

P-2

1H_8scan CDC13 {D:\Spectra} nmr 41

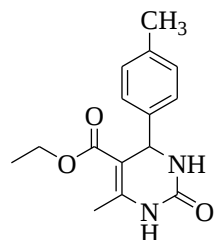
BRUKER
AVANCE NEO
500 MHz NMR
SPECTROMETER
SAIF, P.U.

Current Data Parameters
NAME Nov10-2023
EXPNO 410
PROCNO 1

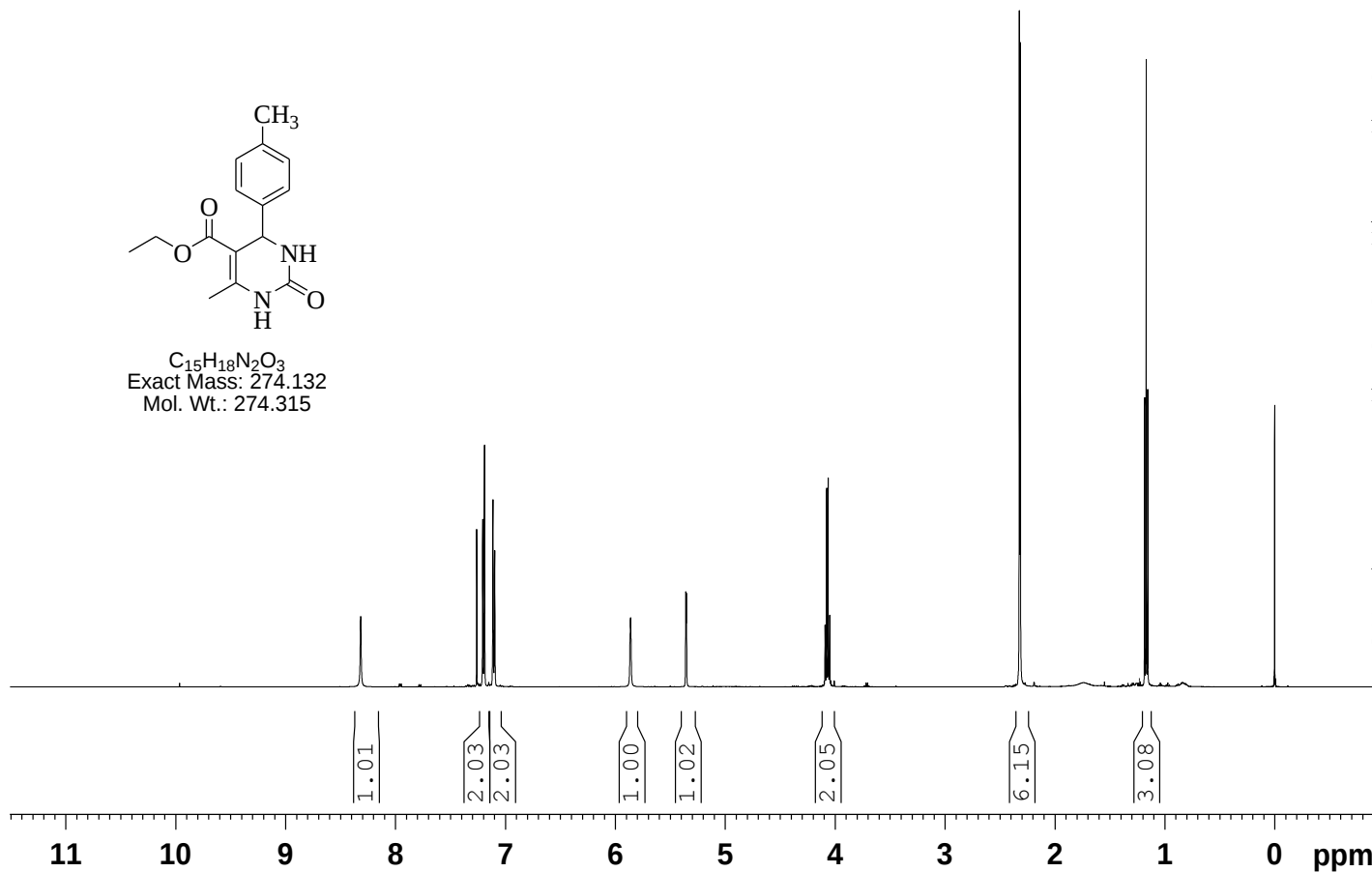
F2 - Acquisition Parameters
Date_ 20231111
Time_ 16.55 h
INSTRUM Avance Neo 500
PROBHD Z119470_0333 (
PULPROG zg30
TD 65536
SOLVENT CDC13
NS 64
DS 0
SWH 14705.883 Hz
FIDRES 0.448788 Hz
AQ 2.2282240 sec
RG 101
DW 34.000 usec
DE 6.79 usec
TE 300.2 K
D1 1.00000000 sec
TD0 1
SFO1 500.1730885 MHz
NUC1 1H
P0 3.33 usec
P1 10.00 usec
PLW1 20.93000031 W

F2 - Processing parameters
SI 65536
SF 500.1700120 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

8.3158
7.2599
7.2058
7.2025
7.1930
7.1896
7.1123
7.0966
5.8606
5.3576
5.3520
4.0903
4.0761
4.0623
4.0479
2.3229
2.3220
2.3146
1.1829
1.1687
1.1544
-0.0002



