

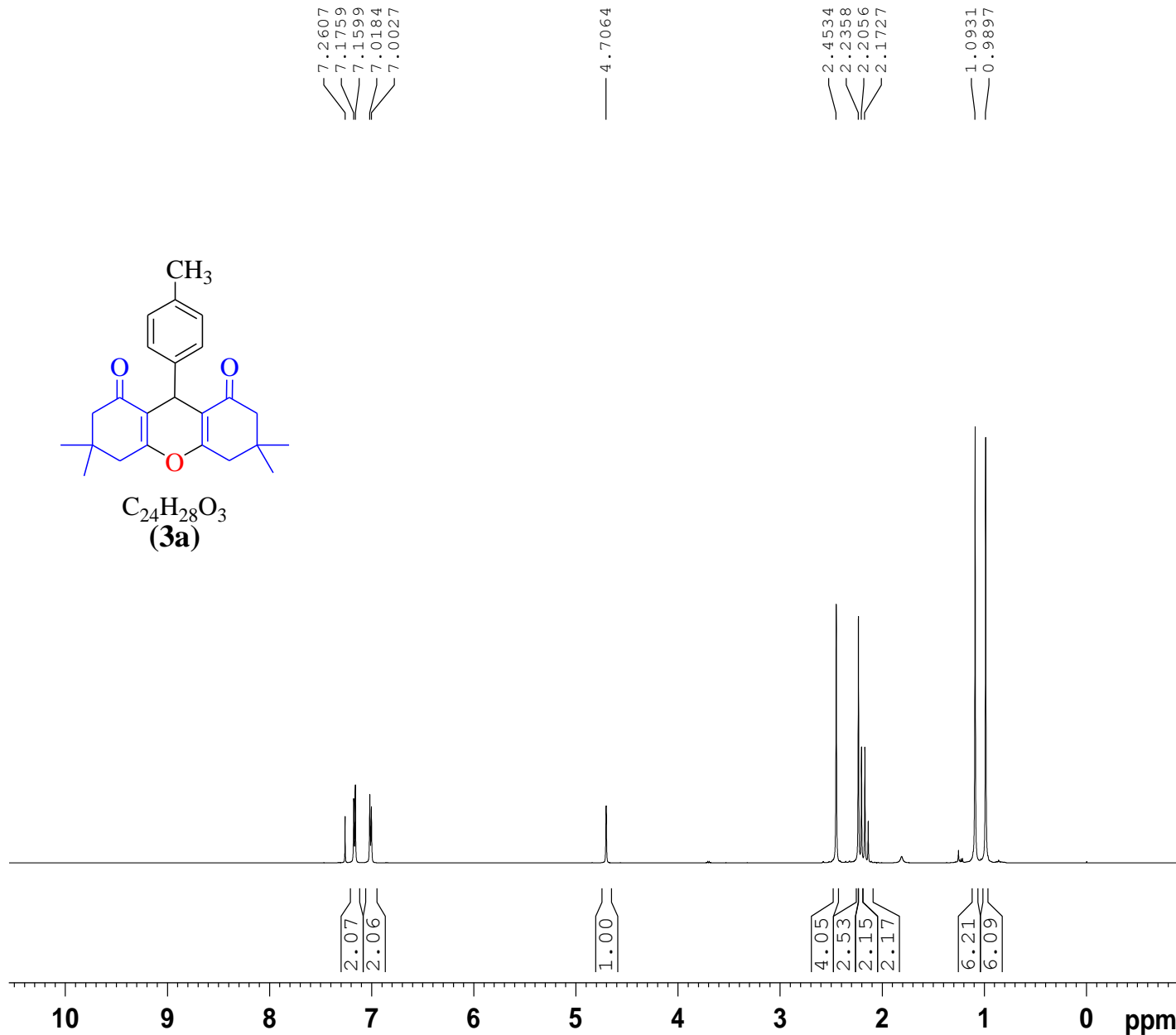
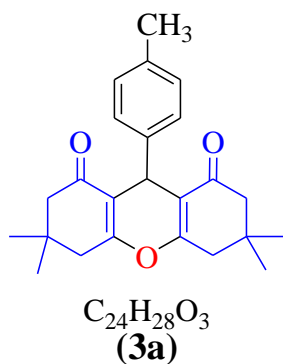
XD-CH3
1H_8scan CDC13 {D:\Spectra} nmr 18

