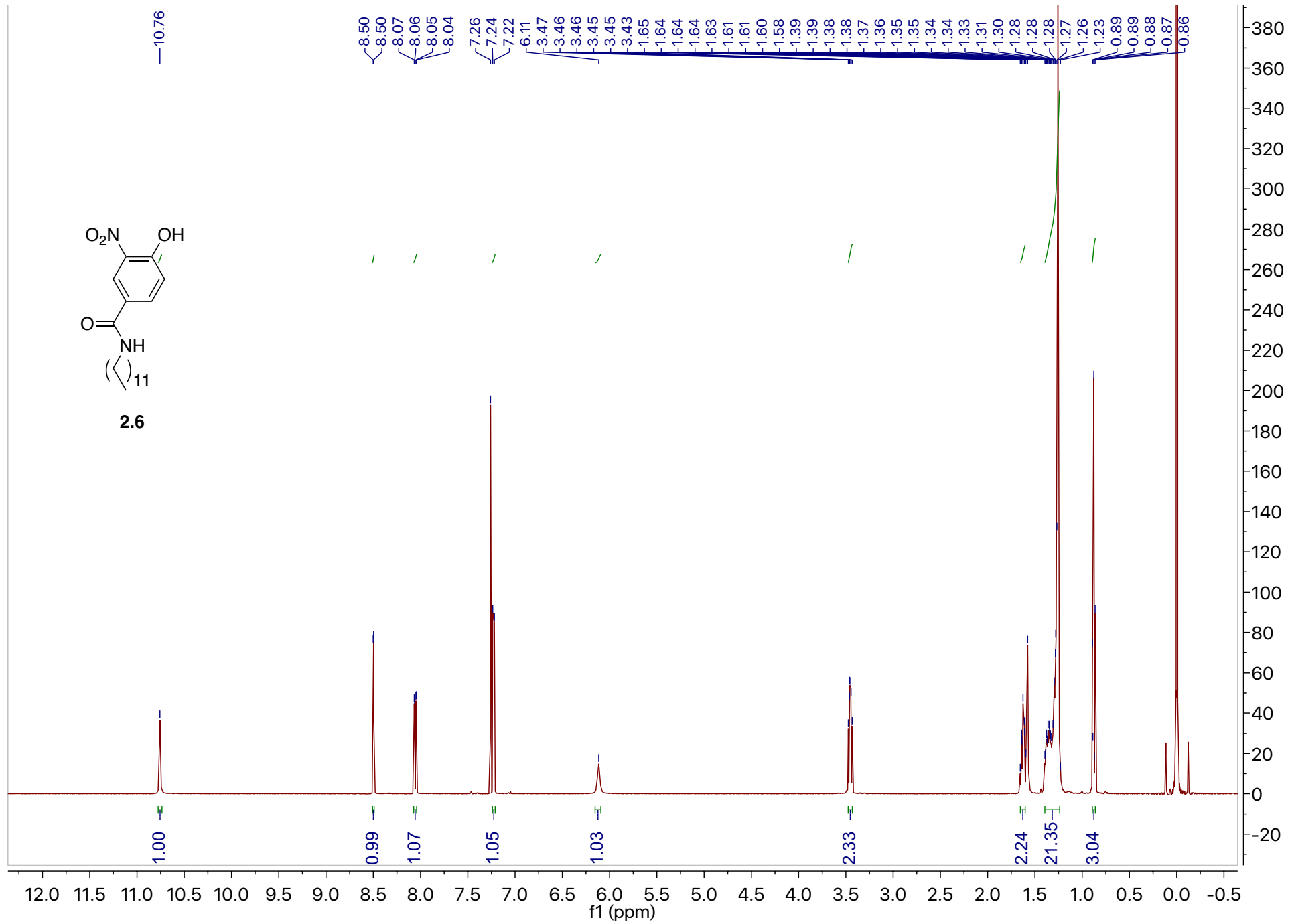
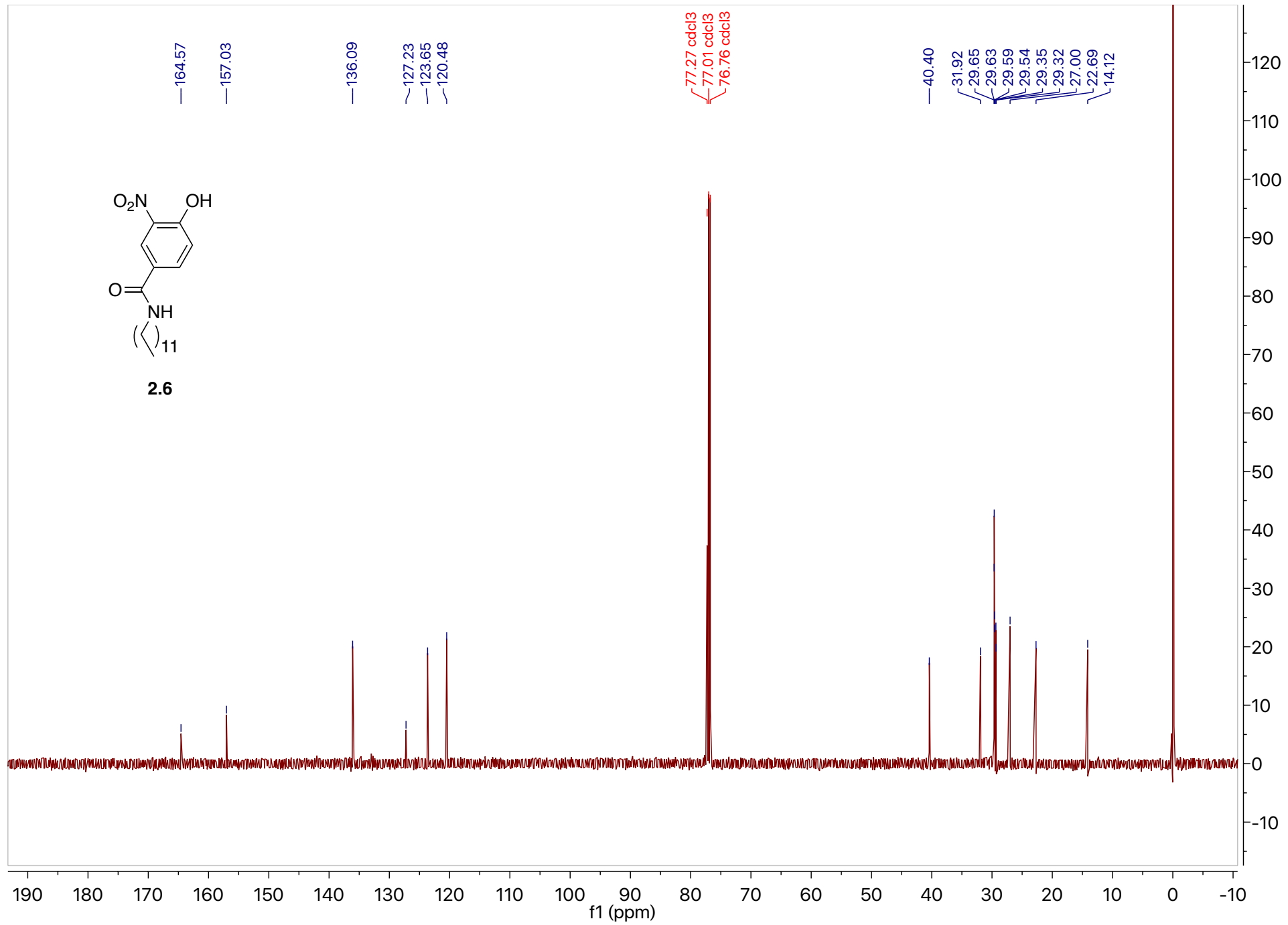
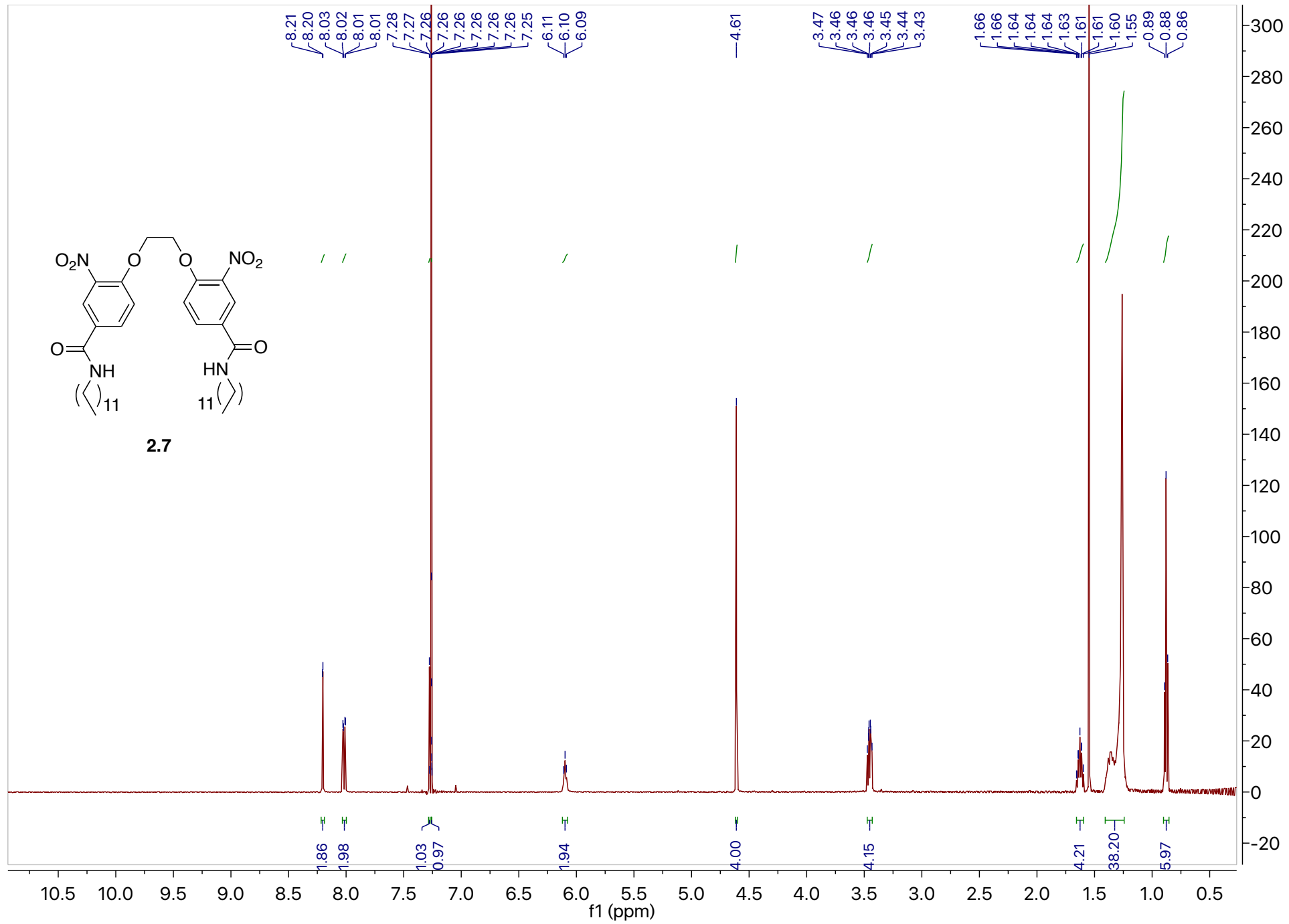
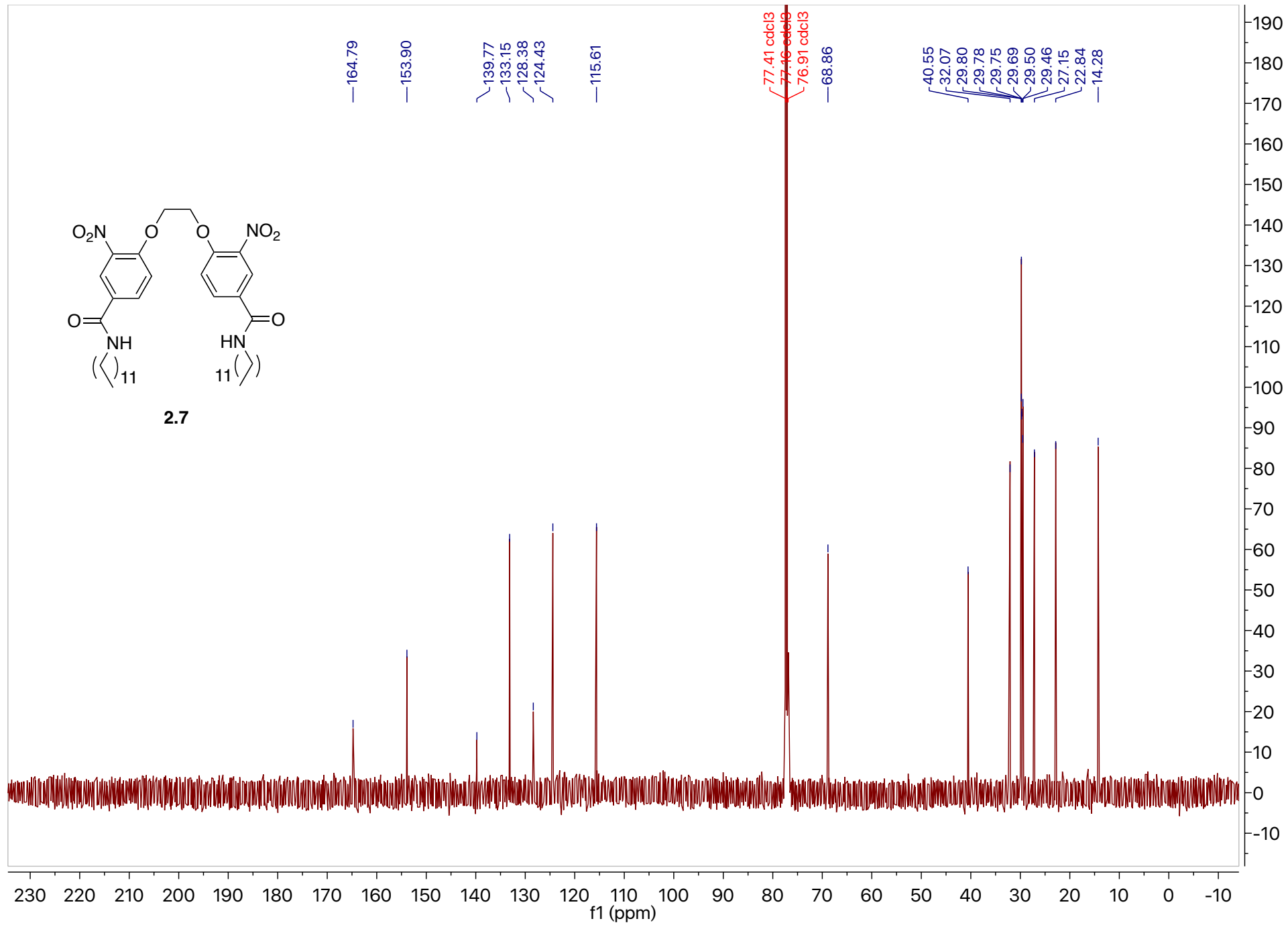
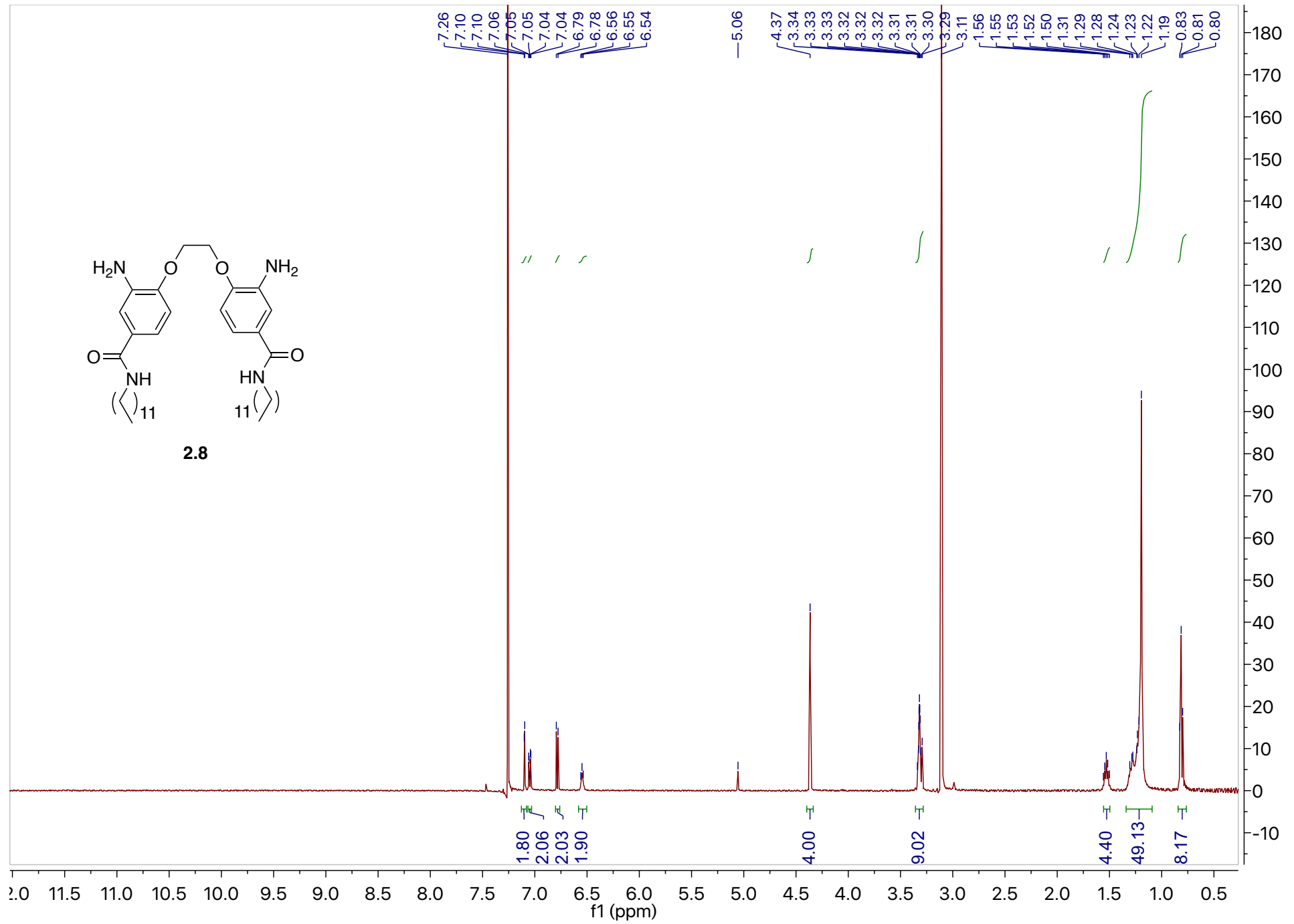


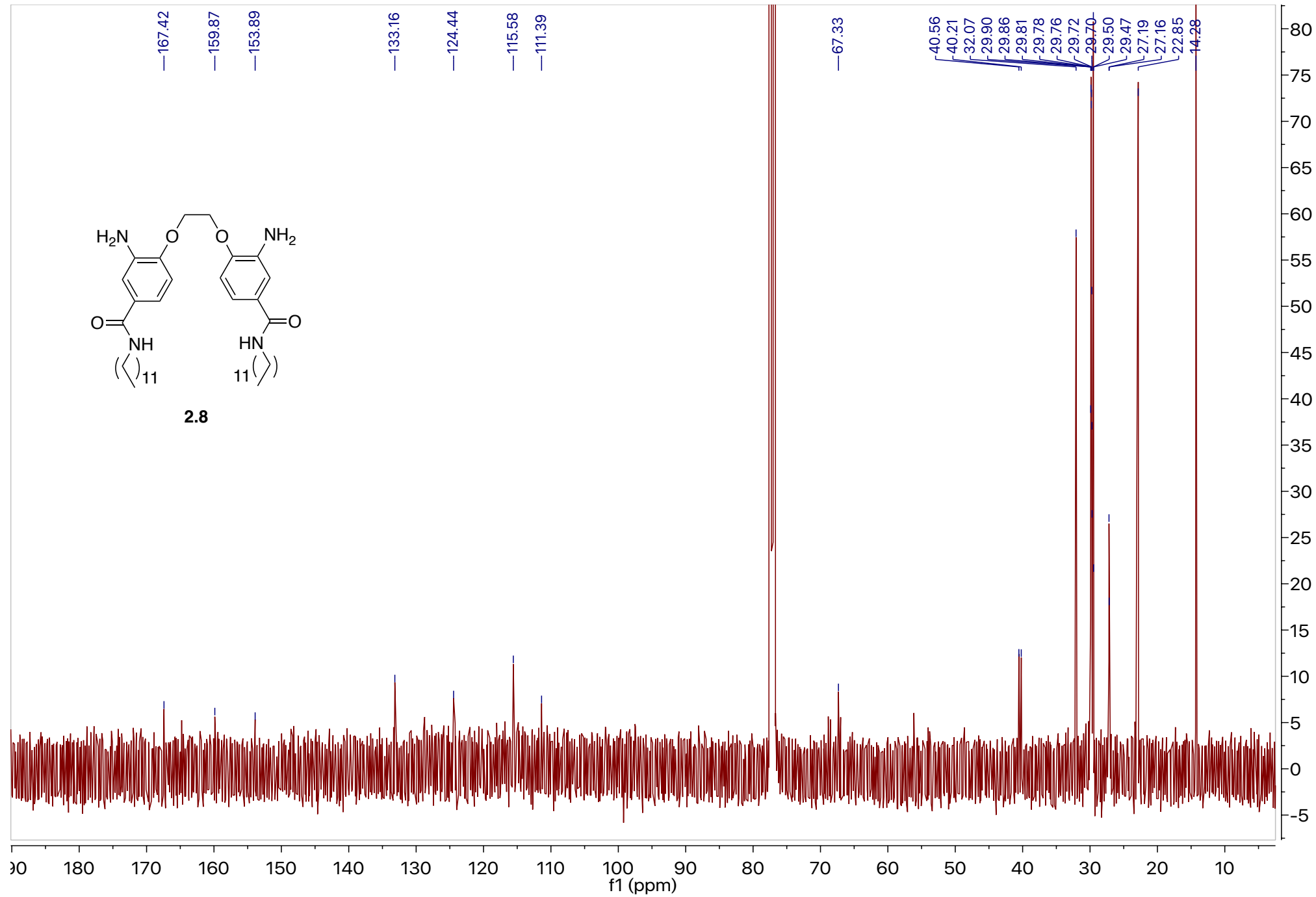


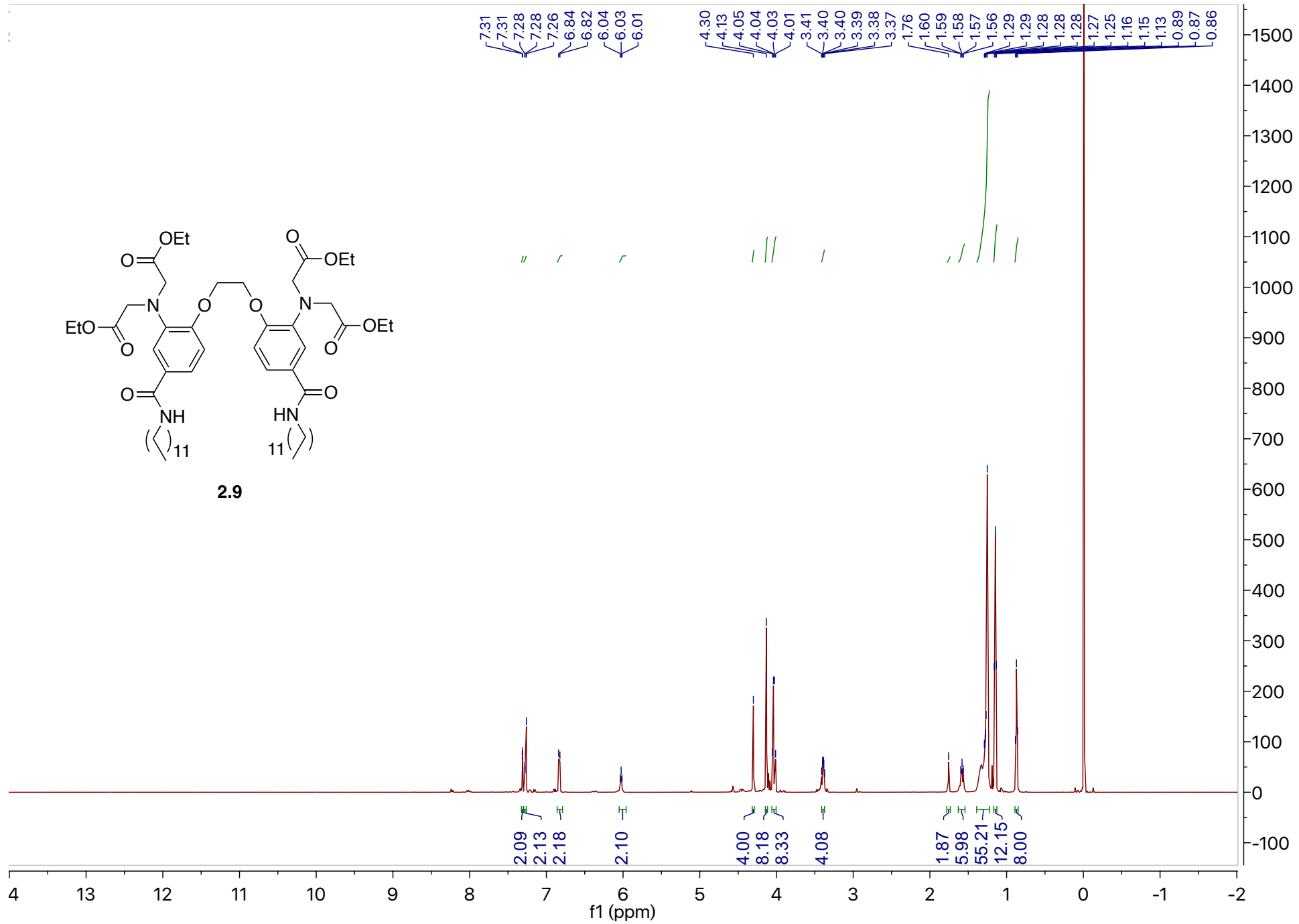


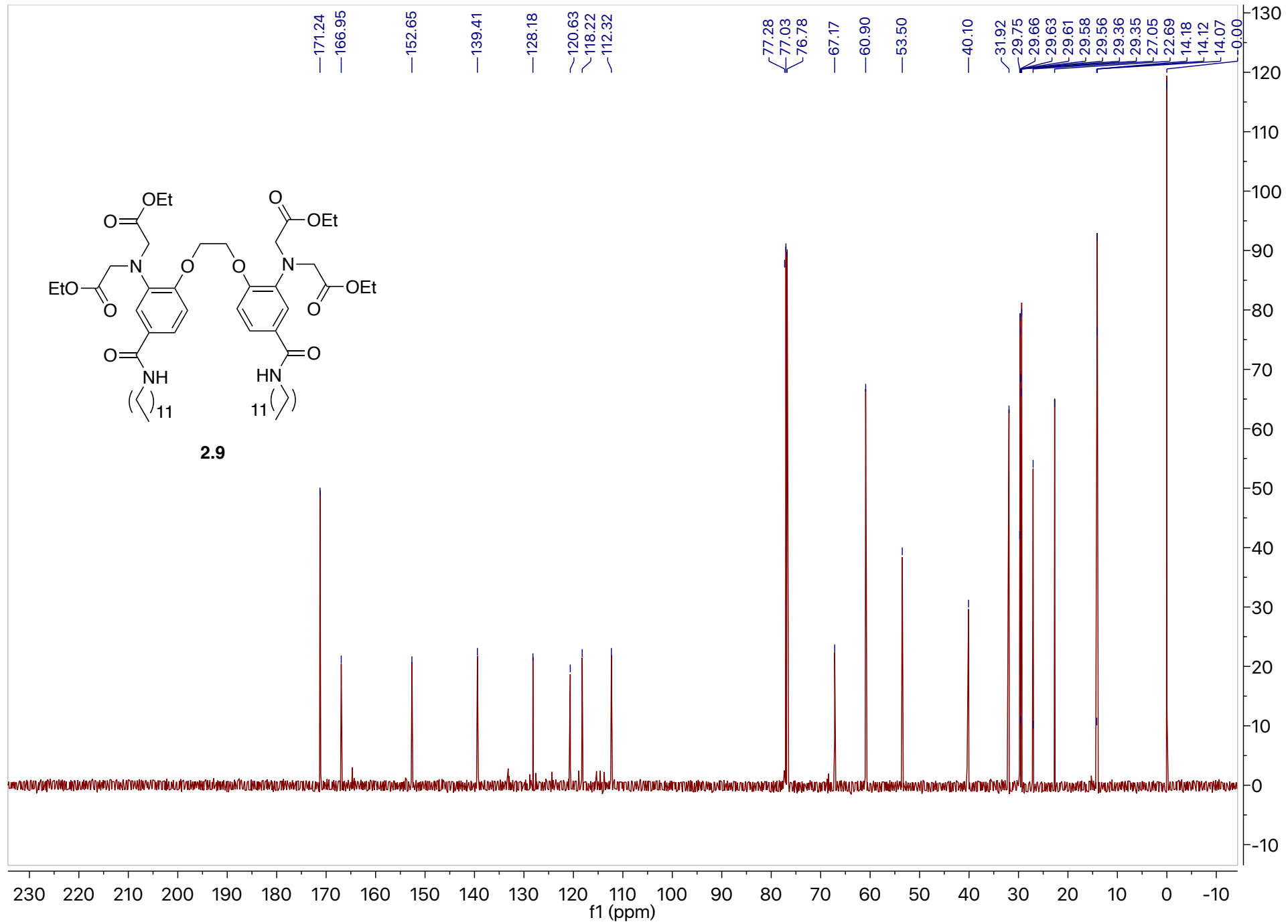


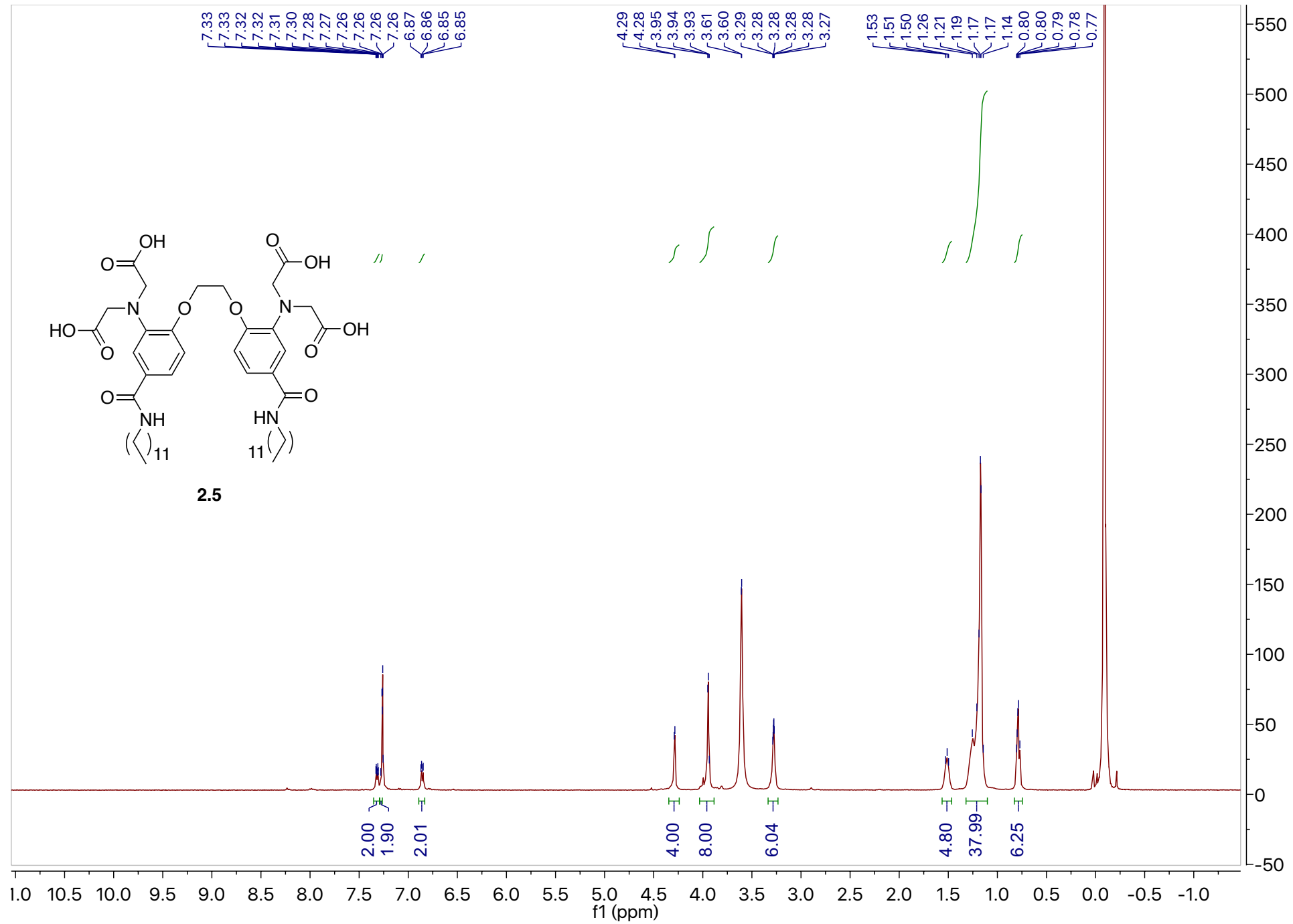


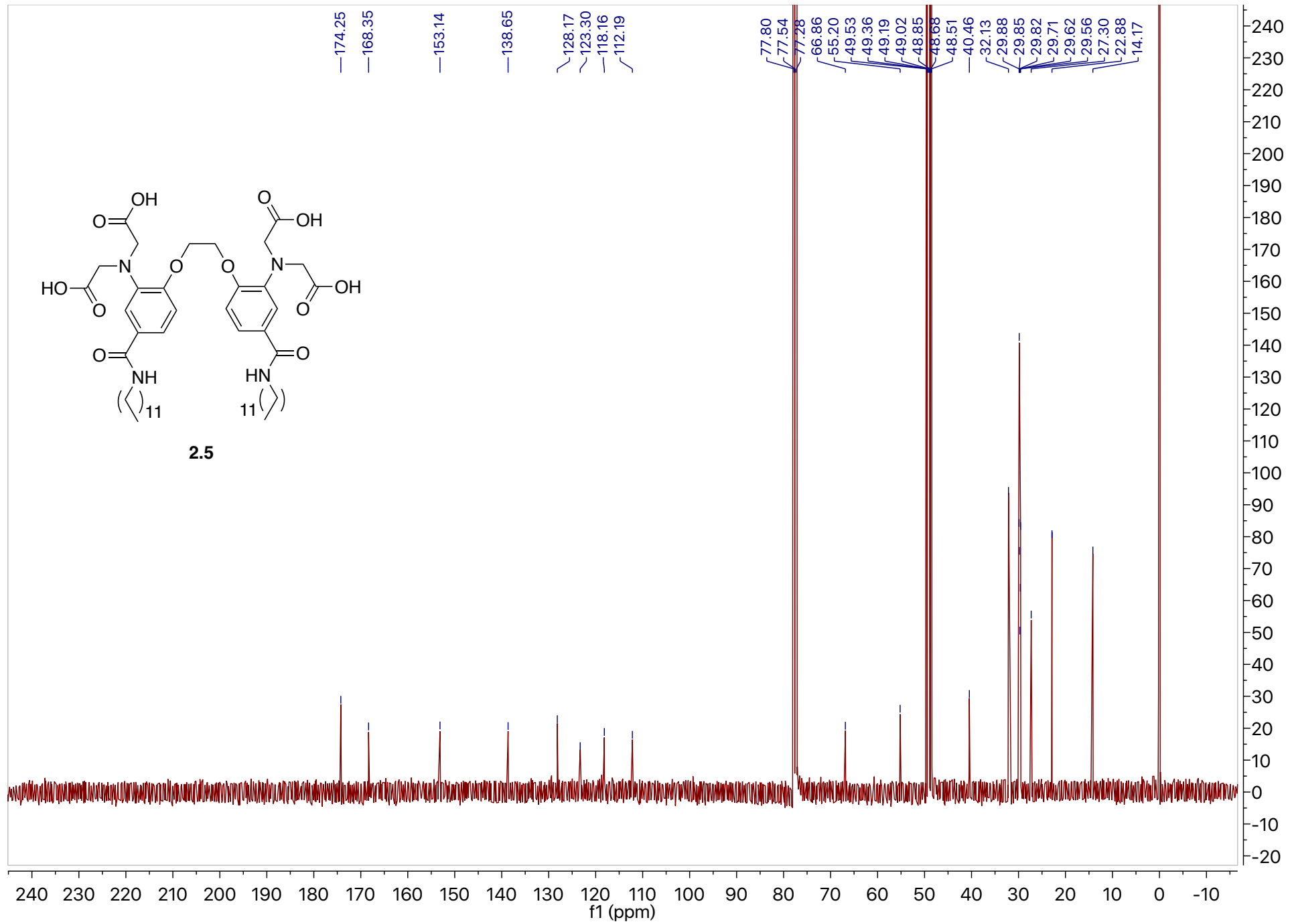


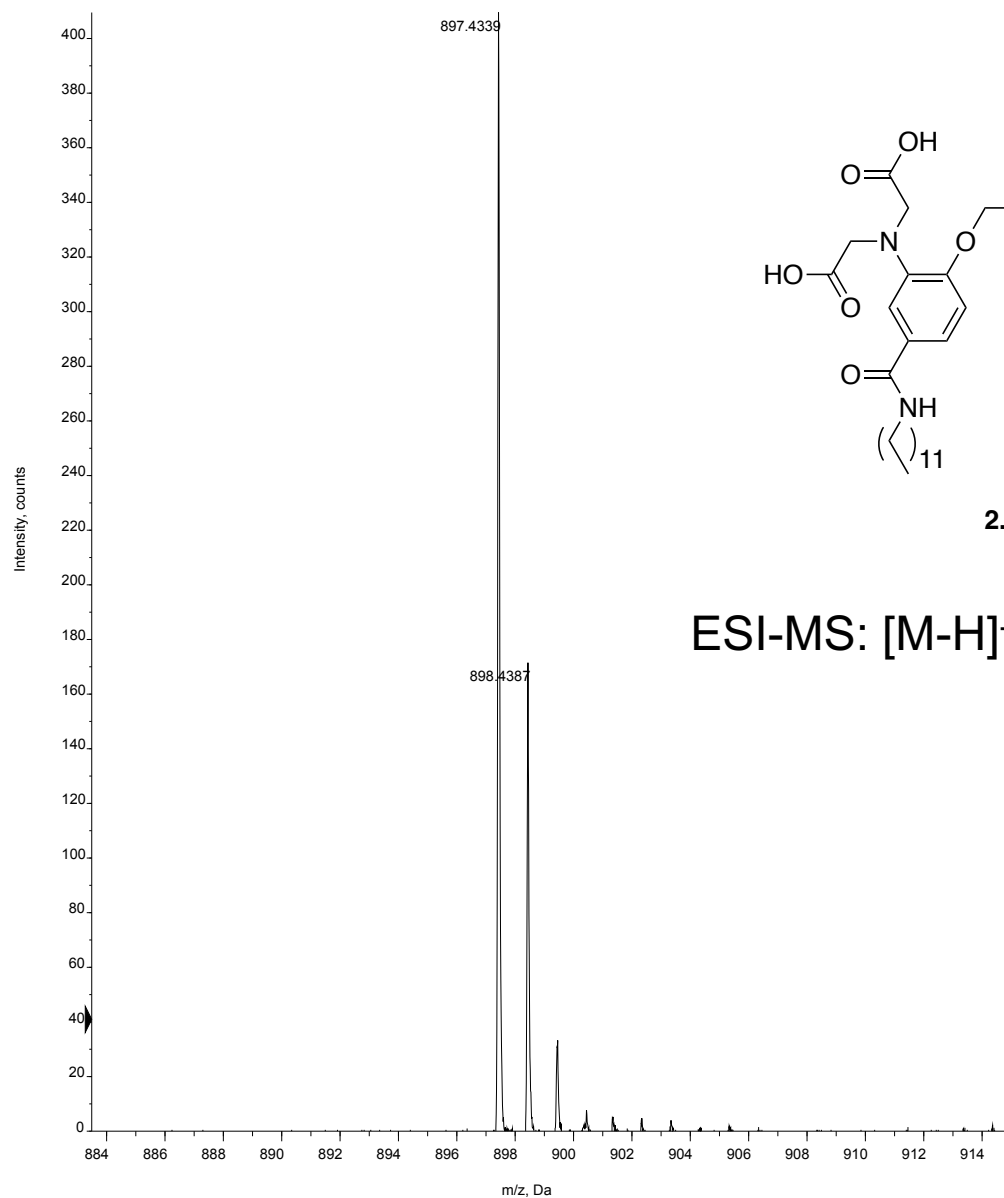




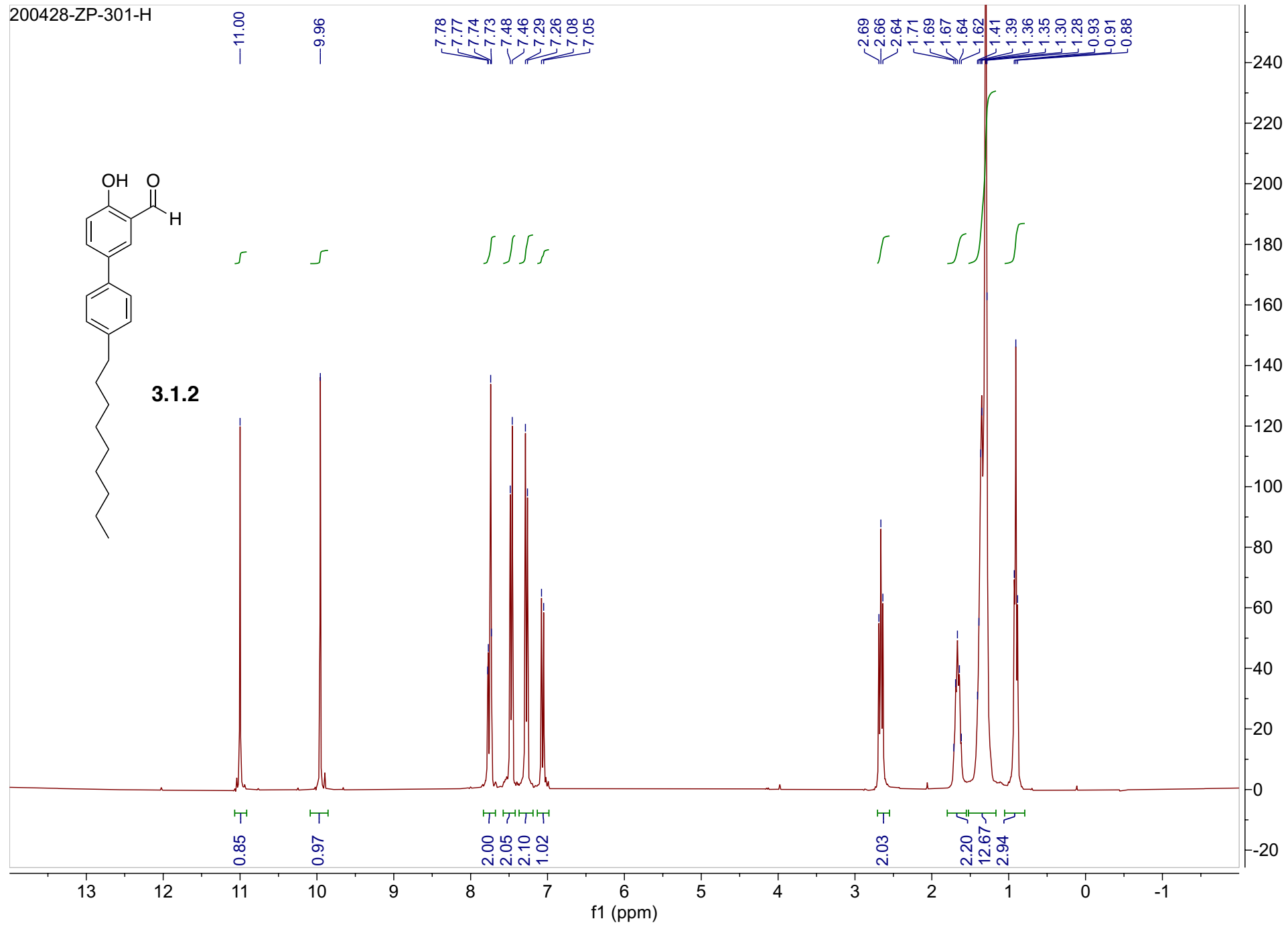


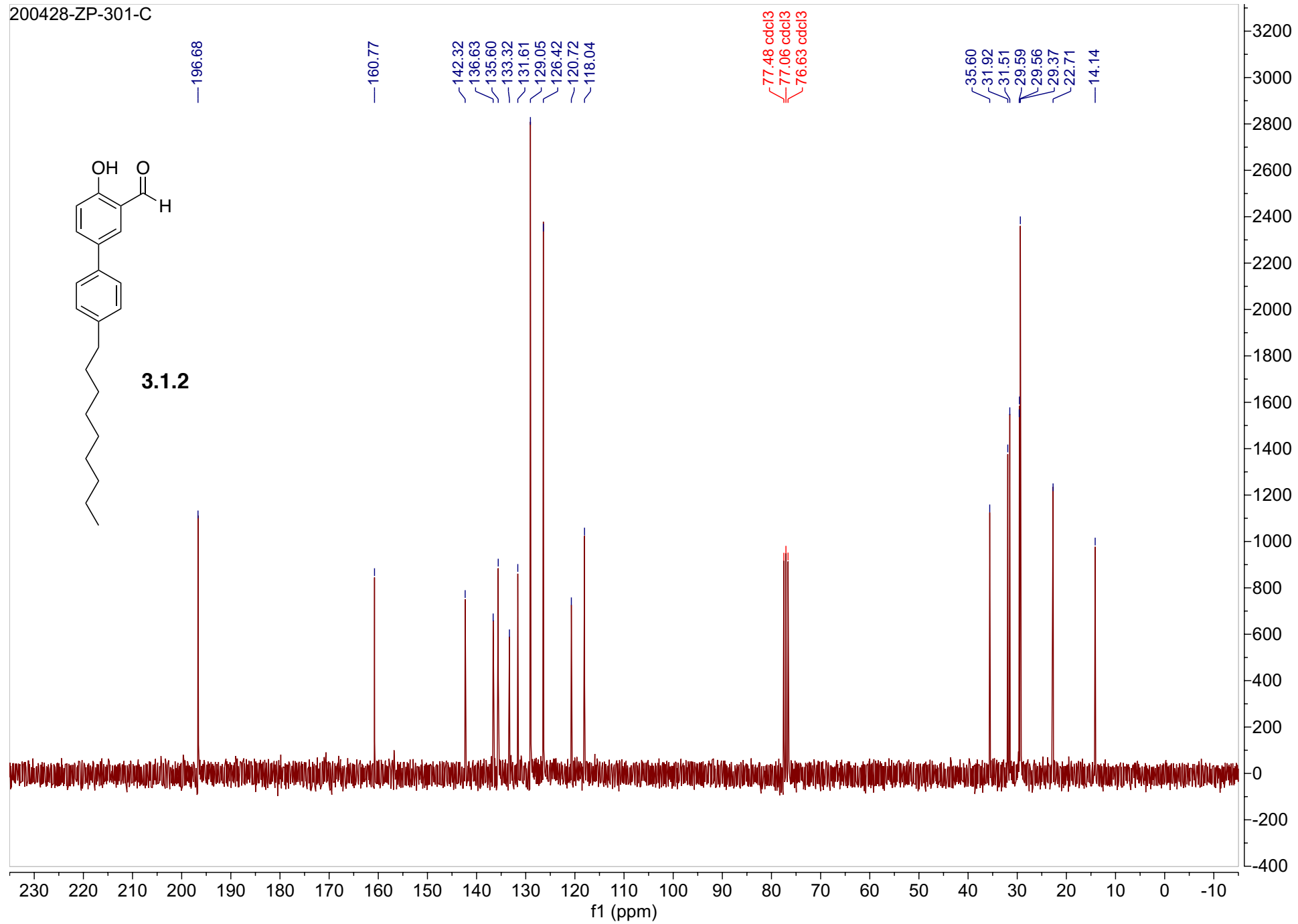


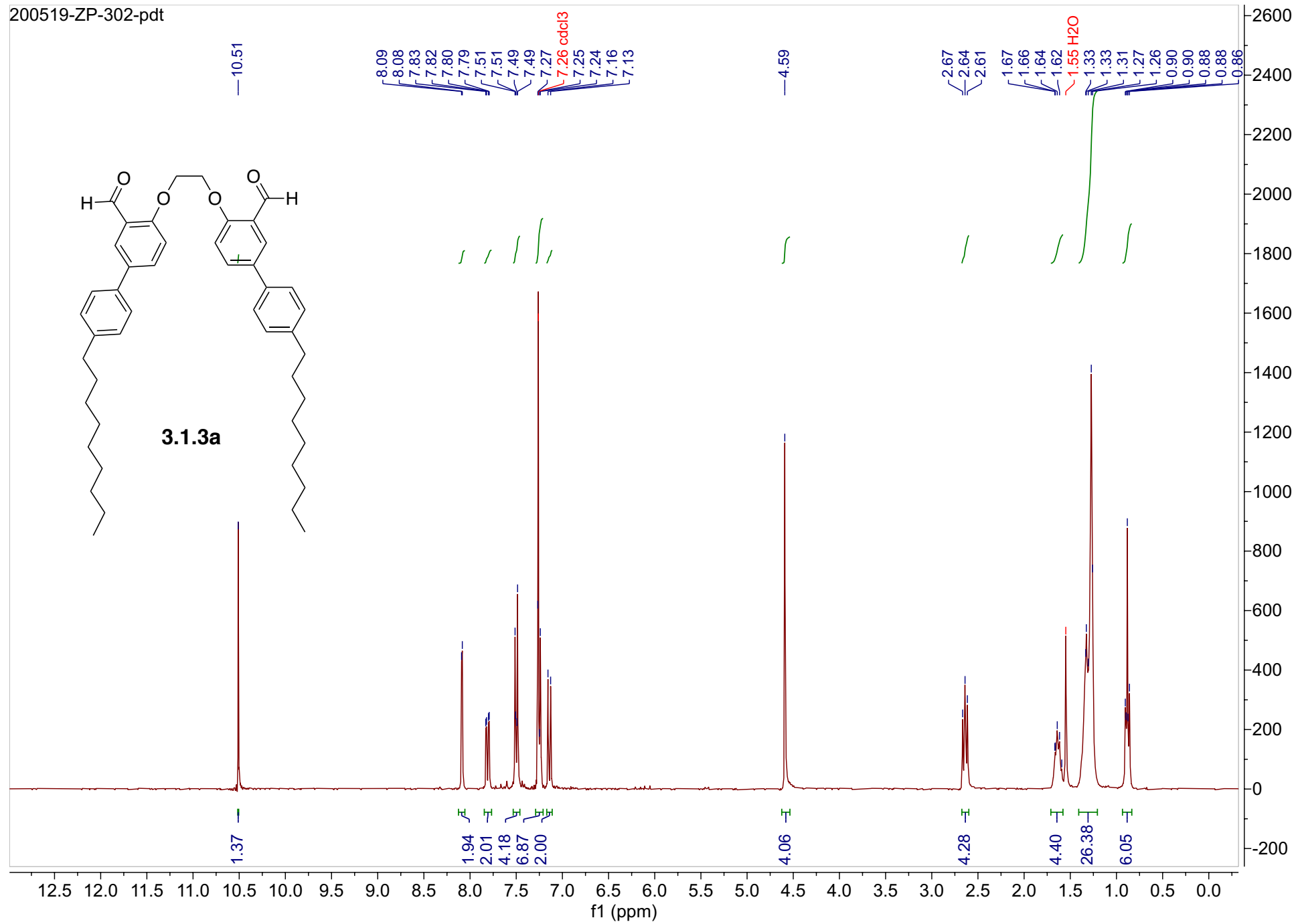


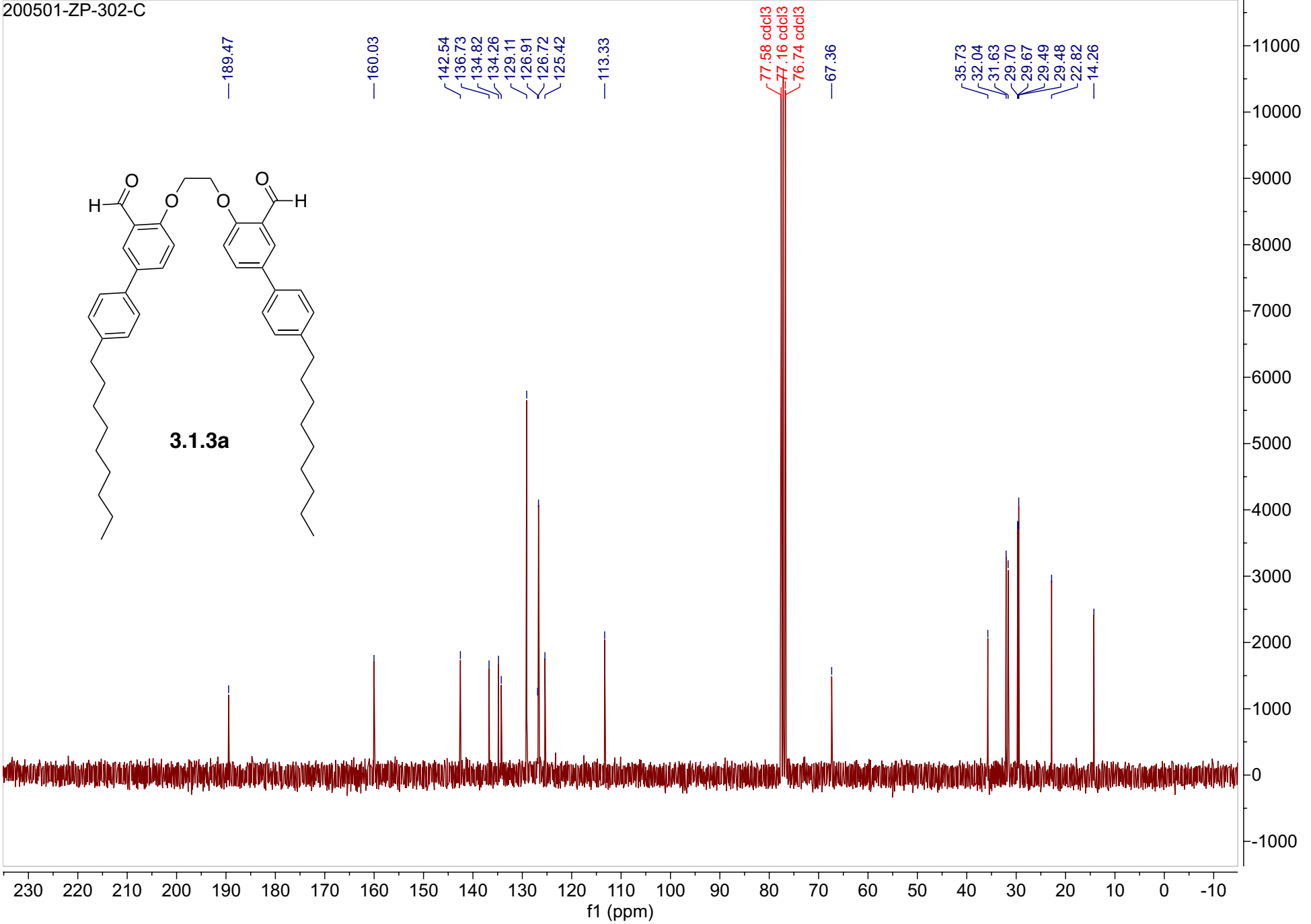


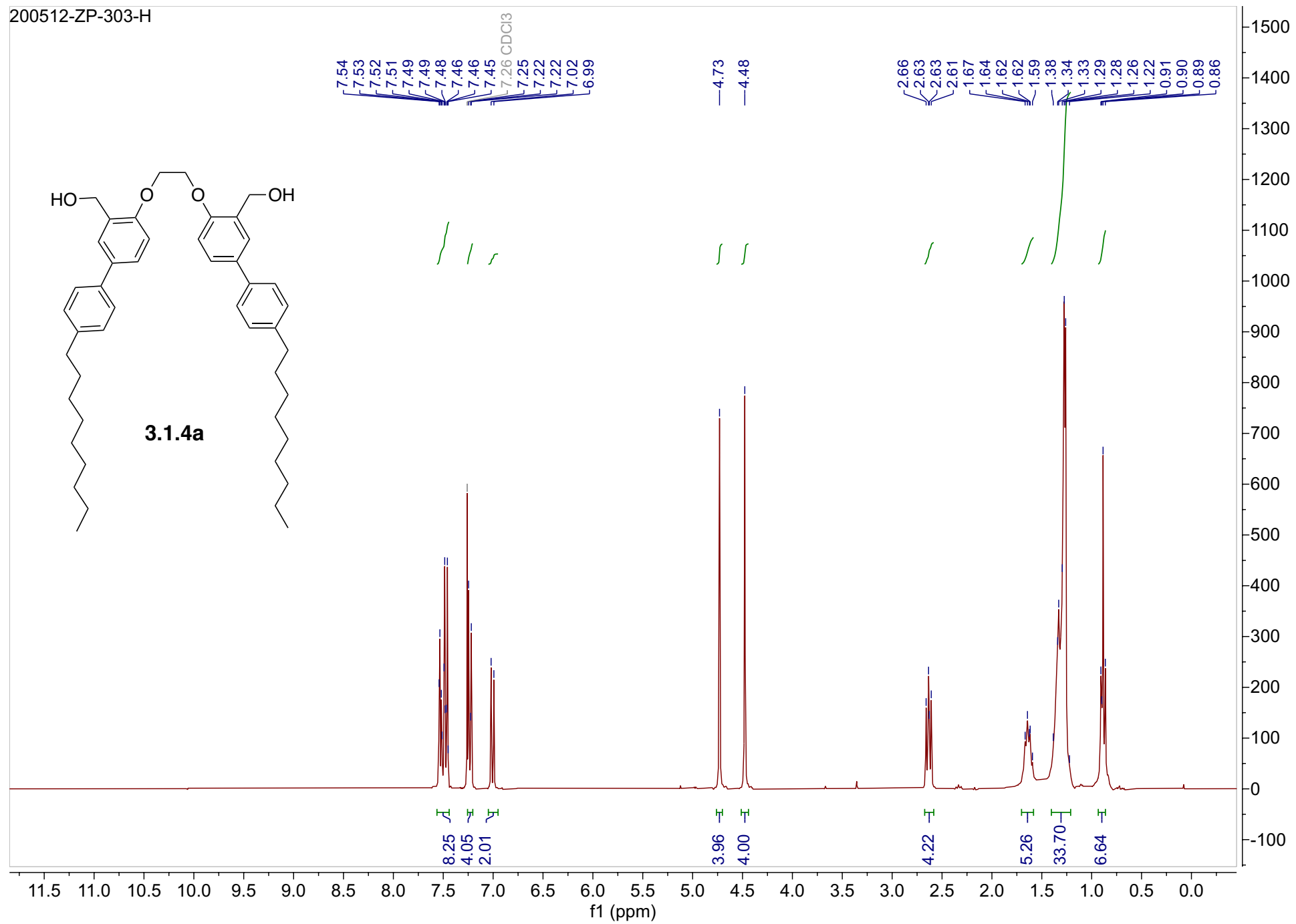
ESI-MS: [M-H]⁻ calcd for C₄₈H₇₃N₄O₁₂, 897.5225,
found 897.4339.

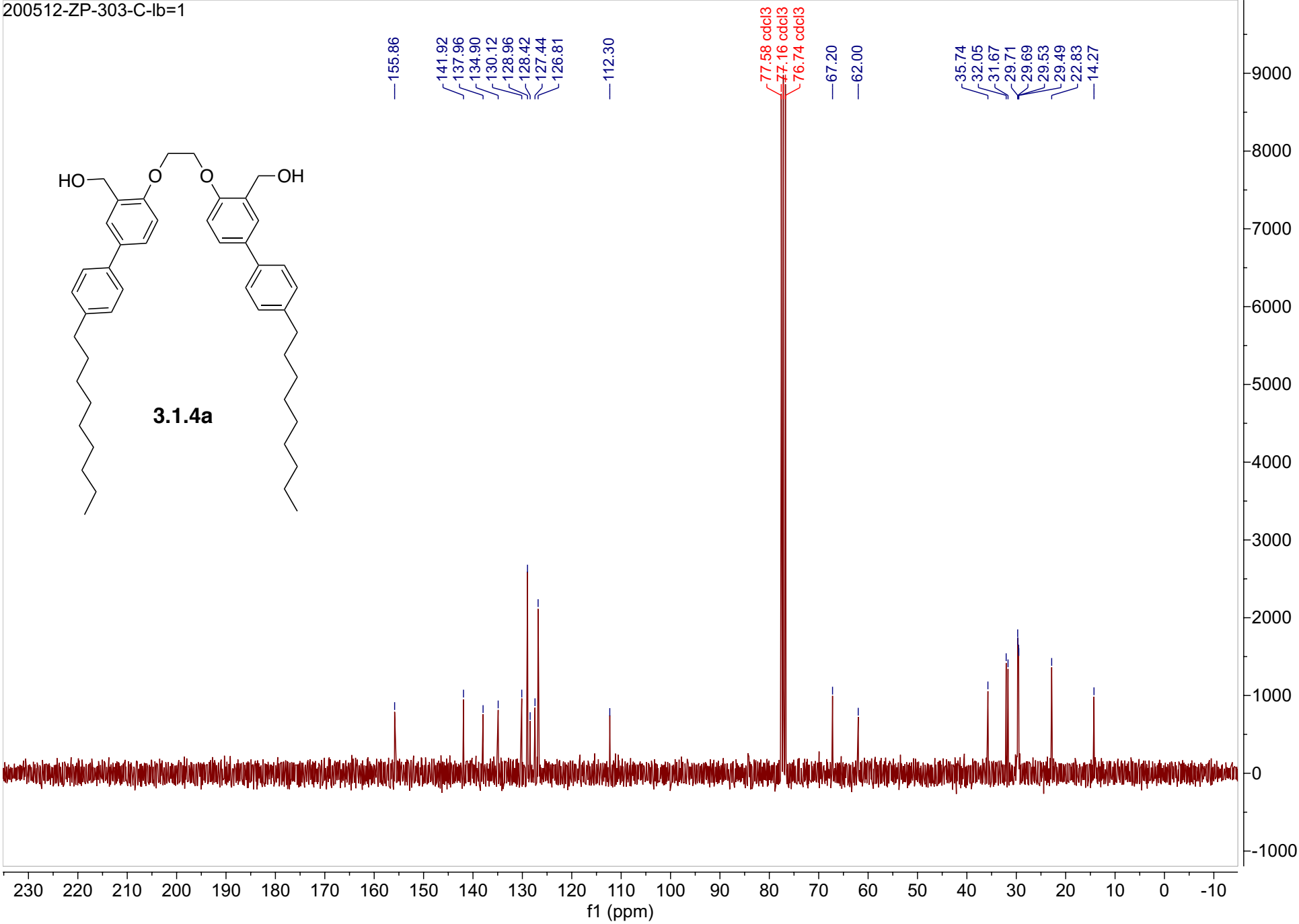


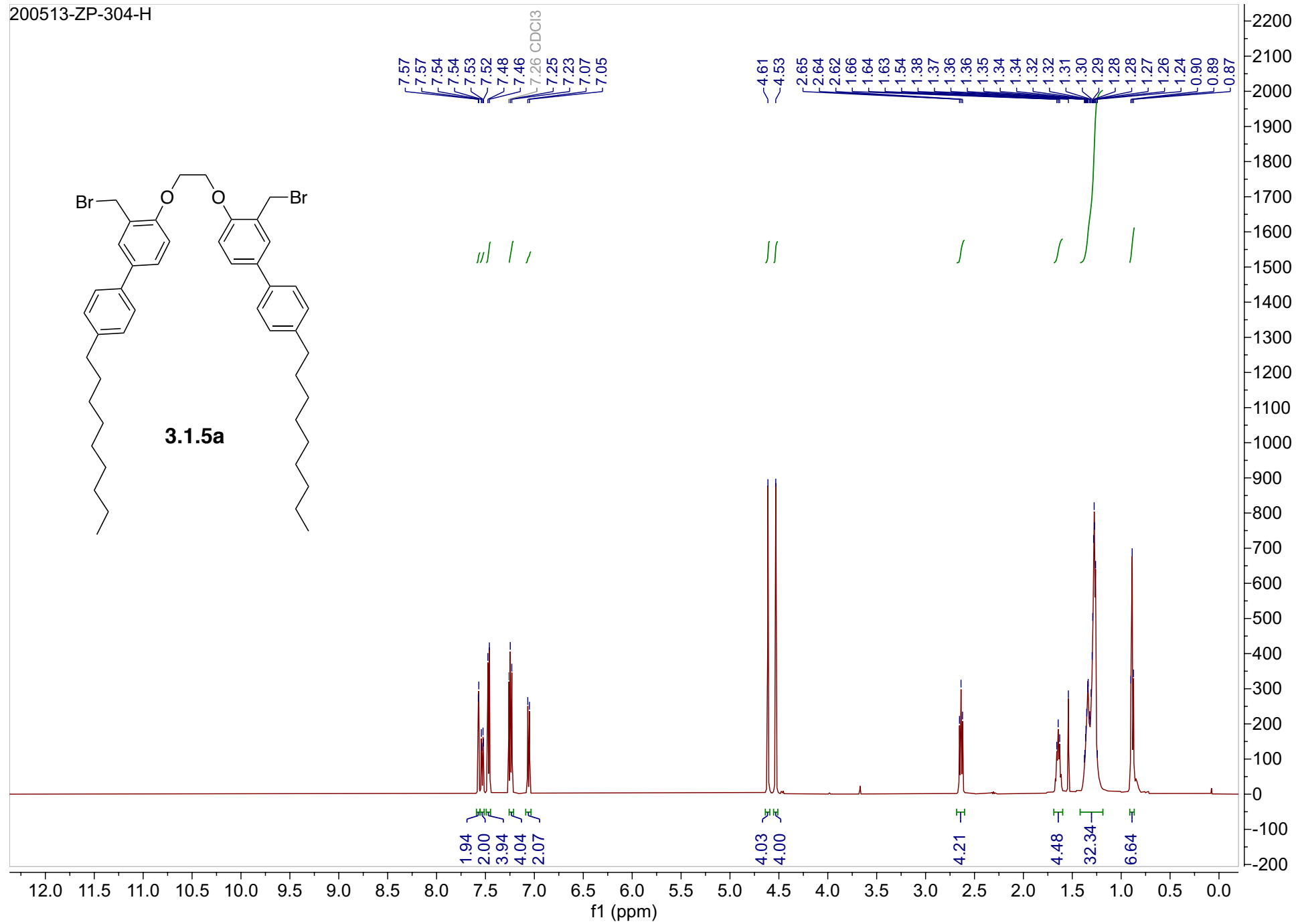


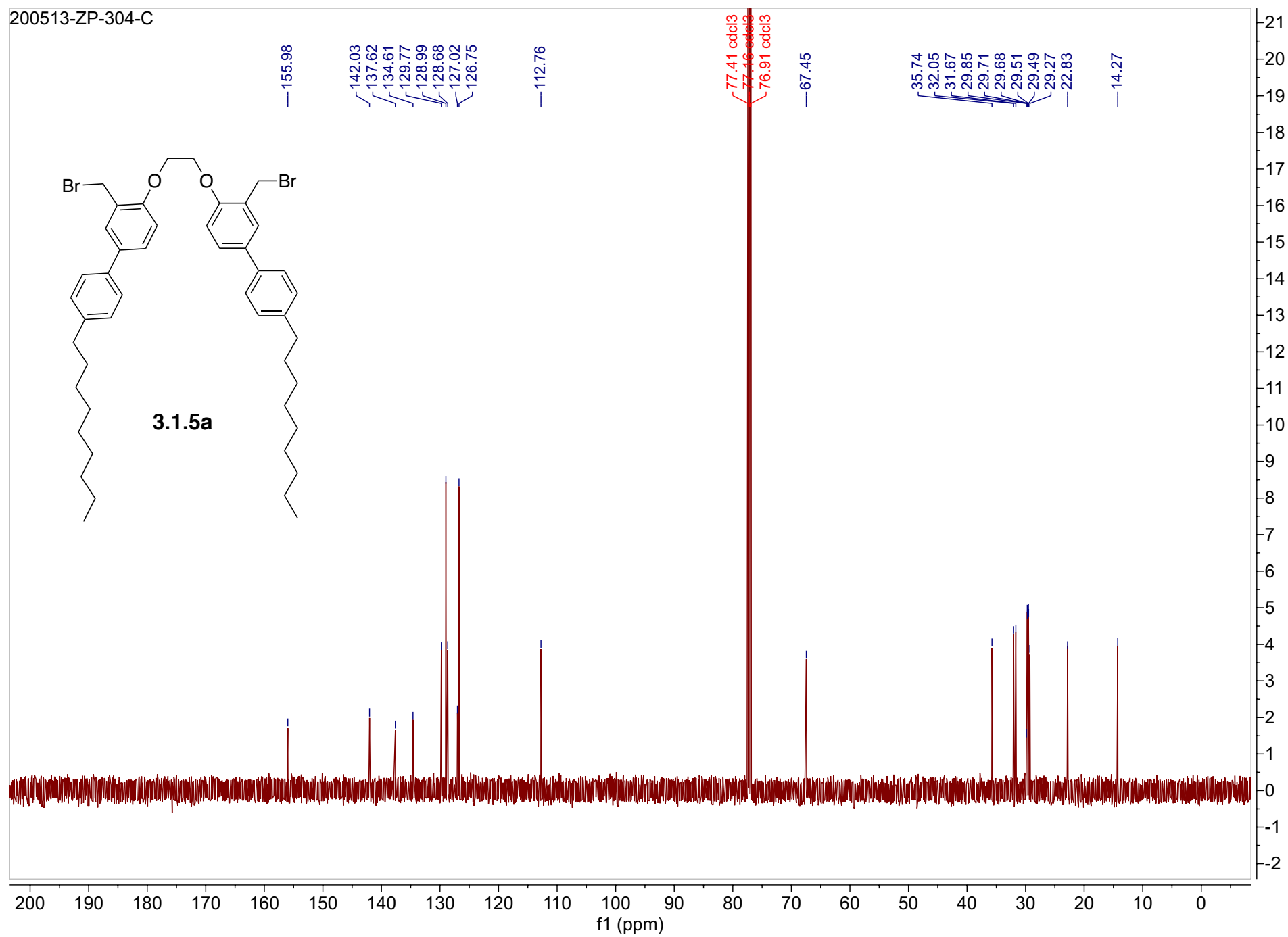


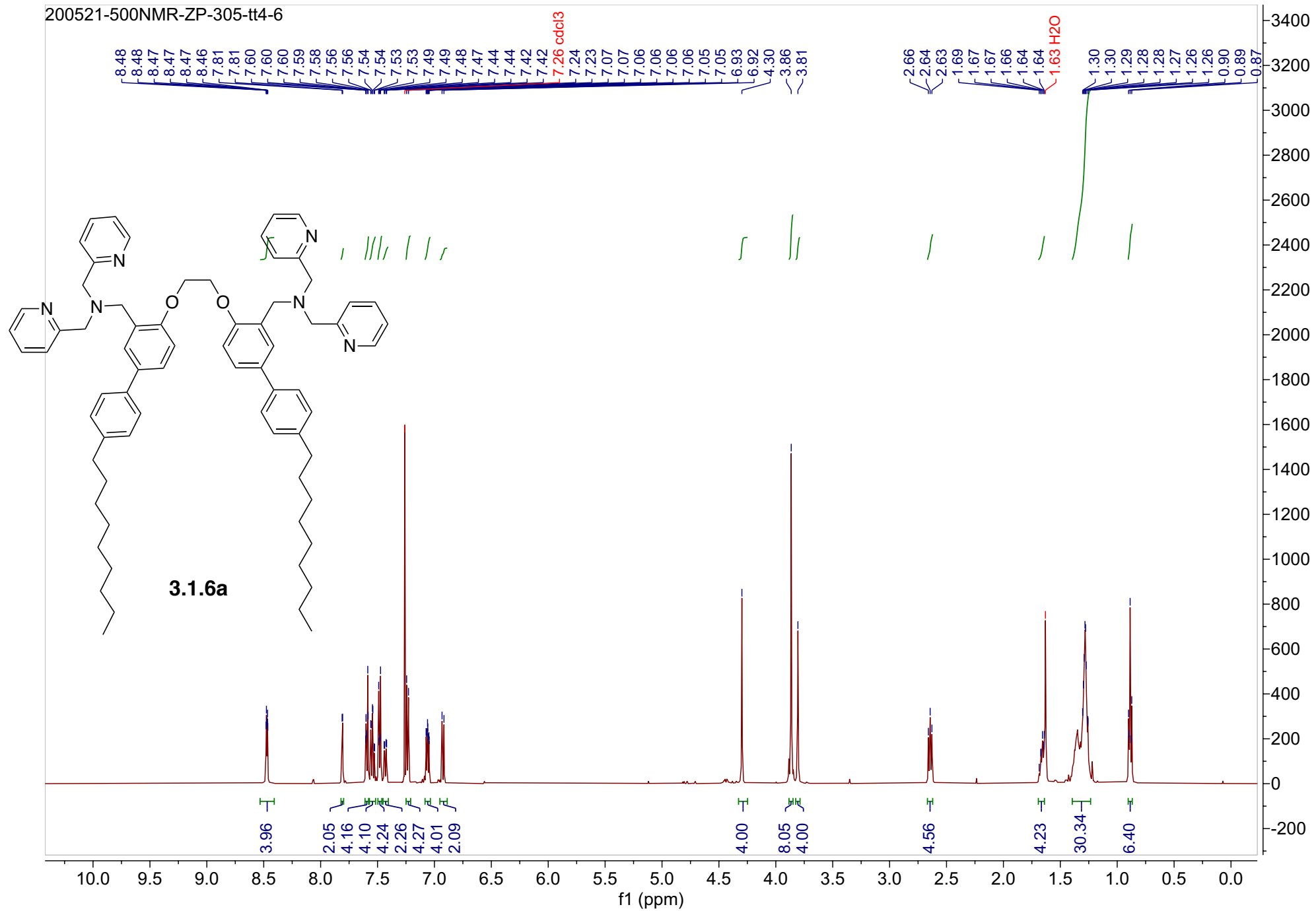


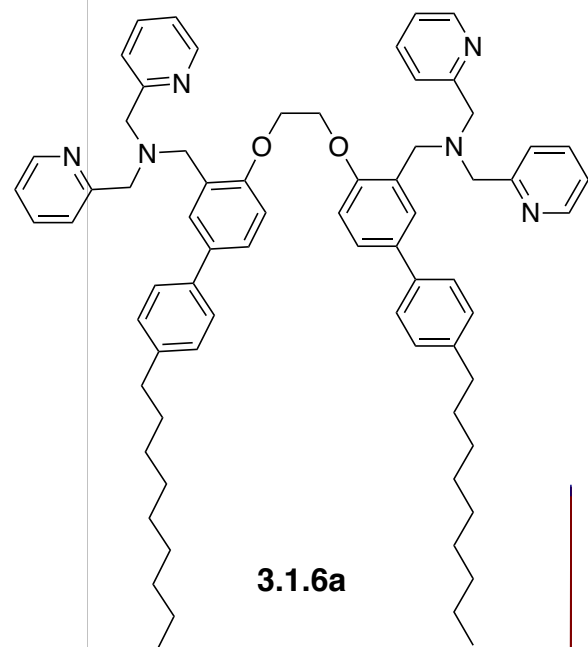
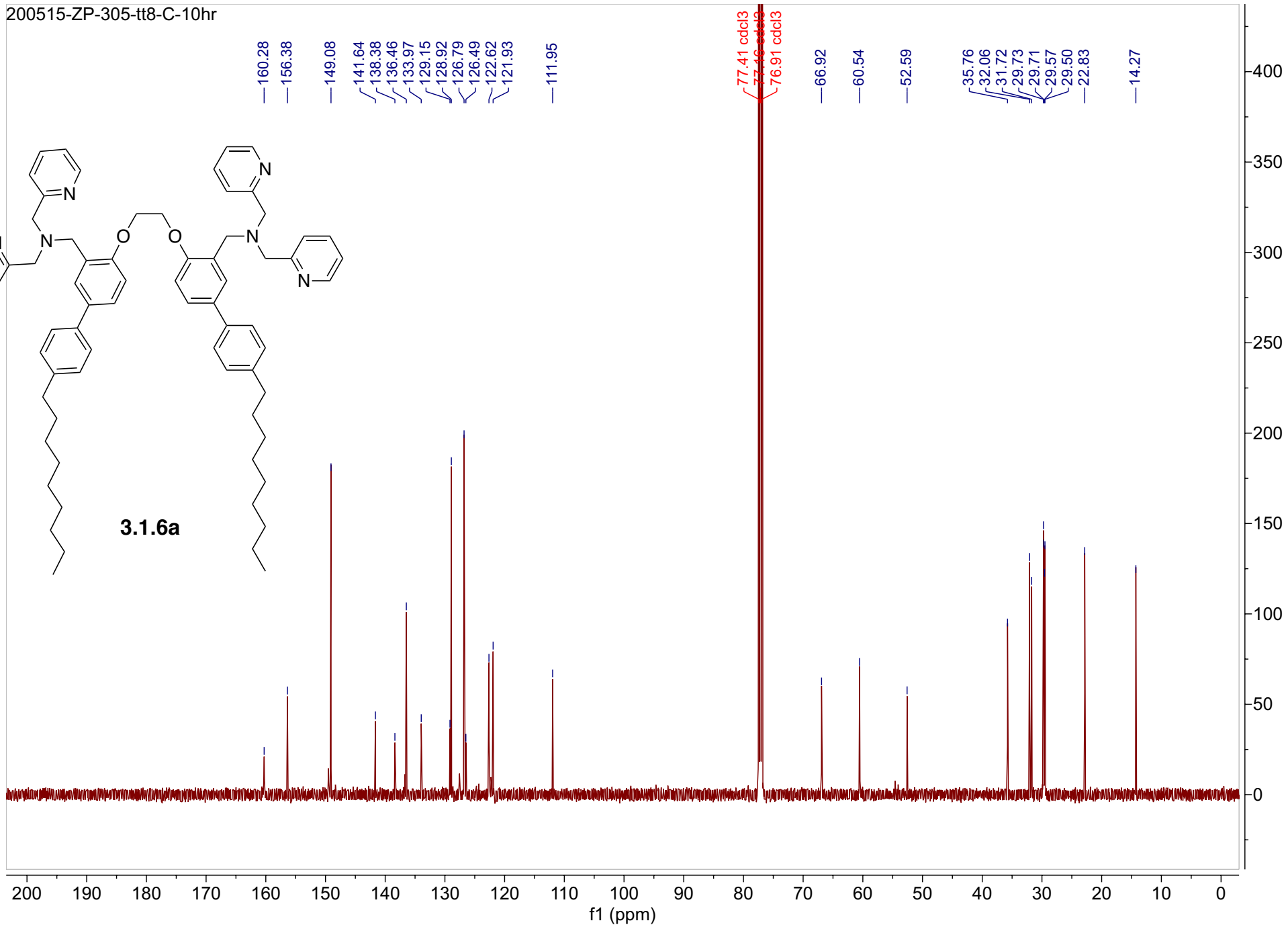






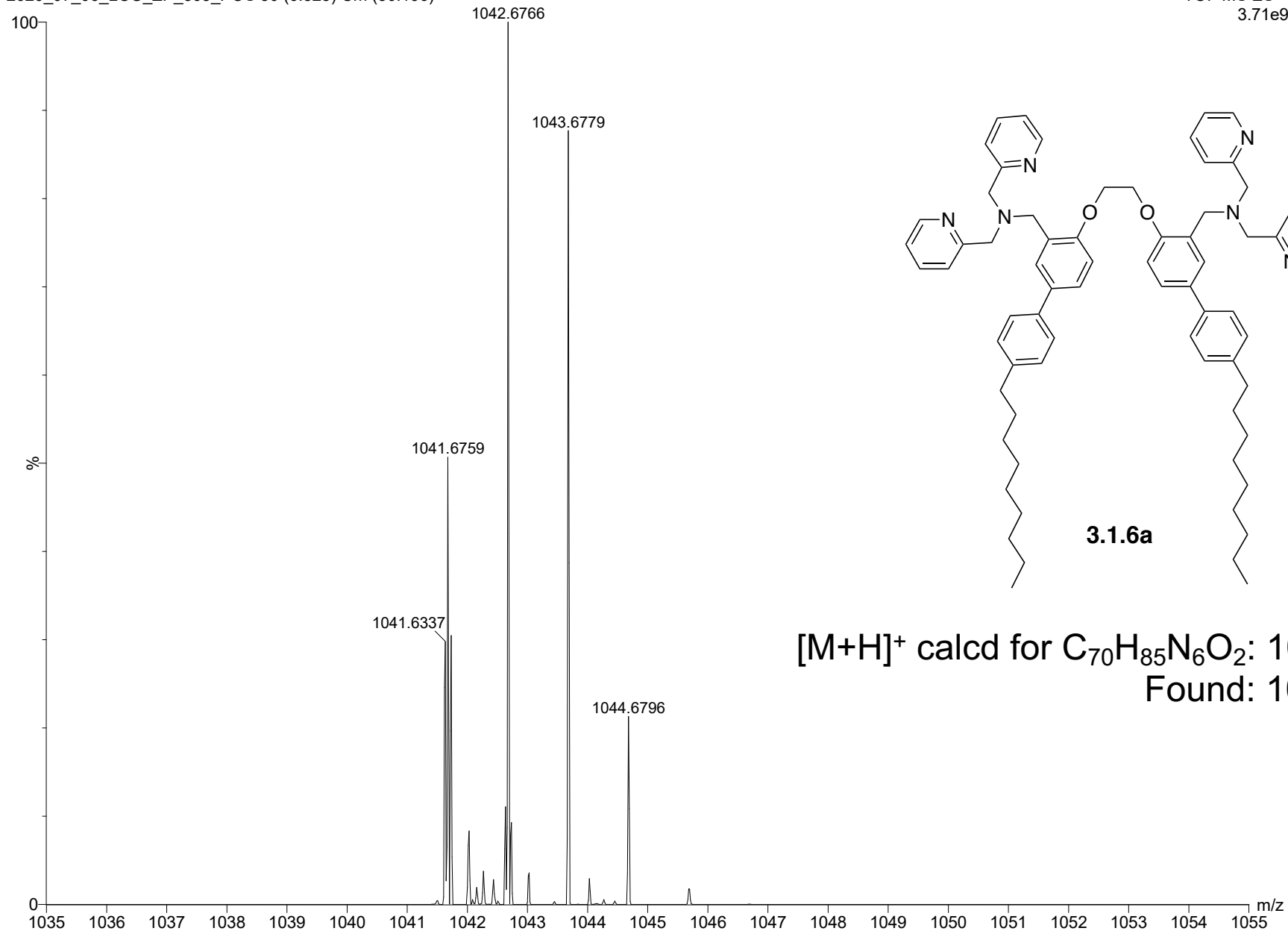




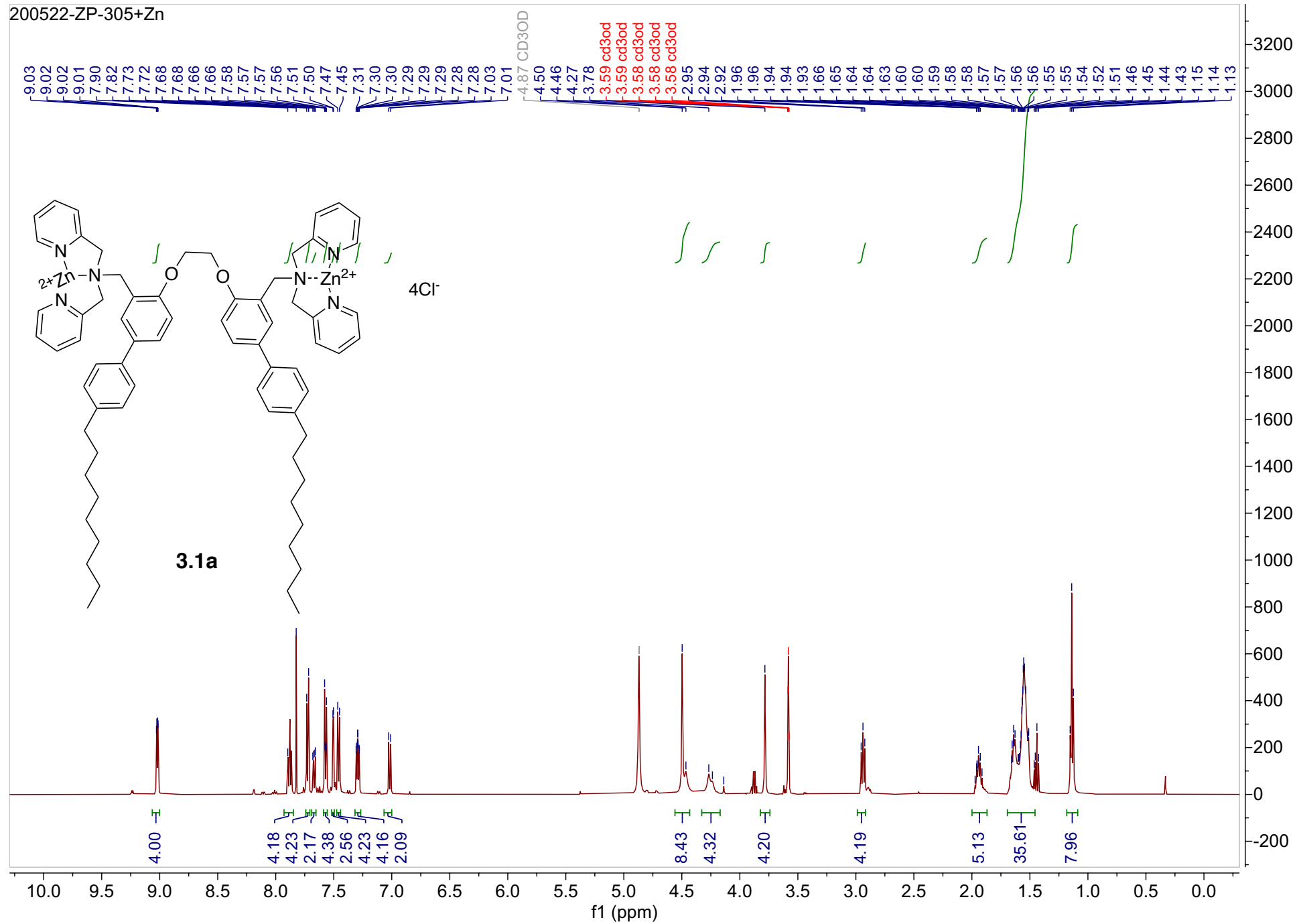
**3.1.6a**

2020_07_06_LOU_ZP_305_POS 30 (0.523) Cm (30:196)