C₁₅H₁₈N₂O₃
Exact Mass: 274.132
Mol. Wt.: 274.315



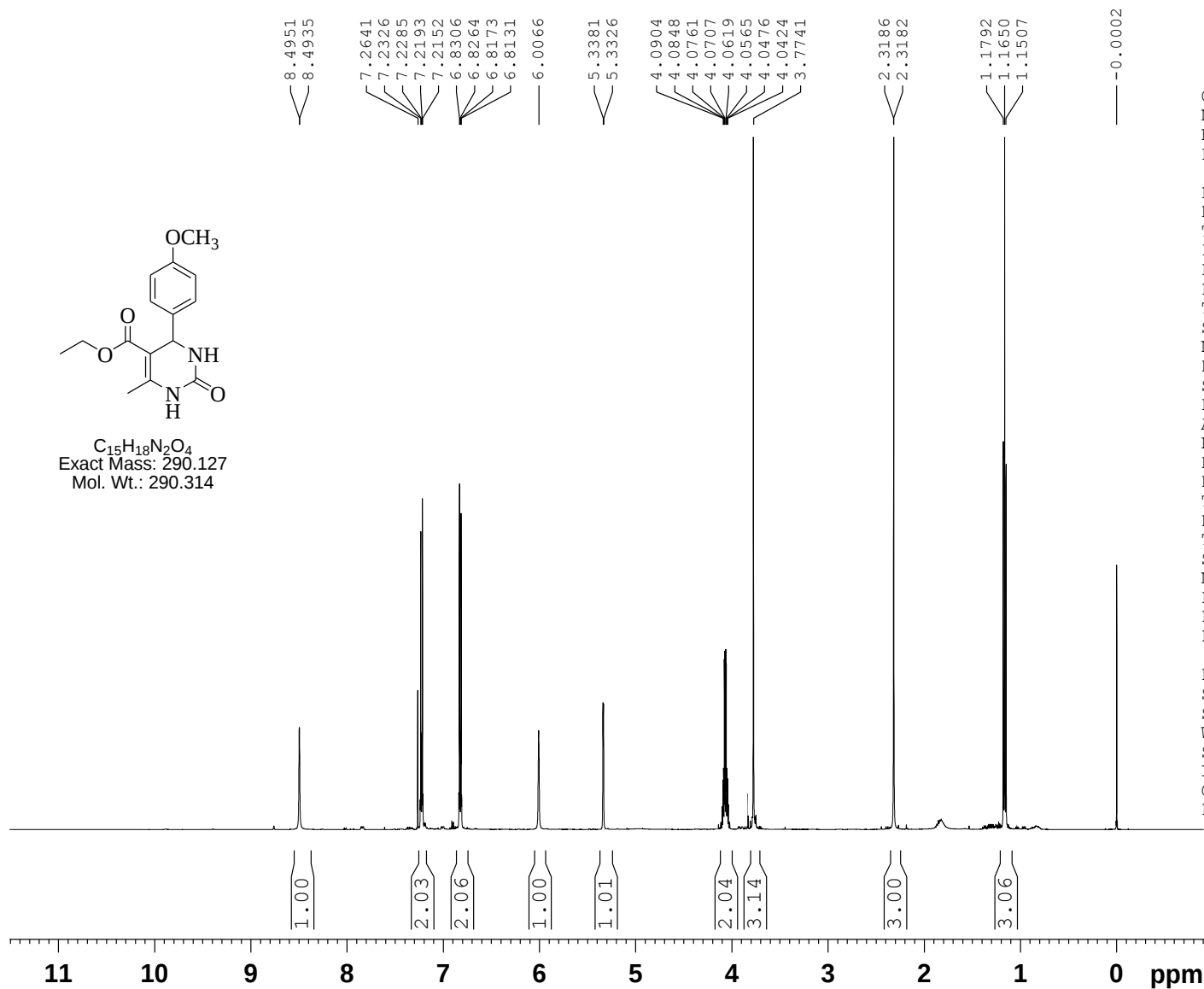
P-3
 1H_8scan CDC13 {D:\Spectra} nmr 42

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

Current Data Parameters
 NAME Nov10-2023
 EXPNO 420
 PROCNO 1

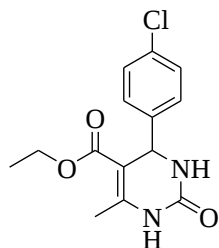
F2 - Acquisition Parameters
 Date_ 20231111
 Time 17.51 h
 INSTRUM Avance Neo 500
 PROBHD Z119470_0333 (
 PULPROG zg30
 TD 65536
 SOLVENT CDC13
 NS 64
 DS 0
 SWH 14705.883 Hz
 FIDRES 0.448788 Hz
 AQ 2.2282240 sec
 RG 95.7854
 DW 34.000 usec
 DE 6.79 usec
 TE 300.2 K
 D1 1.00000000 sec
 TD0 1
 SFO1 500.1730885 MHz
 NUC1 1H
 P0 3.33 usec
 P1 10.00 usec
 PLW1 20.93000031 W

F2 - Processing parameters
 SI 65536
 SF 500.1700098 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