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

Current Data Parameters
NAME Jan14-2022
EXPNO 180
PROCNO 1

F2 - Acquisition Parameters
Date_ 20220114
Time 20.37 h
INSTRUM Avance Neo 500
PROBHD Z119470_0333 (
PULPROG zg30
TD 65536
SOLVENT CDC13
NS 16
DS 0
SWH 14705.883 Hz
FIDRES 0.448788 Hz
AQ 2.2282240 sec
RG 65.7104
DW 34.000 usec
DE 6.79 usec
TE 300.2 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 500.1700117 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



XD-H

1H_8scan CDCl3 {D:\Spectra} nmr 17

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

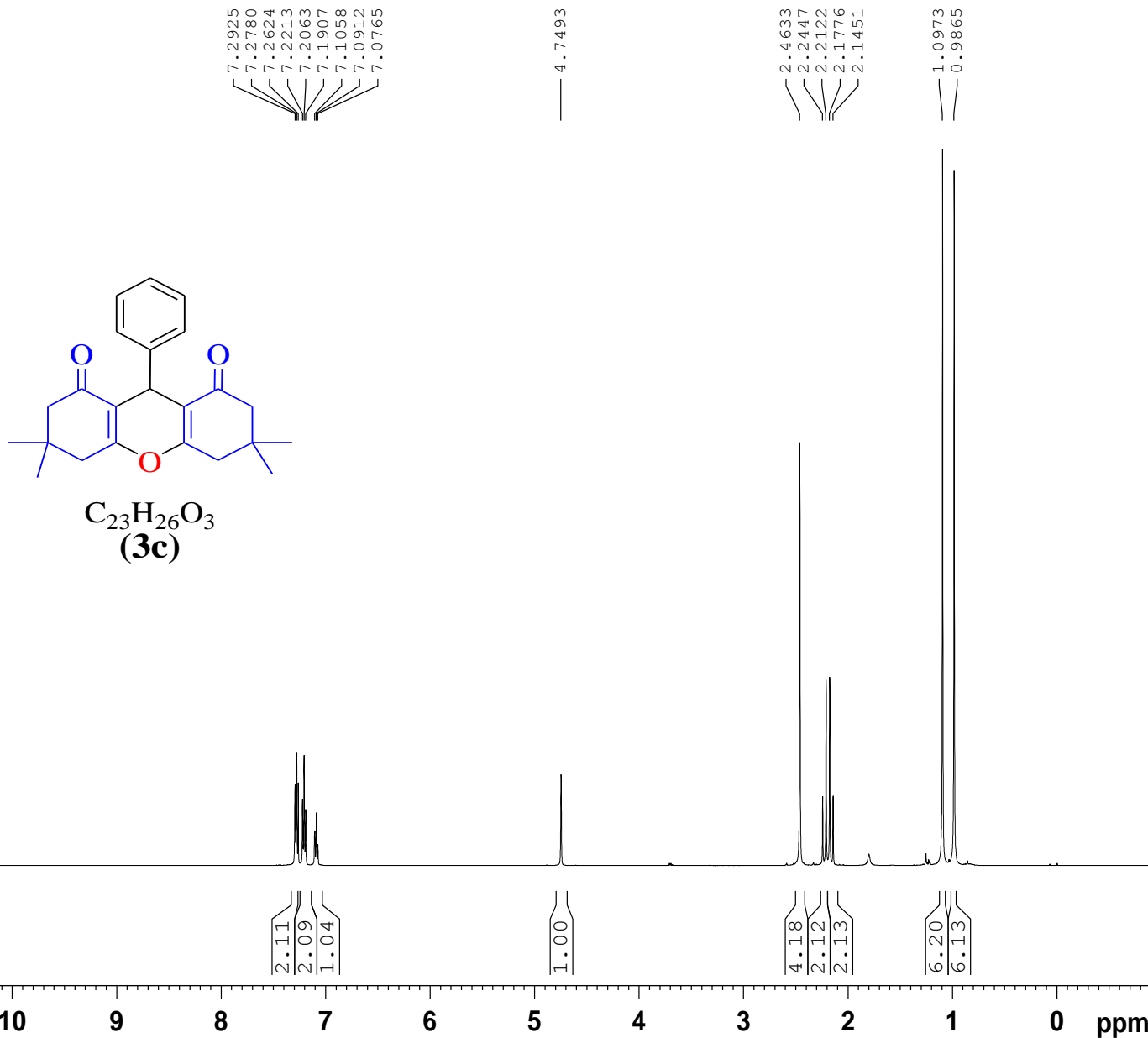
Current Data Parameters
NAME Jan14-2022
EXPNO 170
PROCNO 1