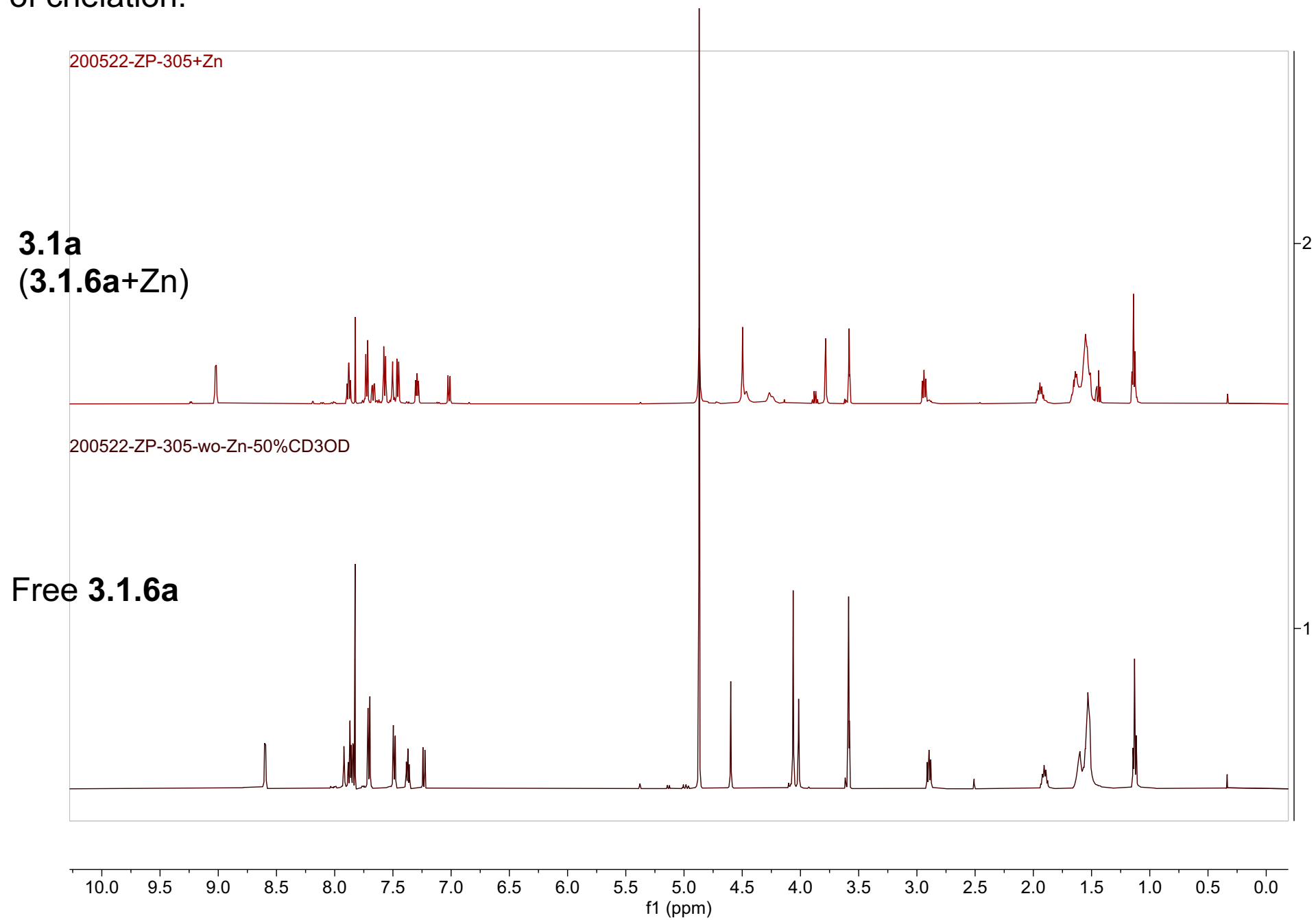
TOF MS ES+
3.71e9



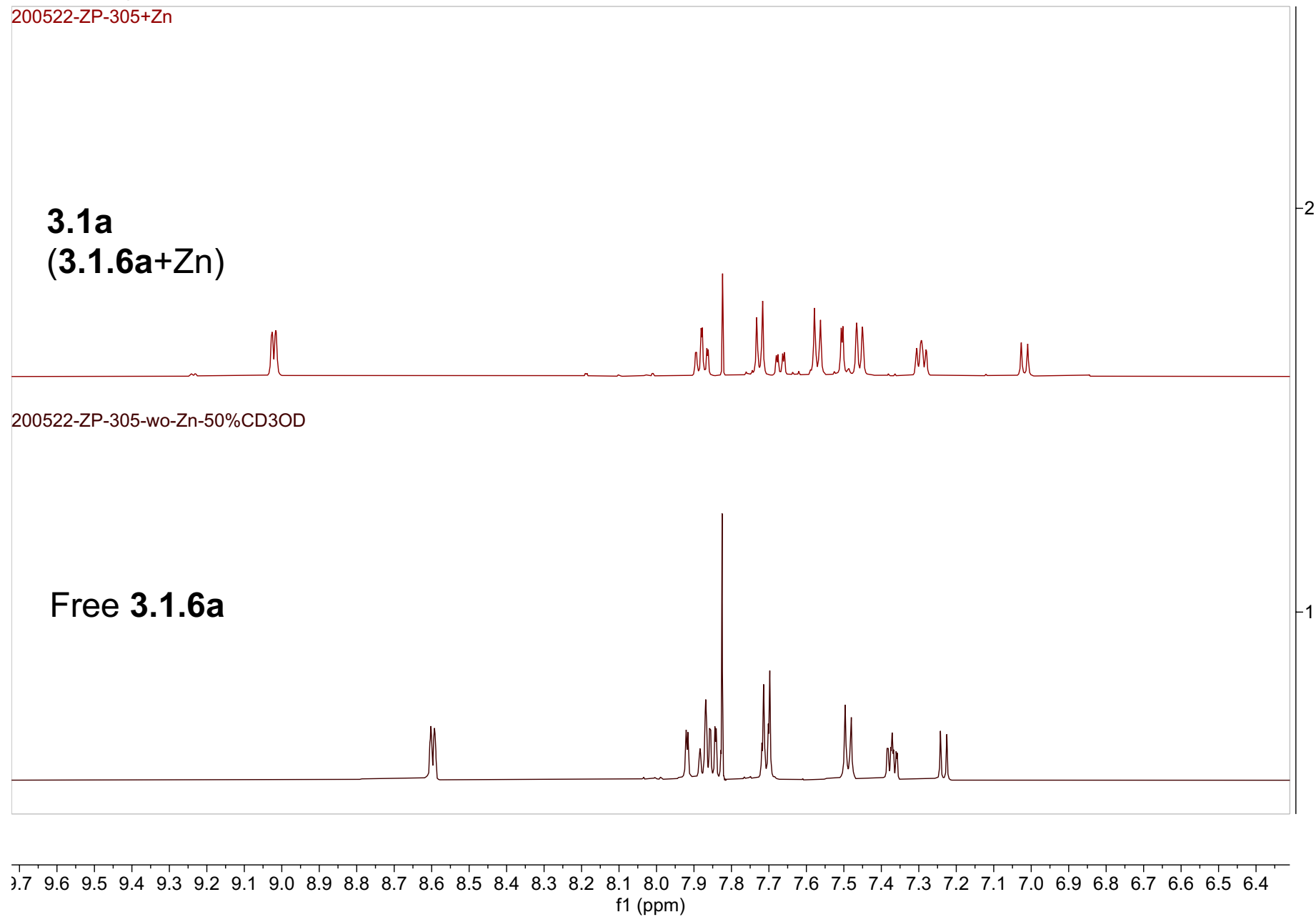
[M+H]⁺ calcd for C₇₀H₈₅N₆O₂: 1041.6734
Found: 1041.6759

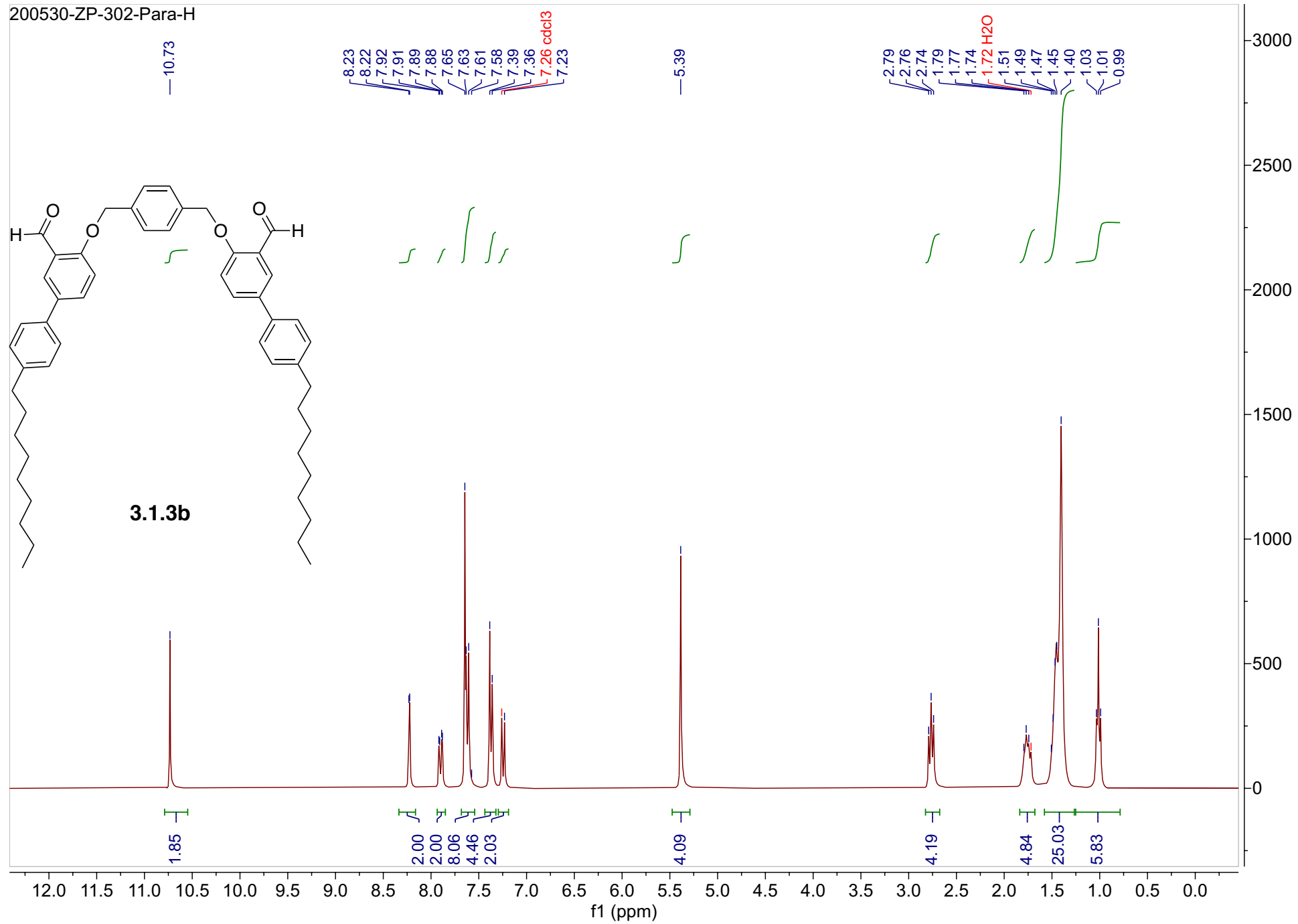


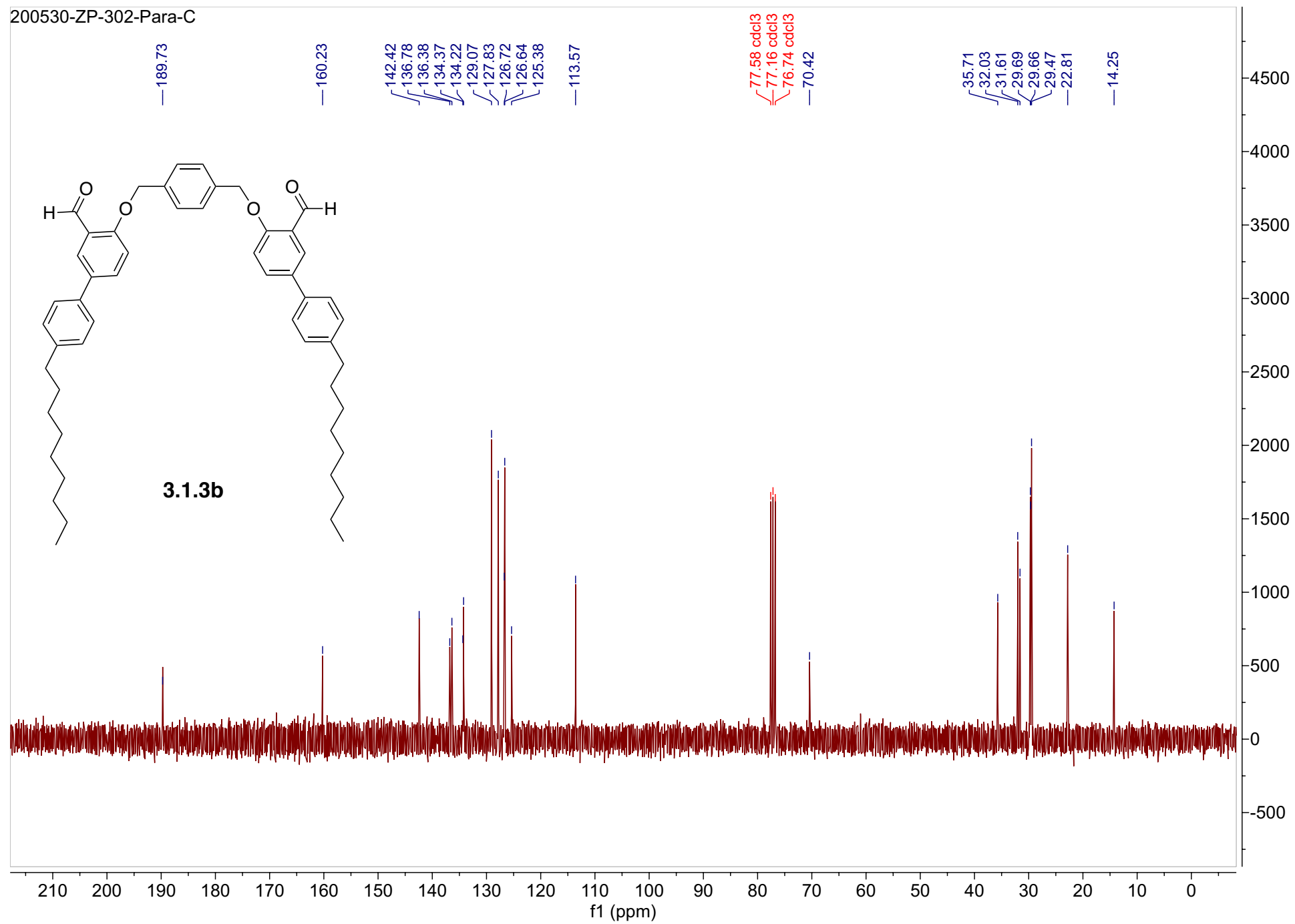
Evidence of chelation:

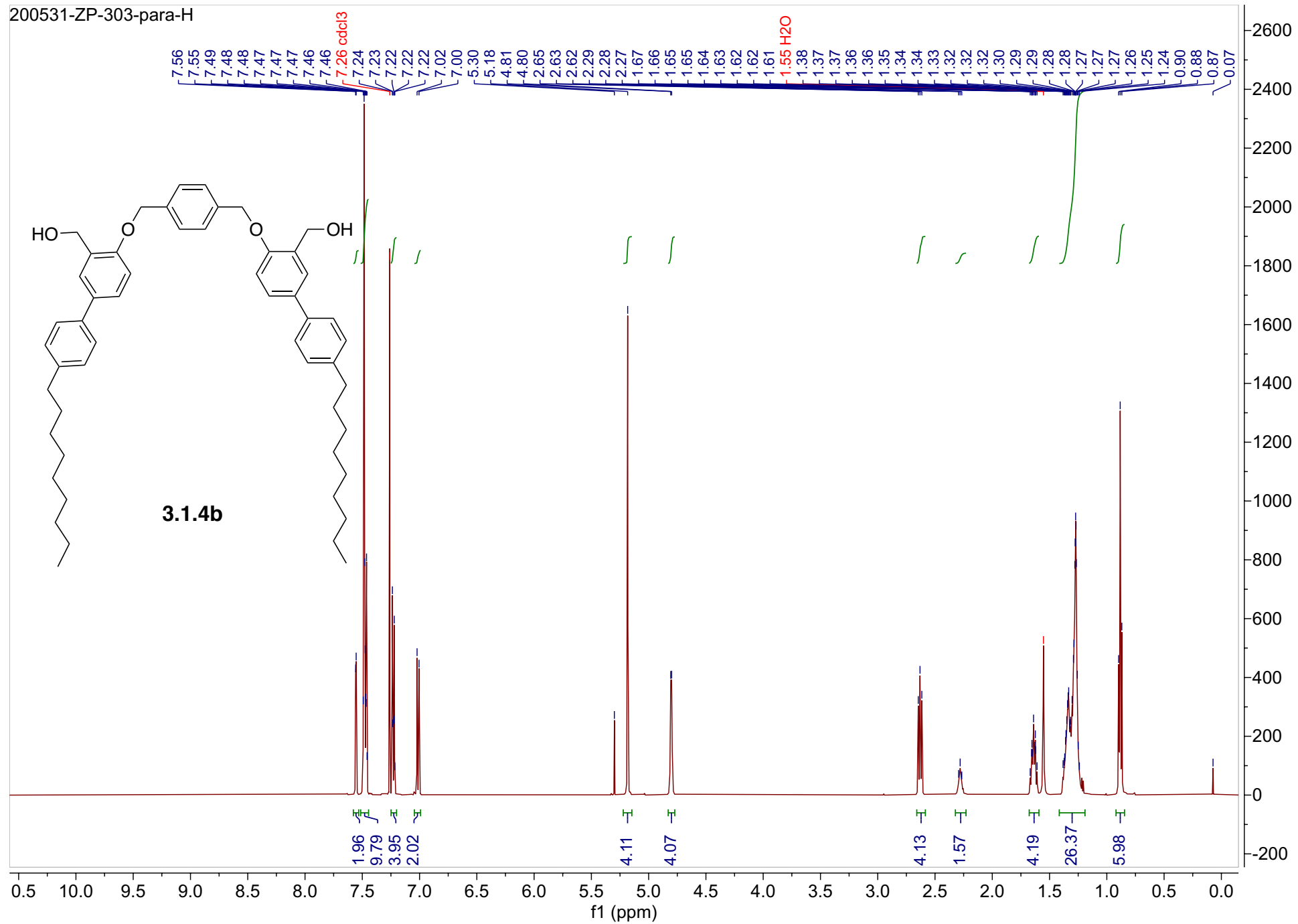


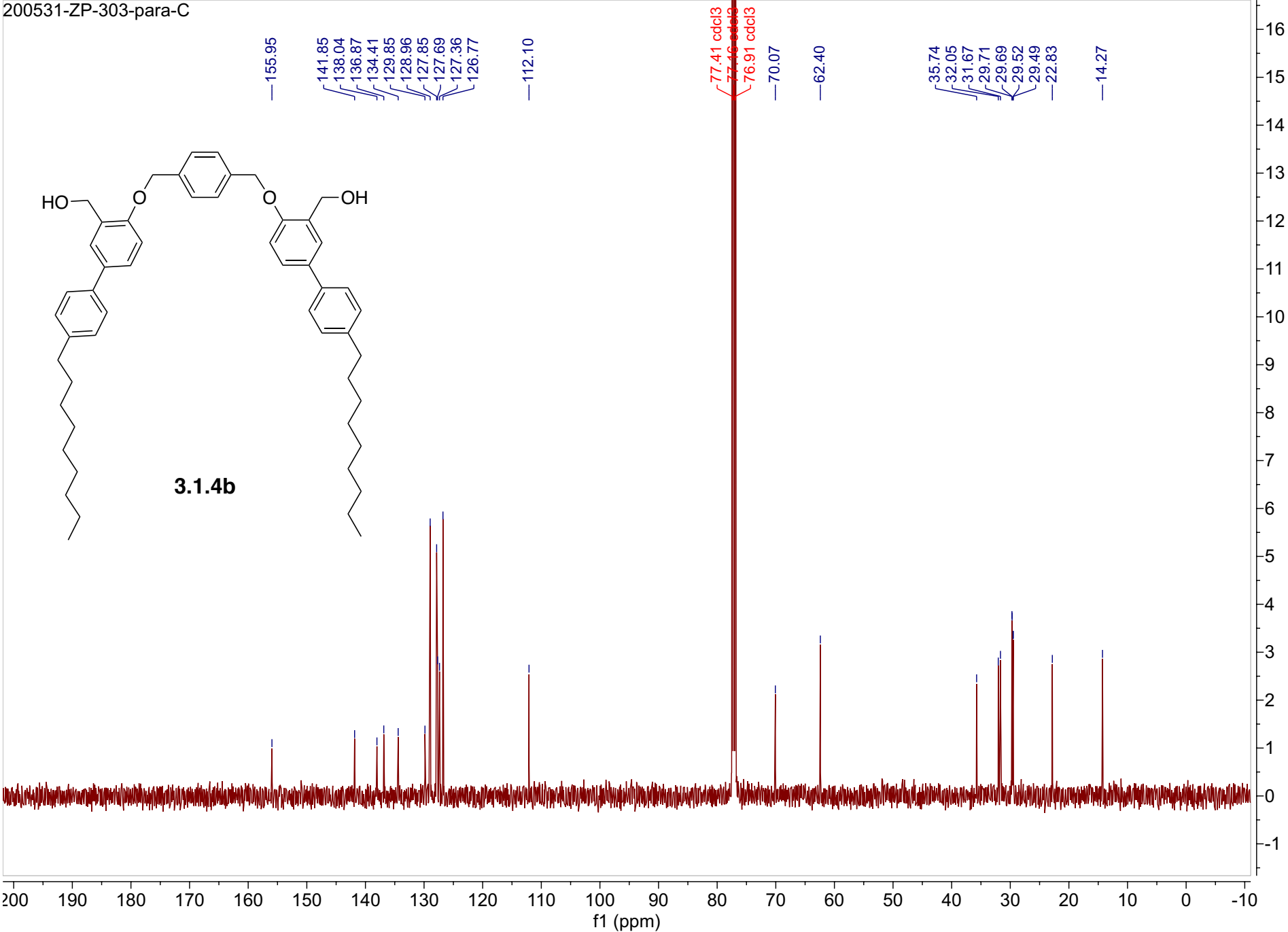
Enlarged aromatic region:

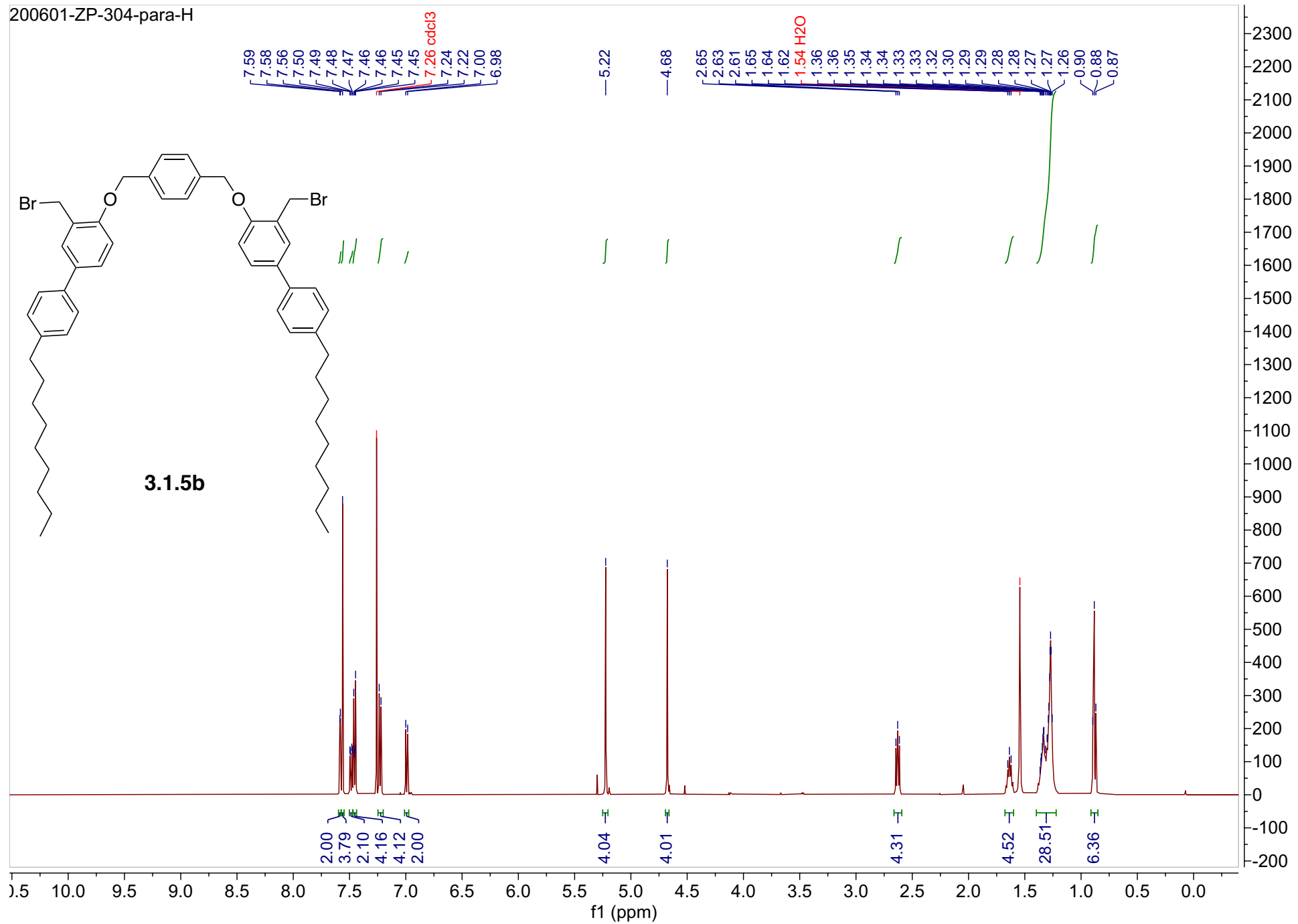


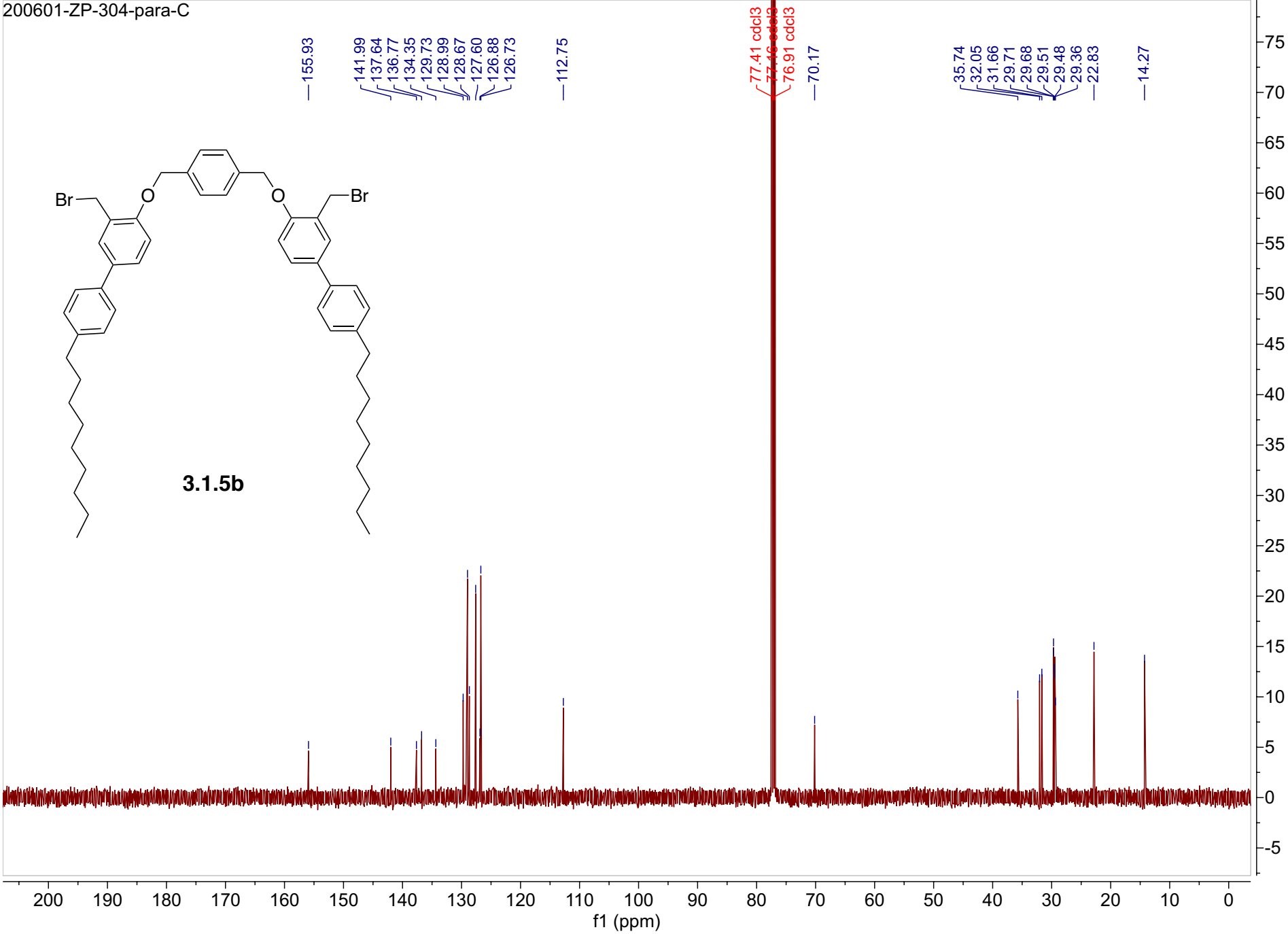


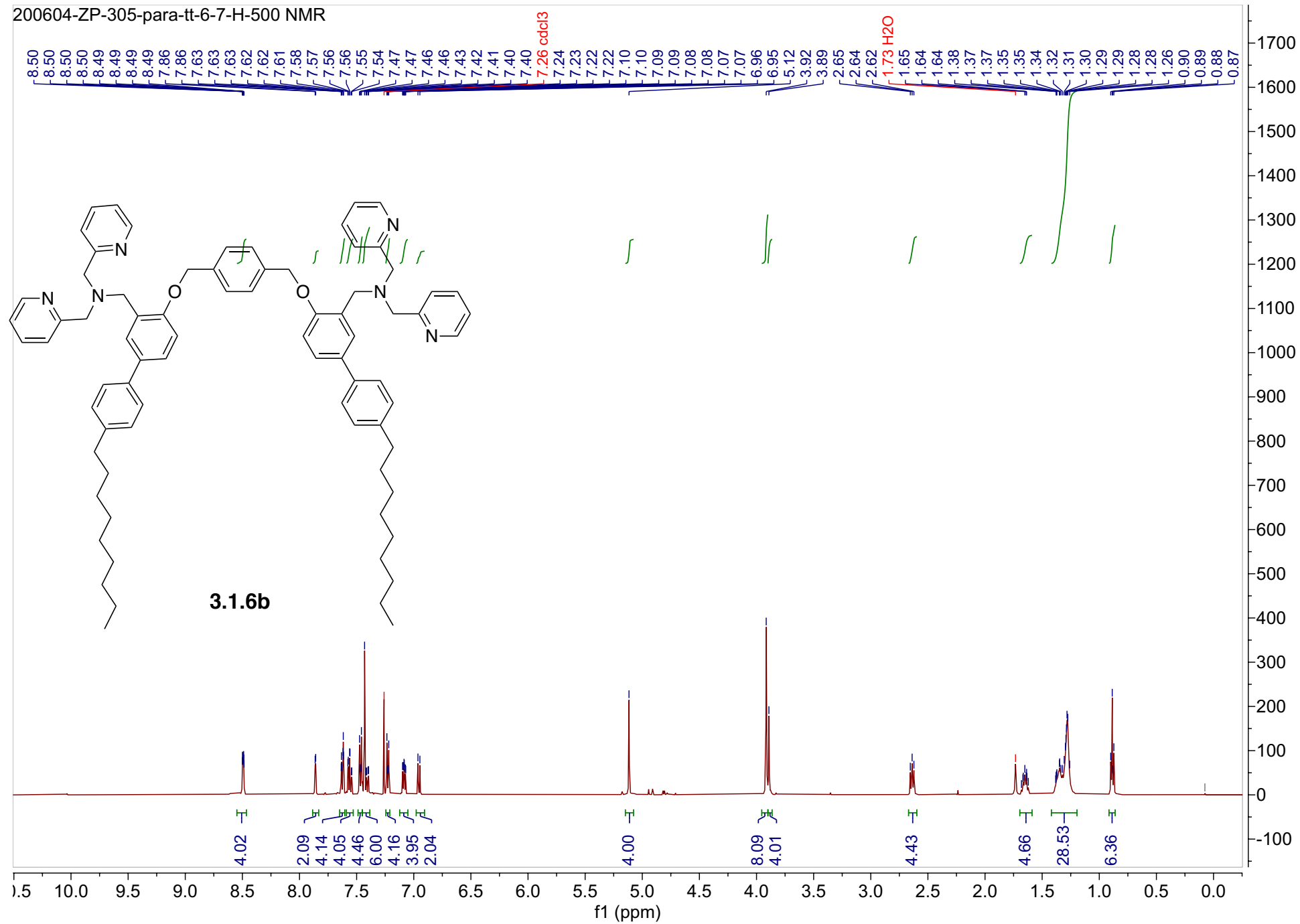


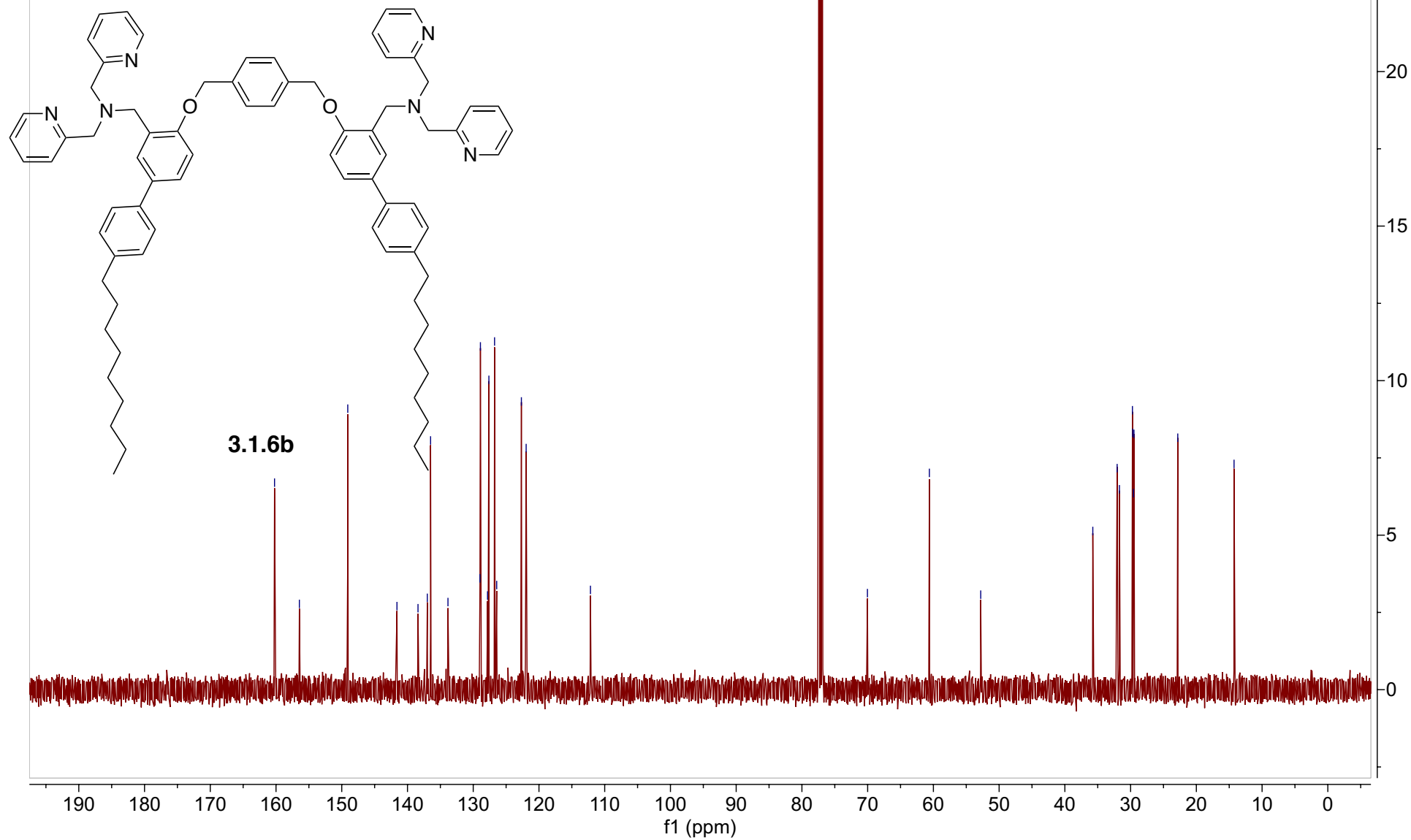






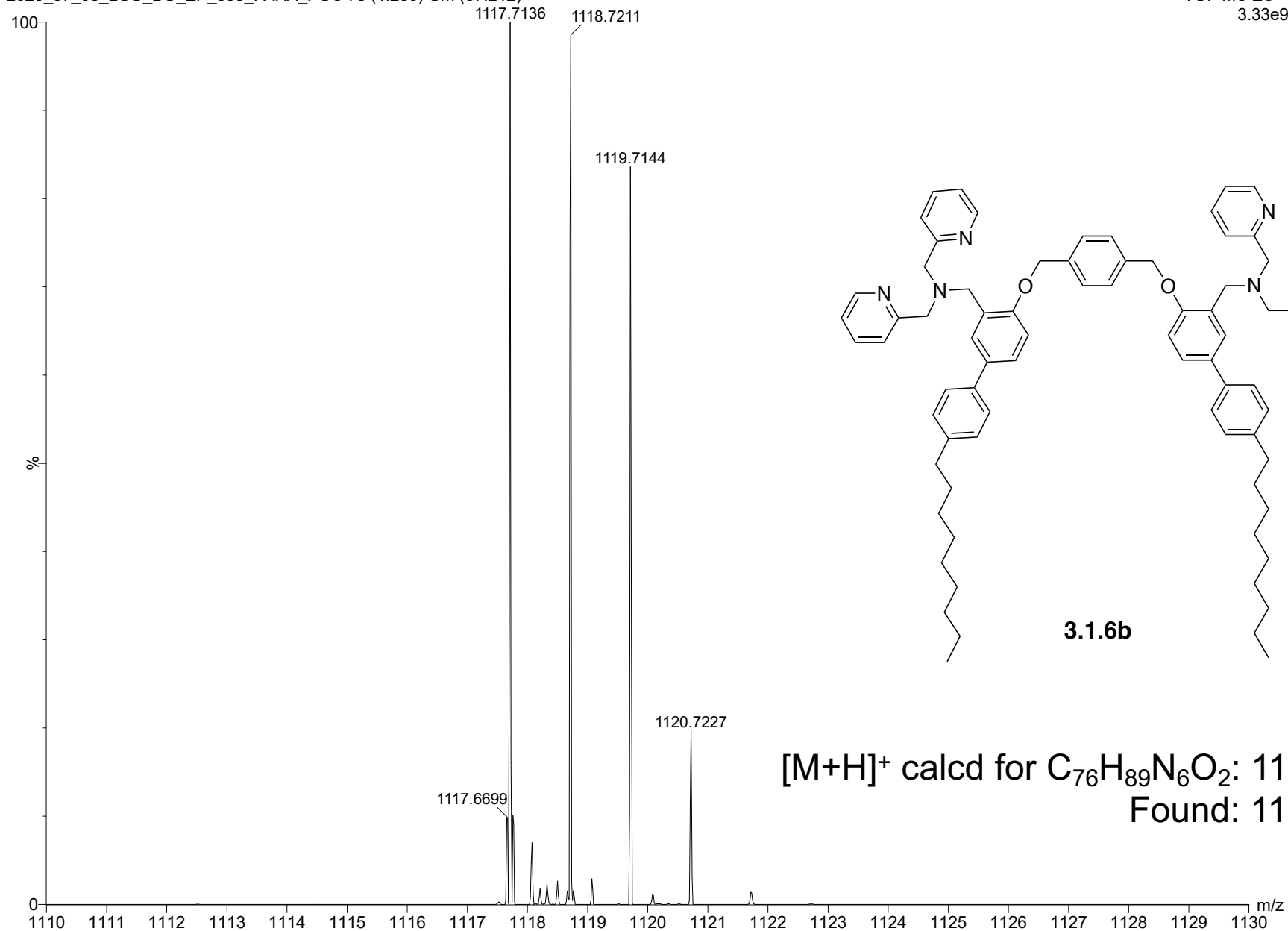


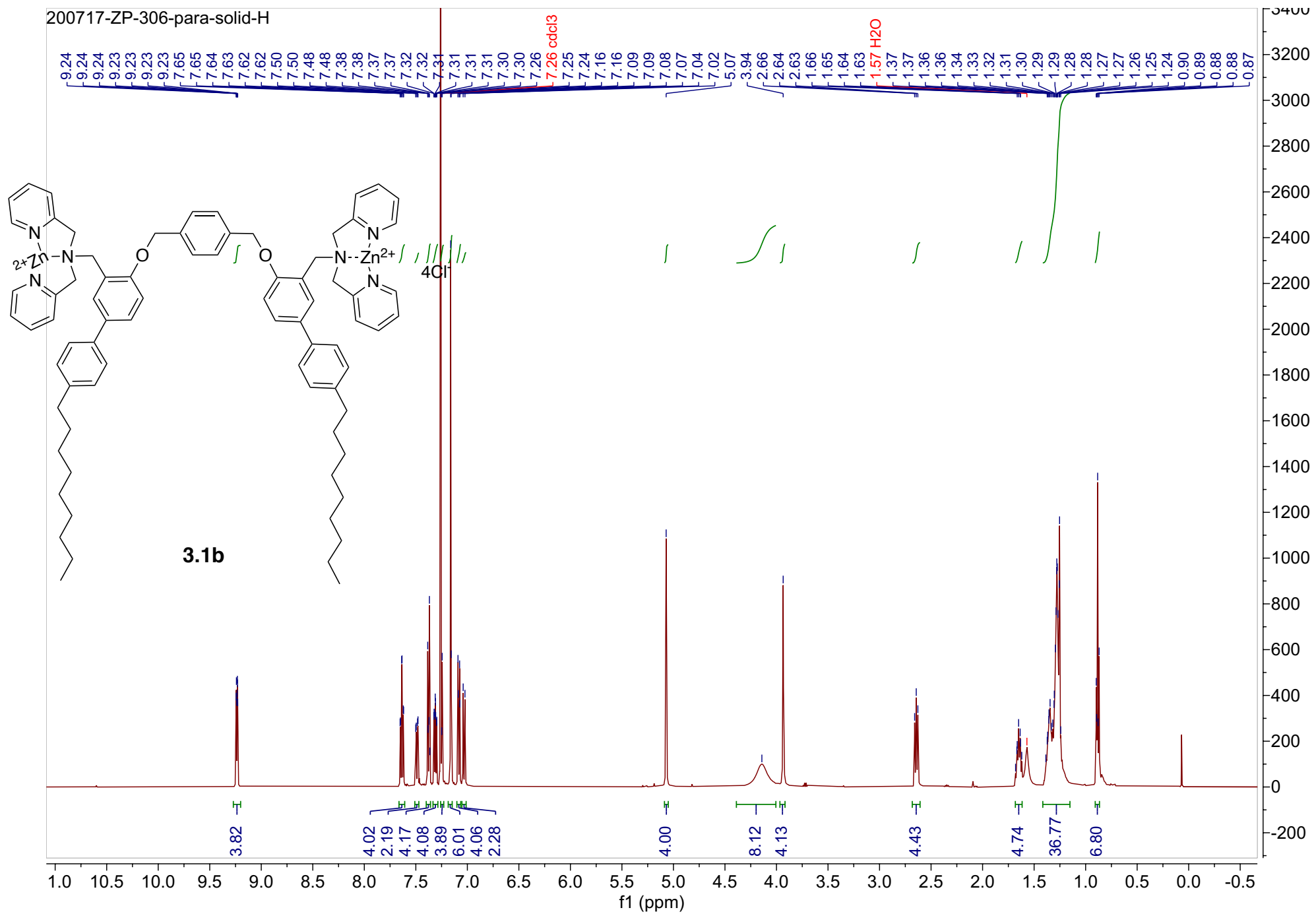




2020_07_06_LOU_BO_ZP_305 PARA_POS 73 (1.250) Cm (67:212)

TOF MS ES+
3.33e9





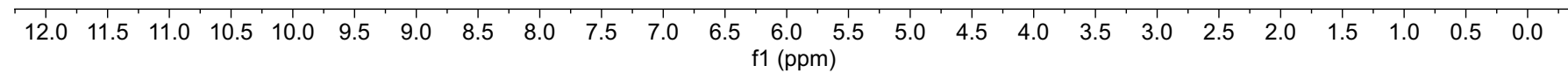
Evidence of chelating: (full spectra)

200717-ZP-306-para-solid-H

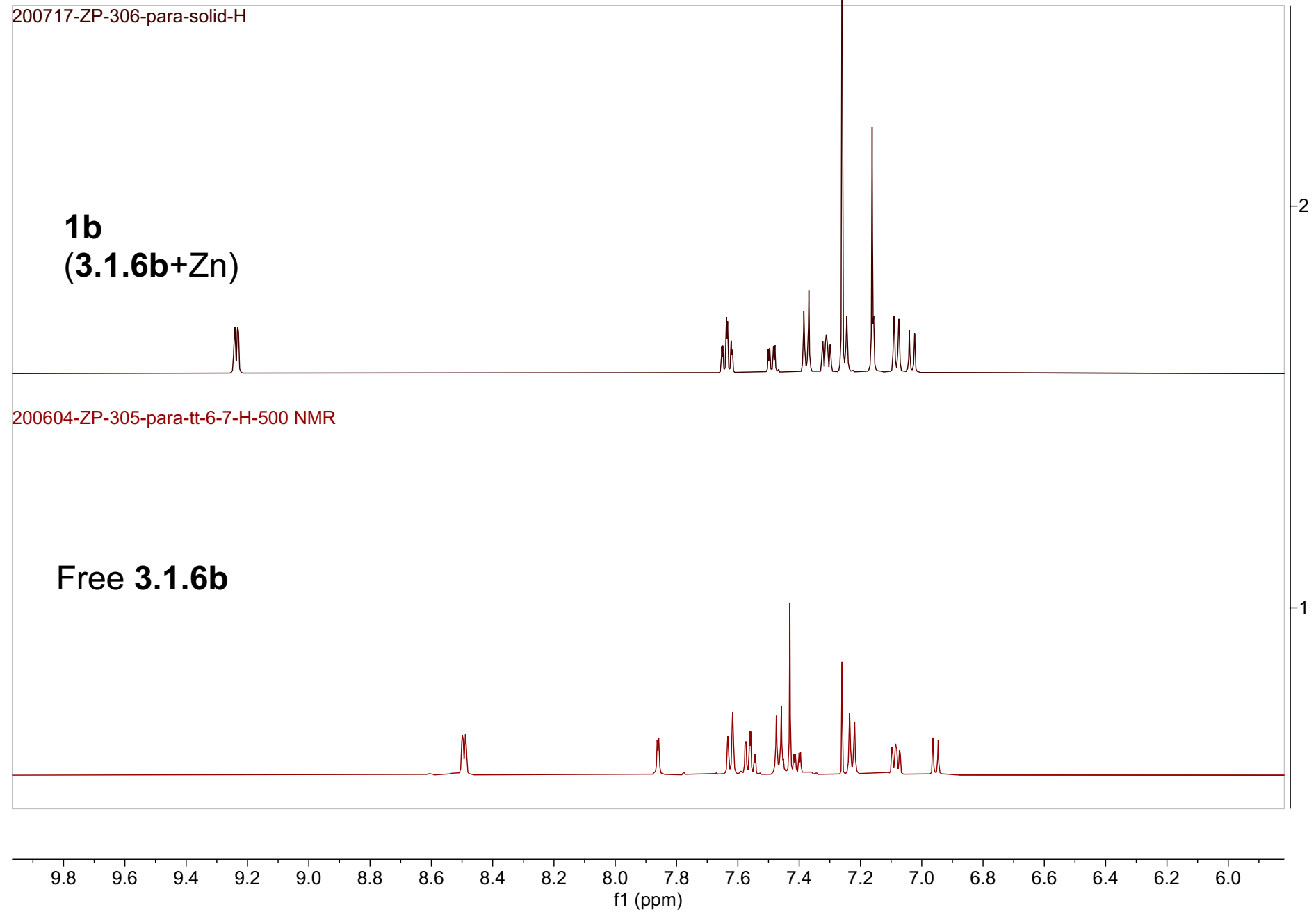
3.1b
(3.1.6b+Zn)

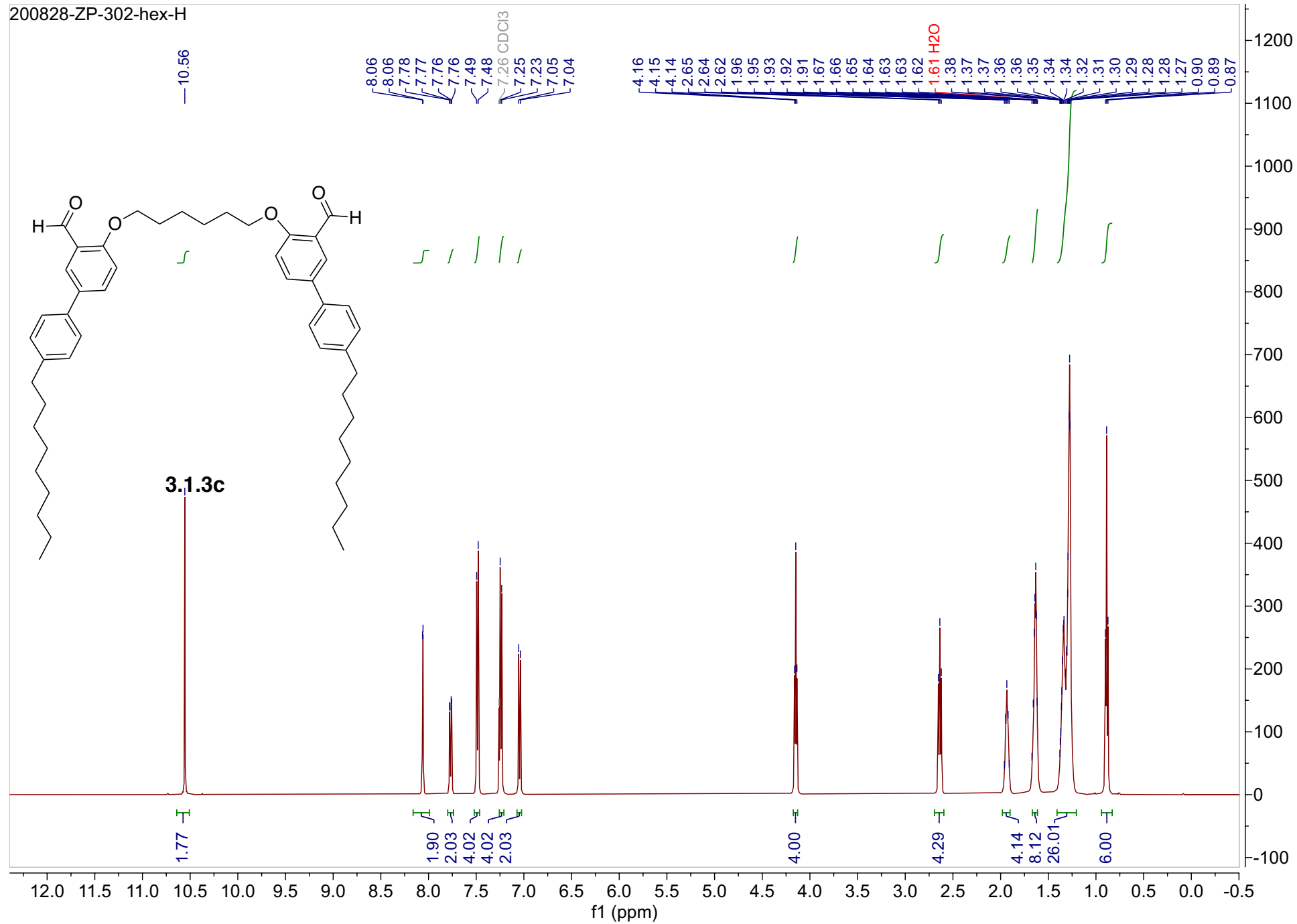
200604-ZP-305-para-tt-6-7-H-500 NMR

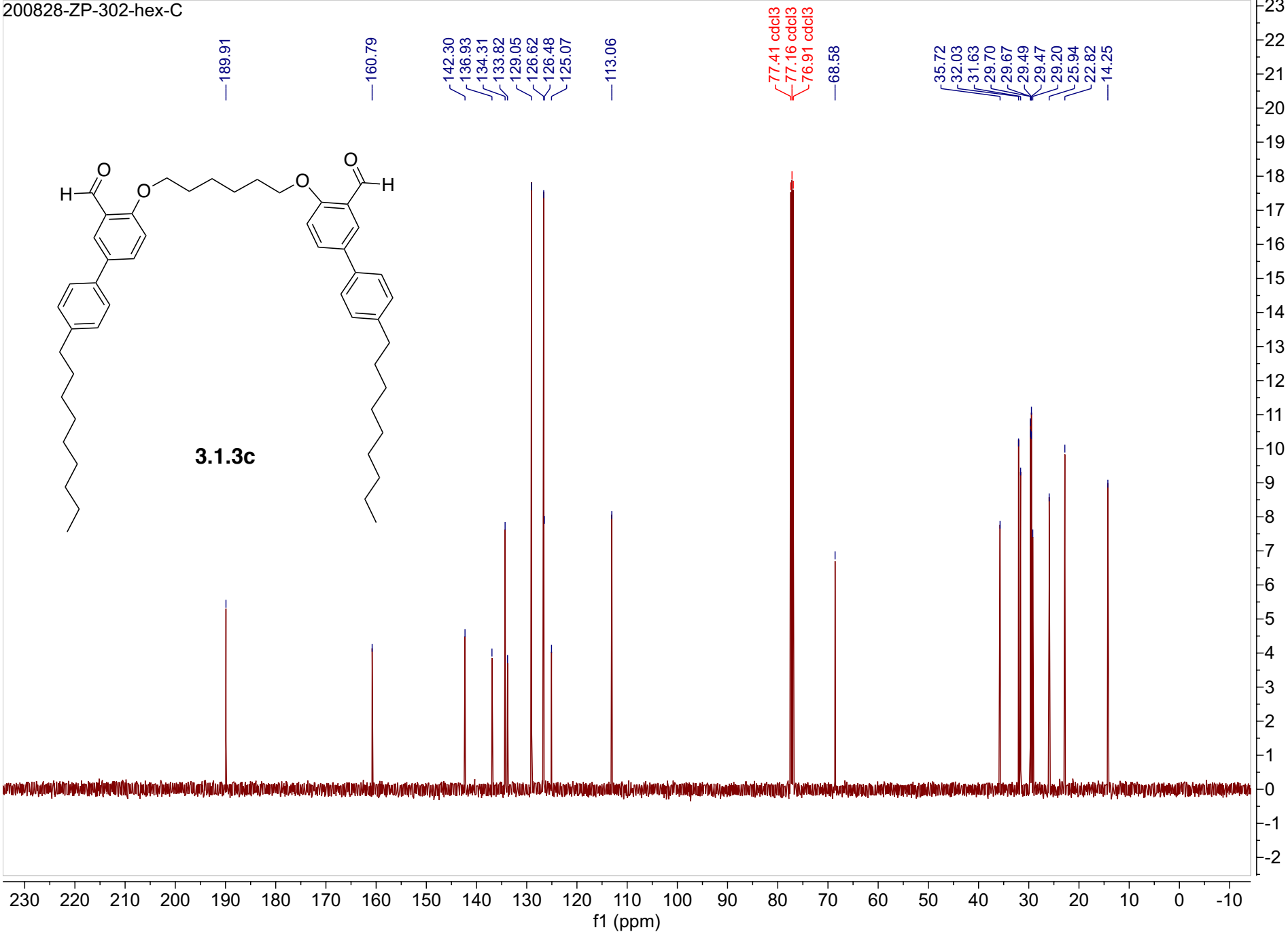
Free 3.1.6b

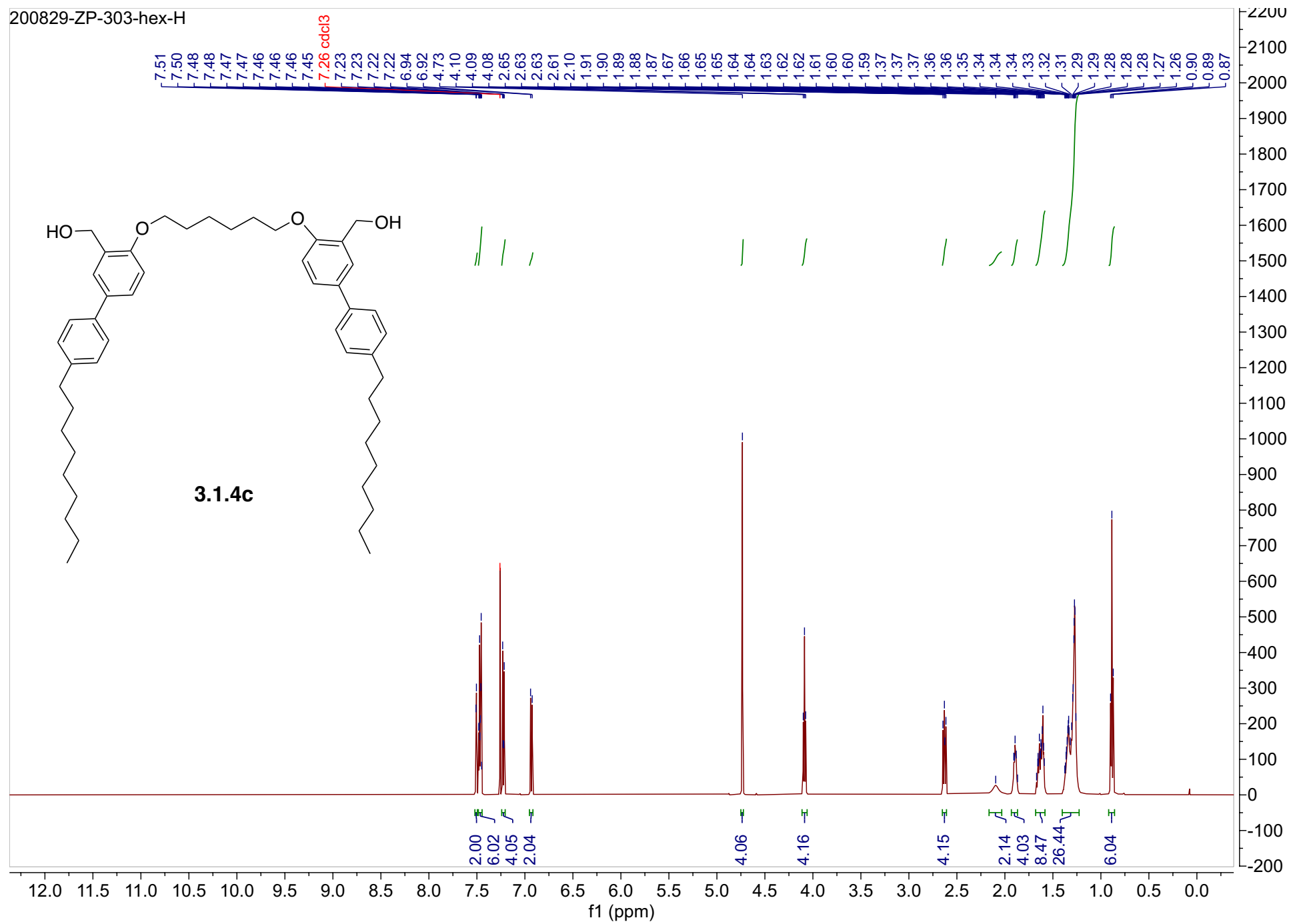


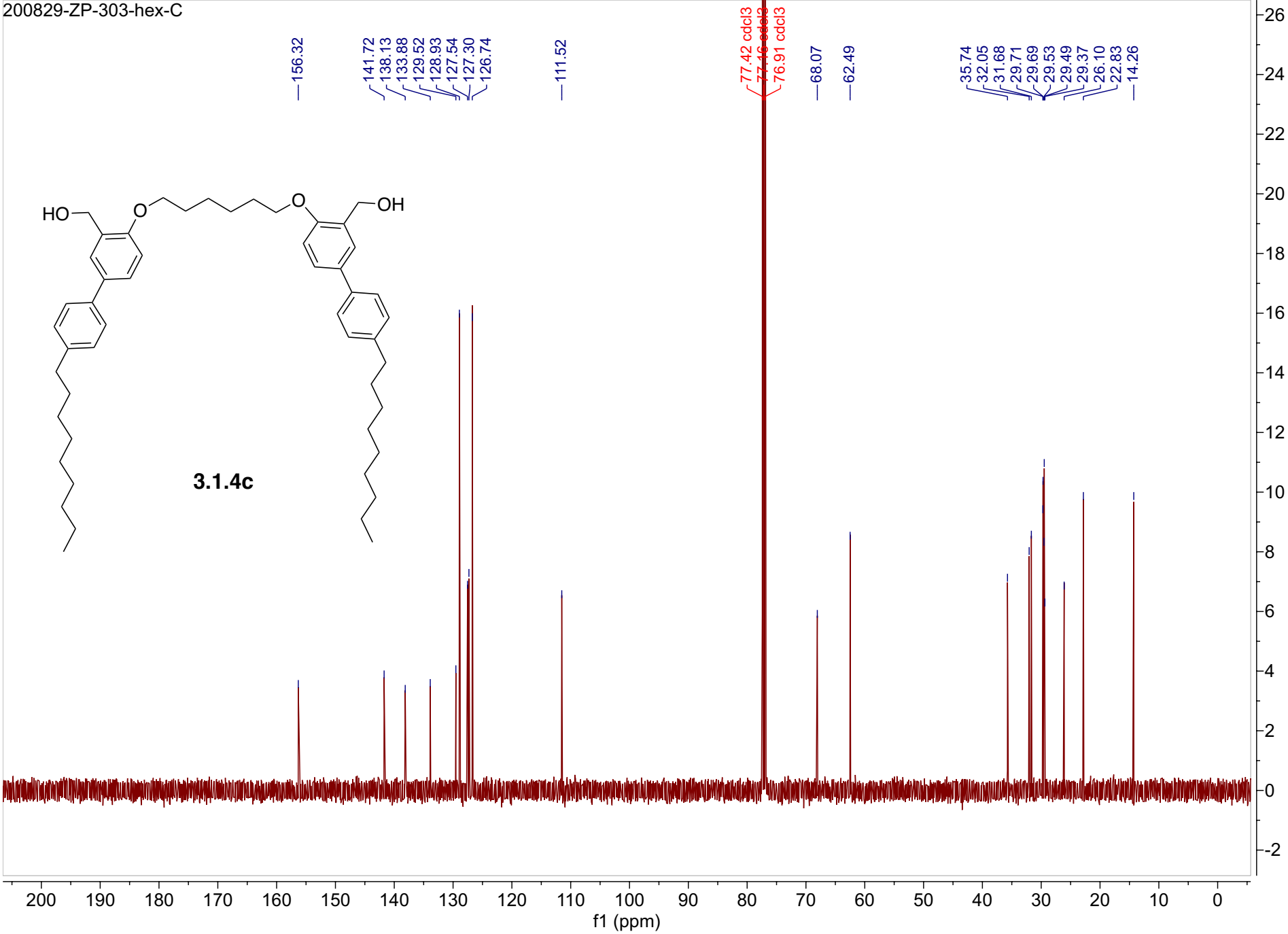
Evidence of chelating: (aromatic region)

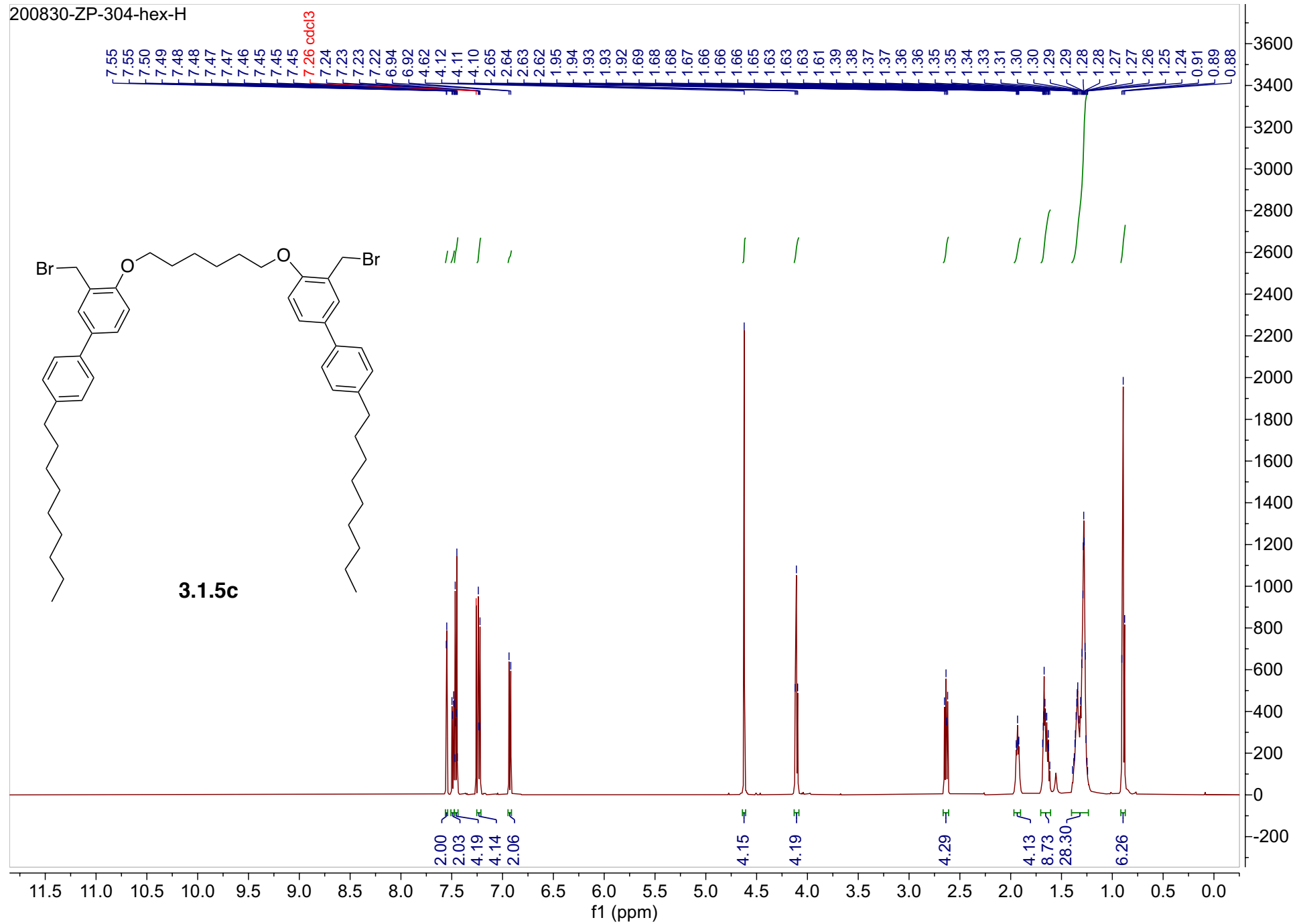


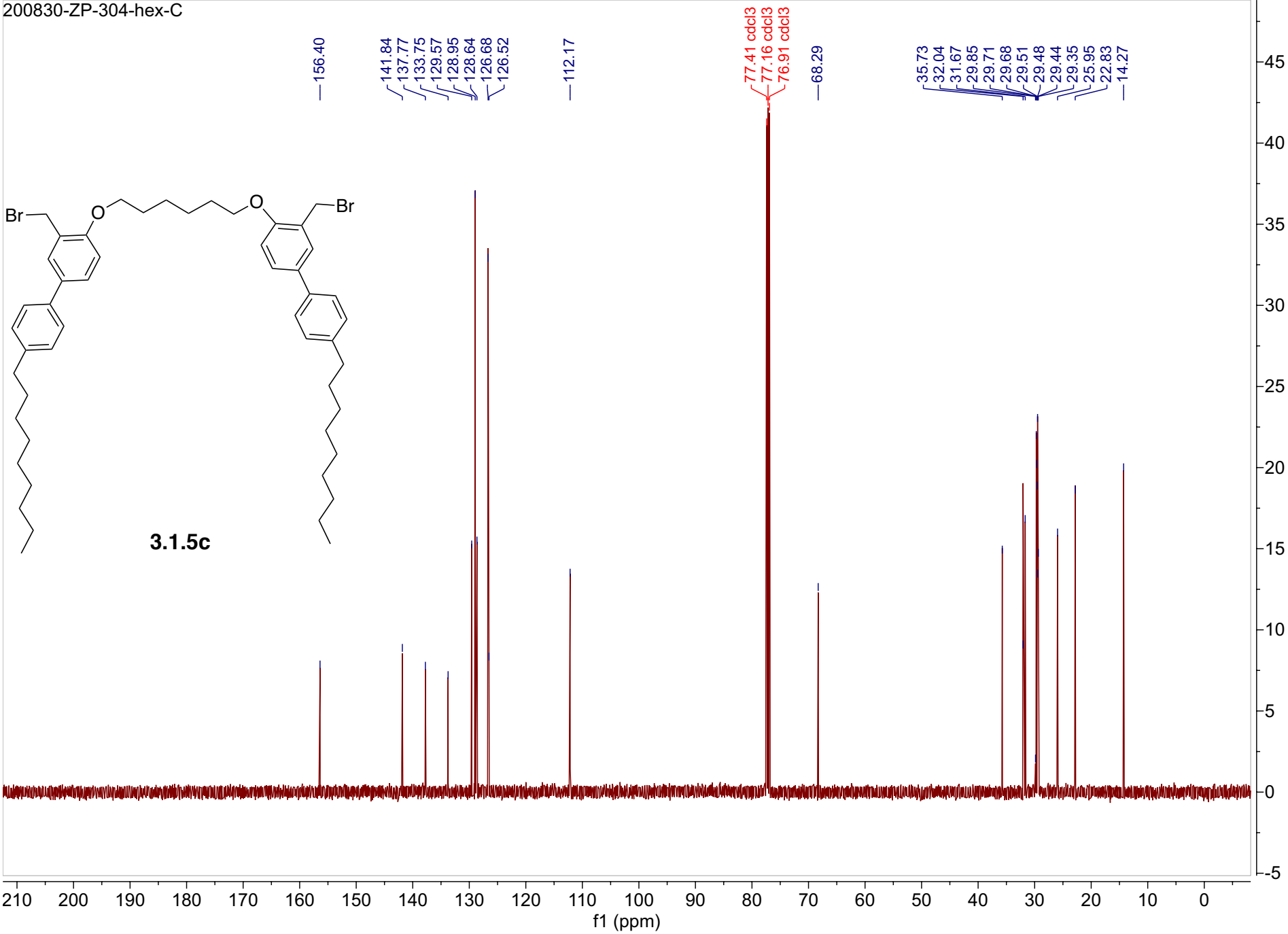


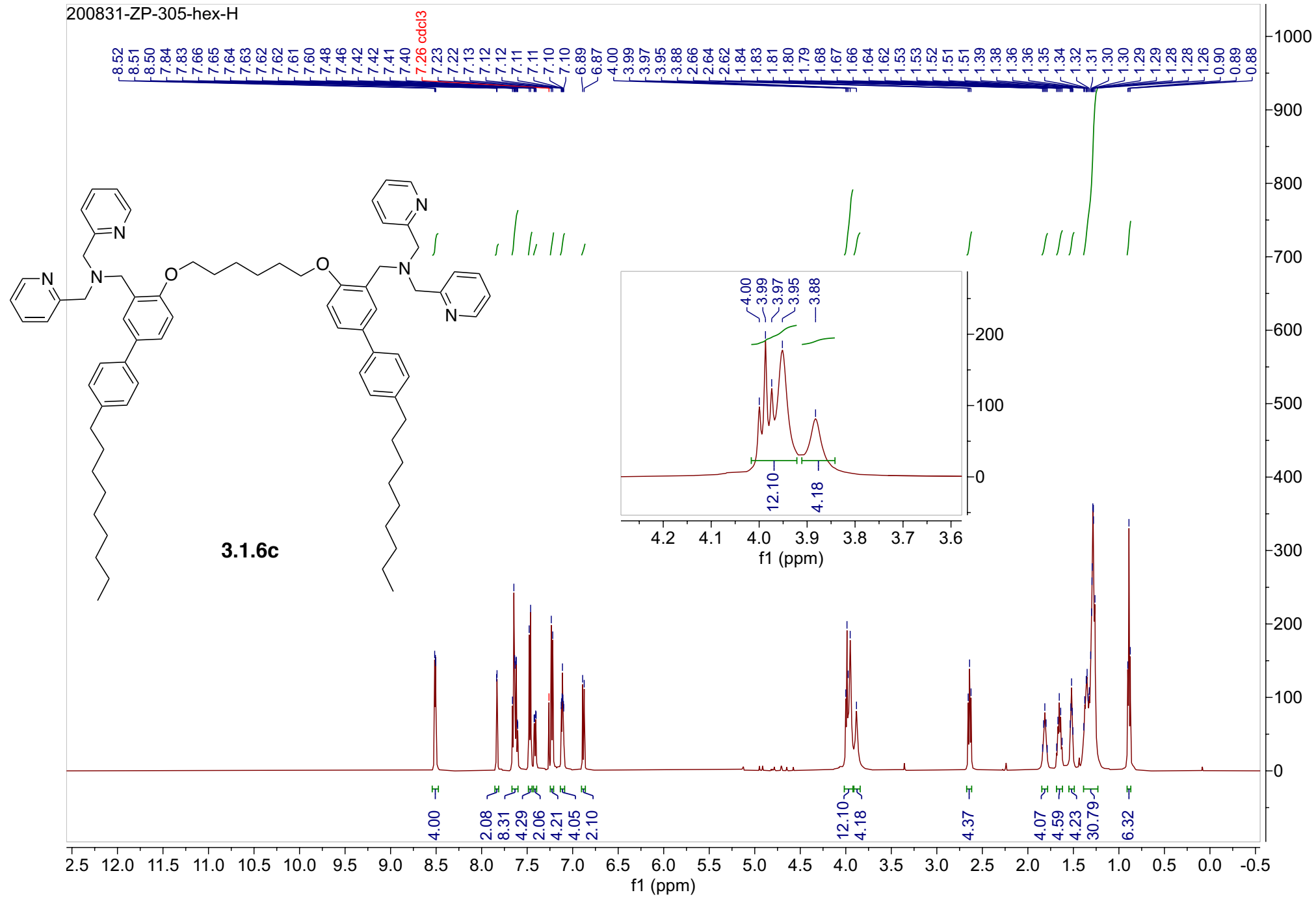


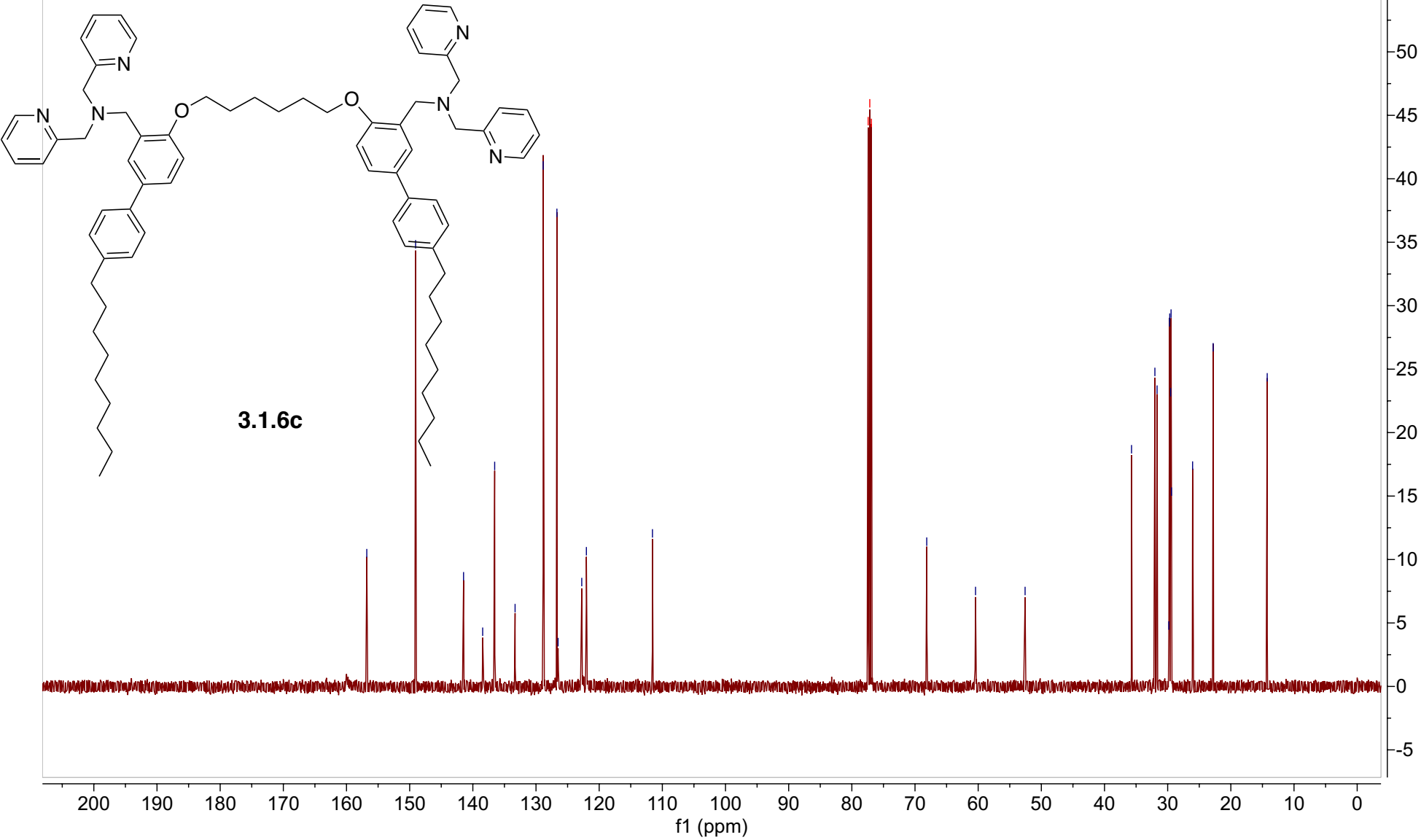












Acq. Data Name: 200831_Best_Lou_ZP-305-hex

Internal Sample Id:

Ionization Mode: ESI+

MS Calibration Name: DART(+)-PEG_1000_09112019

Reduction History: Determine m/z[Peak Detect[Centroid,15,Area]; Correct Base[]; Smooth[5]; Correct Base[5.0%]; Average[MS[1] 2.454..2.470]

Experiment Date/Time: 8/31/2020 5:59:21 PM

Orifice1 Volt Sweep: 10V

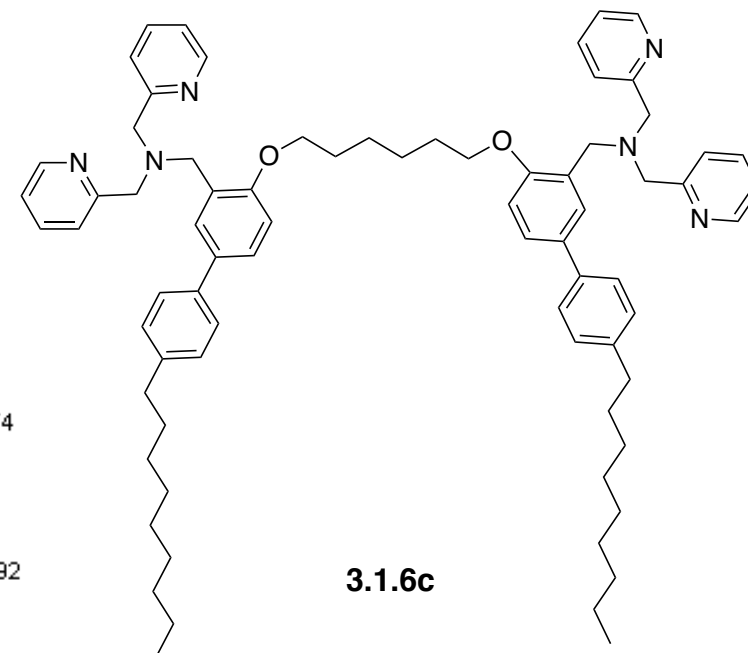
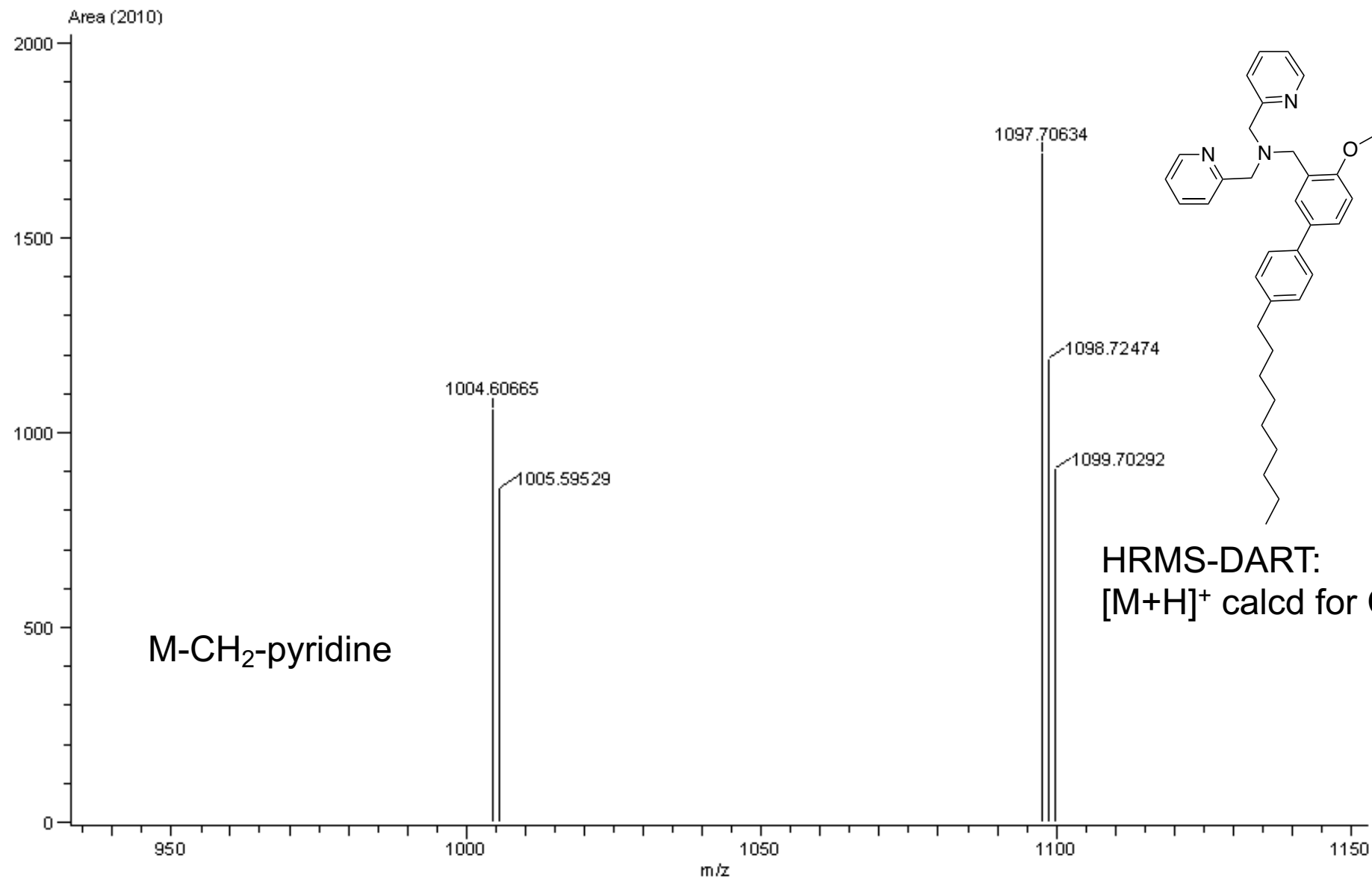
Acquired m/z Range: 900.0..1200.0

Spec. Record Interval: 1.0[s]

Ring Lens Volt: 5[V]

Time of Maximum: 2.463[min]

Operator Name: jlou4

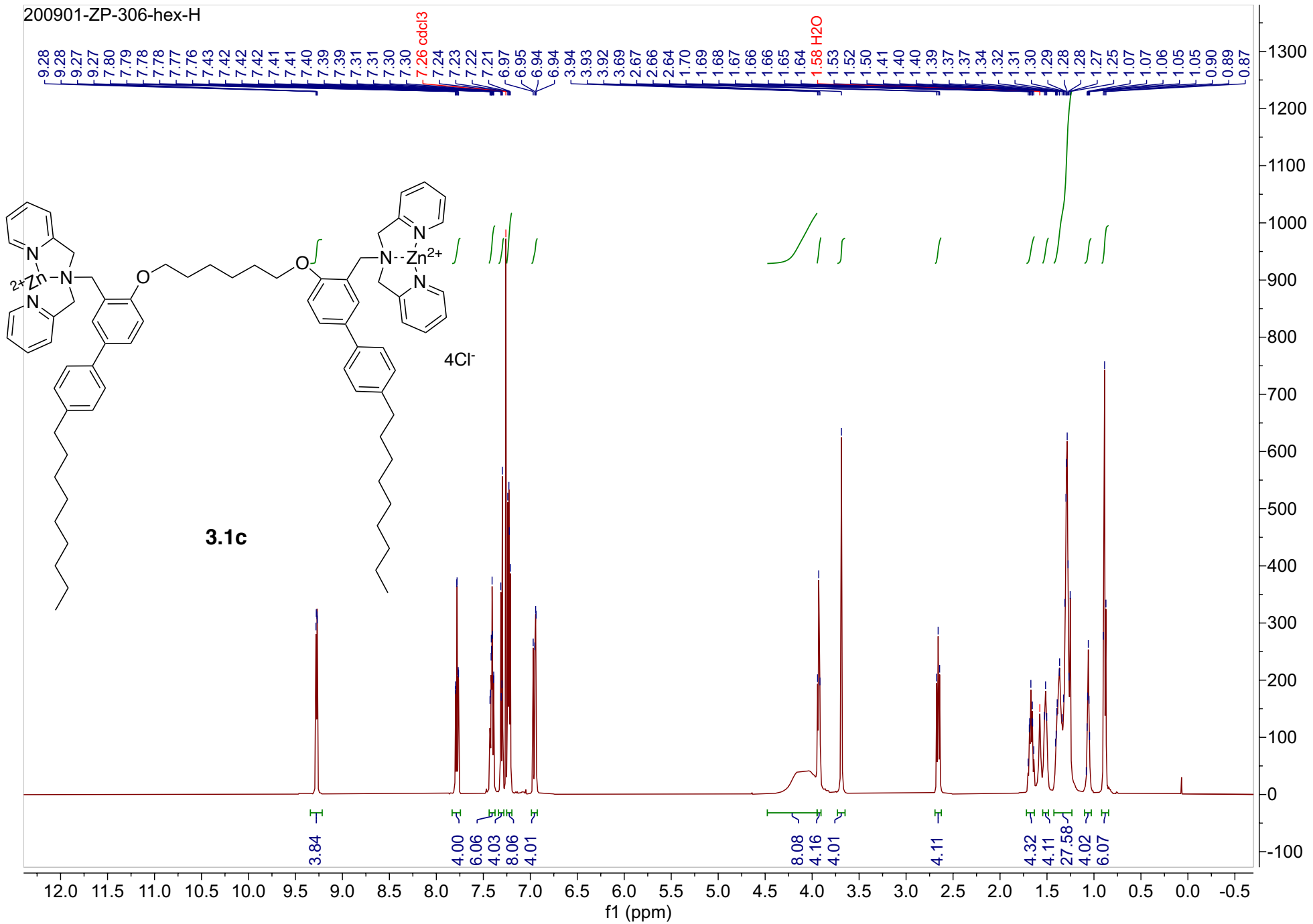


3.1.6c

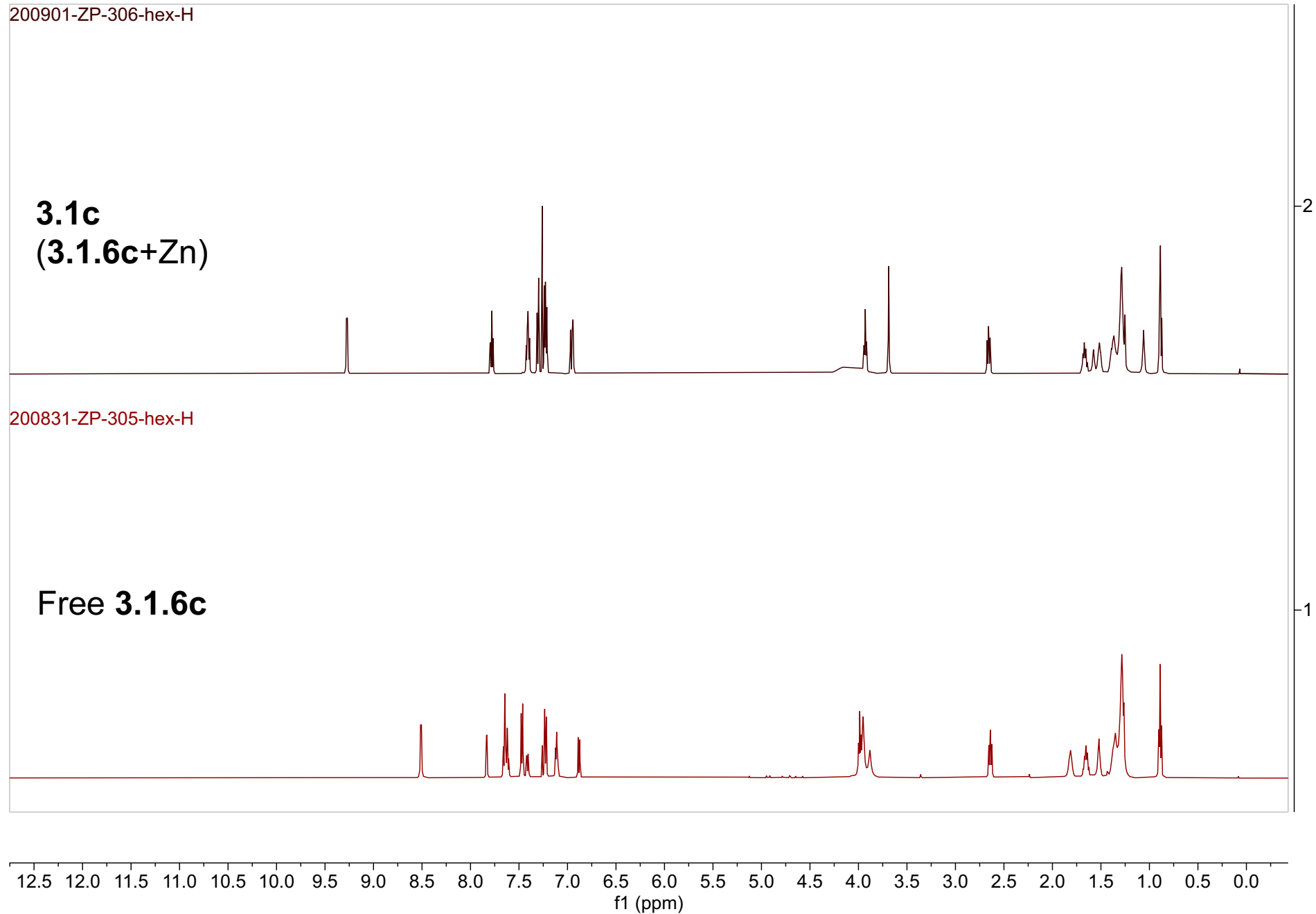
HRMS-DART:

[M+H]⁺ calcd for C₇₄H₉₃N₆O₂: 1097.7360

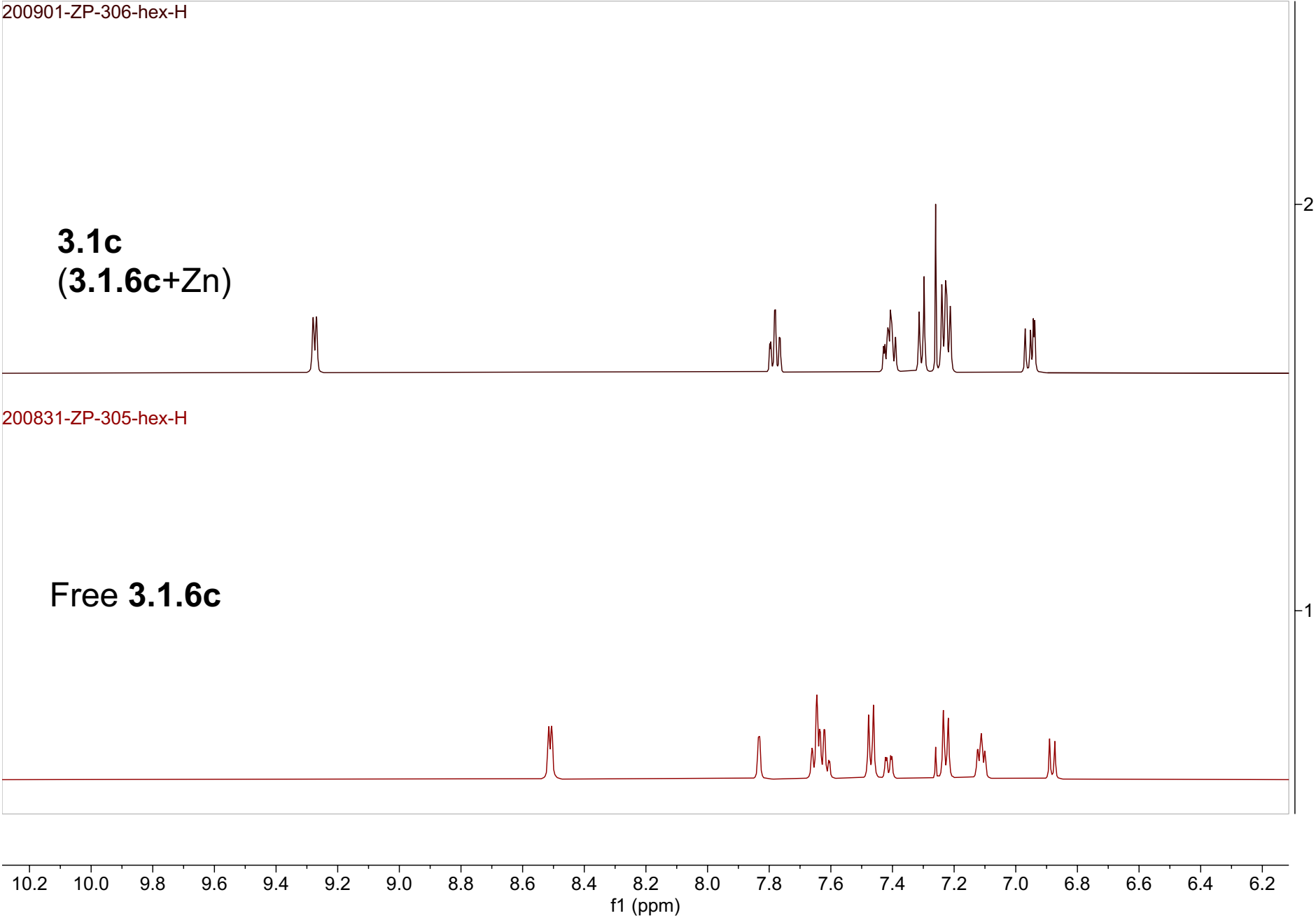
Found: 1097.7063

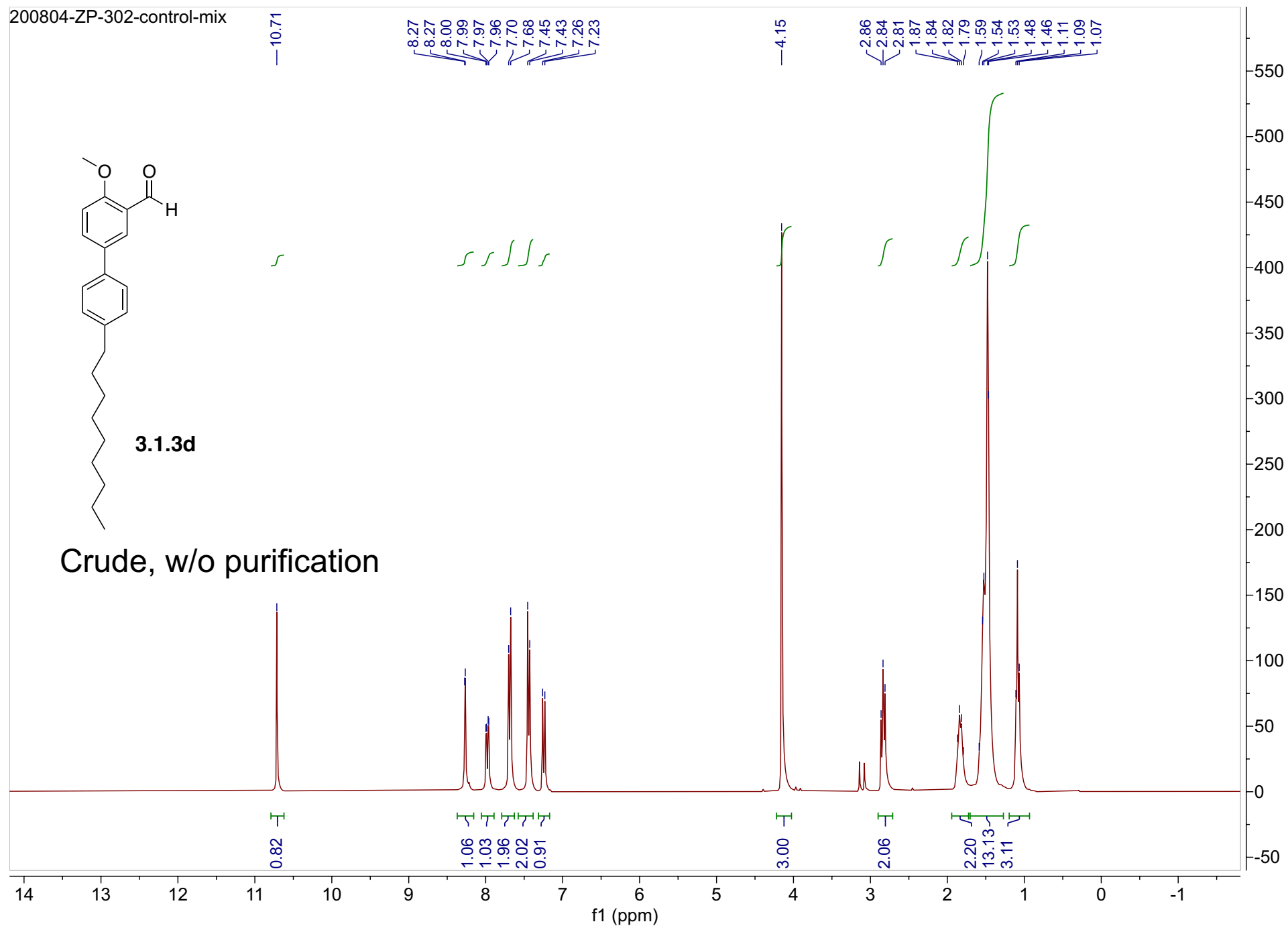


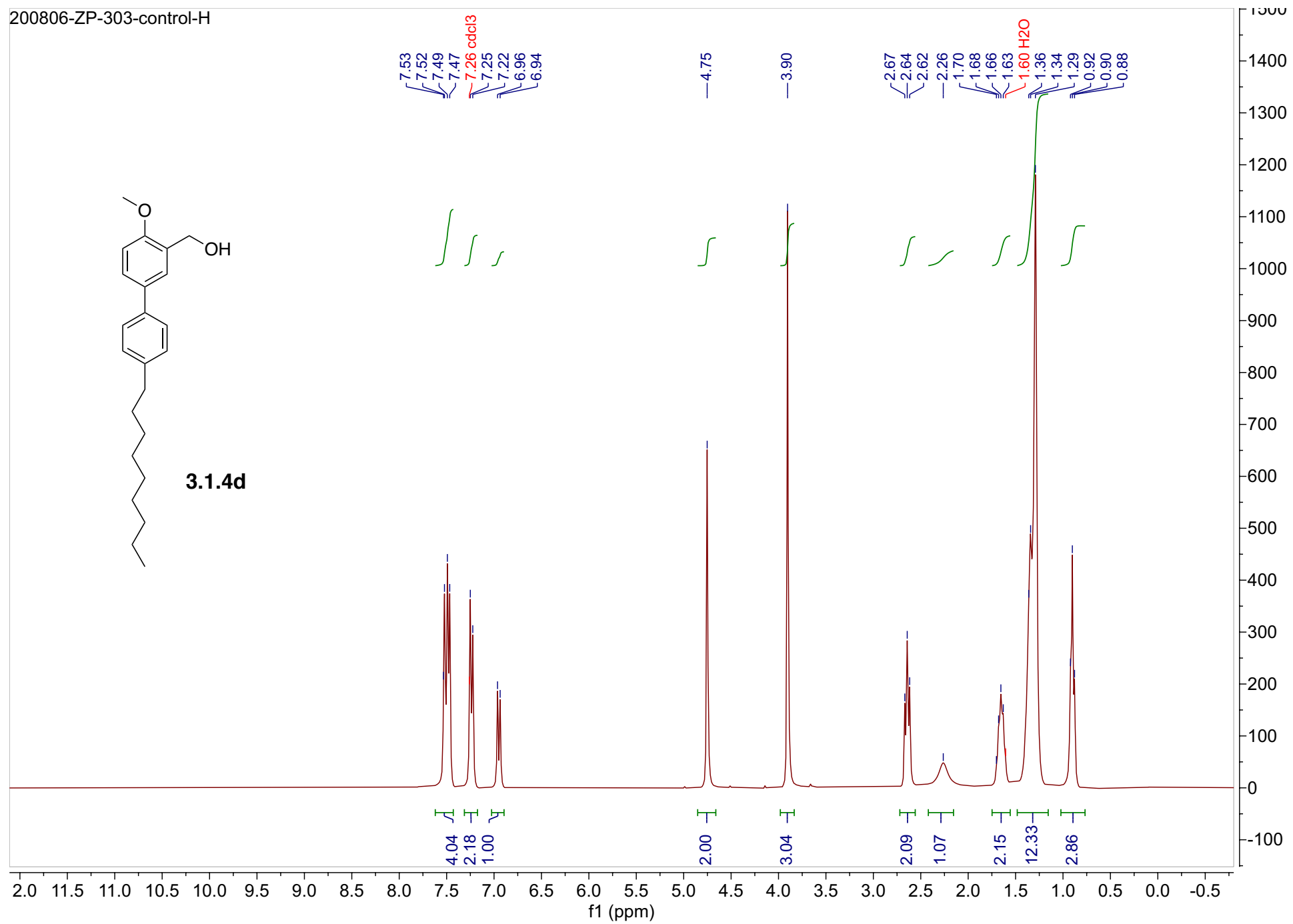
Evidence of chelating: (full spectra)

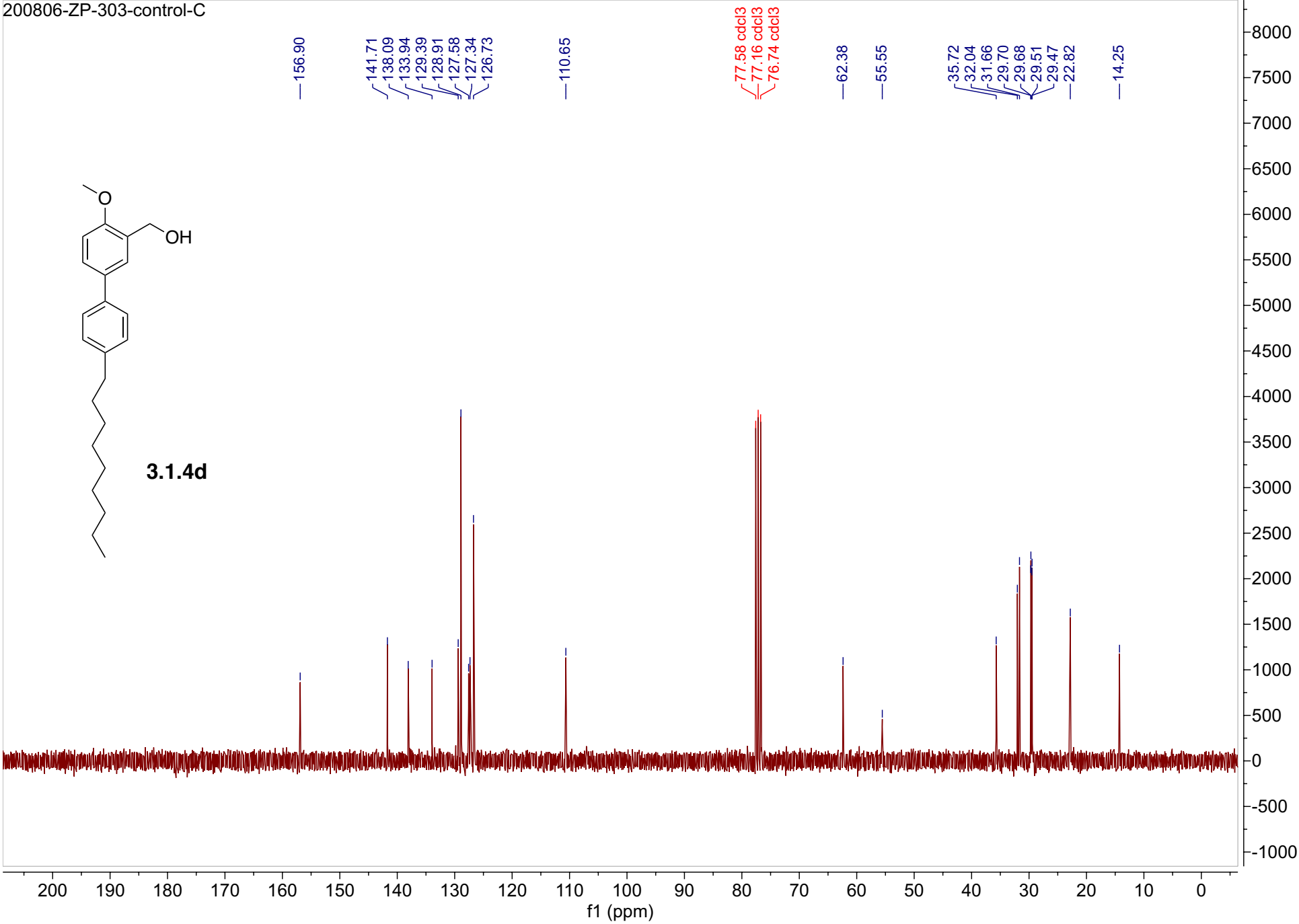


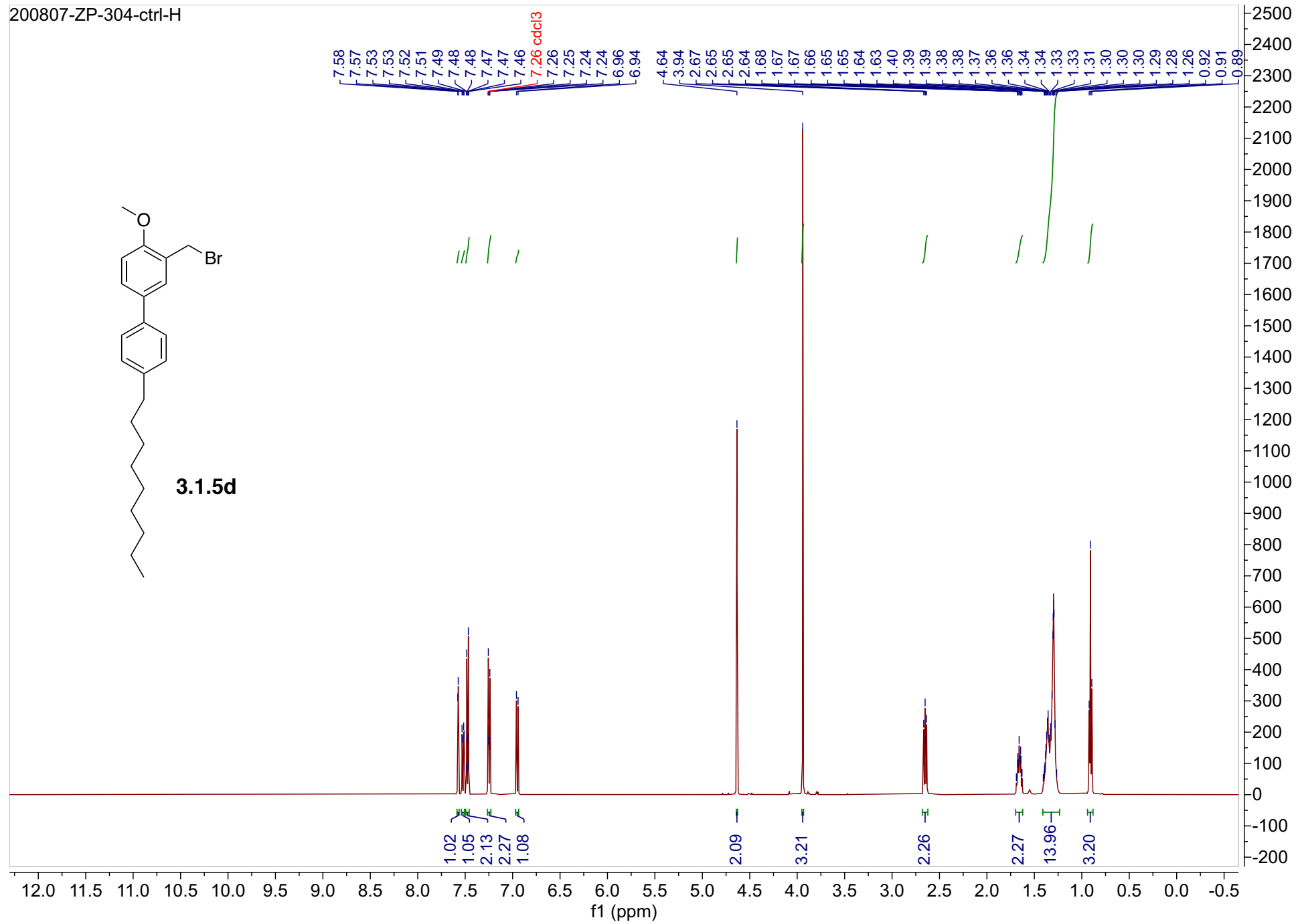
Evidence of chelating: (aromatic region)

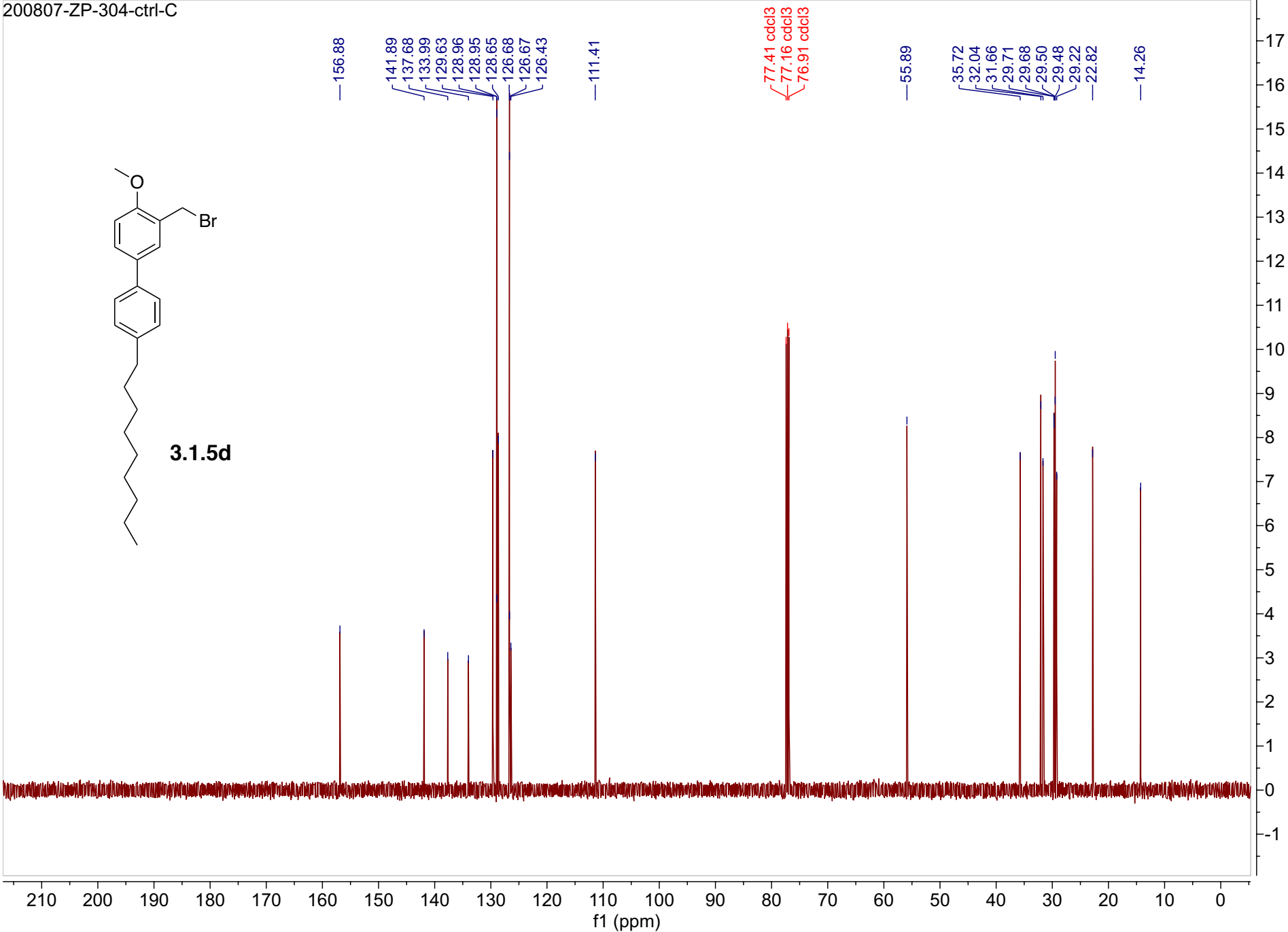


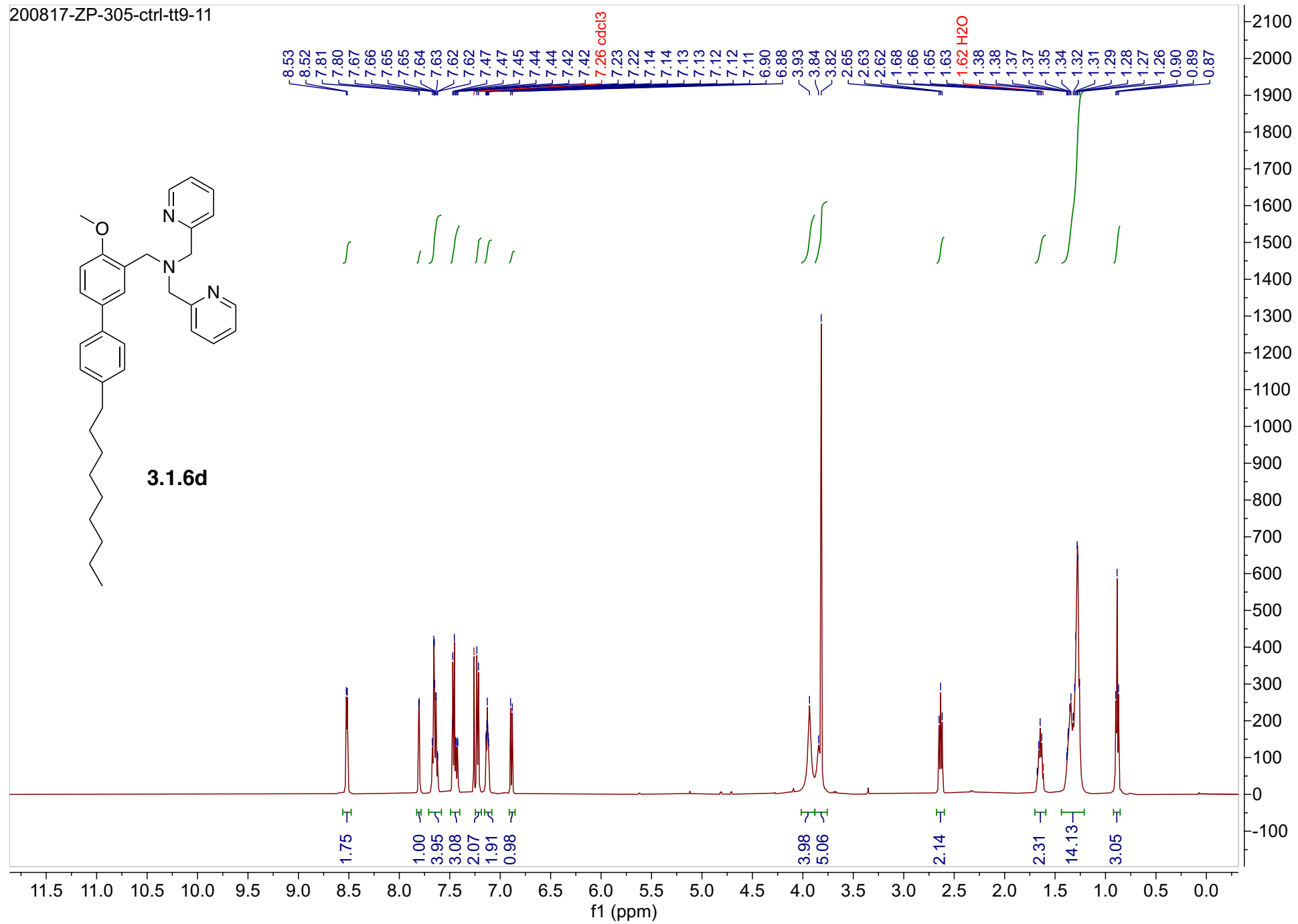


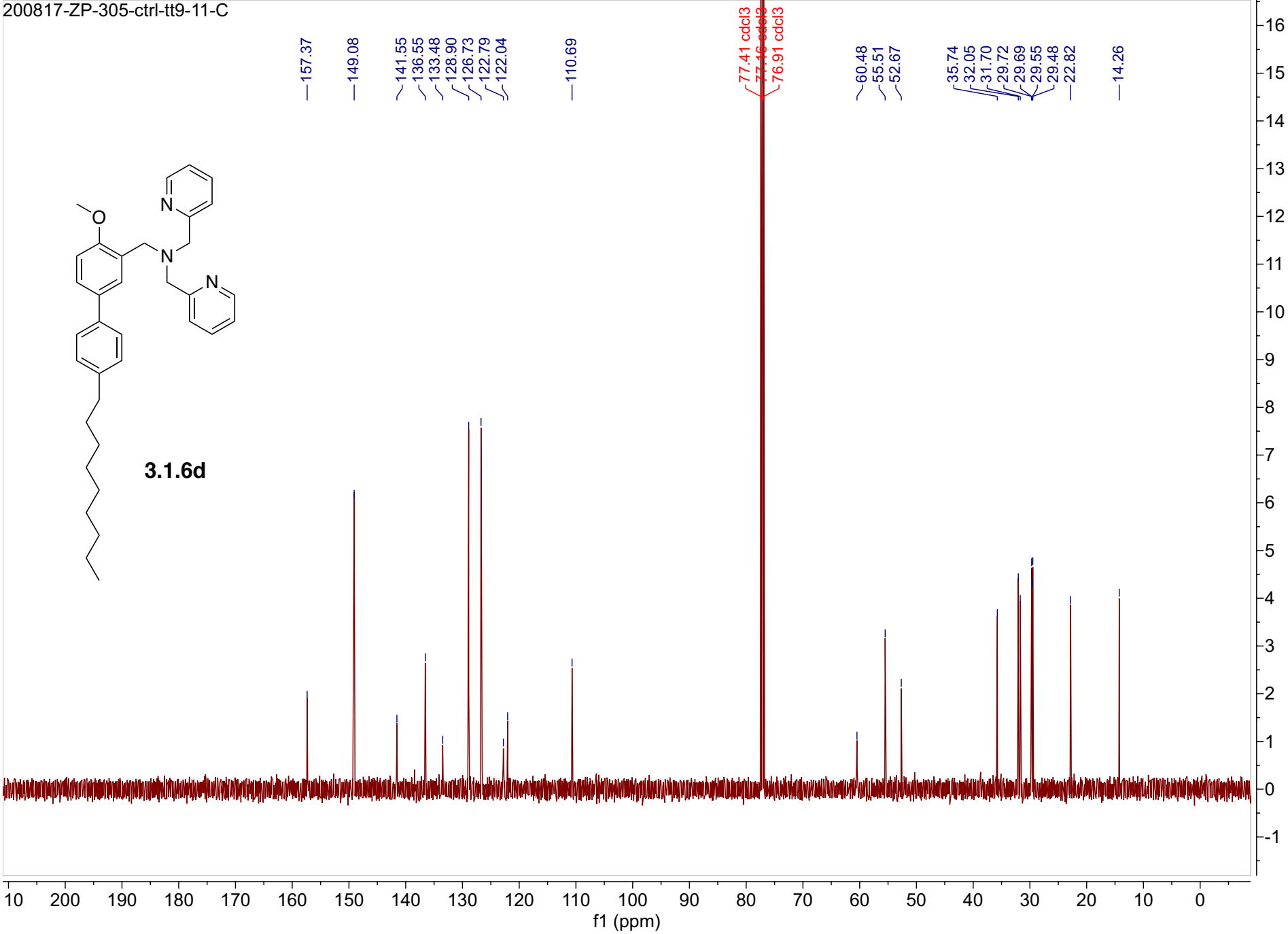












Acq. Data Name: 200817_Best_Lou_ZP-305-drl

Internal Sample Id:

Ionization Mode: ESI+

MS Calibration Name: DART(+)/PEG 1000 09112019

Reduction History: Determine m/z[Peak Detect[Centroid,15,Area]; Correct Base[]; Smooth[5]]; Correct Base[5.0%]; Average(MS[1] 0.608..0.641)

Experiment Date/Time: 8/17/2020 11:49:19 AM

Orifice1 Volt Sweep: 10V

Acquired m/z Range: 450.0..650.0

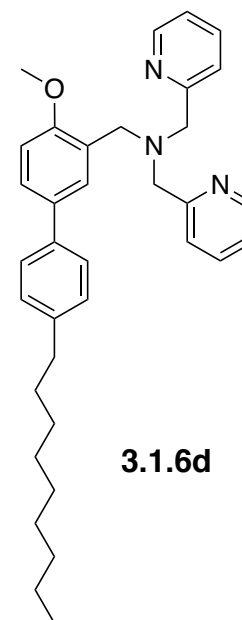
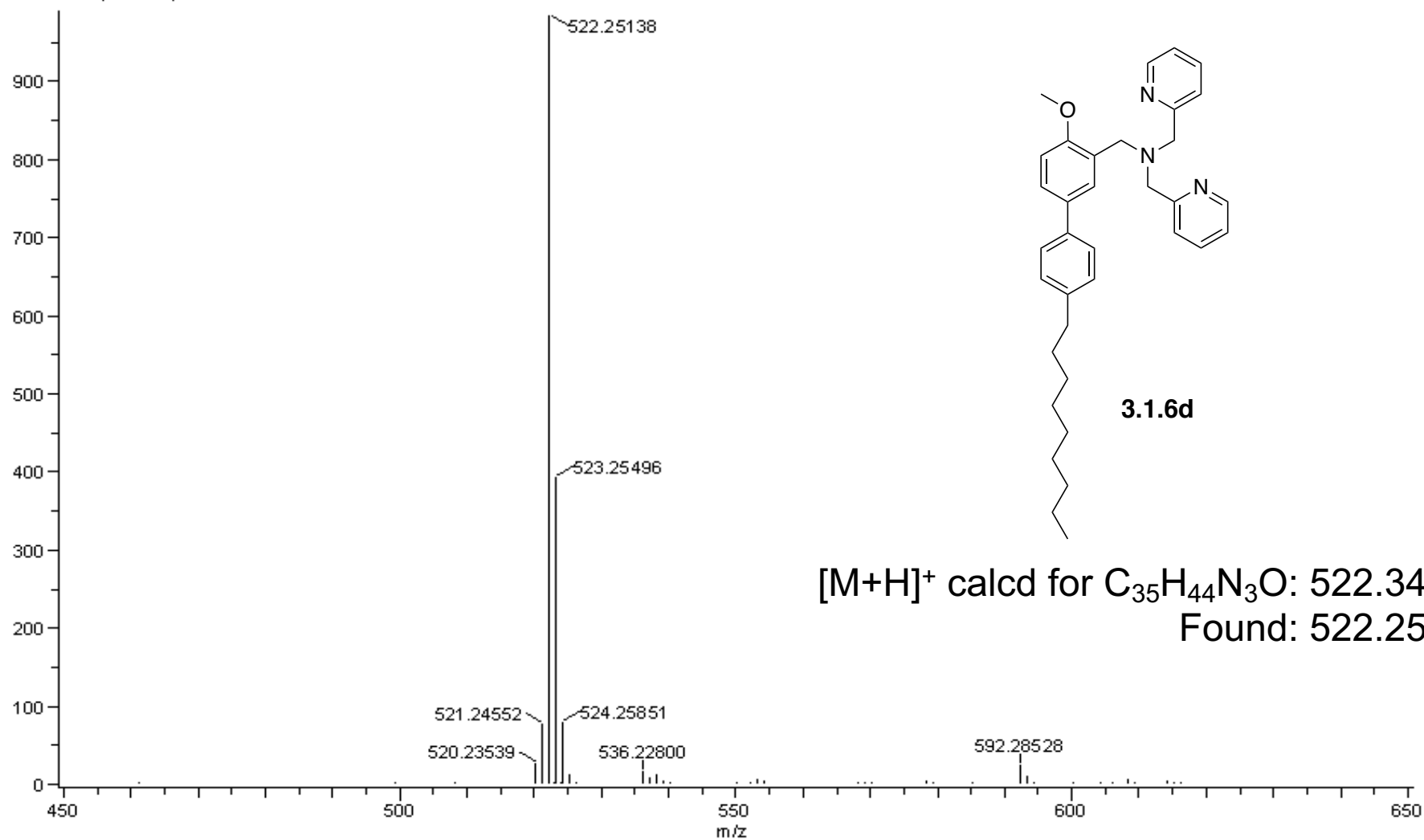
Spec. Record Interval: 1.0[s]

Ring Lens Volt: 5[V]

Time of Maximum: 0.631[min]

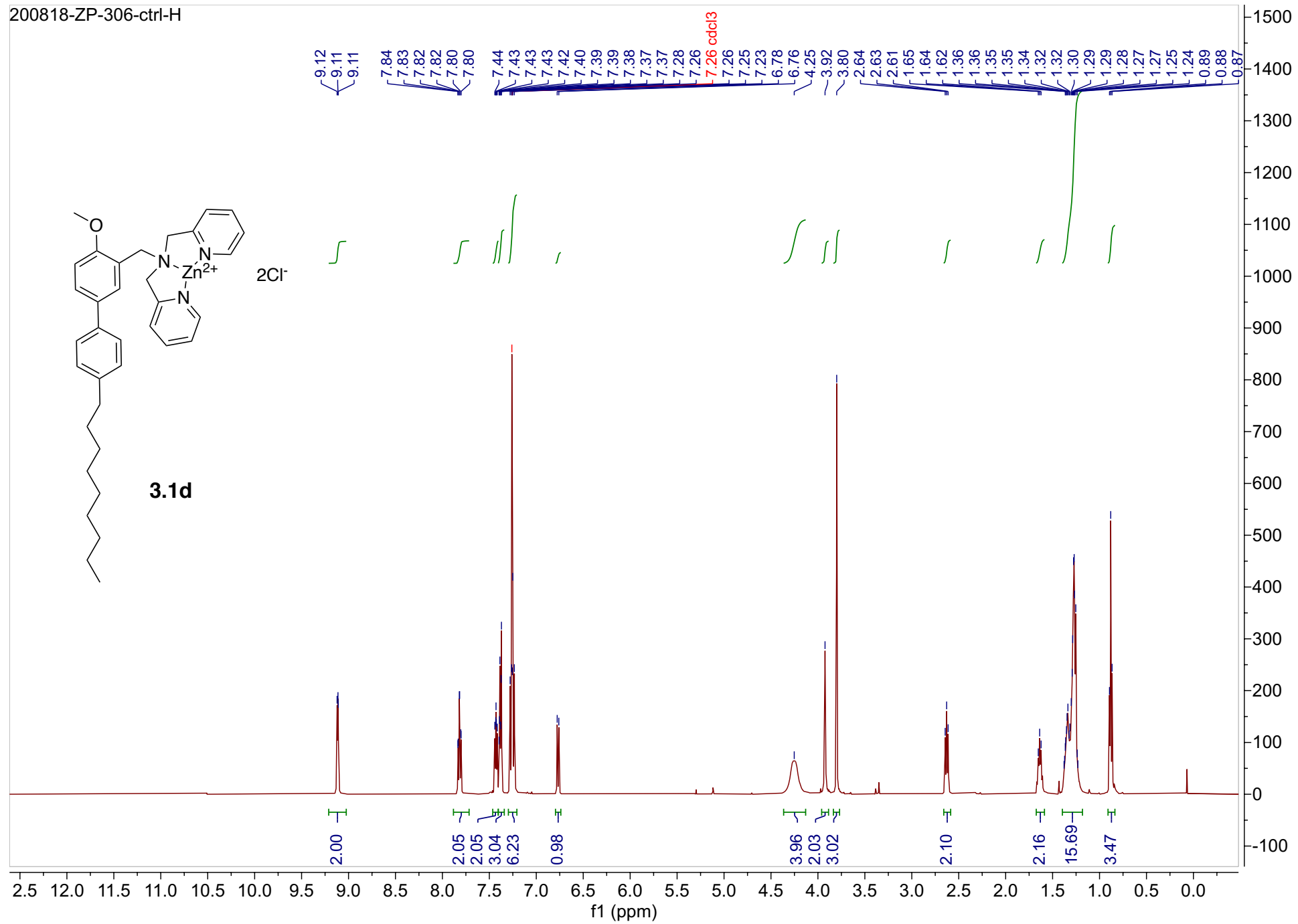
Operator Name: jlou4

x10³ Area (984840)

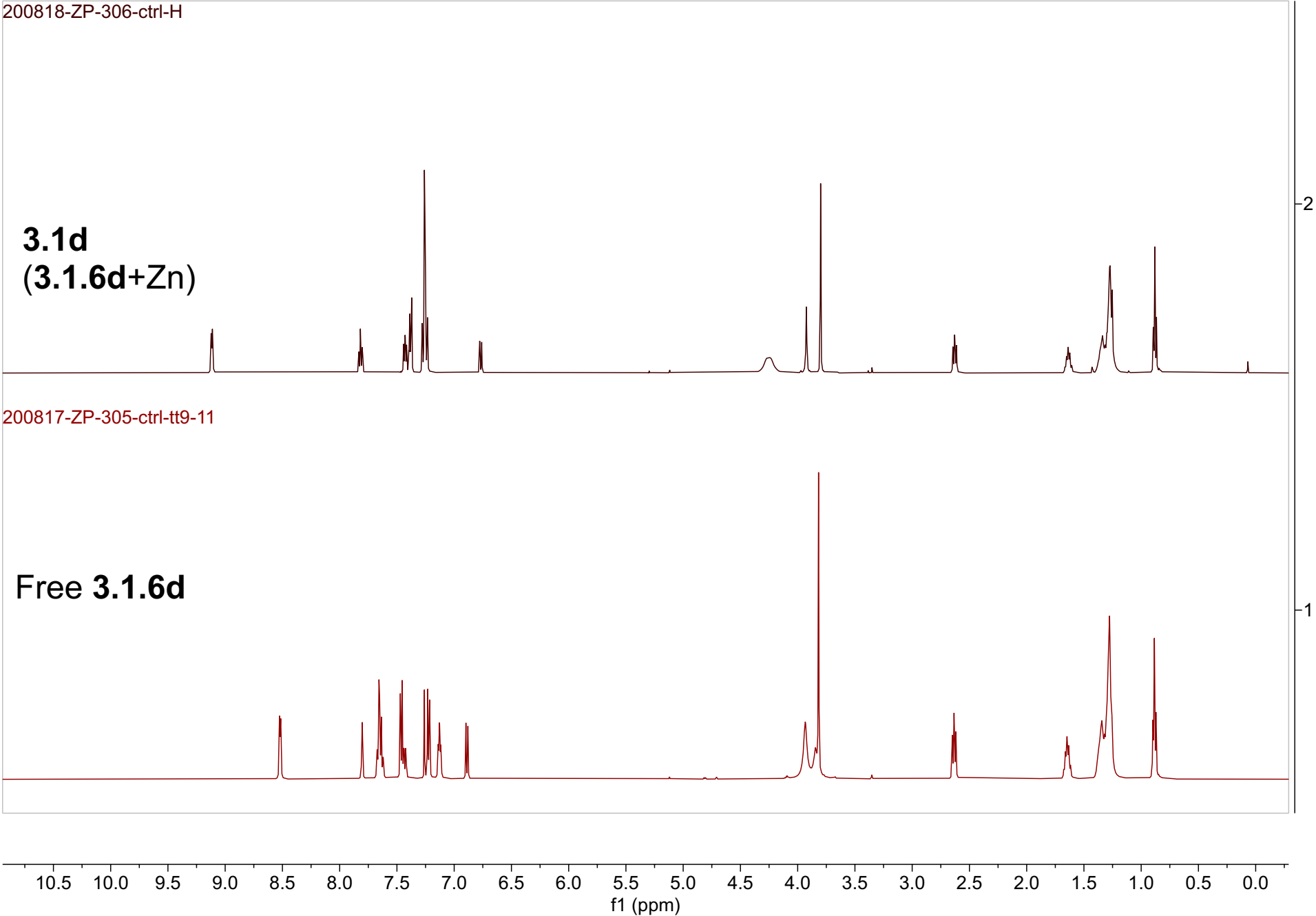


3.1.6d

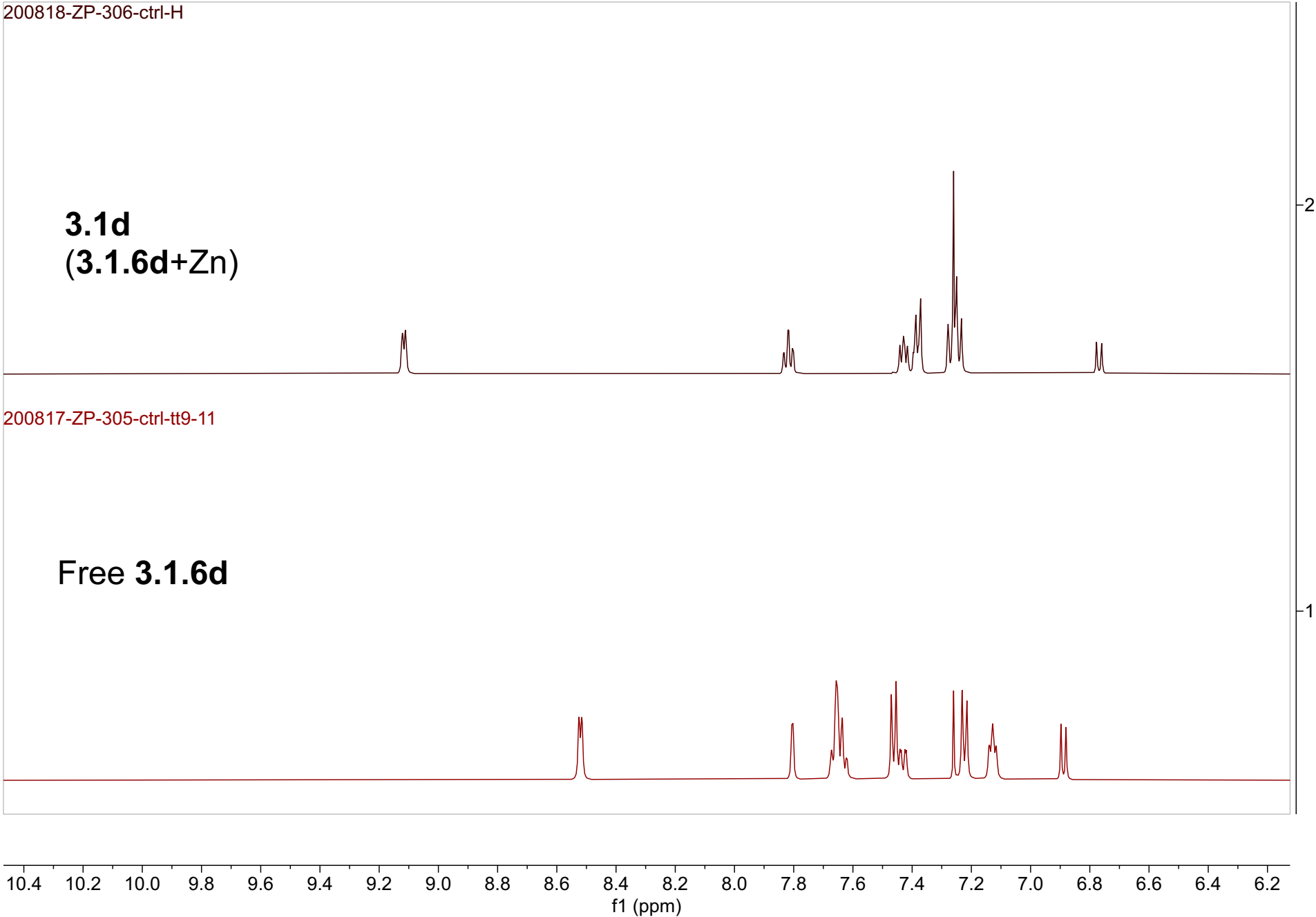
[M+H]⁺ calcd for C₃₅H₄₄N₃O: 522.3484
Found: 522.2514

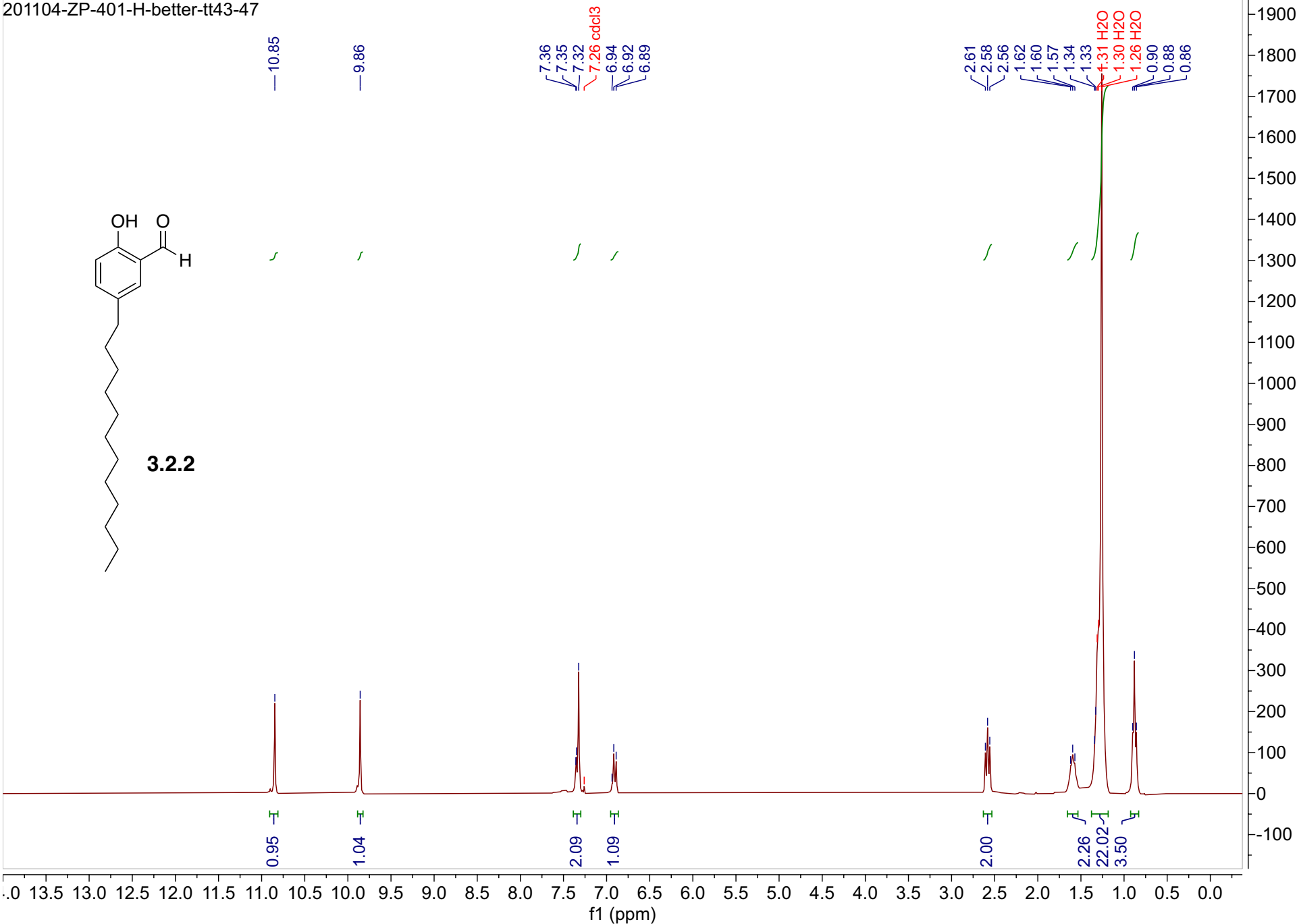


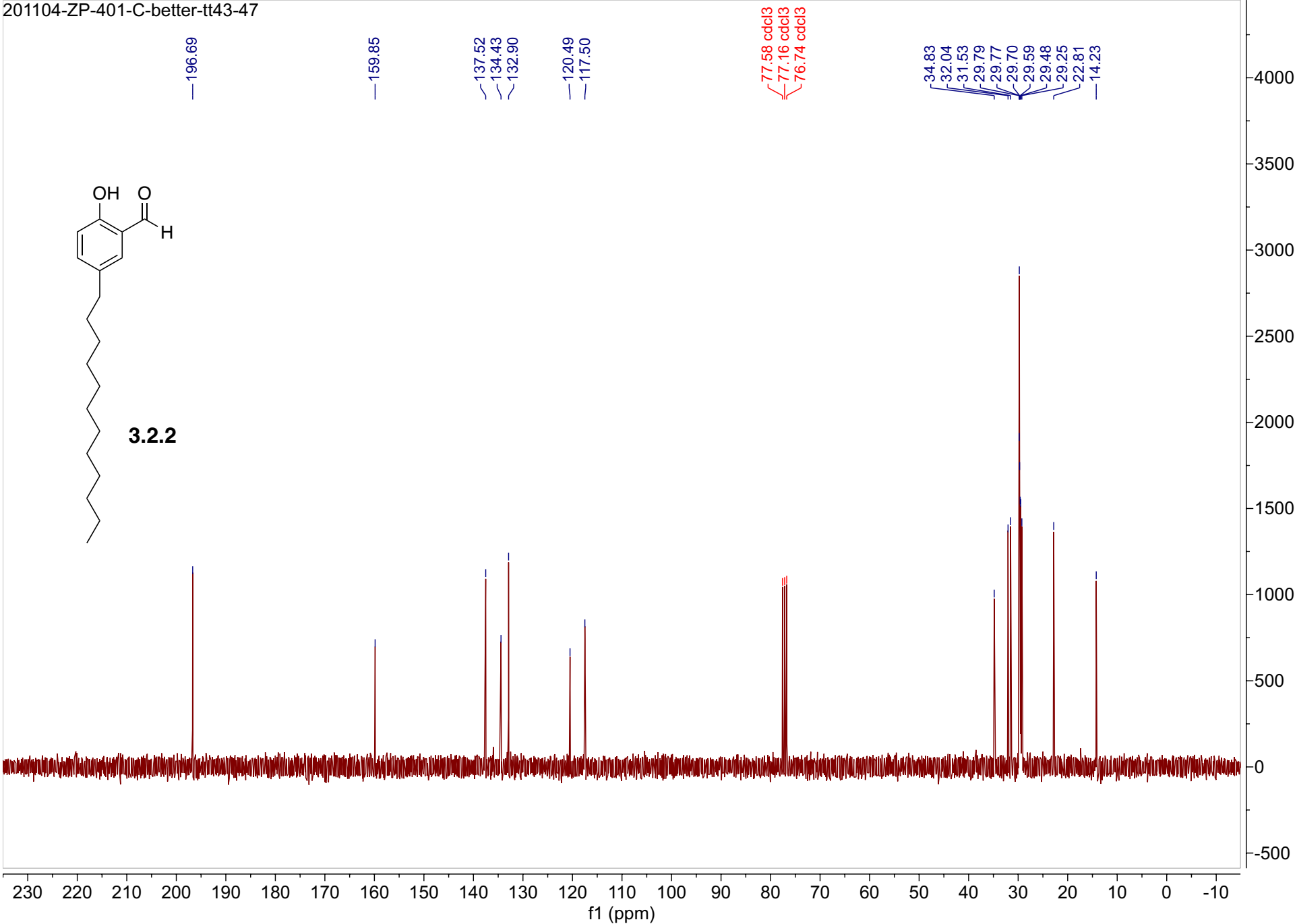
Evidence of chelating: (full spectra)

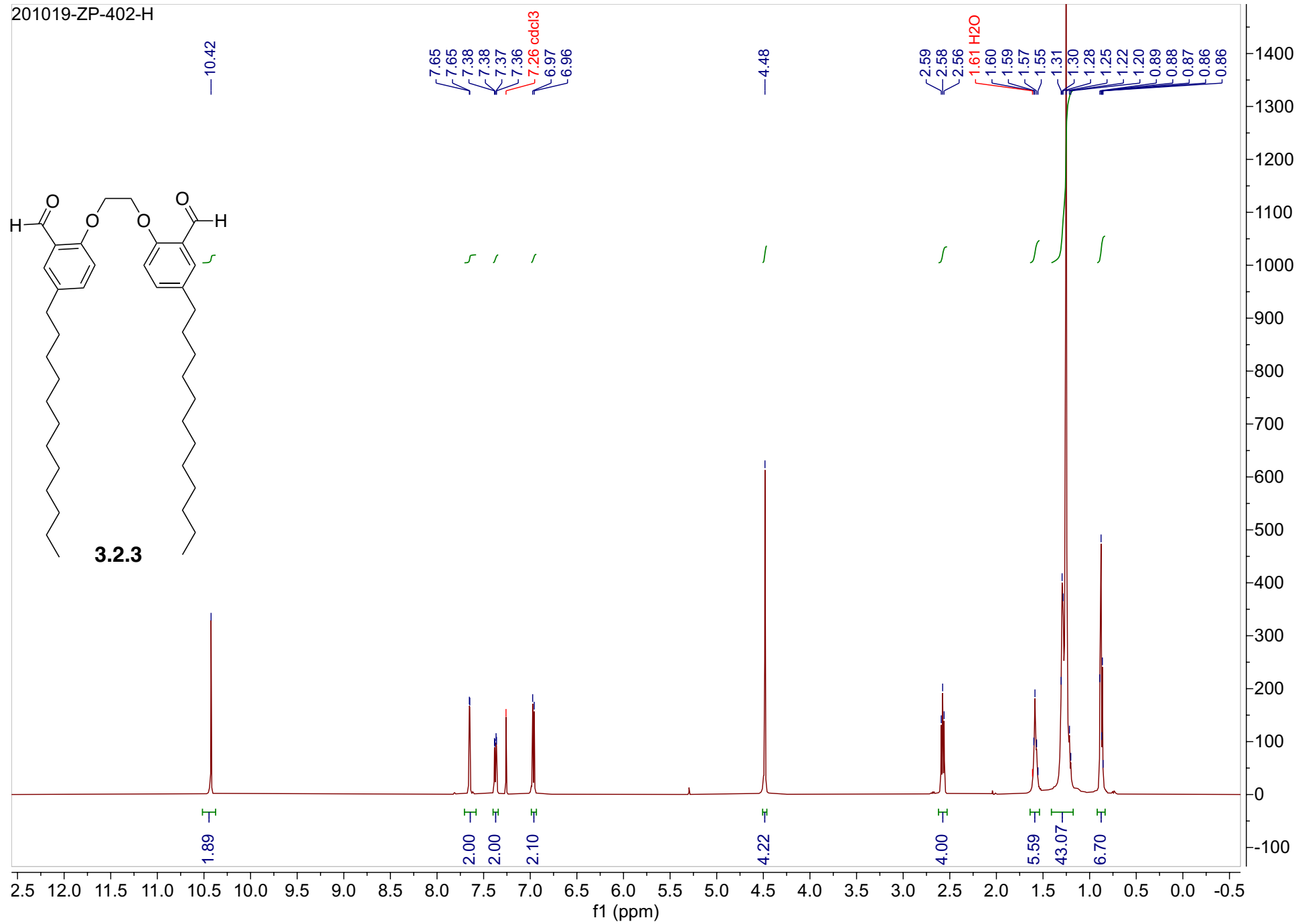


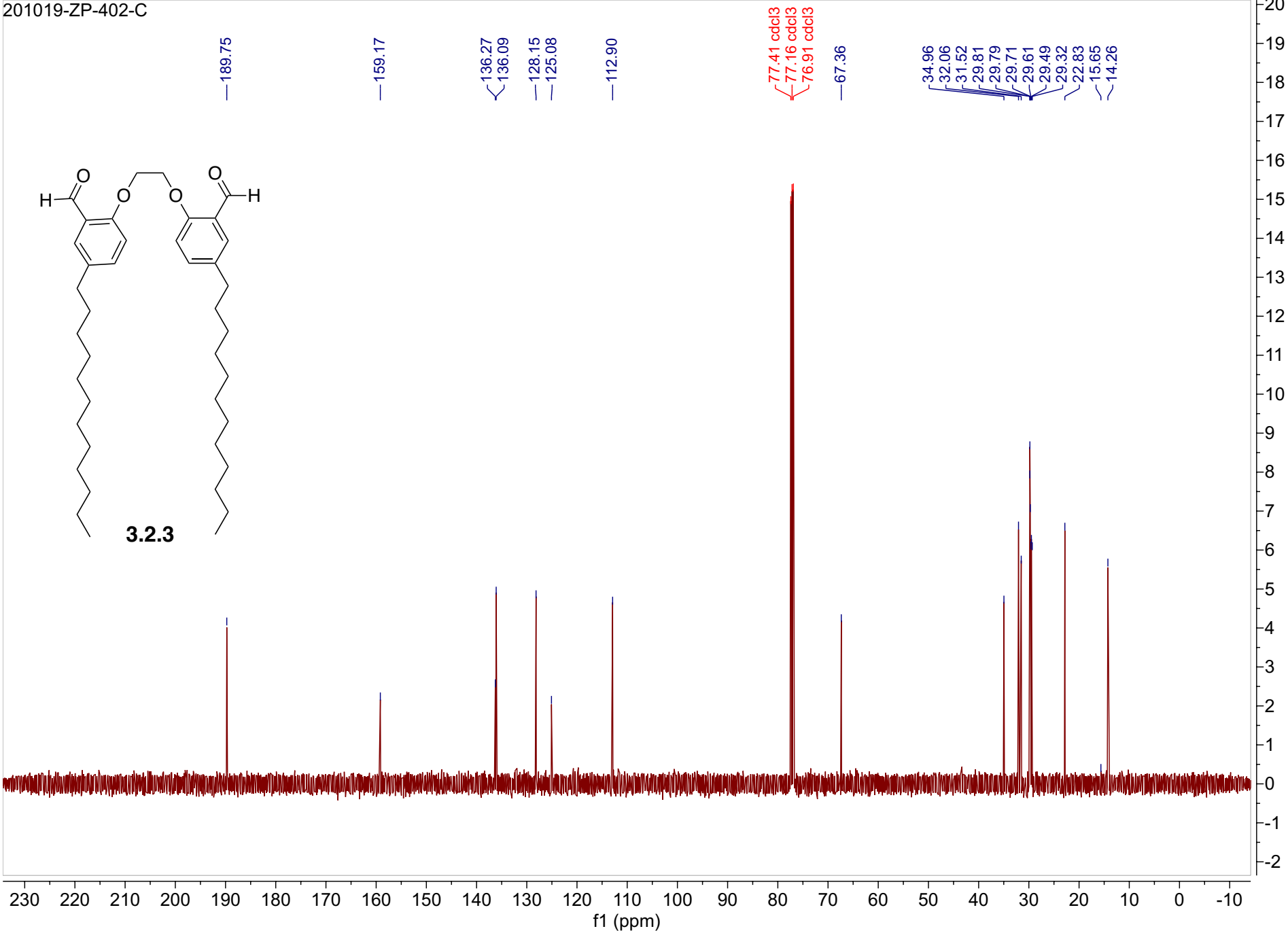
Evidence of chelating: (aromatic region)

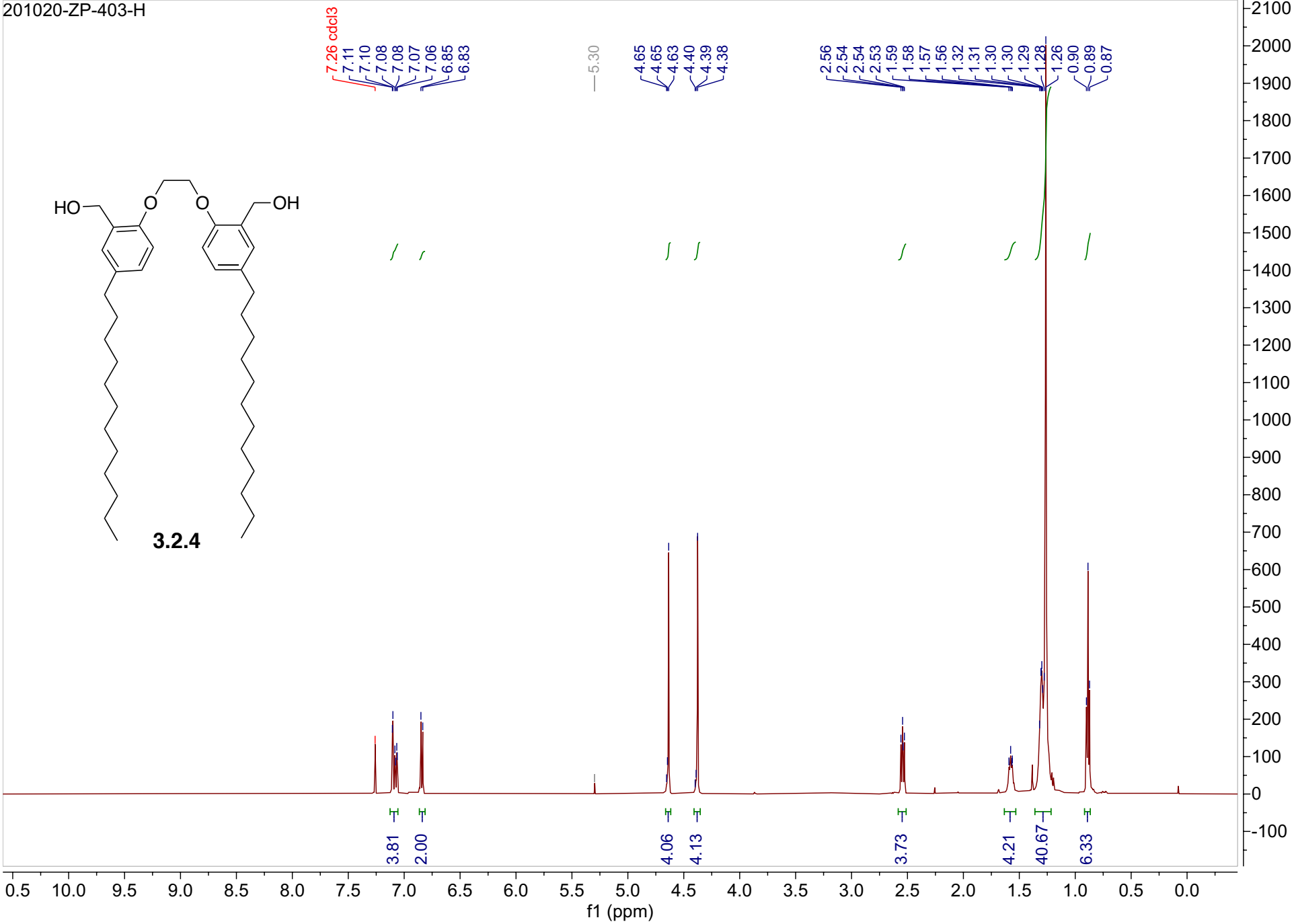


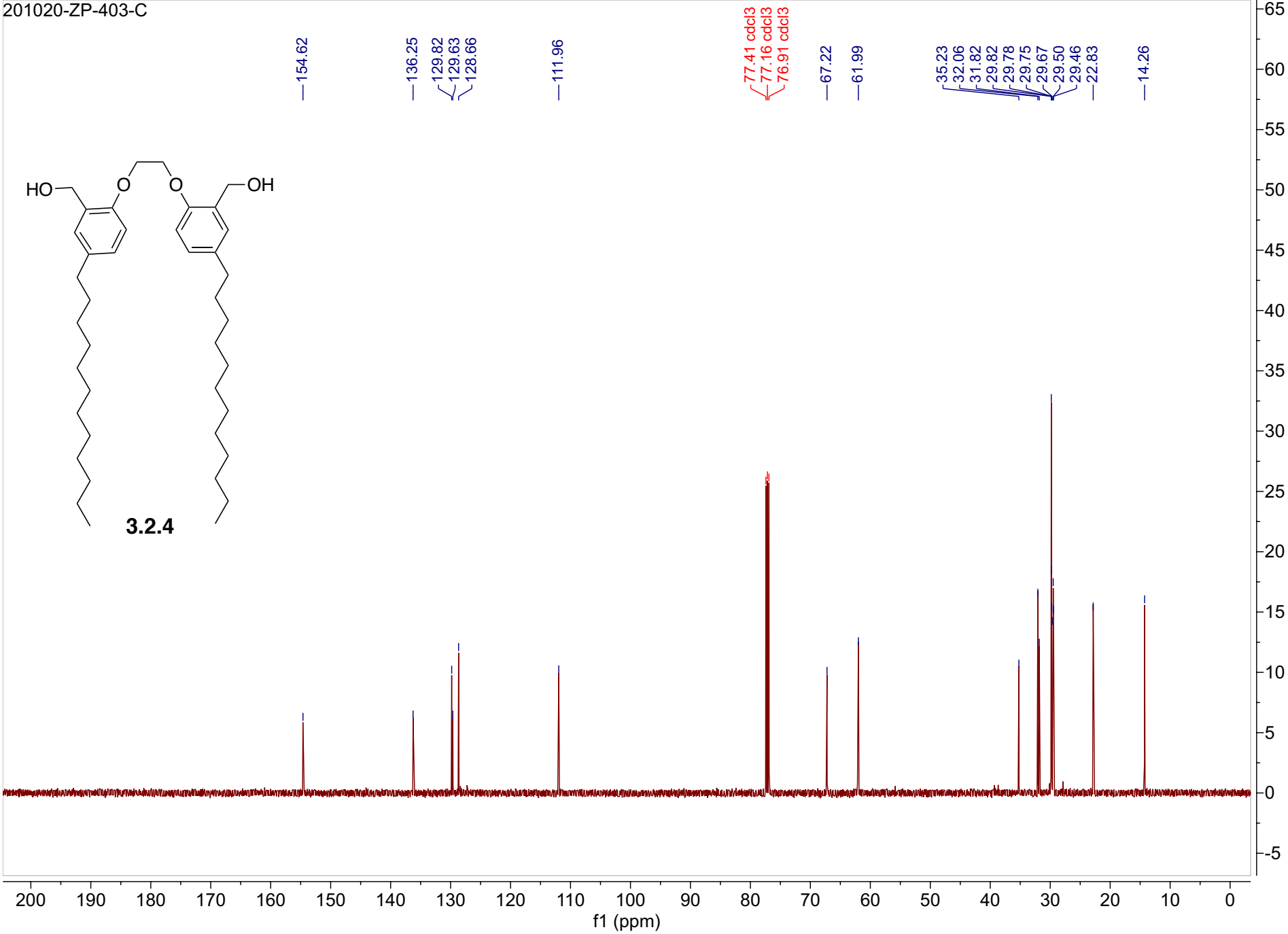


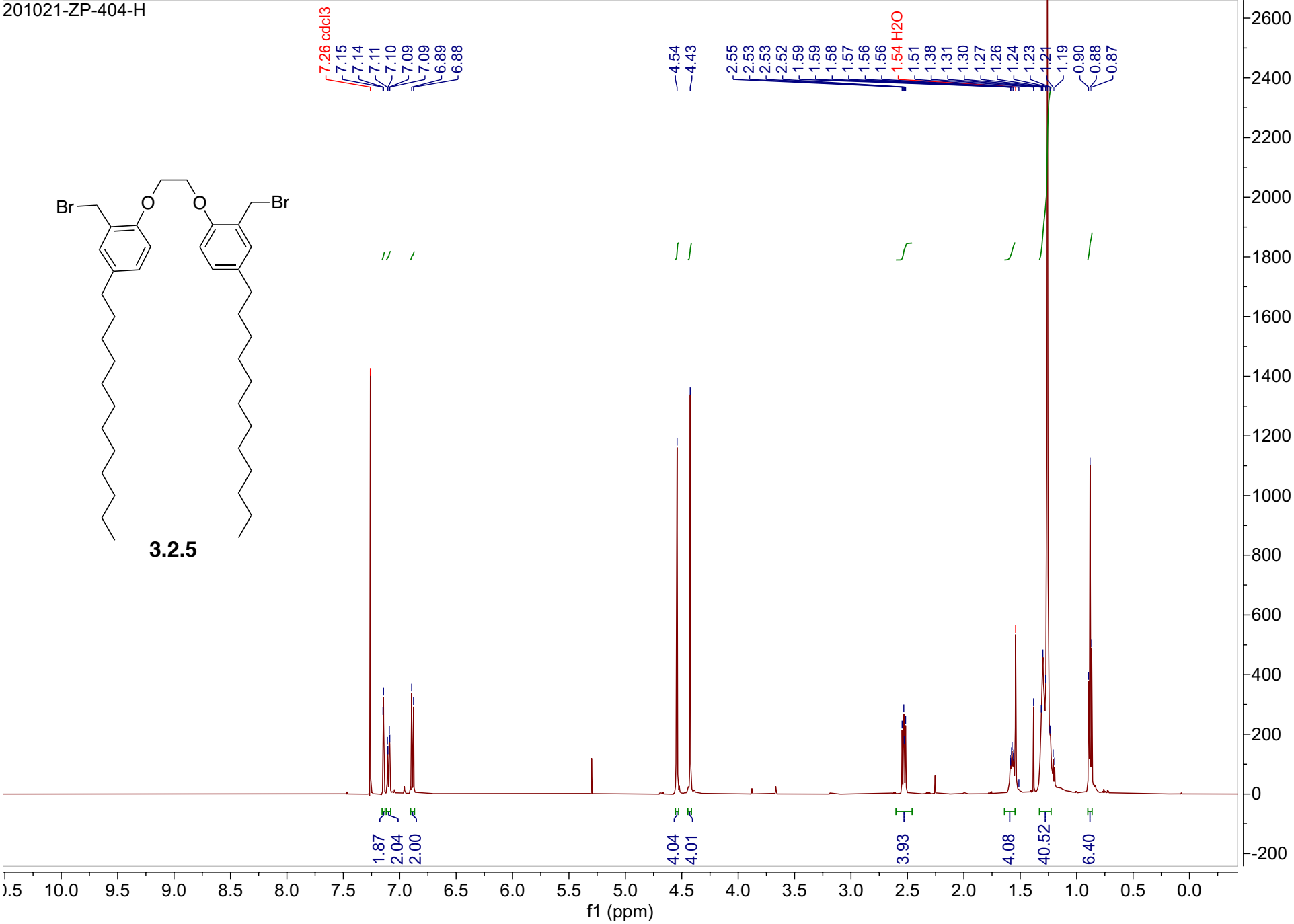


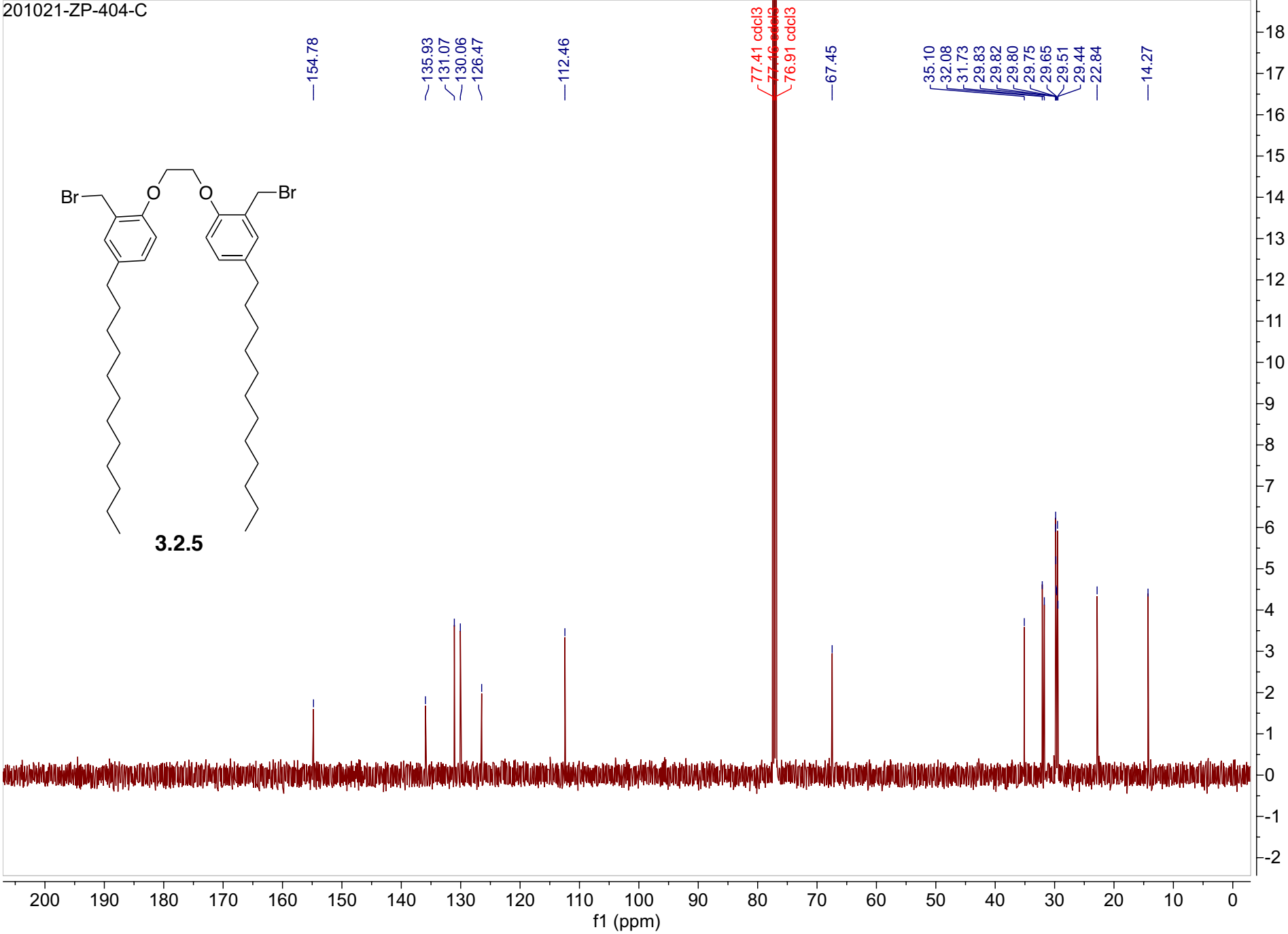


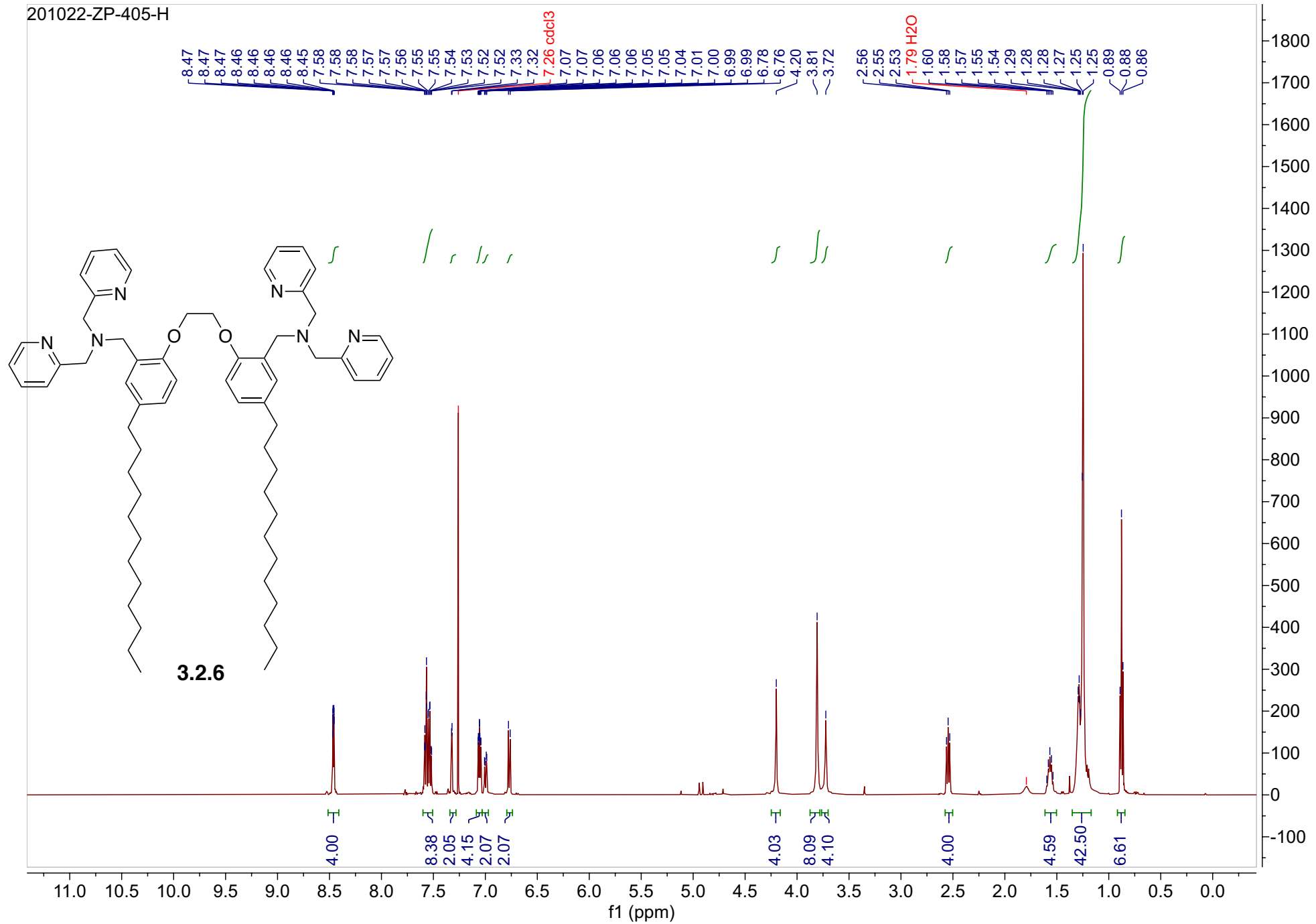












Acq. Data Name: 201022_Best_Lou_ZP-405

Internal Sample Id:

Ionization Mode: ESI+

MS Calibration Name: DART(+)-PEG 1000 09112019

Reduction History: Determine m/z[Peak Detect[Centroid,15,Area]; Correct Base[]; Smooth[5]]; Correct Base[5.0%]; Average[MS[1] 1.124..1.153]

Experiment Date/Time: 10/22/2020 2:05:32 PM

Orifice1 Volt Sweep: 10V

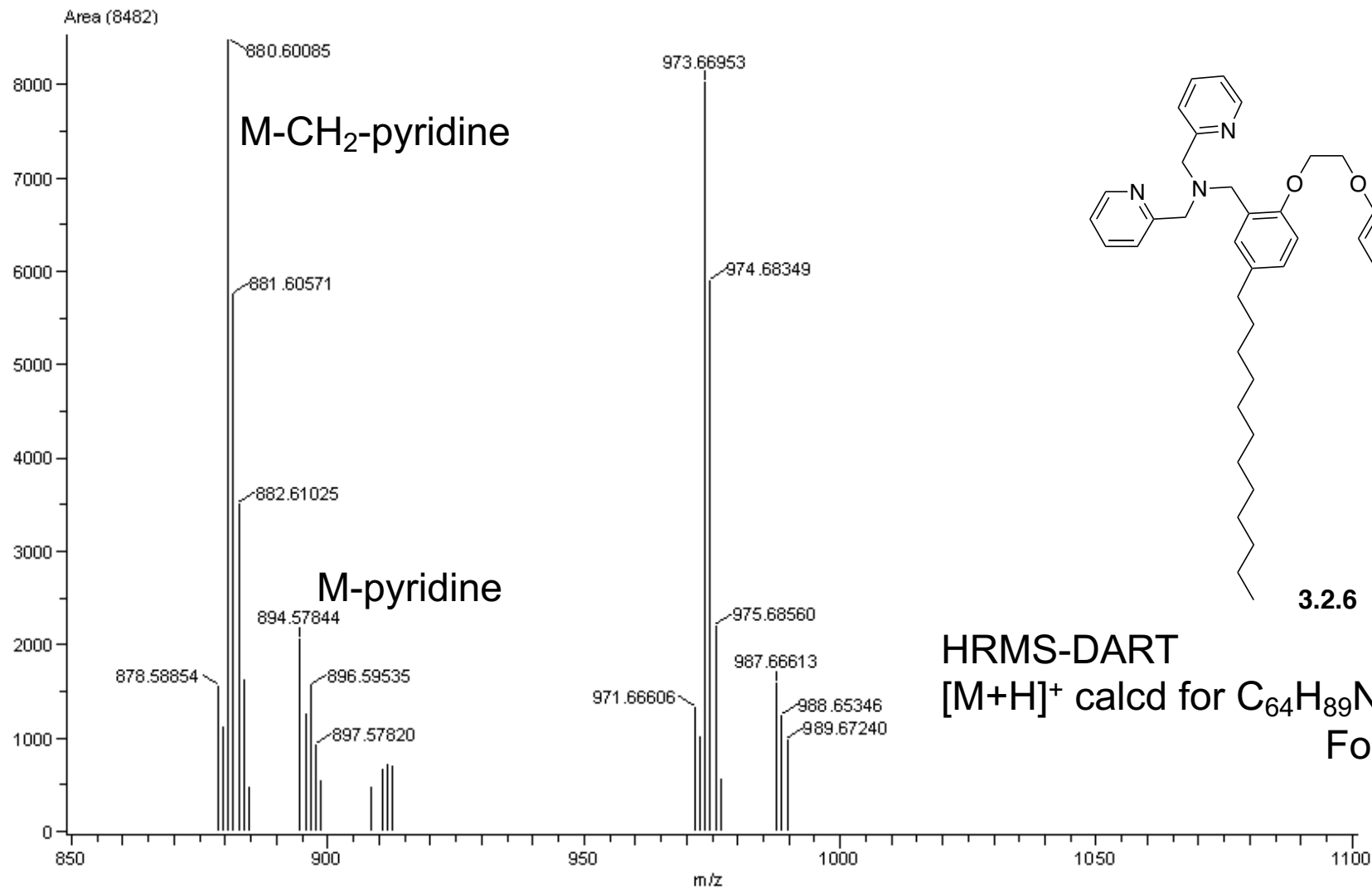
Acquired m/z Range: 850.0..1100.0

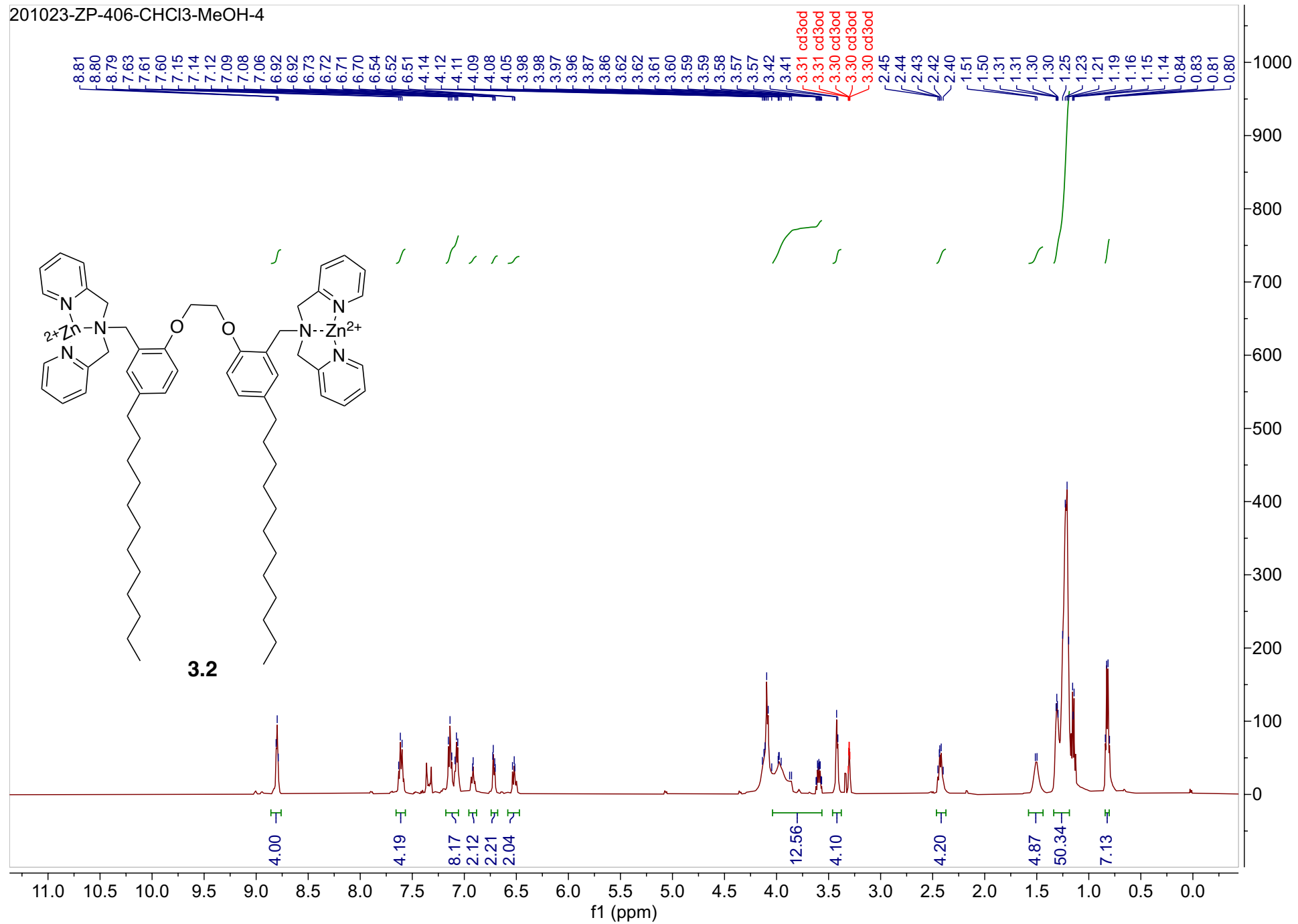
Spec. Record Interval: 1.0[s]

Ring Lens Volt: 5[V]

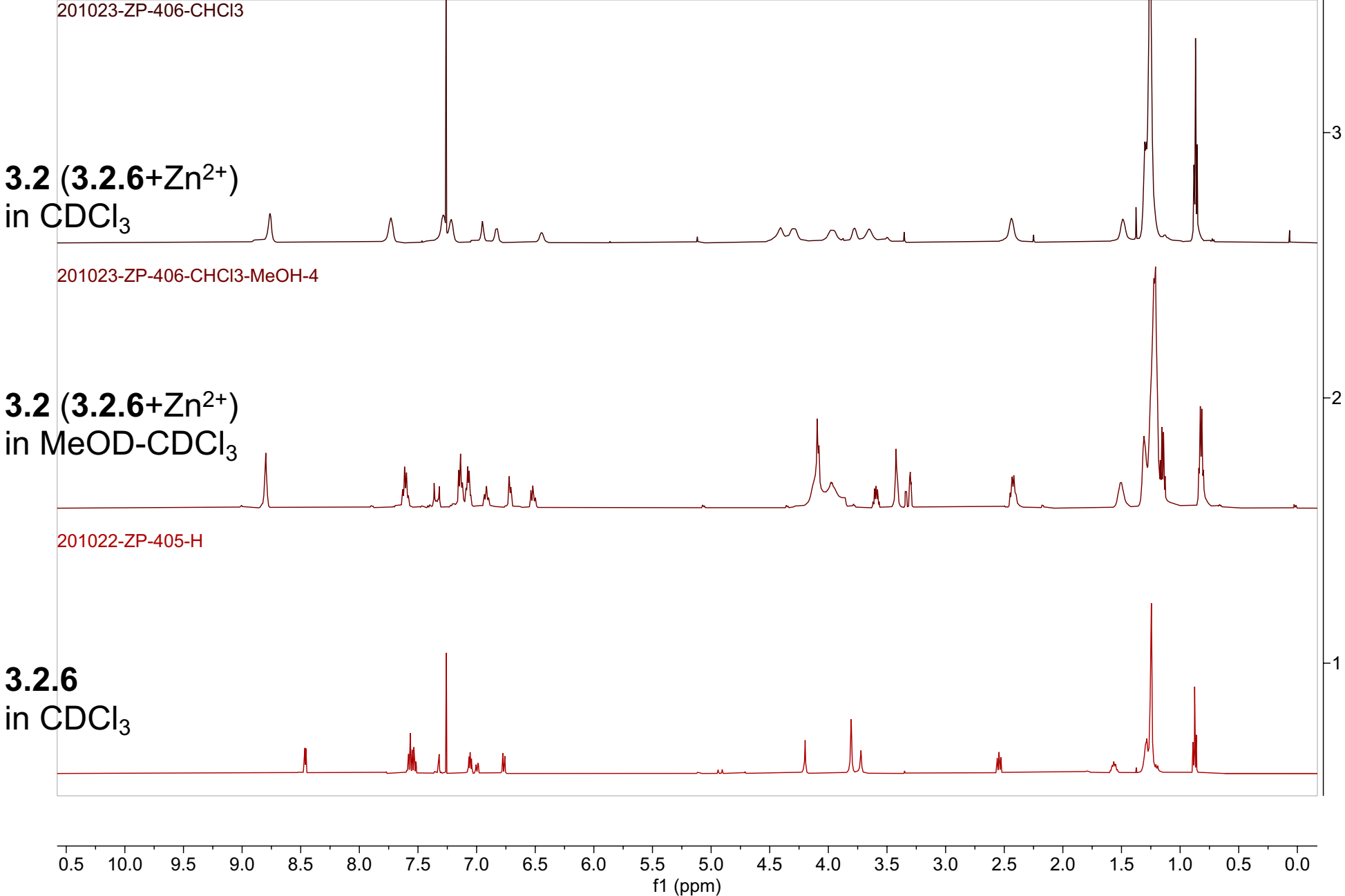
Time of Maximum: 1.130[min]