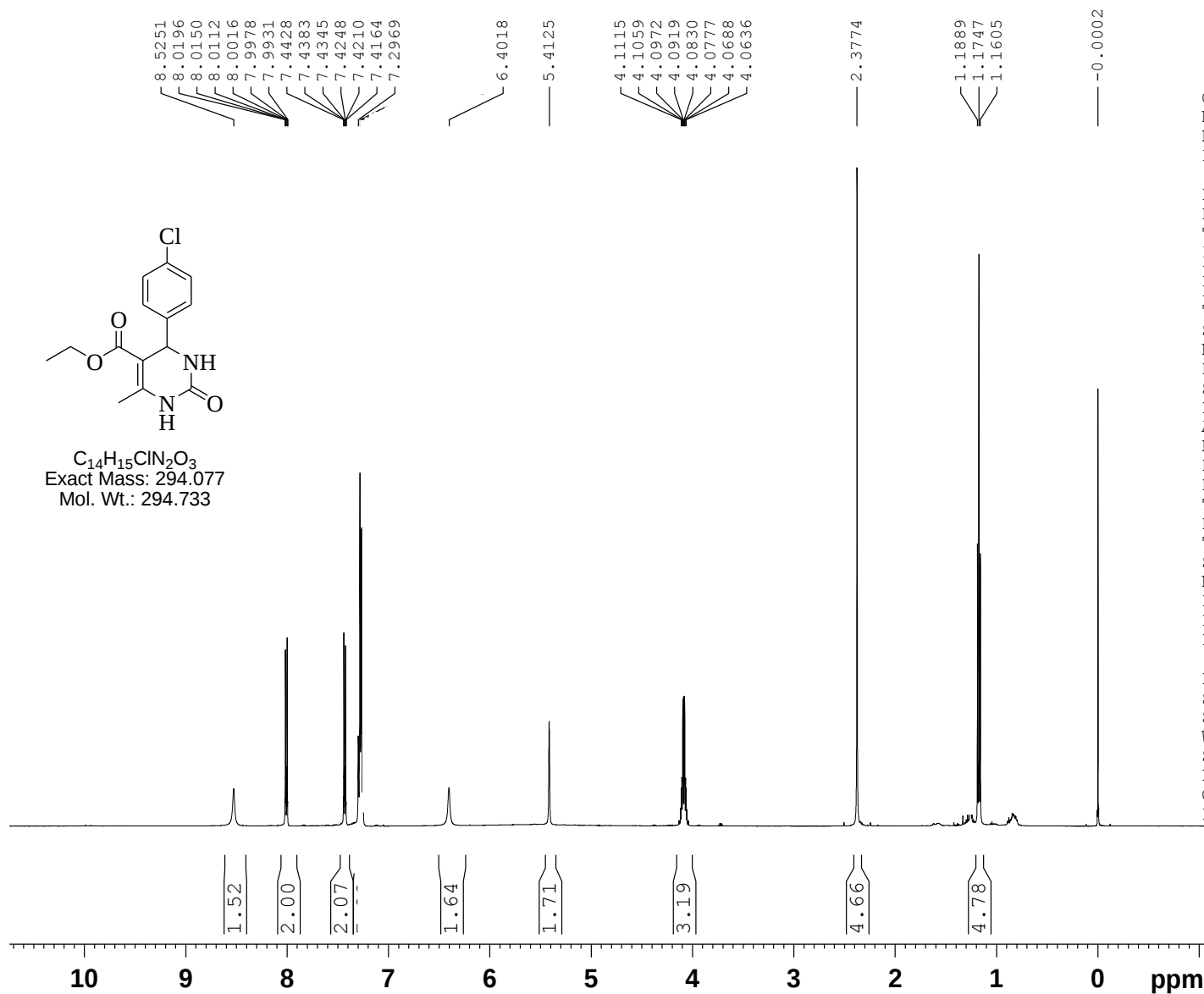


P-6

1H_8scan CDC13 {D:\Spectra} nmr 33



$C_{14}H_{15}ClN_2O_3$
Exact Mass: 294.077
Mol. Wt.: 294.733



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

Current Data Parameters
NAME Nov10-2023
EXPNO 330
PROCNO 1

F2 - Acquisition Parameters
Date_ 20231111
Time_ 11.07 h
INSTRUM Avance Neo 500
PROBHD Z119470_0333 (
PULPROG zg30
TD 65536
SOLVENT CDC13
NS 64
DS 0
SWH 14705.883 Hz
FIDRES 0.448788 Hz
AQ 2.2282240 sec
RG 101
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 500.1700115 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

