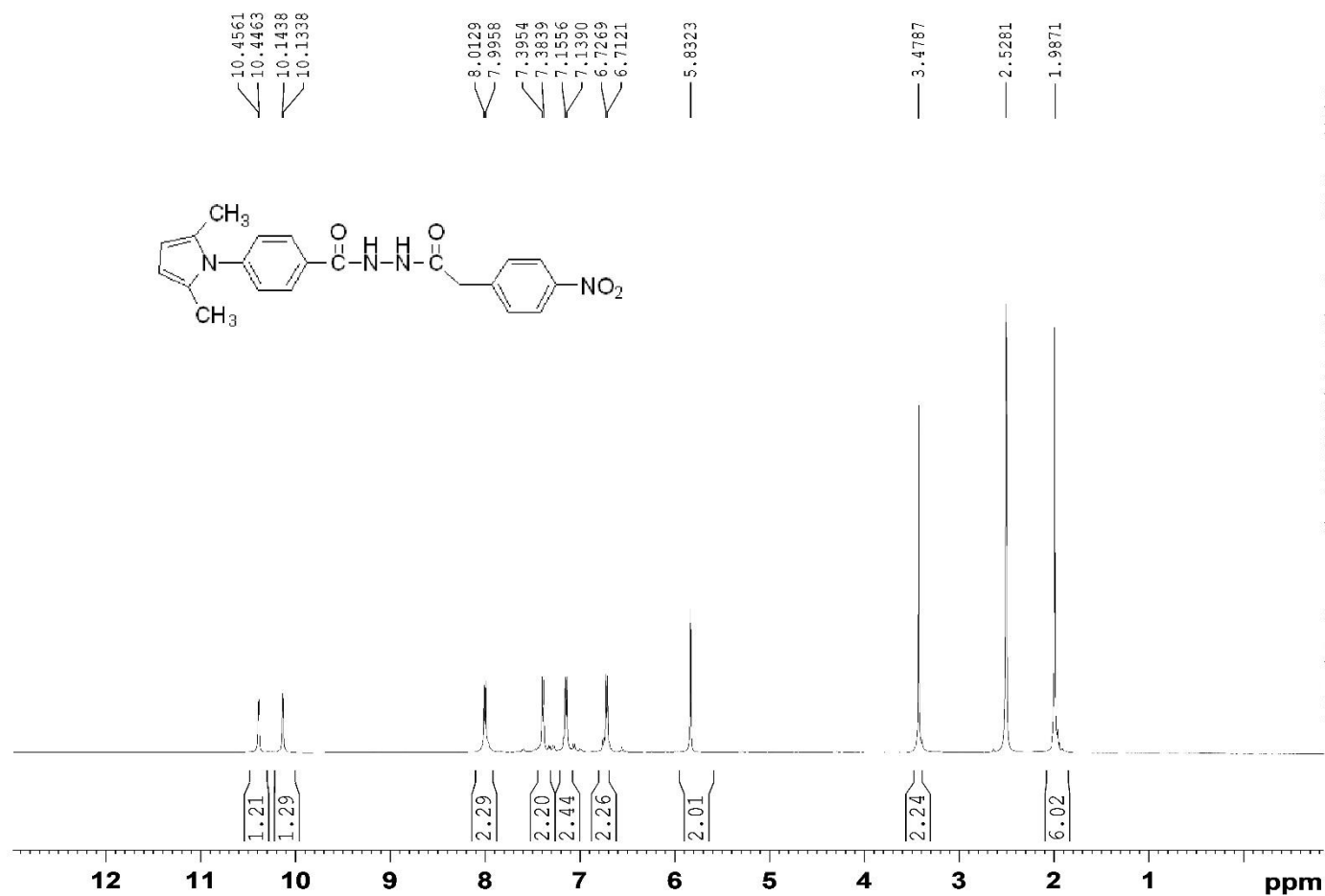
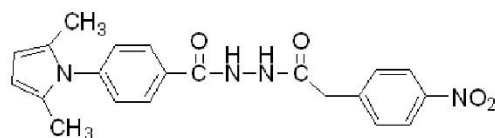


SPECTRUM NO: 53 (IR spectrum of Compound 5n)



SPECTRUM NO: 54 (¹H NMR spectrum of Compound 5n)

1H_8scan DMSO {D:\Spectra} nmr 112



BRUKER
AVANCE NEO
500 MHz NMR
SPECTROMETER
SAIF, P.U.