Operator Name: jlou4

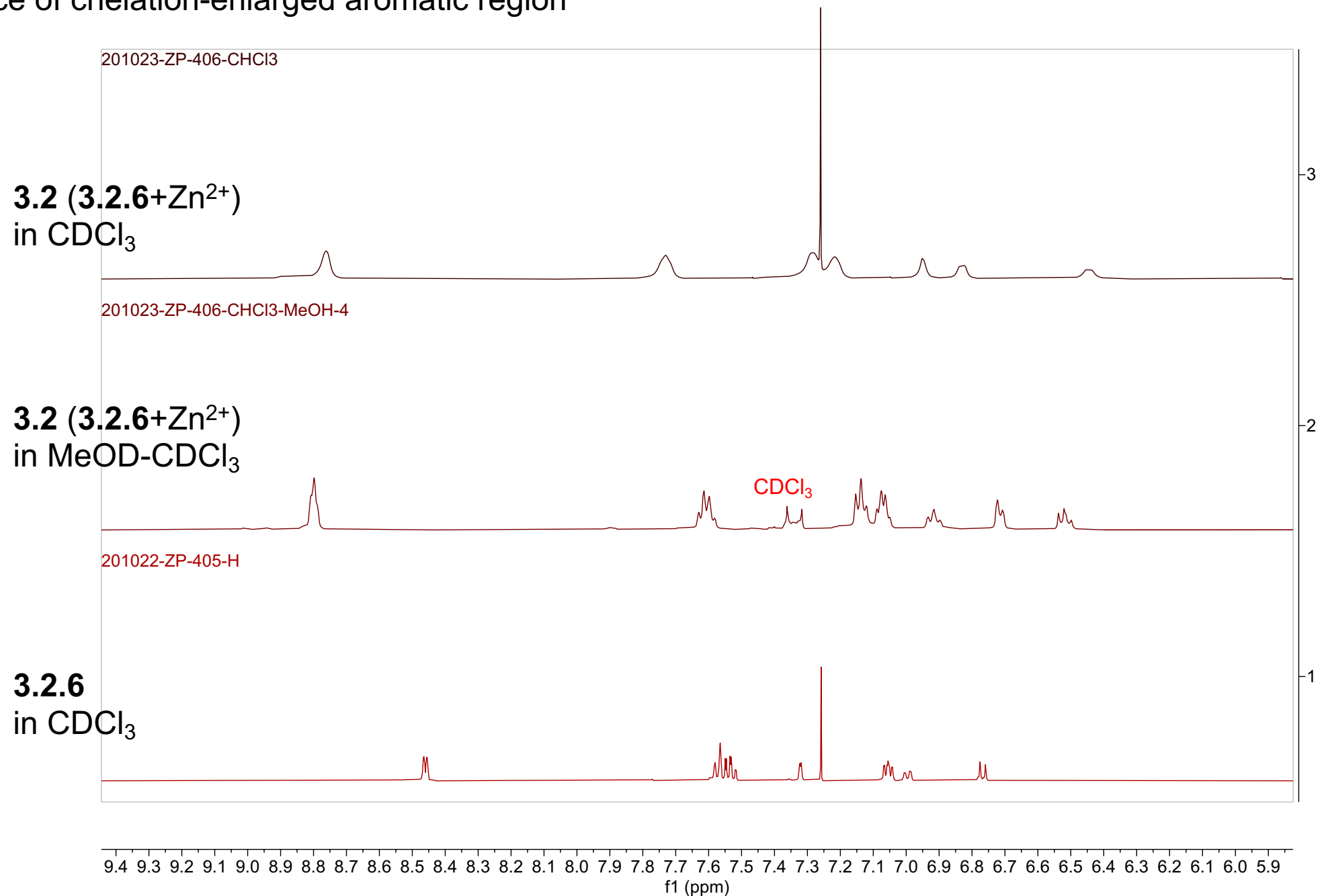


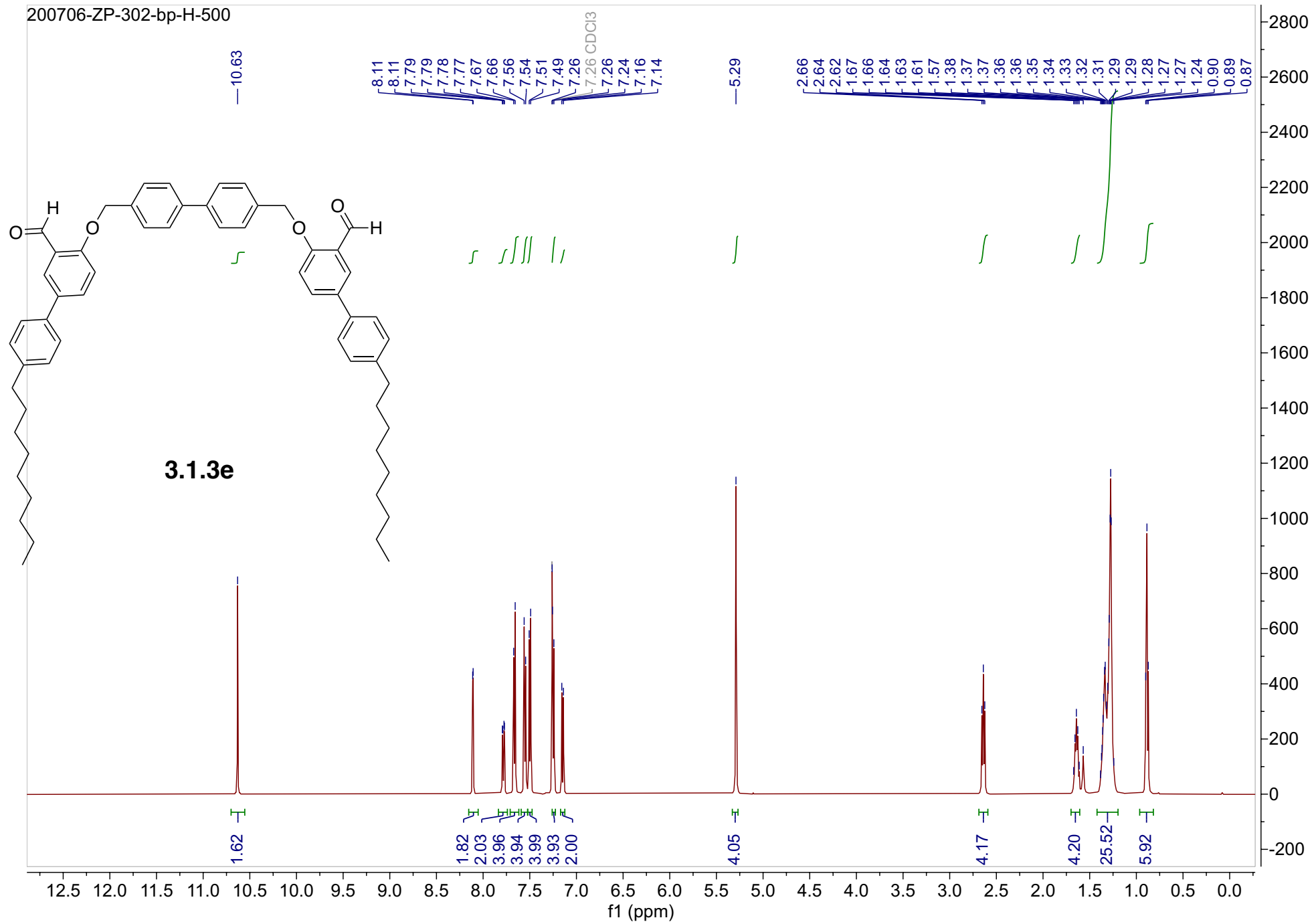


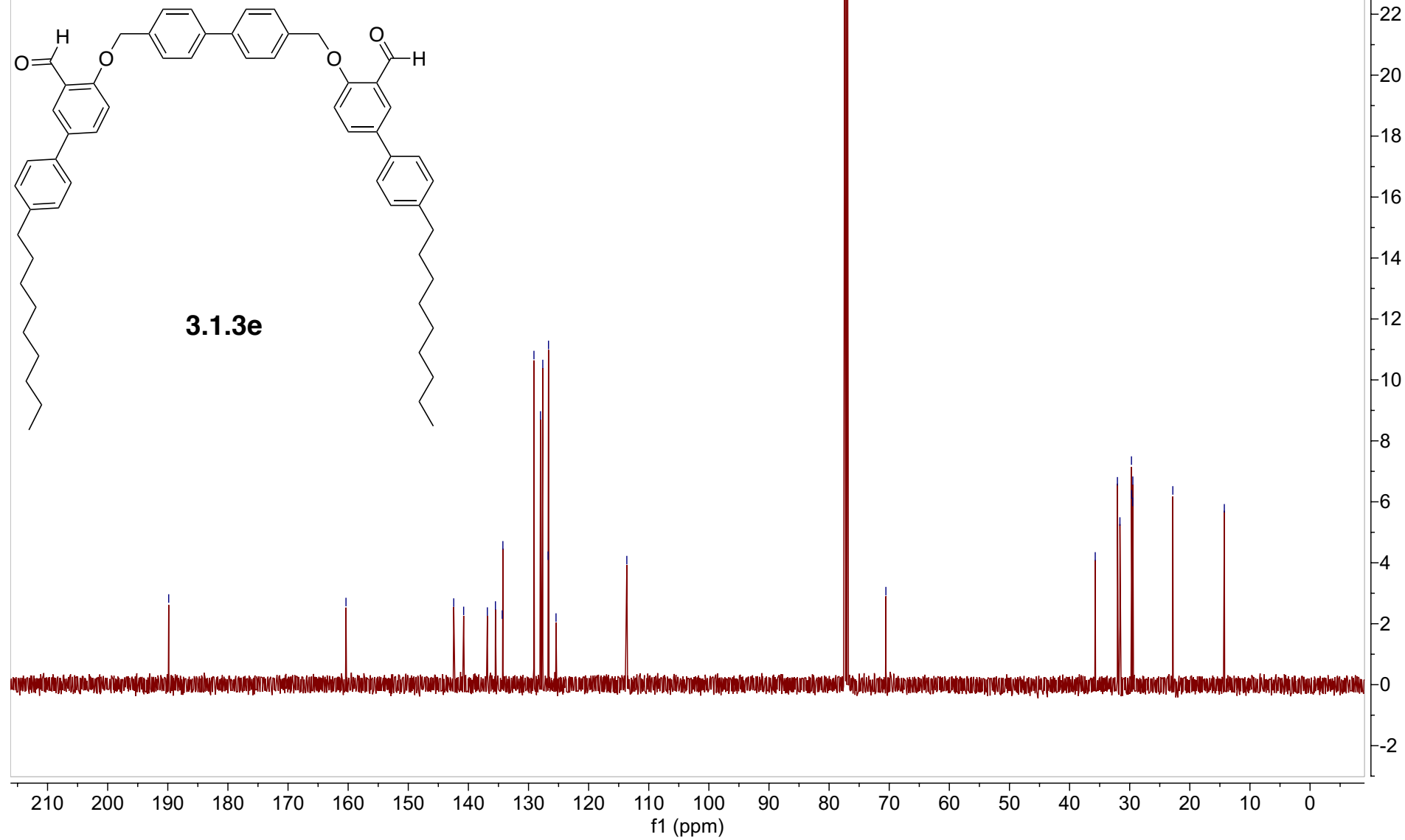
Evidence of chelation-full spectra

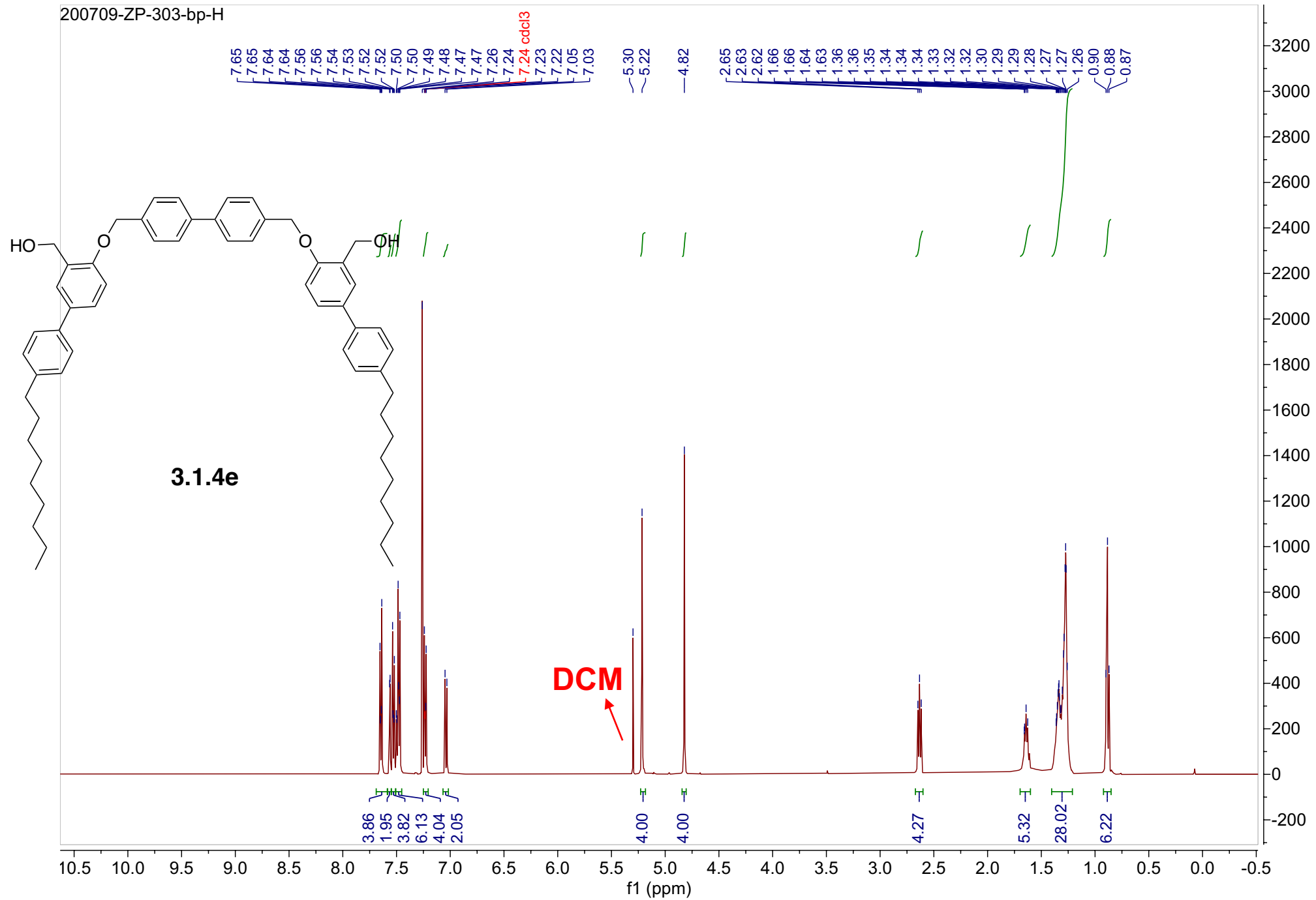


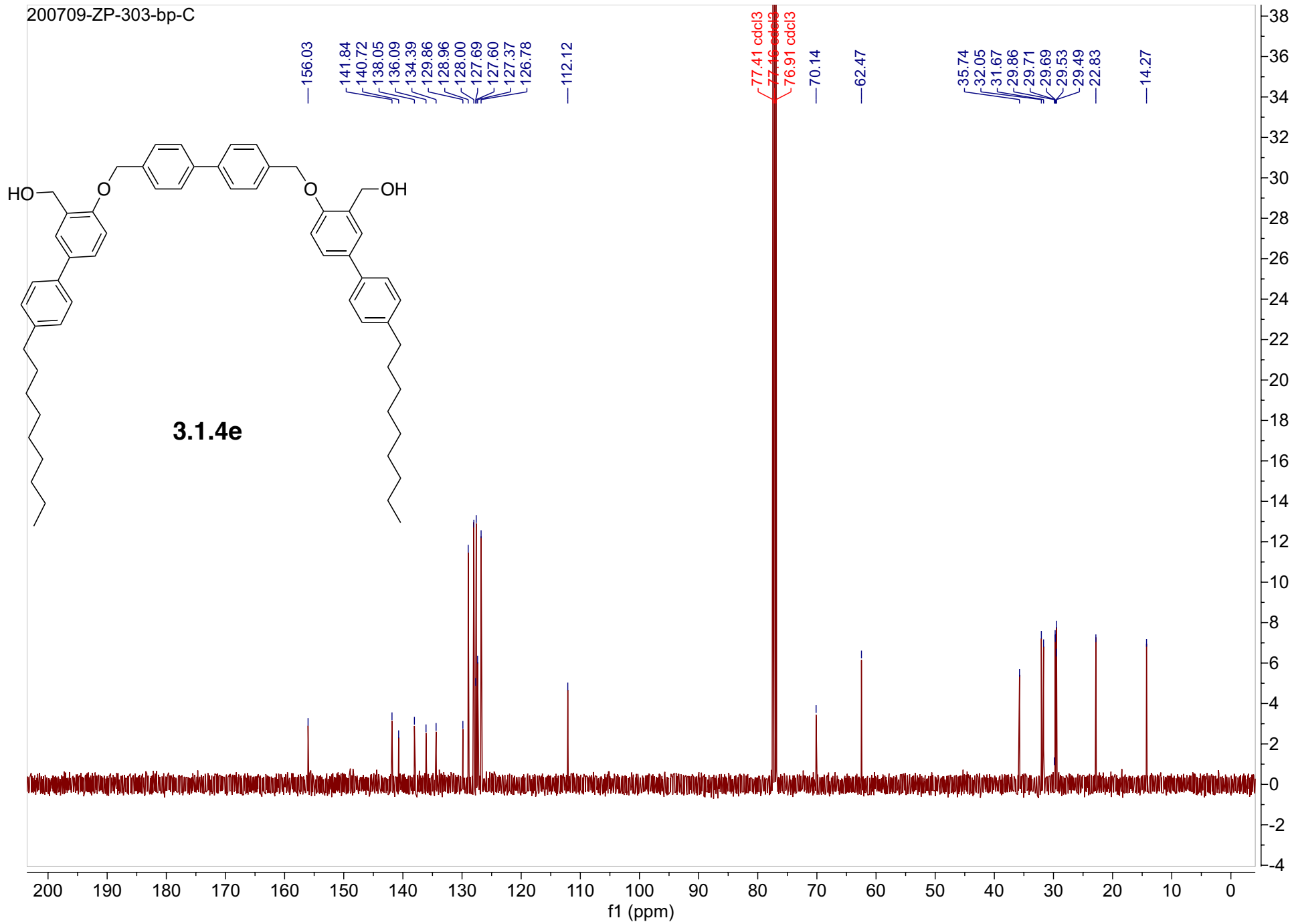
Evidence of chelation-enlarged aromatic region

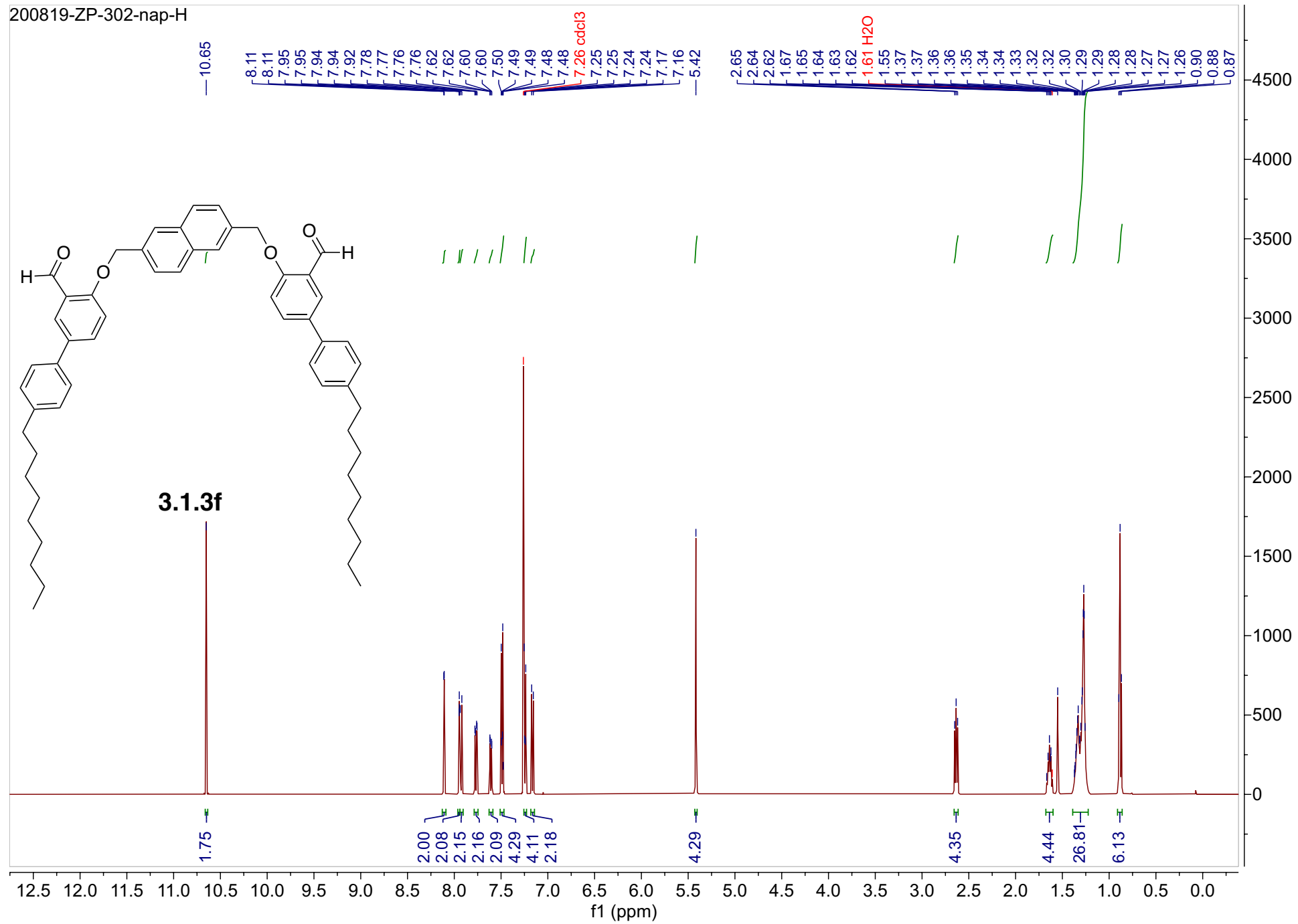


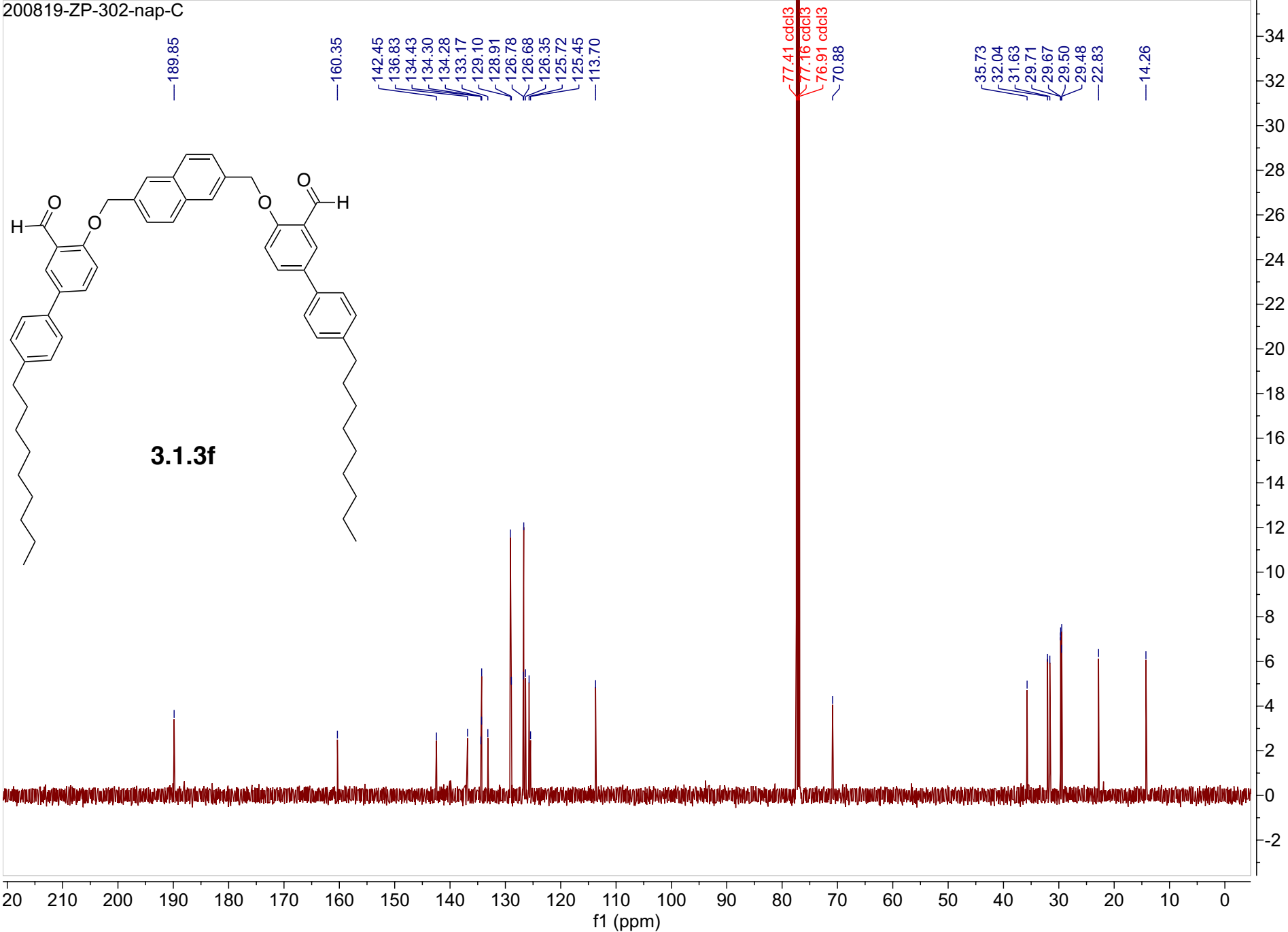


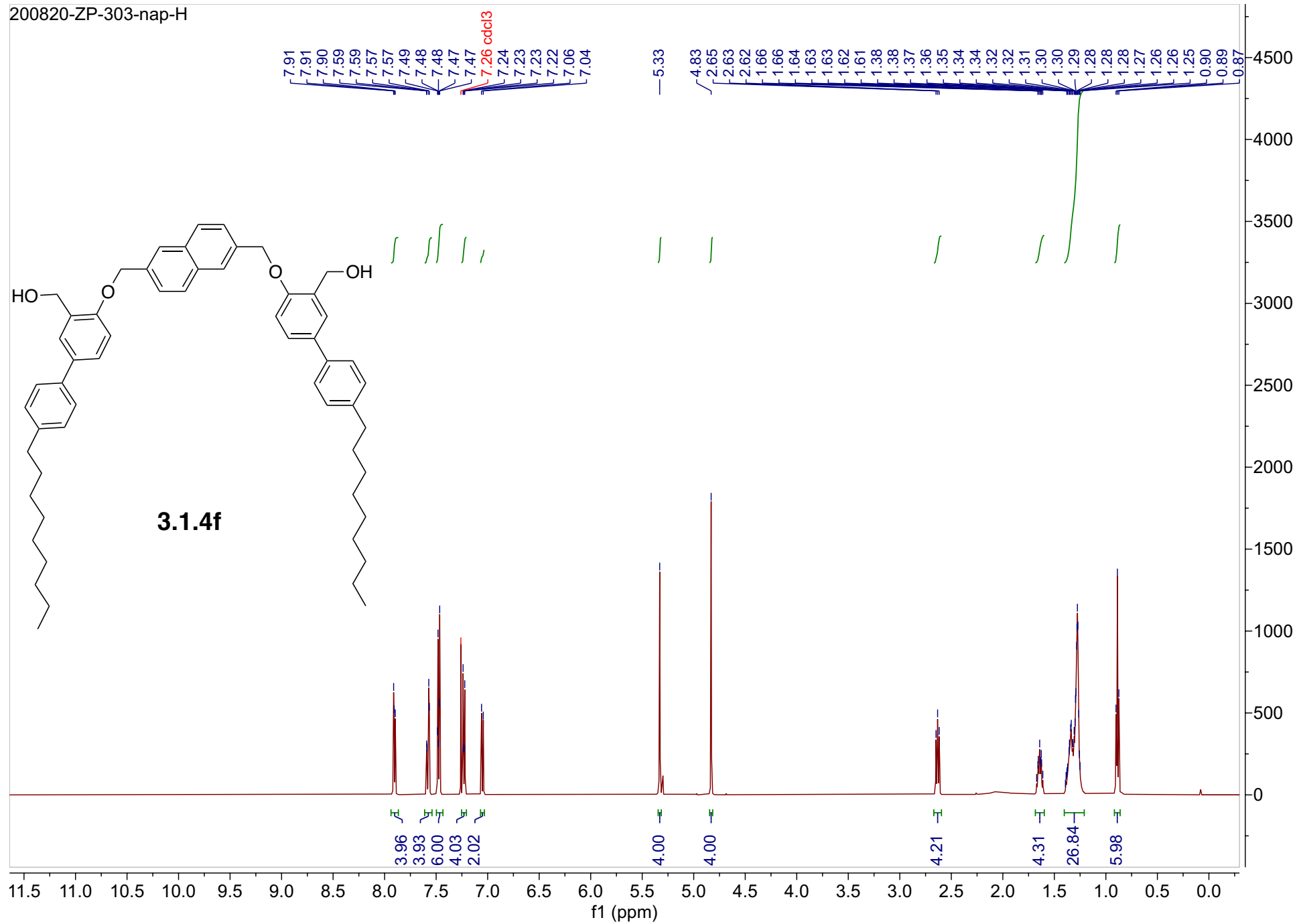


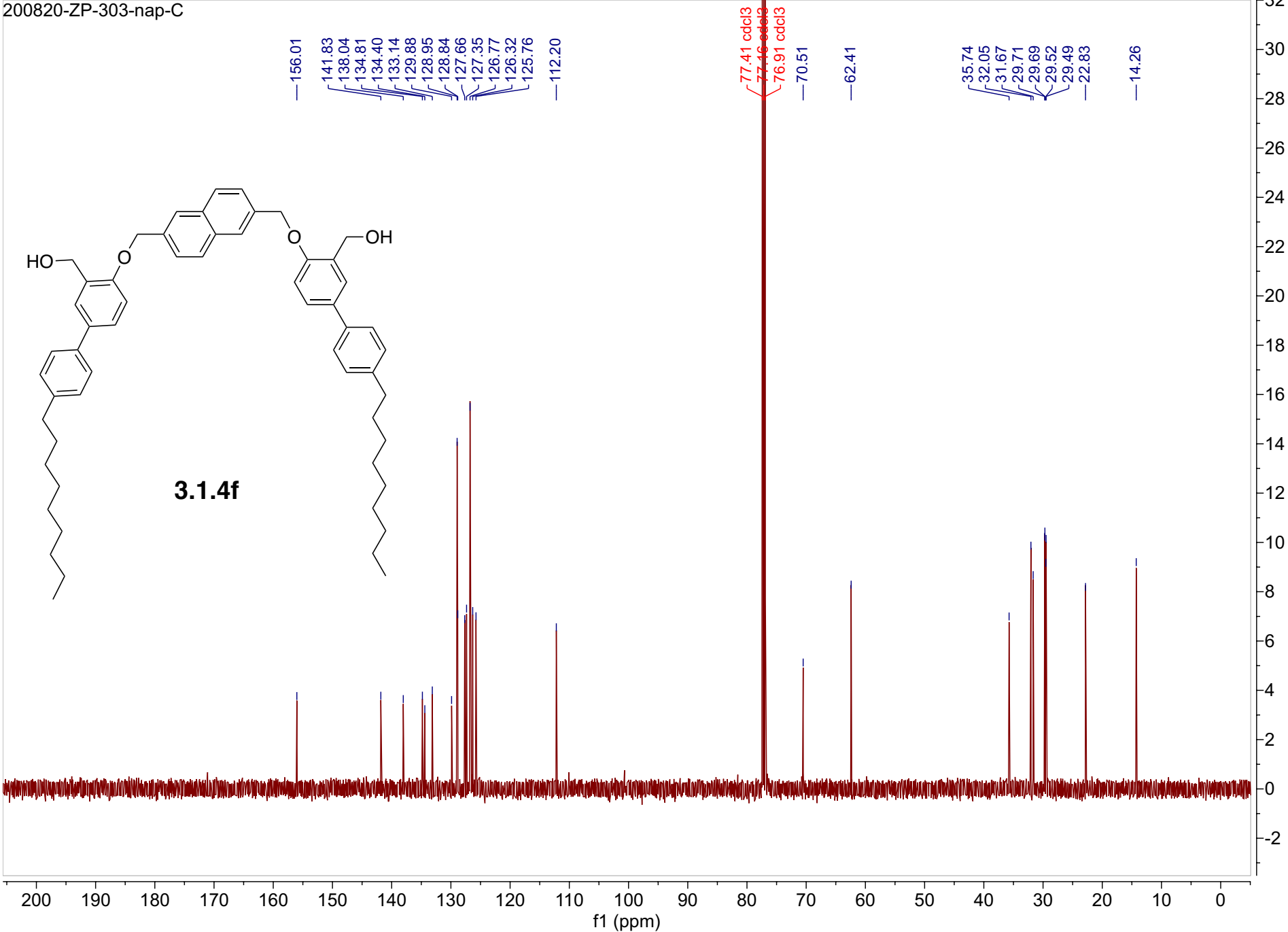




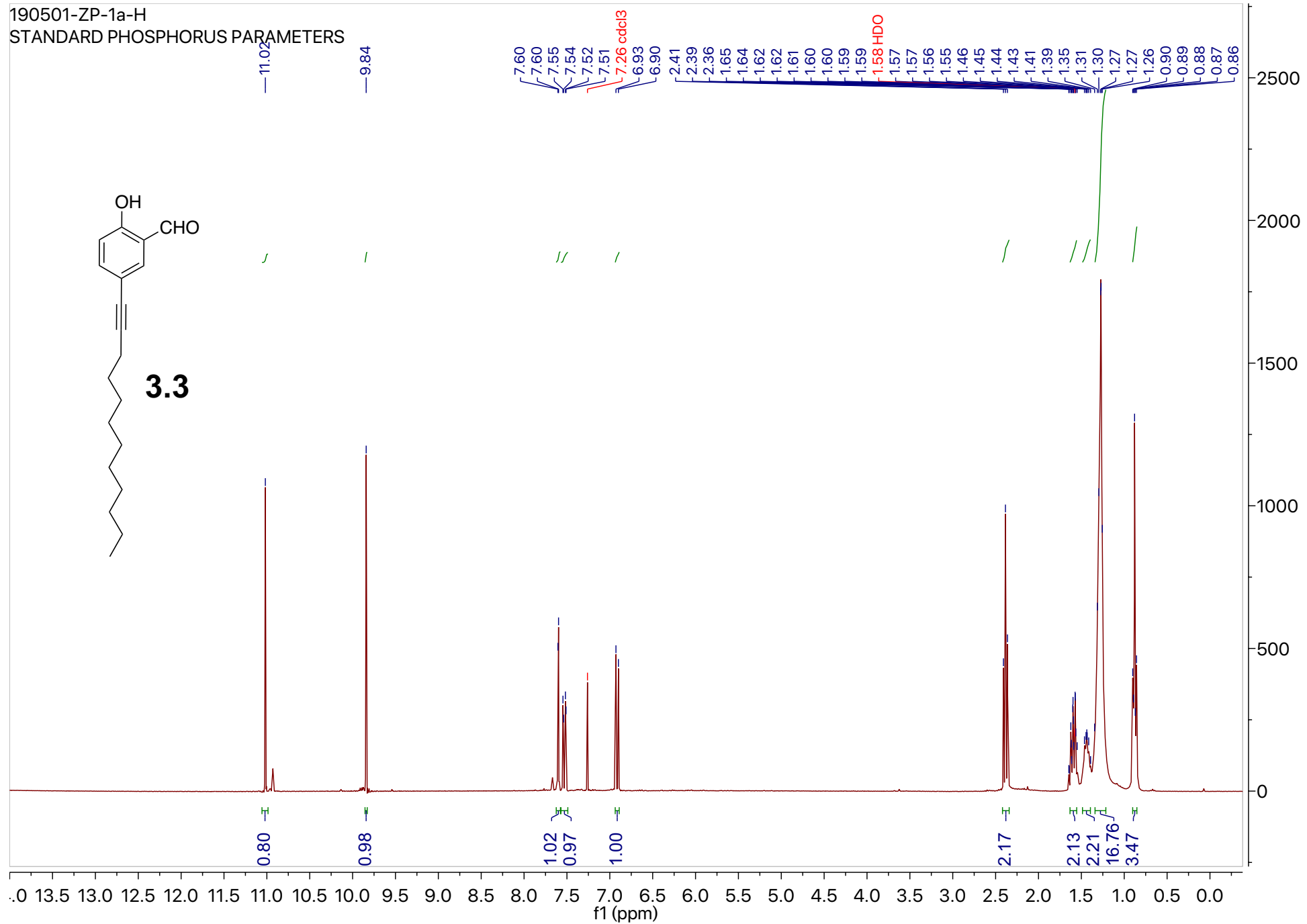




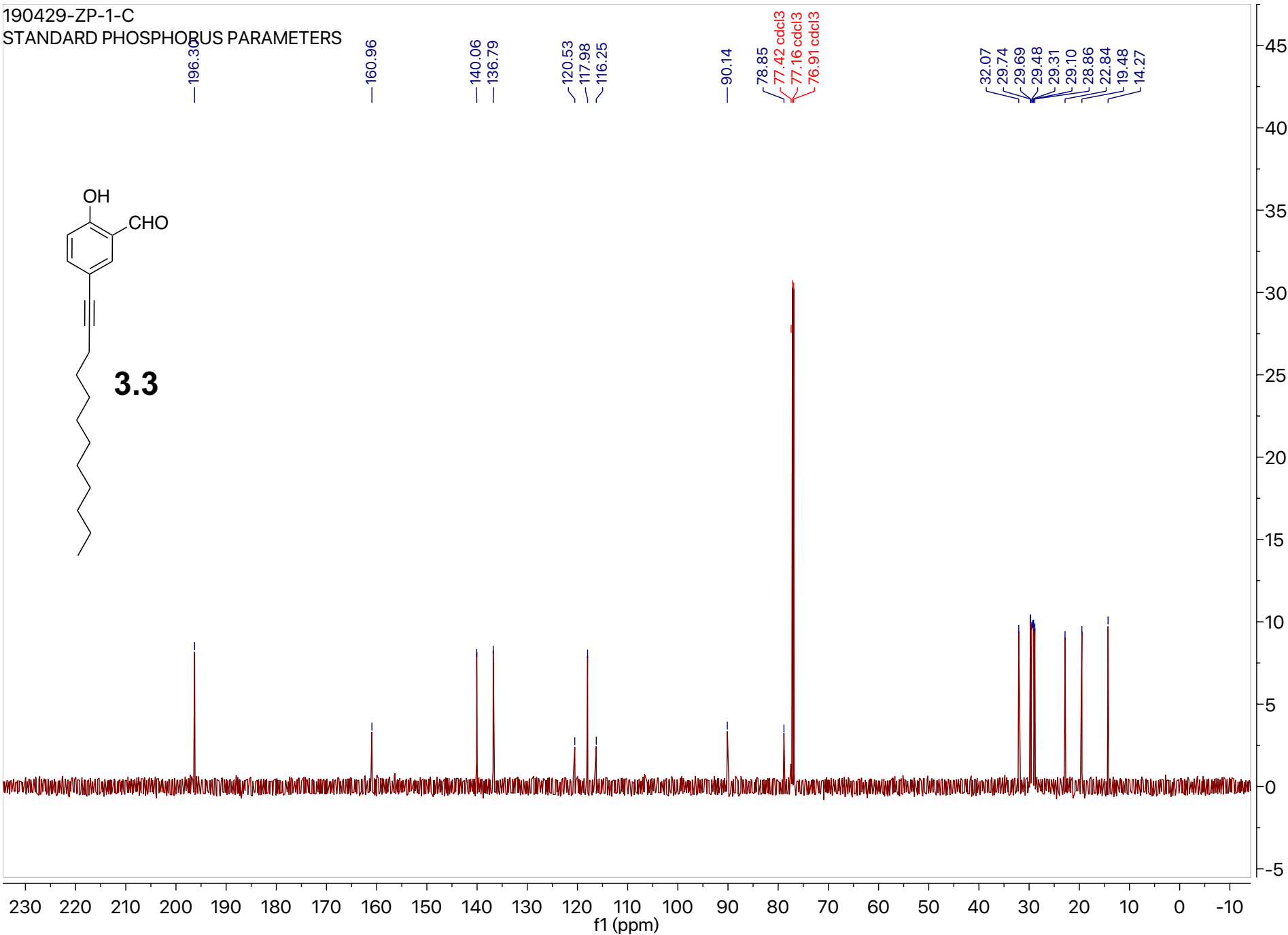




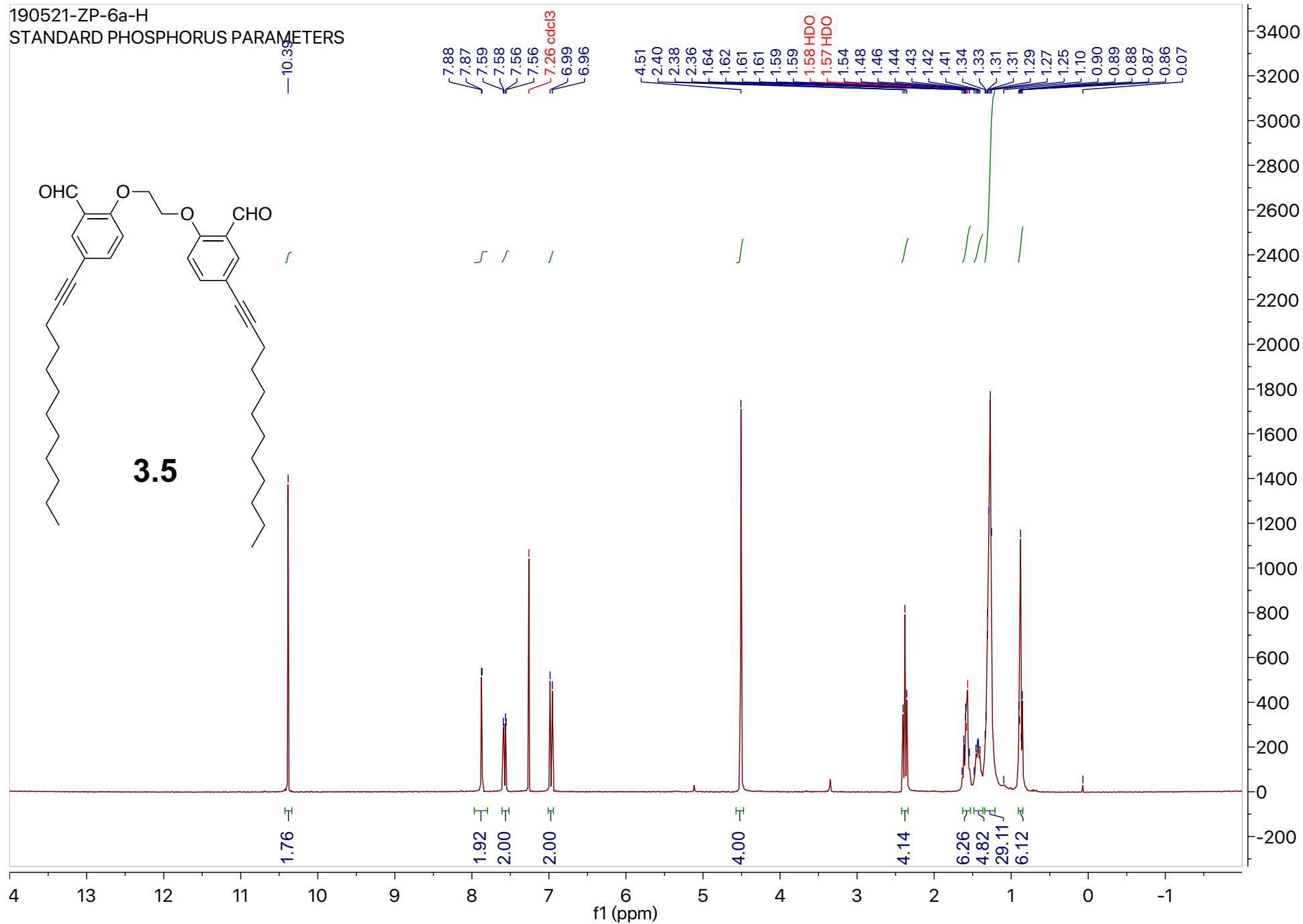
190501-ZP-1a-H
STANDARD PHOSPHORUS PARAMETERS



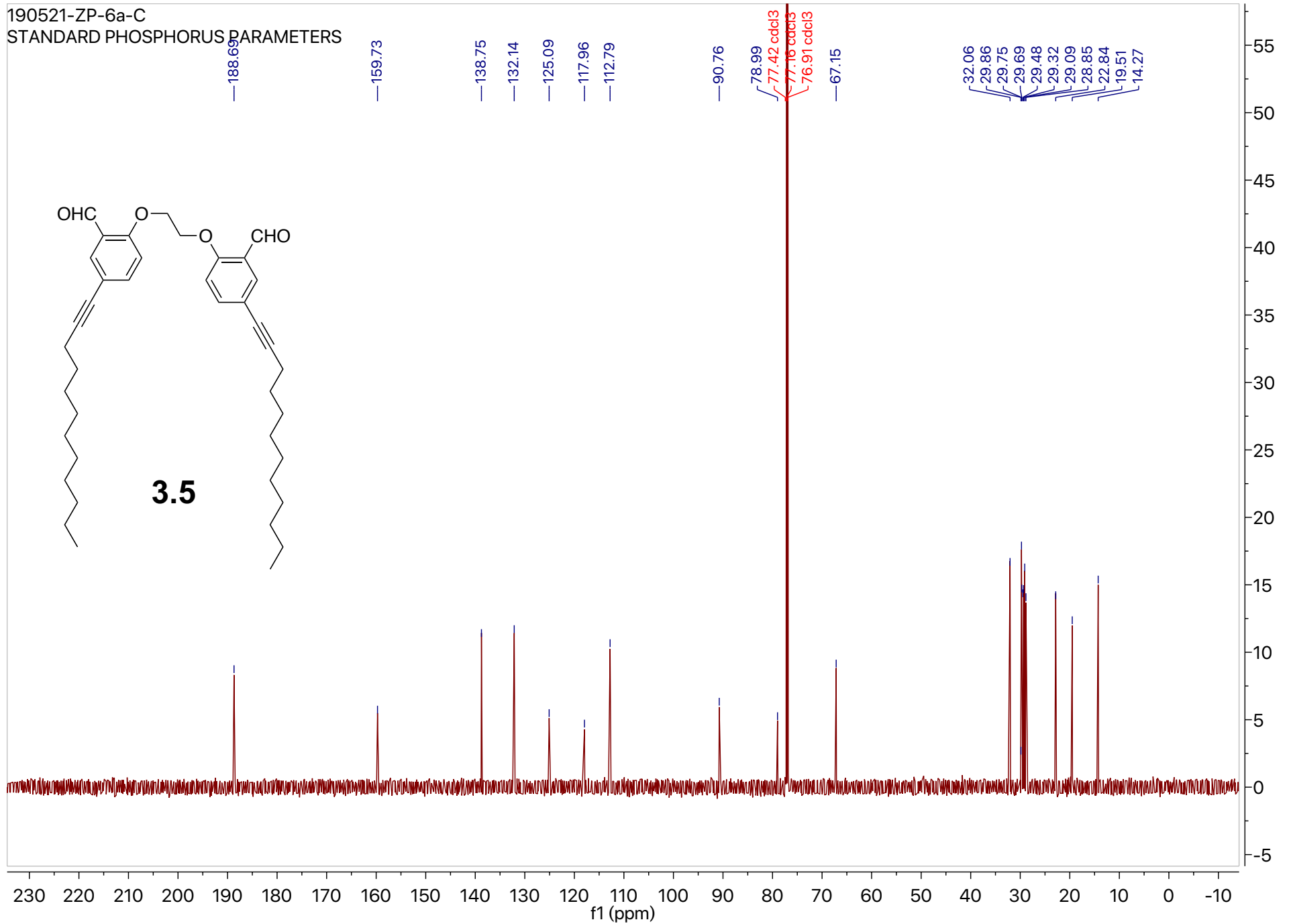
190429-ZP-1-C
STANDARD PHOSPHORUS PARAMETERS



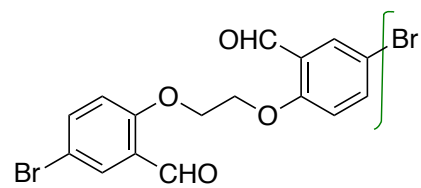
190521-ZP-6a-H
STANDARD PHOSPHORUS PARAMETERS



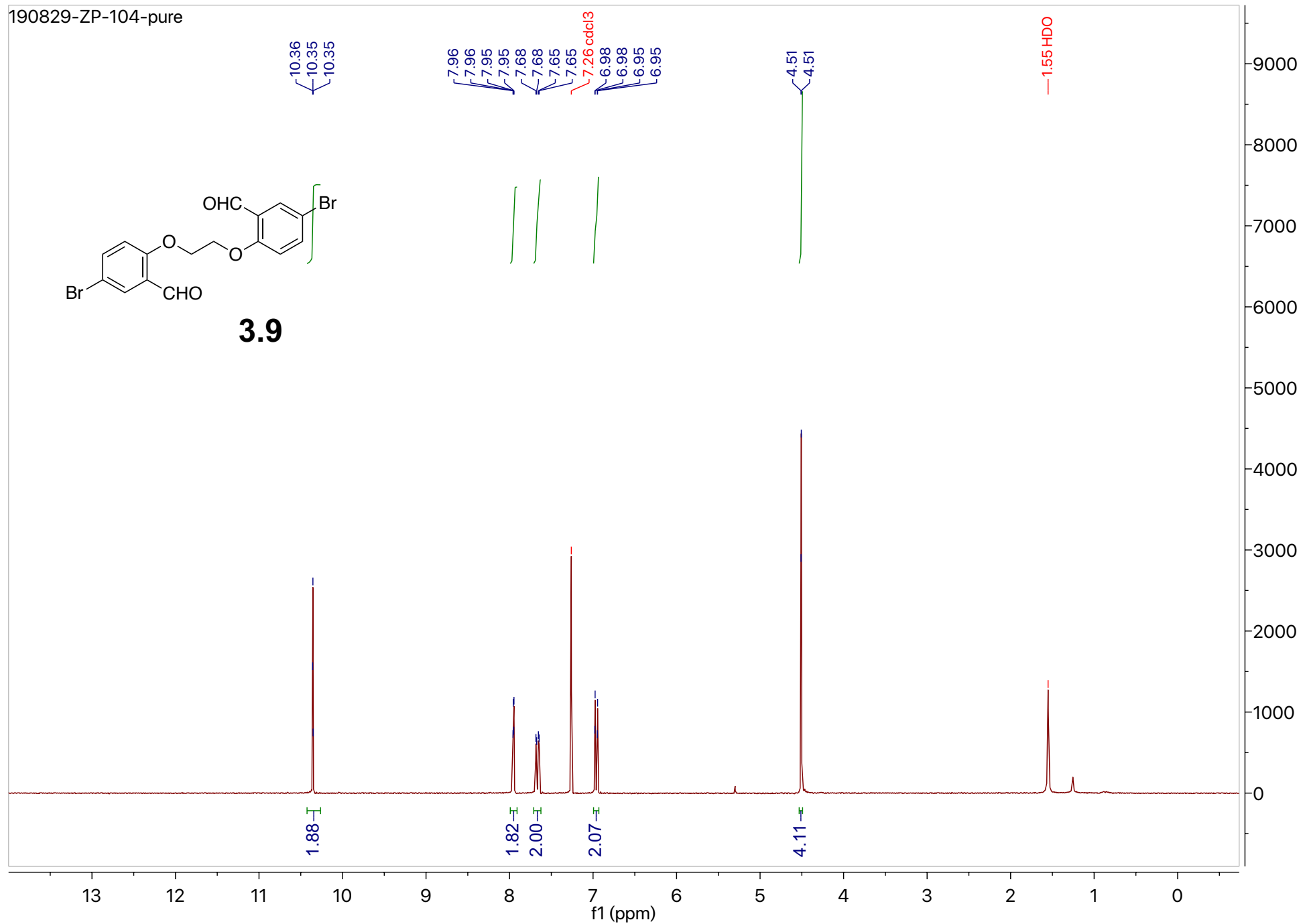
190521-ZP-6a-C
STANDARD PHOSPHORUS PARAMETERS



190829-ZP-104-pure

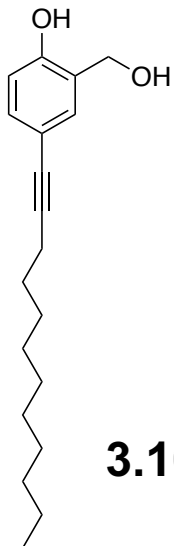


3.9

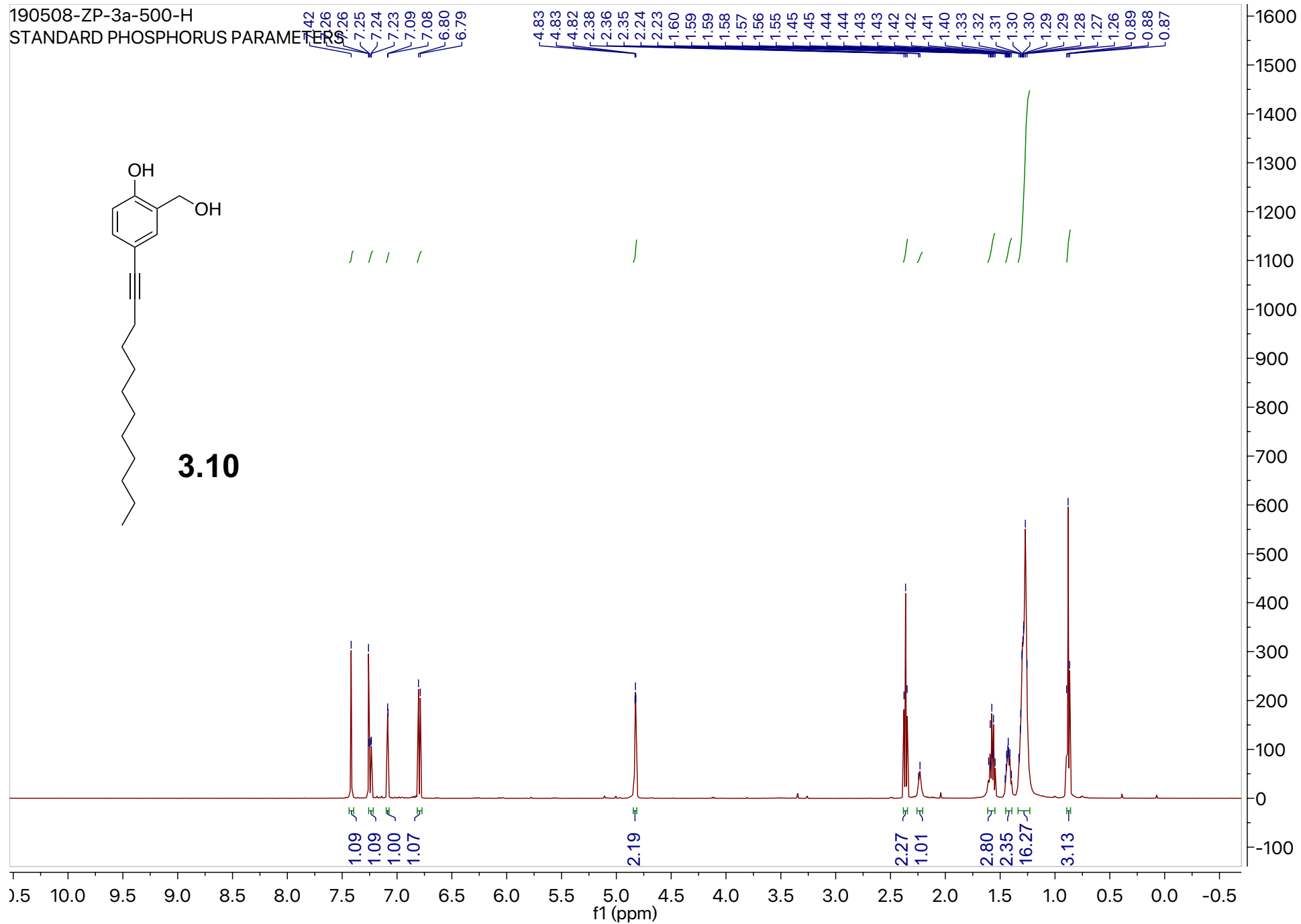


190508-ZP-3a-500-H

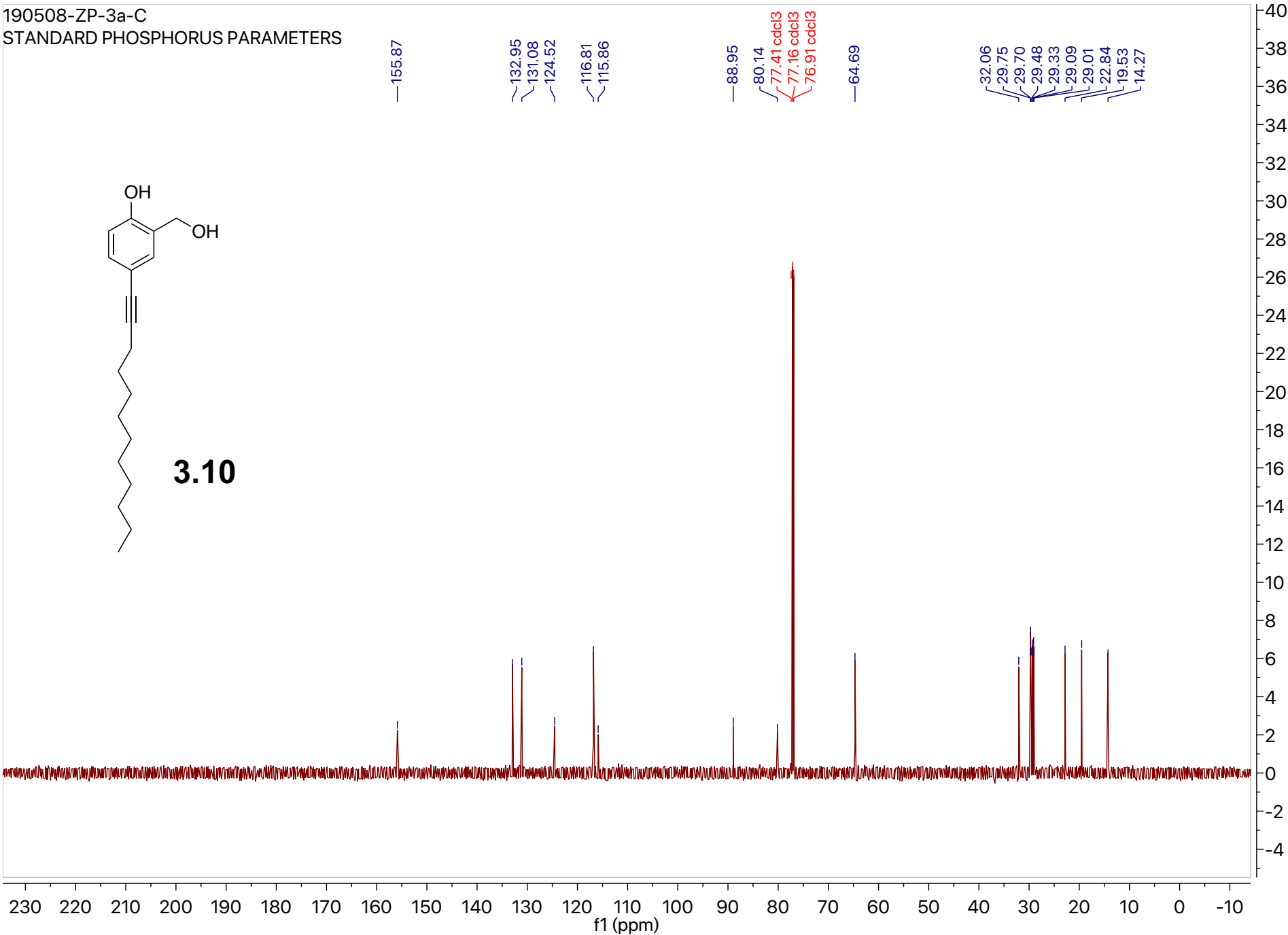
STANDARD PHOSPHORUS PARAMETERS



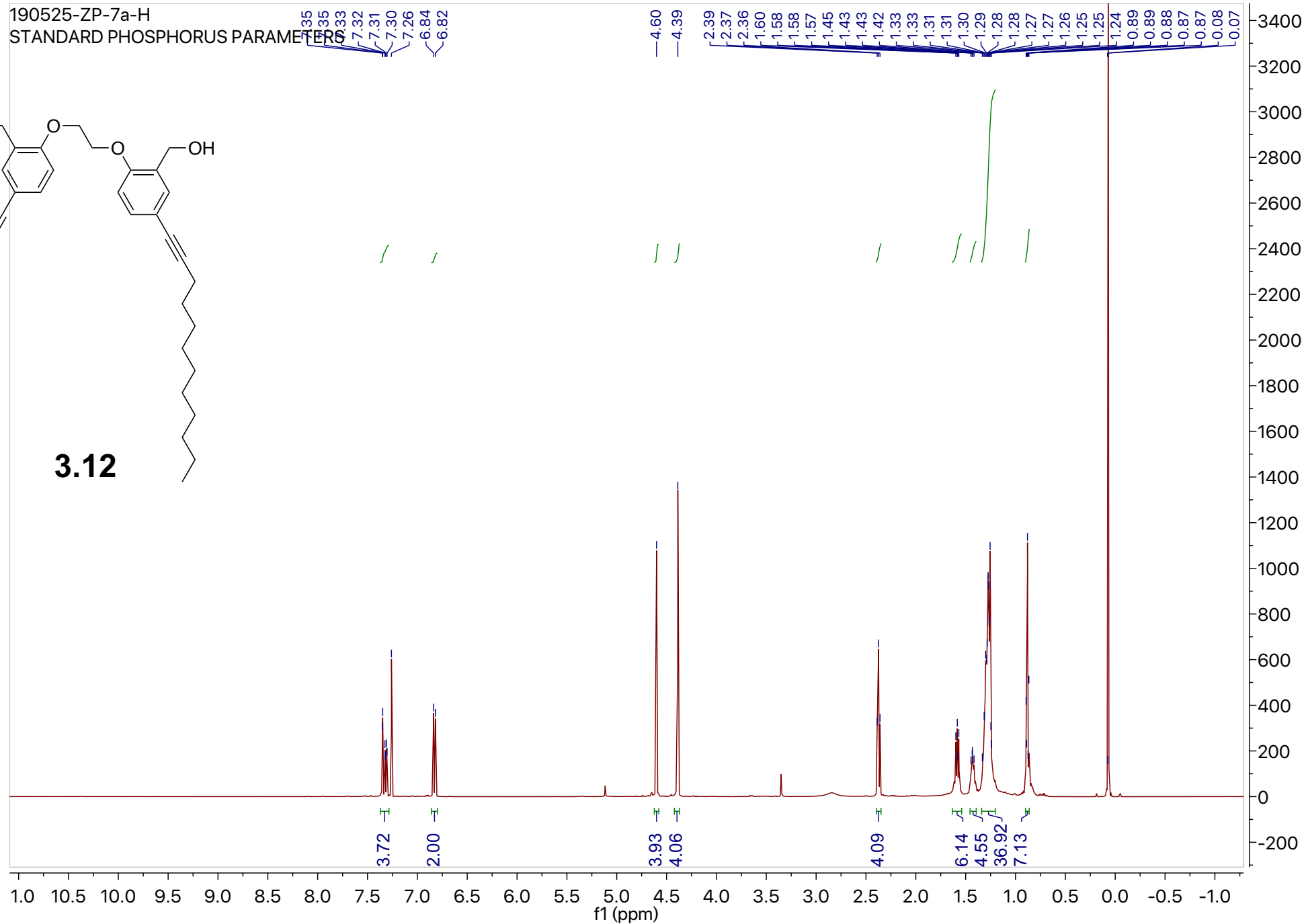
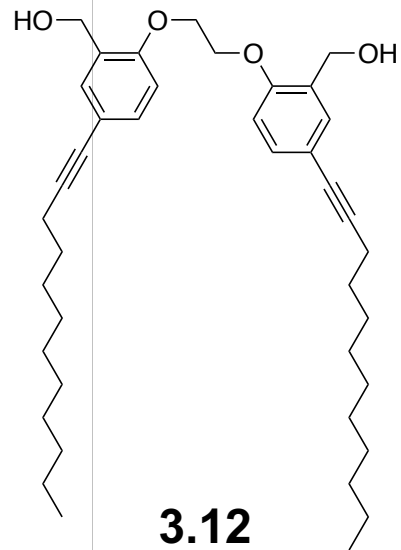
3.10



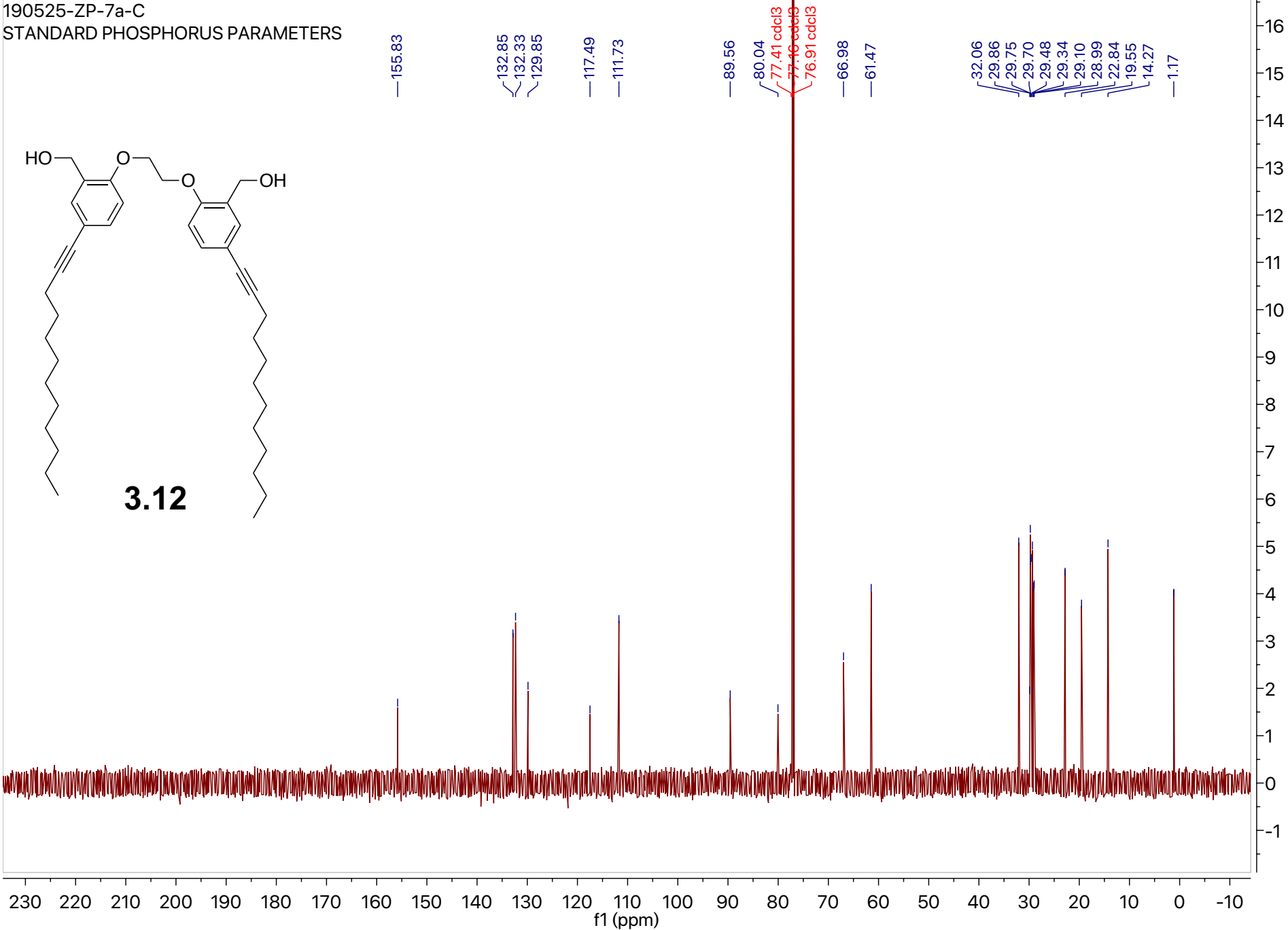
190508-ZP-3a-C
STANDARD PHOSPHORUS PARAMETERS



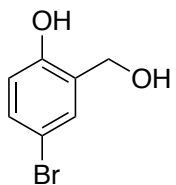
190525-ZP-7a-H
STANDARD PHOSPHORUS PARAMETERS



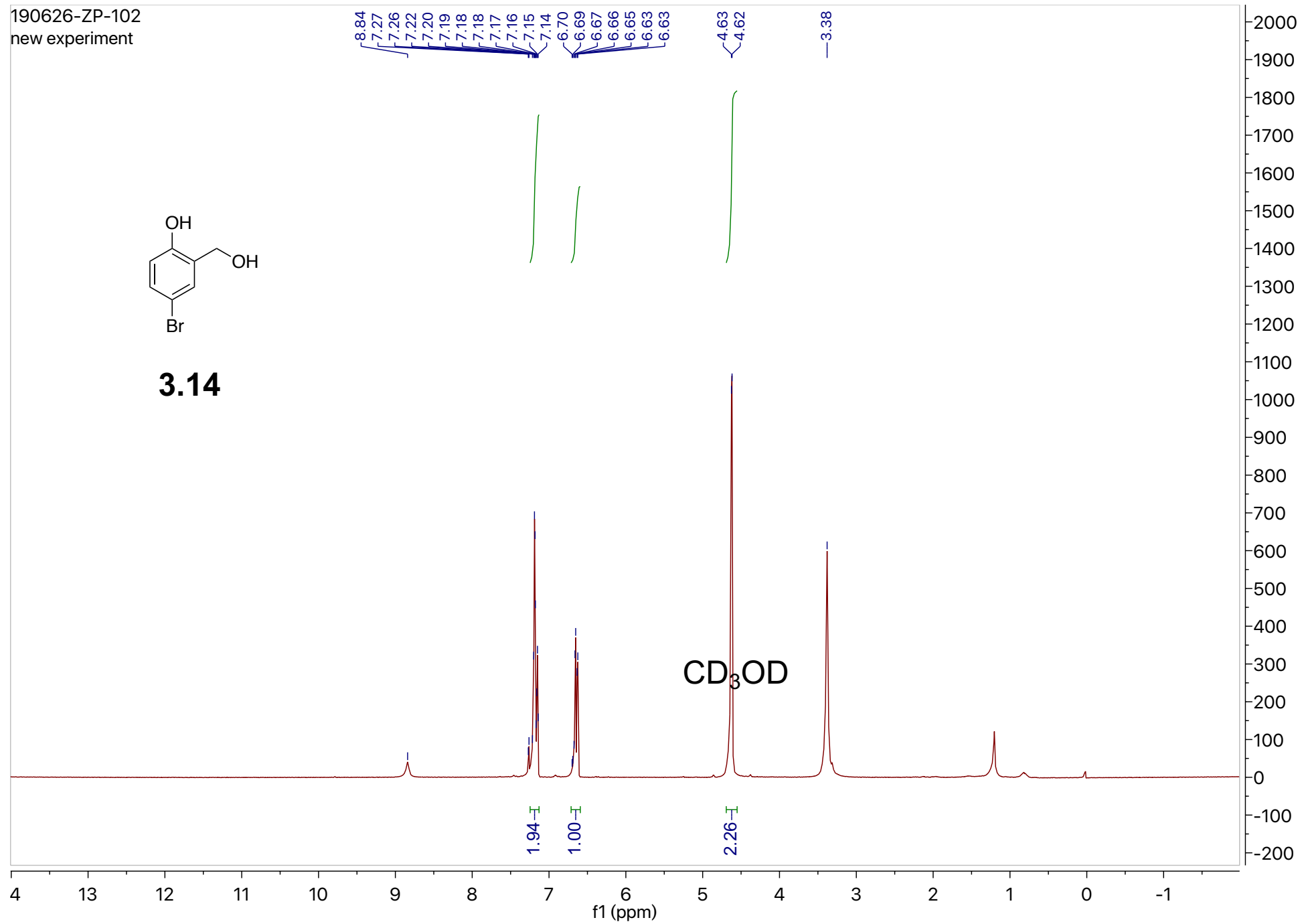
190525-ZP-7a-C
STANDARD PHOSPHORUS PARAMETERS

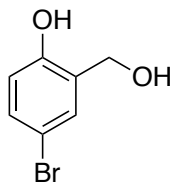


190626-ZP-102
new experiment

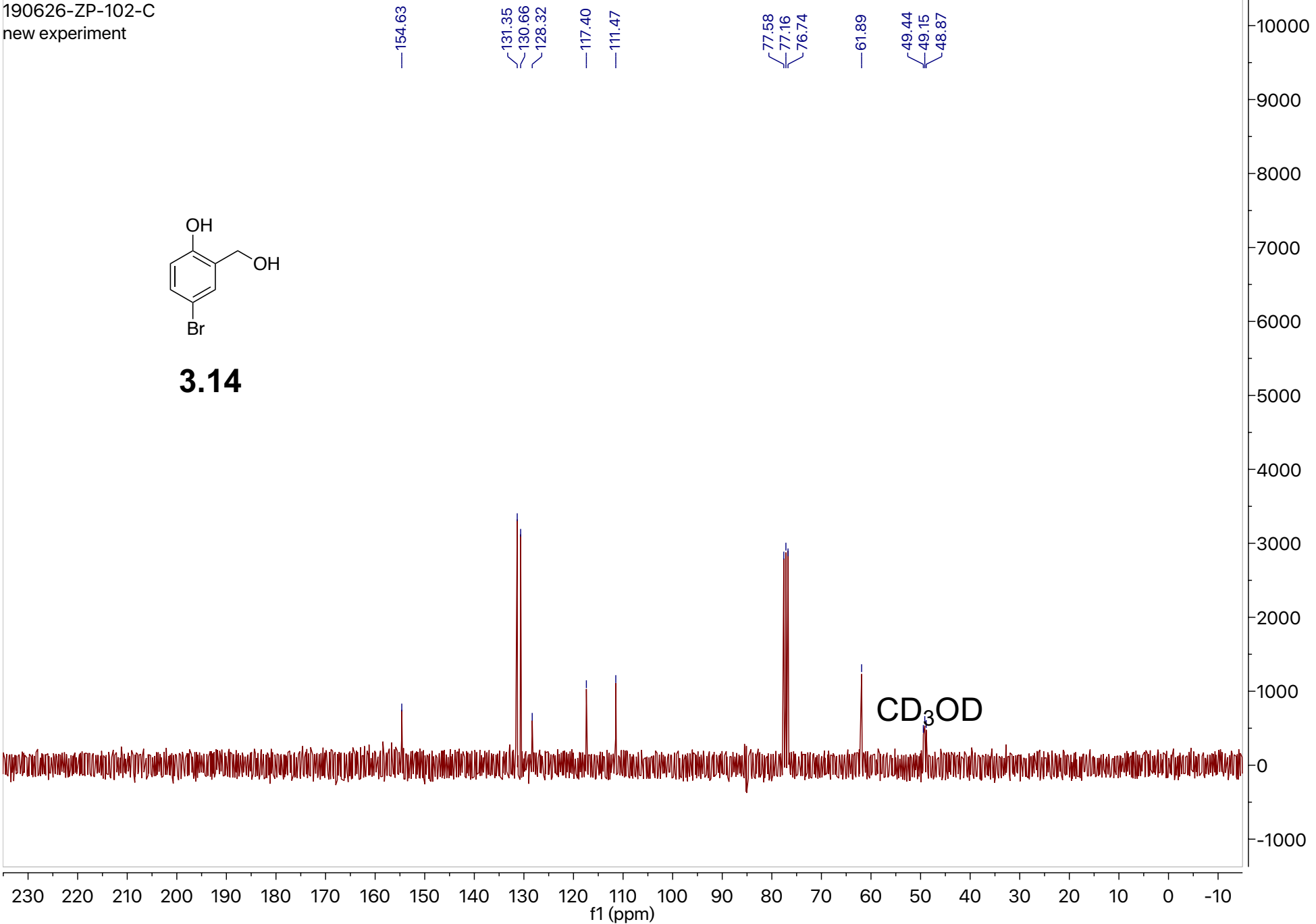


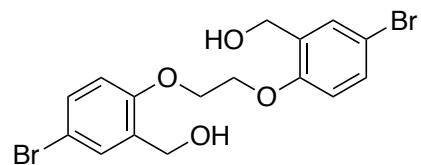
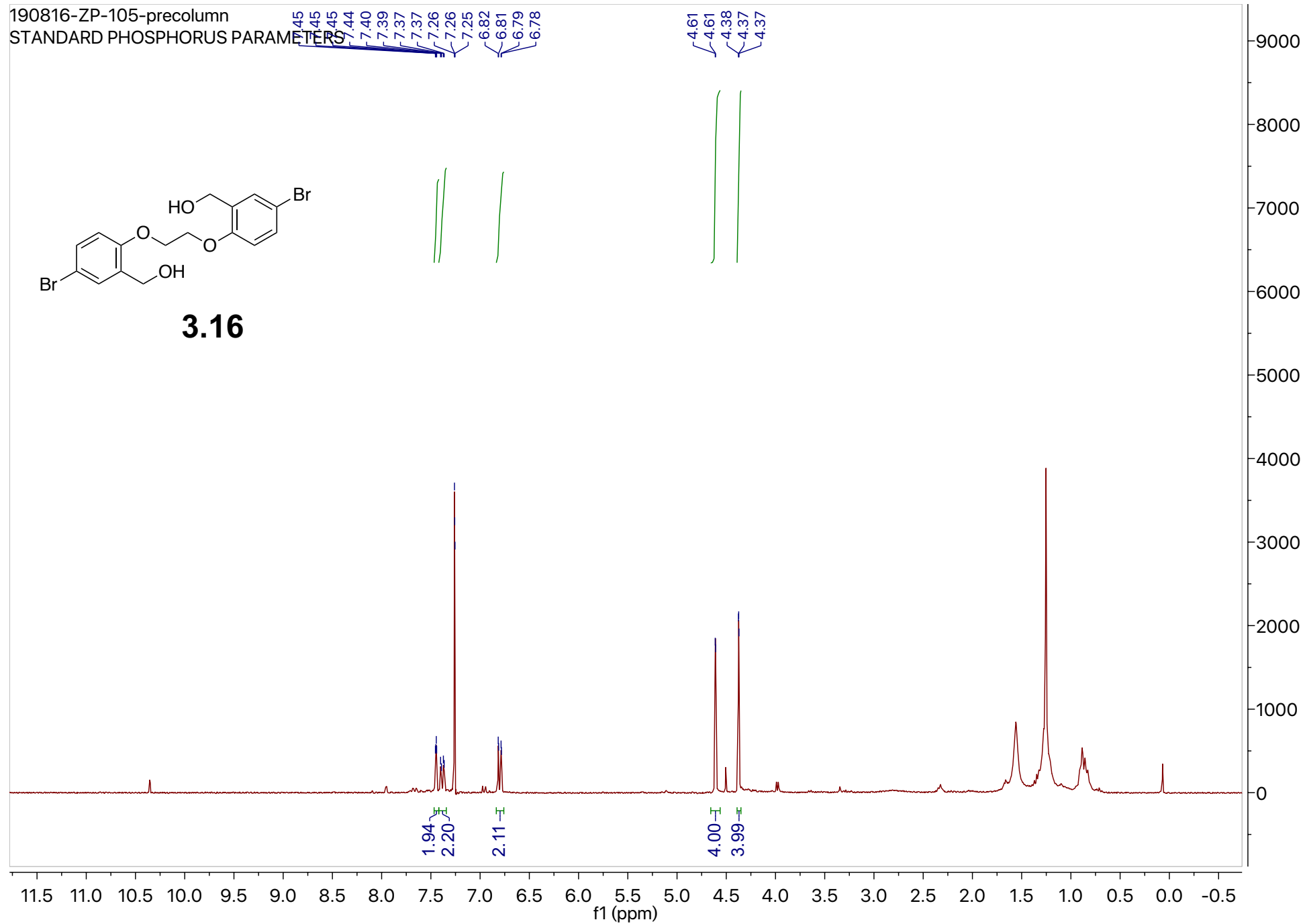
3.14