P-5

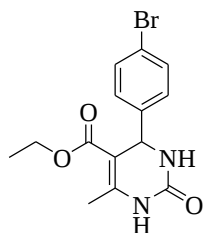
1H_8scan CDC13 {D:\Spectra} nmr 43

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

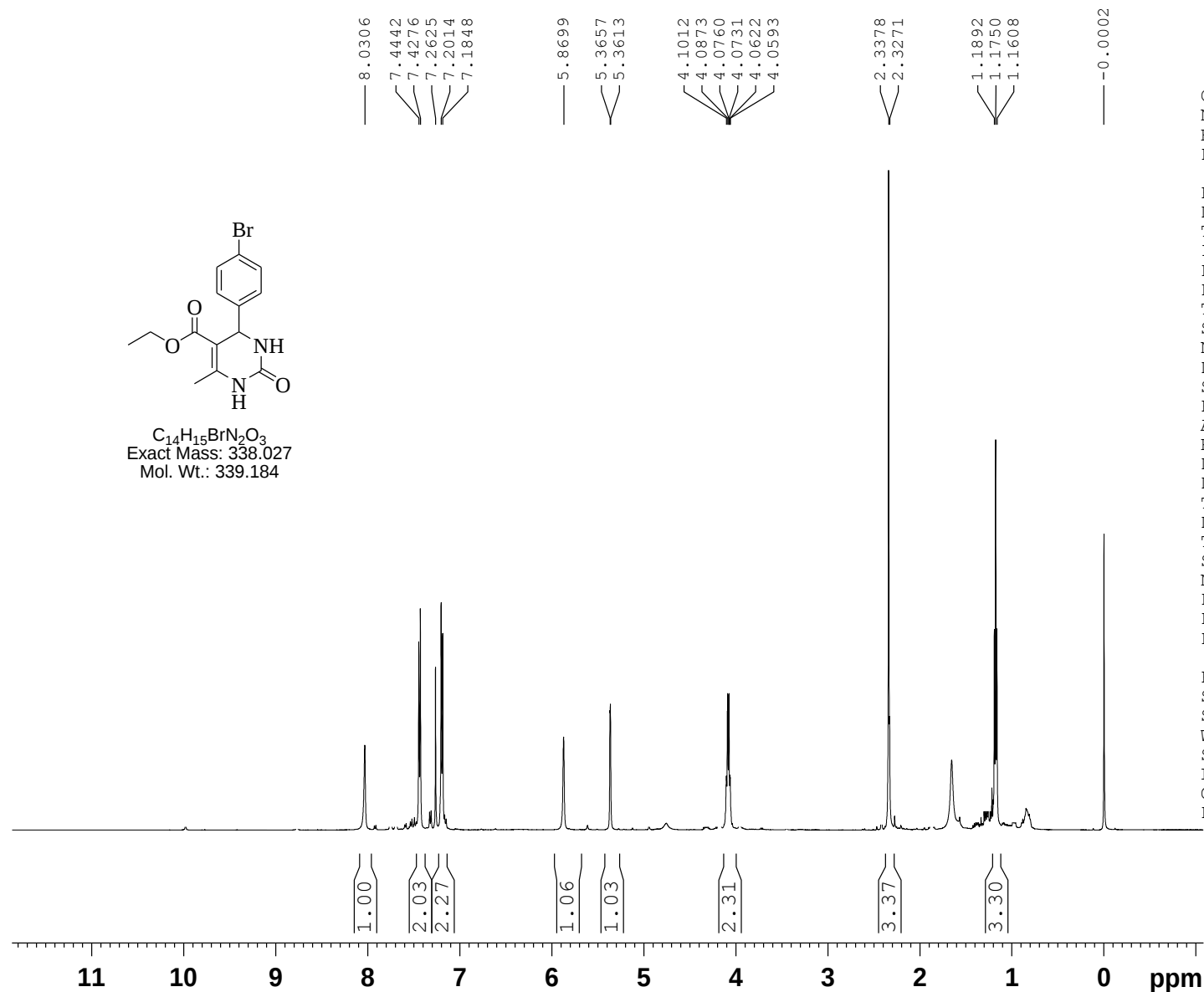
Current Data Parameters
NAME Nov10-2023
EXPNO 430
PROCNO 1

F2 - Acquisition Parameters
Date_ 20231111
Time_ 18.47 h
INSTRUM Avance Neo 500
PROBHD Z119470_0333 (
PULPROG zg30
TD 65536
SOLVENT CDC13
NS 64
DS 0
SWH 14705.883 Hz
FIDRES 0.448788 Hz
AQ 2.2282240 sec
RG 101
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 500.1700109 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



$C_{14}H_{15}BrN_2O_3$
Exact Mass: 338.027
Mol. Wt.: 339.184



P-2

C13CPD CDC13 {D:\Spectra} nmr 41

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

Current Data Parameters

NAME Nov10-2023
 EXPNO 411
 PROCNO 1

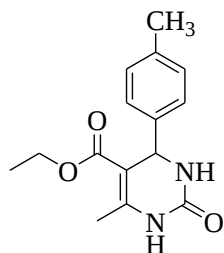
F2 - Acquisition Parameters

Date_ 20231111
 Time_ 17.46 h
 INSTRUM Avance Neo 500
 PROBHD Z119470_0333 (
 PULPROG zgpg30
 TD 65536
 SOLVENT CDC13
 NS 1024
 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
 CPDPRG[2] waltz65
 PCPD2 80.00 usec
 PLW2 20.93000031 W
 PLW12 0.32703000 W
 PLW13 0.16449000 W

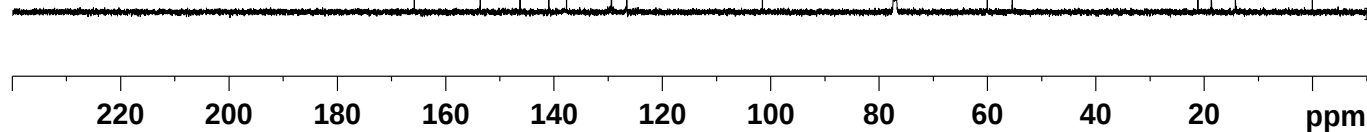
F2 - Processing parameters

SI 32768
 SF 125.7678466 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

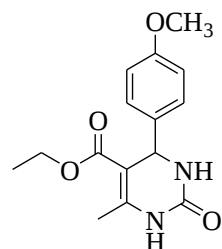
165.72
 153.58
 146.20
 140.89
 137.62
 129.35
 126.50
 101.50
 77.28
 77.02
 76.77
 59.98
 55.38
 21.11
 18.62
 14.17
 -0.00



$C_{15}H_{18}N_2O_3$
 Exact Mass: 274.132
 Mol. Wt.: 274.315



P-3
C13CPD CDC13 {D:\Spectra} nmr 42



$C_{15}H_{18}N_2O_4$
Exact Mass: 290.127
Mol. Wt.: 290.314

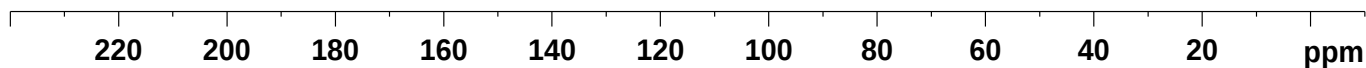
165.75
159.22
153.68
146.12
136.19
132.01
127.81
114.33
113.98
101.56
77.29
77.04
76.78
59.97
55.26
55.08
18.56
14.18

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

Current Data Parameters
NAME Nov10-2023
EXPNO 421
PROCNO 1

F2 - Acquisition Parameters
Date_ 20231111
Time 18.42 h
INSTRUM Avance Neo 500
PROBHD Z119470_0333 (
PULPROG zgpg30
TD 65536
SOLVENT CDC13
NS 1024
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 125.7678464 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40