F2 - Acquisition Parameters

Date_ 20220114
Time_ 20.34 h
INSTRUM Avance Neo 500
PROBHD Z119470_0333 (
PULPROG zg30
TD 65536
SOLVENT CDCl3
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 500.1700108 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



X-4

1H_8scan CDCl3 {D:\Spectra} nmr 46

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

Current Data Parameters
NAME Jul01-2022
EXPNO 460
PROCNO 1

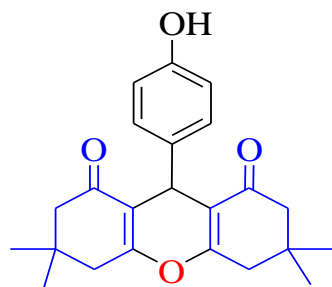
F2 - Acquisition Parameters

Date_ 20220703
Time_ 0.14 h
INSTRUM Avance Neo 500
PROBHD Z119470_0333 (
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 32
DS 0
SWH 14705.883 Hz
FIDRES 0.448788 Hz
AQ 2.282240 sec
RG 52.7314
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

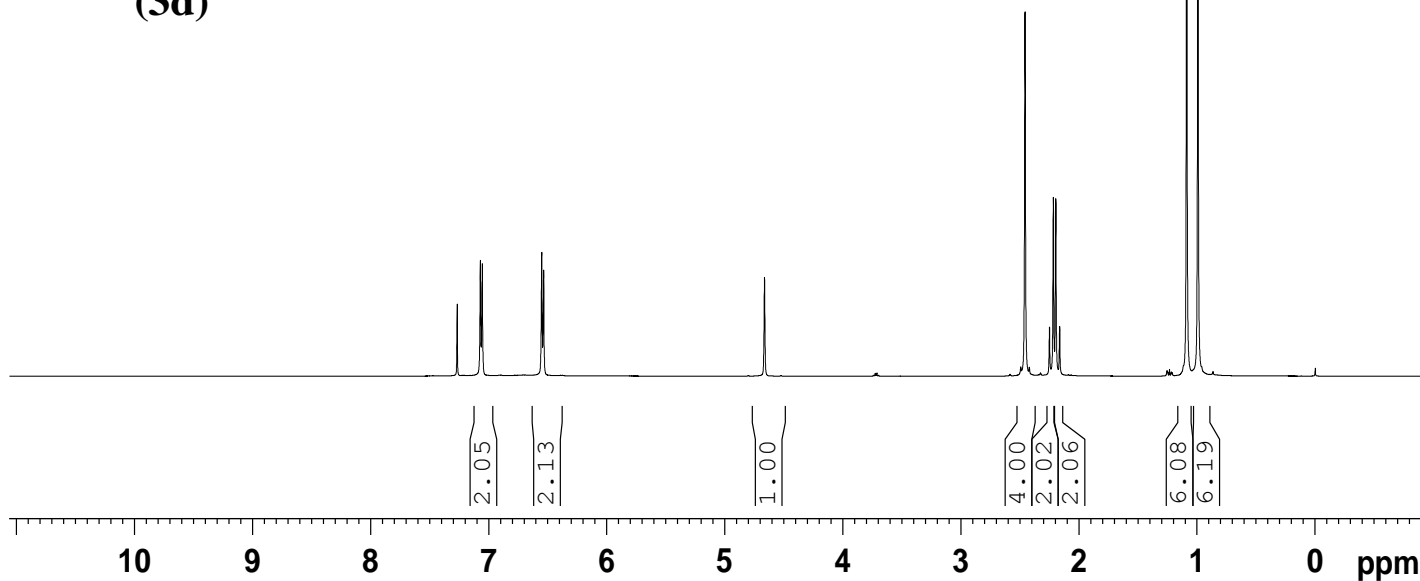
F2 - Processing parameters

SI 65536
SF 500.1700085 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

7.2658
7.0709
7.0540
6.5514
6.5344
4.6639
2.4594
2.2520
2.2194
2.1984
2.1657
1.0892
0.9944