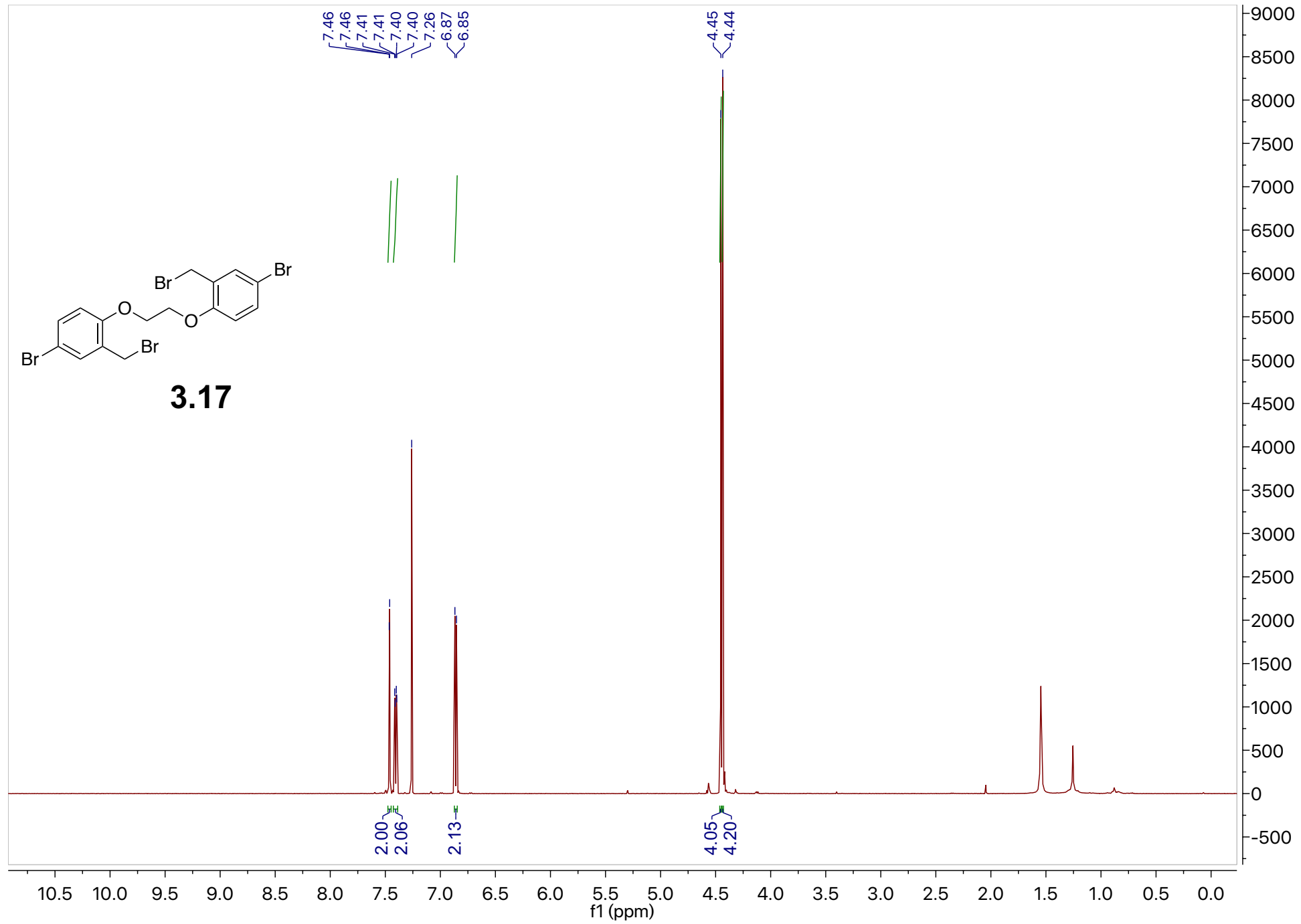


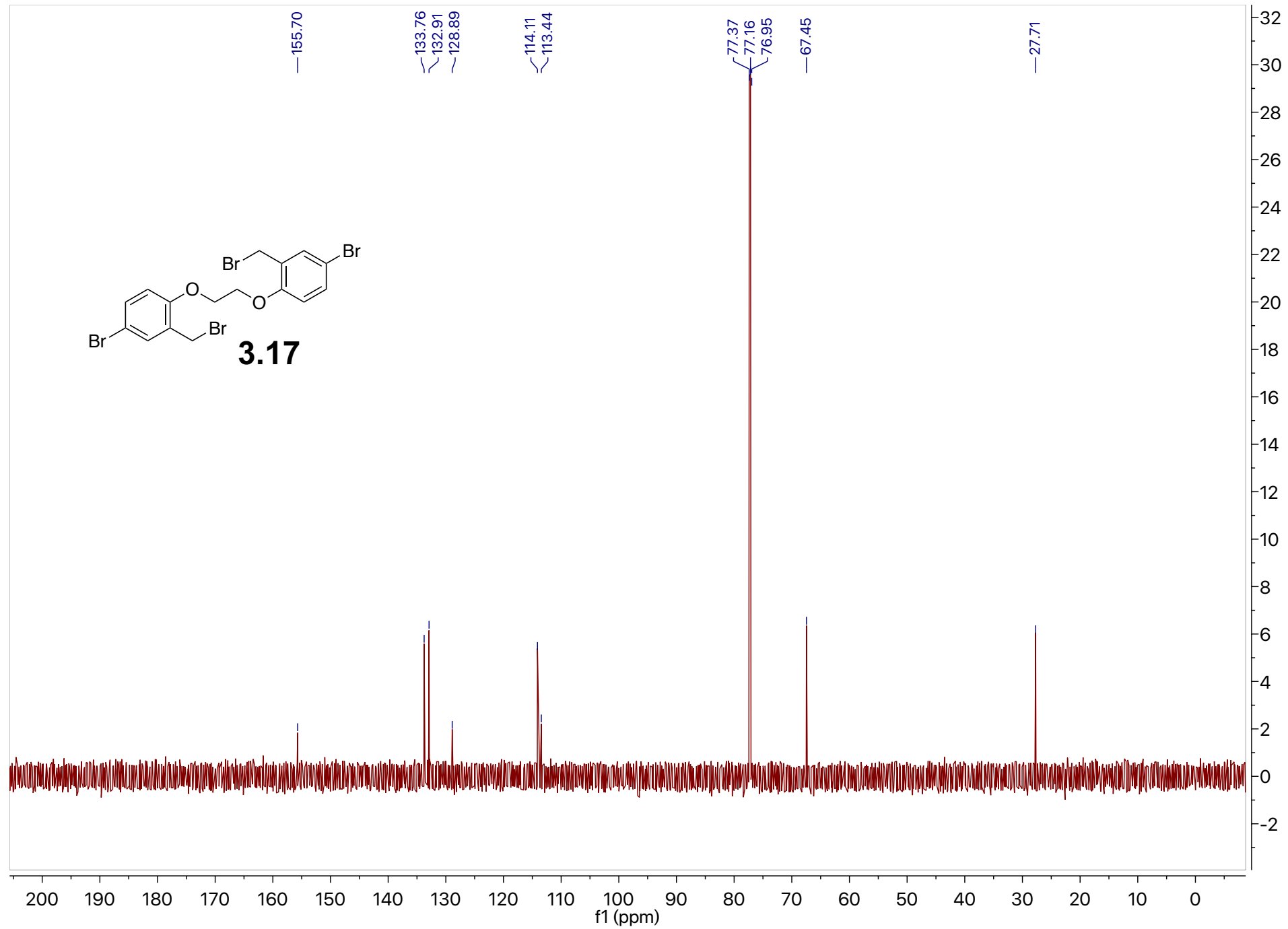


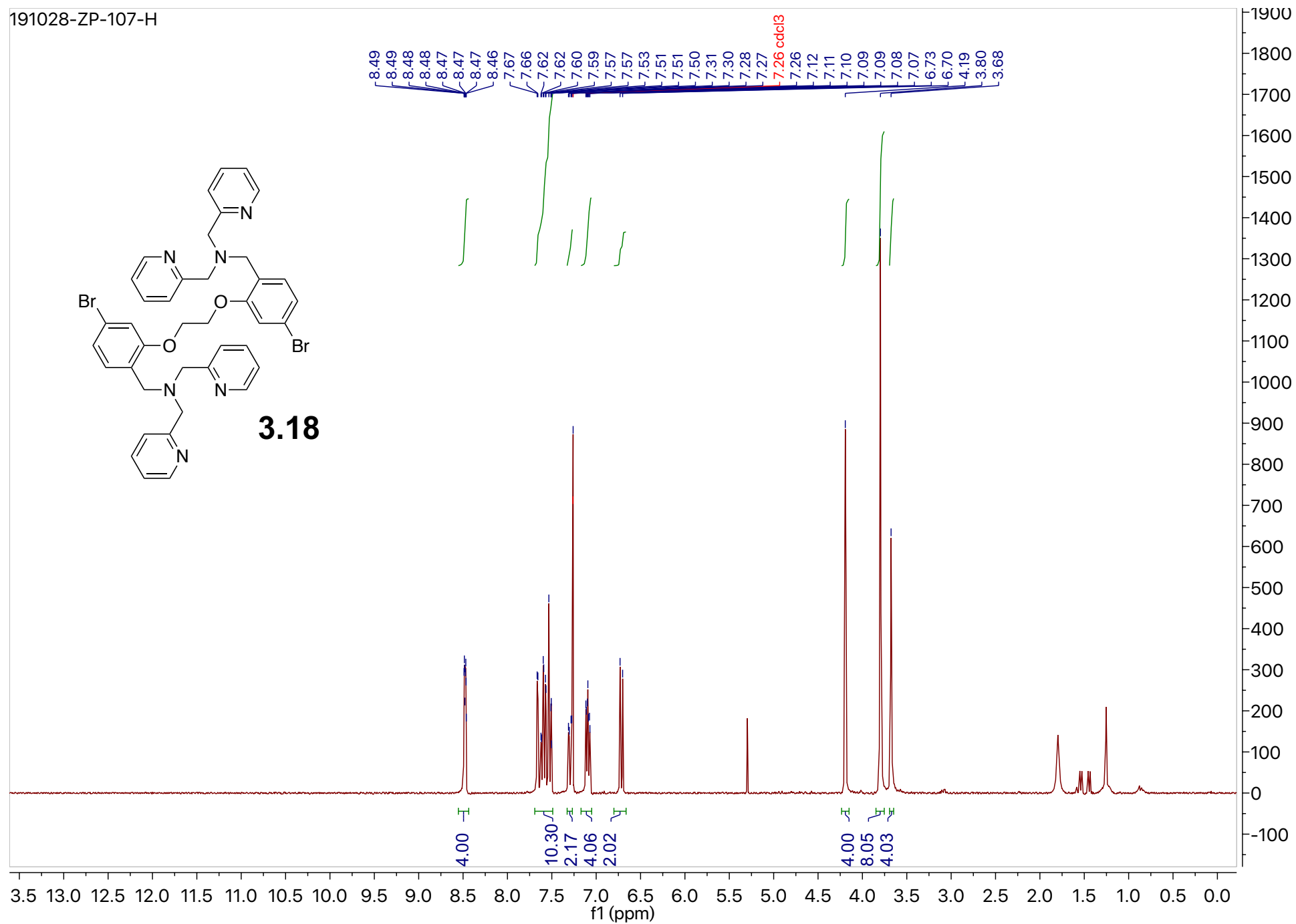
3.14



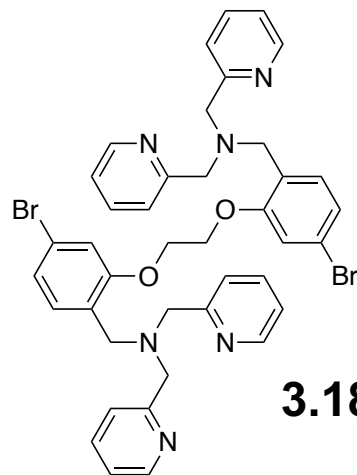
**3.16**



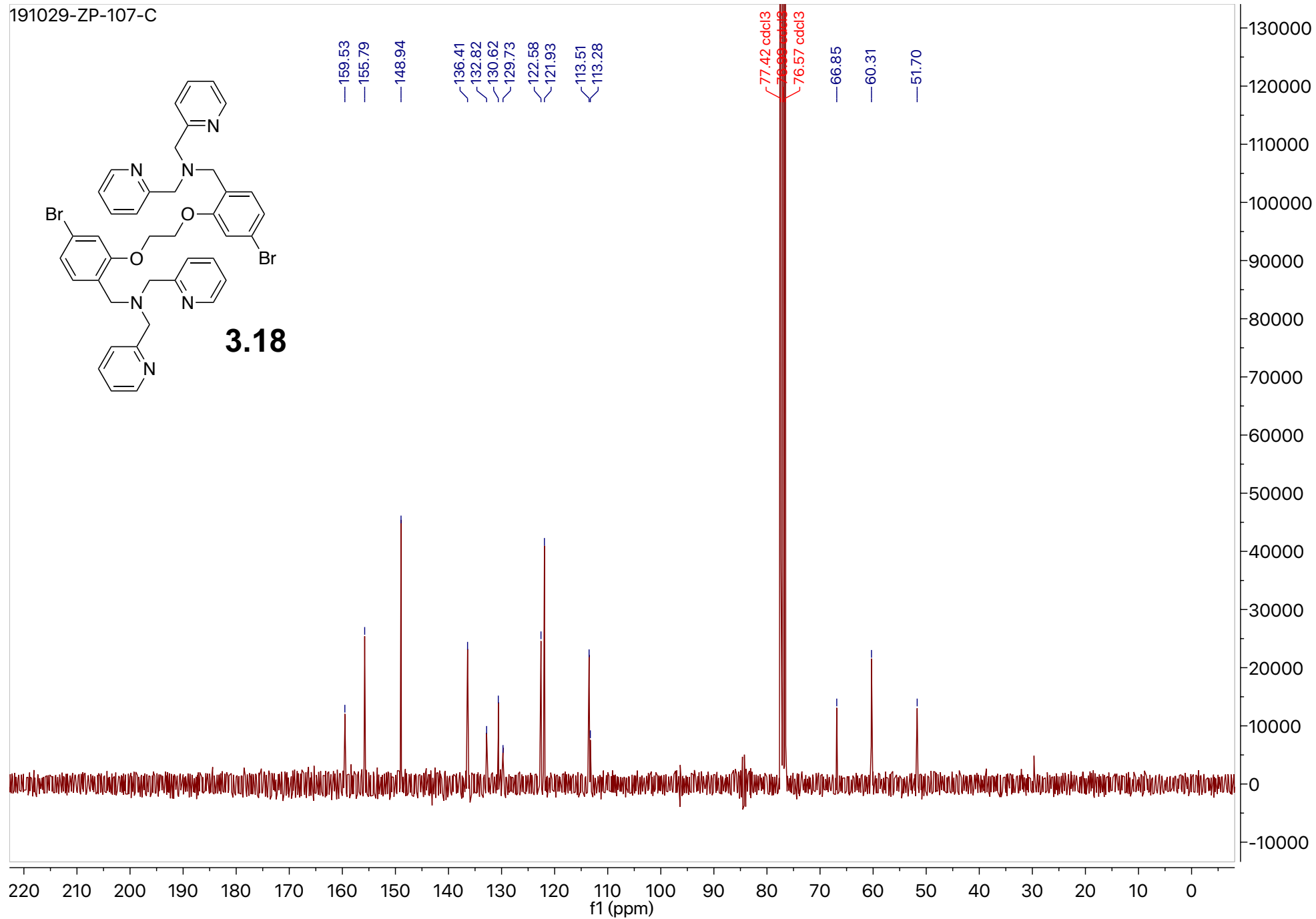


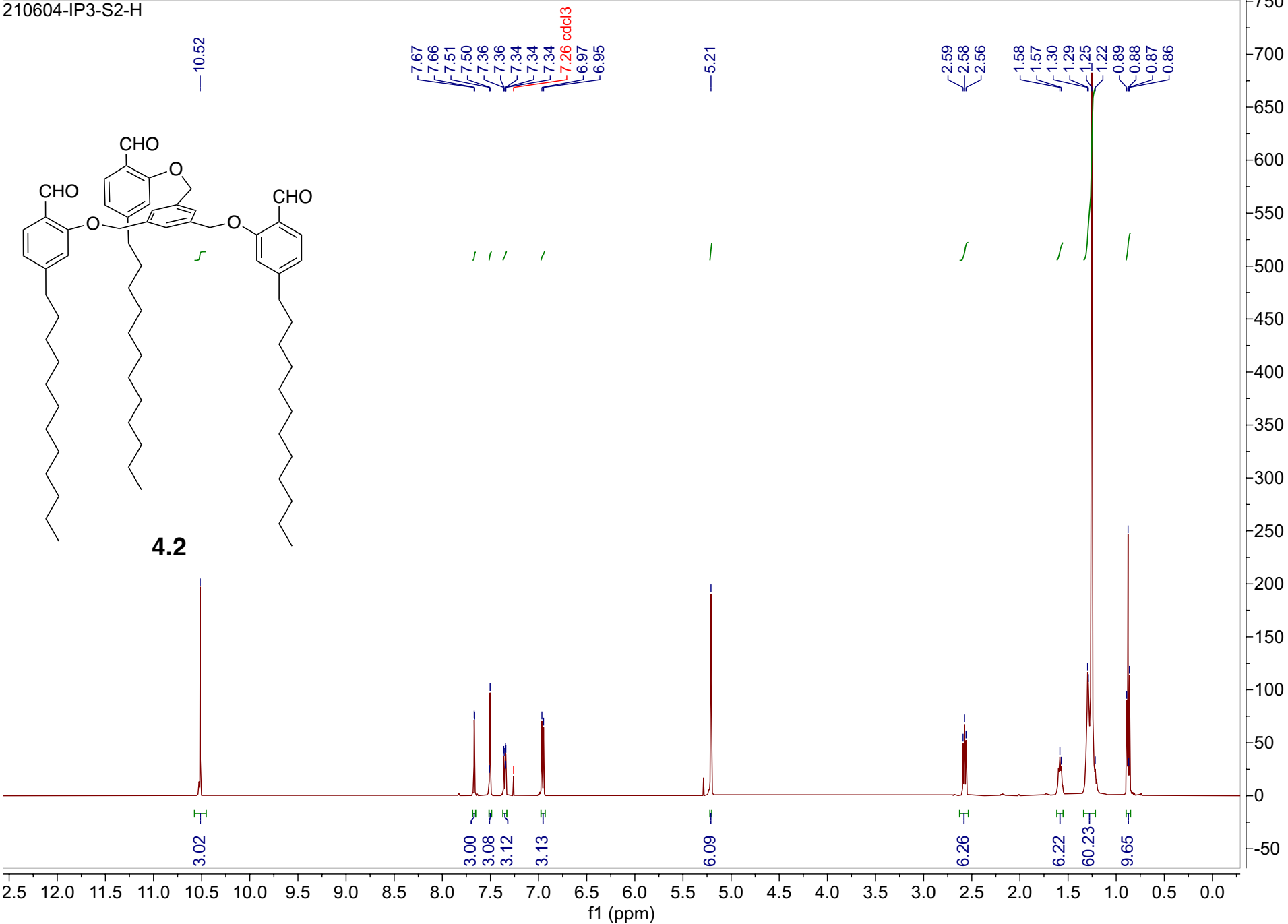


191029-ZP-107-C

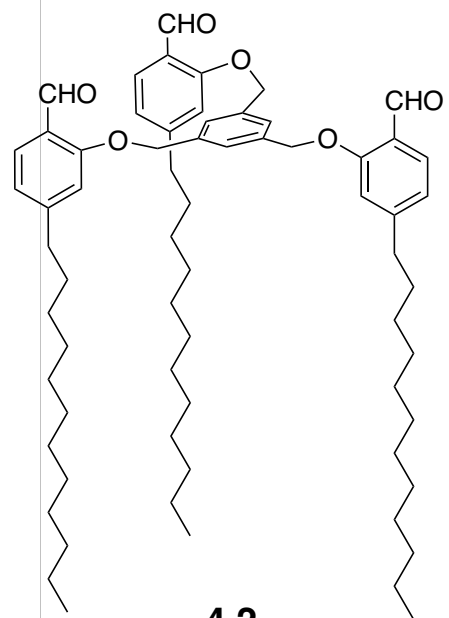


3.18

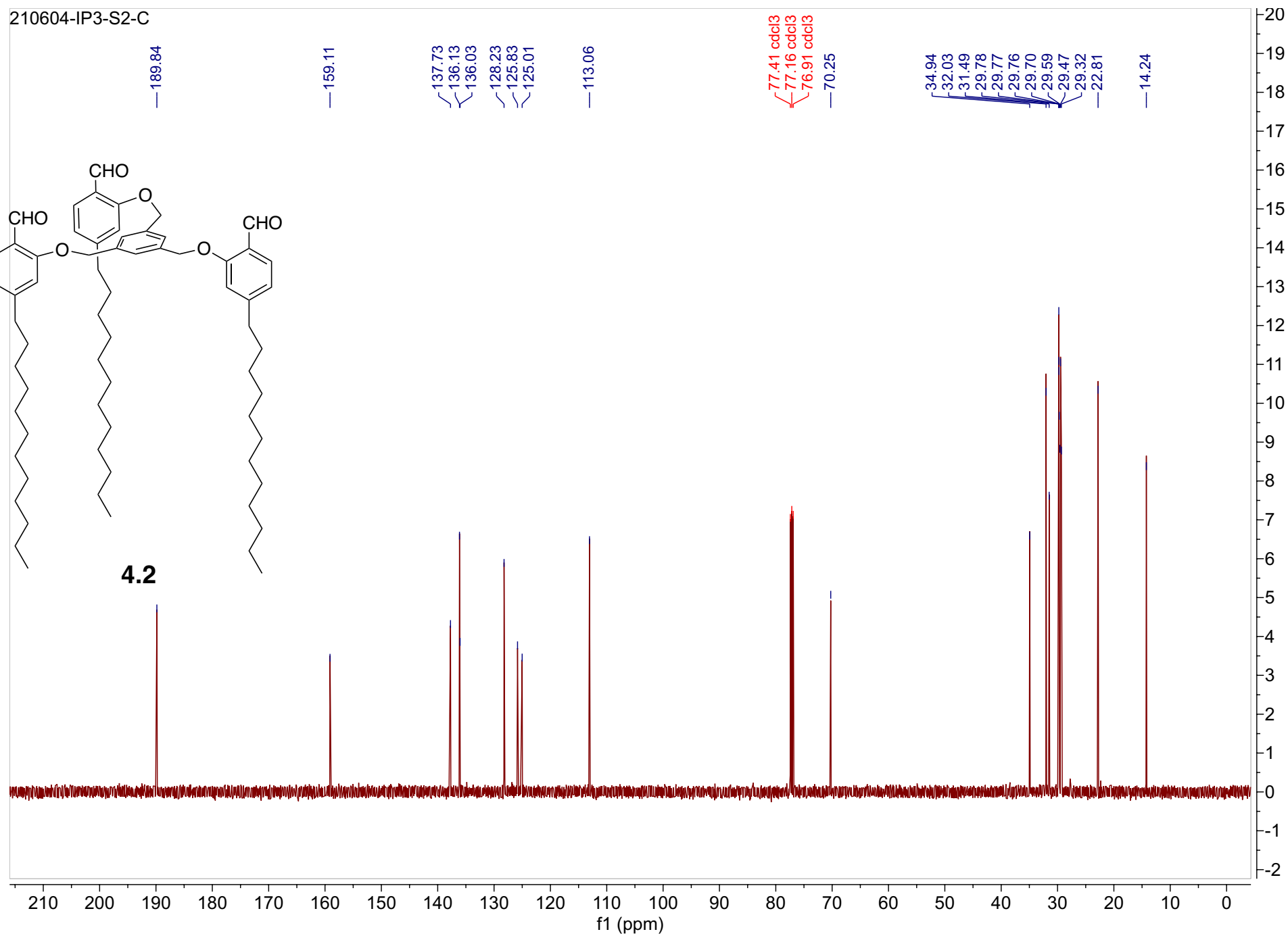


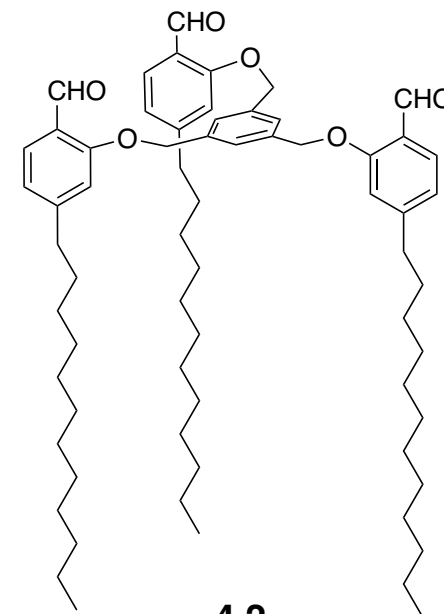
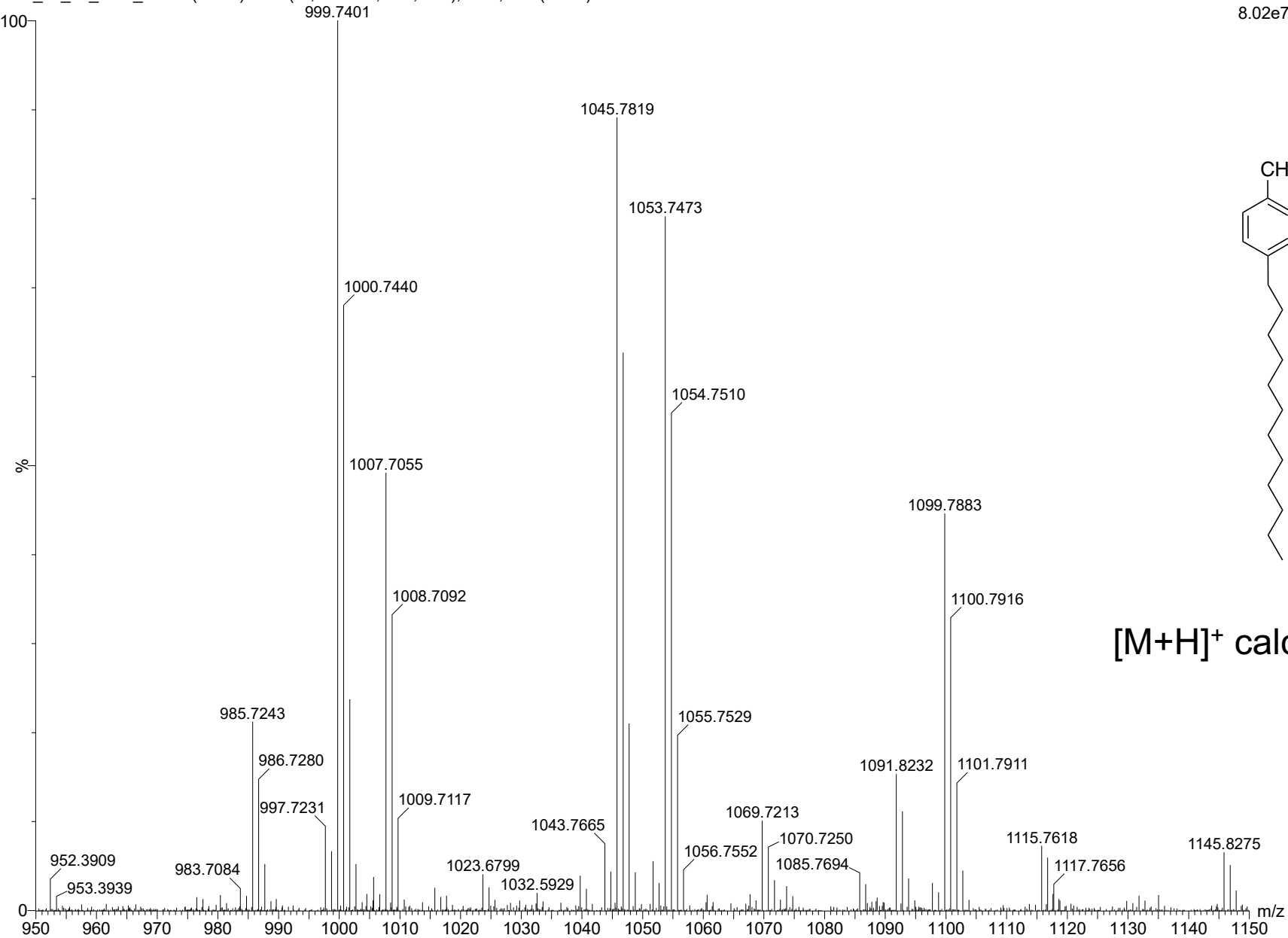


210604-IP3-S2-C

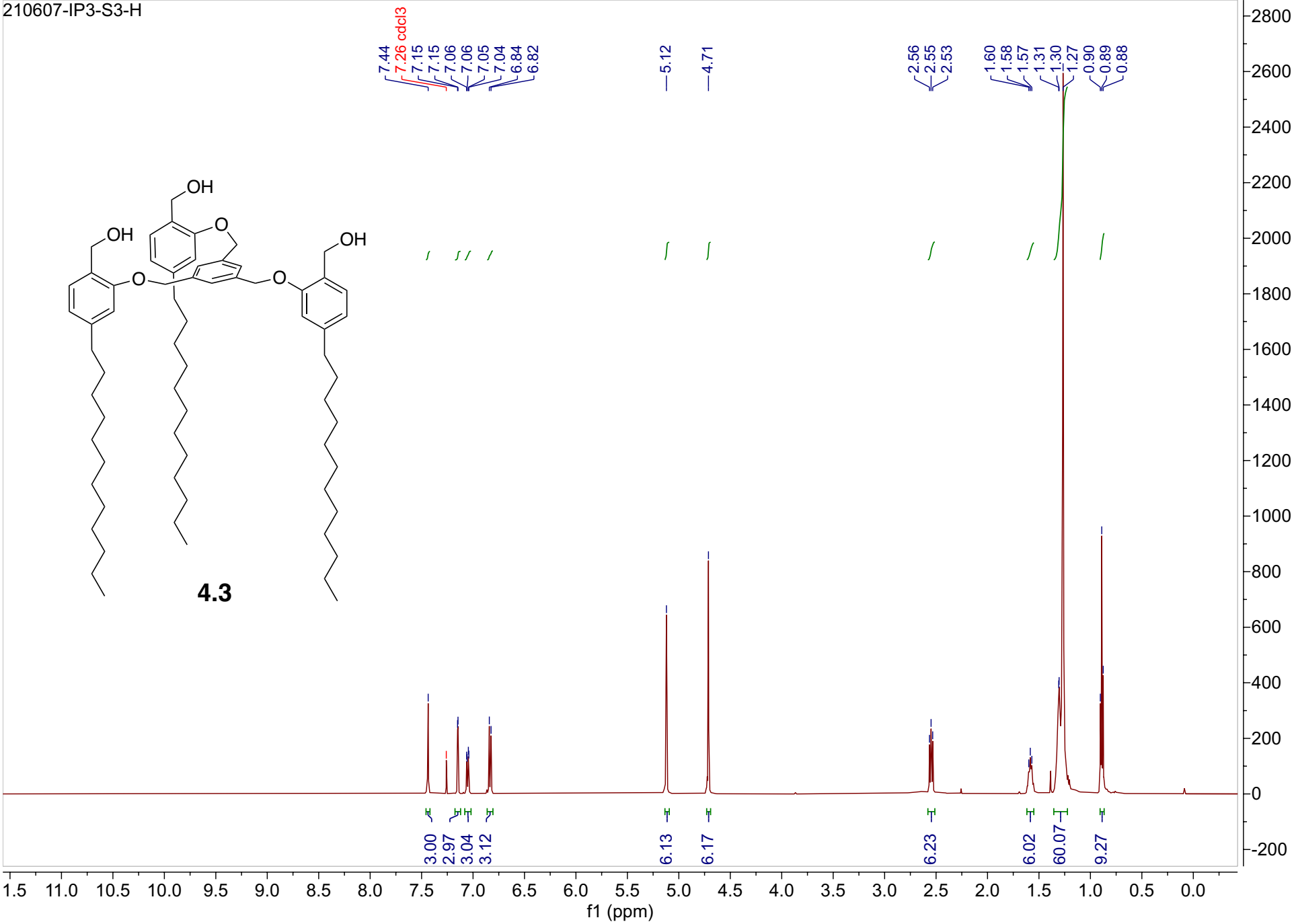


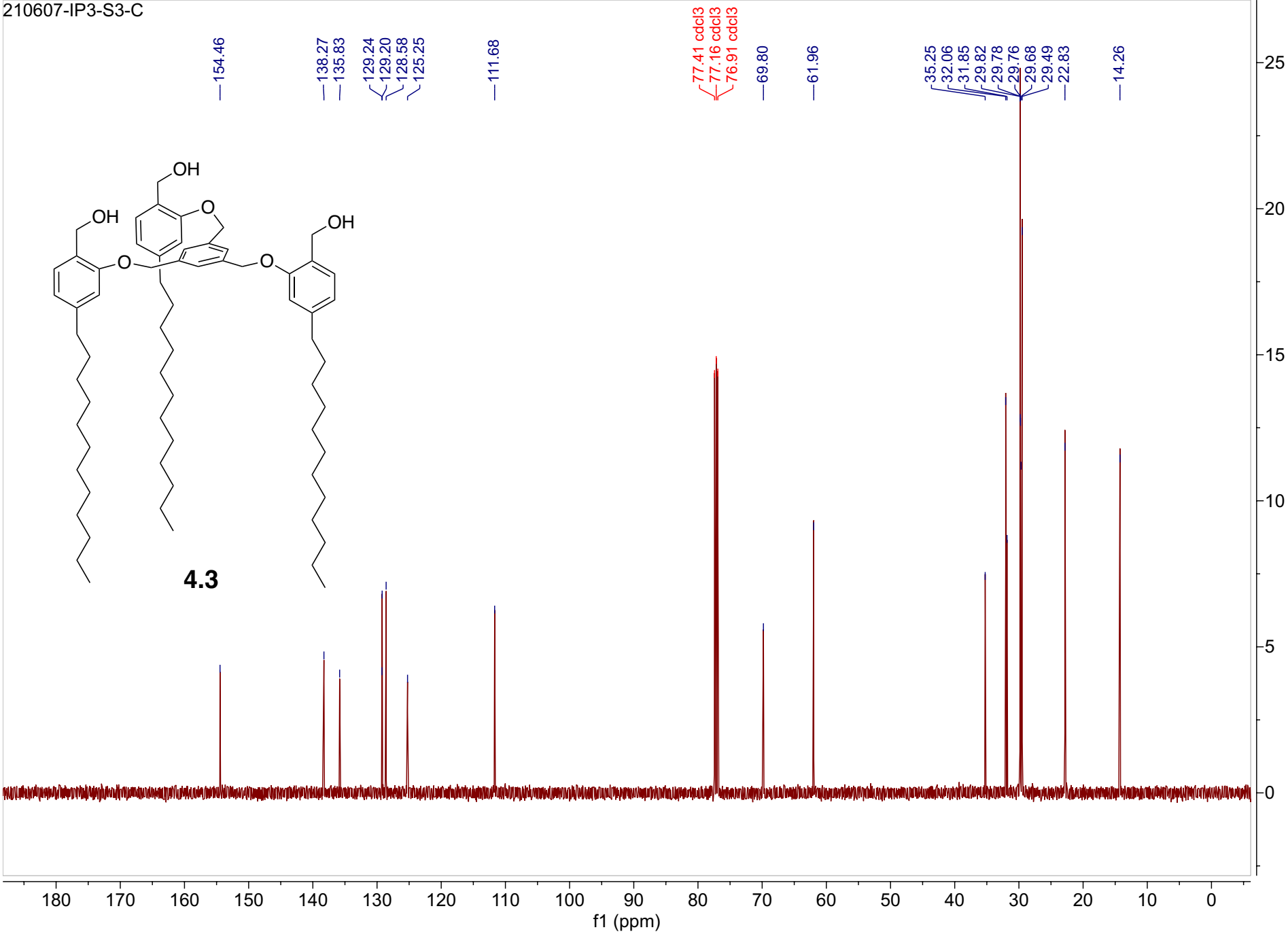
4.2

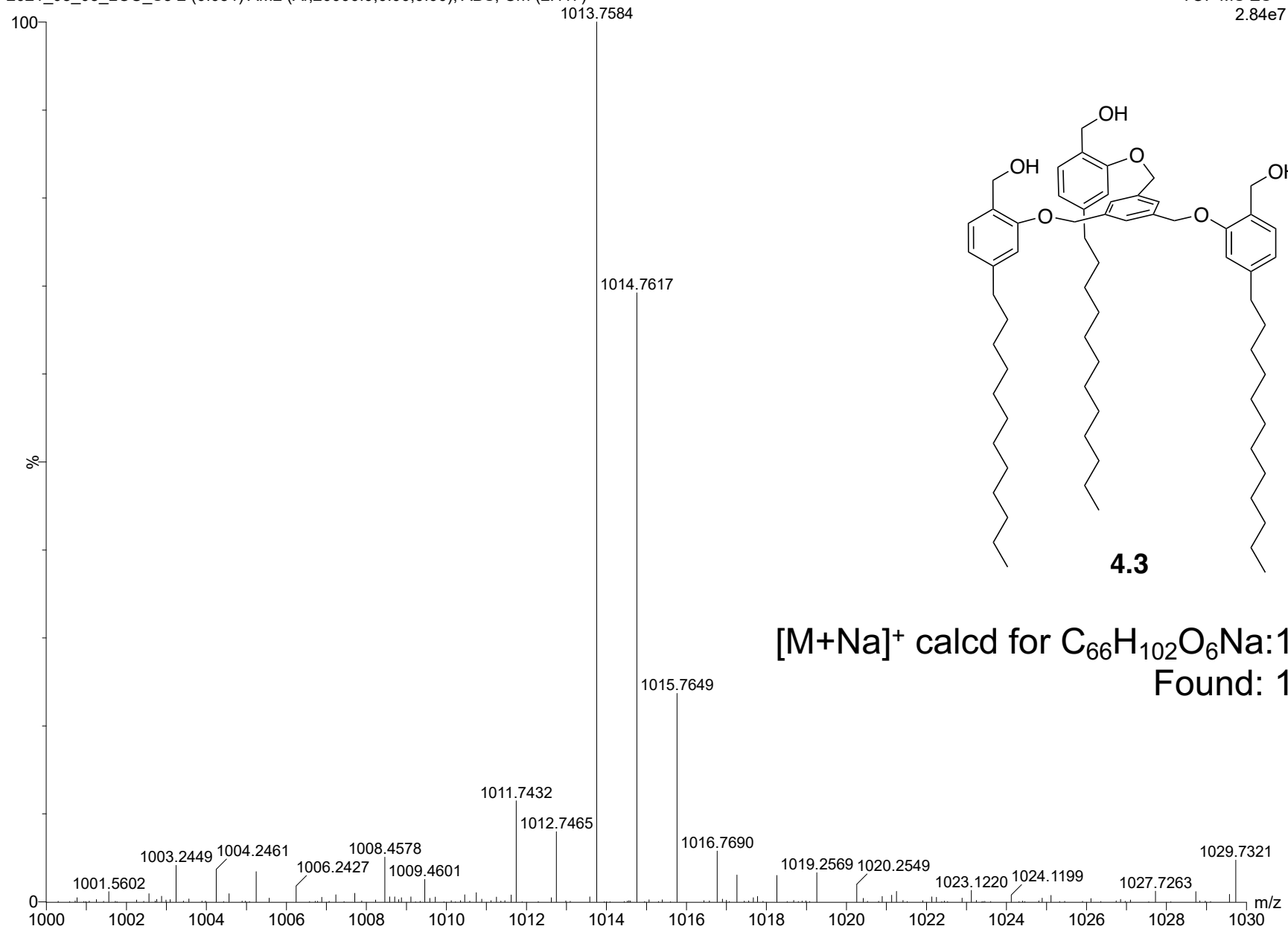


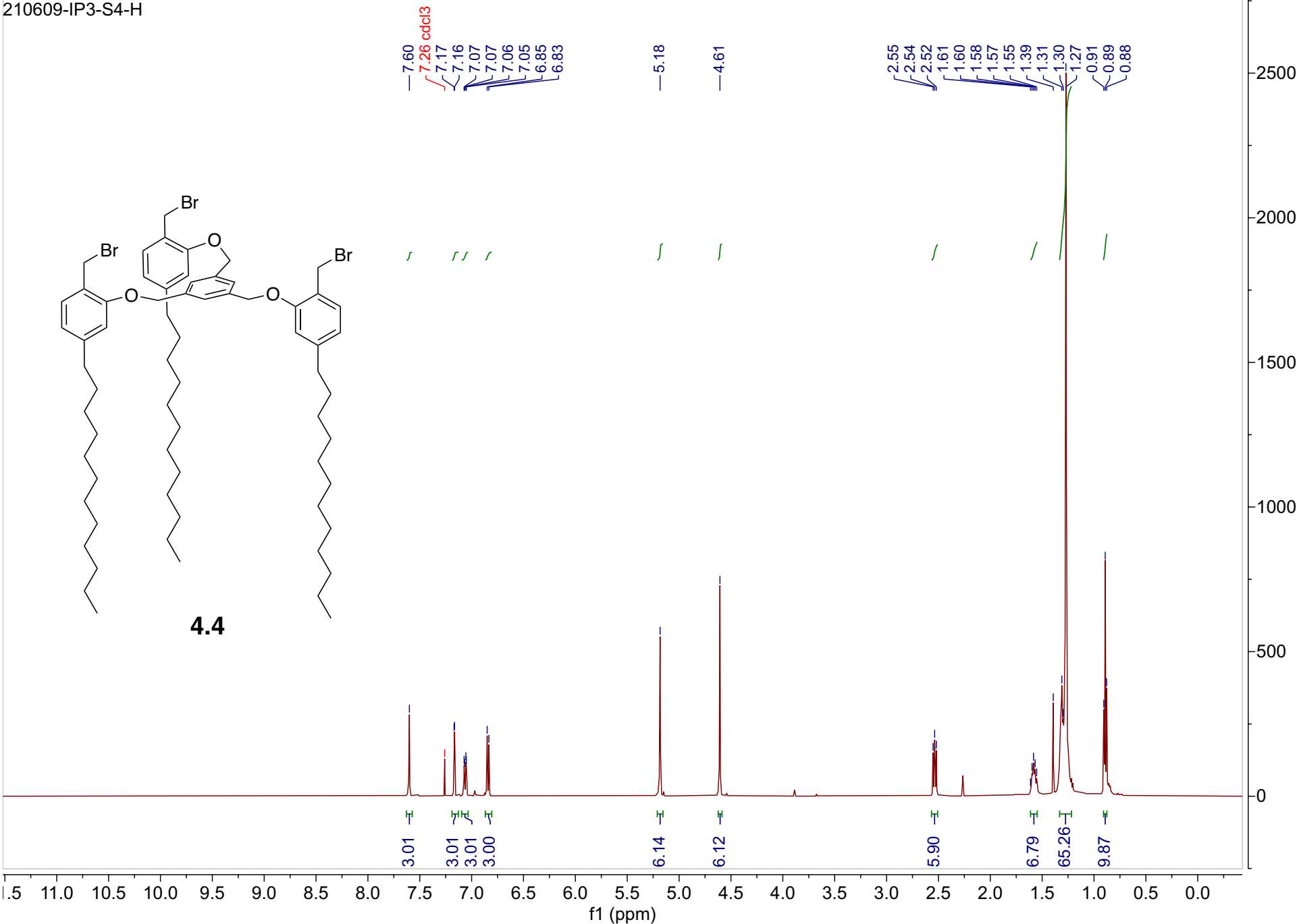
**4.2**

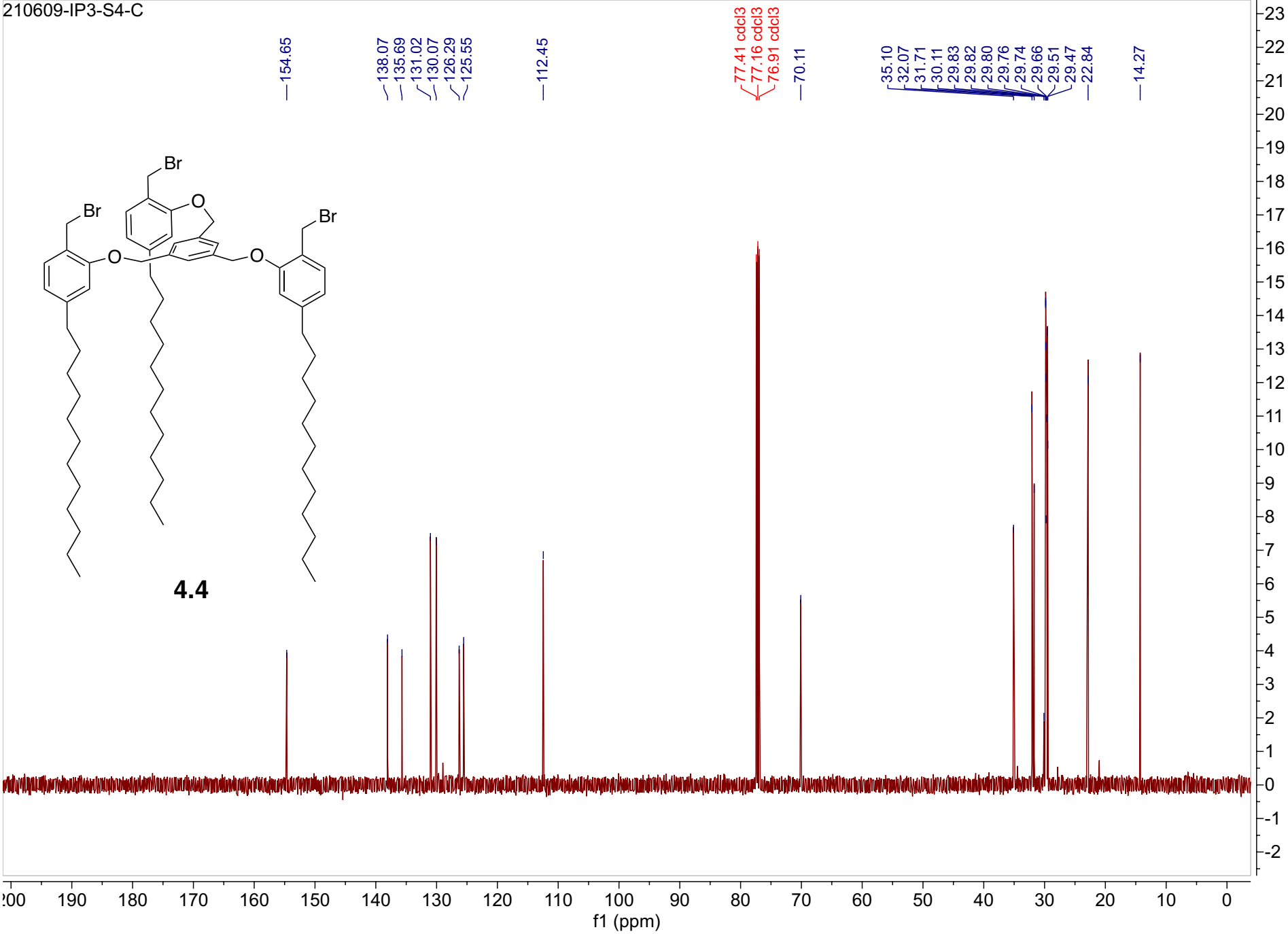
$[M+H]^+$ calcd for $C_{66}H_{96}O_6$: 985.7285
Found: 985.7243





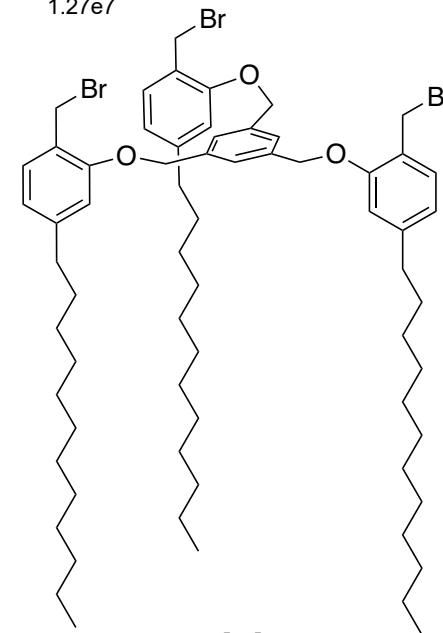
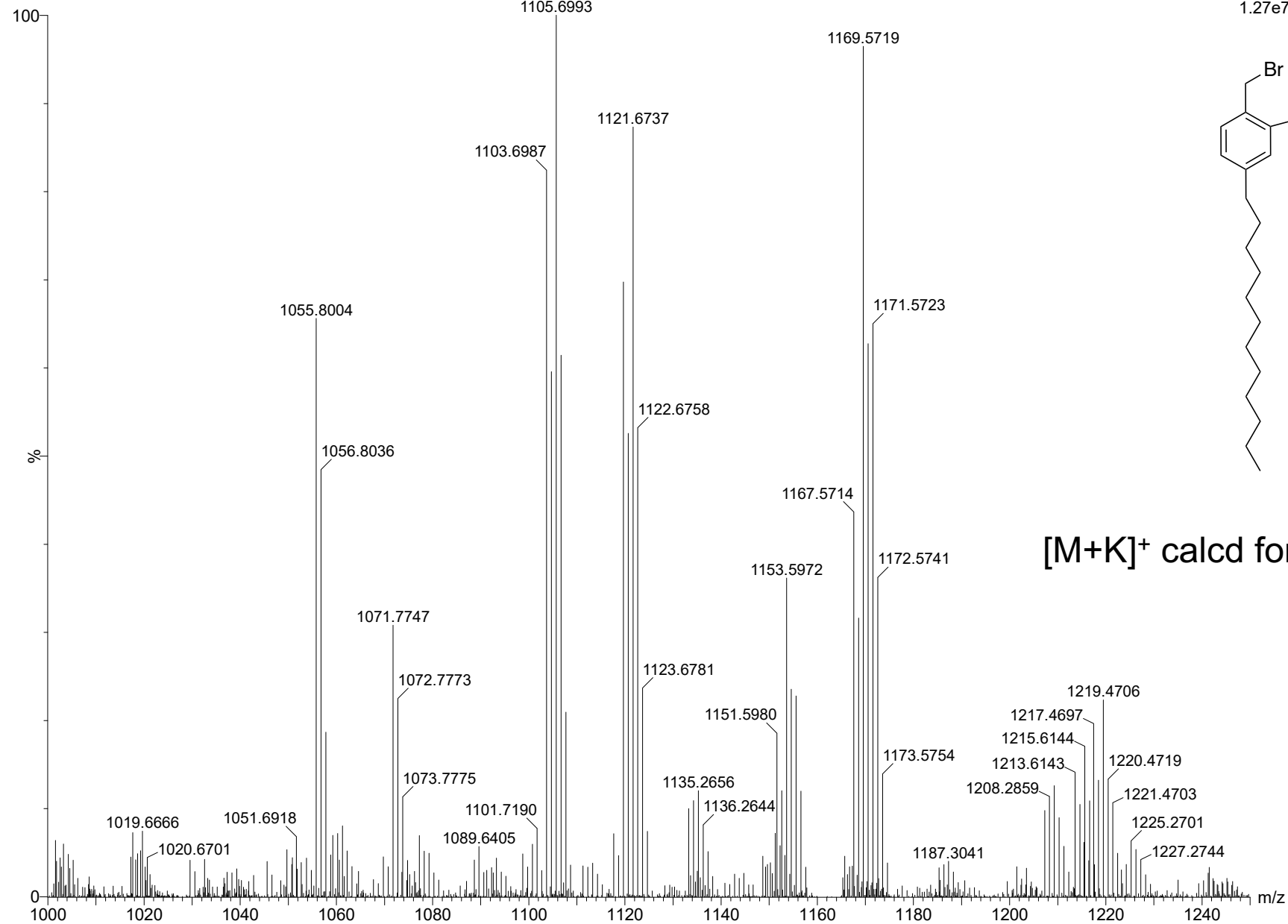






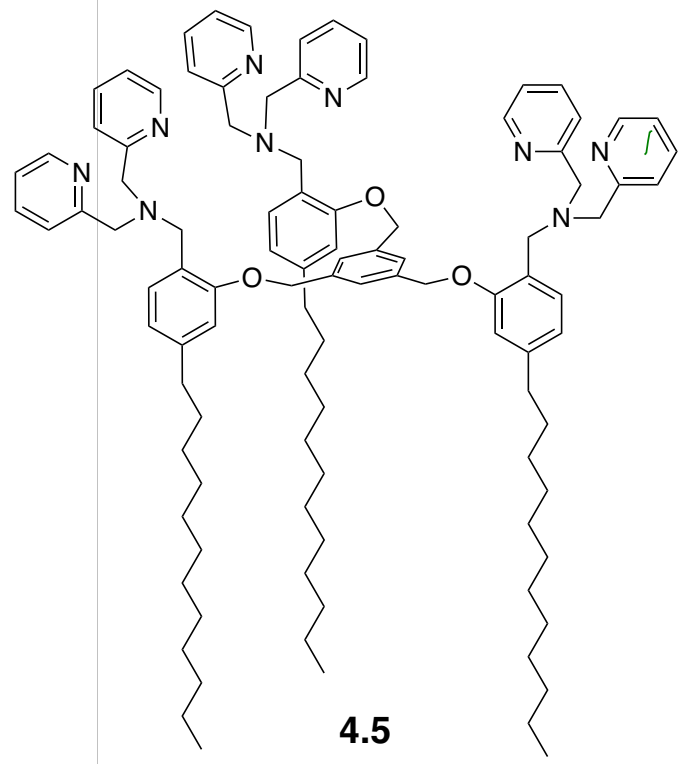
2021_08_05_LOU_S4 2 (0.051) AM2 (Ar,20000.0,0.00,0.00); ABS; Cm (2:117)

TOF MS ES+
1.27e7

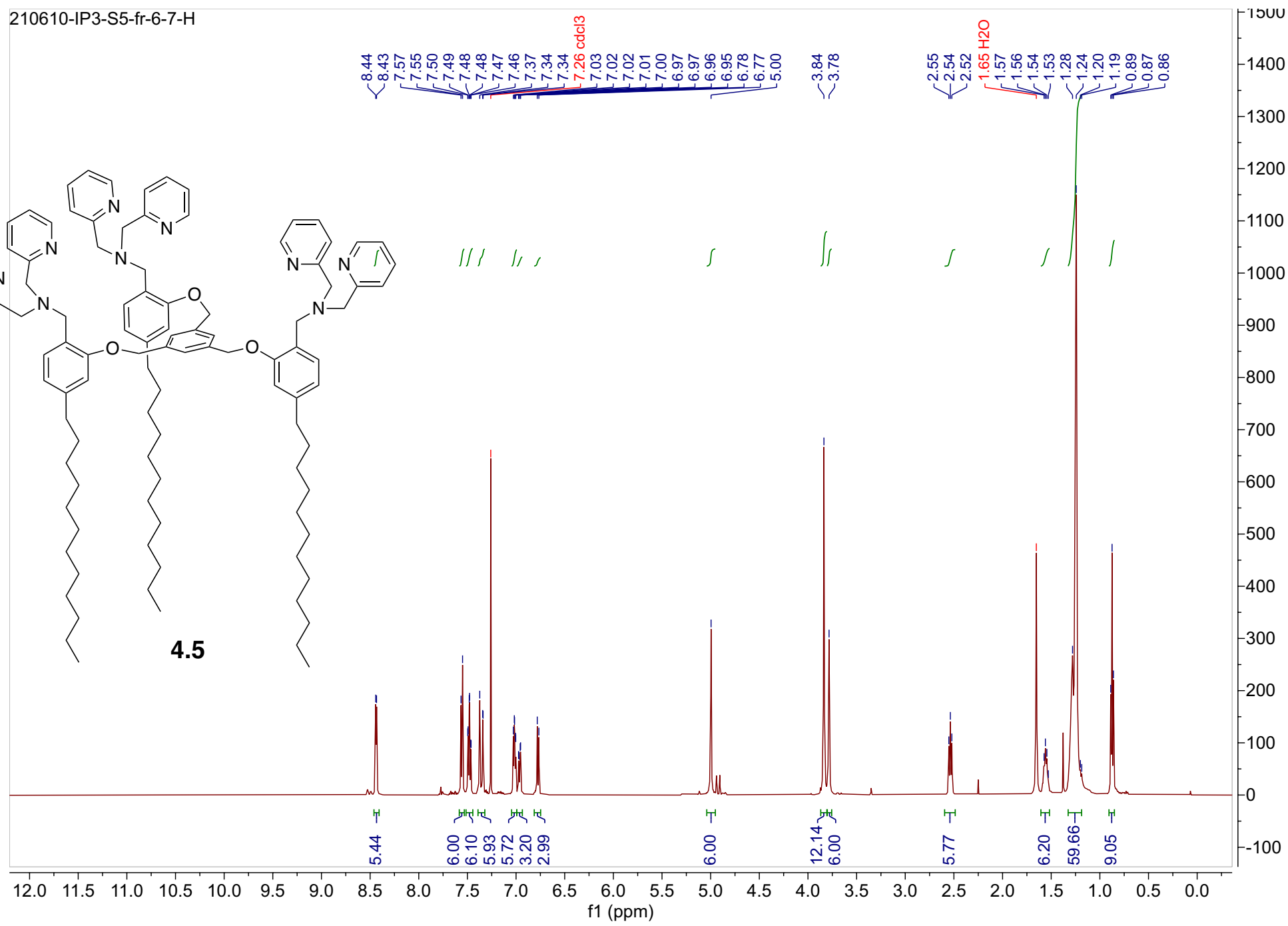


4.4

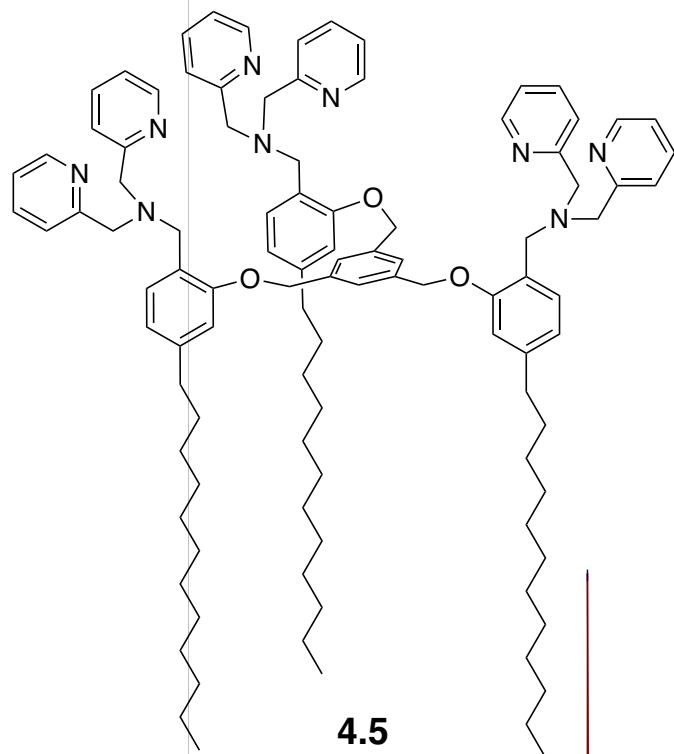
[M+K]⁺ calcd for C₆₆H₉₉Br₃O₃K: 1215.4781
Found: 1215.6144



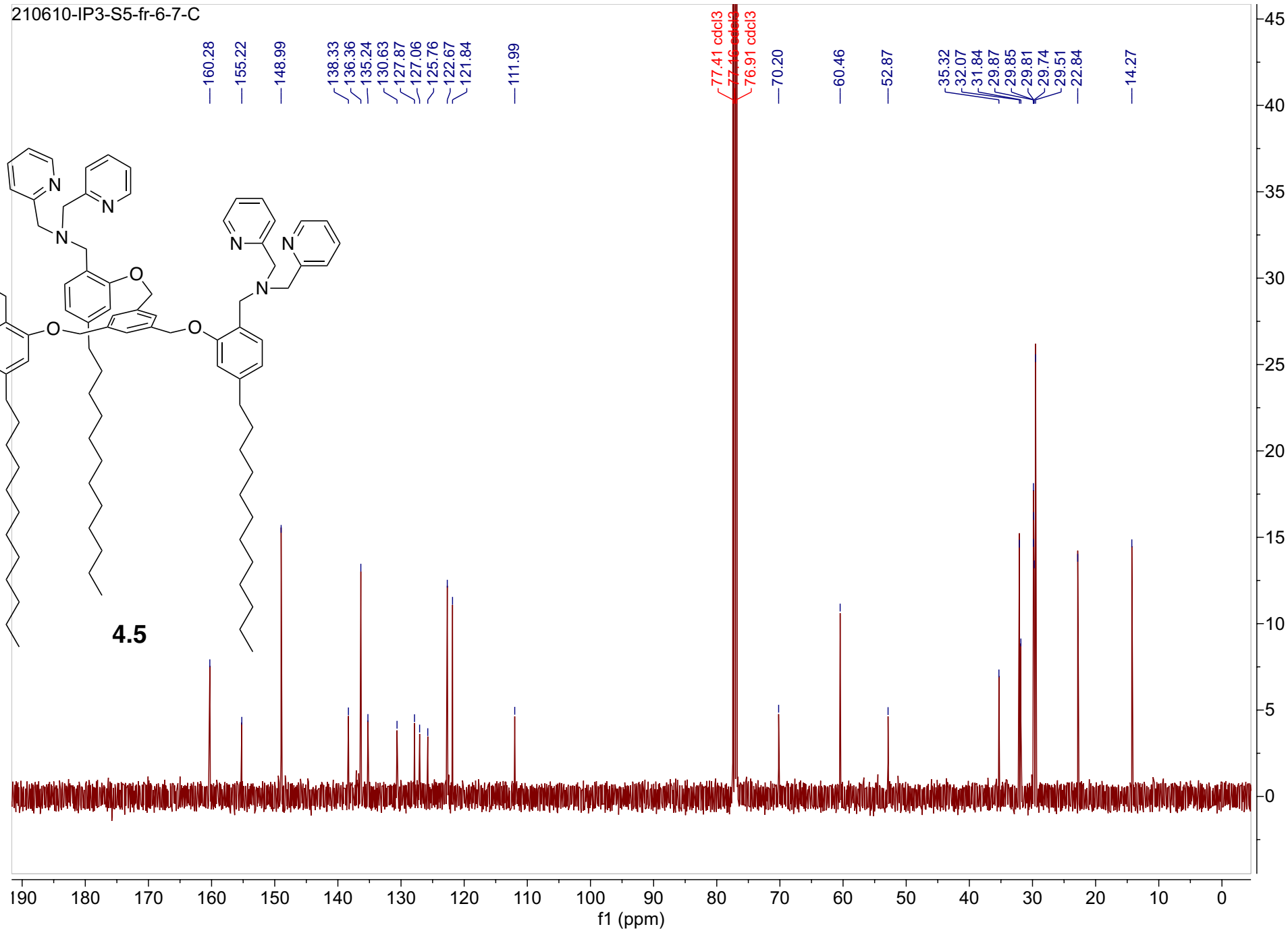
4.5



210610-IP3-S5-fr-6-7-C

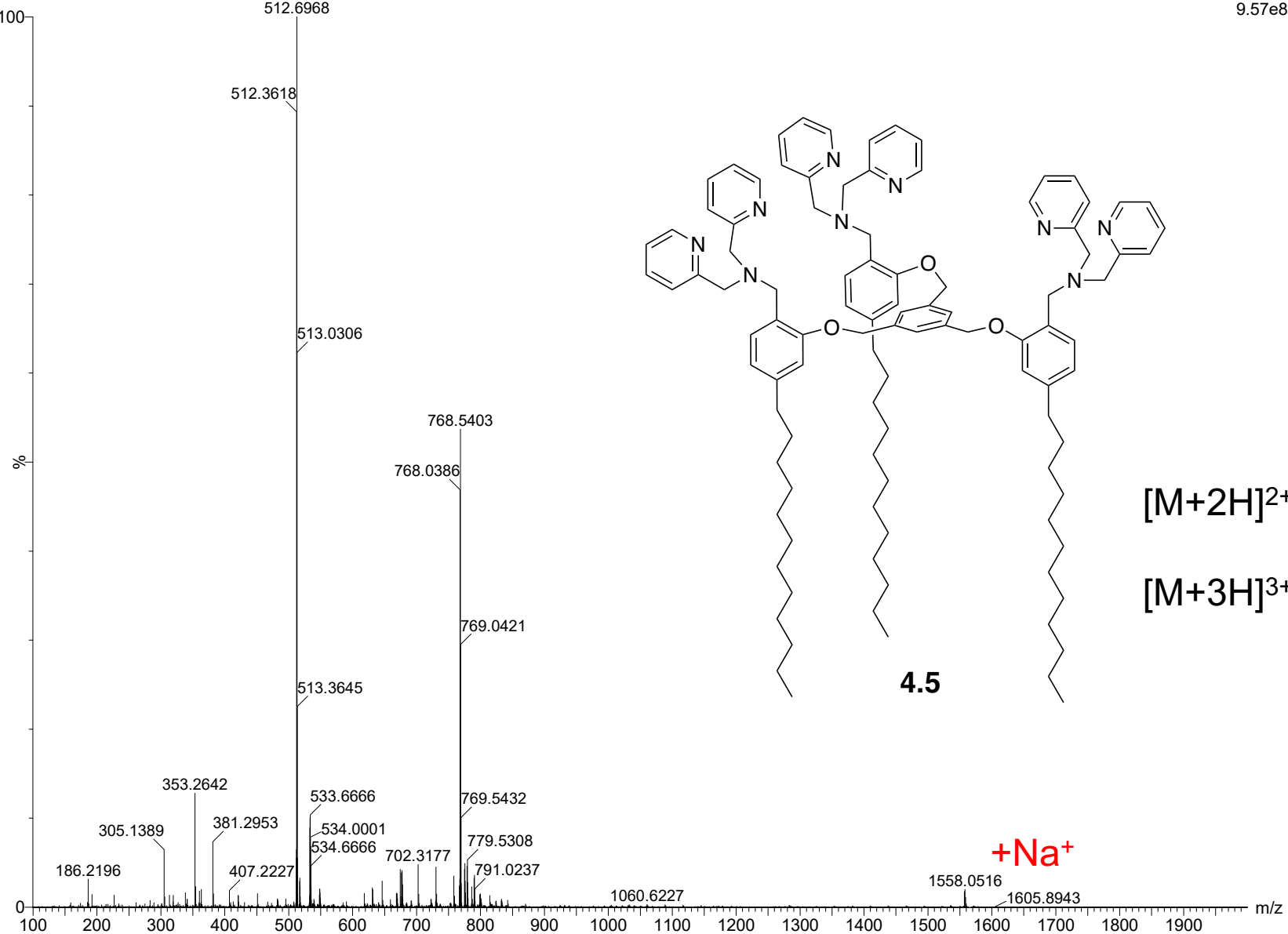


4.5



2021_08_05_LOU_S5 2 (0.051) AM2 (Ar,20000.0,0.00,0.00); ABS; Cm (2:117)

TOF MS ES+
9.57e8



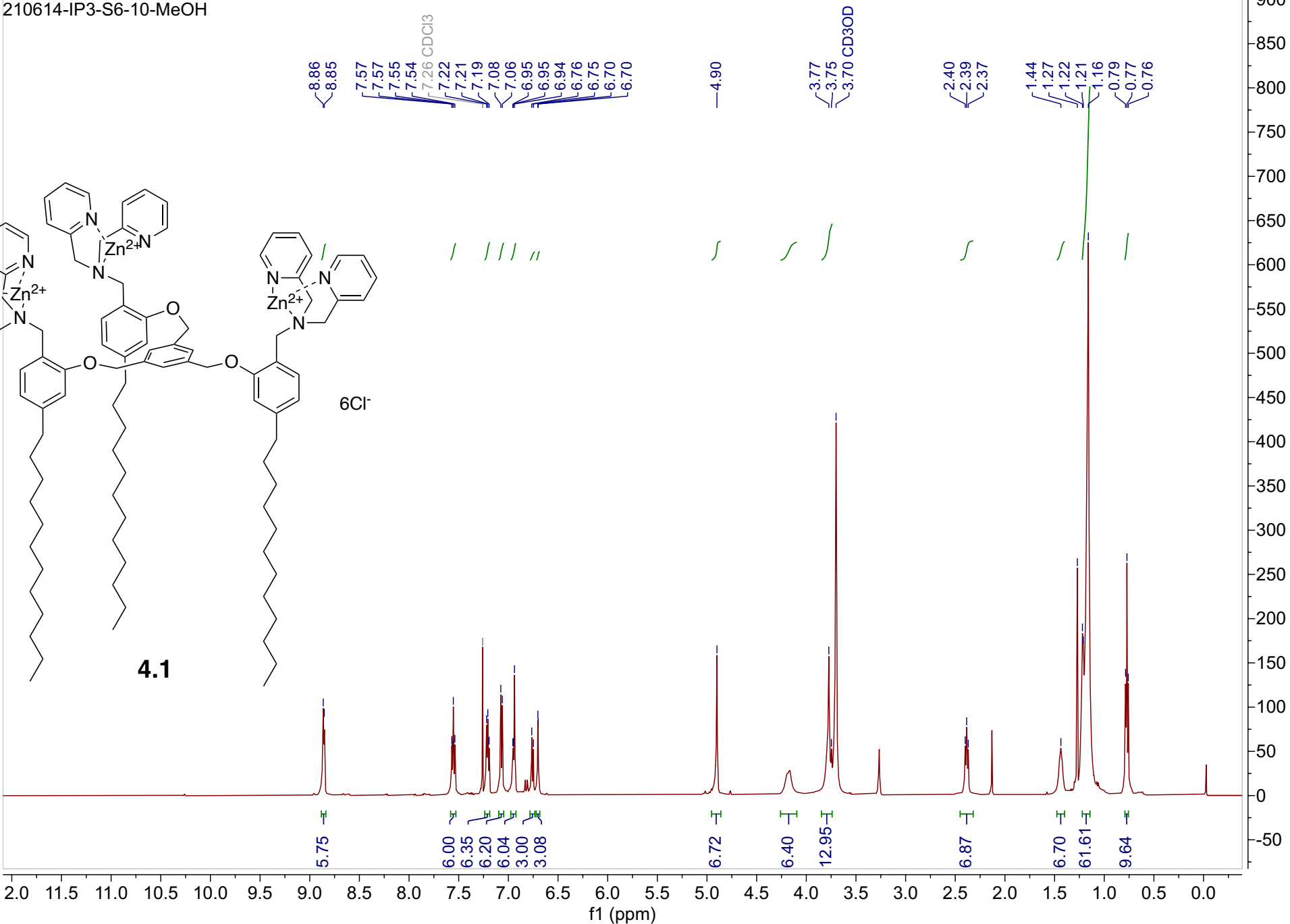
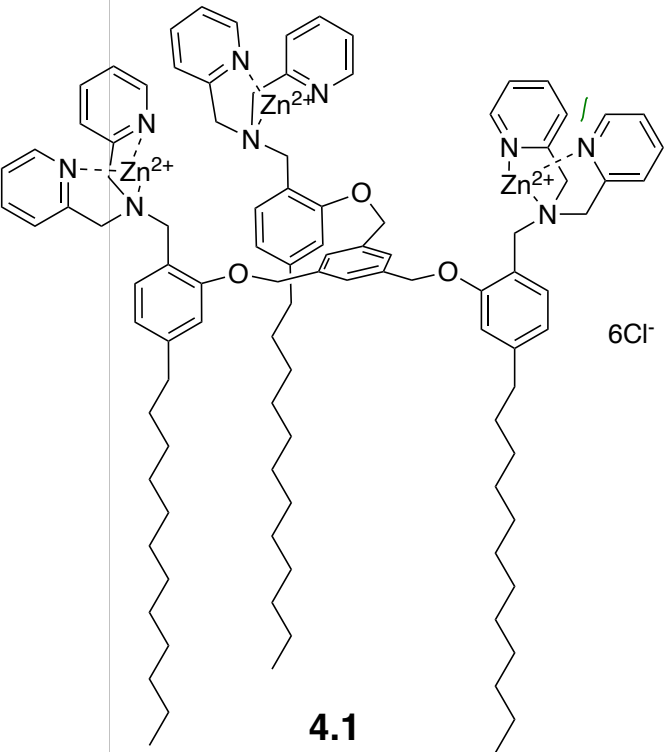
$[M+2H]^{2+}$ calcd for $C_{102}H_{137}N_9O_3$: 768.0422

Found: 768.0386

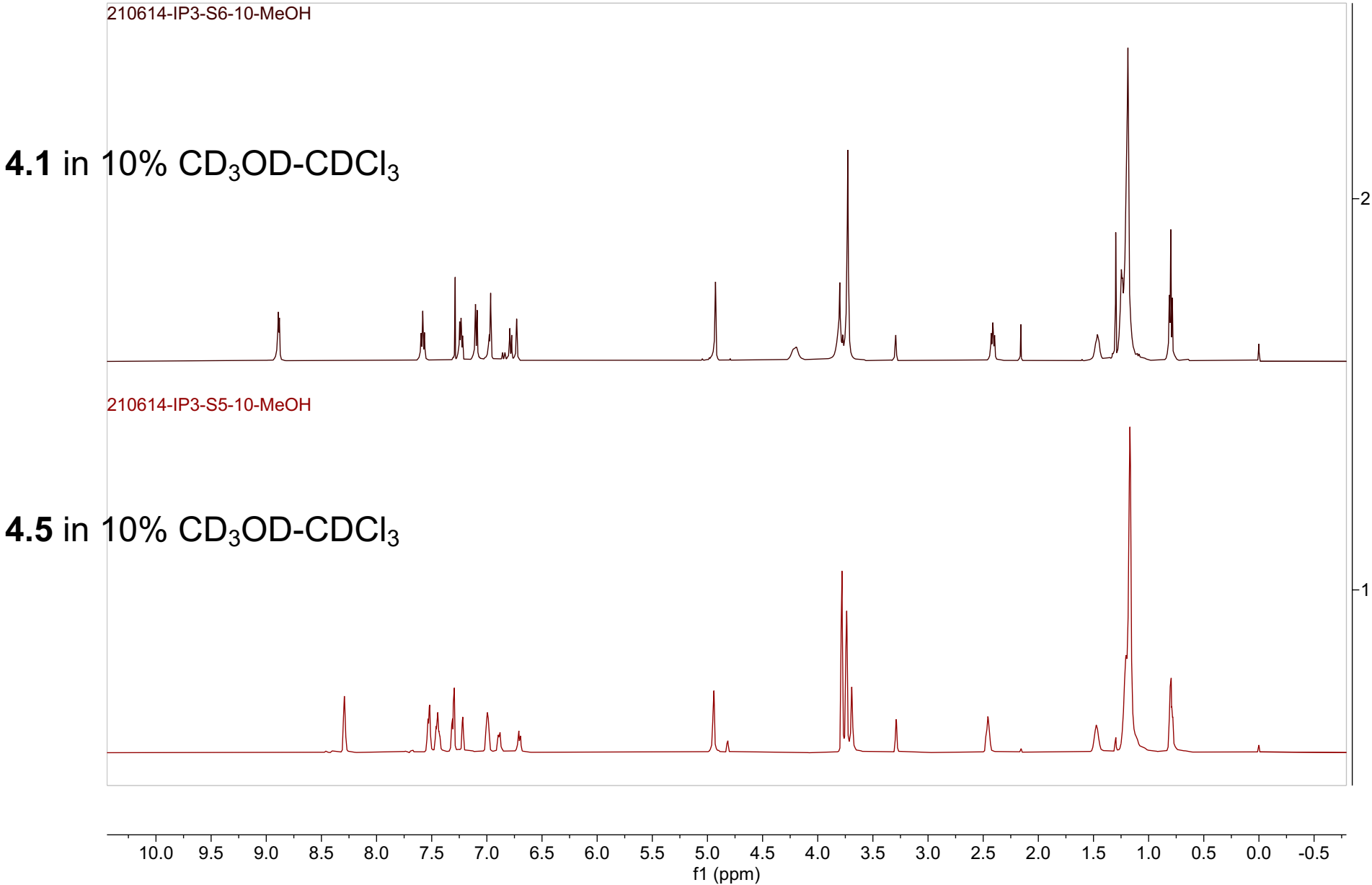
$[M+3H]^{3+}$ calcd for $C_{102}H_{138}N_9O_3$: 512.3641

Found: 512.3618

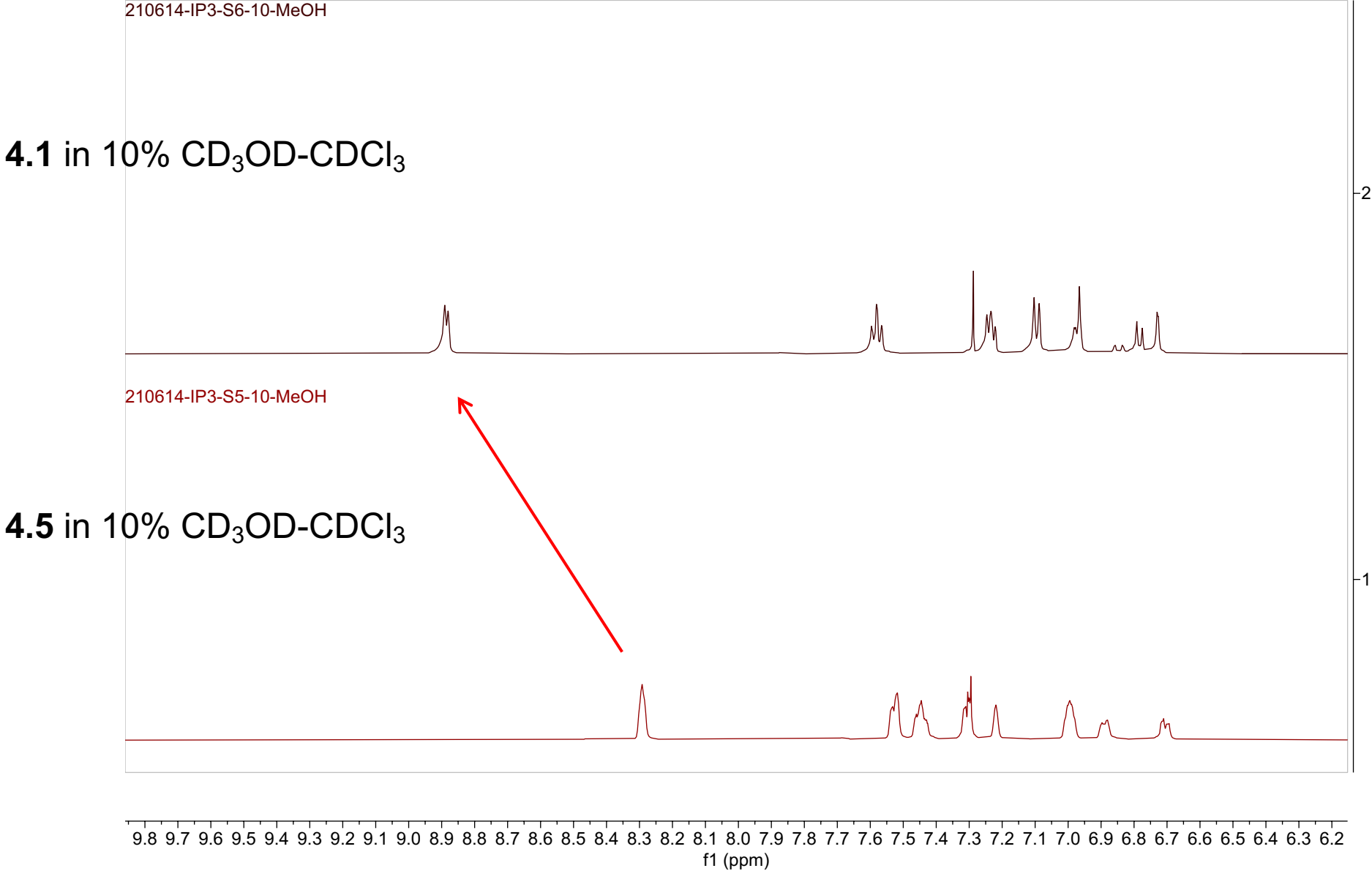
+Na⁺

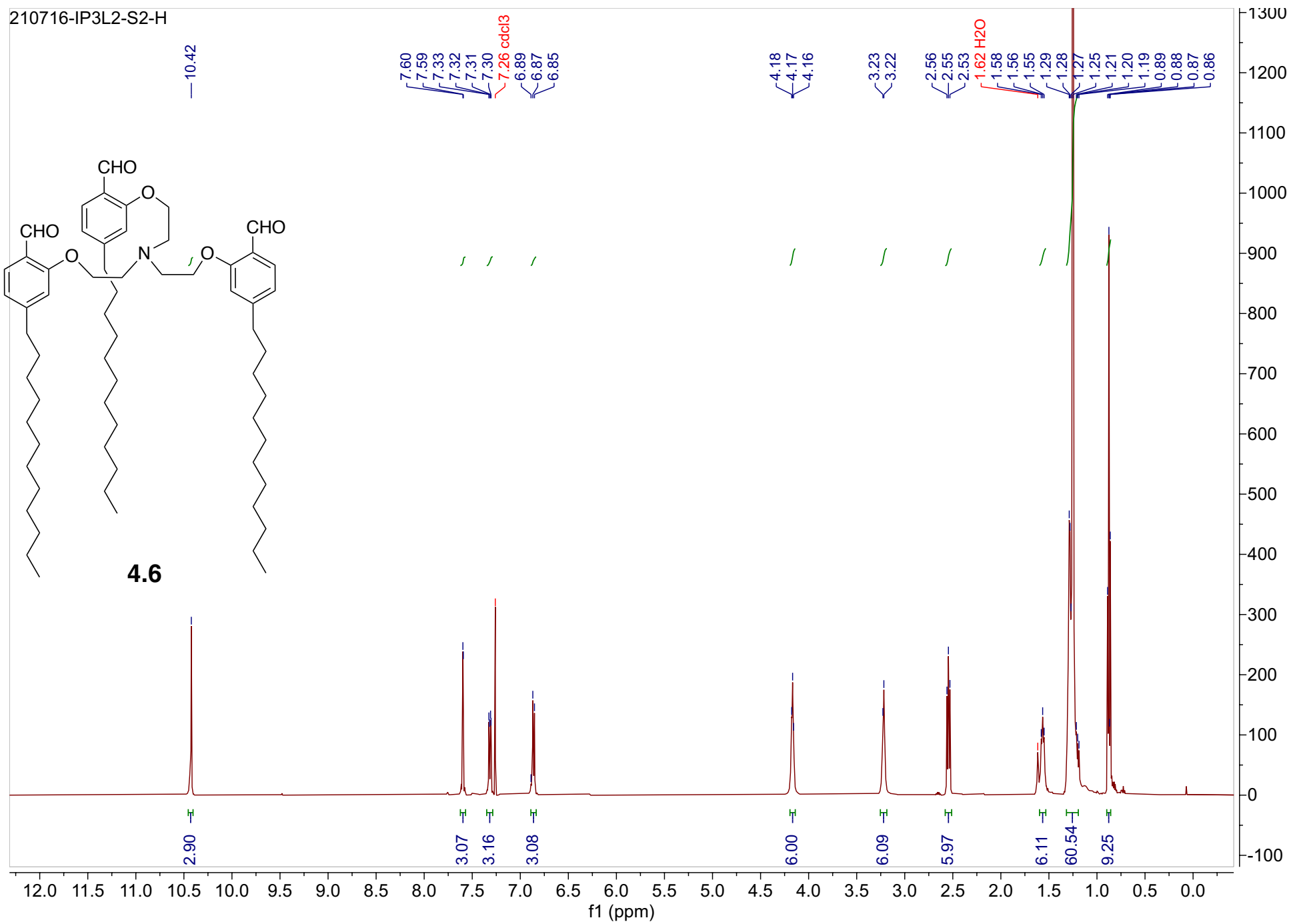
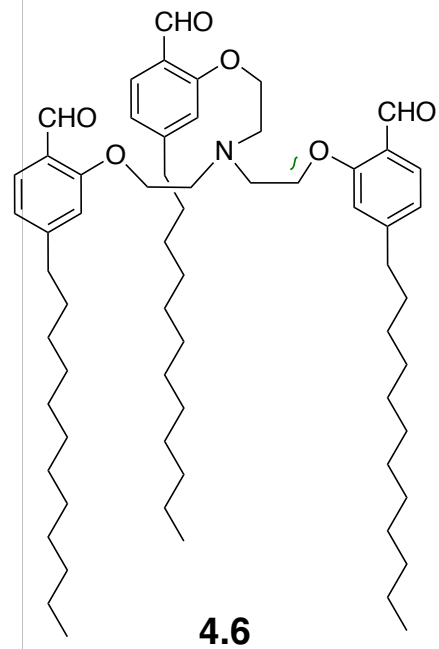


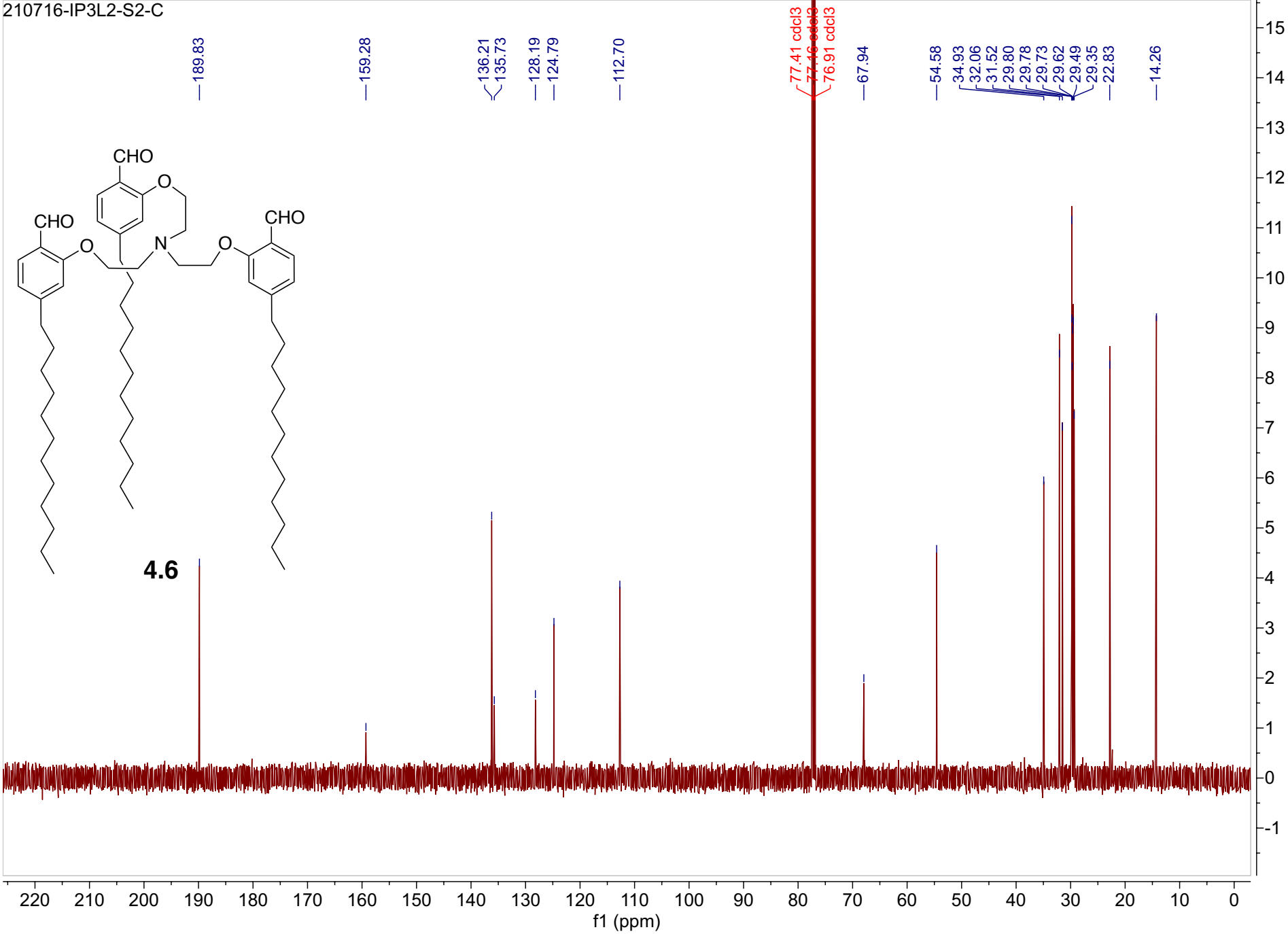
Prove of Zn chelation - Full spectra

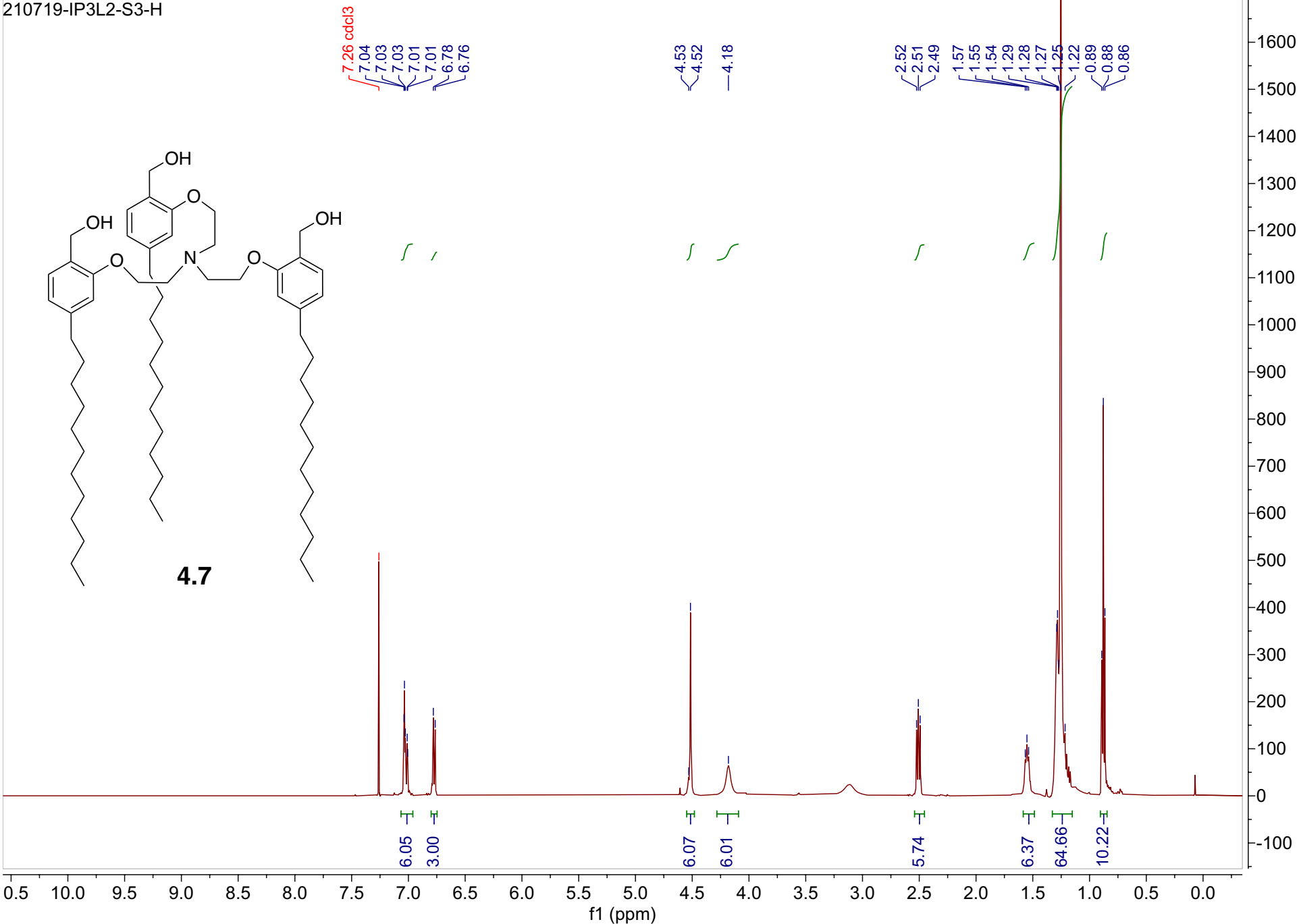


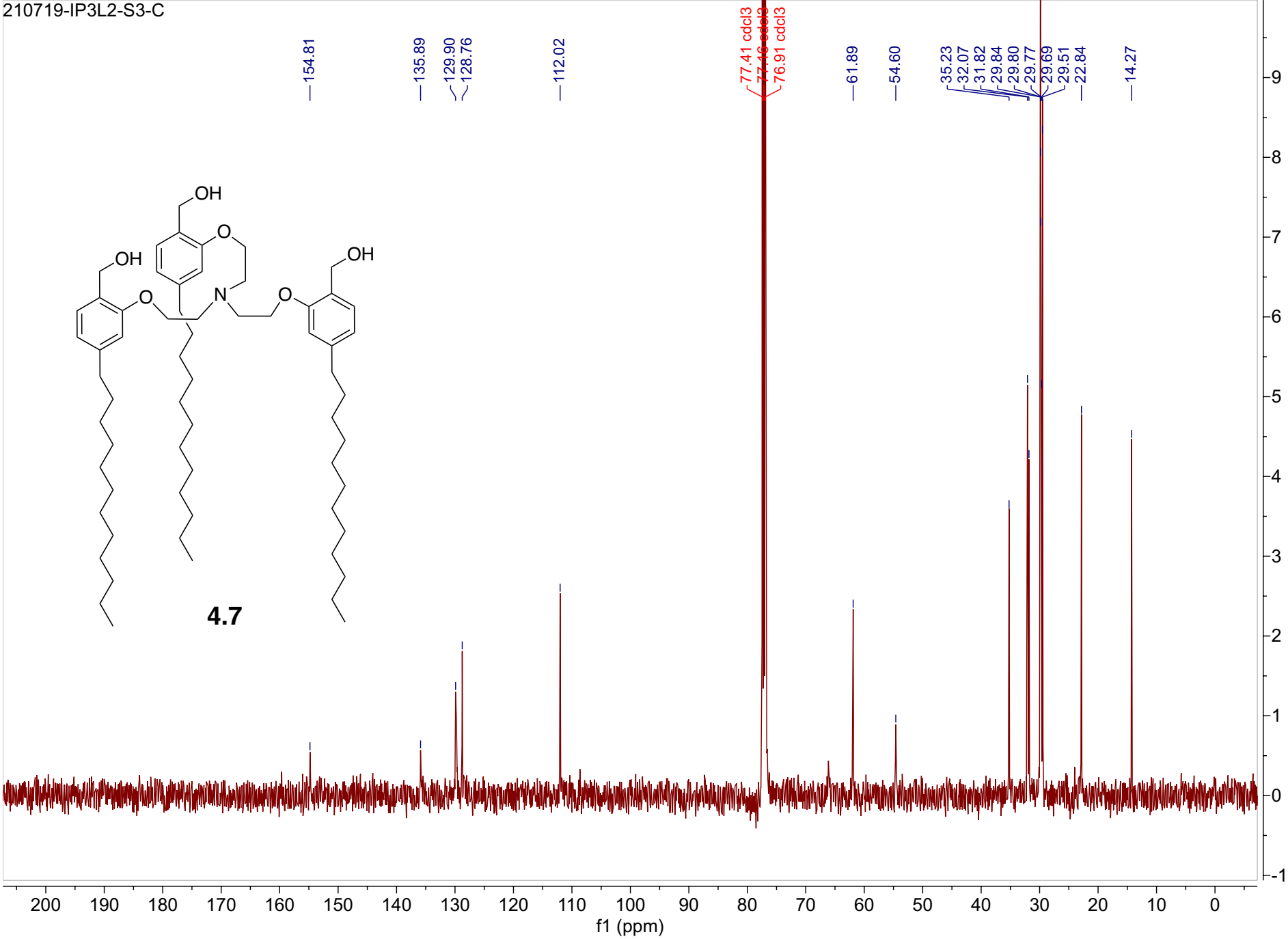
Prove of Zn chelation - Full spectra

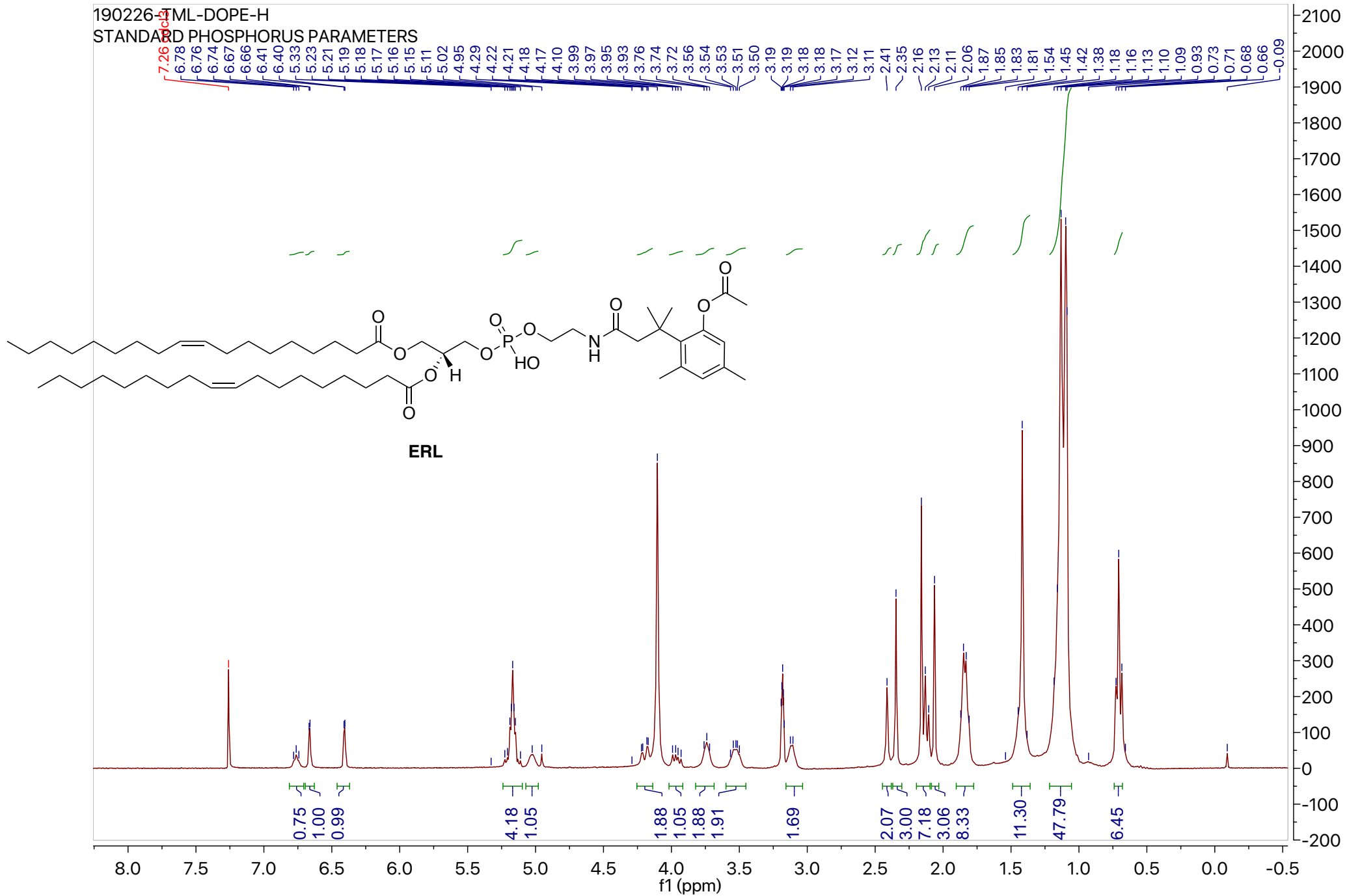




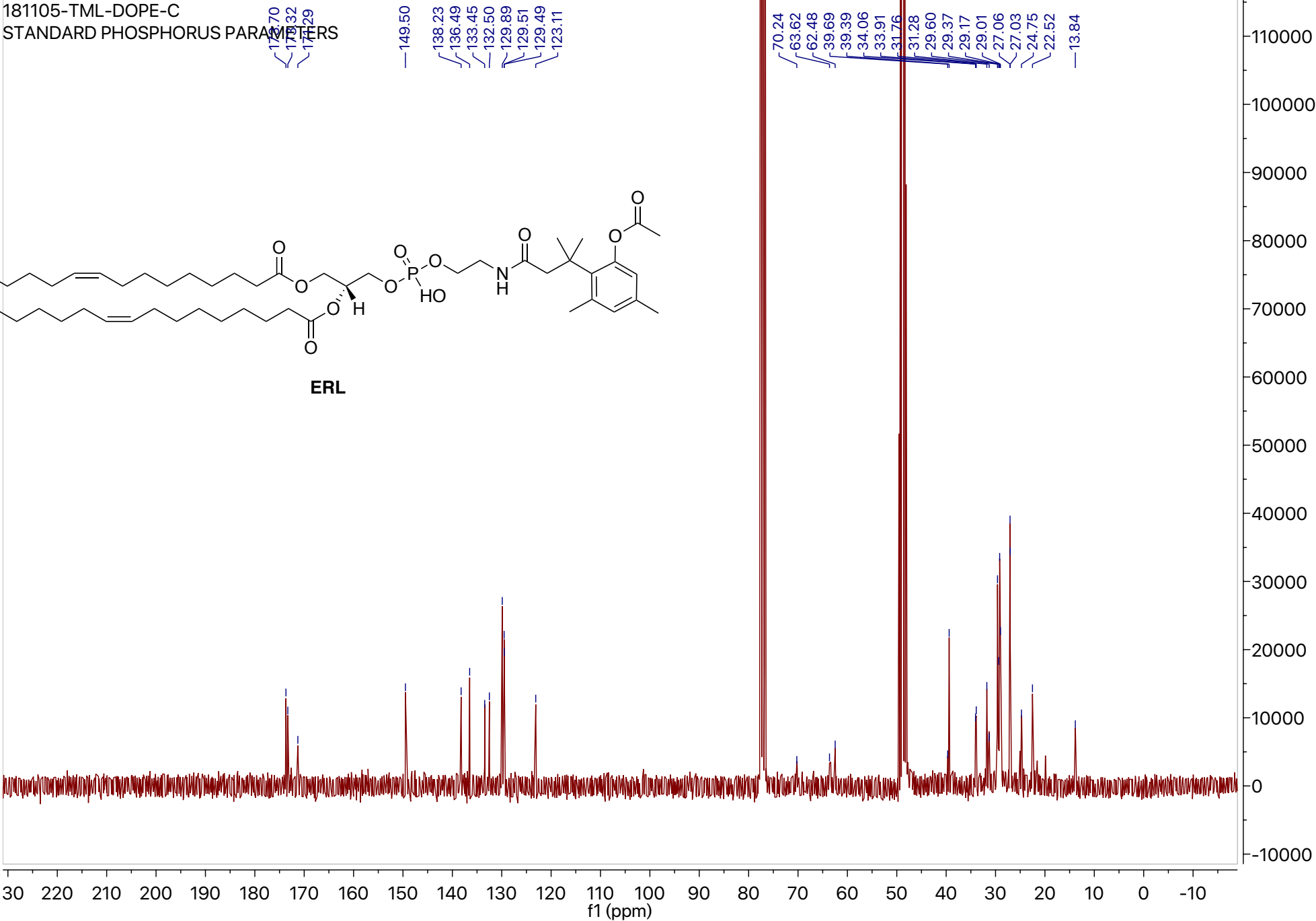
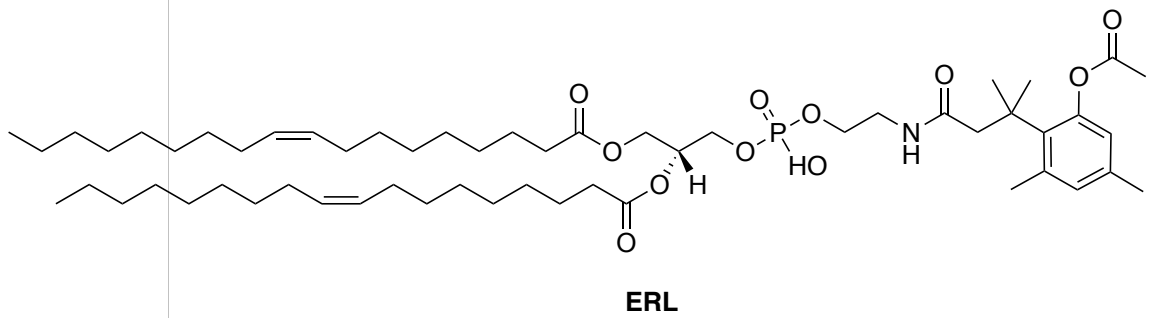