P-5

C13CPD CDCl3 {D:\Spectra} nmr 43

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

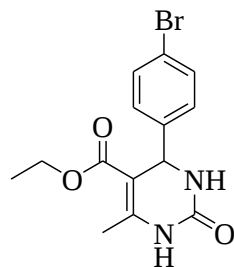
Current Data Parameters
 NAME Nov10-2023
 EXPNO 431
 PROCNO 1

F2 - Acquisition Parameters

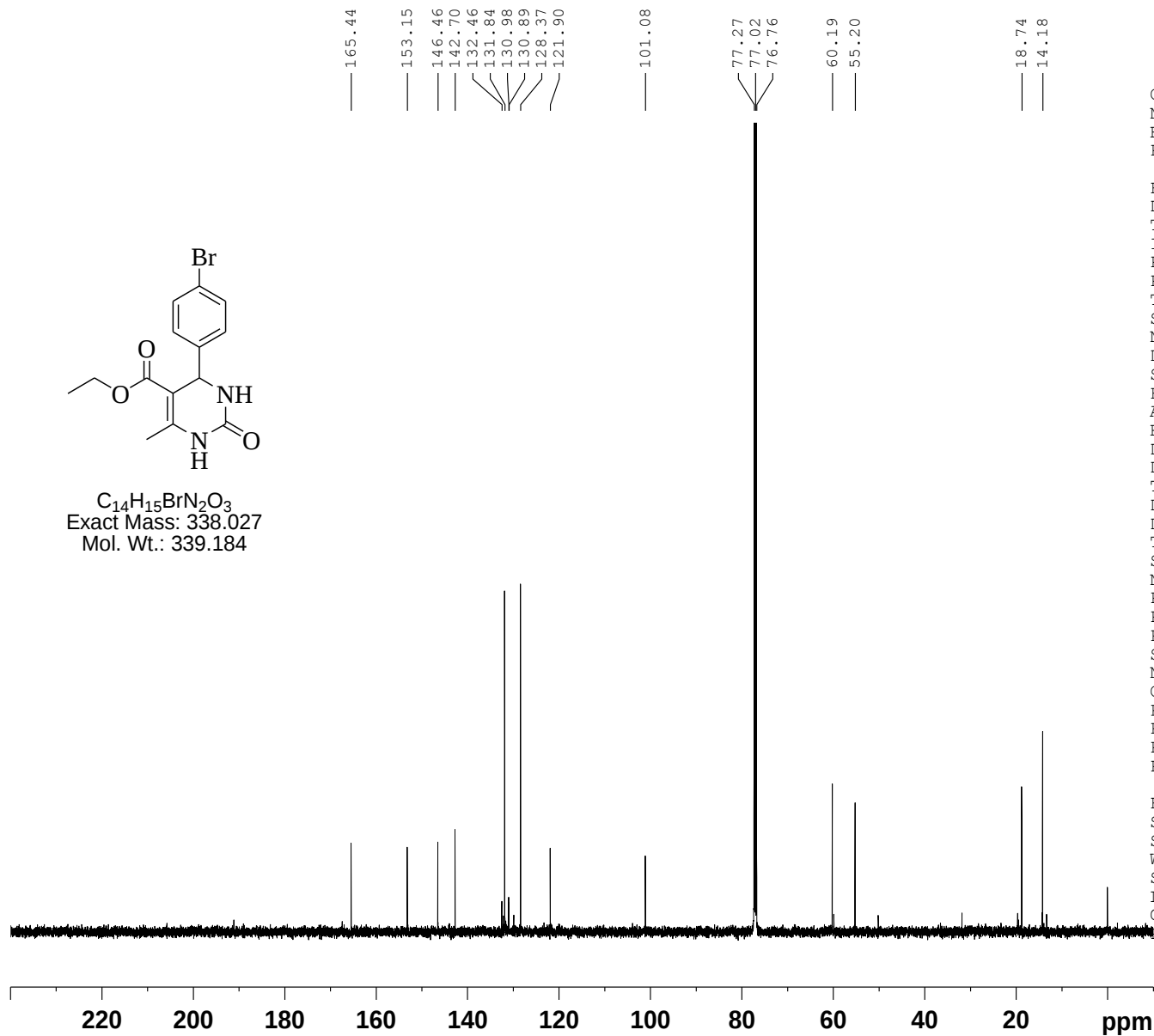
Date_ 20231111
 Time_ 19.38 h
 INSTRUM Avance Neo 500
 PROBHD Z119470_0333 (
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 1024
 DS 4
 SWH 37037.035 Hz
 FIDRES 1.130281 Hz
 AQ 0.8847360 sec
 RG 101
 DW 13.500 usec
 DE 6.50 usec
 TE 300.2 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1
 SFO1 125.7804233 MHz
 NUC1 13C
 P0 3.33 usec
 P1 10.00 usec
 PLW1 83.14099884 W
 SFO2 500.1720007 MHz
 NUC2 1H
 CPDPRG[2] waltz65
 PCPD2 80.00 usec
 PLW2 20.93000031 W
 PLW12 0.32703000 W
 PLW13 0.16449000 W