C₂₃H₂₆O₄
(3d)



X-6

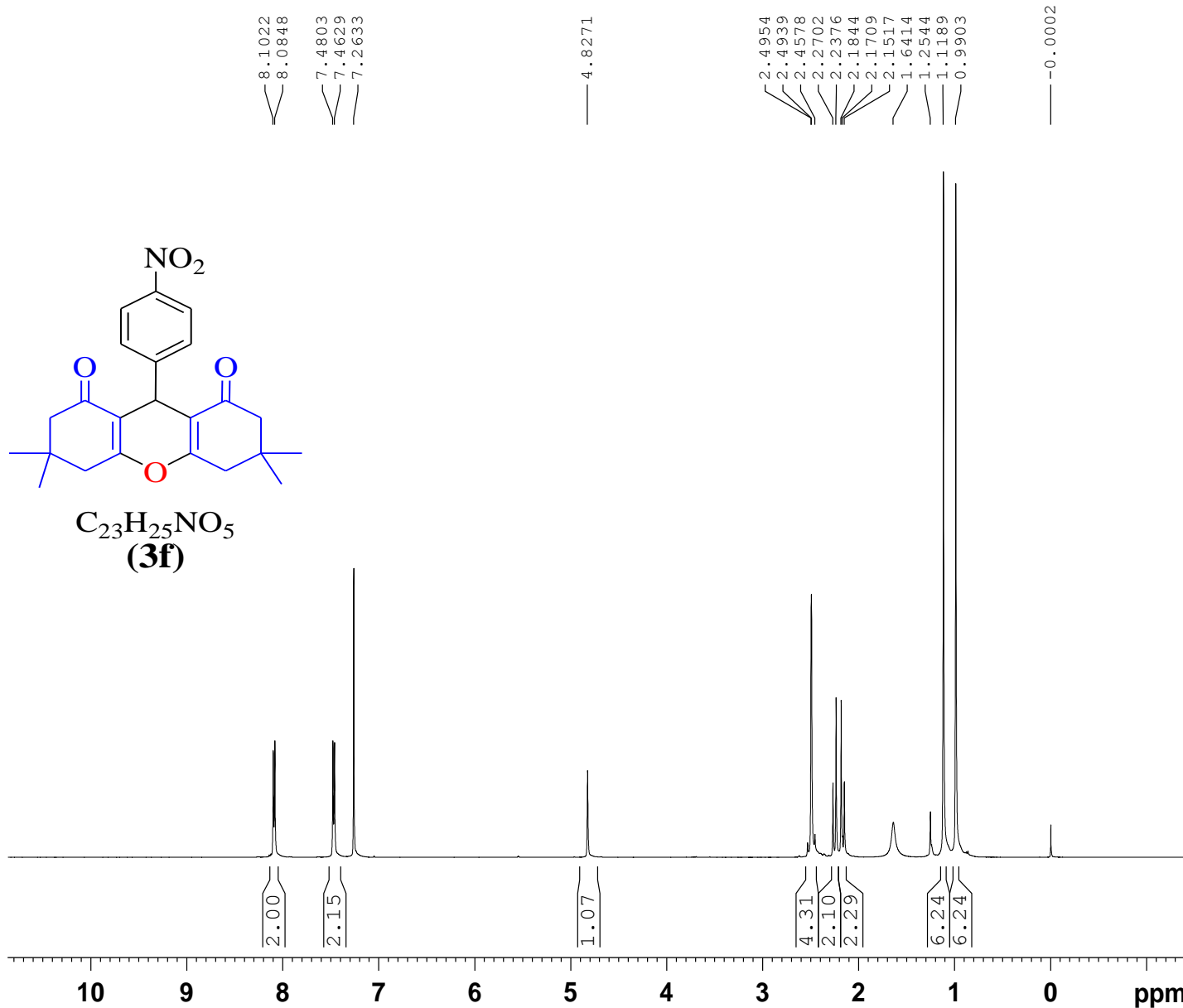
1H_8scan CDC13 {D:\Spectra} nmr 39

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

Current Data Parameters
NAME Jul01-2022
EXPNO 390
PROCNO 1

F2 - Acquisition Parameters
Date_ 20220702
Time_ 23.48 h
INSTRUM Avance Neo 500
PROBHD Z119470_0333 (
PULPROG zg30
TD 65536
SOLVENT CDC13
NS 32
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 500.1700105 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