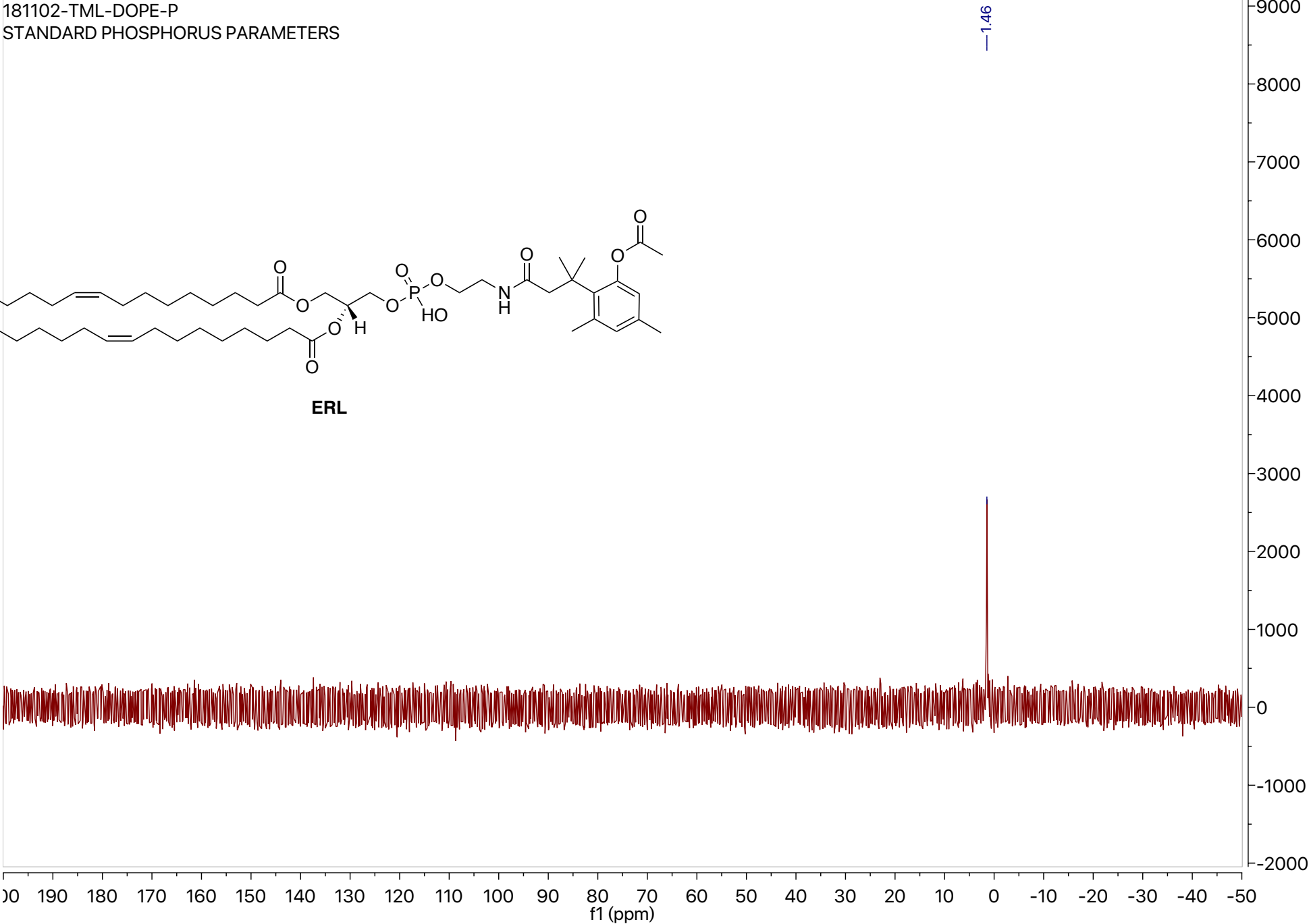
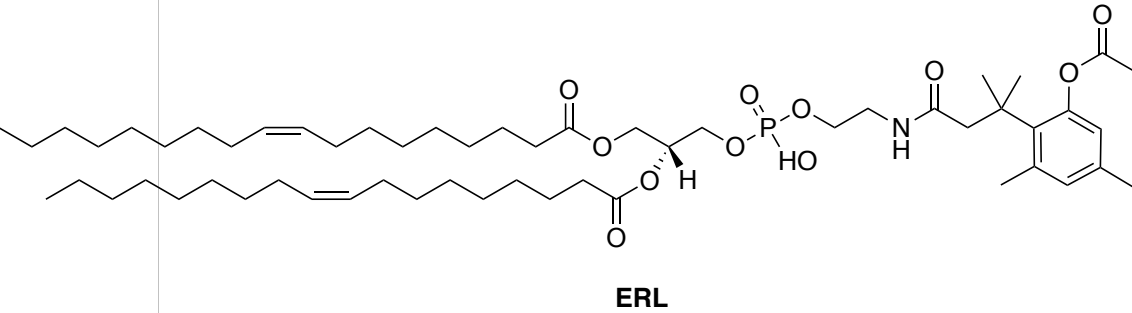




181105-TML-DOPE-C
STANDARD PHOSPHORUS PARAMETERS

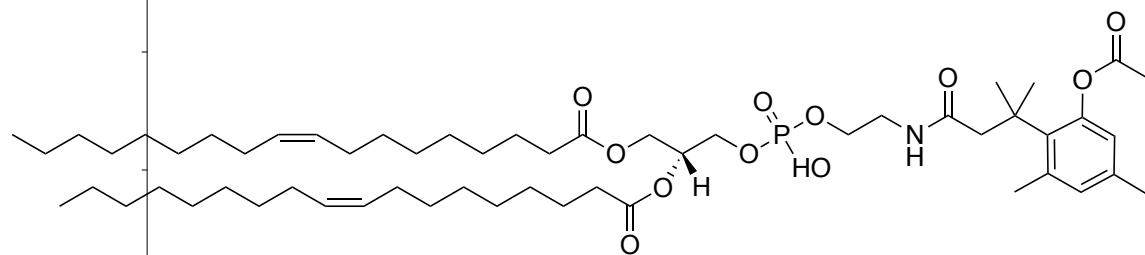


181102-TML-DOPE-P
STANDARD PHOSPHORUS PARAMETERS



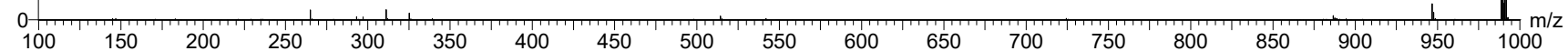
Best
091899_NEG_ER_ERL 2 (0.051) Cm (2:58)

TOF MS ES-
988.6609 1.39e8

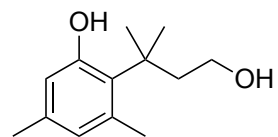


ERL

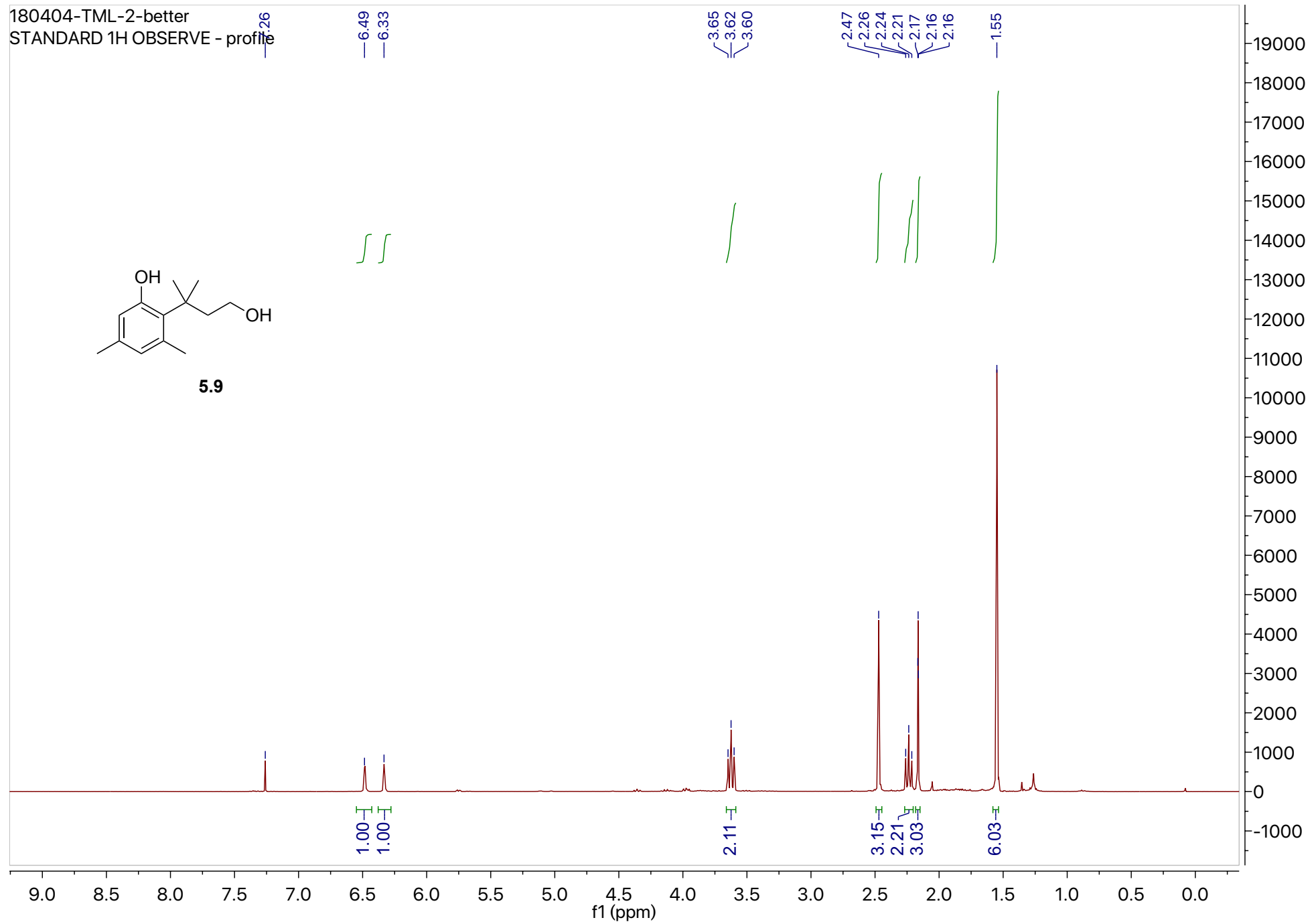
ESI-MS: $[M-H]^-$ calcd for $C_{56}H_{95}NO_{11}P$, 988.6643,
found 988.6609.



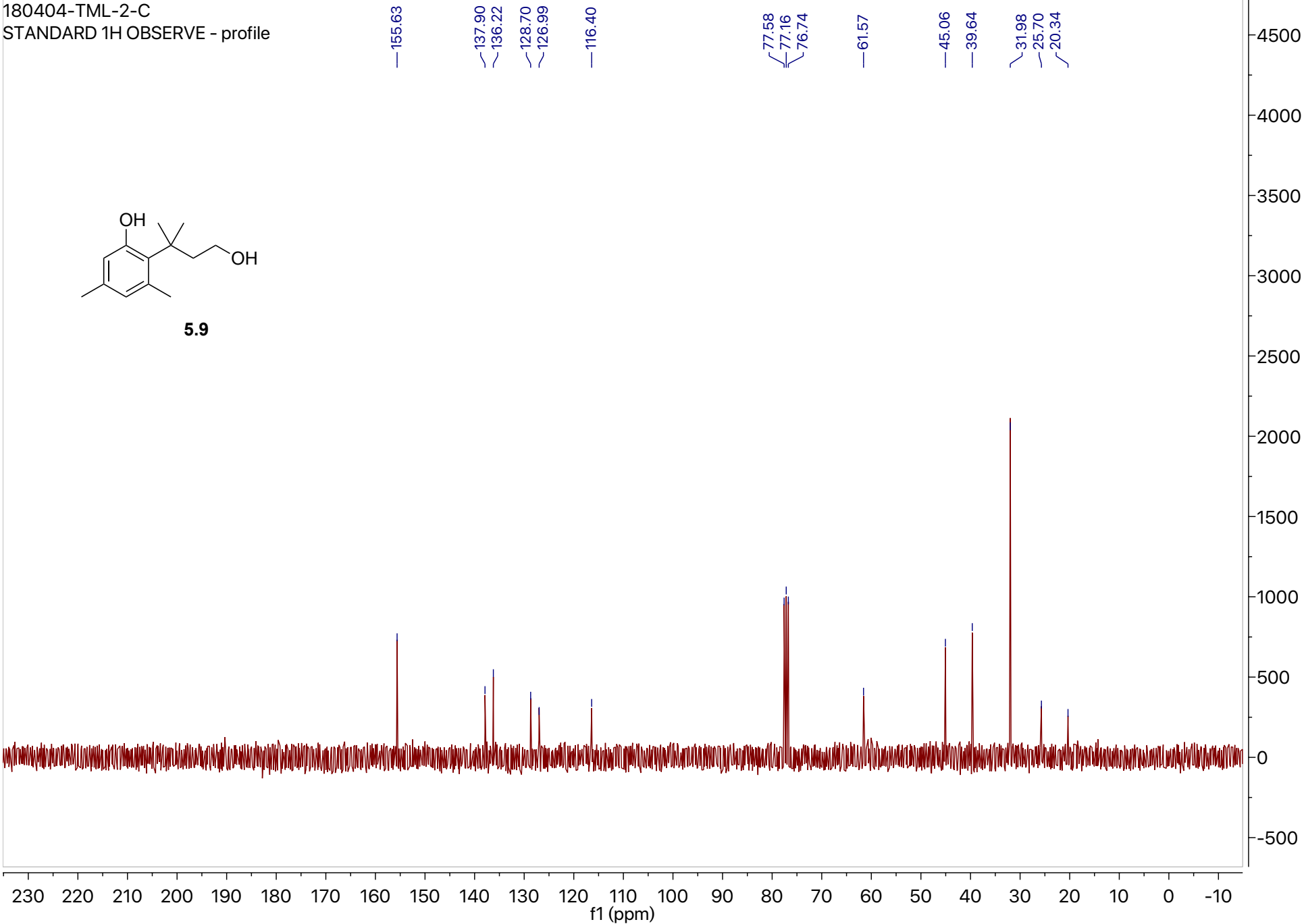
180404-TML-2-better
STANDARD 1H OBSERVE - profile



5.9

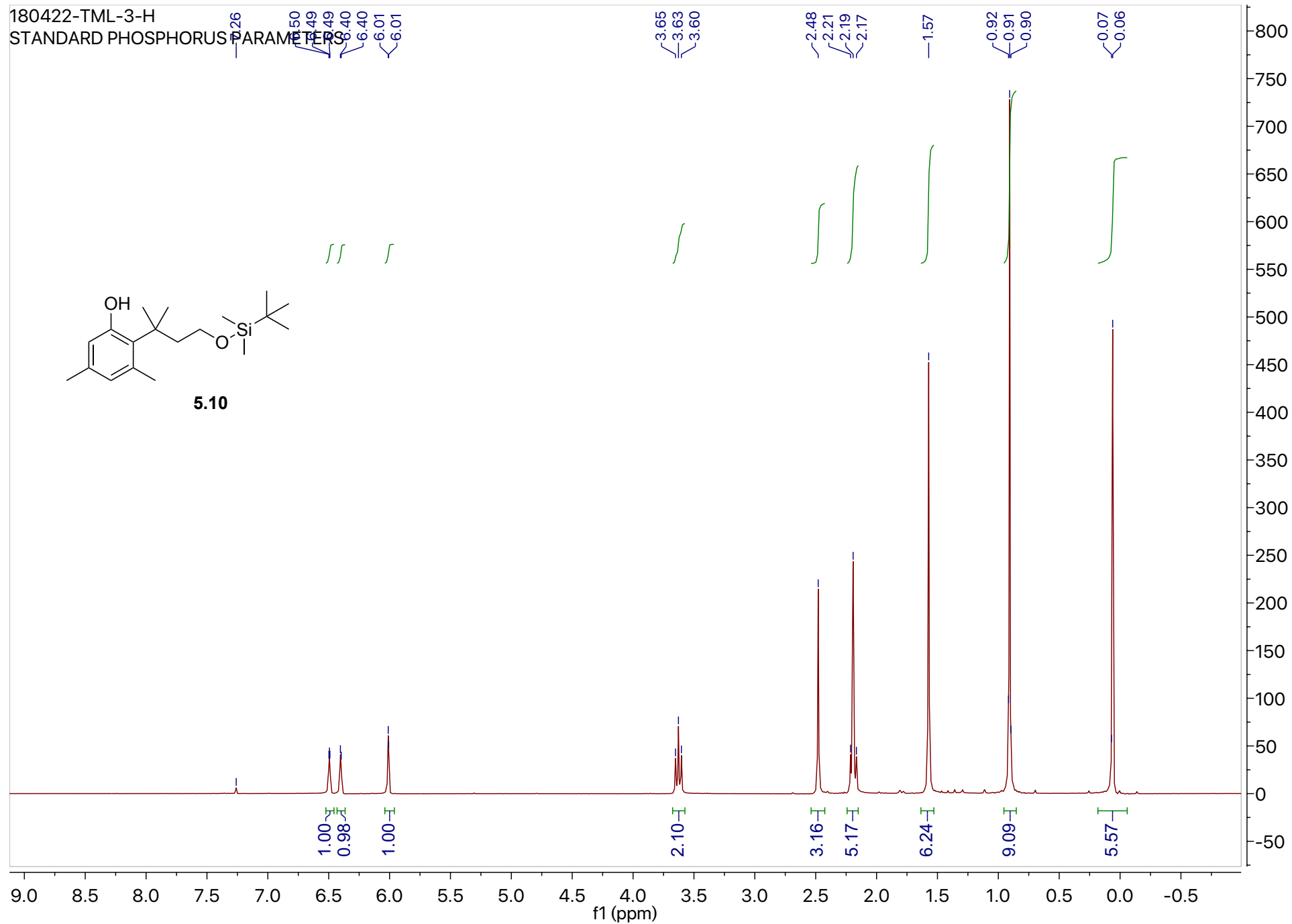


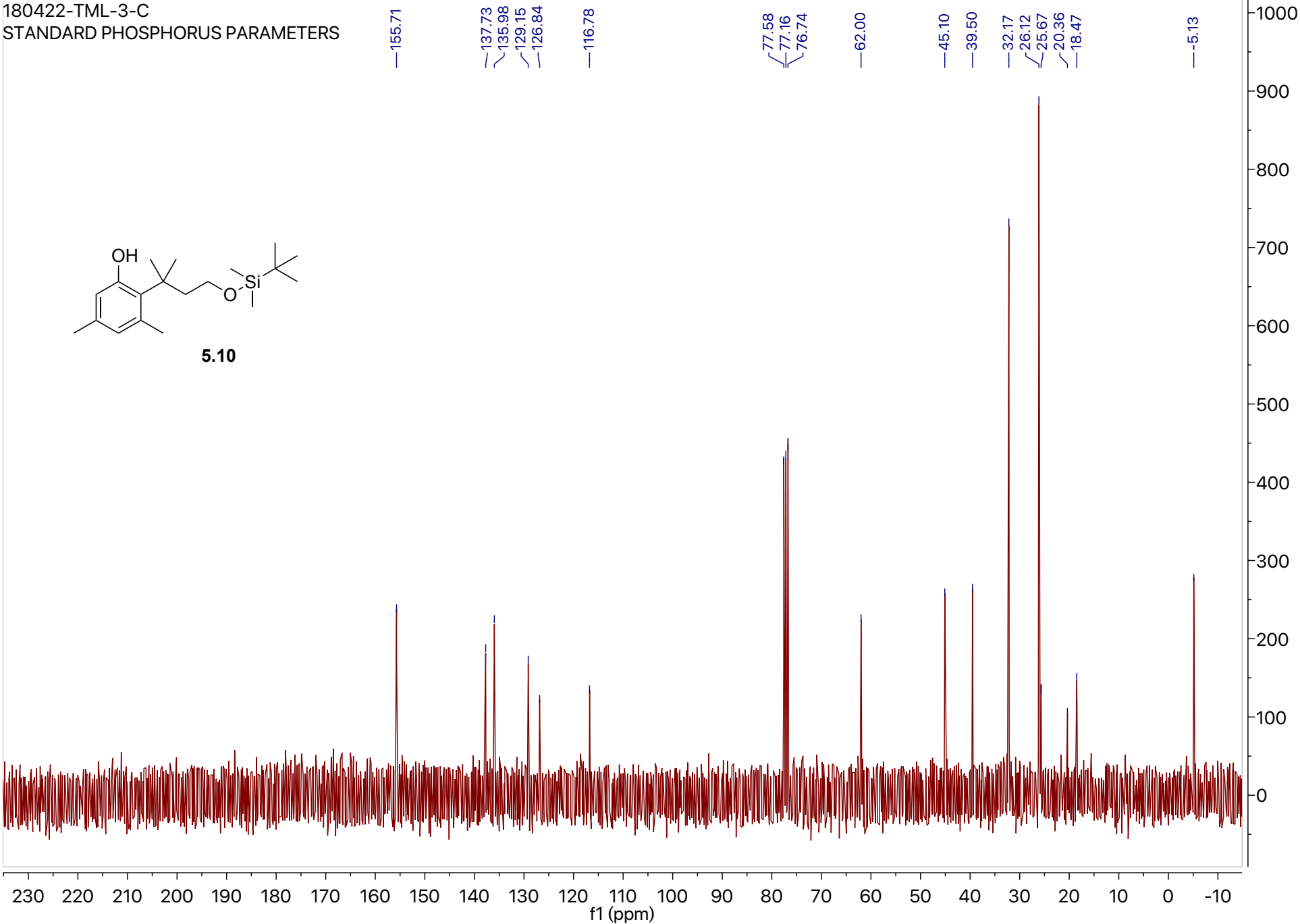
180404-TML-2-C
STANDARD 1H OBSERVE - profile

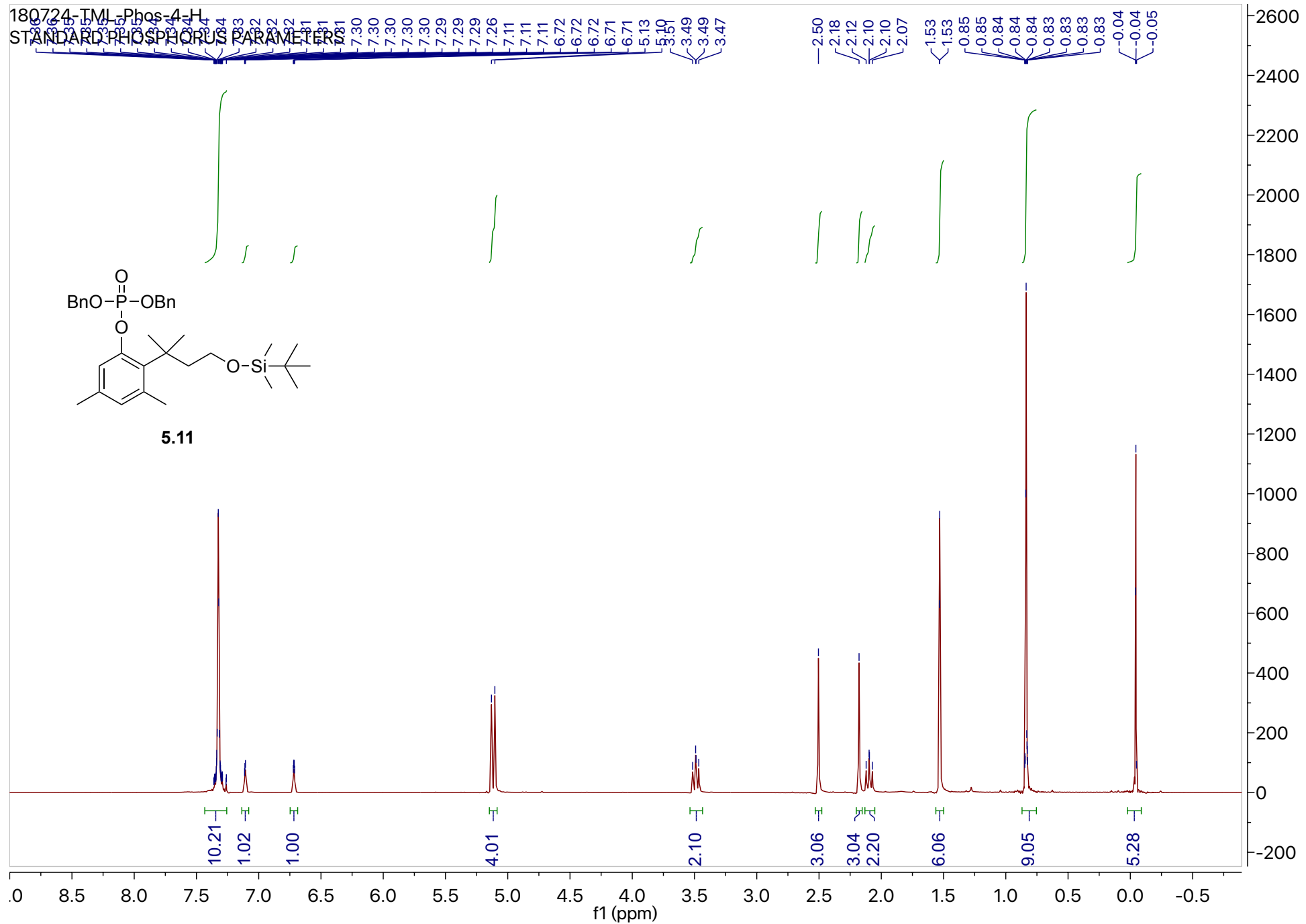


180422-TML-3-H

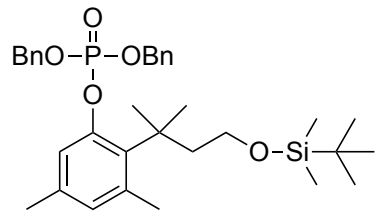
STANDARD PHOSPHORUS PARAMETERS



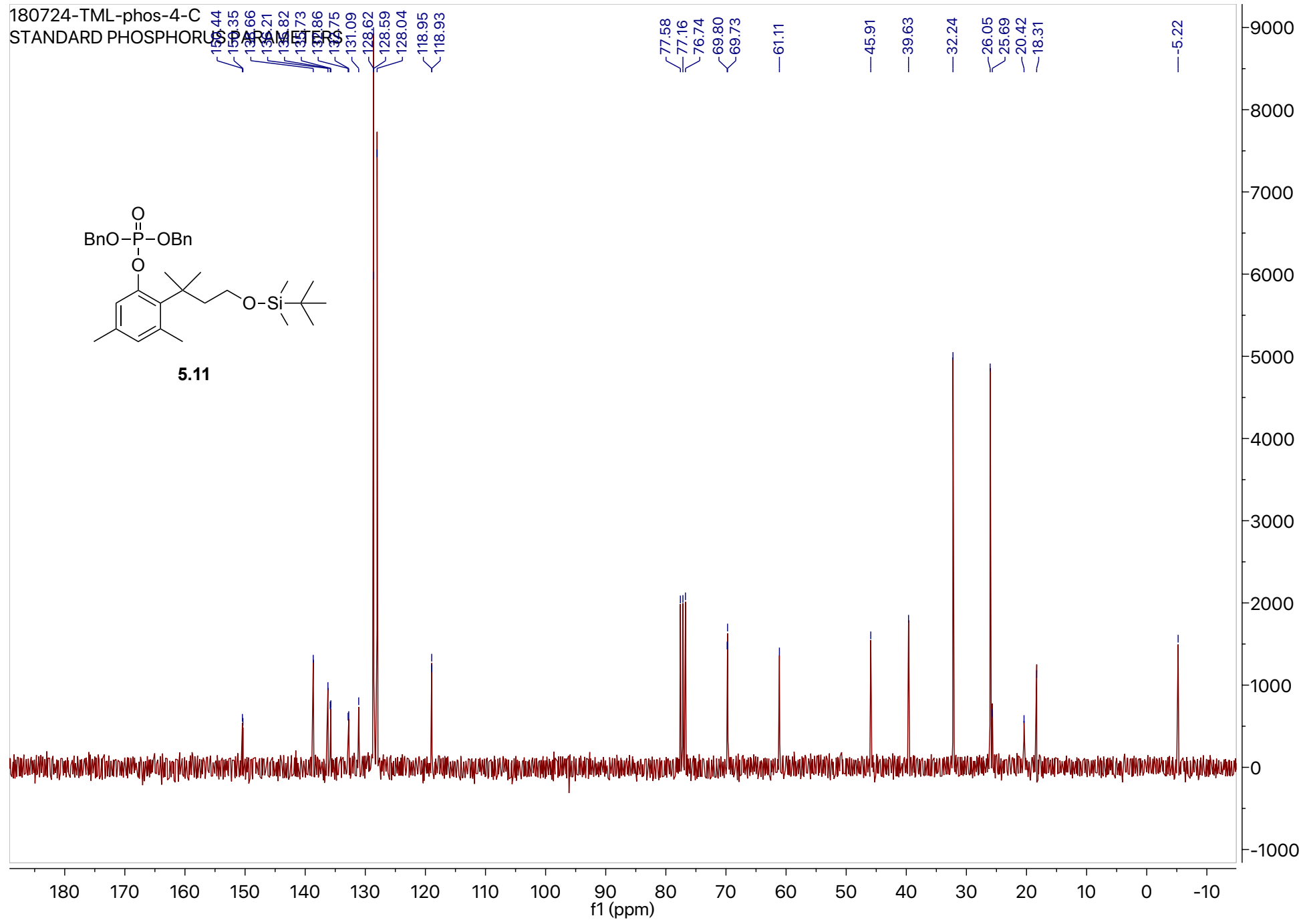


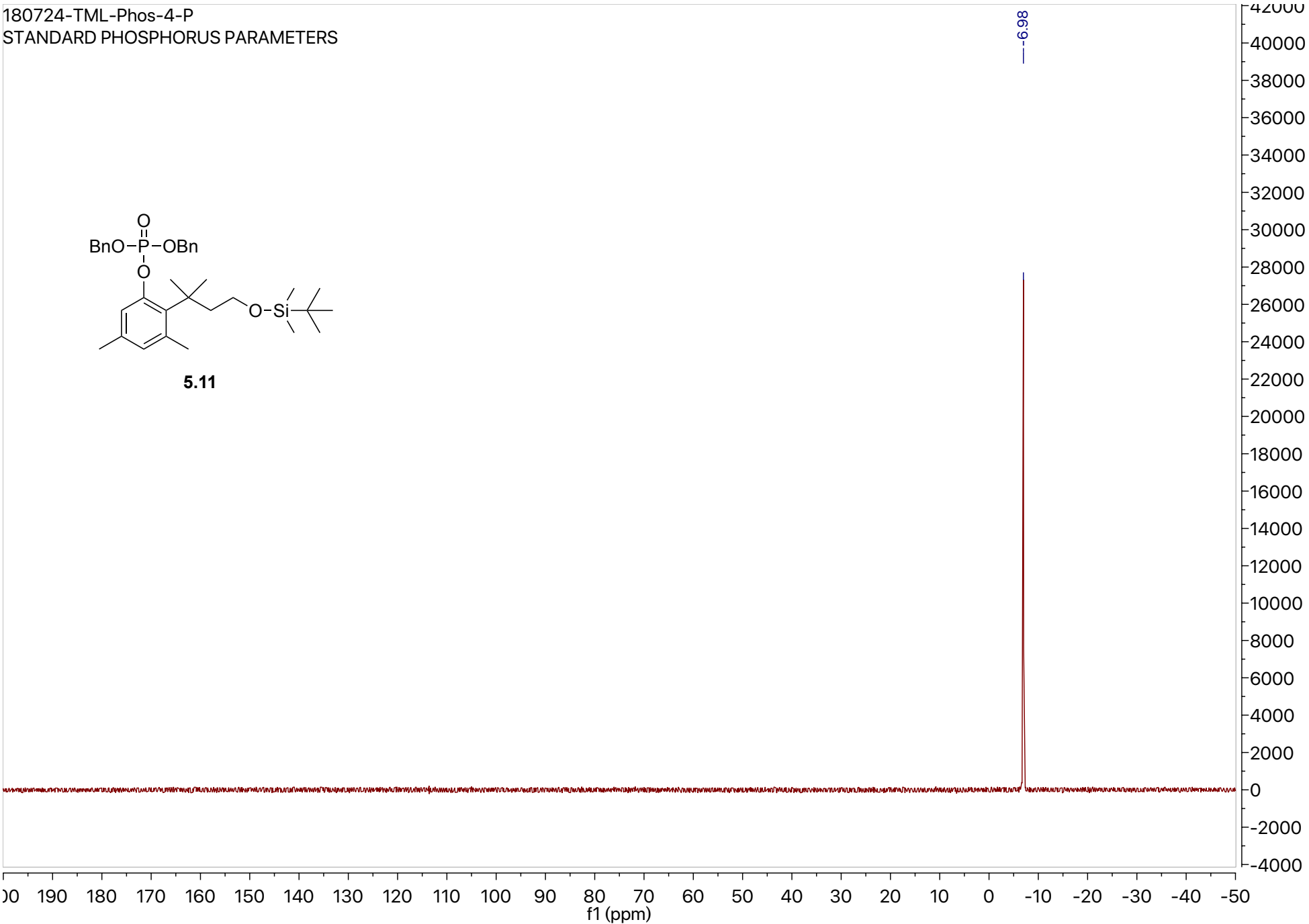


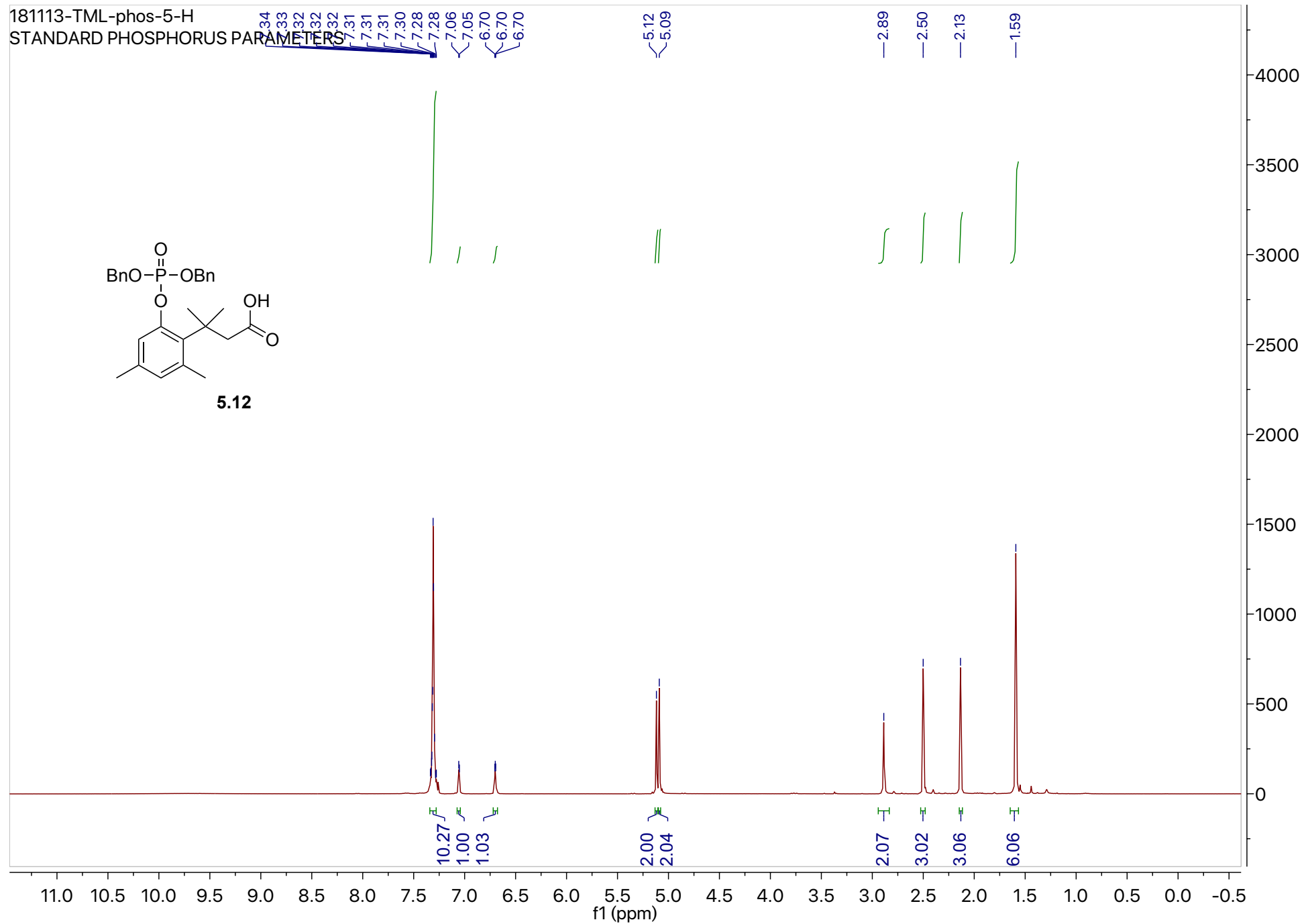
180724-TML-phos-4-C
STANDARD PHOSPHORUS PARAMETERS



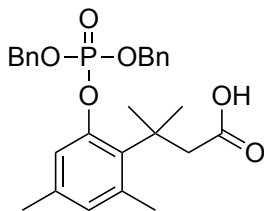
5.11



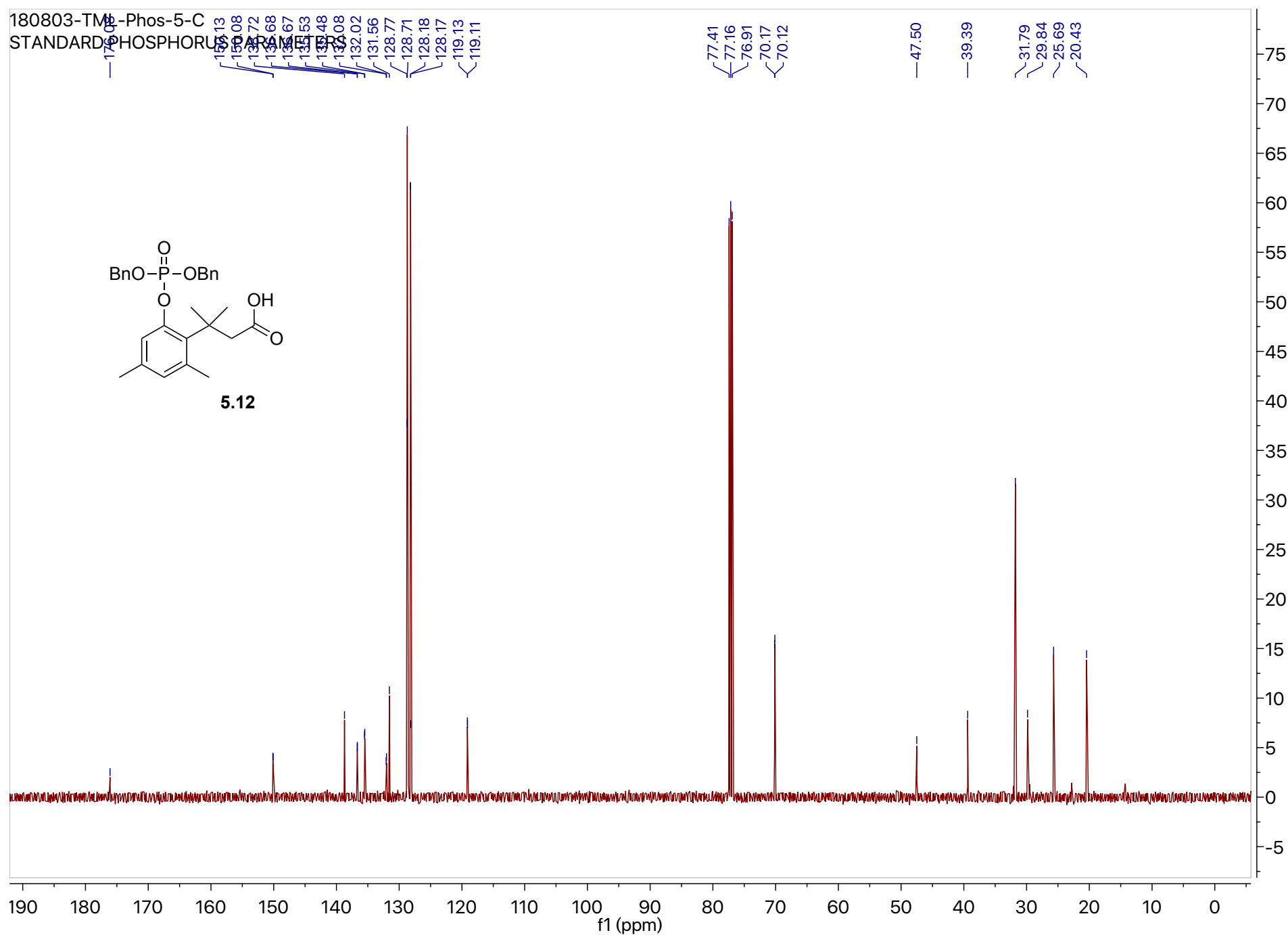


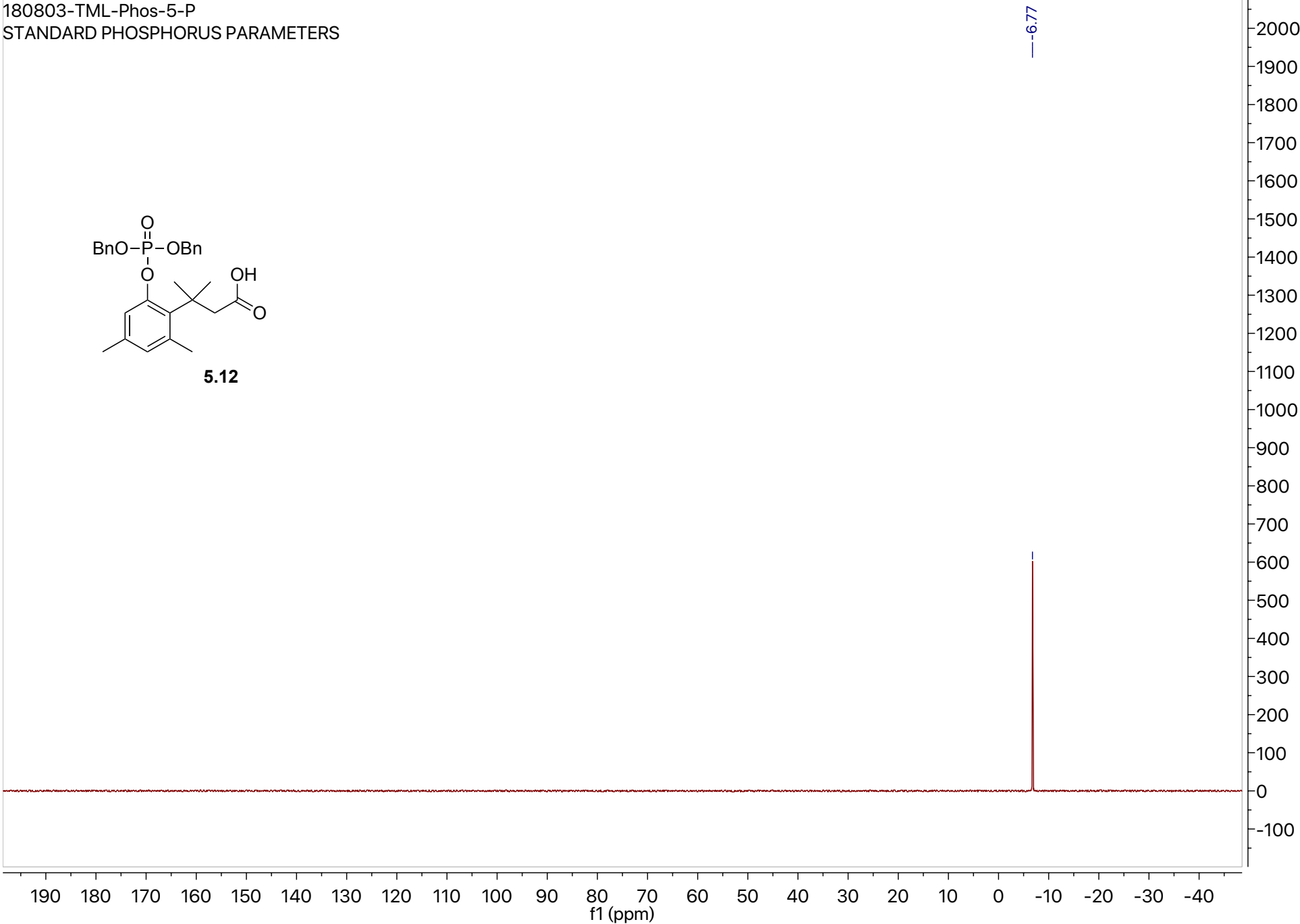


180803-TM-Phos-5-C
STANDARD PHOSPHORUS
176.08 156.13 150.08 147.72 146.68 145.67 144.53 143.48 142.08 141.02 132.02 131.56 128.77 128.71 128.18 128.17 119.13 119.11 77.41 77.16 76.91 70.17 70.12 47.50 39.39 31.79 29.84 25.69 20.43

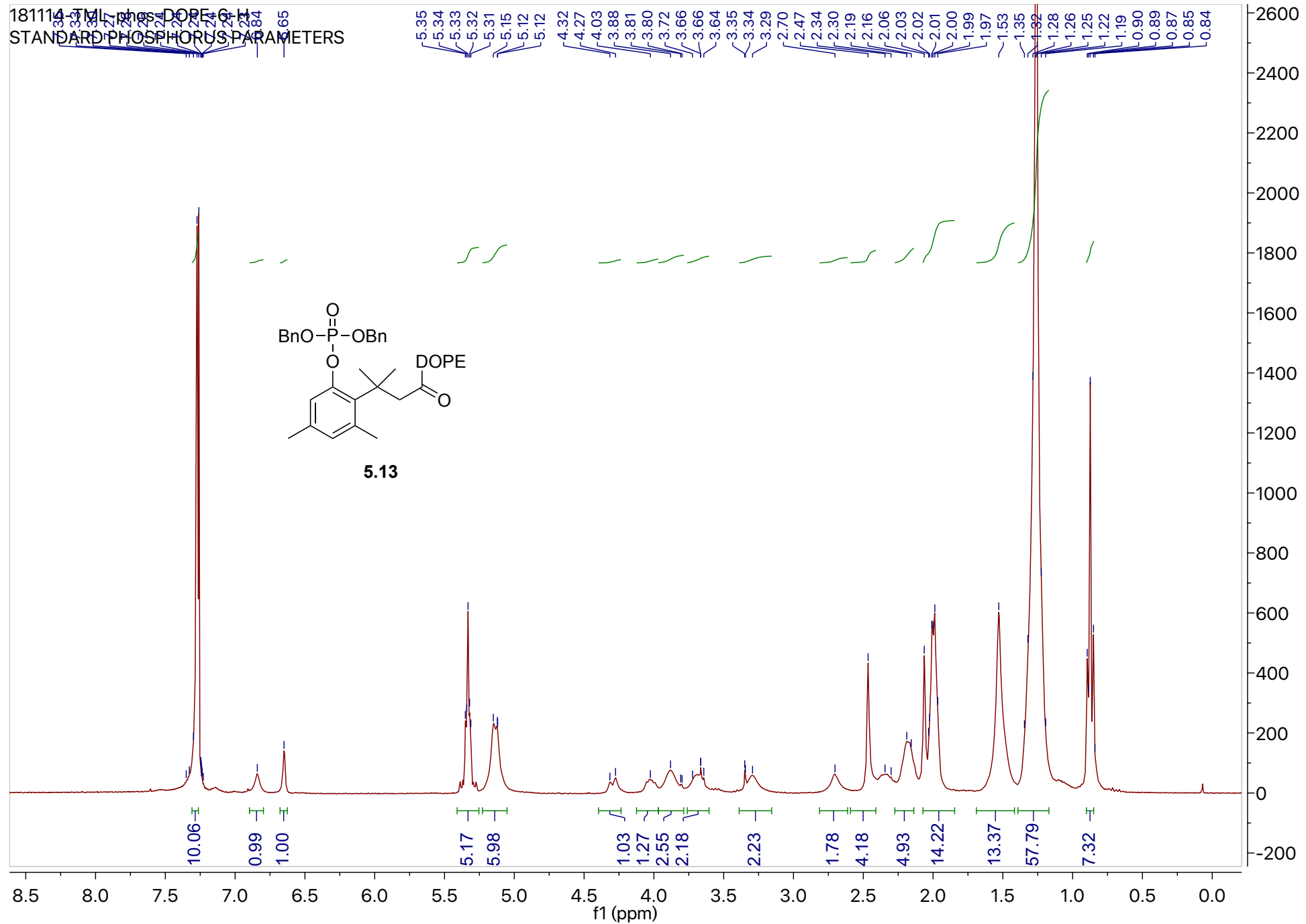


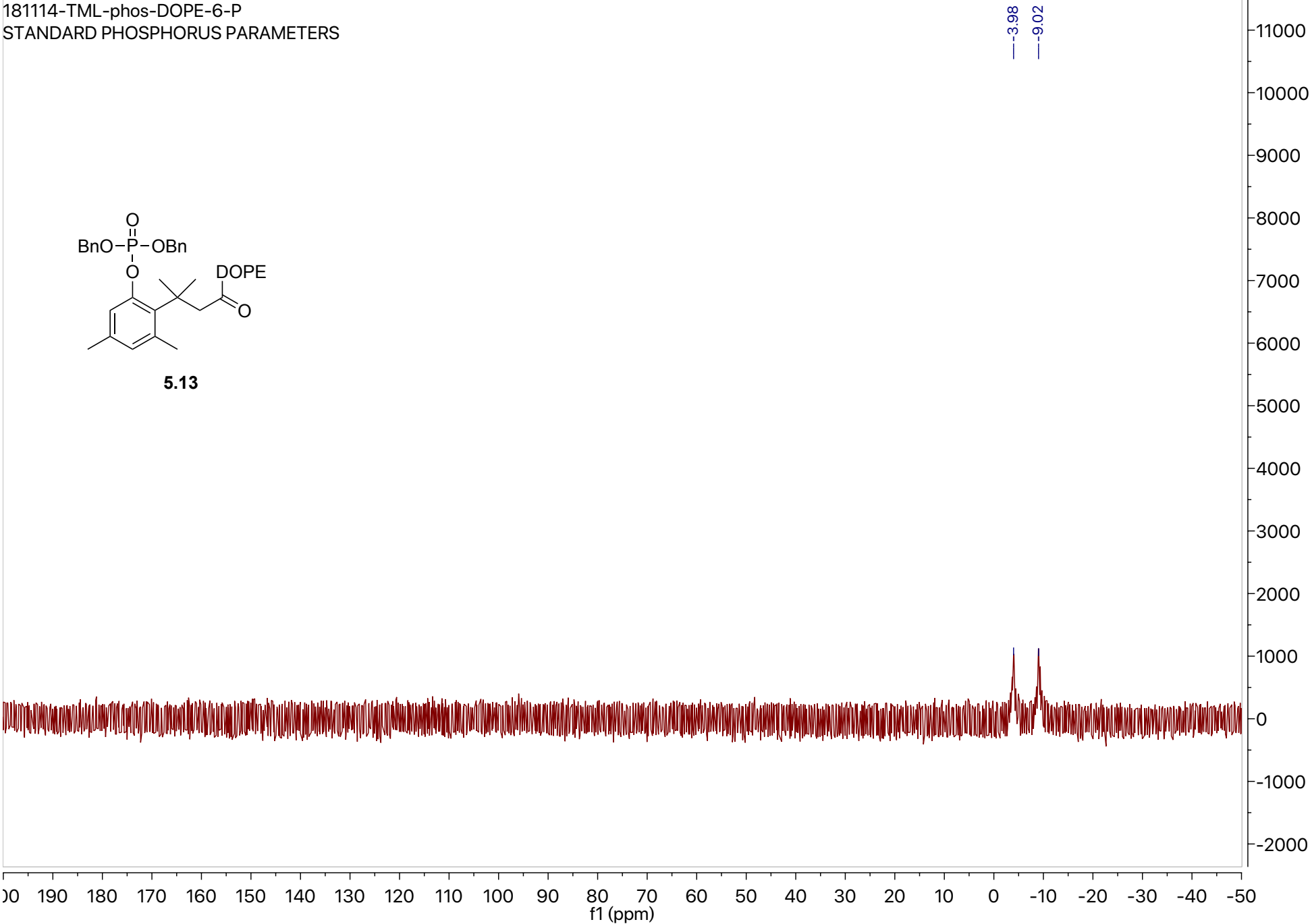
5.12

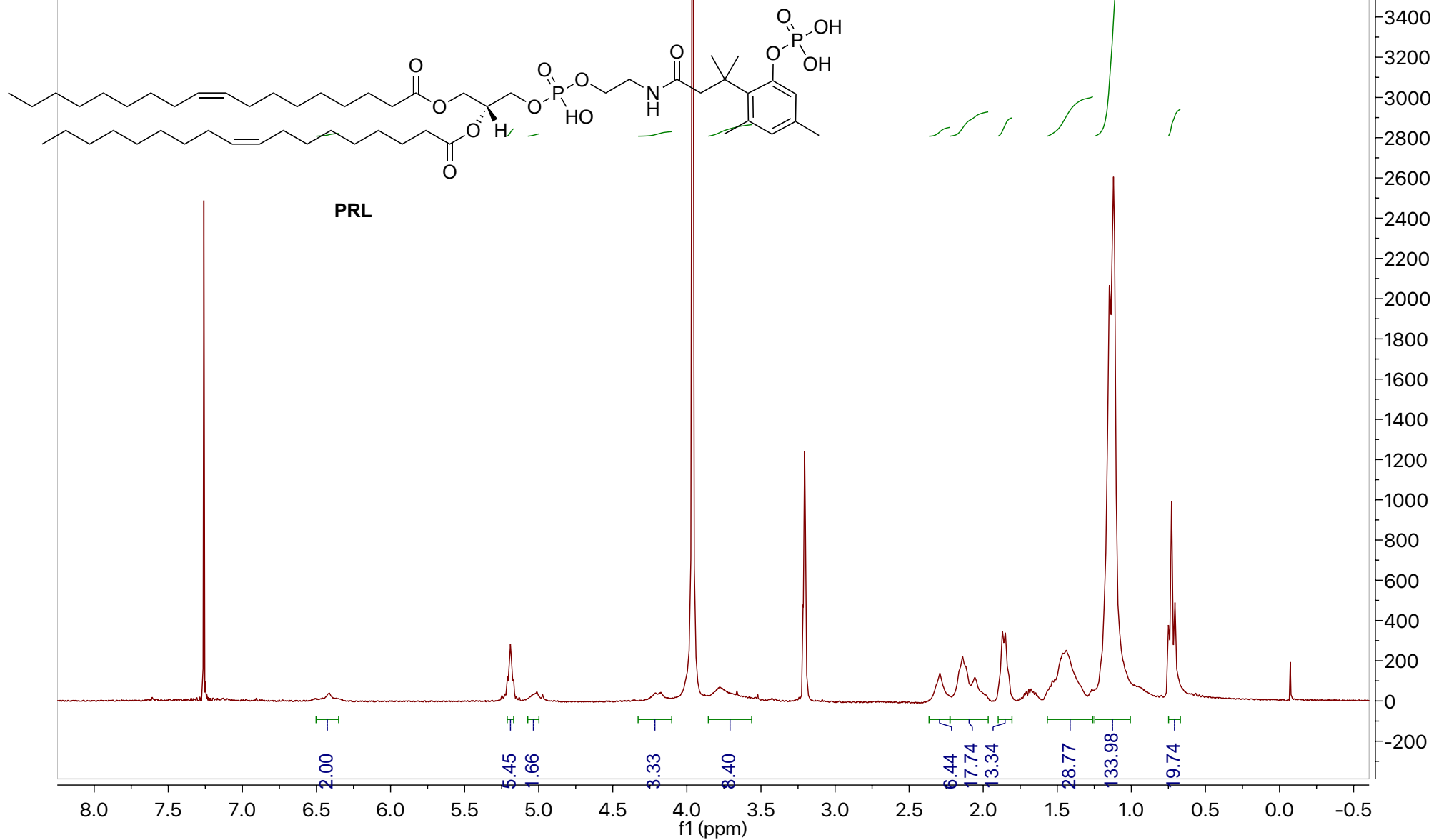




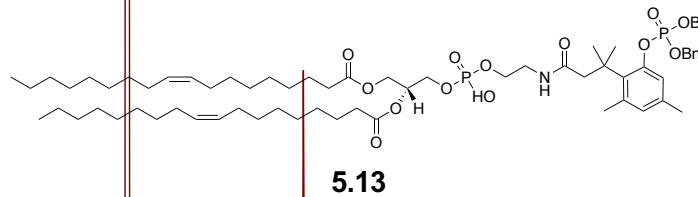
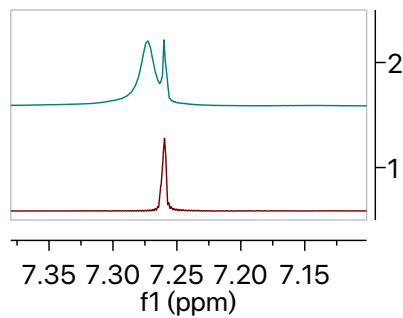
181114-TM-Phos-DOPE-6-H
STANDARD PHOSPHORUS PARAMETERS



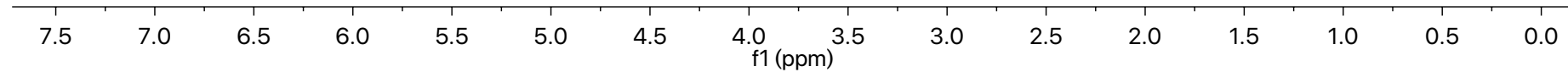
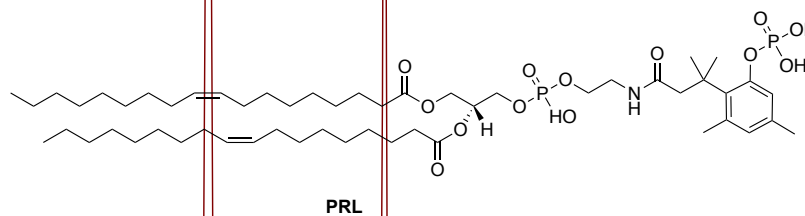




181114-TML-phos-DOPE-6-H
STANDARD PHOSPHORUS PARAMETERS



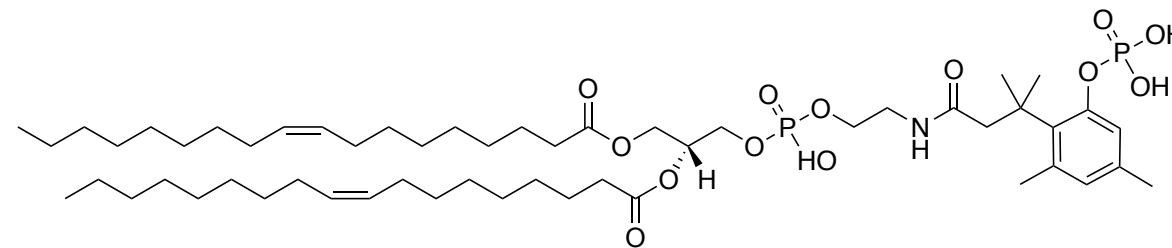
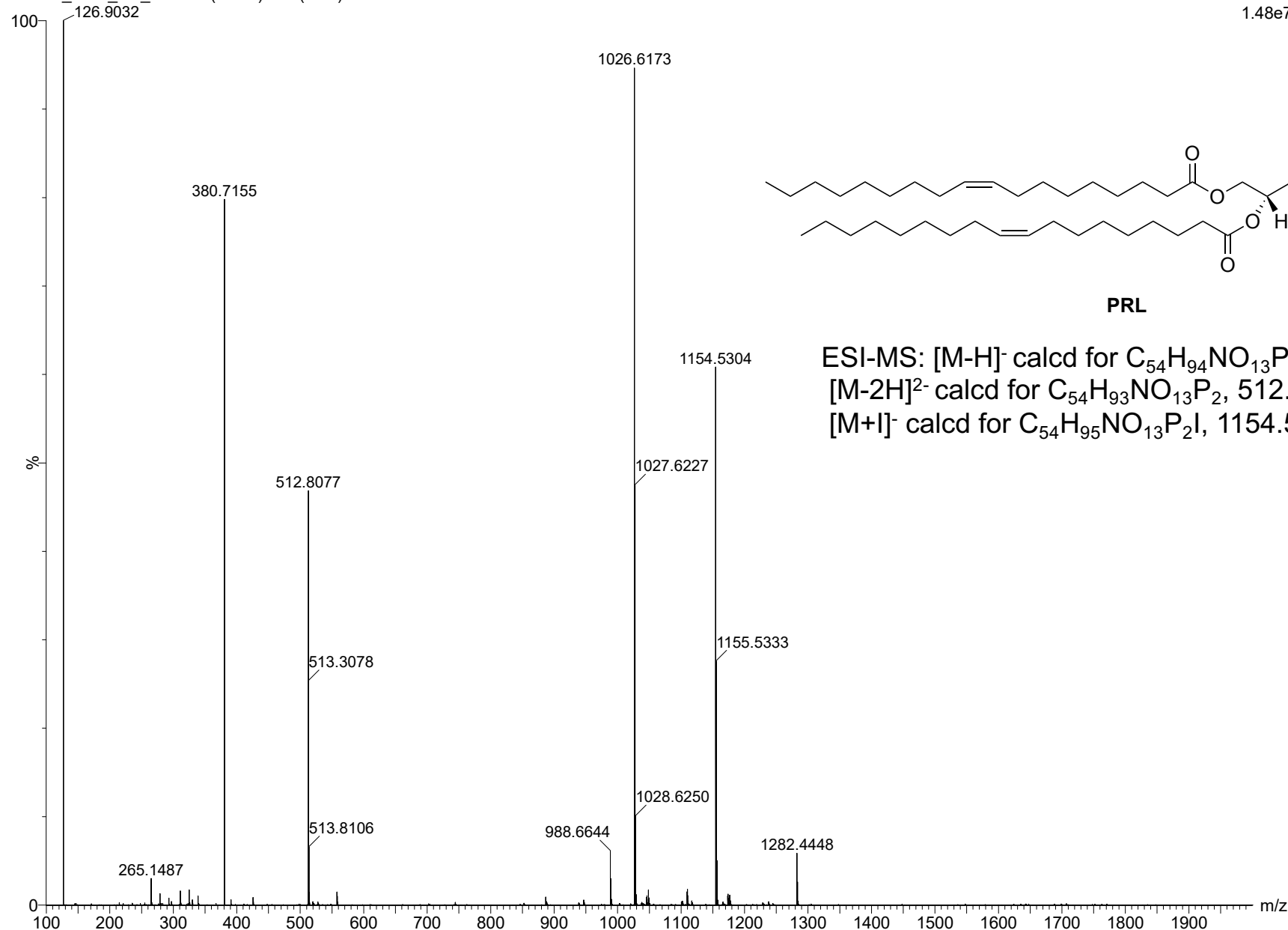
181119-TML-phos-7-DOPE-H
STANDARD PHOSPHORUS PARAMETERS



Best

091899_NEG_ER_PRL 30 (0.523) Cm (2:58)

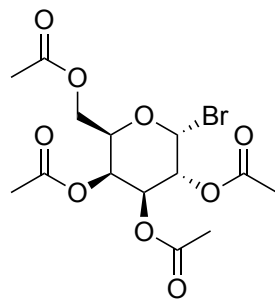
TOF MS ES-
1.48e7



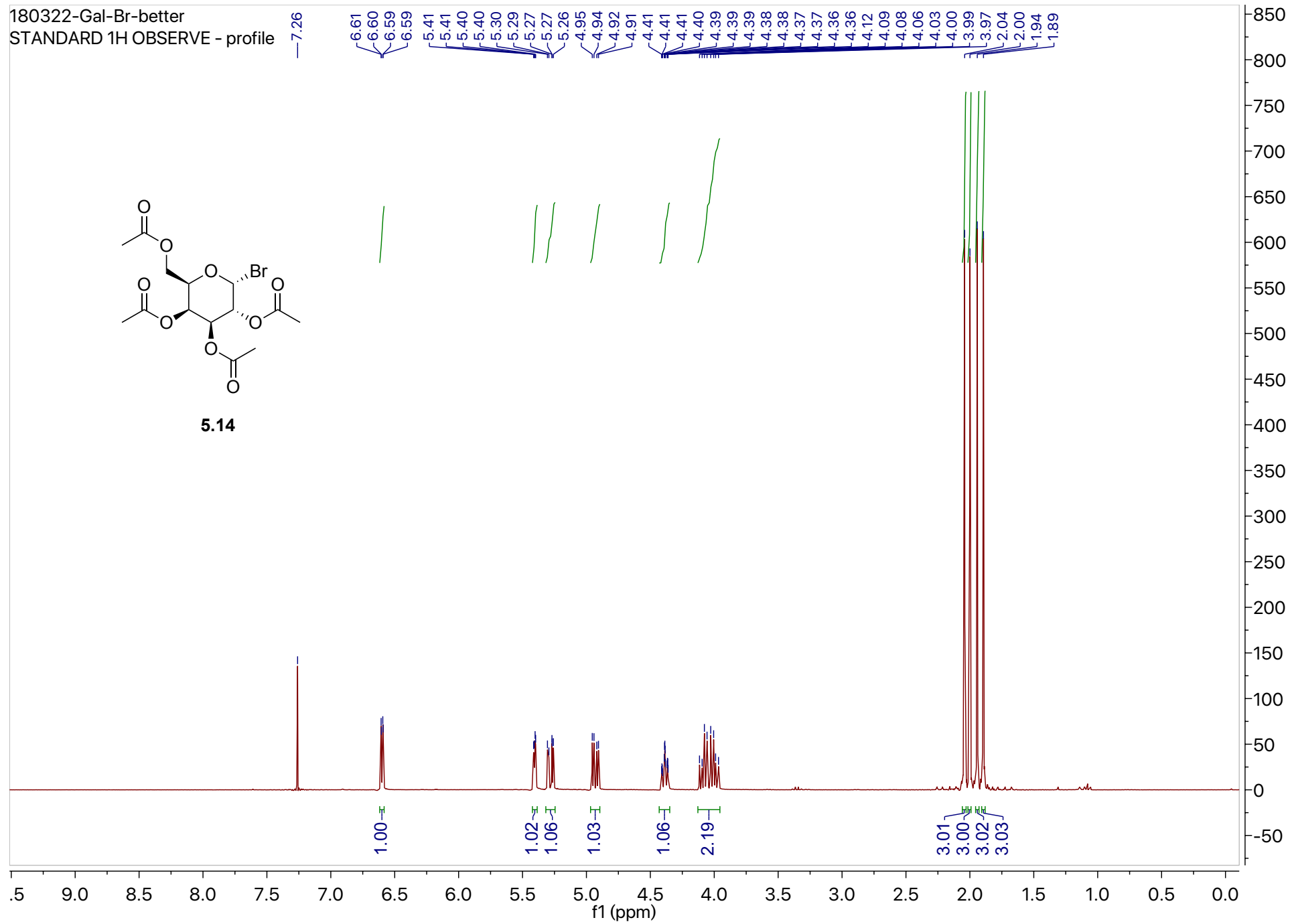
PRL

ESI-MS: [M-H]⁻ calcd for C₅₄H₉₄NO₁₃P₂, 1026.6200, found 1026.6173.
[M-2H]²⁻ calcd for C₅₄H₉₃NO₁₃P₂, 512.8061, found 512.8077.
[M+I]⁻ calcd for C₅₄H₉₅NO₁₃P₂I, 1154.5323, found 1154.5304.

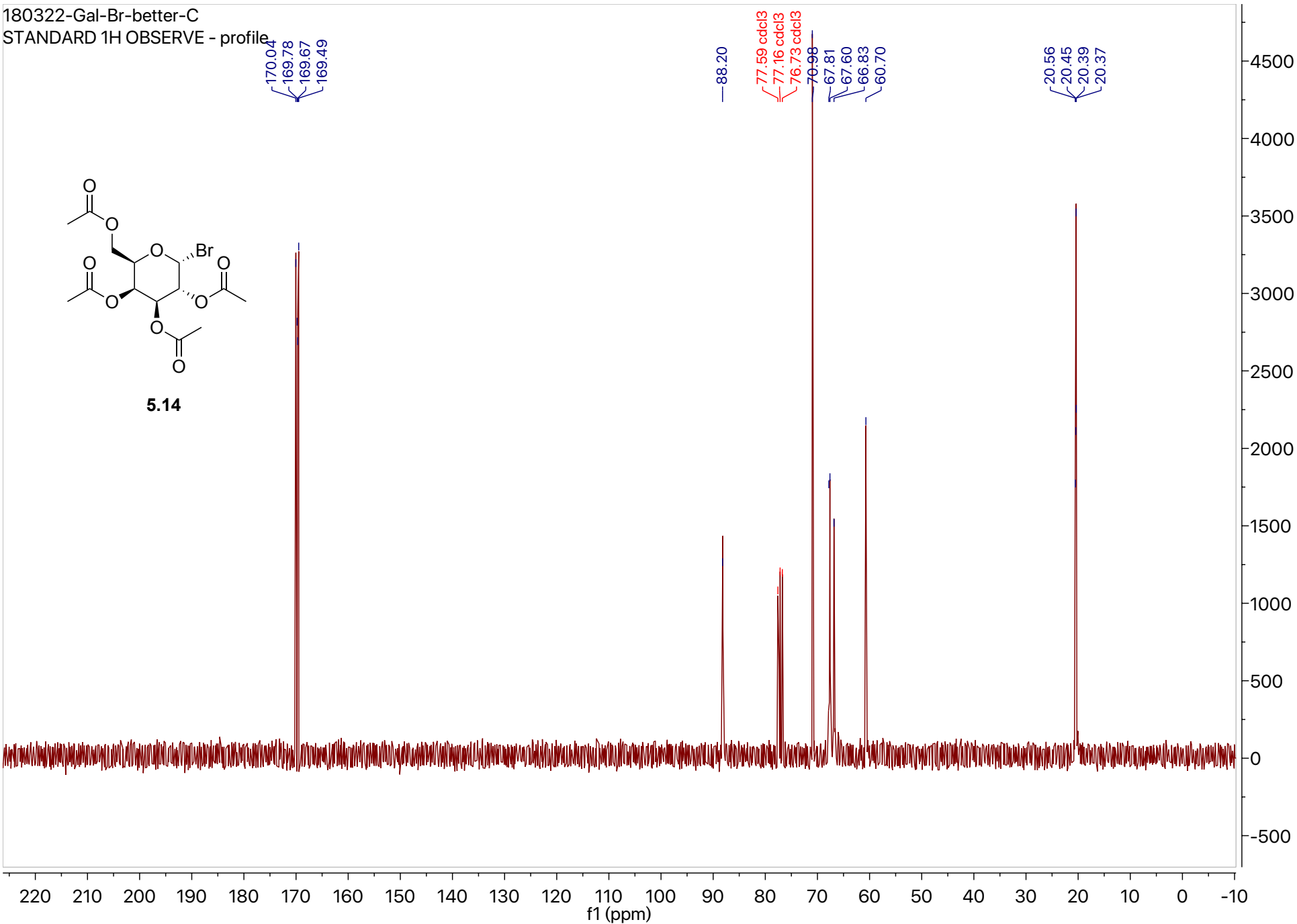
180322-Gal-Br-better
STANDARD 1H OBSERVE - profile



5.14

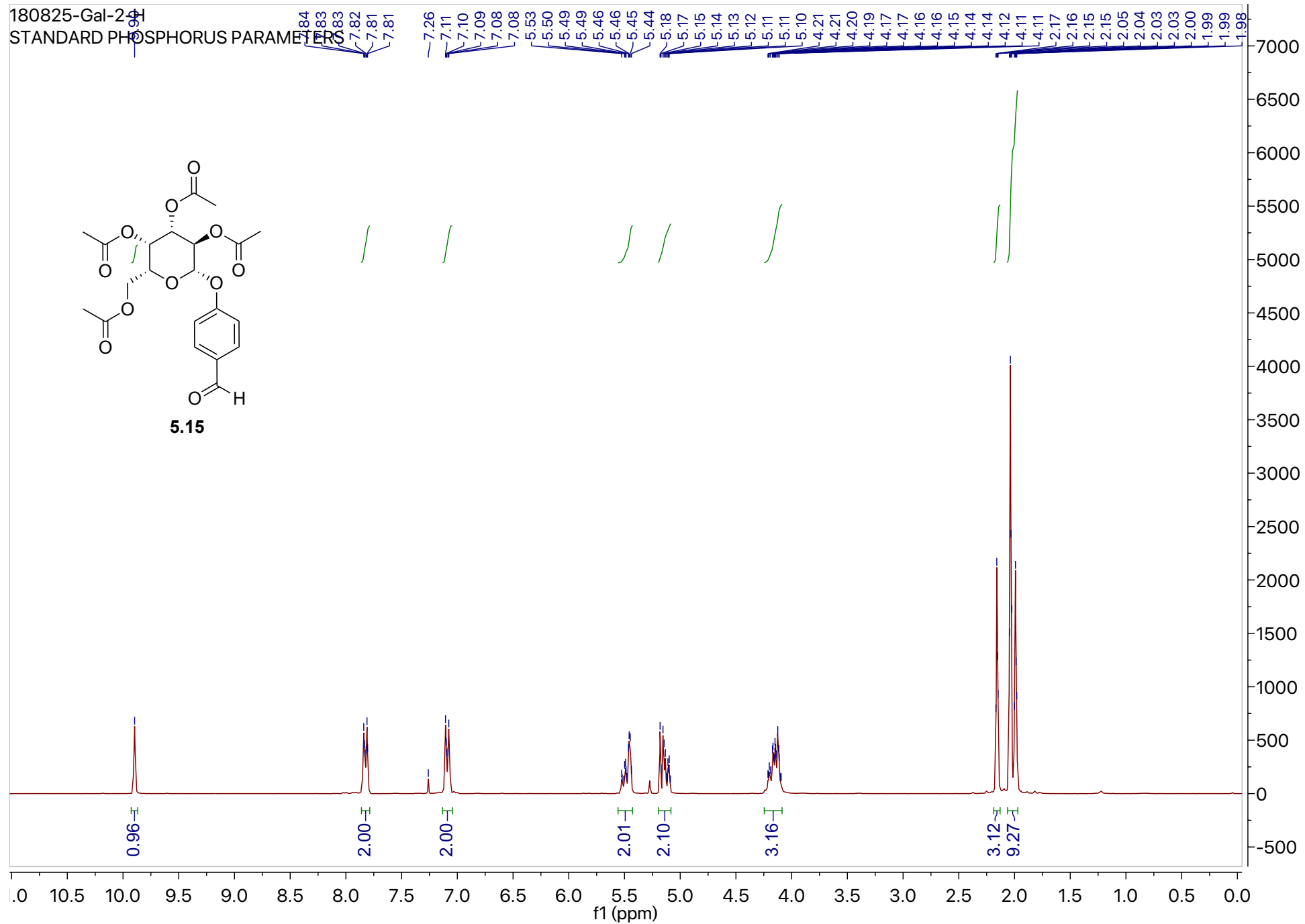


180322-Gal-Br-better-C
STANDARD 1H OBSERVE - profile

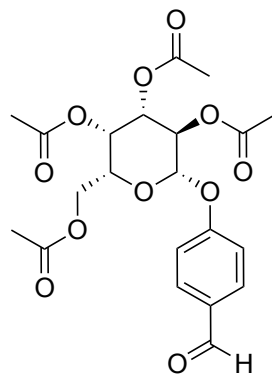


180825-Gal-241

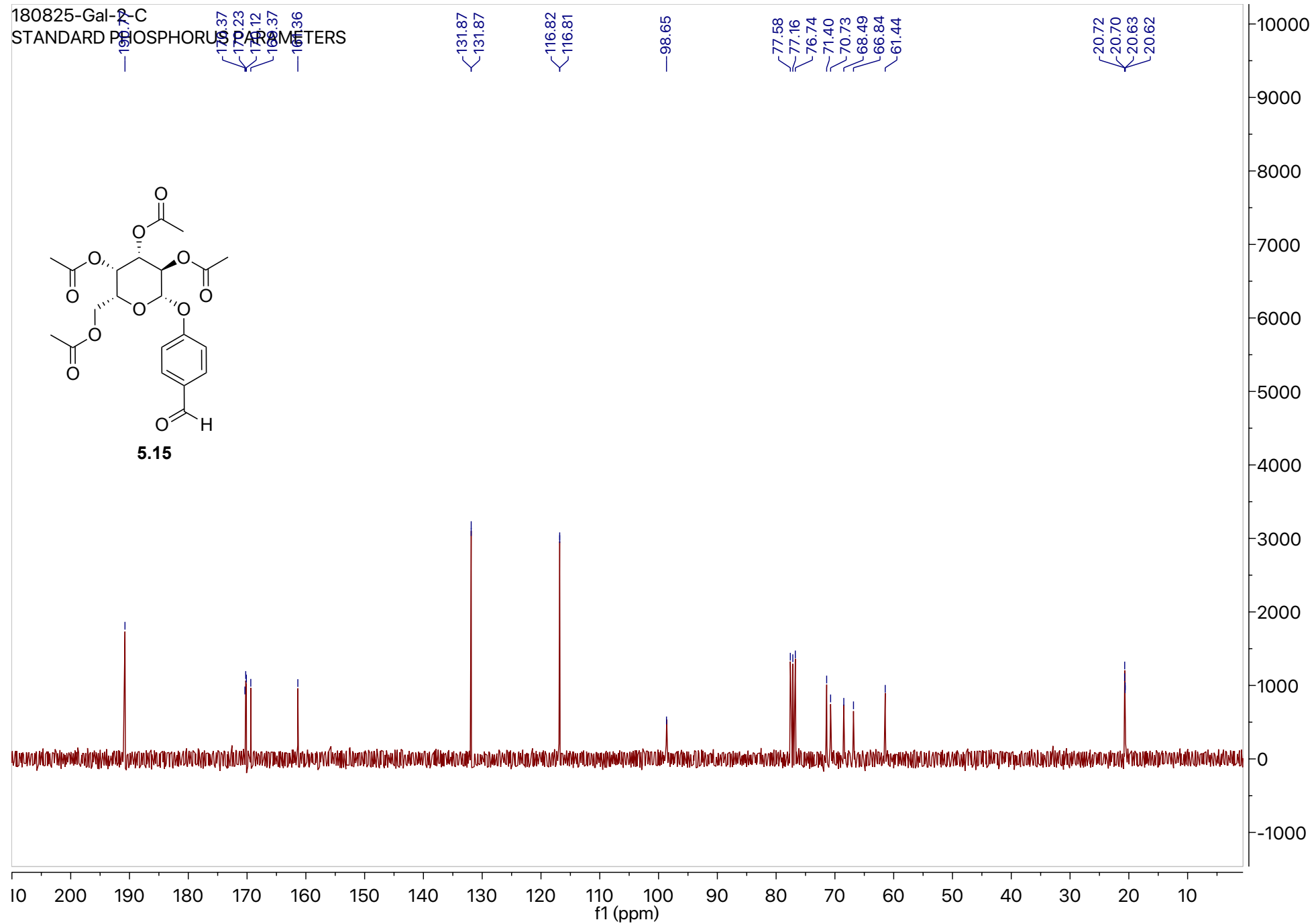
STANDARD PHOSPHORUS PARAMETERS



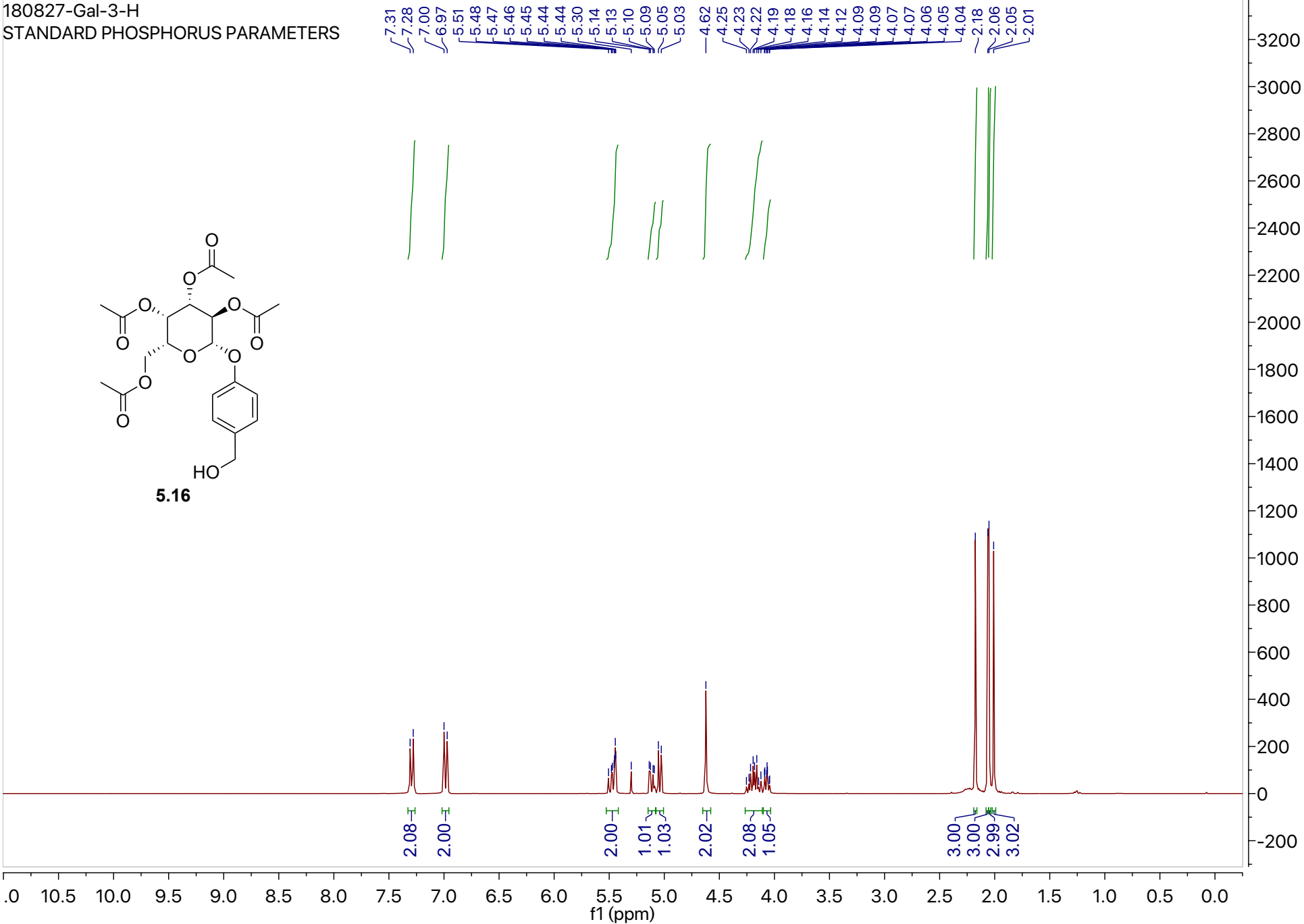
180825-Gal-3-C
STANDARD PHOSPHORUS PARAMETERS