F2 - Processing parameters

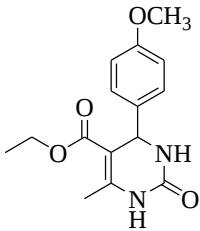
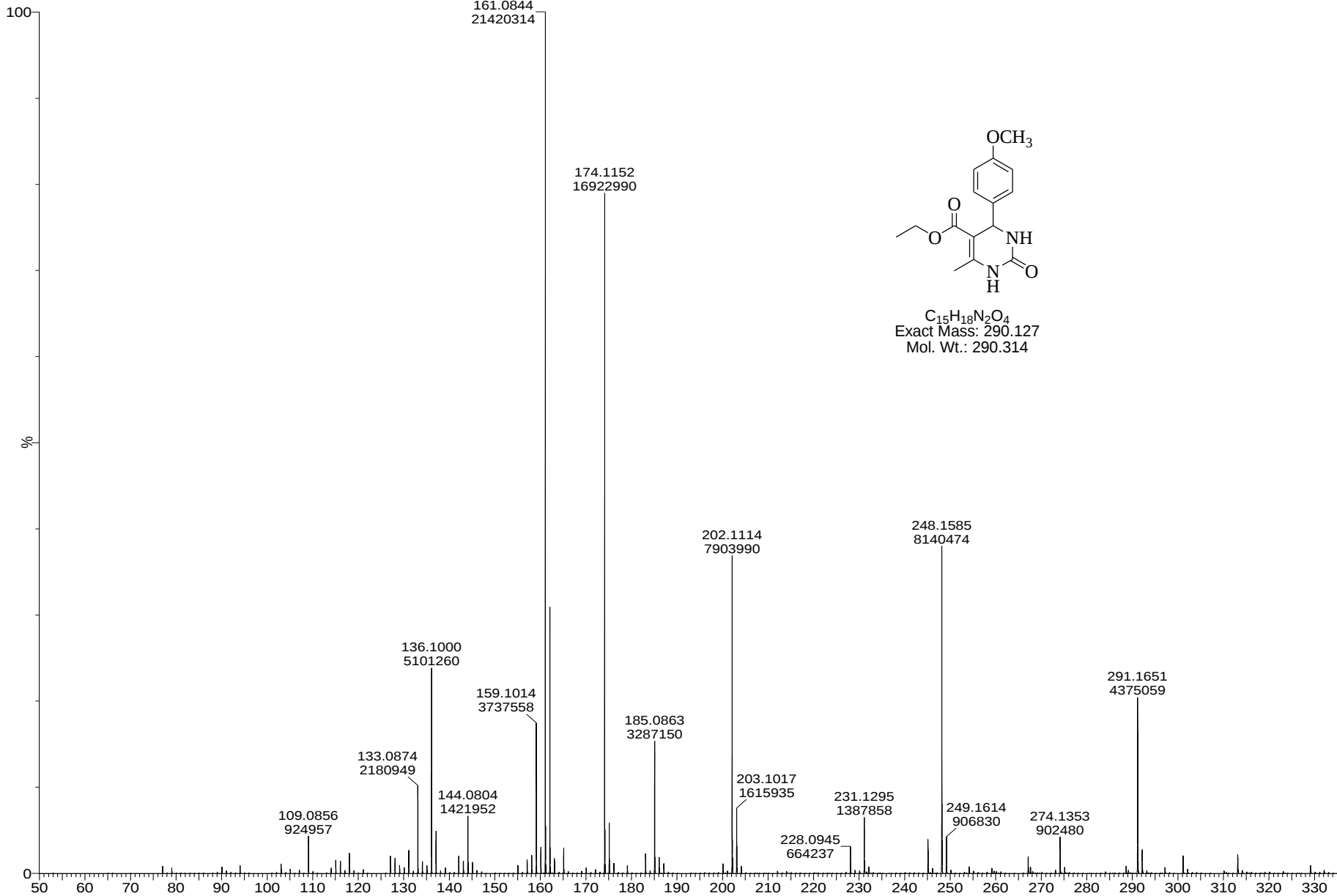
SI 32768
 SF 125.7678466 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40



C₁₄H₁₅BrN₂O₃
 Exact Mass: 338.027
 Mol. Wt.: 339.184

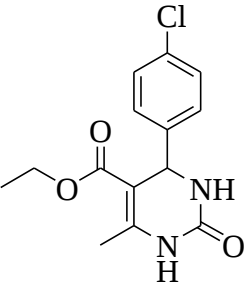
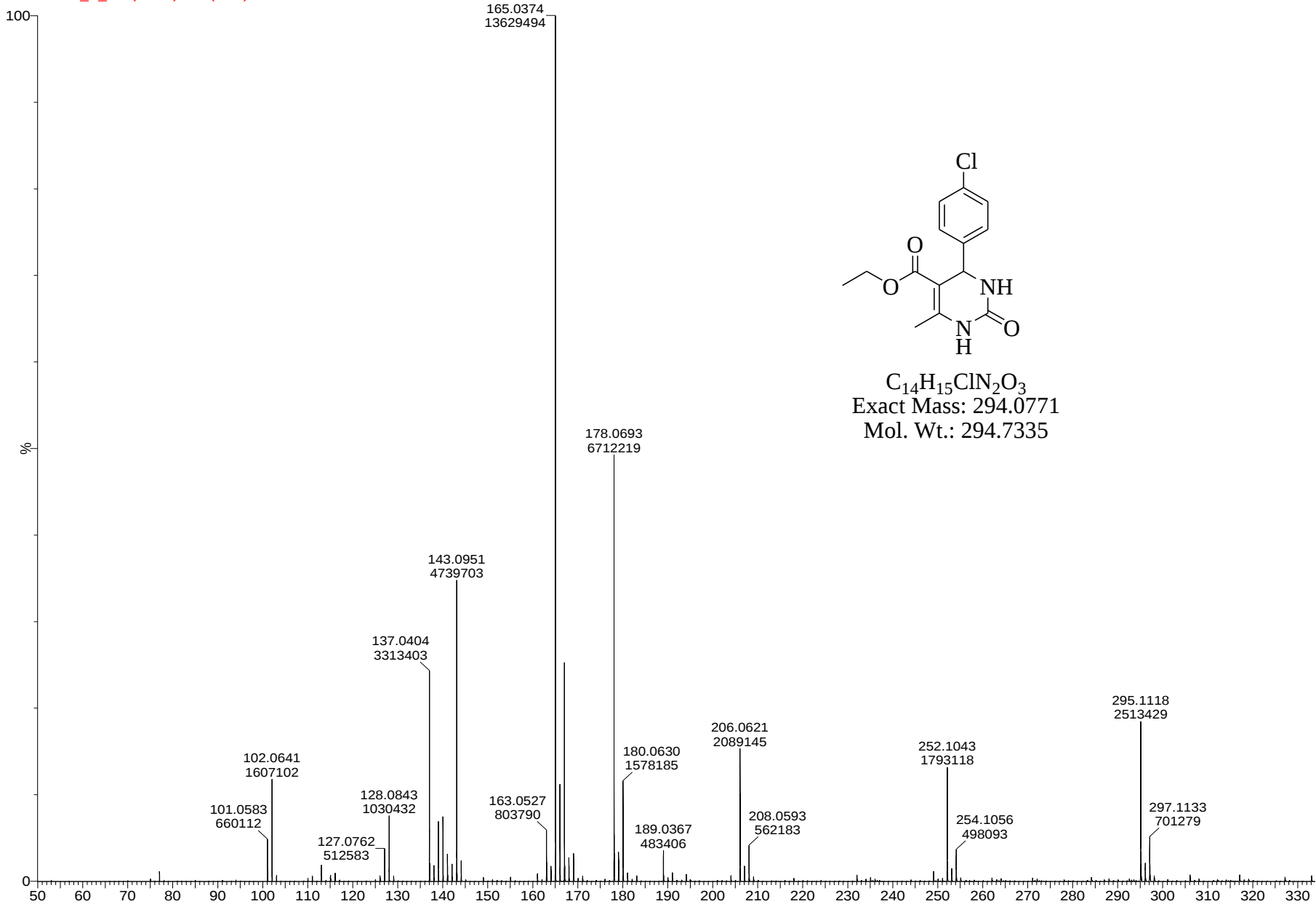