X-9

1H_8scan CDCl3 {D:\Spectra} nmr 47

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

Current Data Parameters
NAME Jul01-2022
EXPNO 470
PROCNO 1

F2 - Acquisition Parameters

Date_ 20220703
Time 1.08 h
INSTRUM Avance Neo 500
PROBHD Z119470_0333 (
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 32
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 500.1700100 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

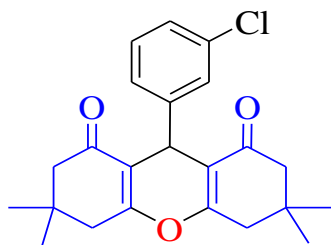
7.2629
7.2474
7.2340
7.2321
7.2115
7.2084
7.1637
7.1480
7.1326
7.0899
7.0877
7.0863
7.0740
7.0719

4.7261

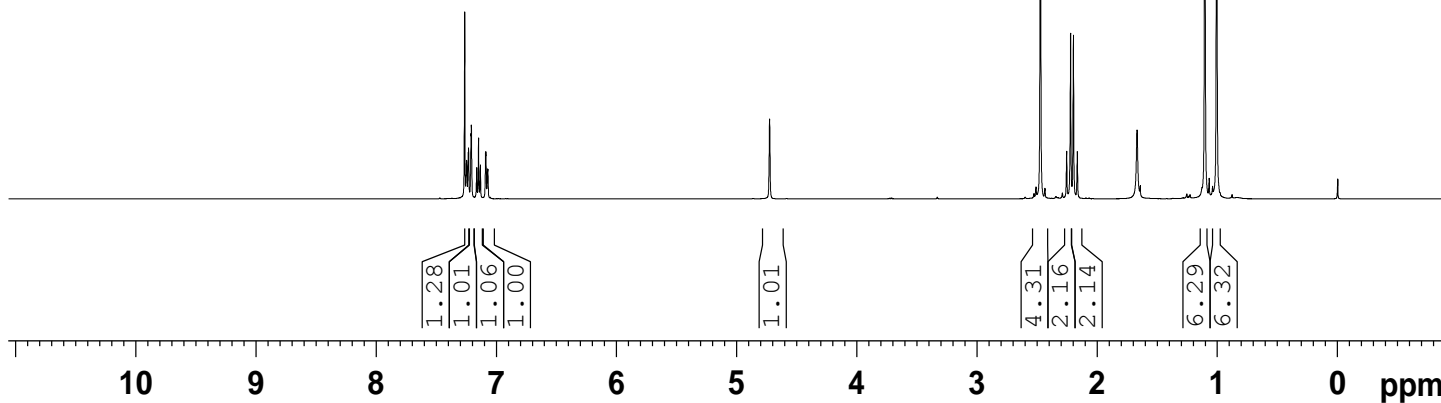
2.4753
2.2560
2.2235
2.1998
2.1673
1.6707

1.1056
1.0697
1.0070

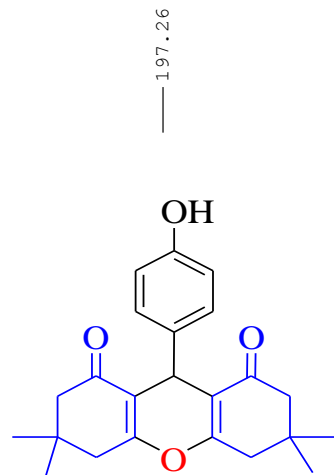
-0.0002



$C_{23}H_{25}ClO_3$
(3i)