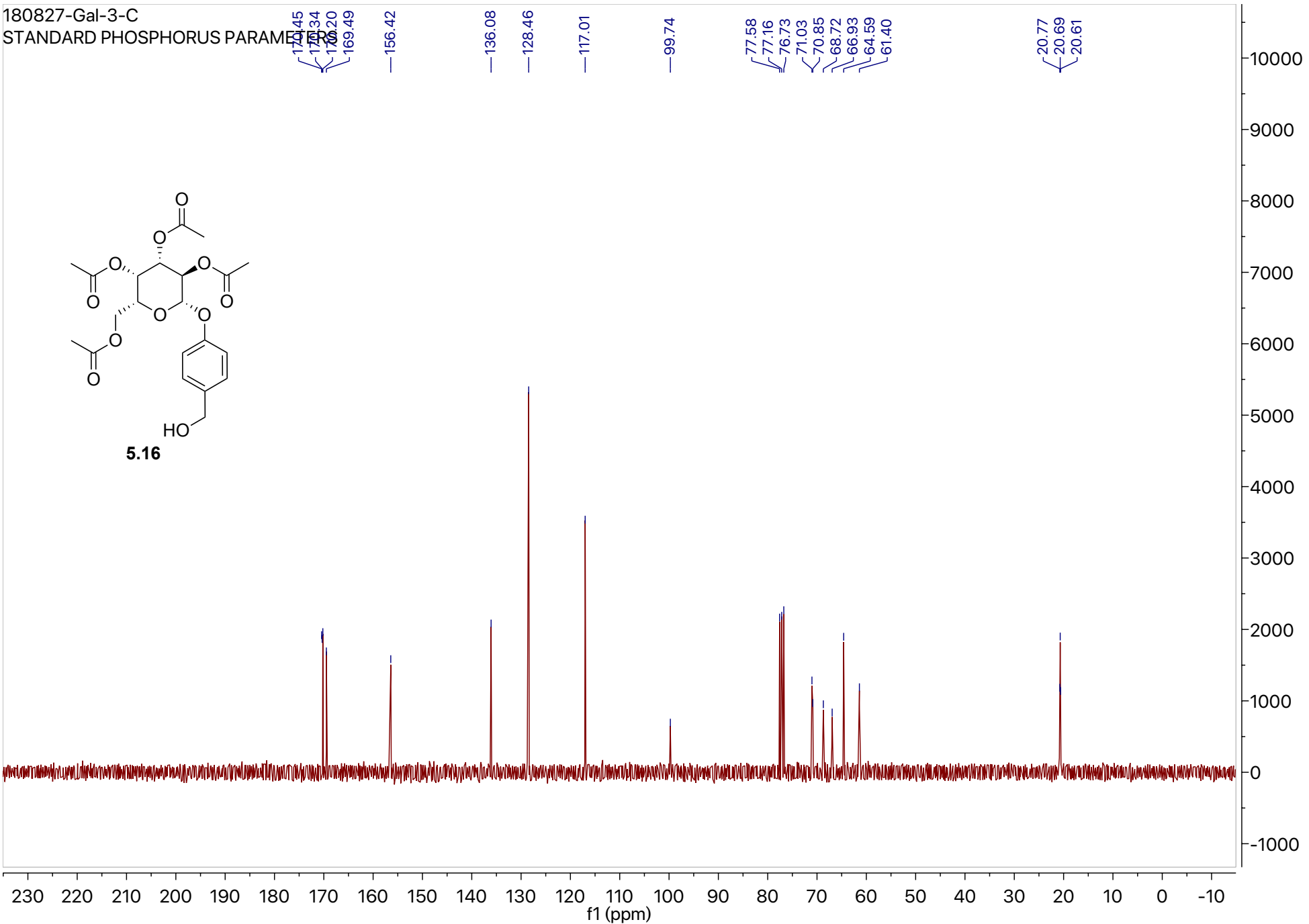


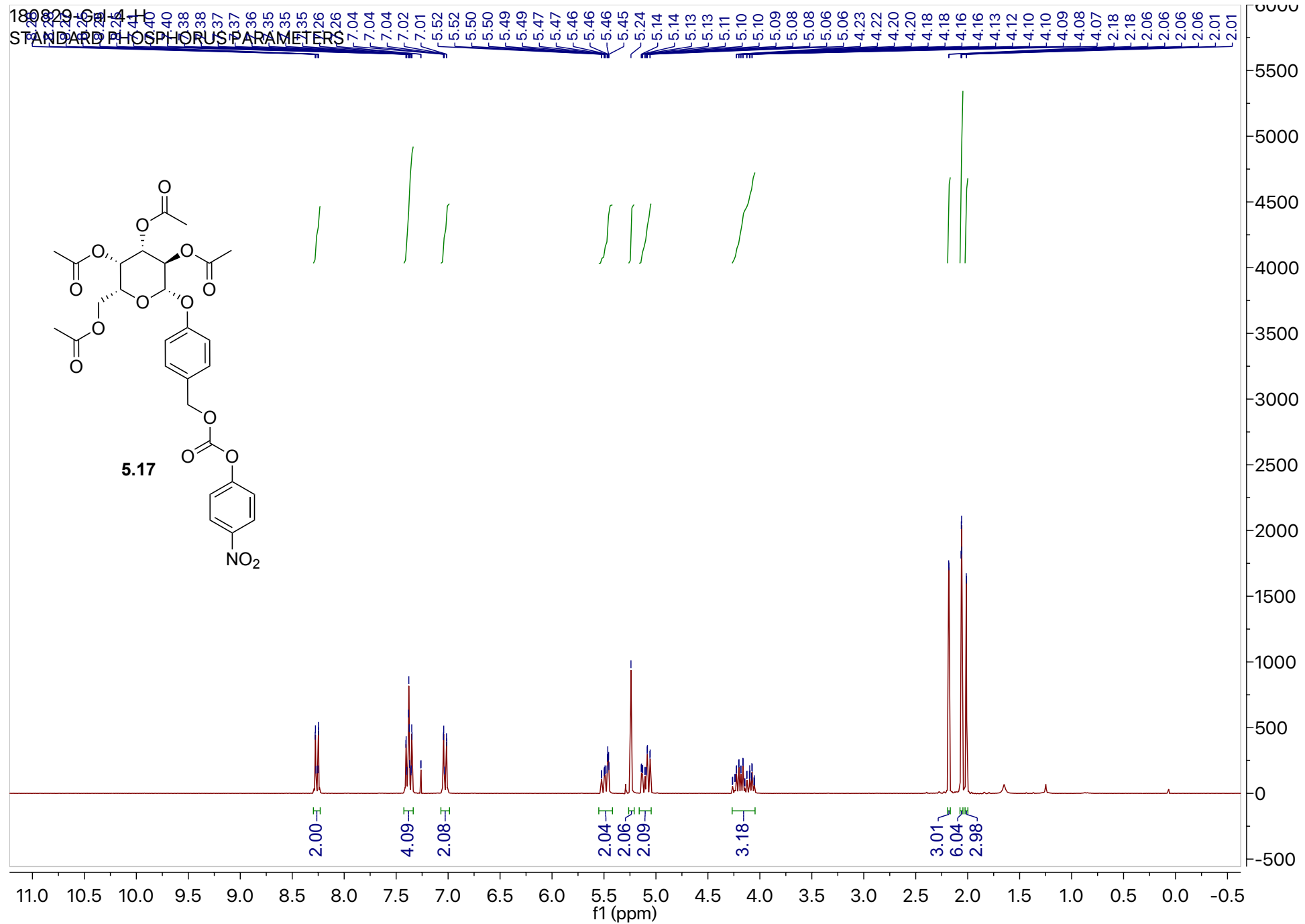
5.15



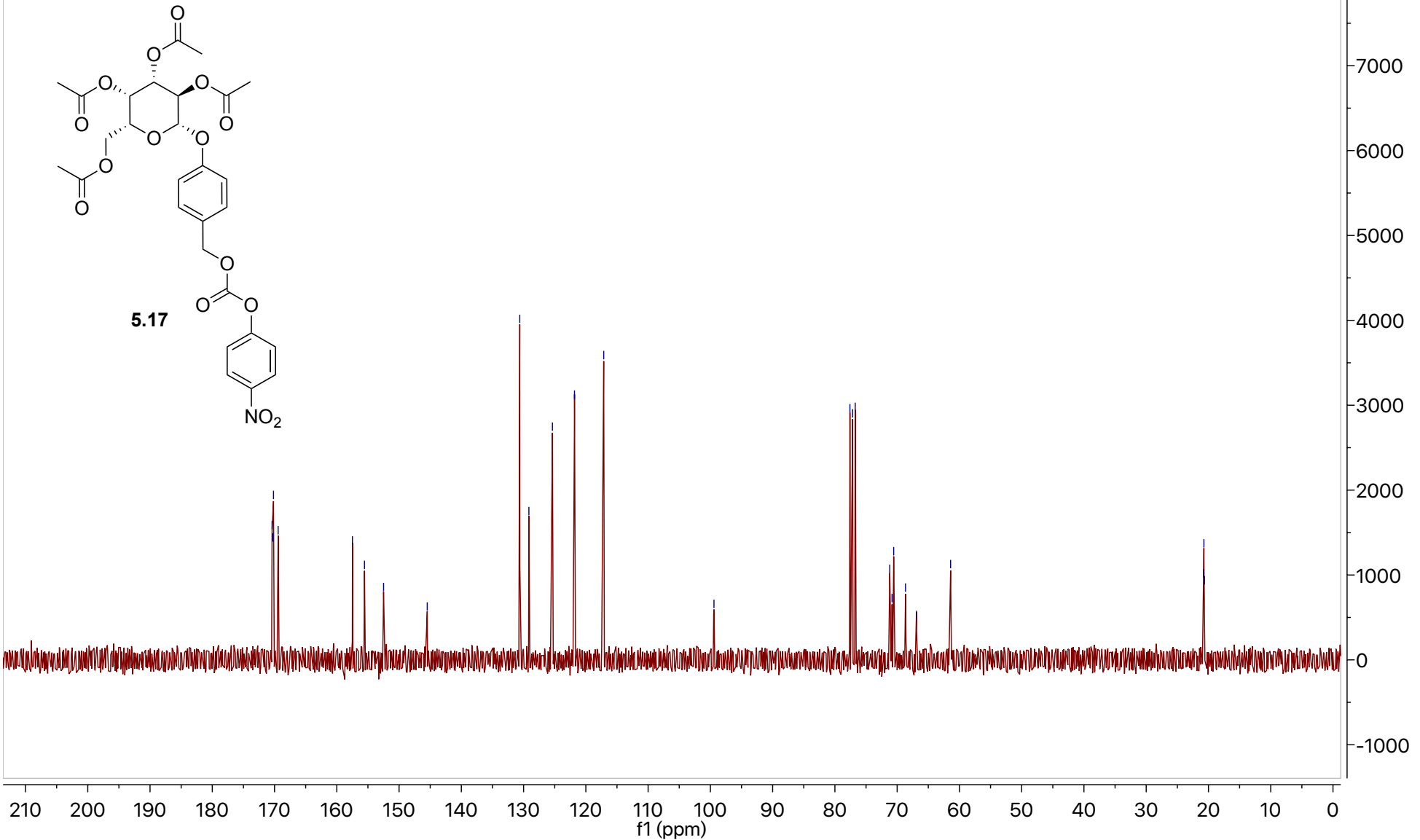
180827-Gal-3-H
STANDARD PHOSPHORUS PARAMETERS

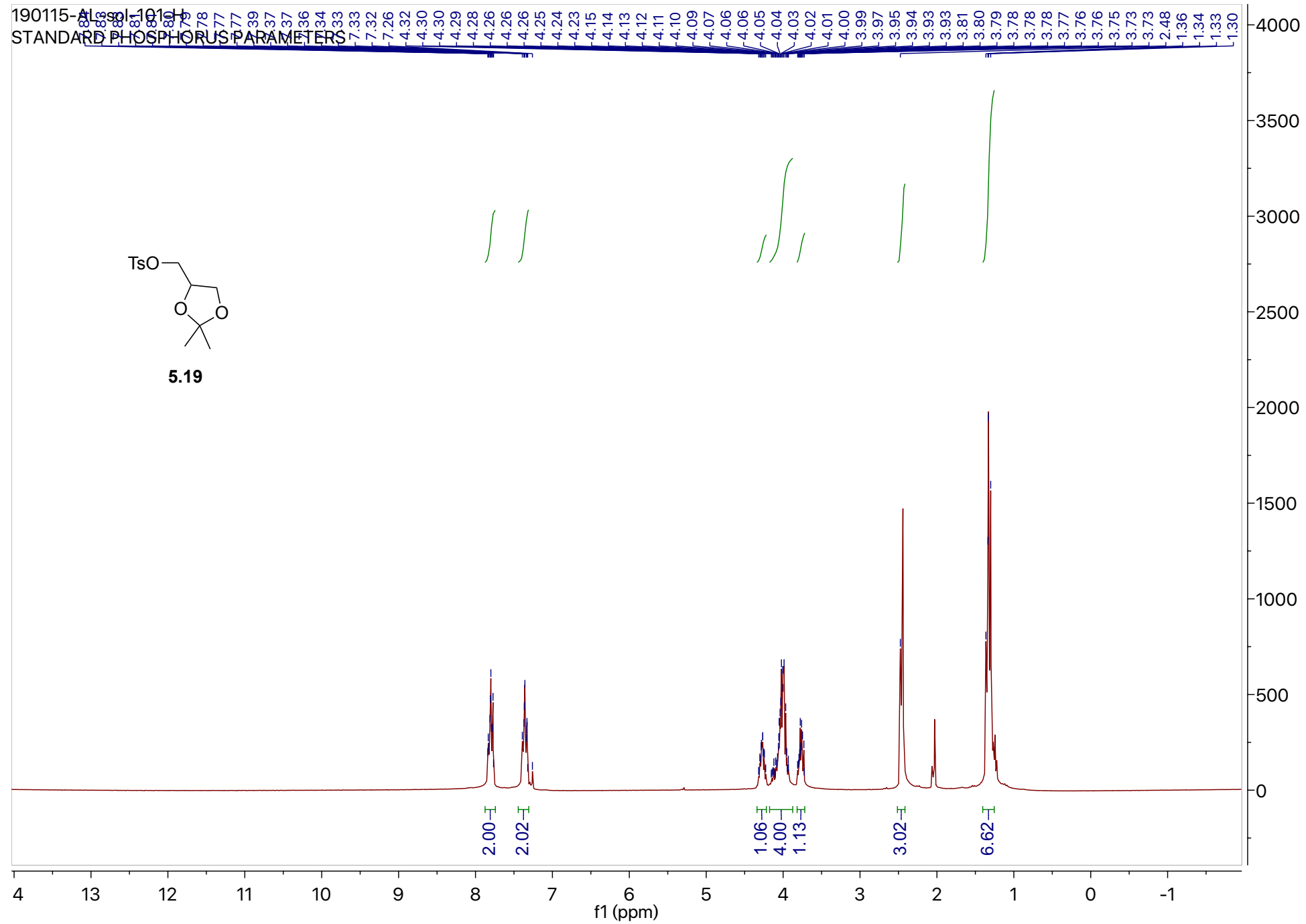


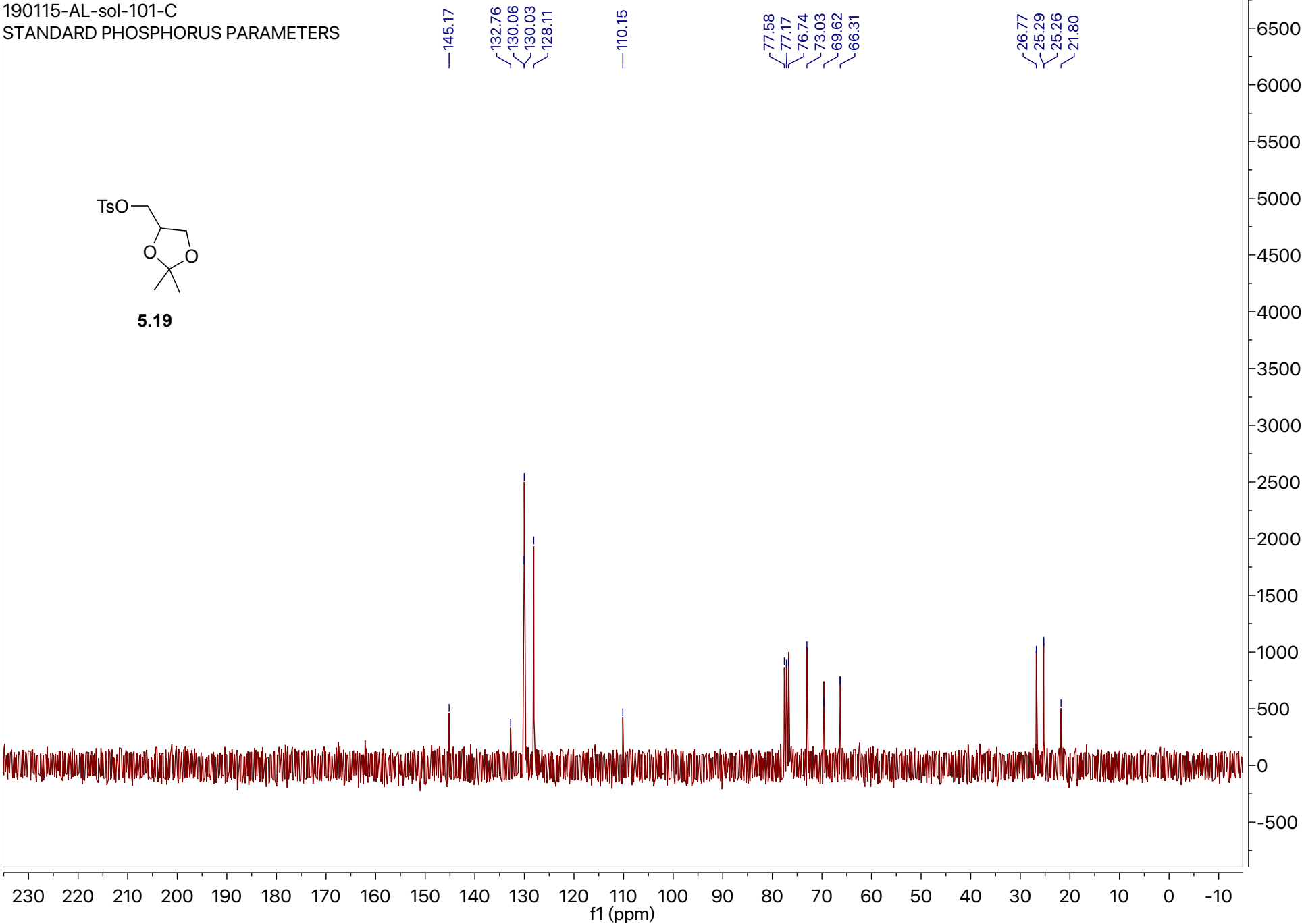


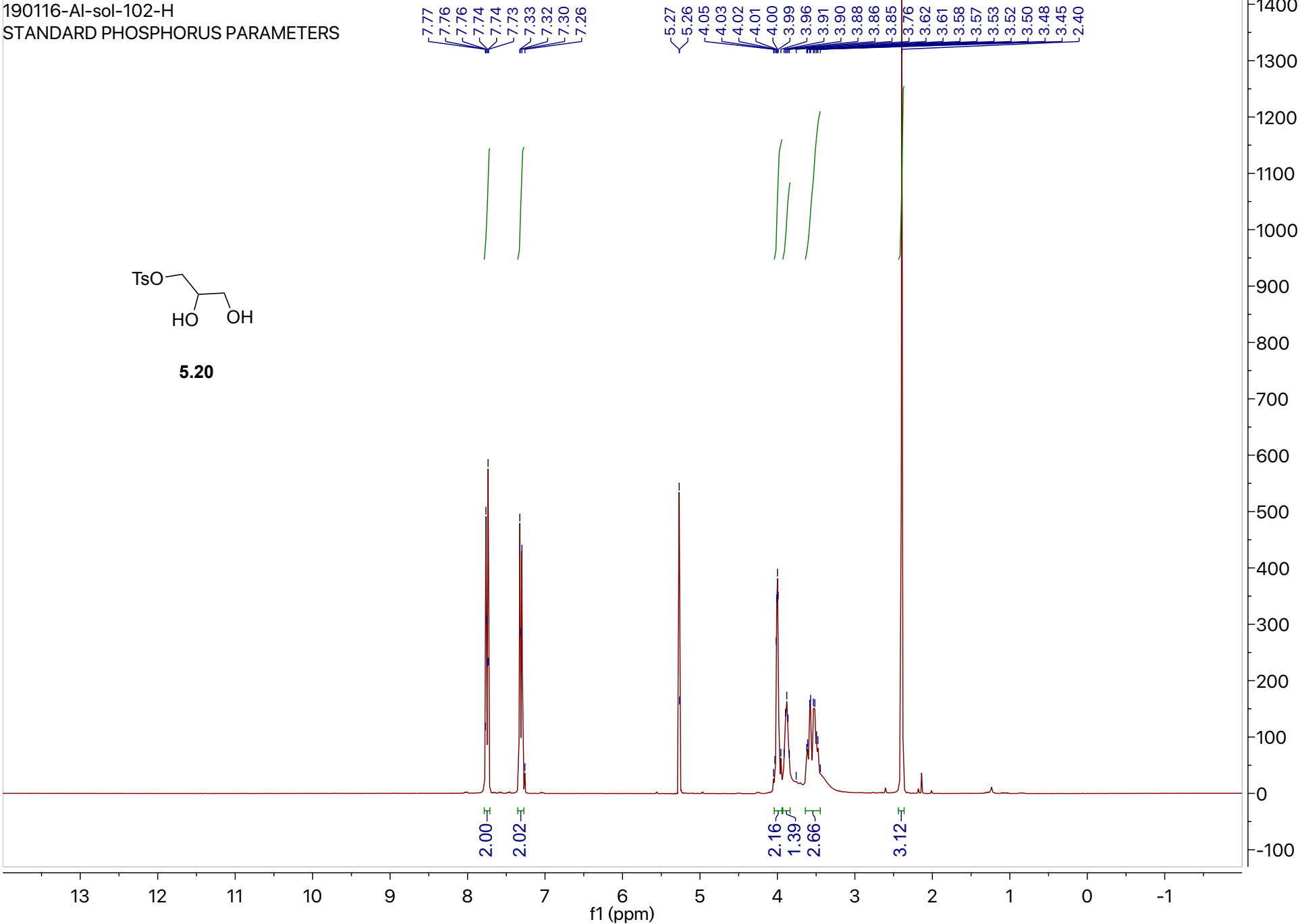


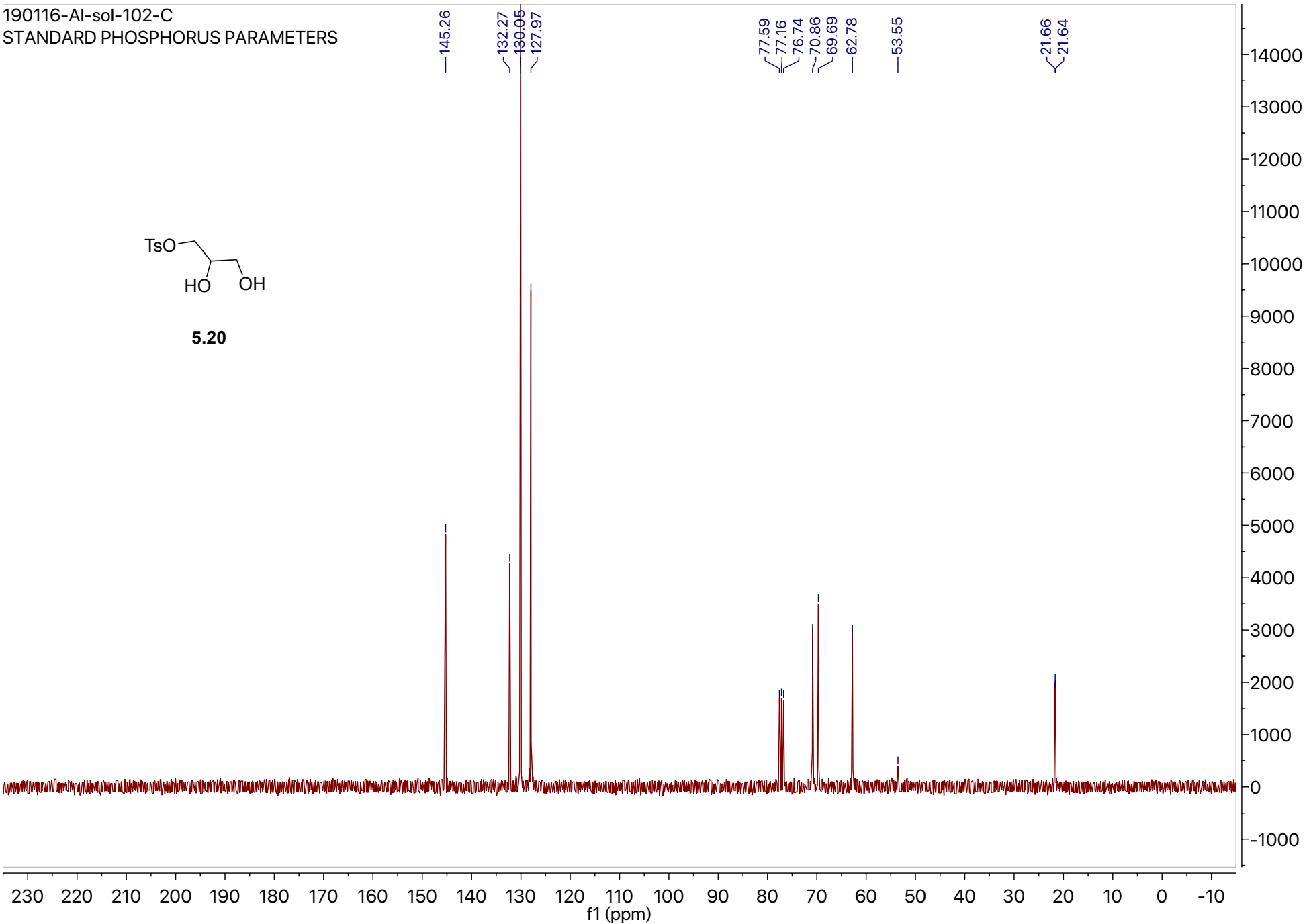
180829-Gal-4-C
STANDARD PHOSPHORUS PARAMETER

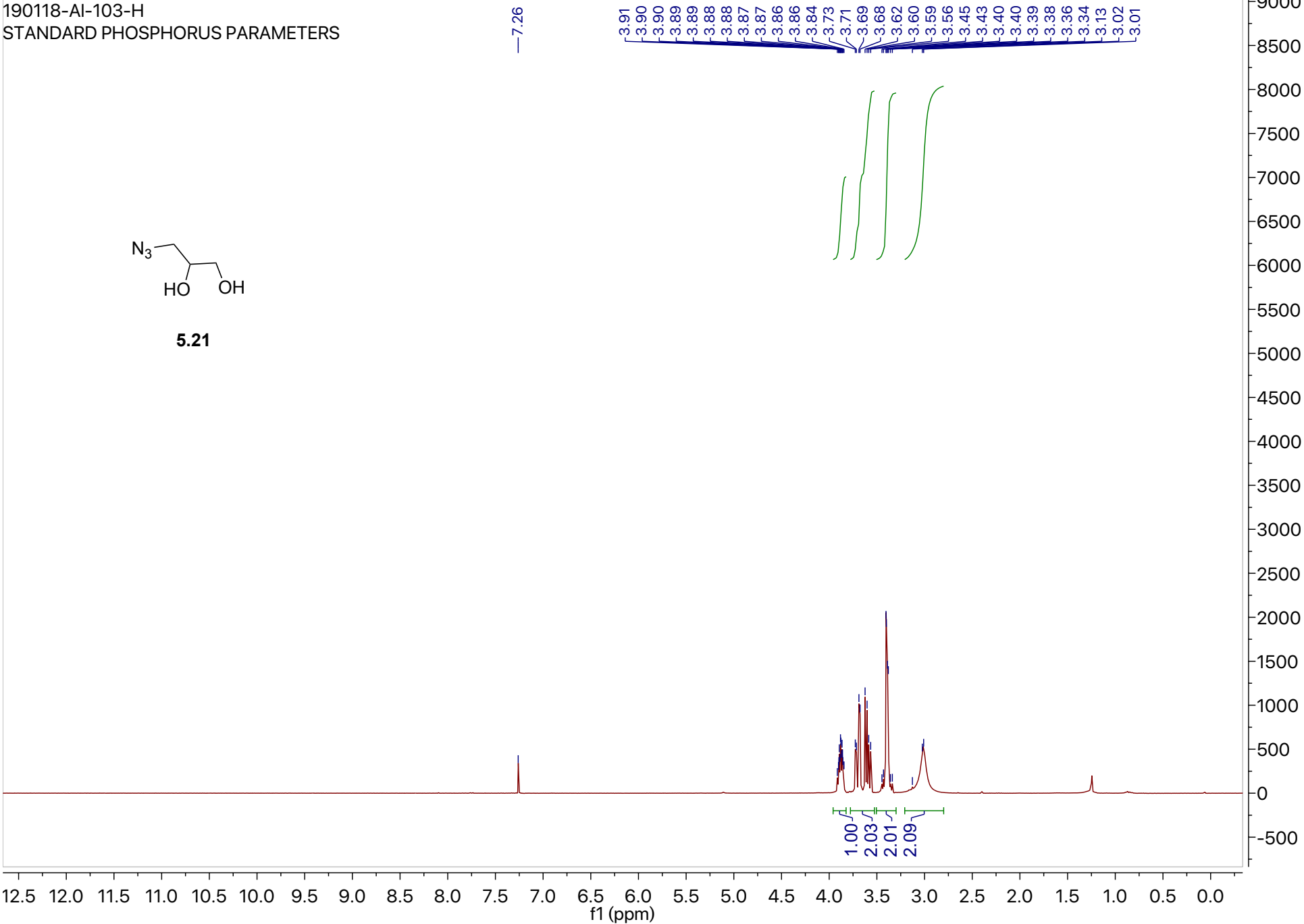


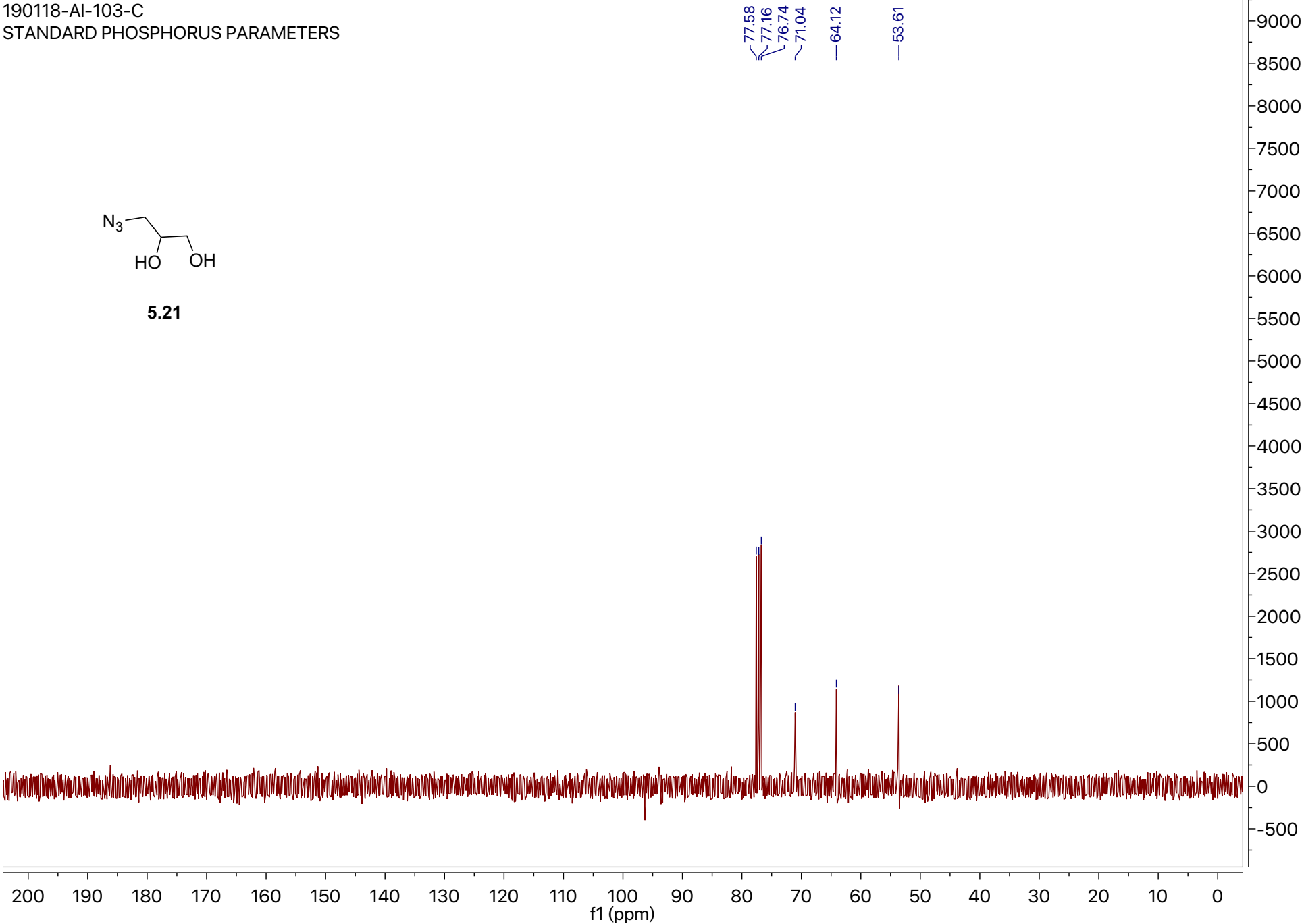


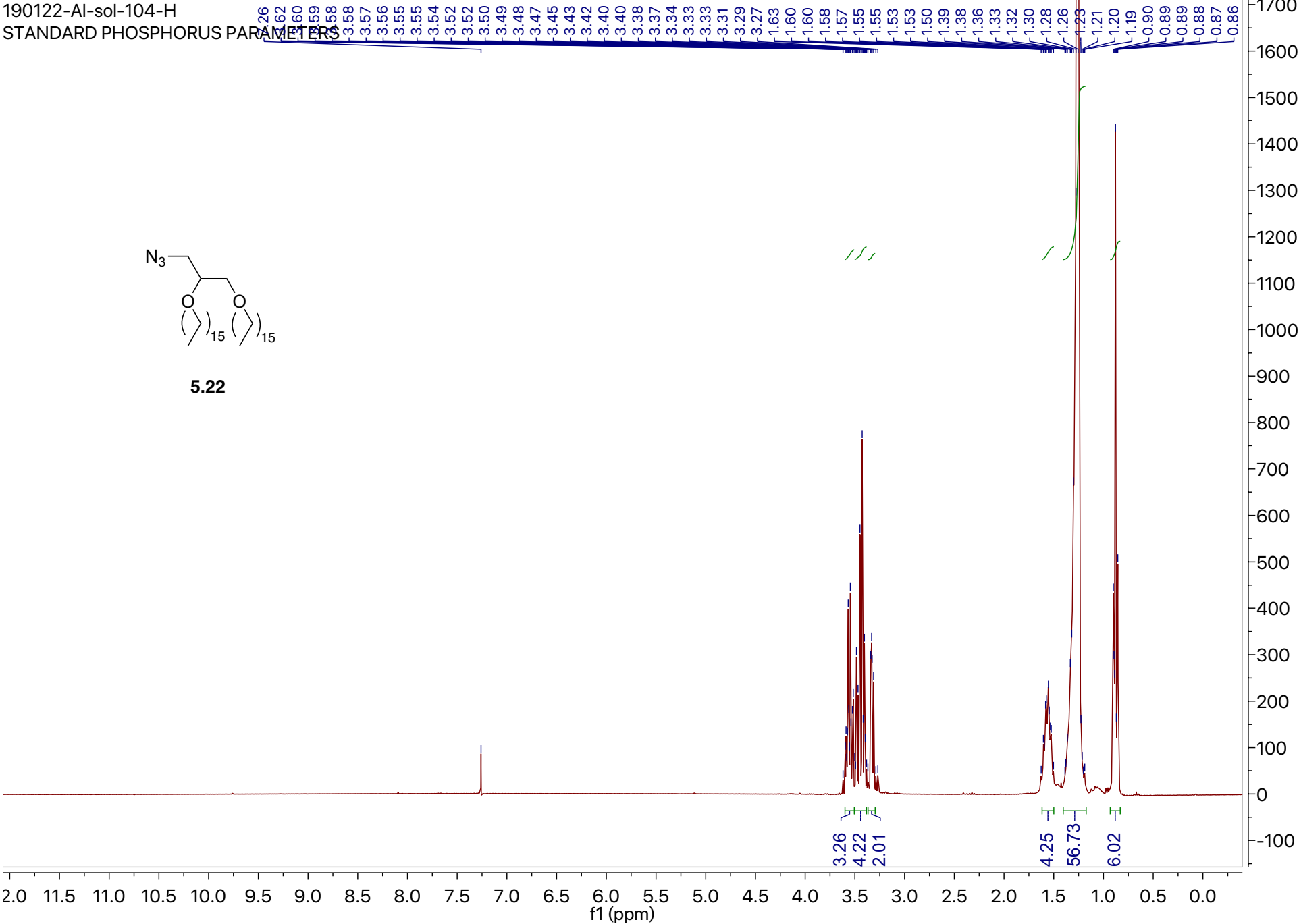


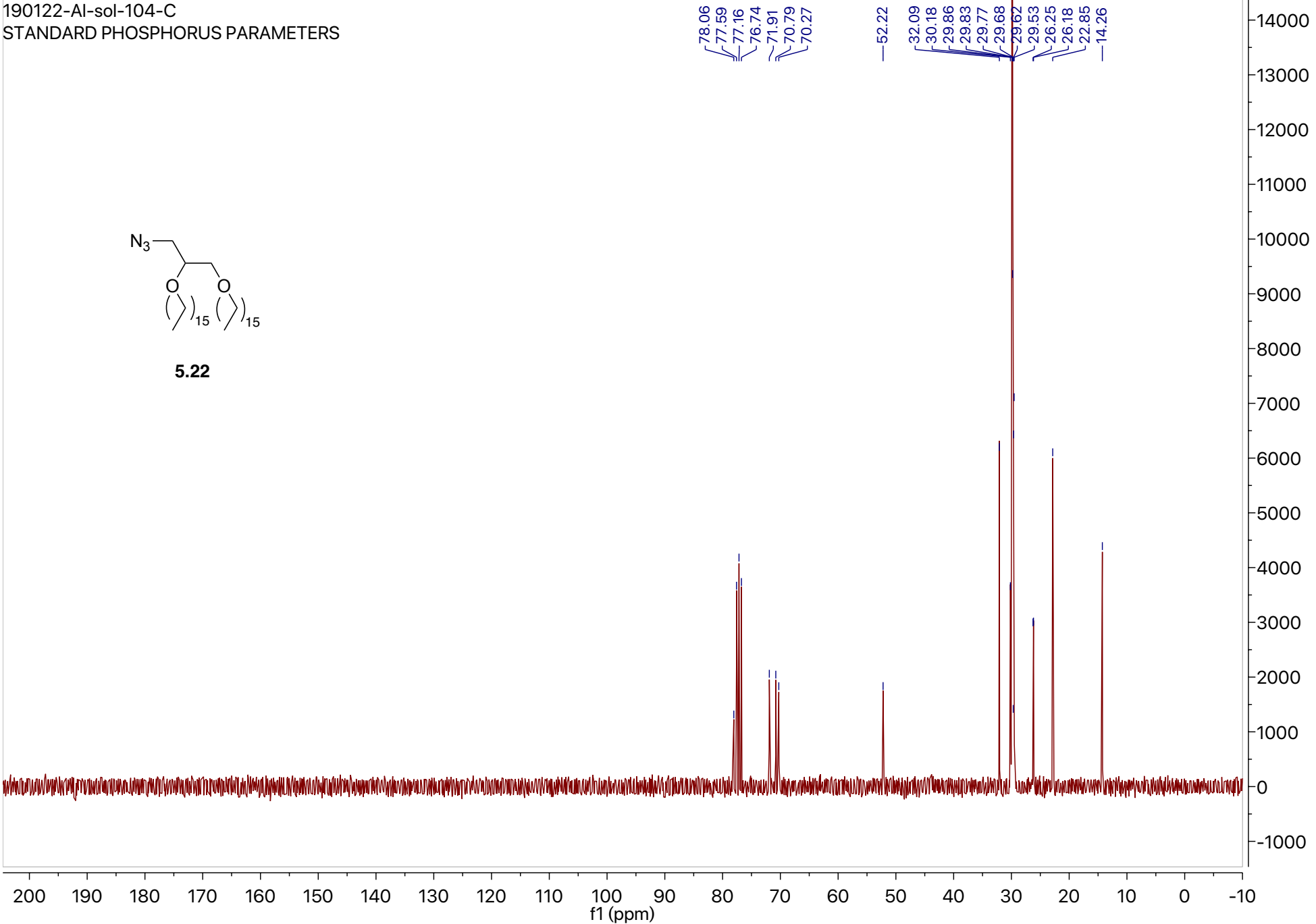




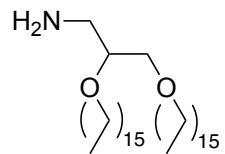




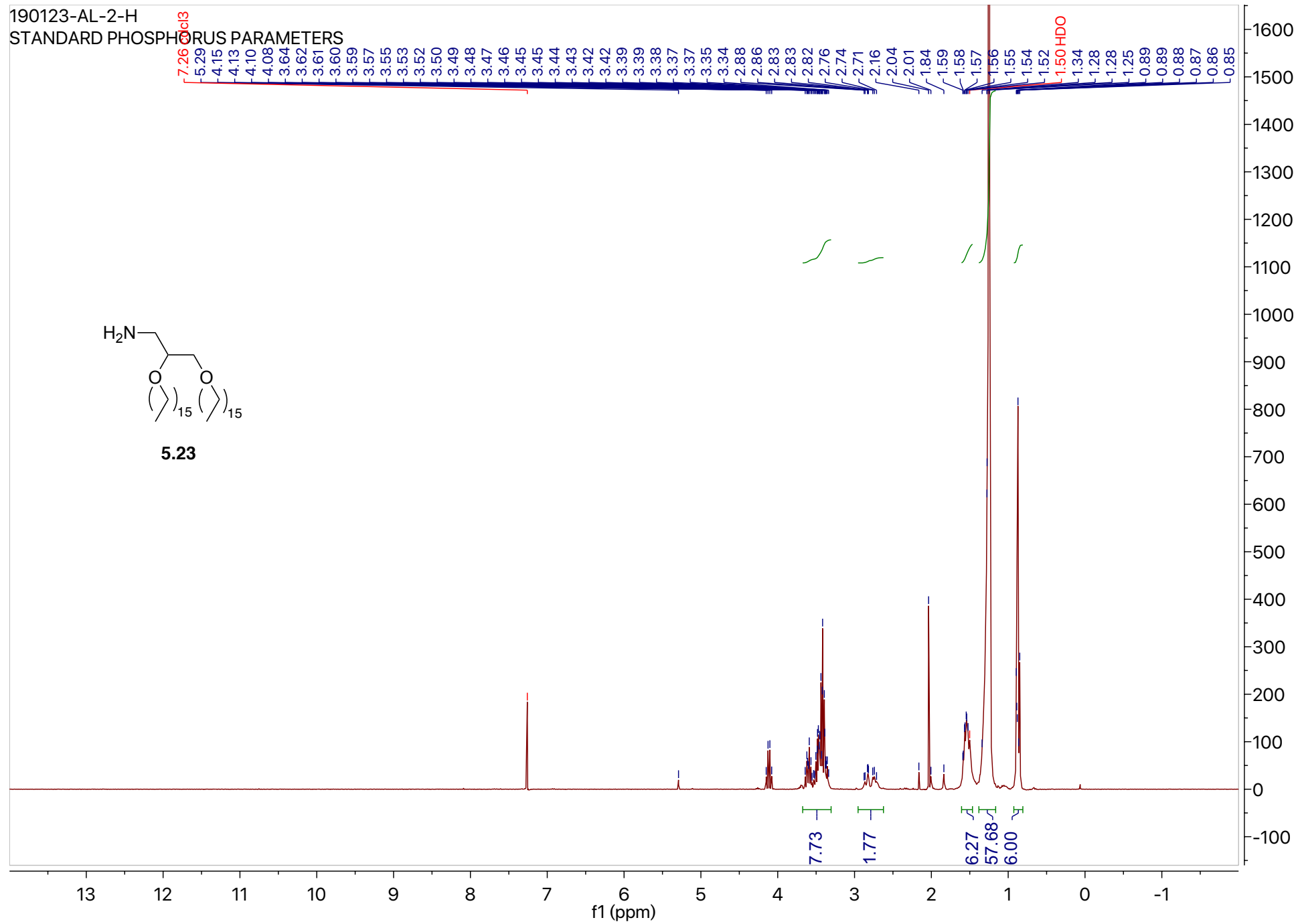


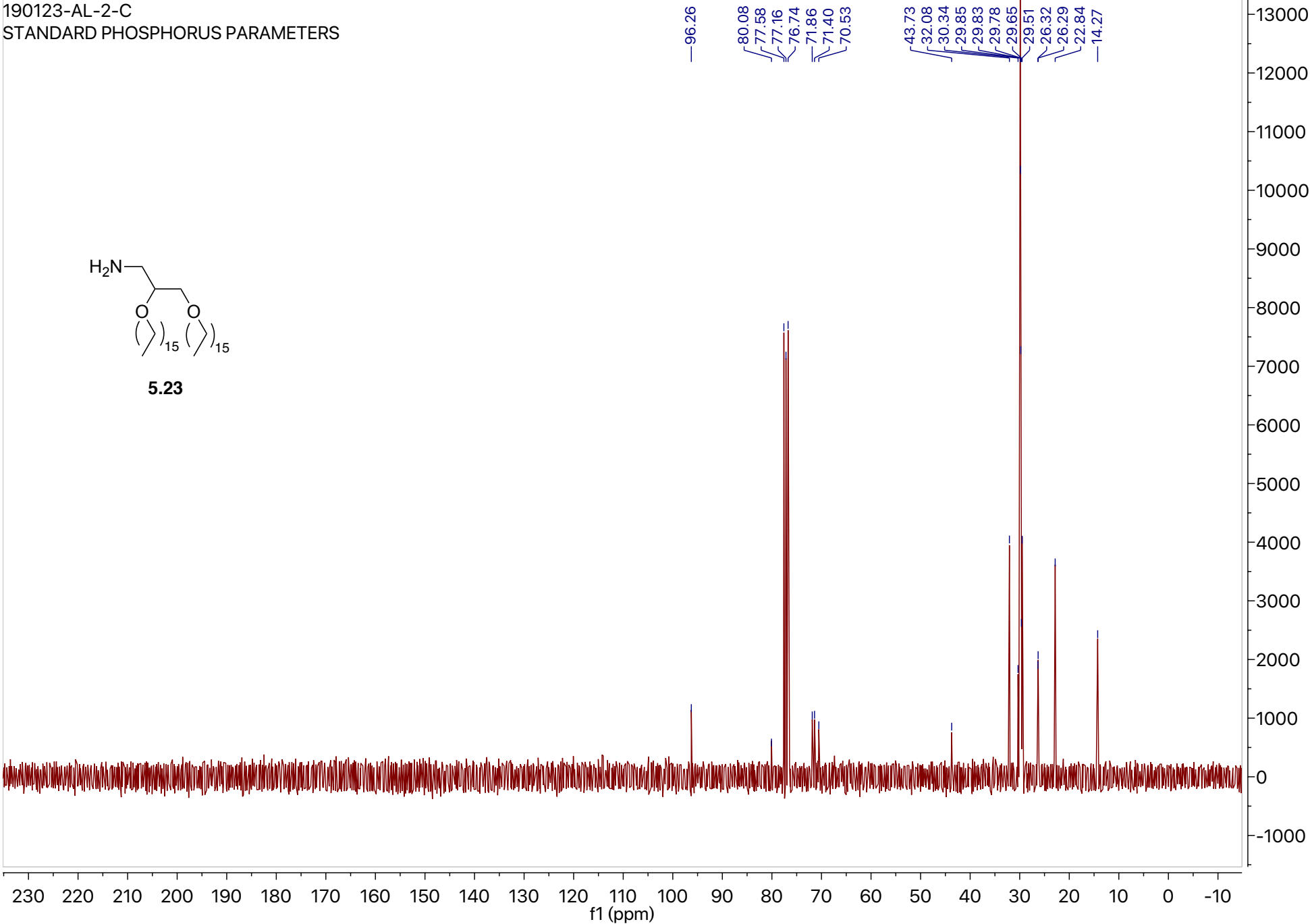


190123-AL-2-H
STANDARD PHOSPHORUS PARAMETERS

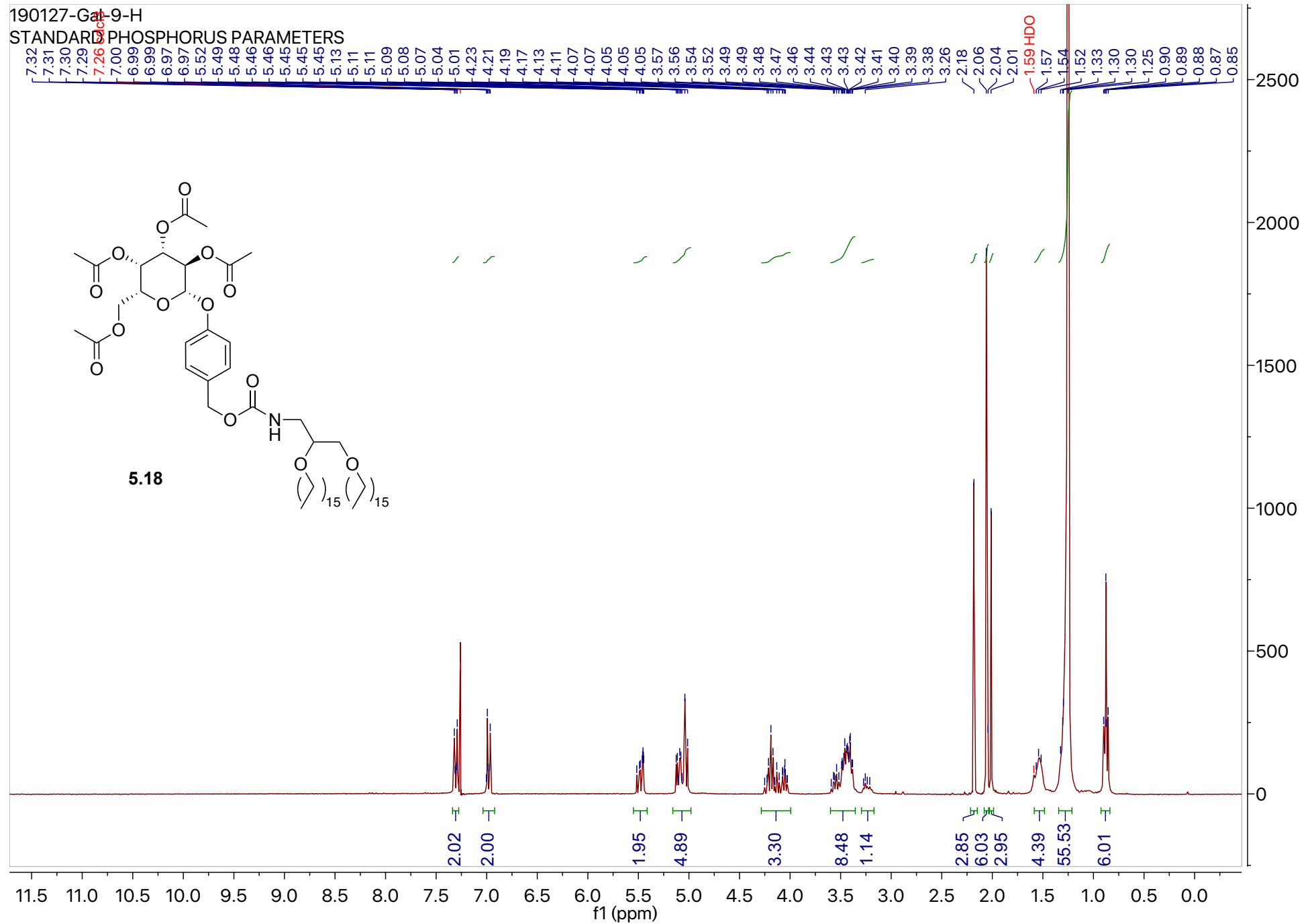


5.23

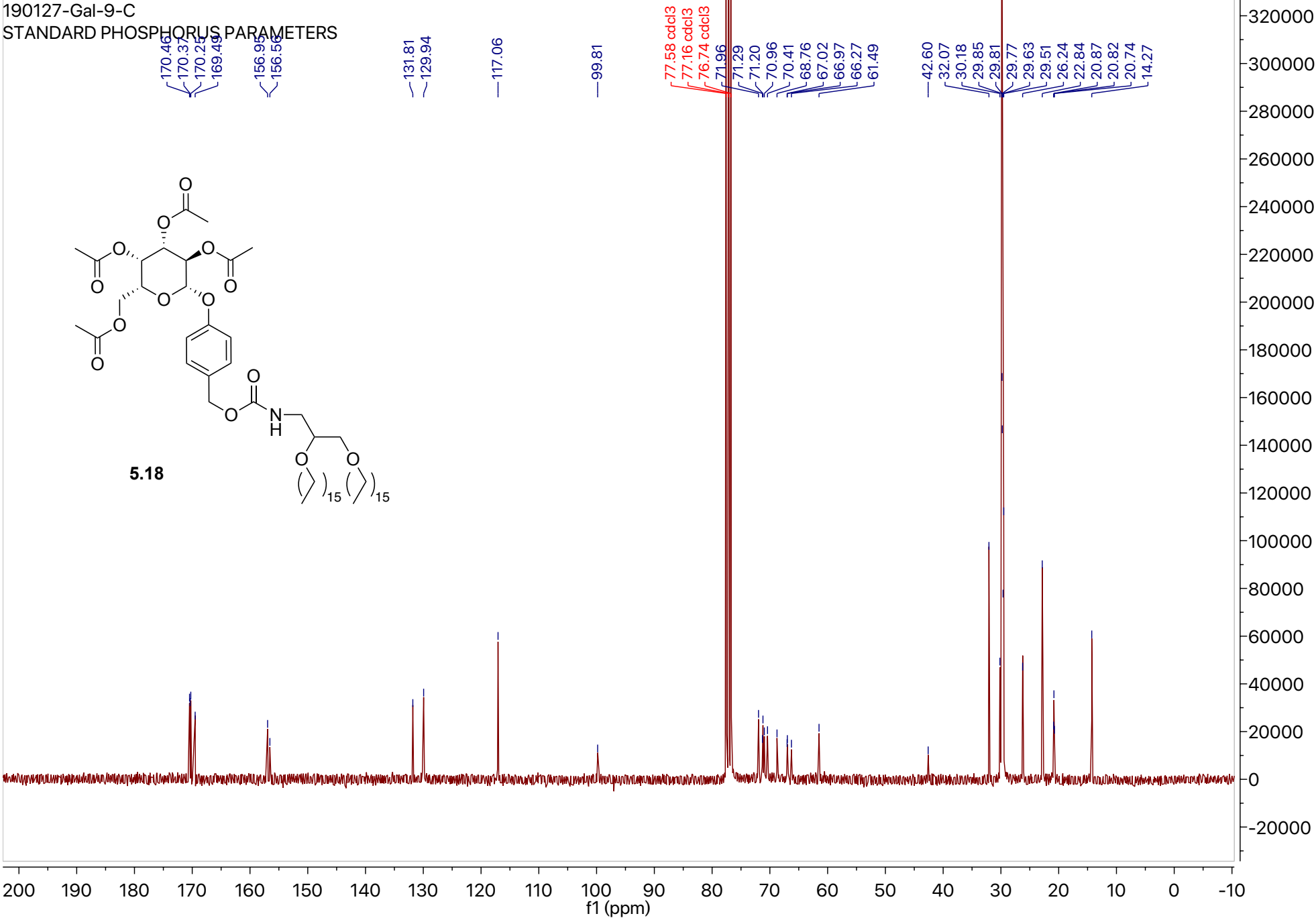


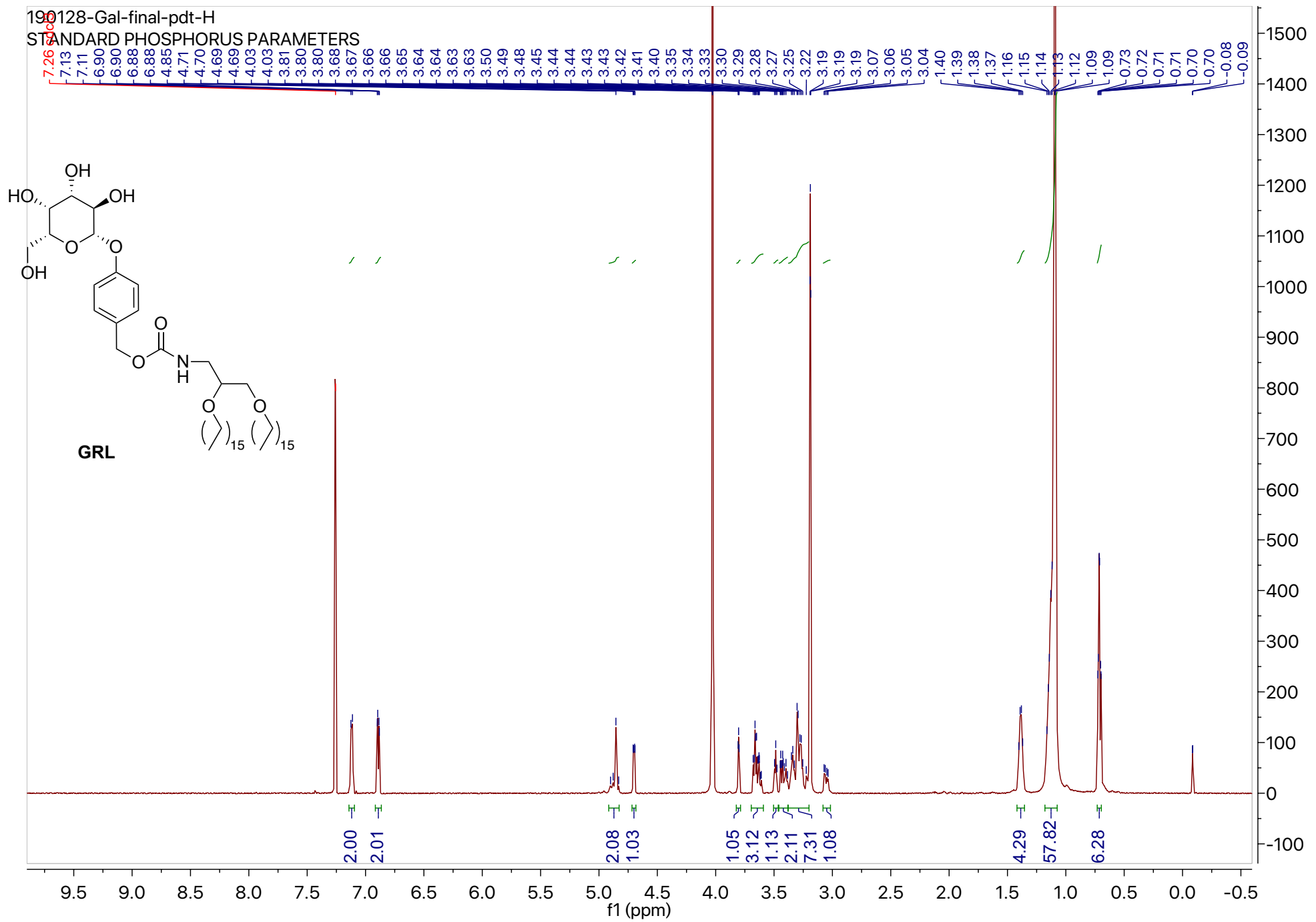


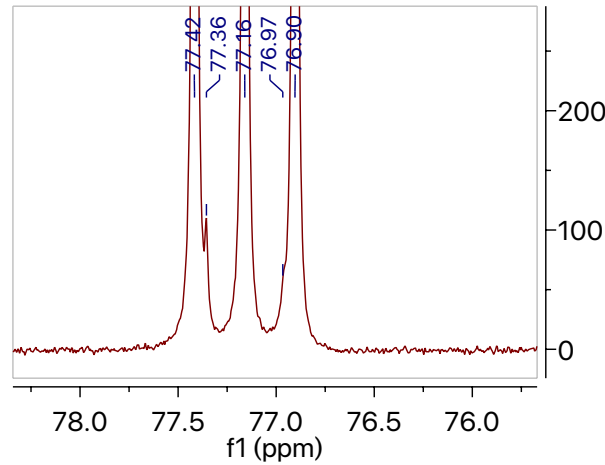
190127-Ga-9-H
STANDARD PHOSPHORUS PARAMETERS



190127-Gal-9-C
STANDARD PHOSPHORUS PARAMETERS



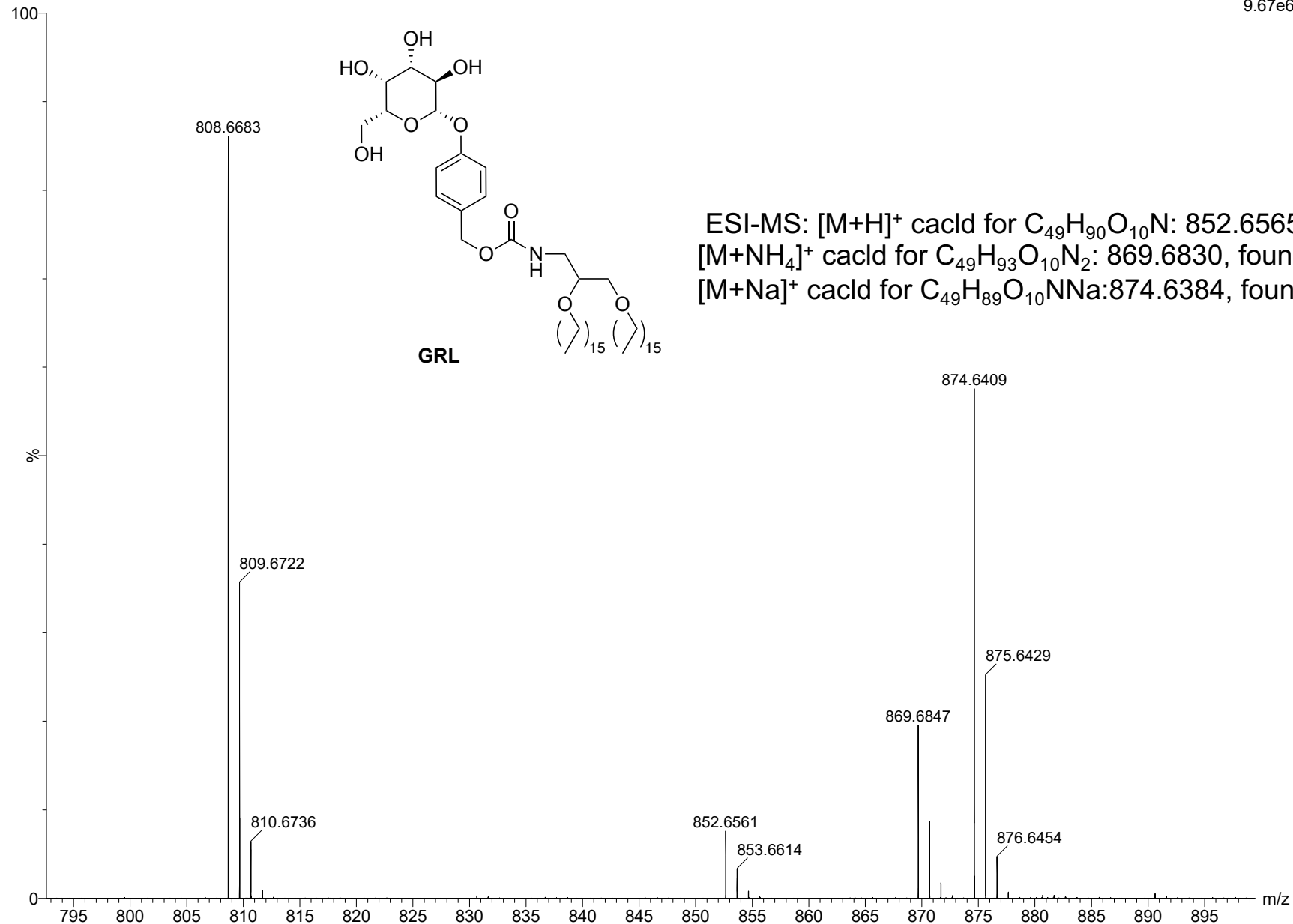




Best

091899_POS_ER_GRL_3 23 (0.406) Cm (2:58)

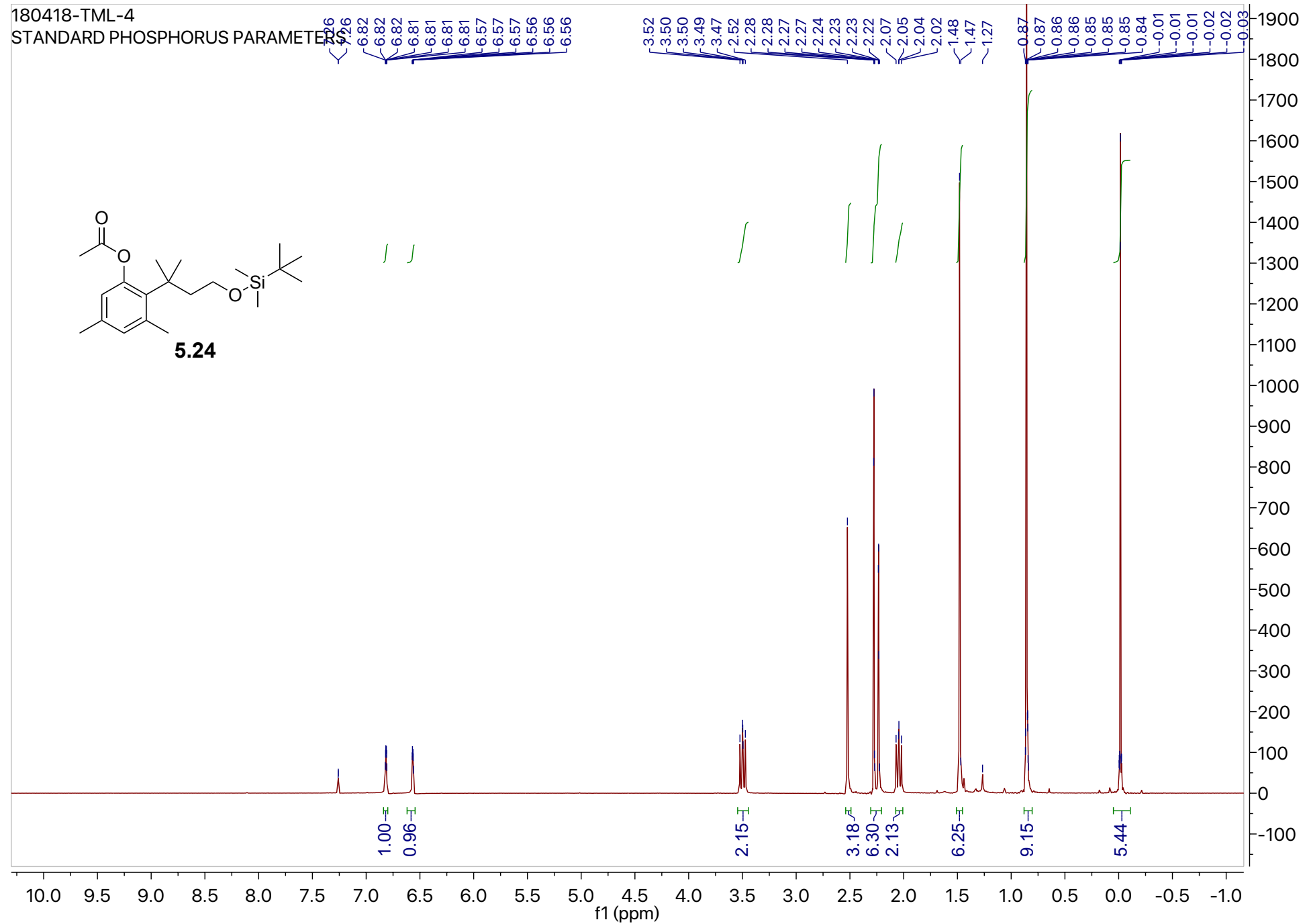
TOF MS ES+
9.67e6

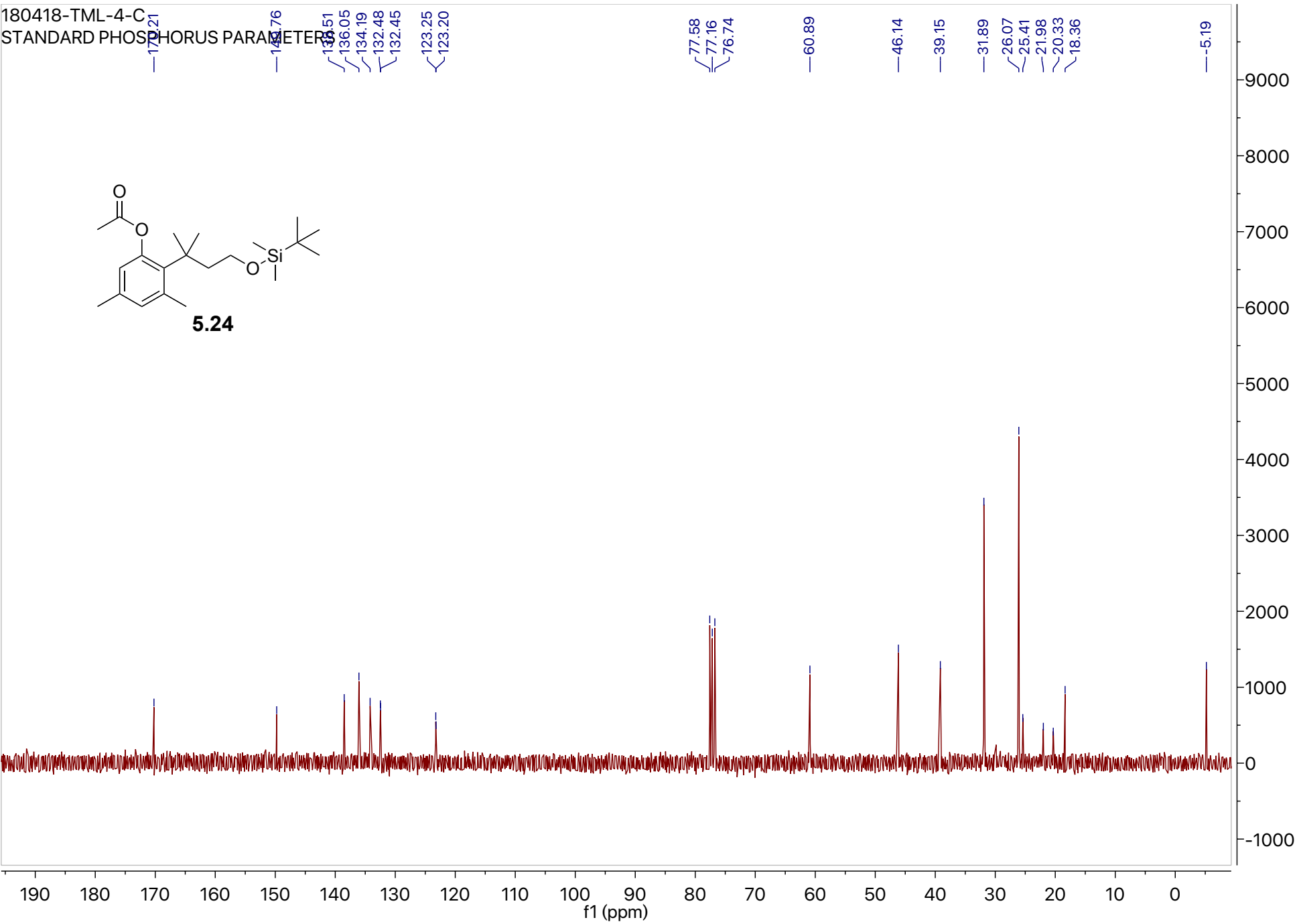


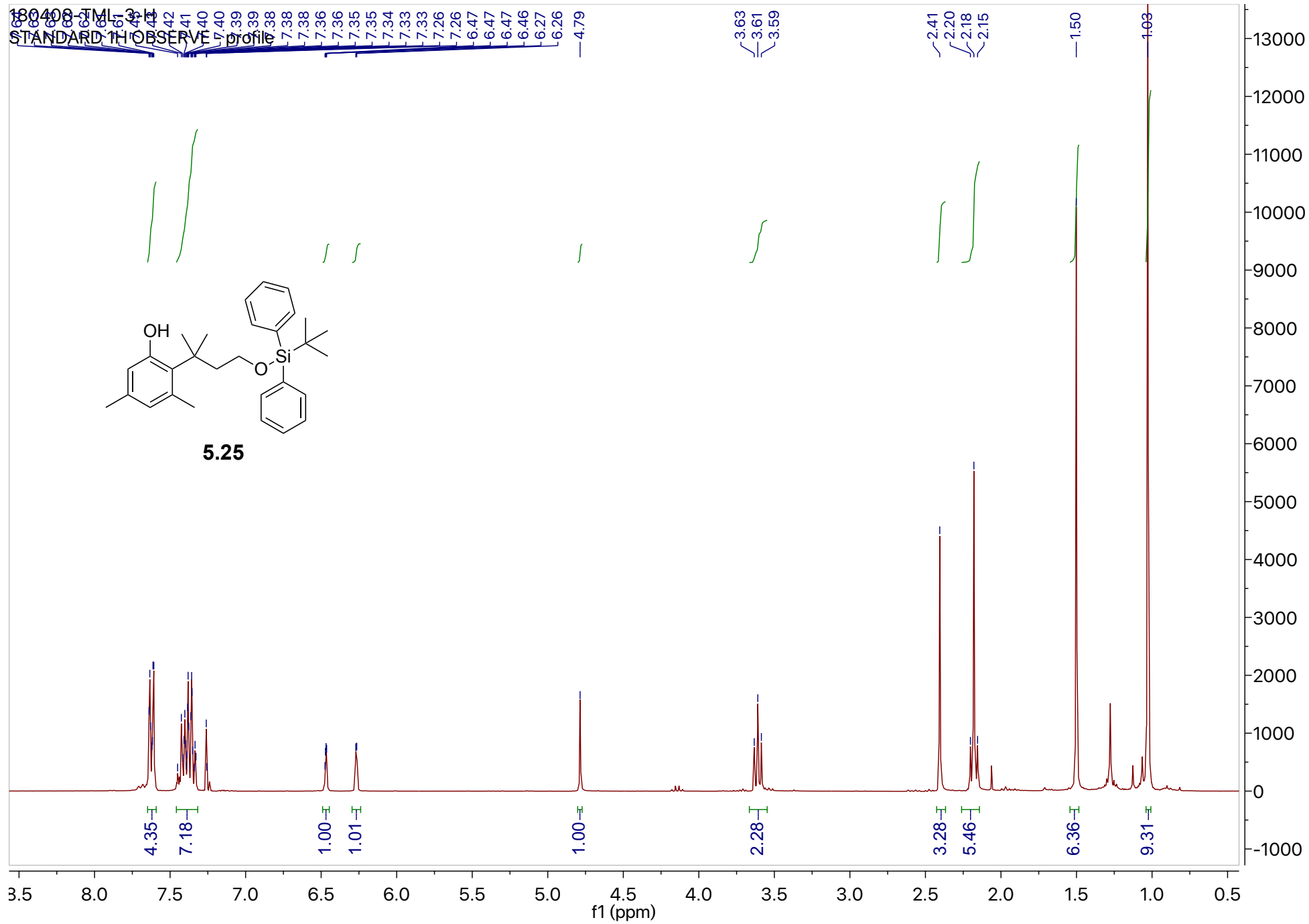
ESI-MS: $[M+H]^+$ calcd for $C_{49}H_{90}O_{10}N$: 852.6565, found 862.6561
 $[M+NH_4]^+$ calcd for $C_{49}H_{93}O_{10}N_2$: 869.6830, found: 869.6847.
 $[M+Na]^+$ calcd for $C_{49}H_{89}O_{10}NNa$: 874.6384, found: 874.6409.

180418-TML-4

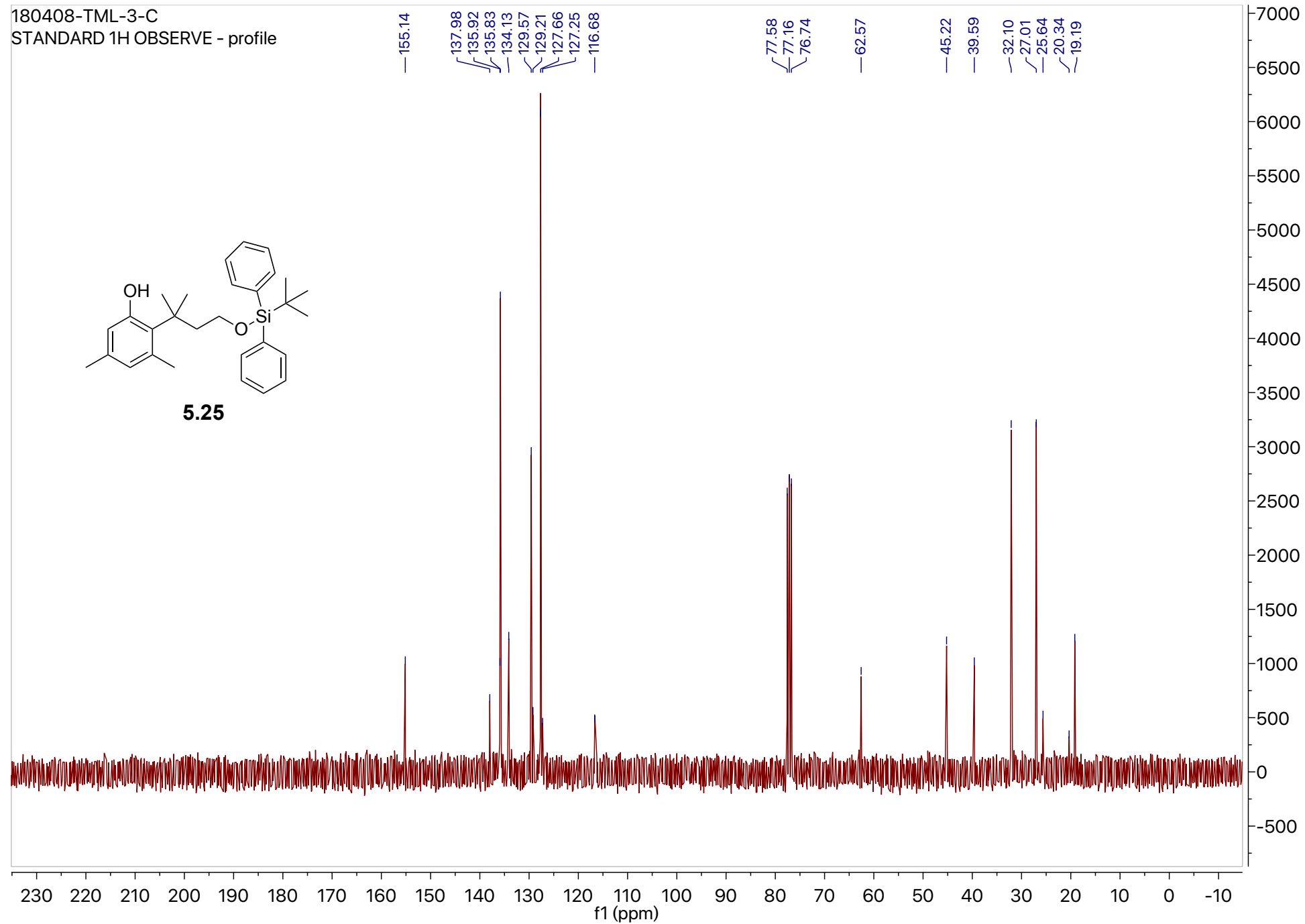
STANDARD PHOSPHORUS PARAMETERS

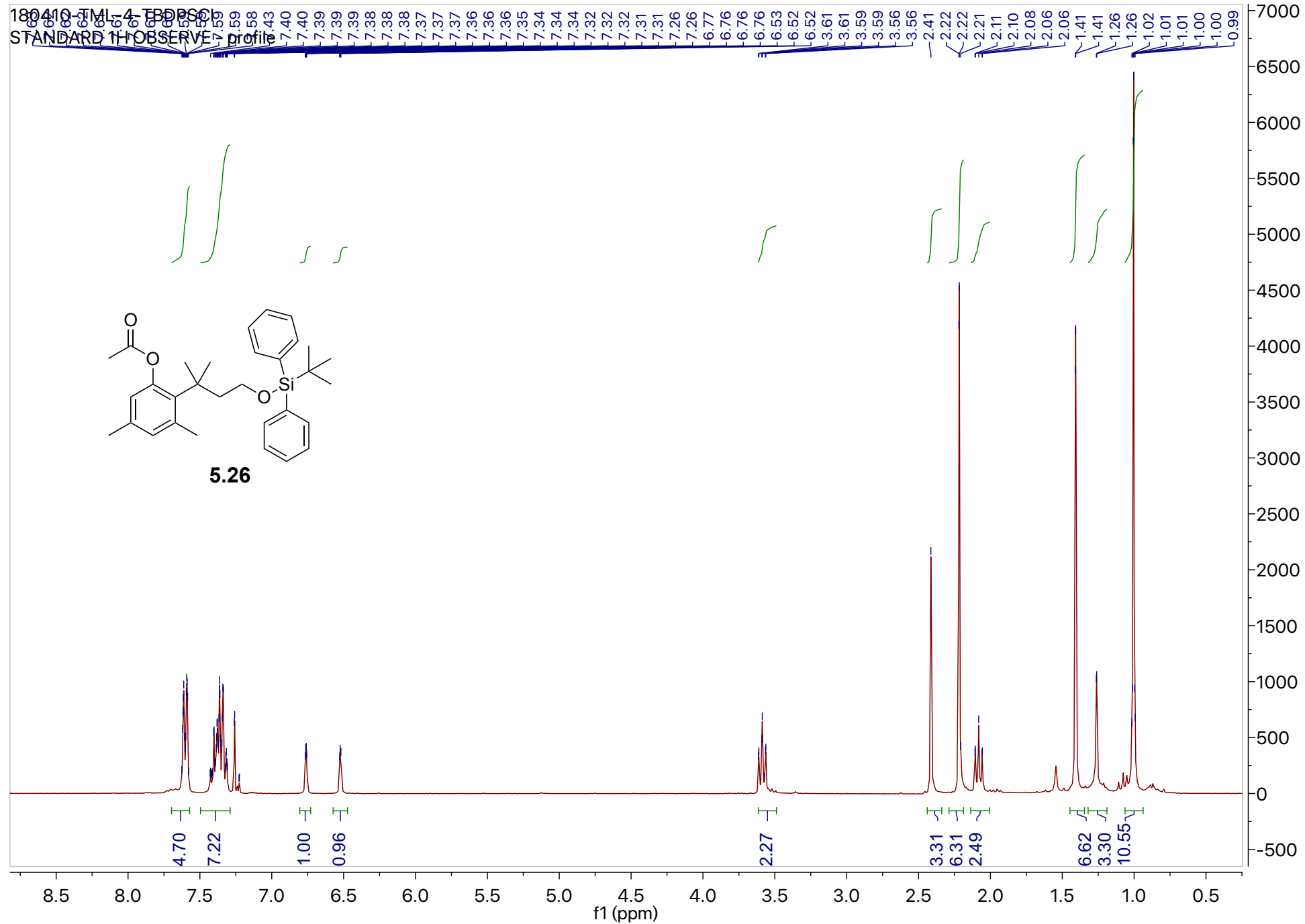




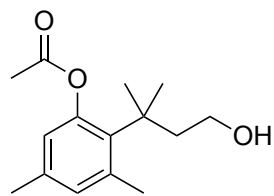
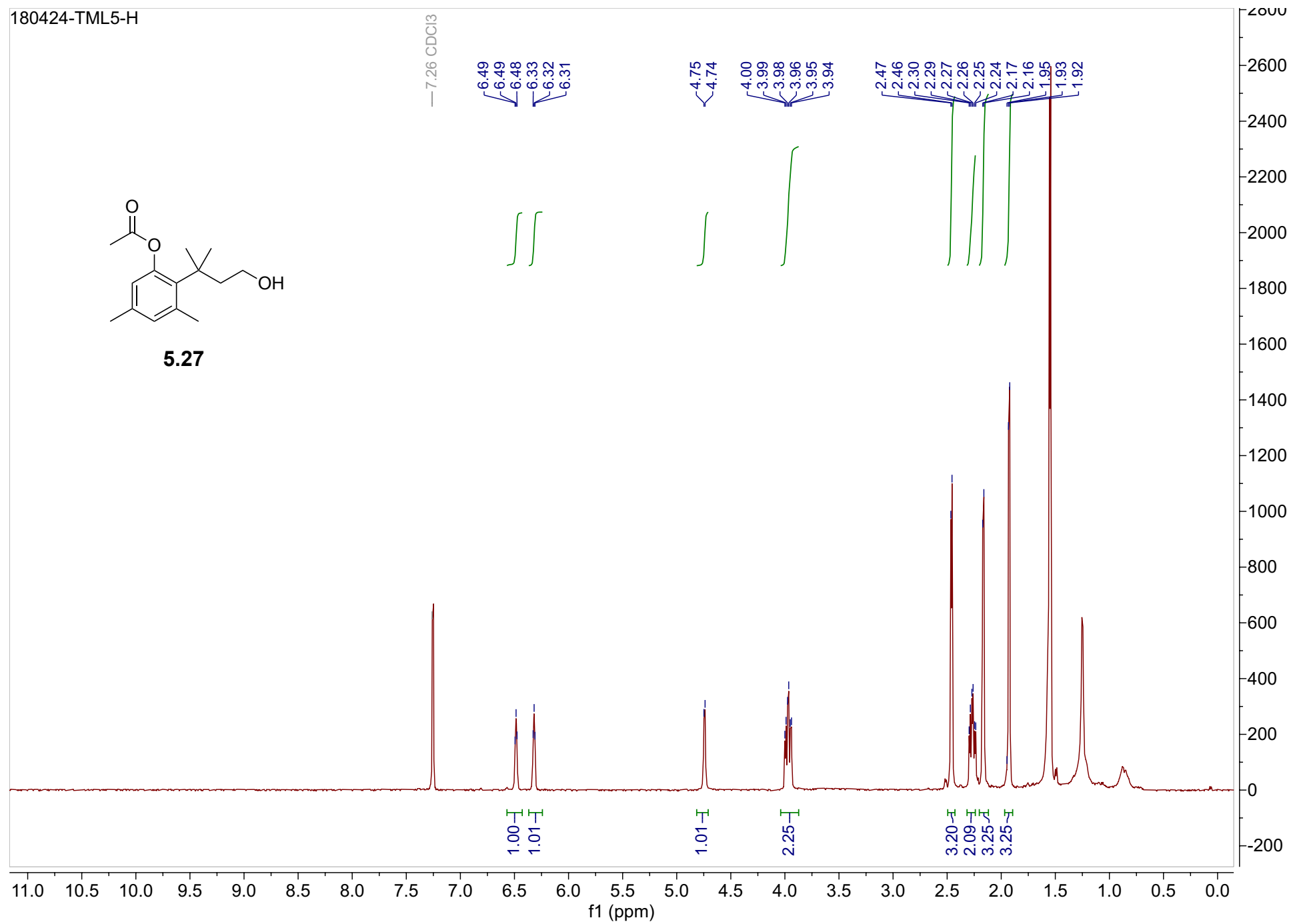


180408-TML-3-C
STANDARD 1H OBSERVE - profile



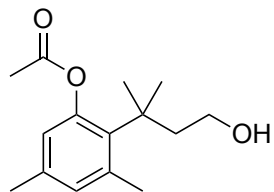
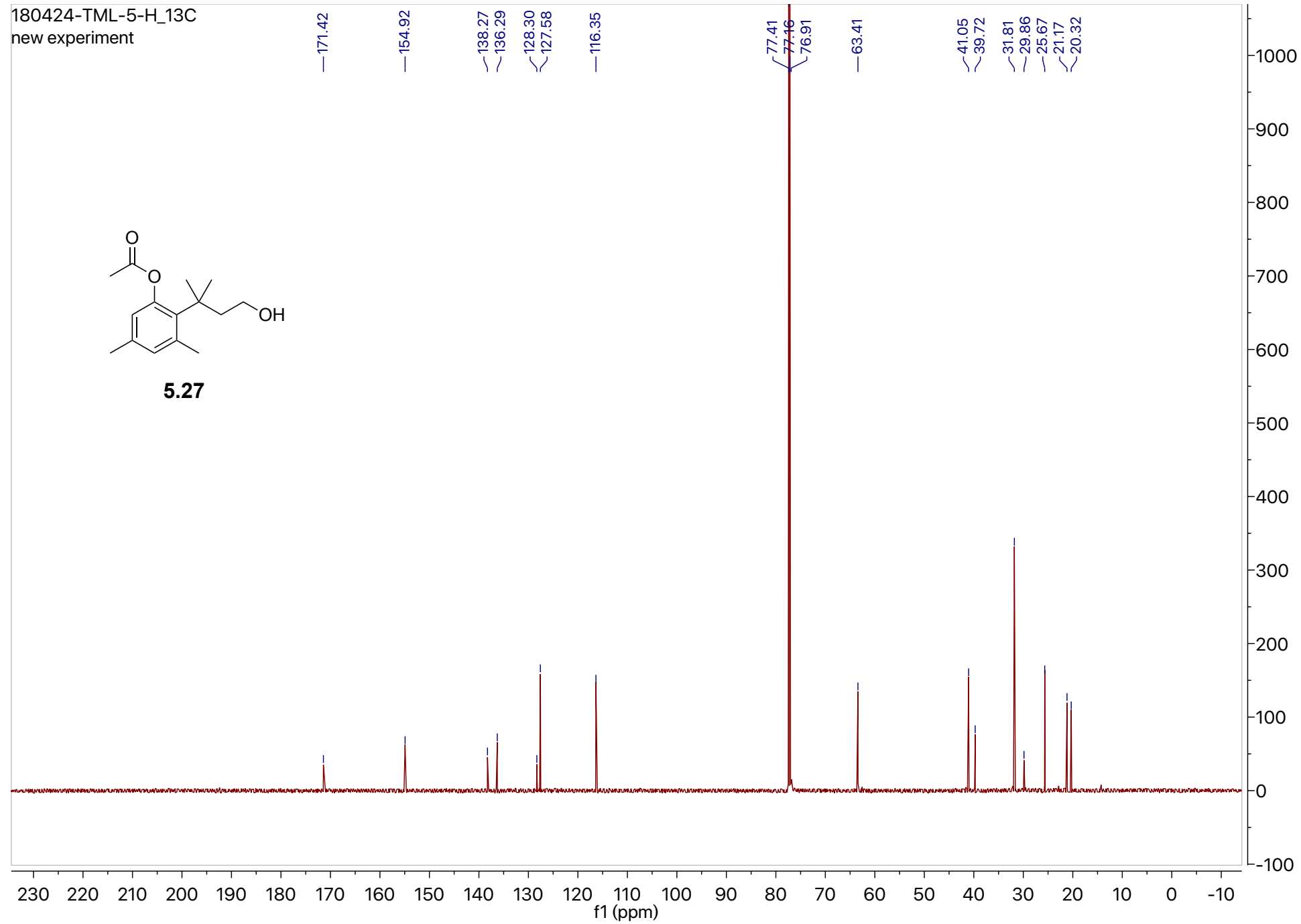