Current Data Parameters
NAME Mar03-2023-nmr
EXPNO 12
PROCNO 1

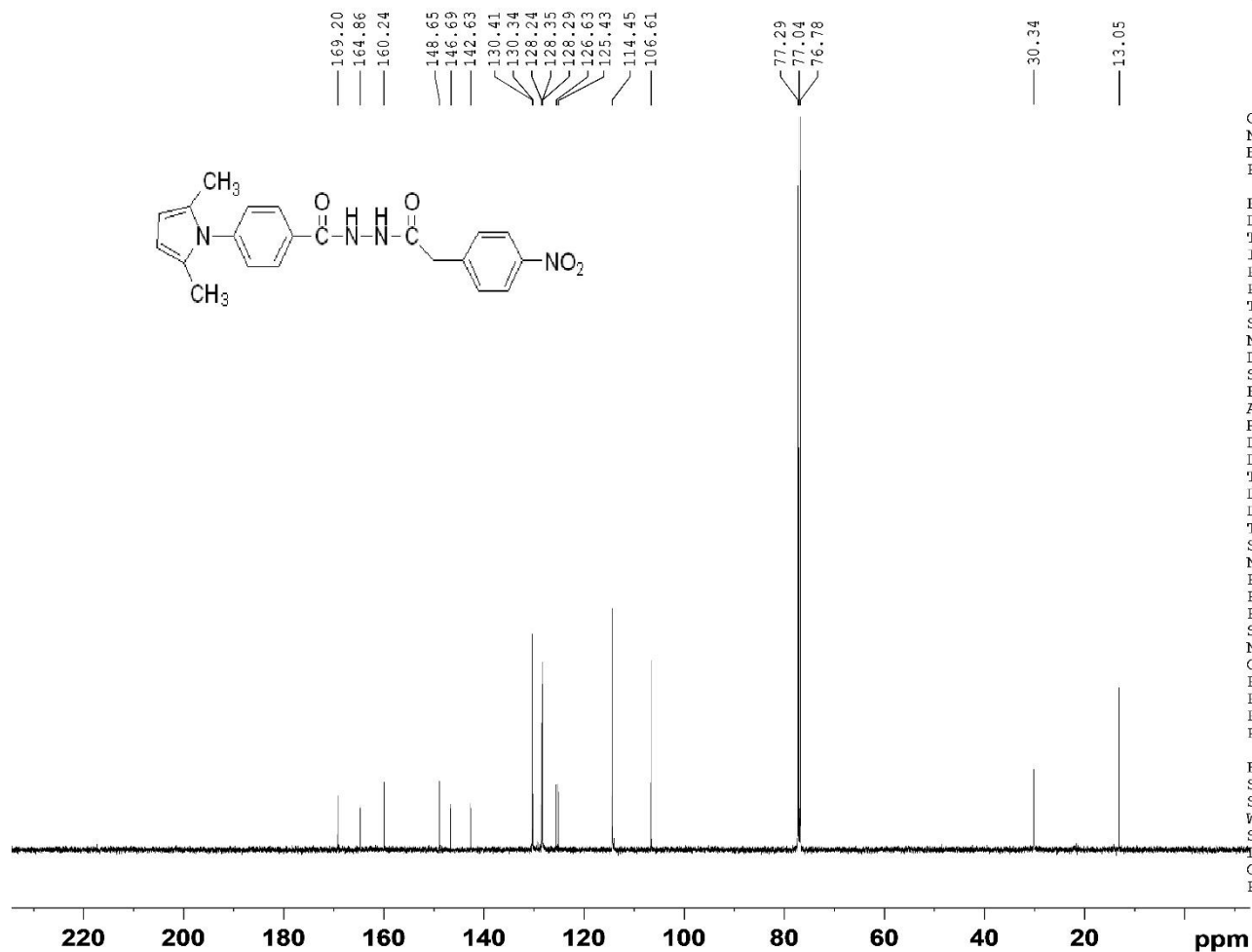
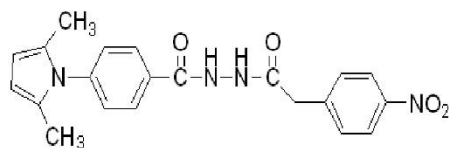
F2 - Acquisition Parameters
Date_ 20210803
Time_ 18.48 h
INSTRUM Avance Neo 500
PROBHD Z119470_0333 (
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 16
DS 0
SWH 14705.883 Hz
FIDRES 0.448788 Hz
AQ 2.2282240 sec
RG 95.7854
DW 34.000 usec
DE 6.79 usec
TE 300.1 K
D1 1.00000000 sec
TD0 1
SF01 500.1730885 MHz
NUC1 1H
P0 3.33 usec
P1 10.00 usec
PLW1 20.93000031 W

F2 - Processing parameters
SI 65536
SF 500.1700000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

SPECTRUM NO: 55 (¹³C NMR spectrum of Compound 5n)

4NO2-5N

C13CPD CDC13 {D:\Spectra} nmr 56



BRUKER

AVANCE NEO

500 MHz NMR SPECTROMETER

SAIF, PANJAB UNIVERSITY,
CHANDIGARH

Current Data Parameters

NAME Mar30-2023
EXPNO 04
PROCNO 1

F2 - Acquisition Parameters

Date_ 20230330
Time_ 18.06 h
INSTRUM Avance Neo 500
PROBHD Z119470_0333 (
PULPROG zgpg30
TD 65536
SOLVENT CDC13
NS 512
DS 4
SWH 37037.035 Hz
FIDRES 1.130281 Hz
AQ 0.8847360 sec
RG 101
DW 13.500 usec
DE 6.50 usec
TE 300.1 K
D1 2.0000000 sec
D11 0.0300000 sec
TD0 1
SFO1 125.7804233 MHz
NUC1 13C
P0 3.33 usec
P1 10.00 usec
PLW1 83.14099884 W
SFO2 500.1720007 MHz
NUC2 1H
CPDPRG[2] waltz65
PCPD2 80.00 usec
PLW2 20.93000031 W
PLW12 0.32703000 W
PLW13 0.16449000 W

F2 - Processing parameters

SI 32768
SF 125.7678465 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

SPECTRUM NO: 56 (Mass spectrum of Compound 5n)

230104-3NO₂ 3N 80 (3.013)

1: TOF MS ES+
1.34e6