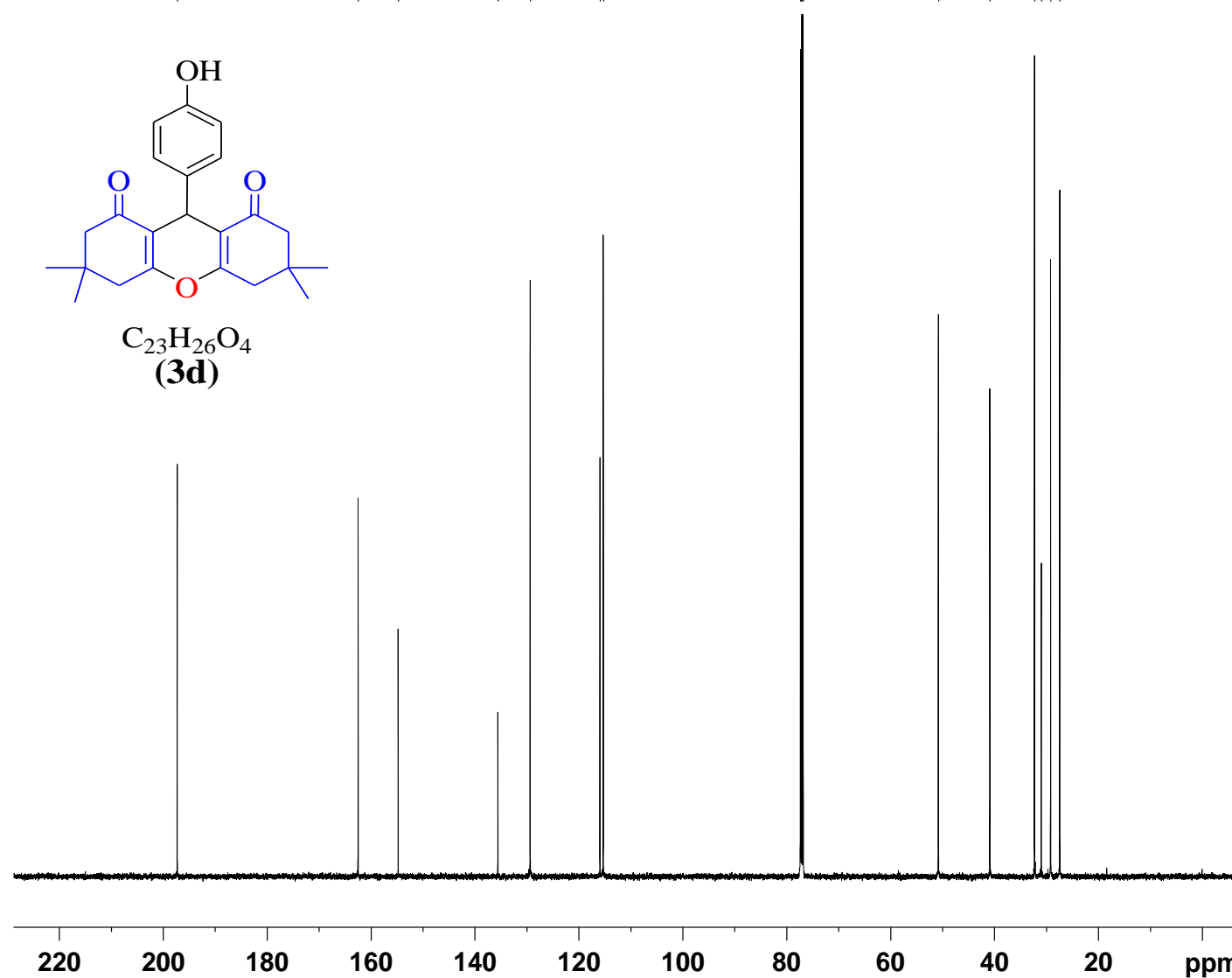


X-4
C13CPD CDC13 {D:\Spectra} nmr 46



C₂₃H₂₆O₄
(3d)

197.26
162.45
154.74
135.55
129.34
115.90
115.27
77.31
77.26
77.05
76.80
50.77
40.86
32.27
30.96
29.16
27.41



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

Current Data Parameters
NAME Jul01-2022
EXPNO 461
PROCNO 1

F2 - Acquisition Parameters
Date_ 20220703
Time_ 1.05 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 125.7678465 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