GOPINATH_P_3 9 (0.155) Cm (8:24)



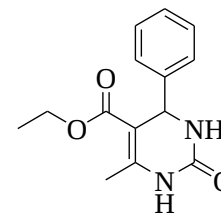
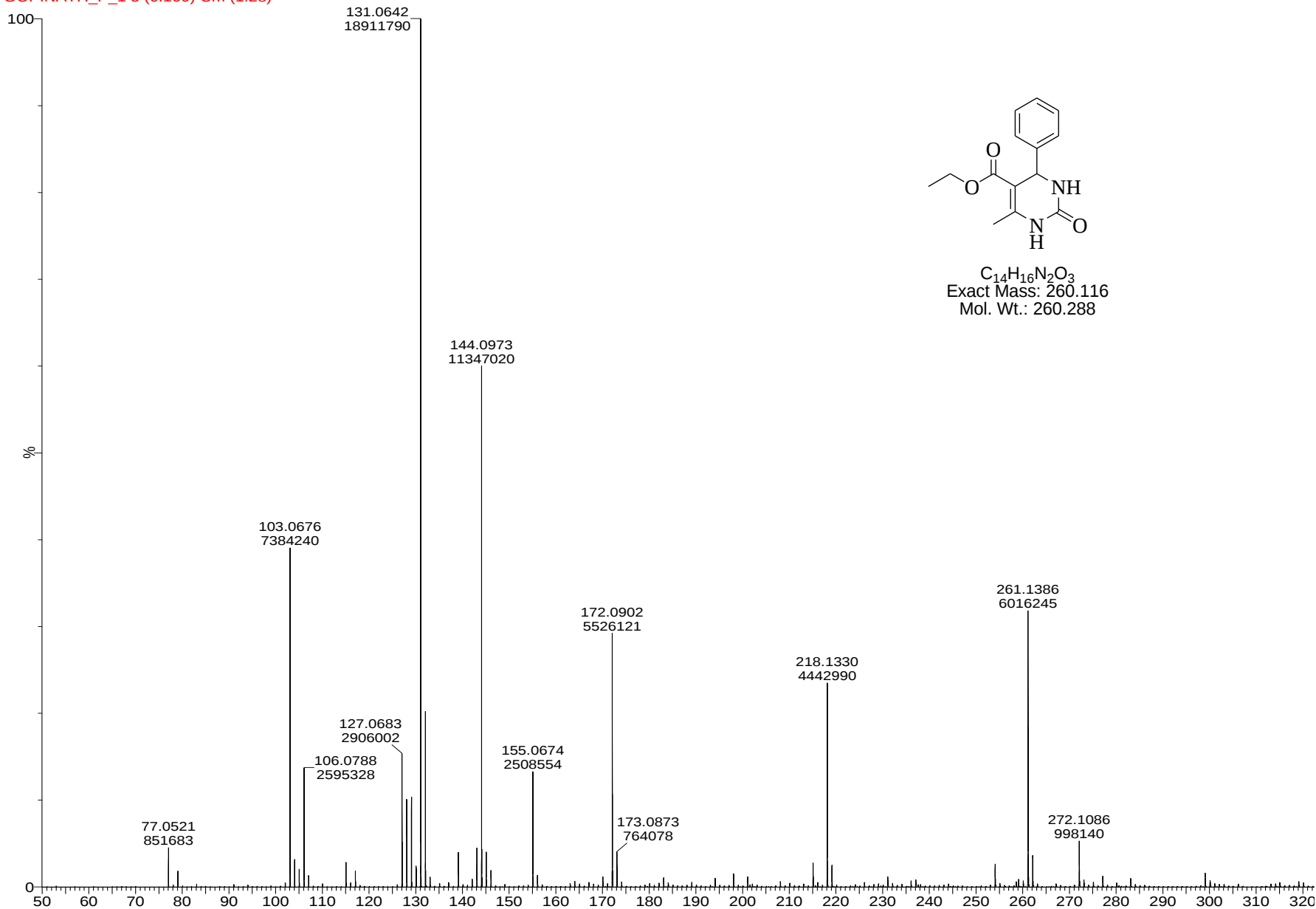
C₁₅H₁₈N₂O₄
Exact Mass: 290.127
Mol. Wt.: 290.314