X-9

C13CPD CDC13 {D:\Spectra} nmr 47

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

Current Data Parameters

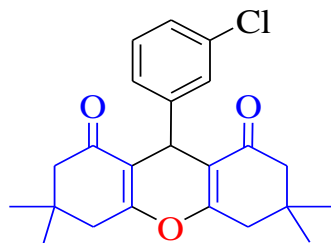
NAME Jul01-2022
EXPNO 471
PROCNO 1

F2 - Acquisition Parameters

Date_ 20220703
Time 1.59 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

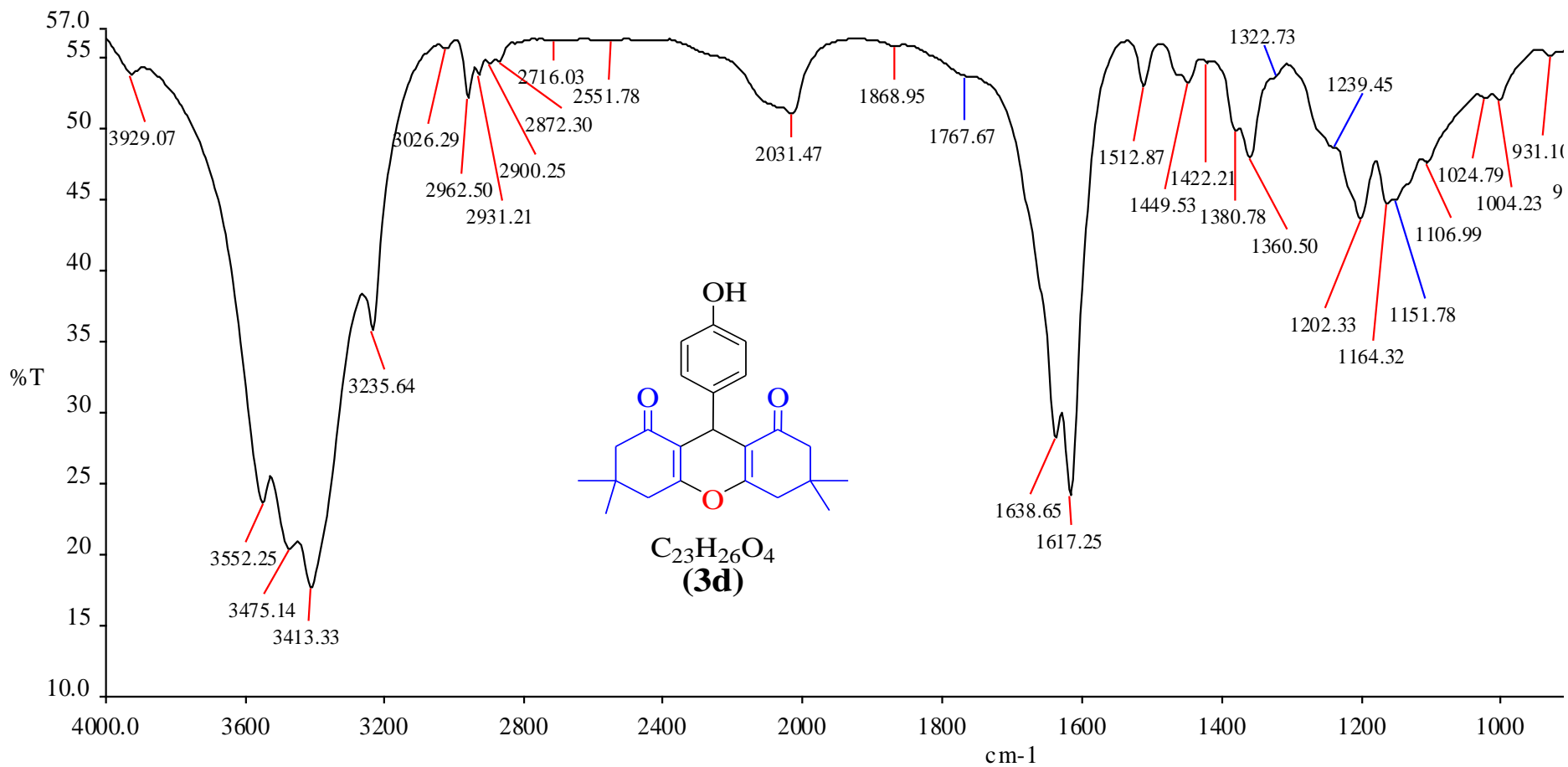
F2 - Processing parameters

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

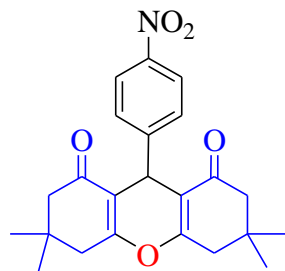


$C_{23}H_{25}ClO_3$
(3i)

220 200 180 160 140 120 100 80 60 40 20 ppm



GOPINATH_X_6 5 (0.121) Cm (4:6)



$C_{23}H_{25}NO_5$
Exact Mass: 395.173
(3f)