GOPINATH_P_6 6 (0.114) Cm (1:17)

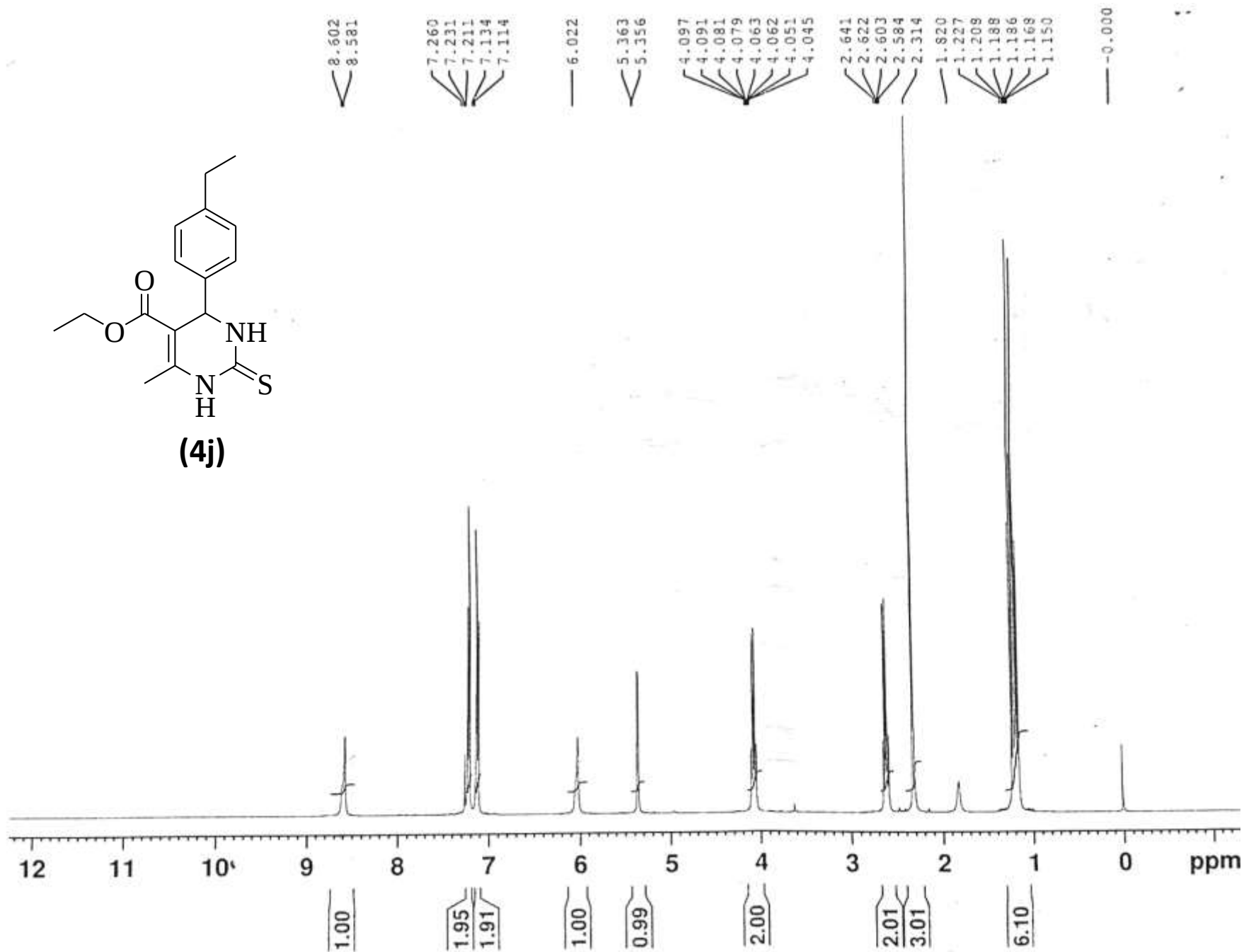
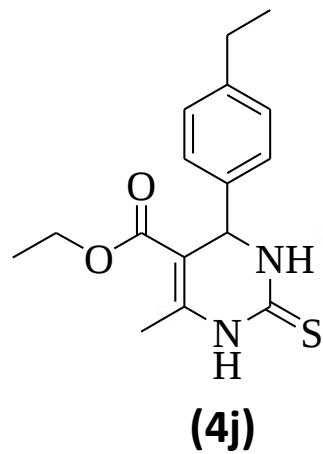


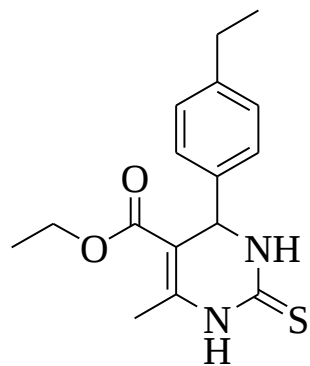
C₁₄H₁₅ClN₂O₃
Exact Mass: 294.0771
Mol. Wt.: 294.7335

GOPINATH_P_1 5 (0.100) Cm (1:28)



C₁₄H₁₆N₂O₃
Exact Mass: 260.116
Mol. Wt.: 260.288





(4j)