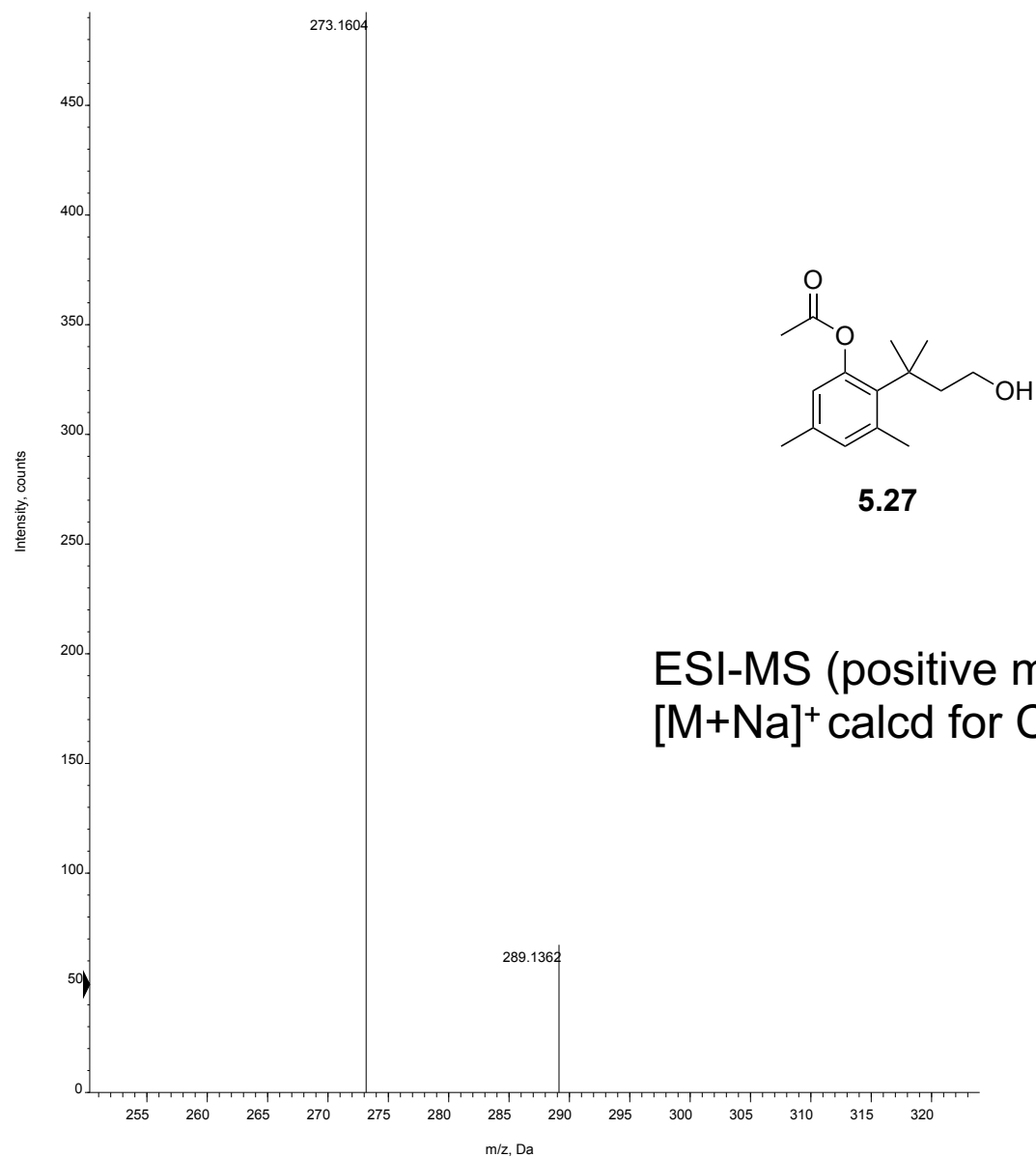
180424-TML5-H

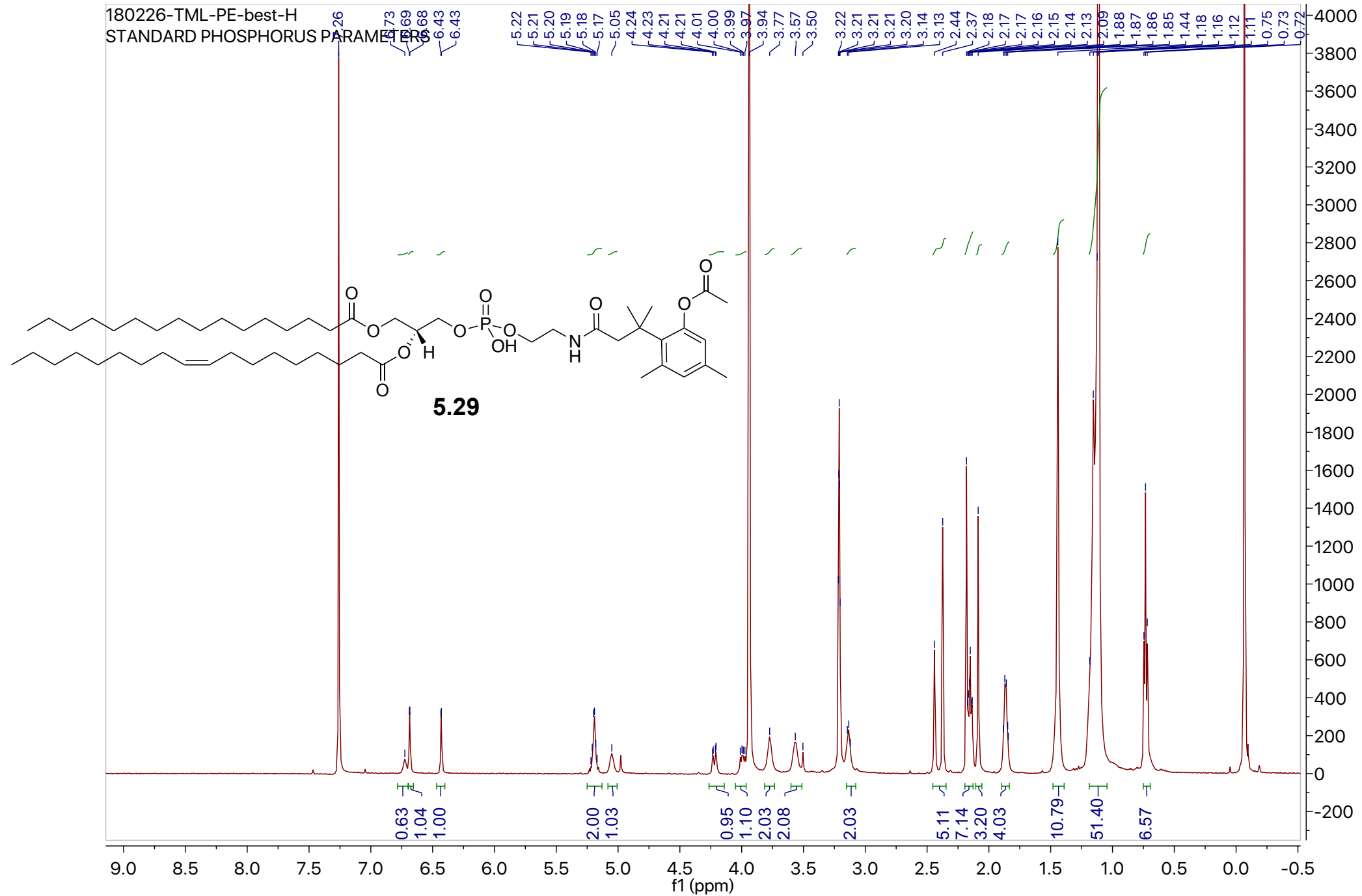
**5.27**

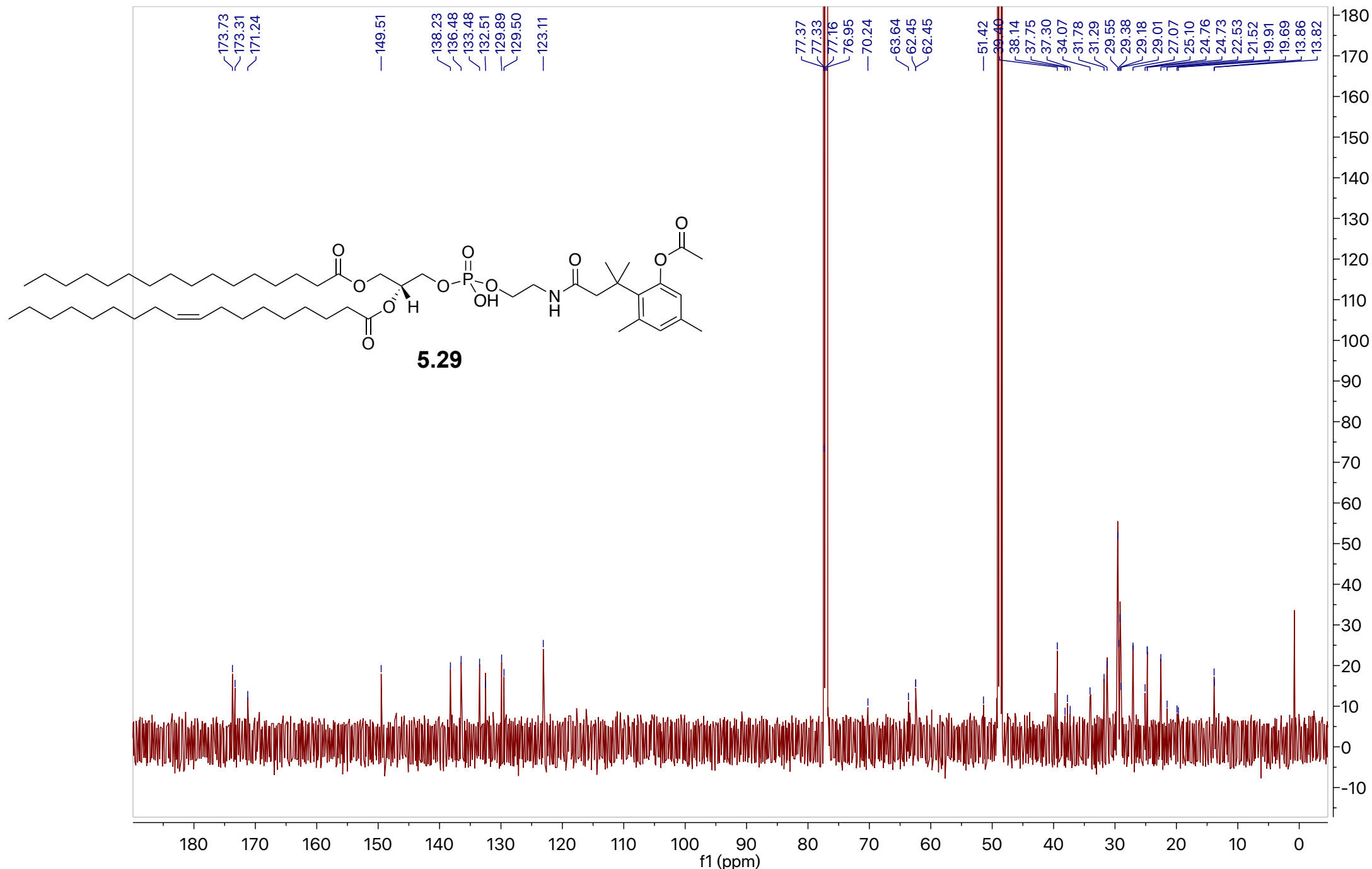
180424-TML-5-H₁₃C

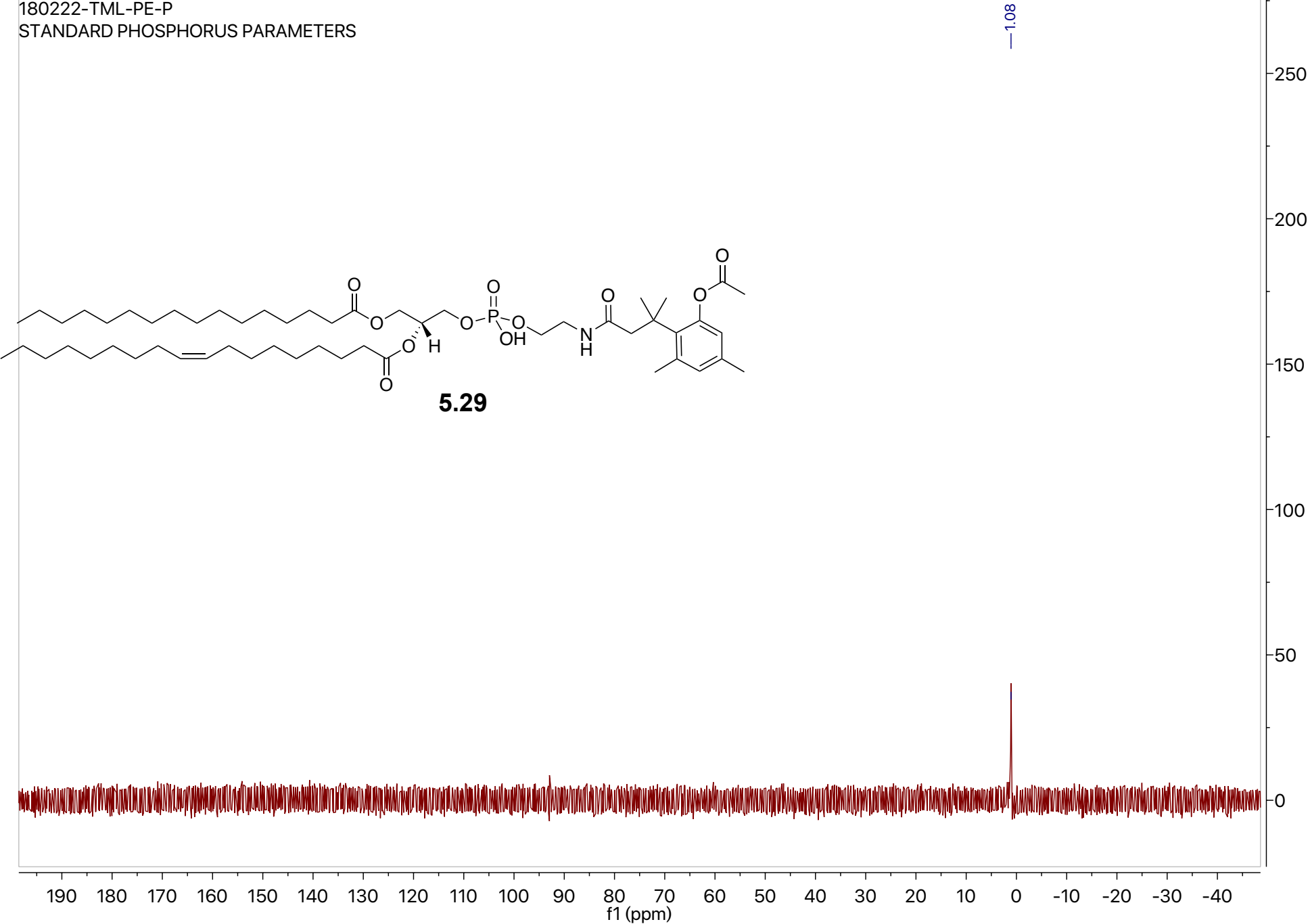
new experiment

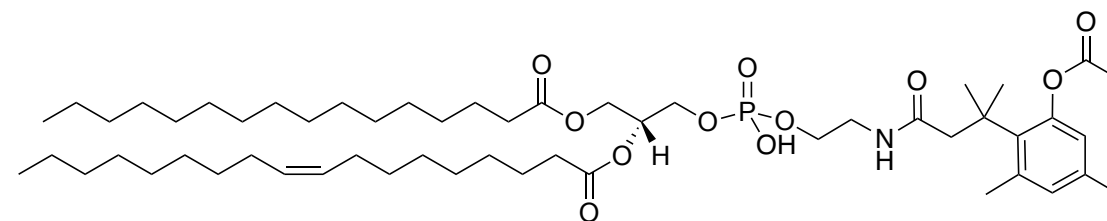
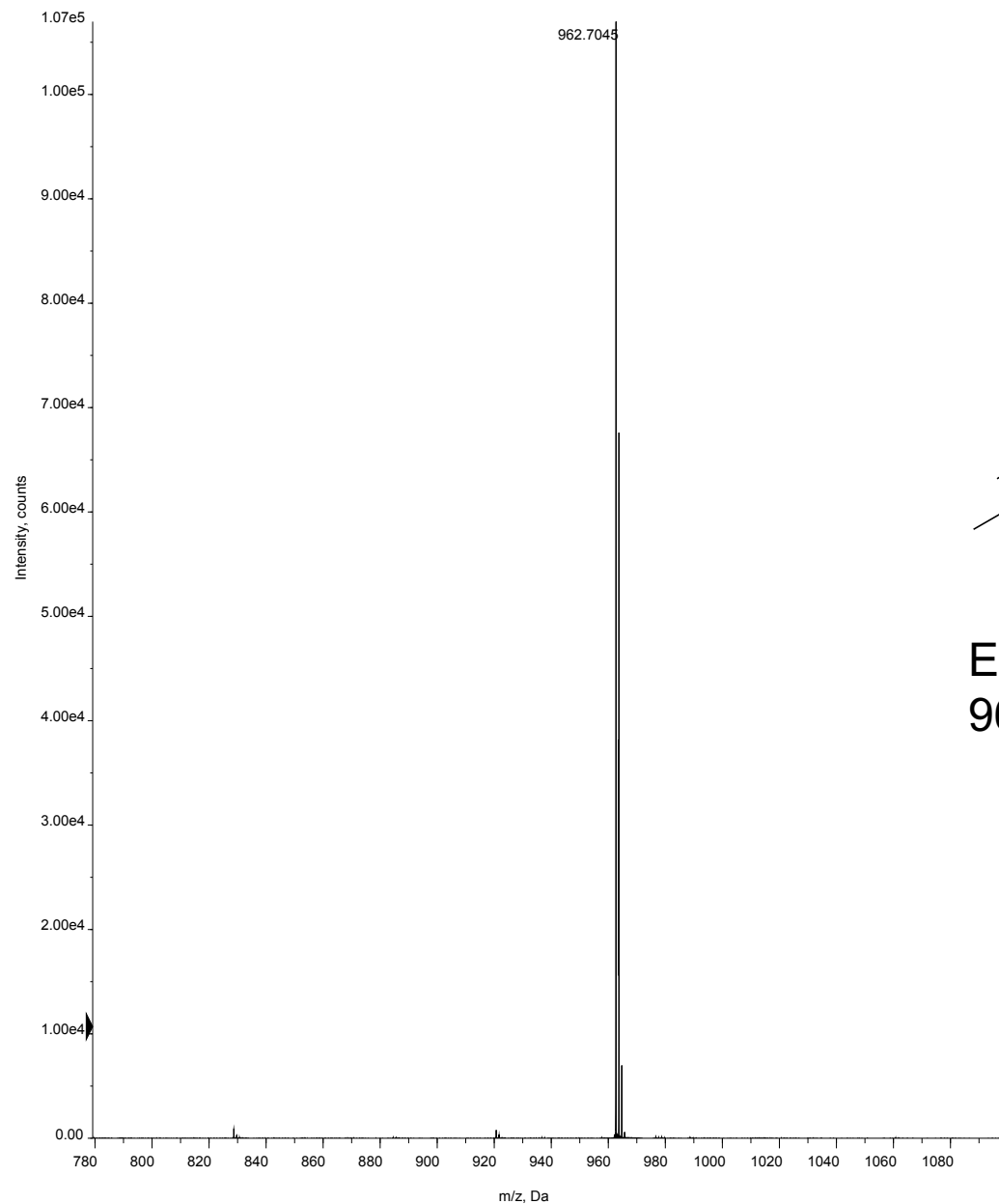
**5.27**





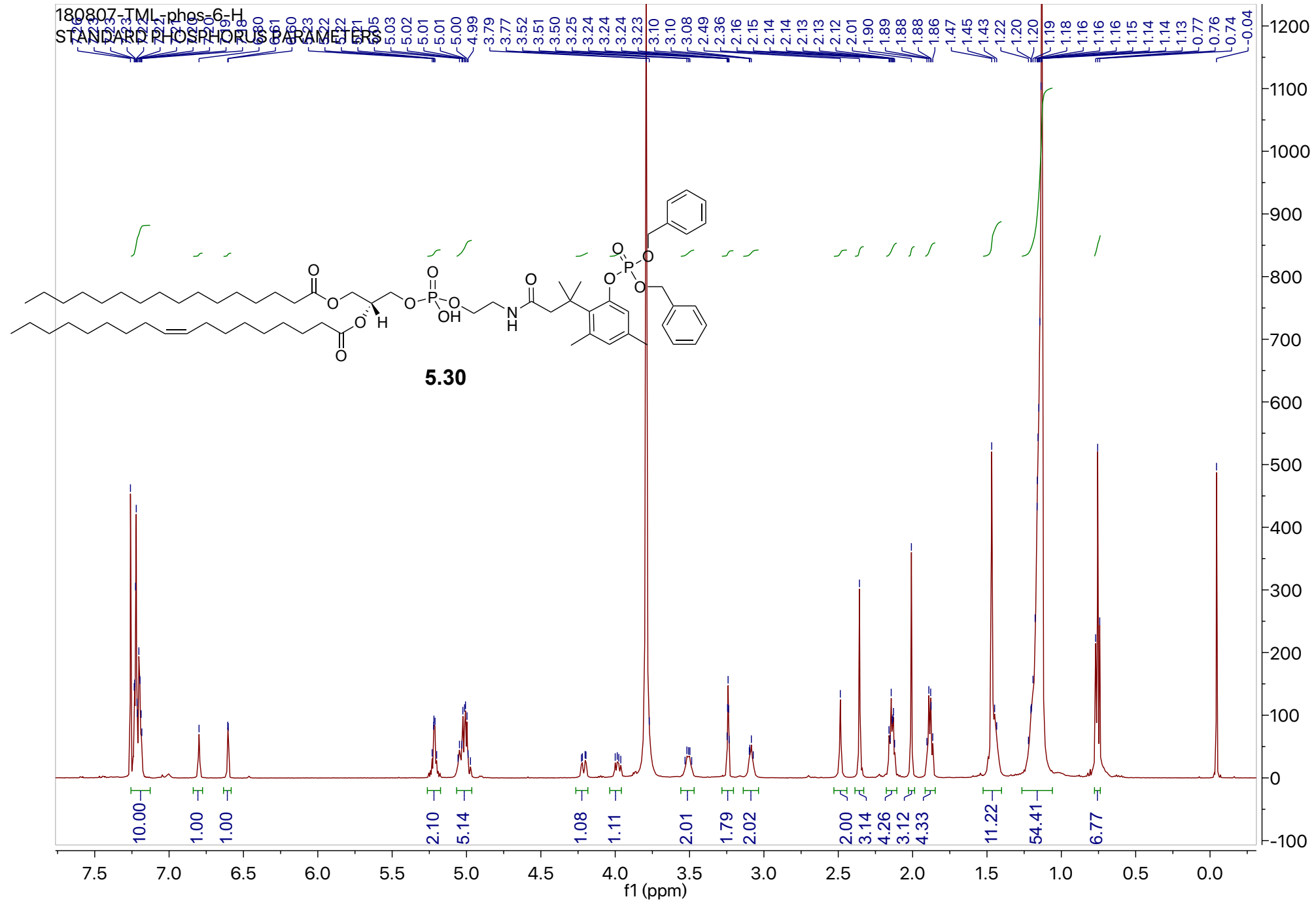


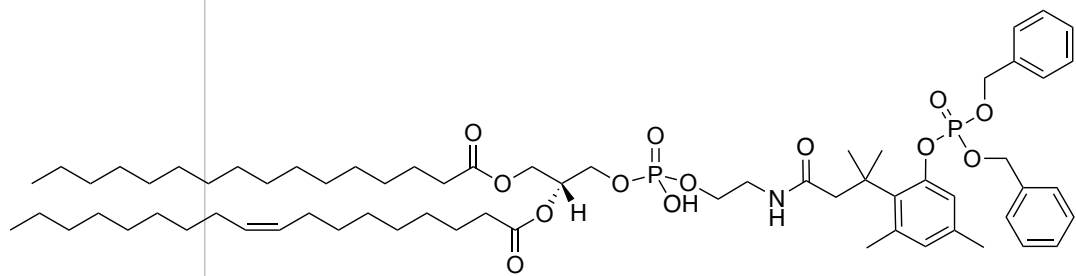




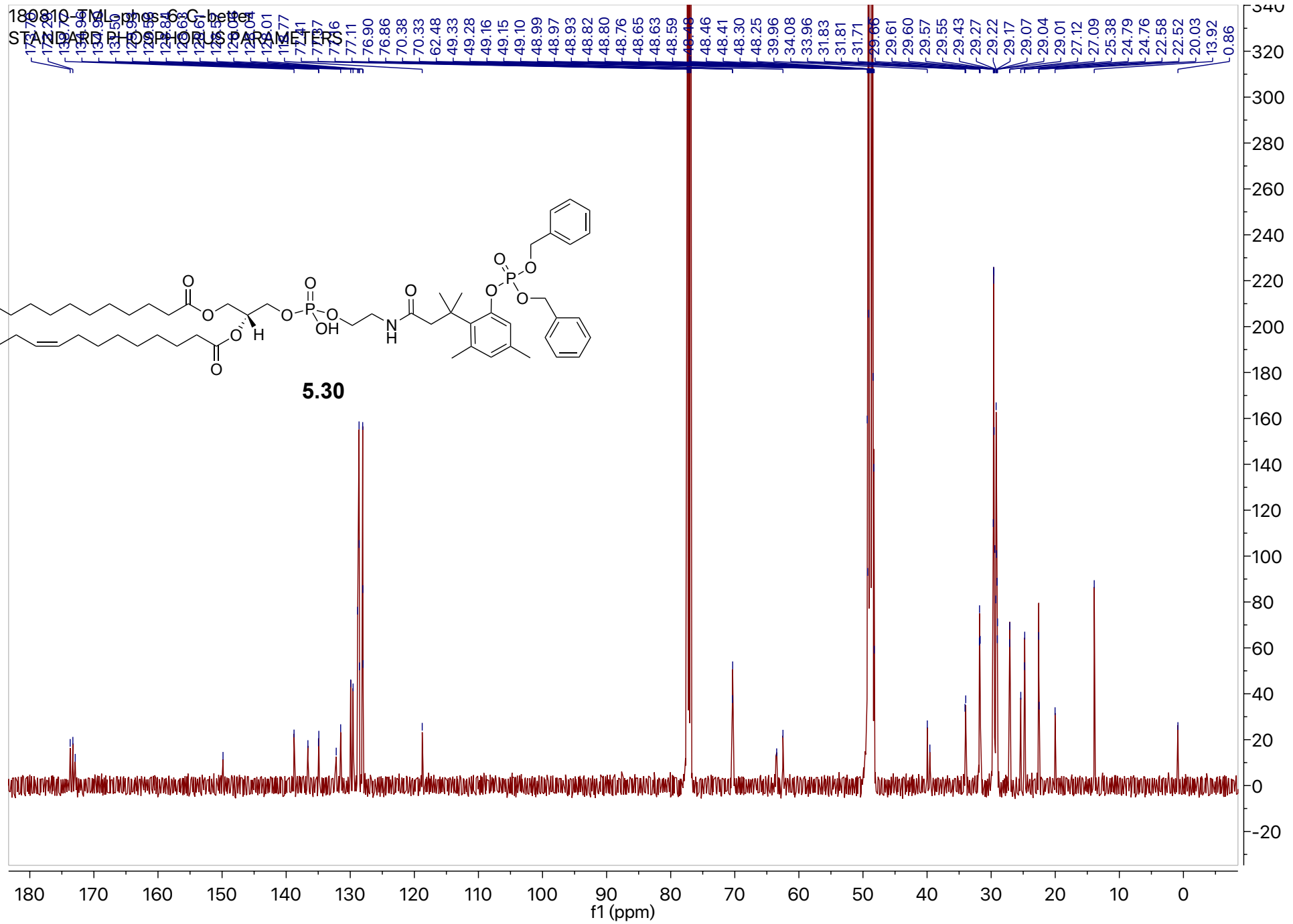
5.29

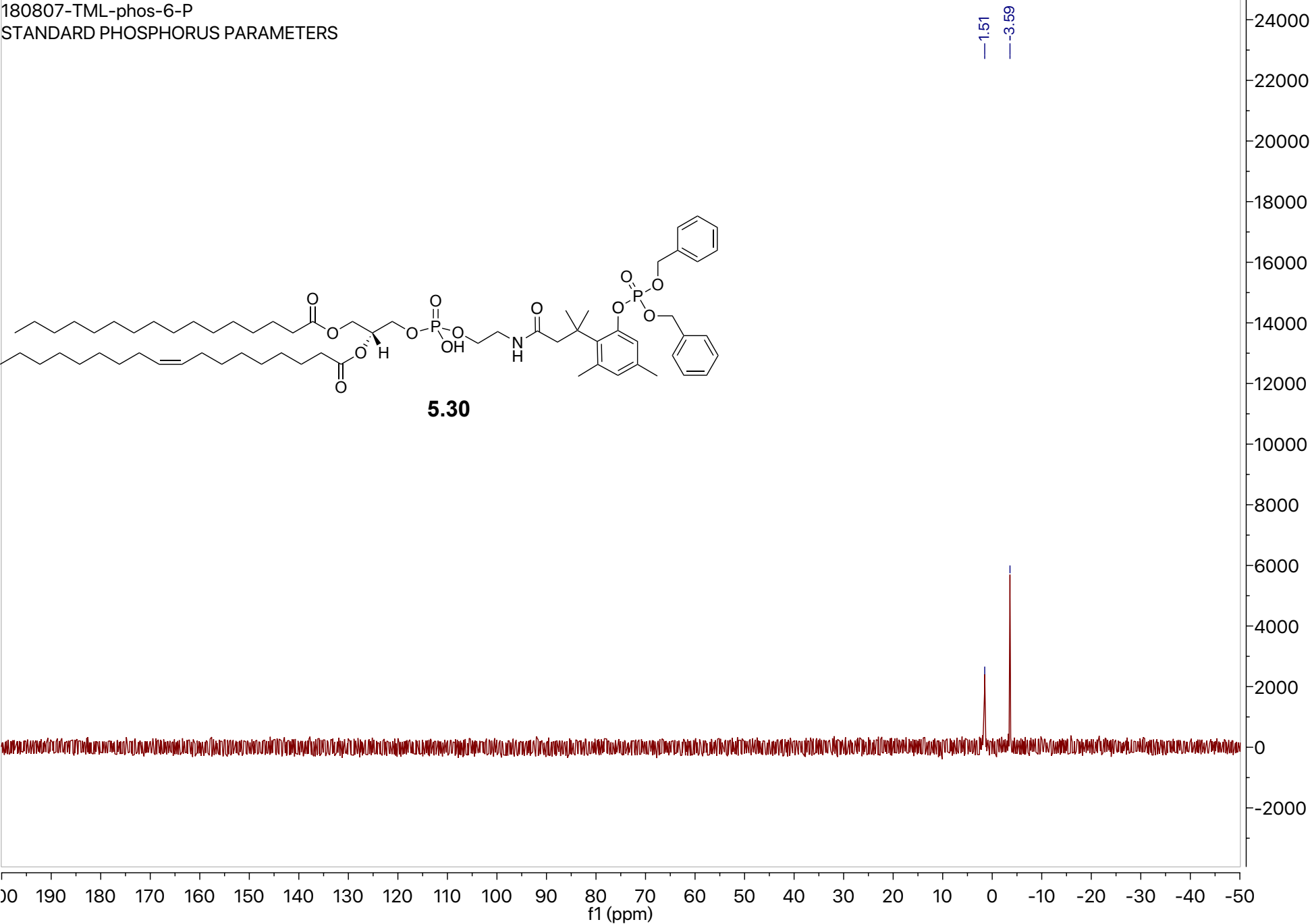
ESI-MS (negative mode): [M-H]⁻ calcd for C₅₄H₉₃NO₁₁P, 962.6486, found 962.7045.

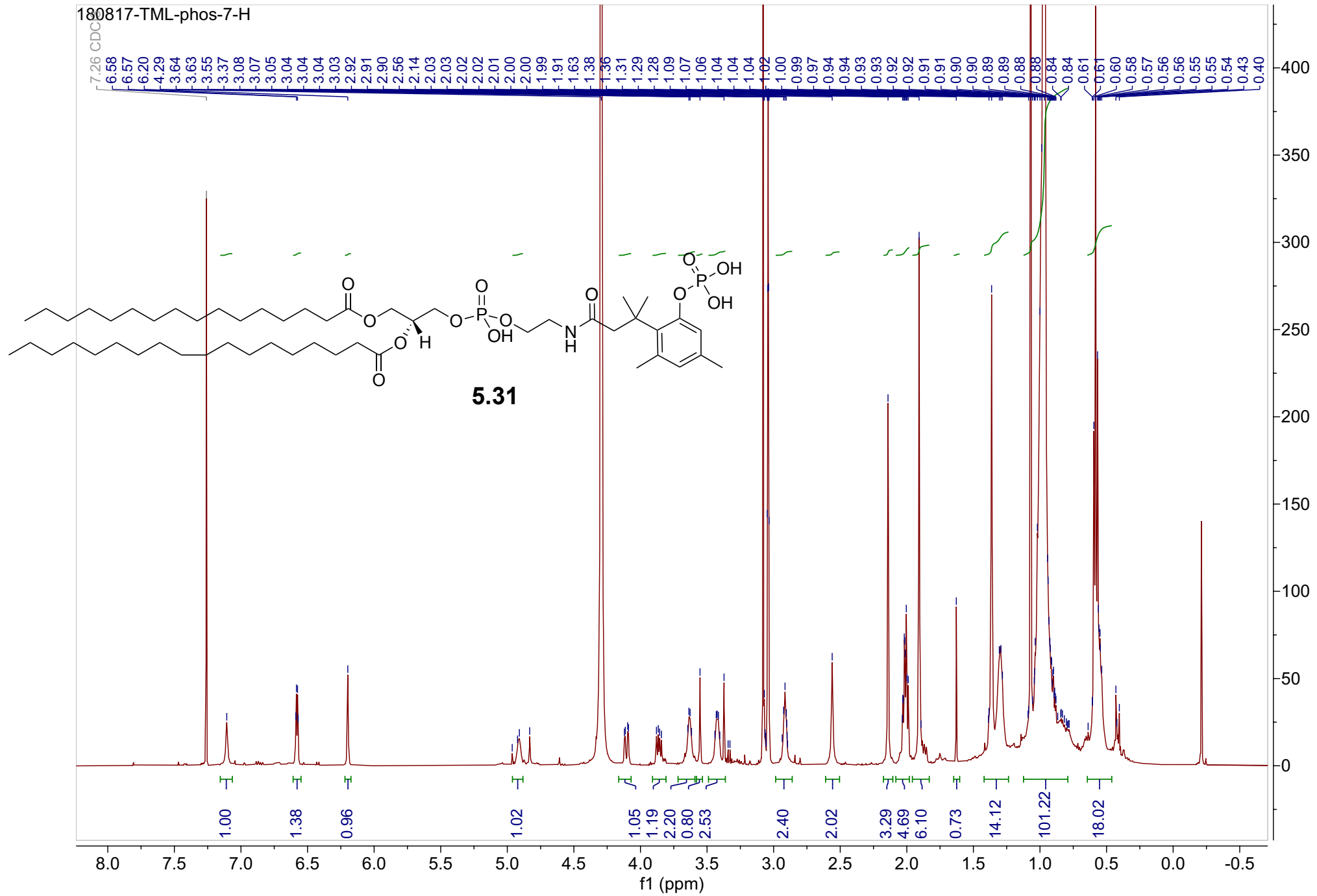


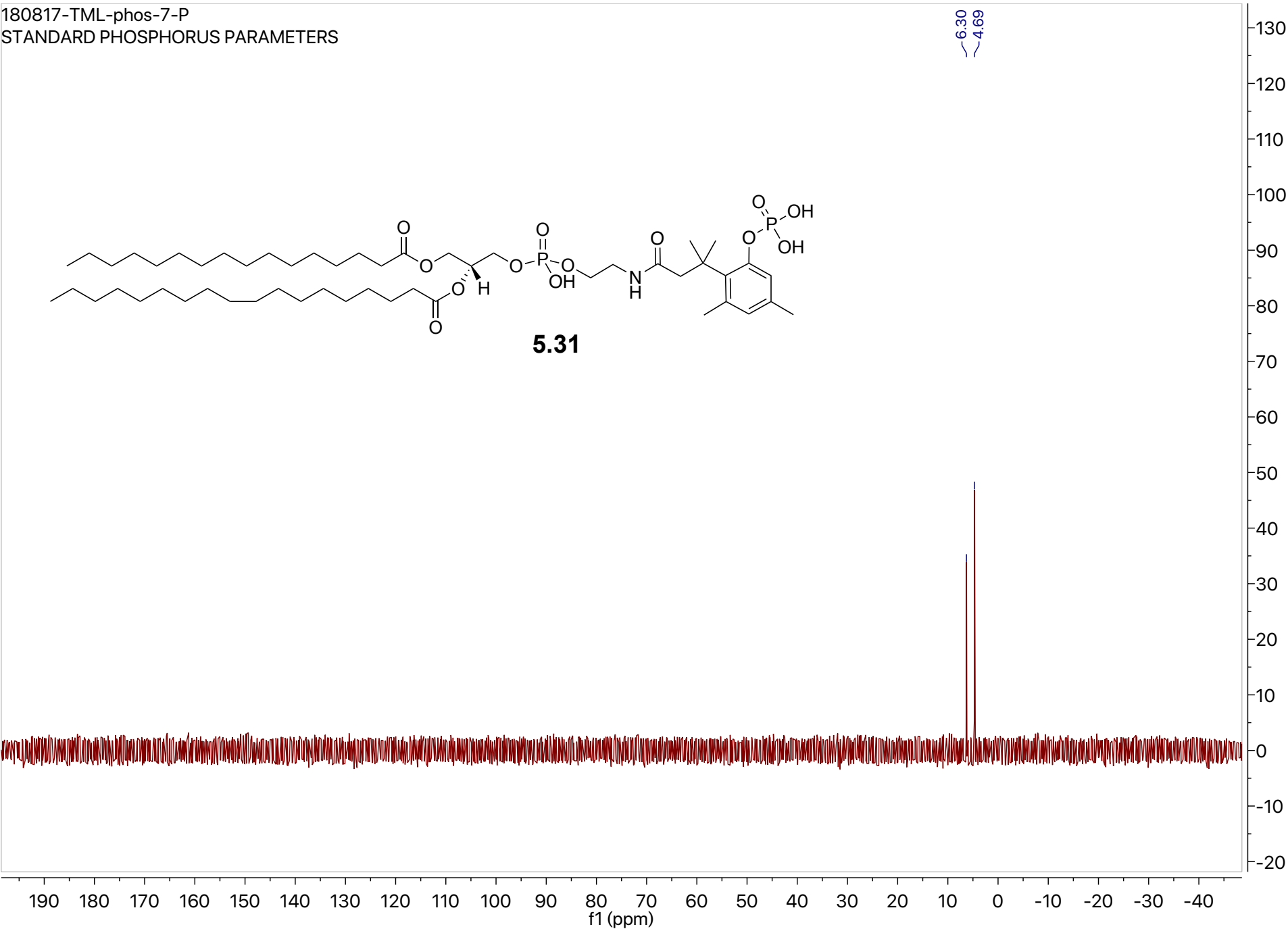


5.30



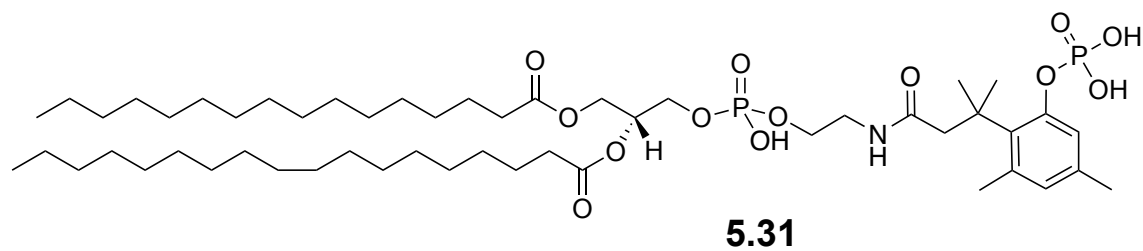
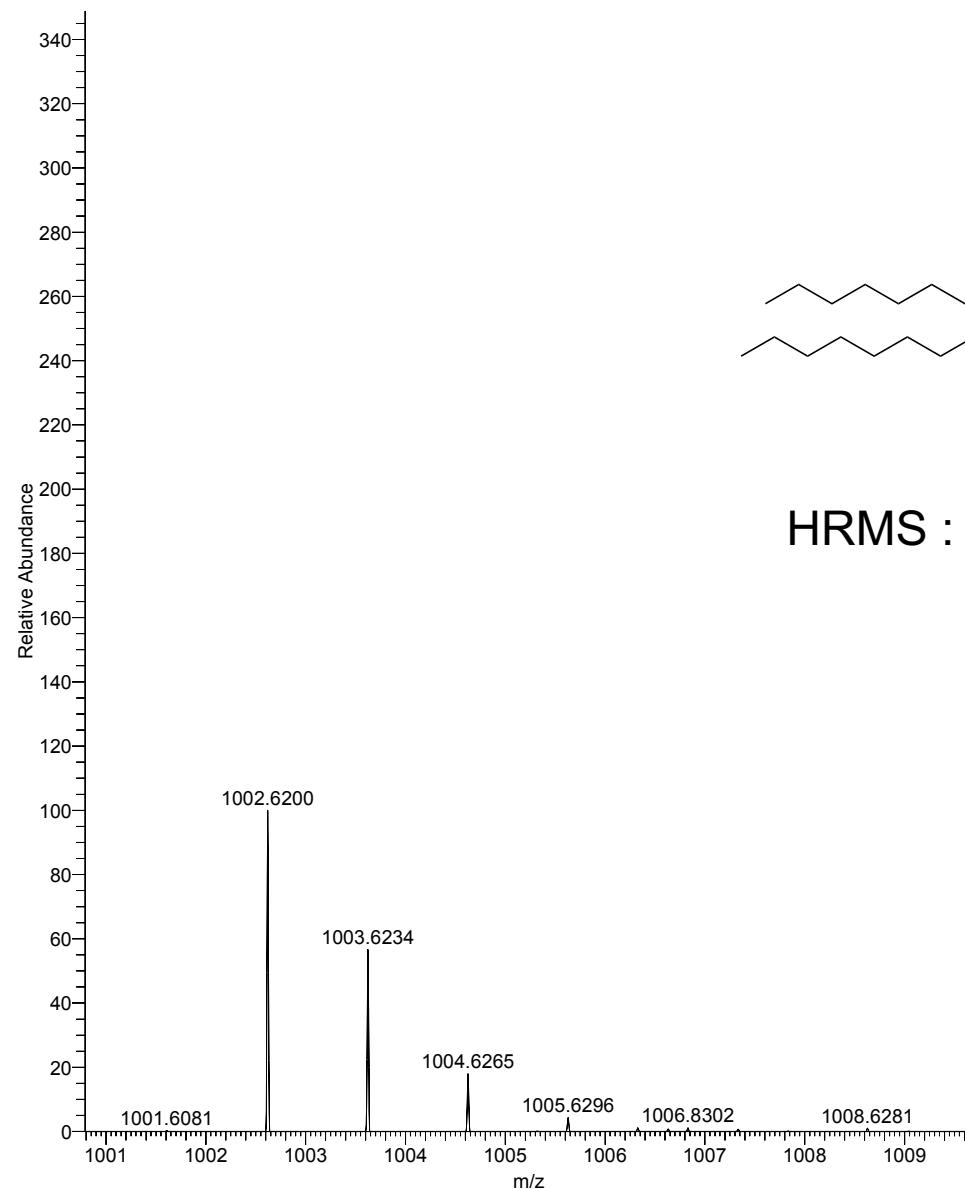




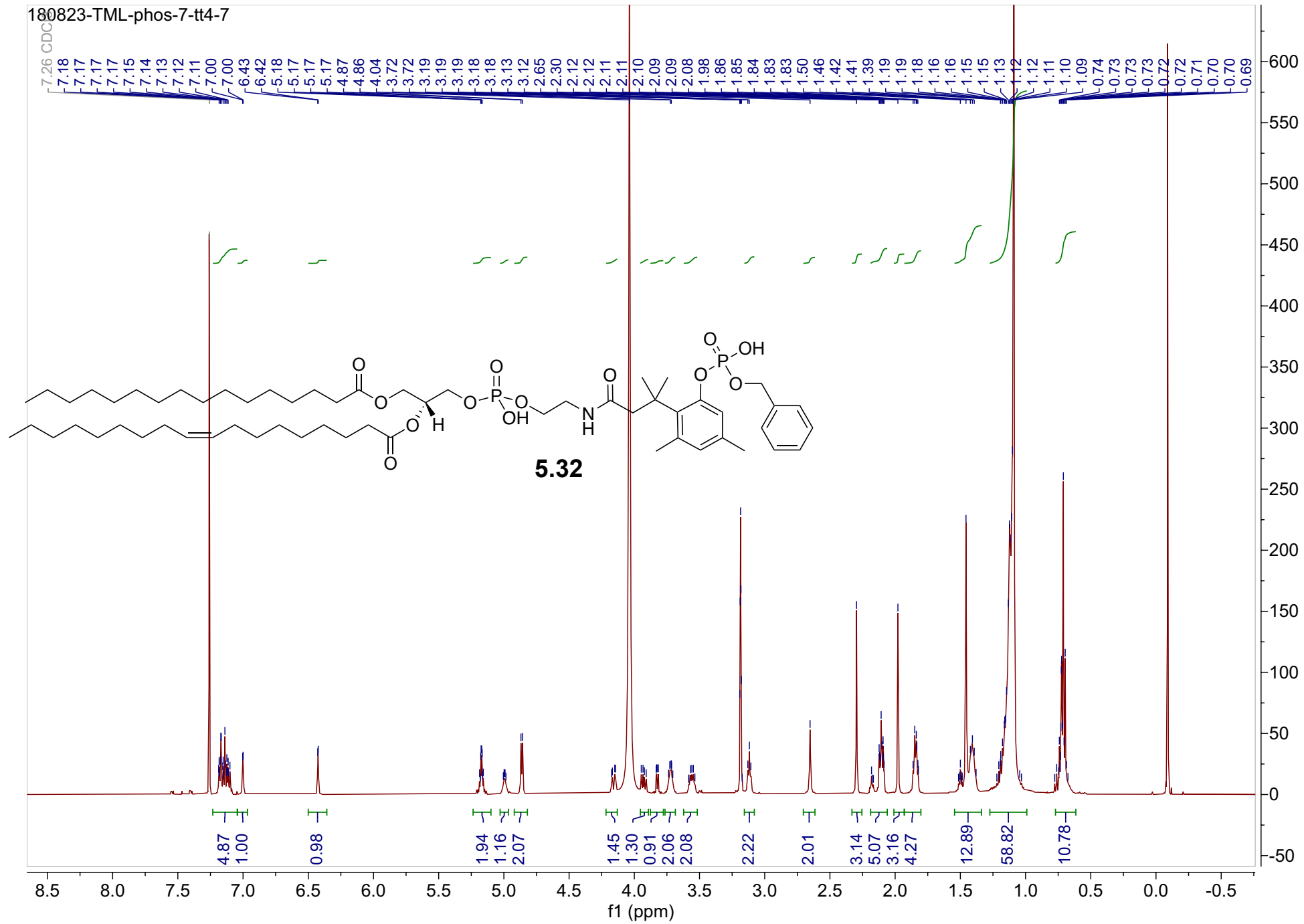


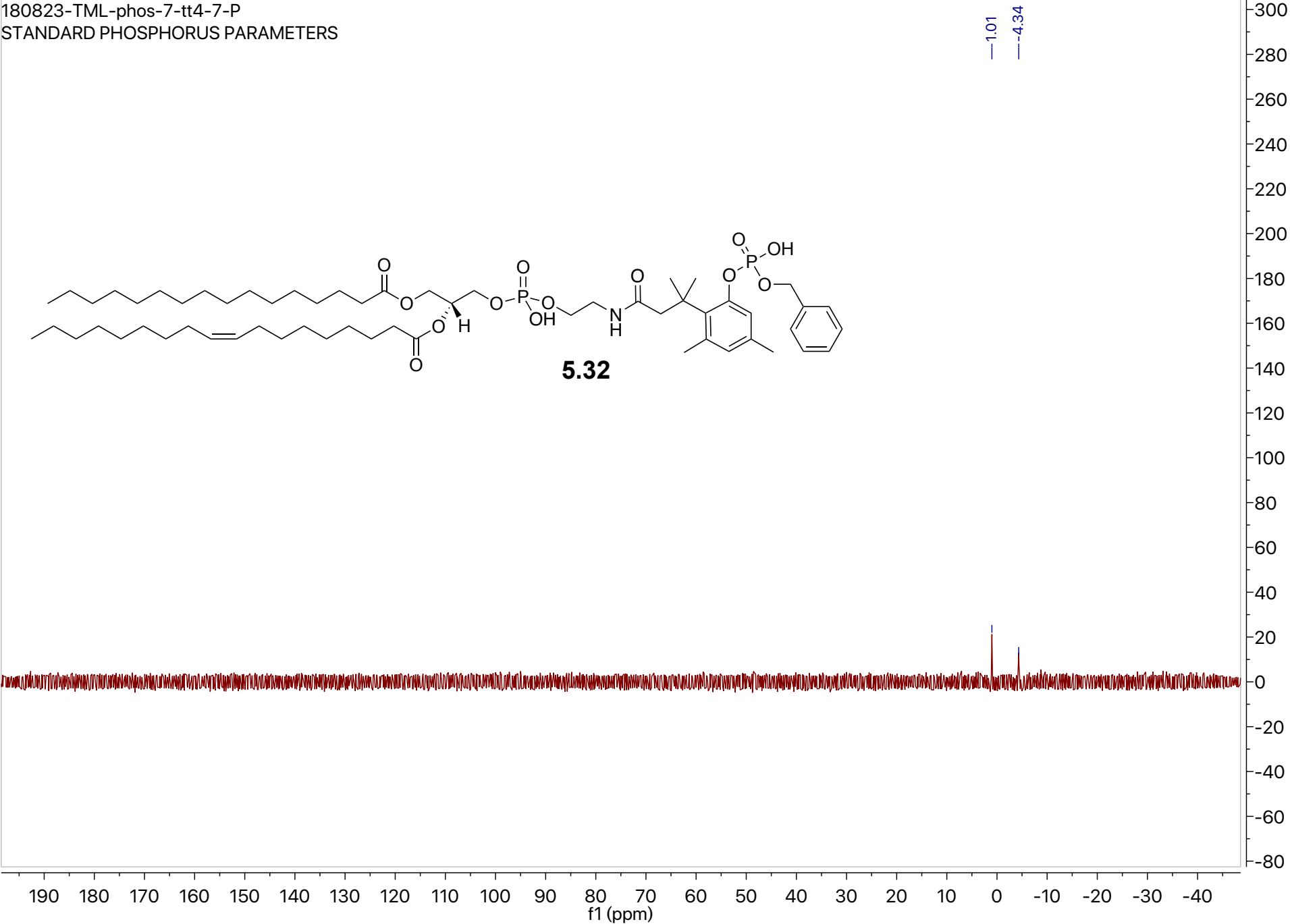
20180911_Jinchao_2 #77-84 RT: 0.75-0.82 AV: 8 NL: 3.65E7

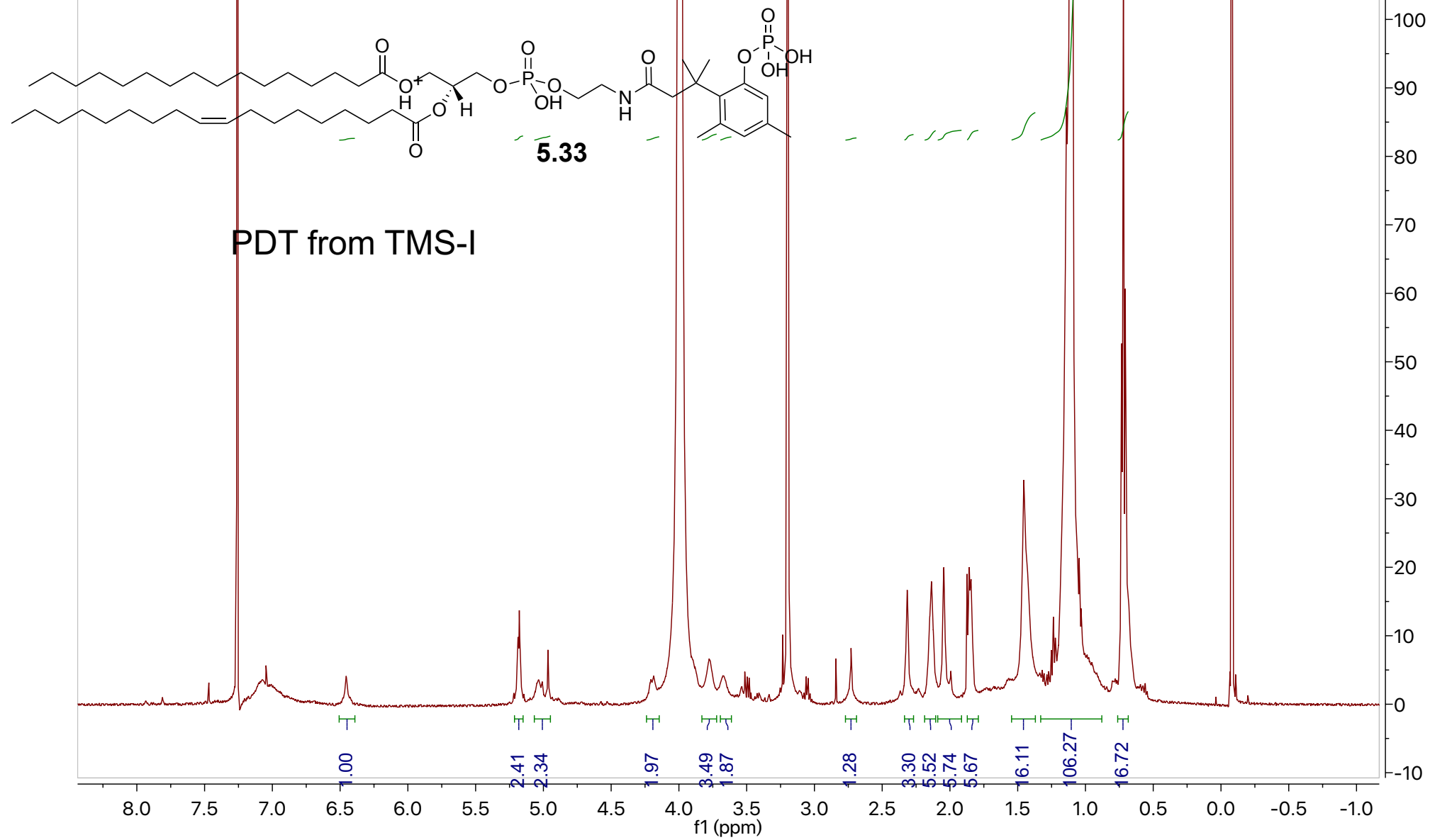
T: FTMS - p ESI Full ms [150.0000-2000.0000]



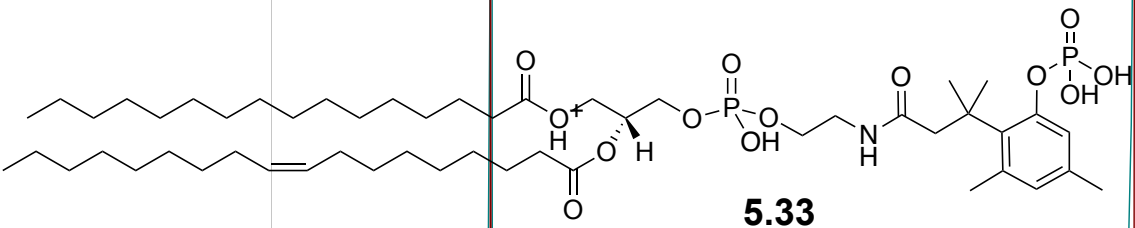
HRMS : [M-H]⁻ calcd for C₅₂H₉₄O₁₃NP₂, 1002.6200
found 1002.6200.



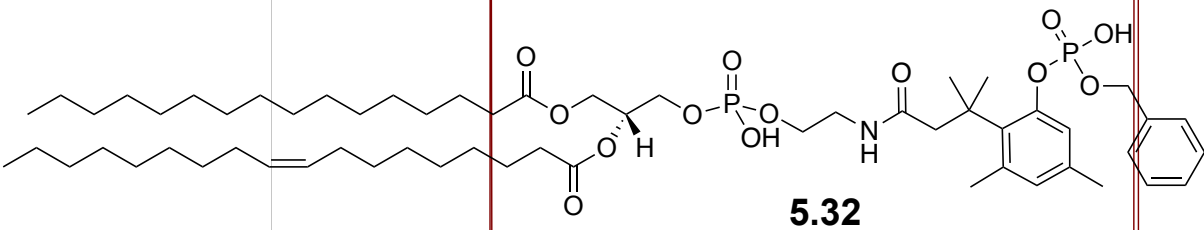




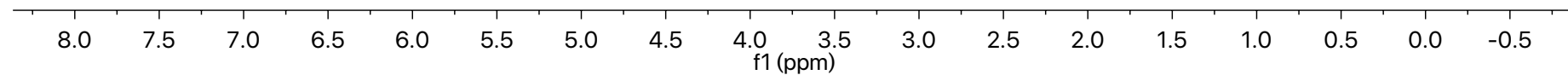
180905-TML-phos-7-tt10-15
new experiment



180905-TML-phos-7-tt7-8
new experiment

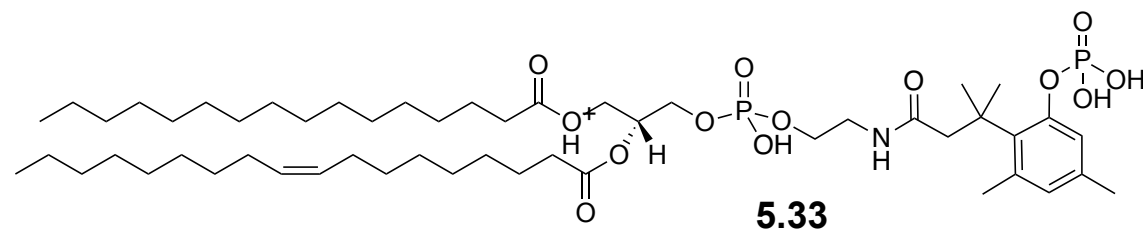
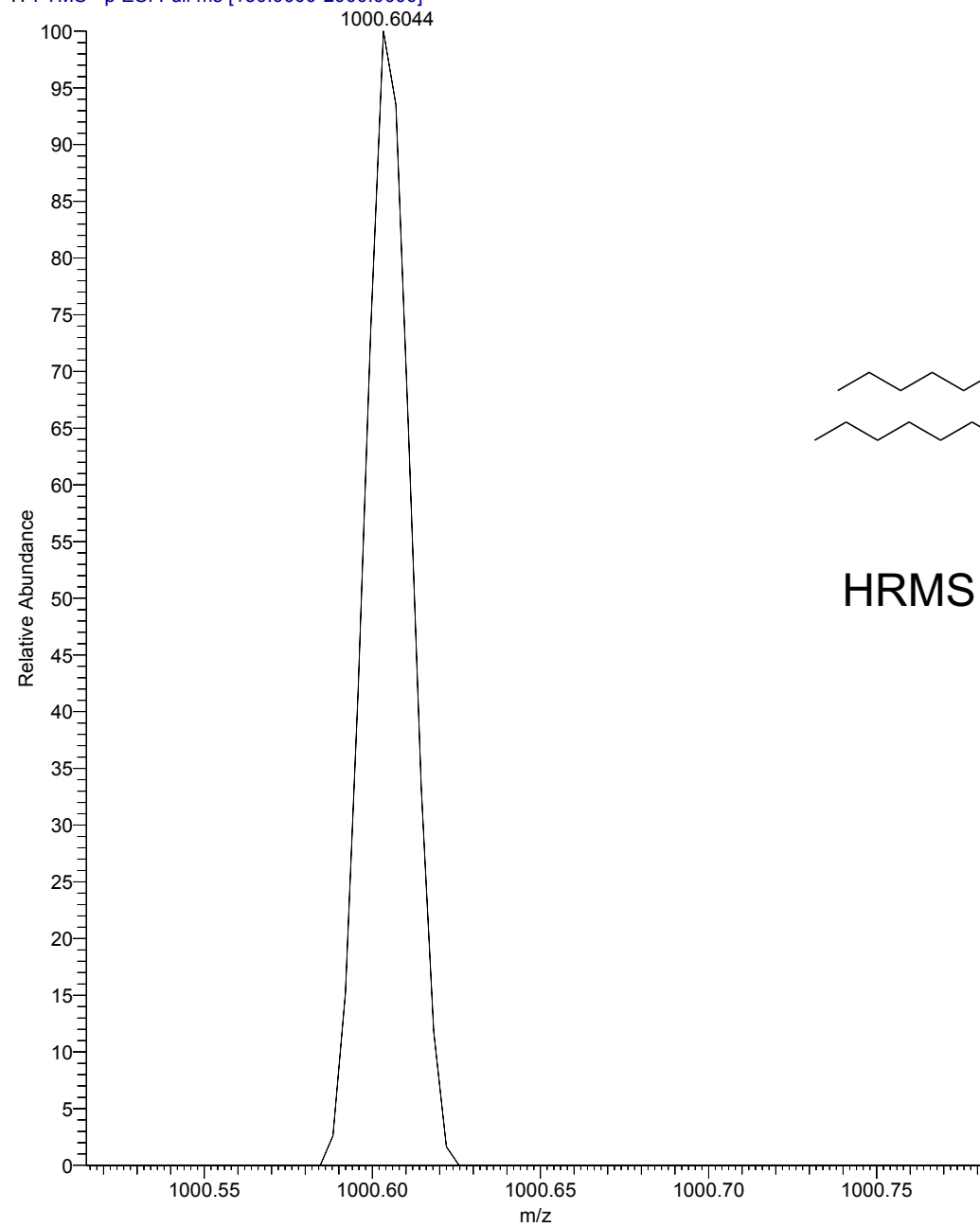


mono-deprotected PDT



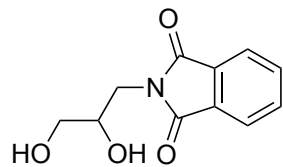
20180911_Jinchao_1 #285-286 RT: 2.74-2.75 AV: 2 NL: 5.70E5

T: FTMS - p ESI Full ms [150.0000-2000.0000]

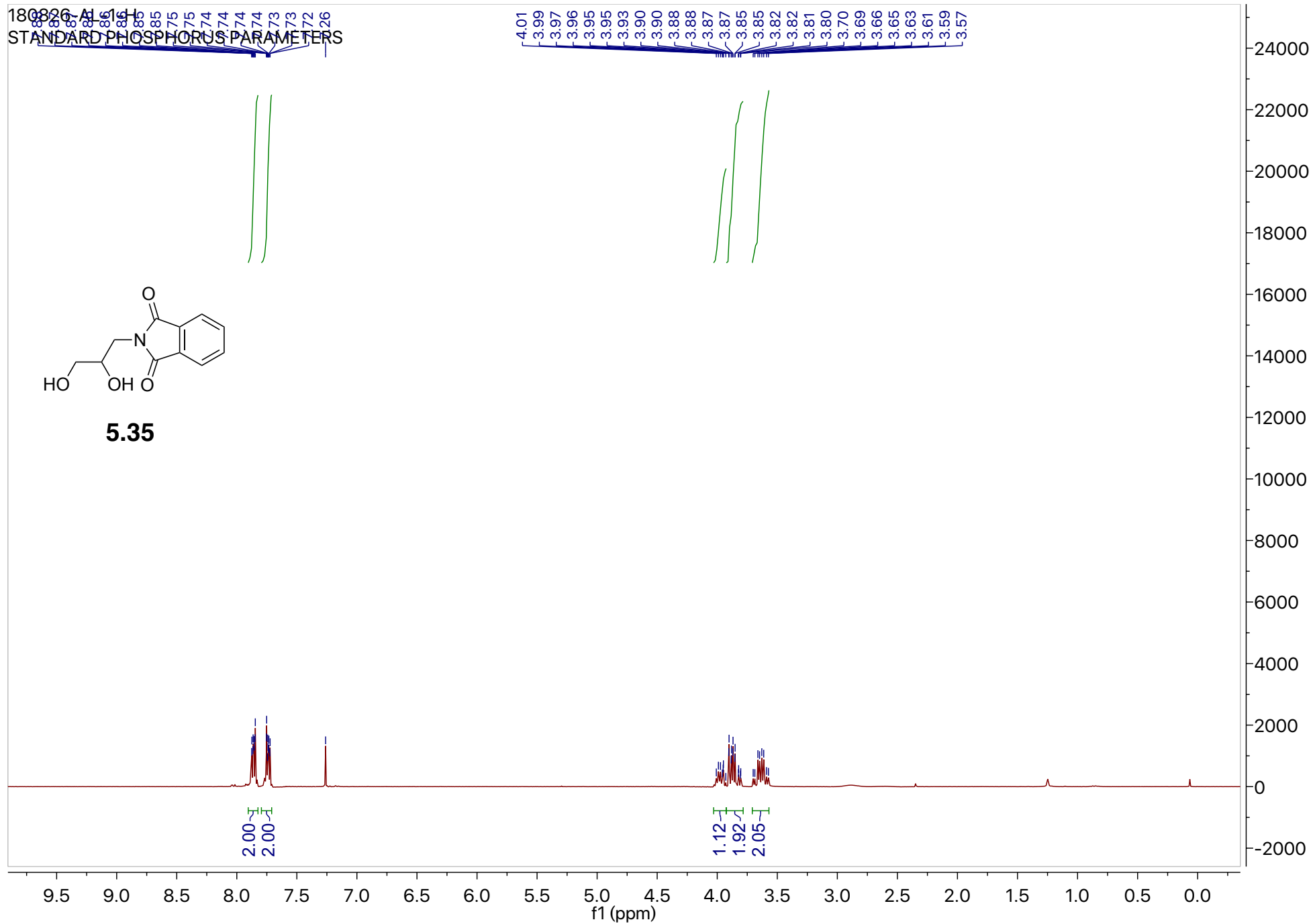


HRMS : [M-H]⁻ calcd for C₅₂H₉₂O₁₃NP₂, 1000.6044
found 1000.6044.

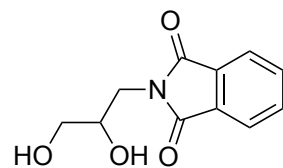
180826-AL-11-11
STANDARD PHOSPHORUS PARAMETERS



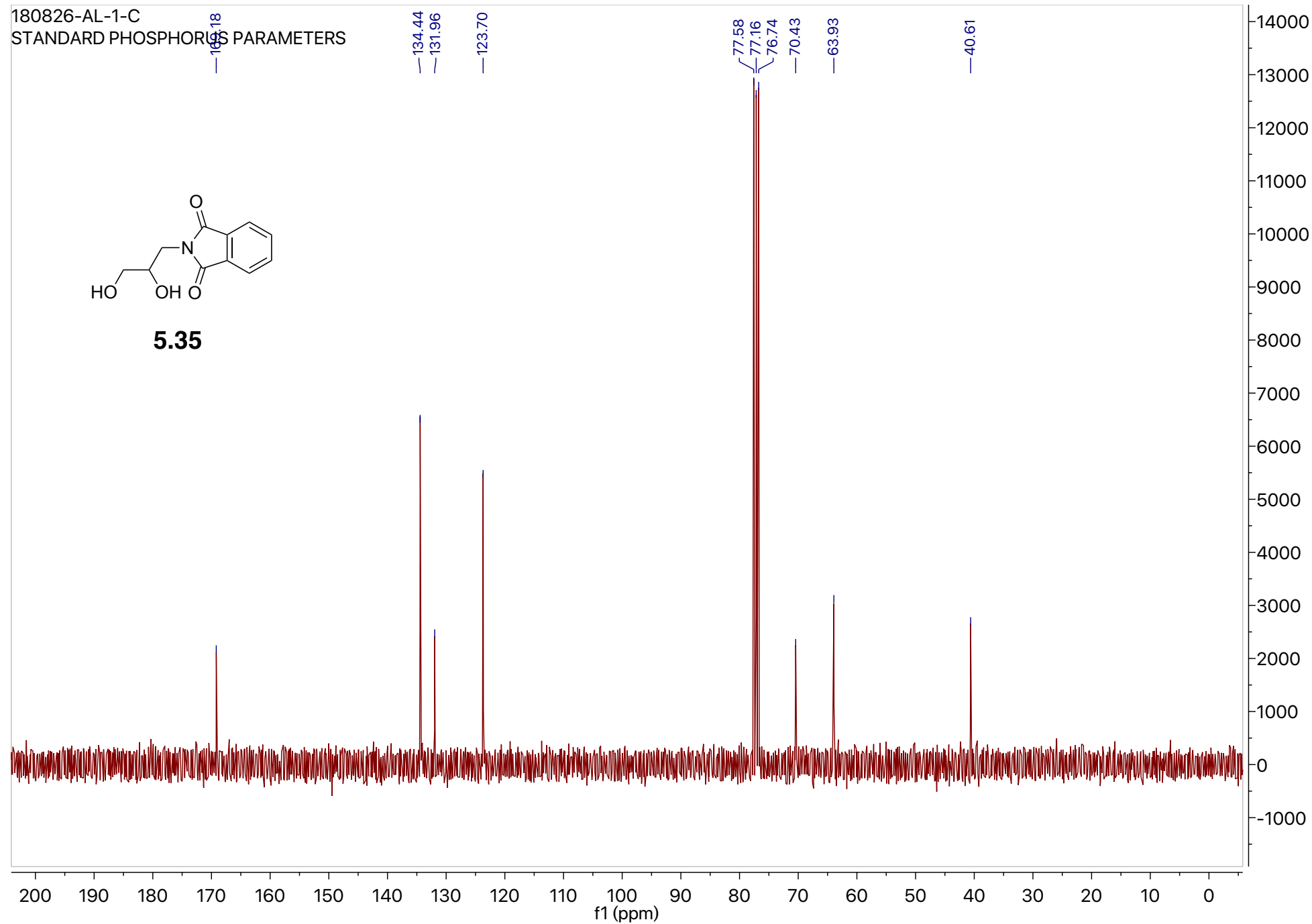
5.35



180826-AL-1-C
STANDARD PHOSPHORUS PARAMETERS

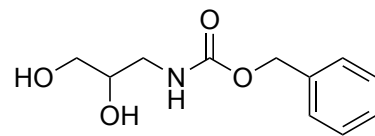


5.35

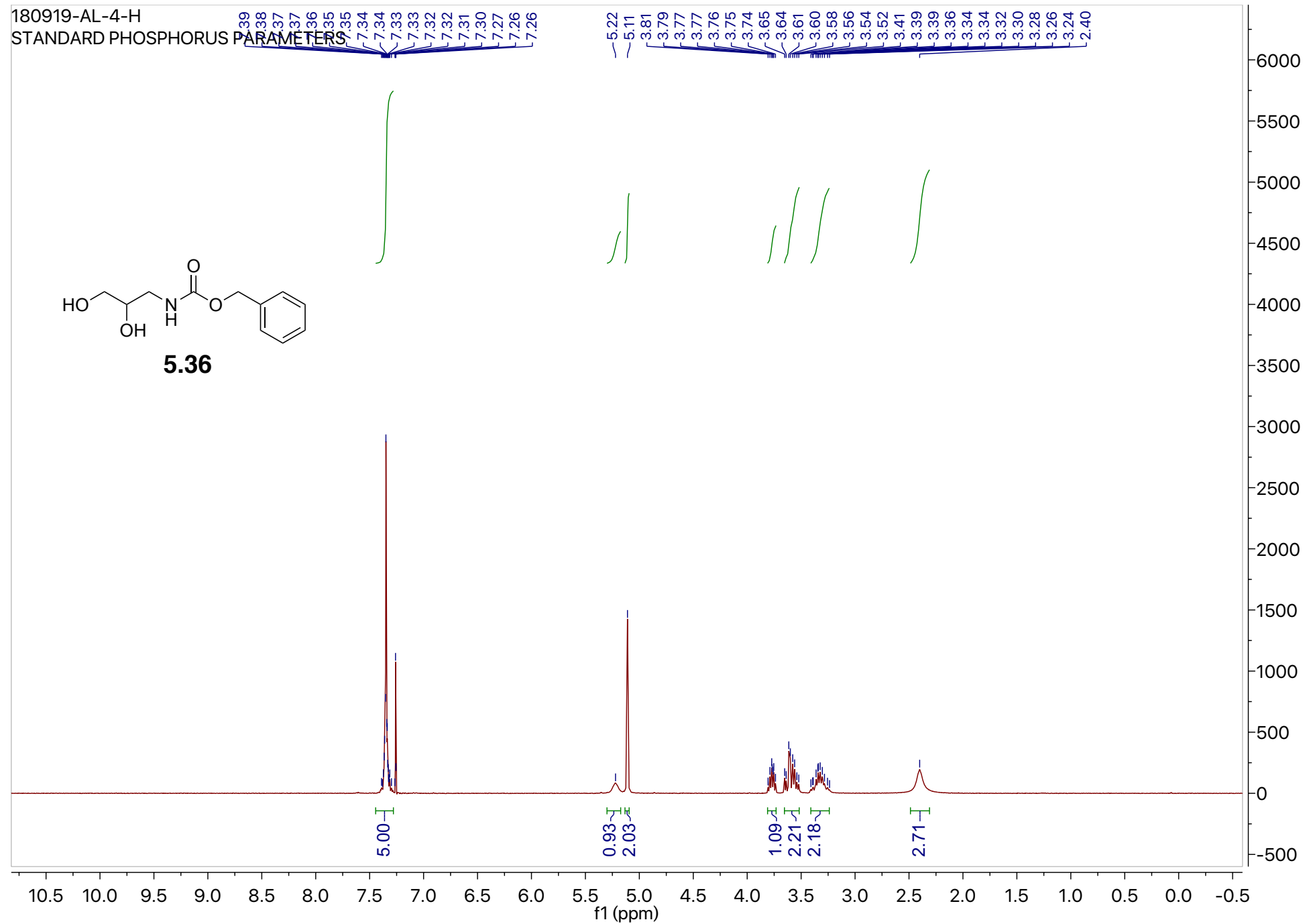


180919-AL-4-H

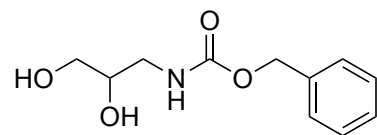
STANDARD PHOSPHORUS PARAMETERS



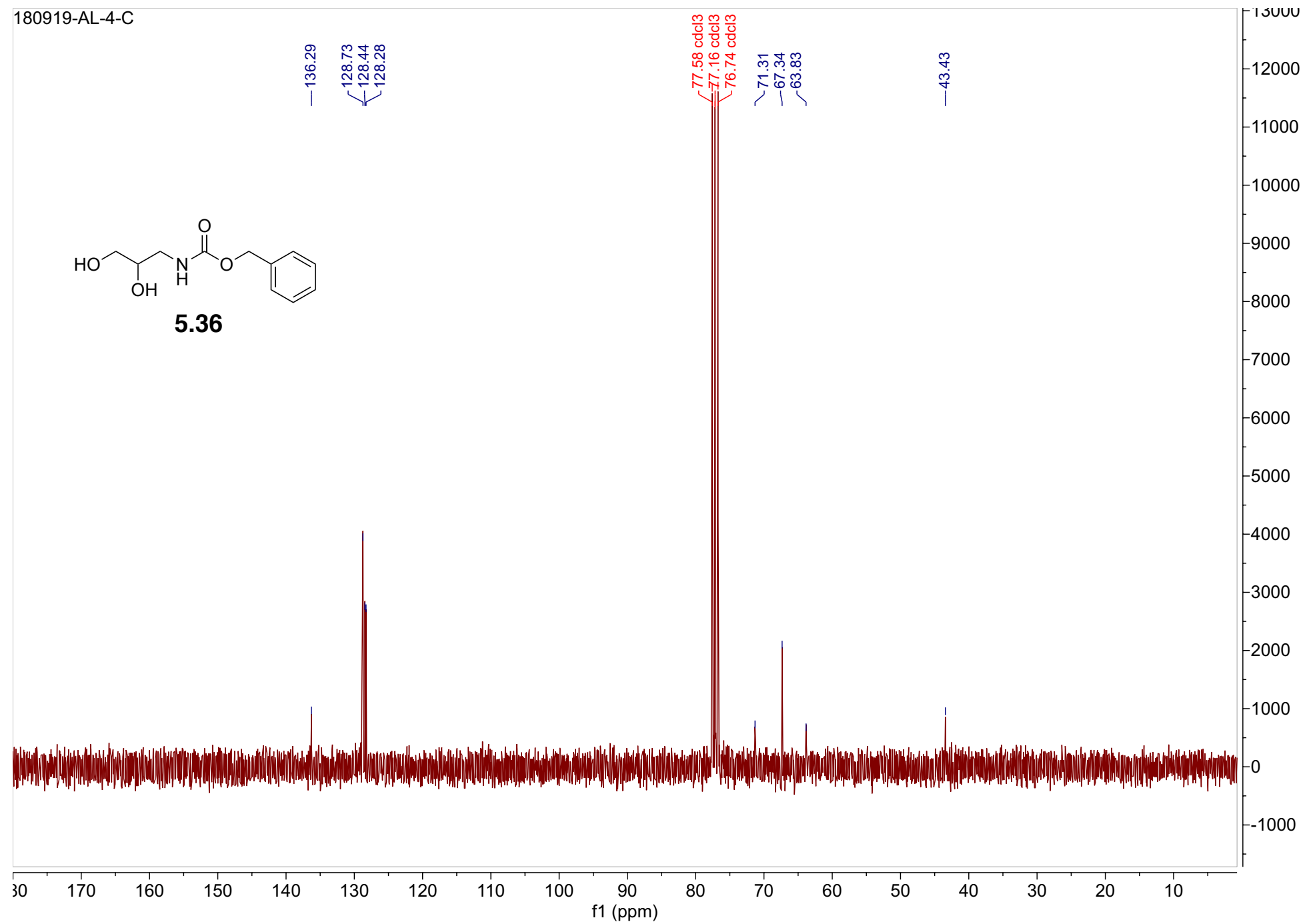
5.36

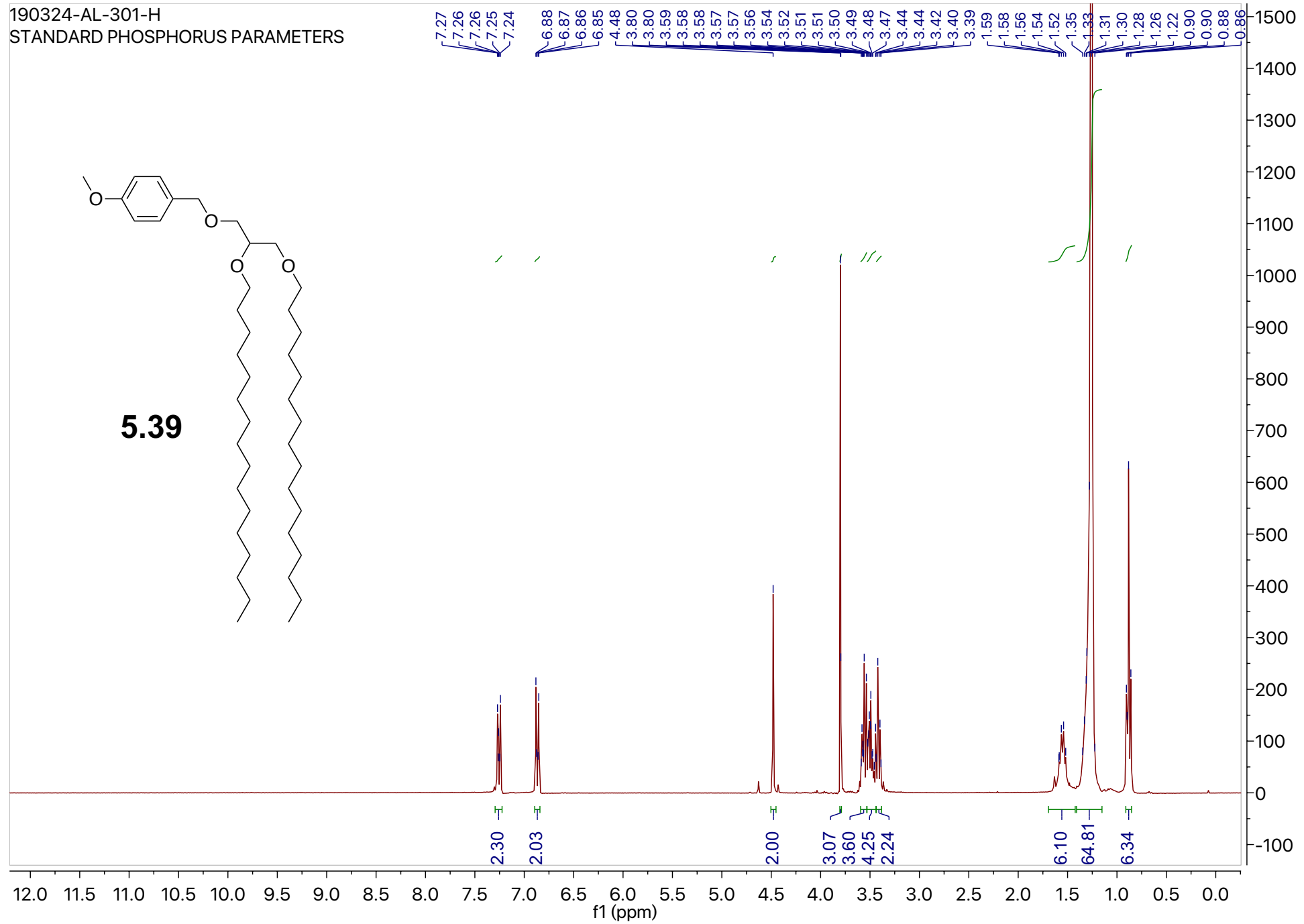


180919-AL-4-C

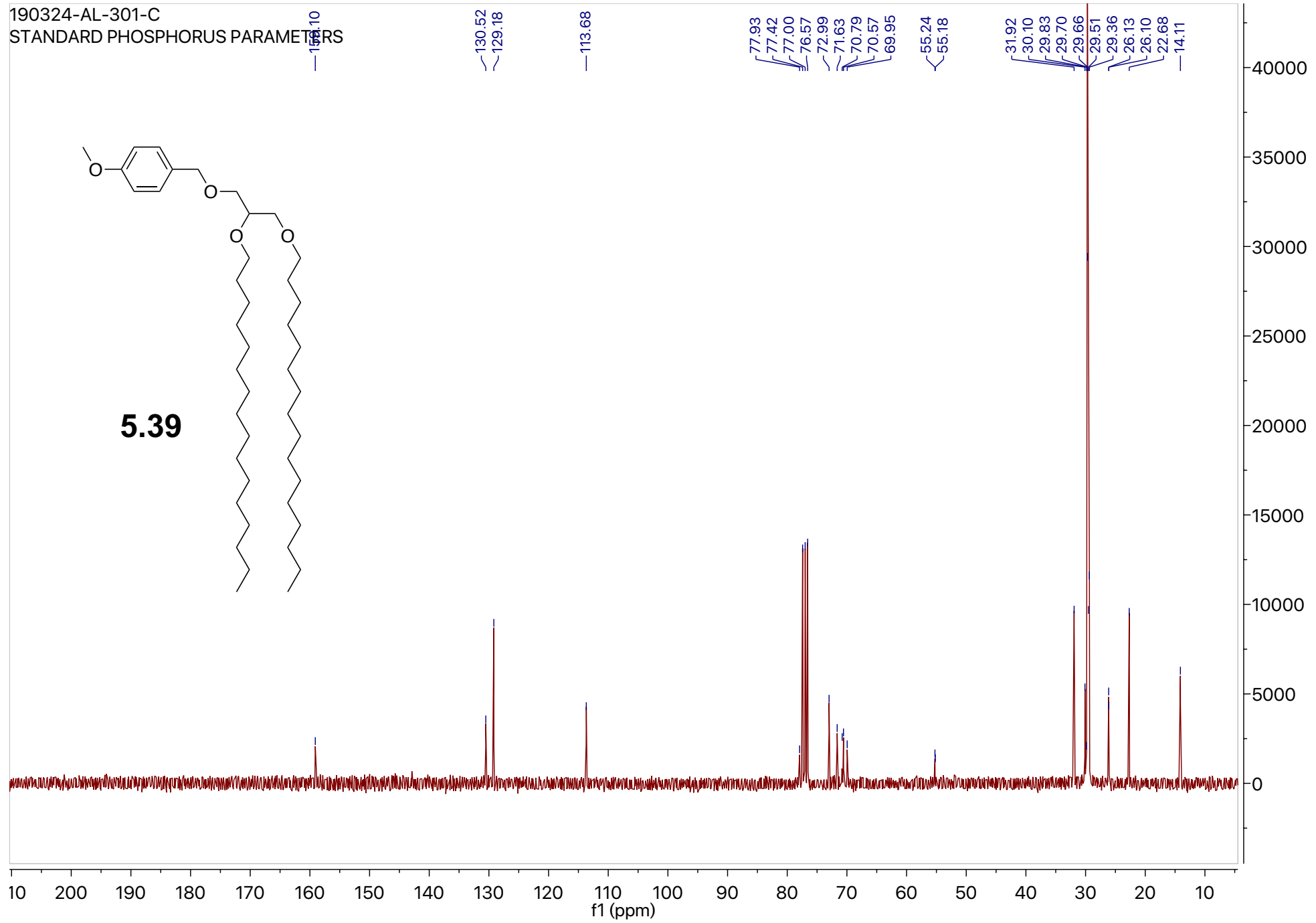


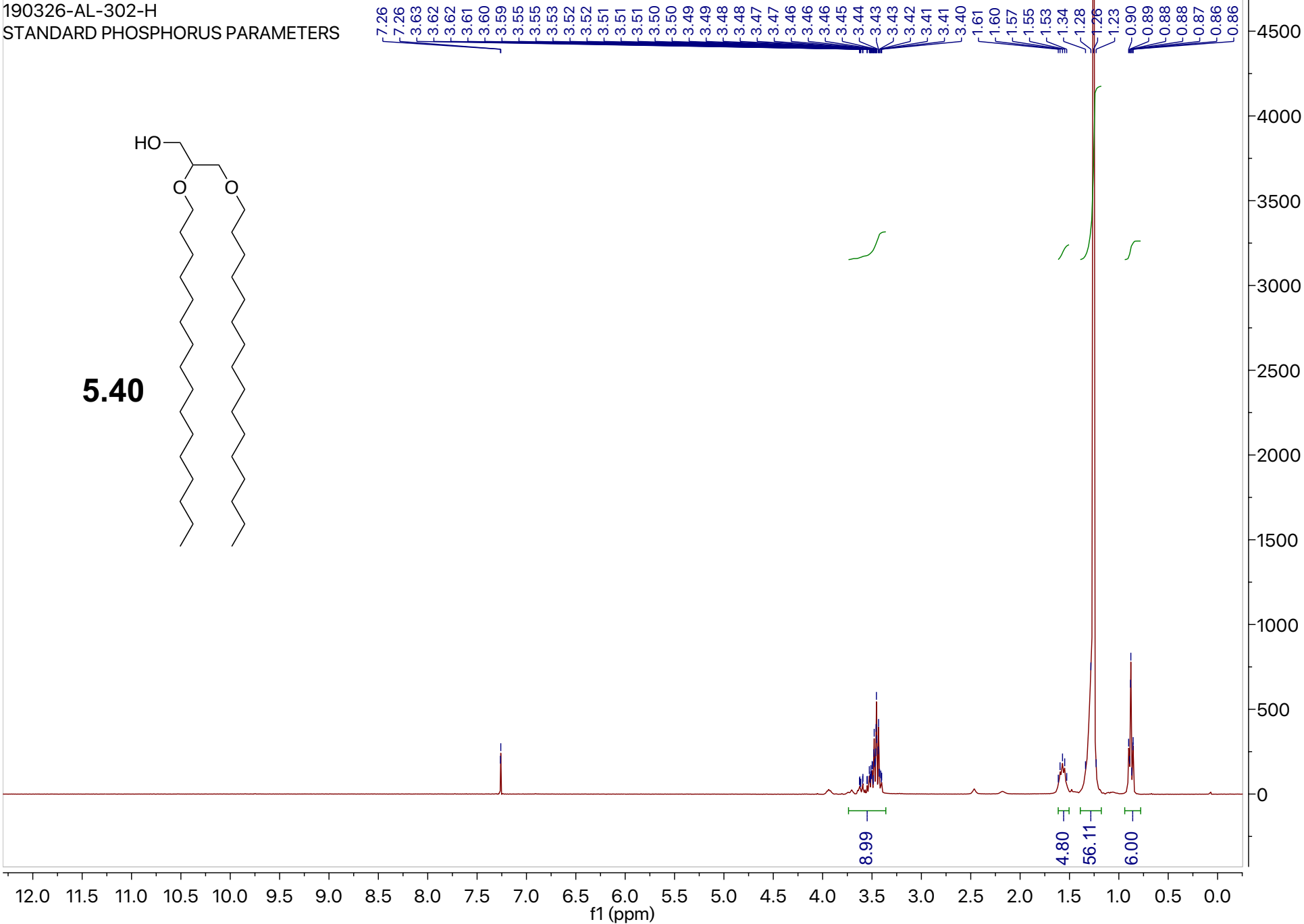
5.36

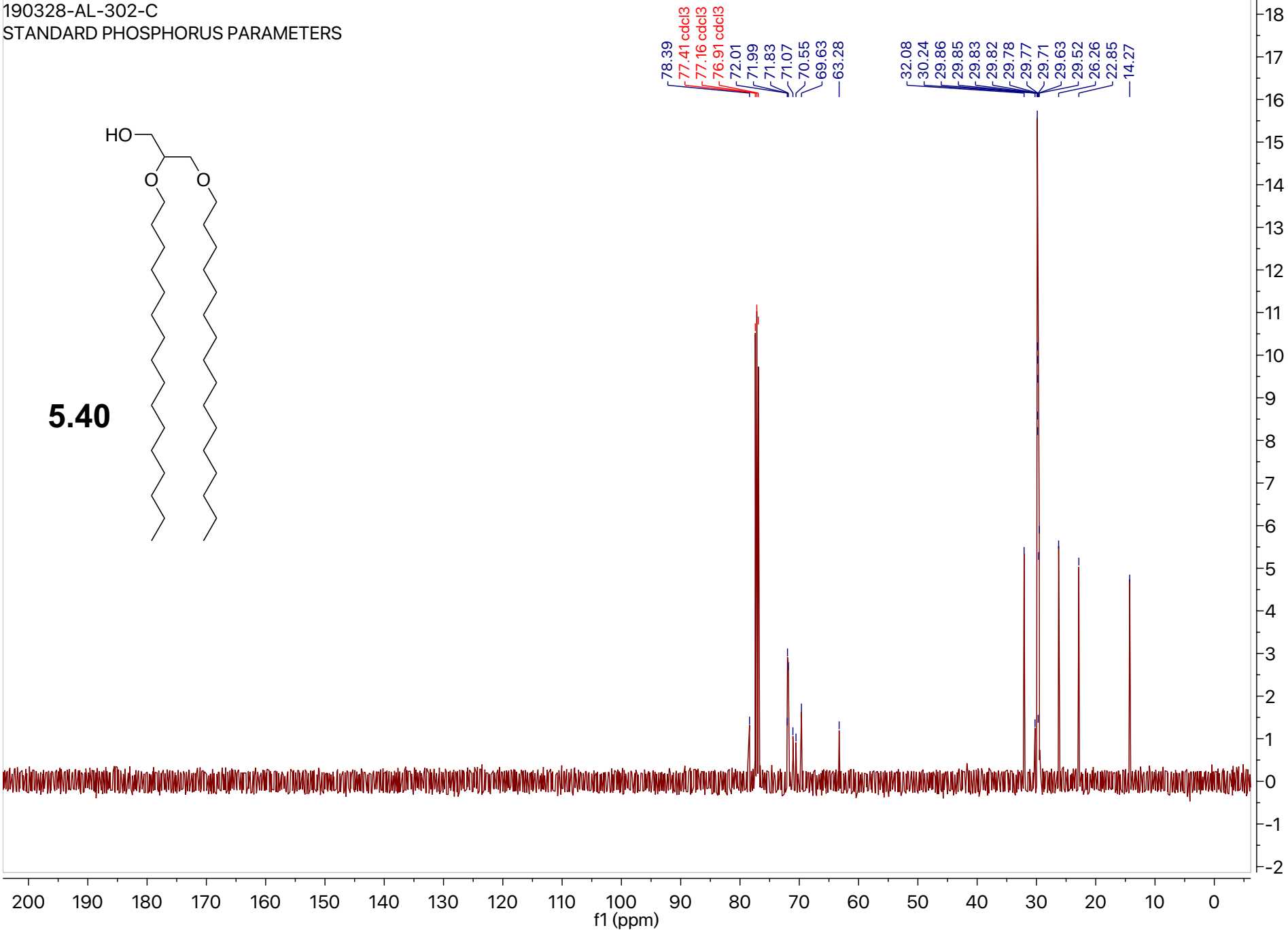


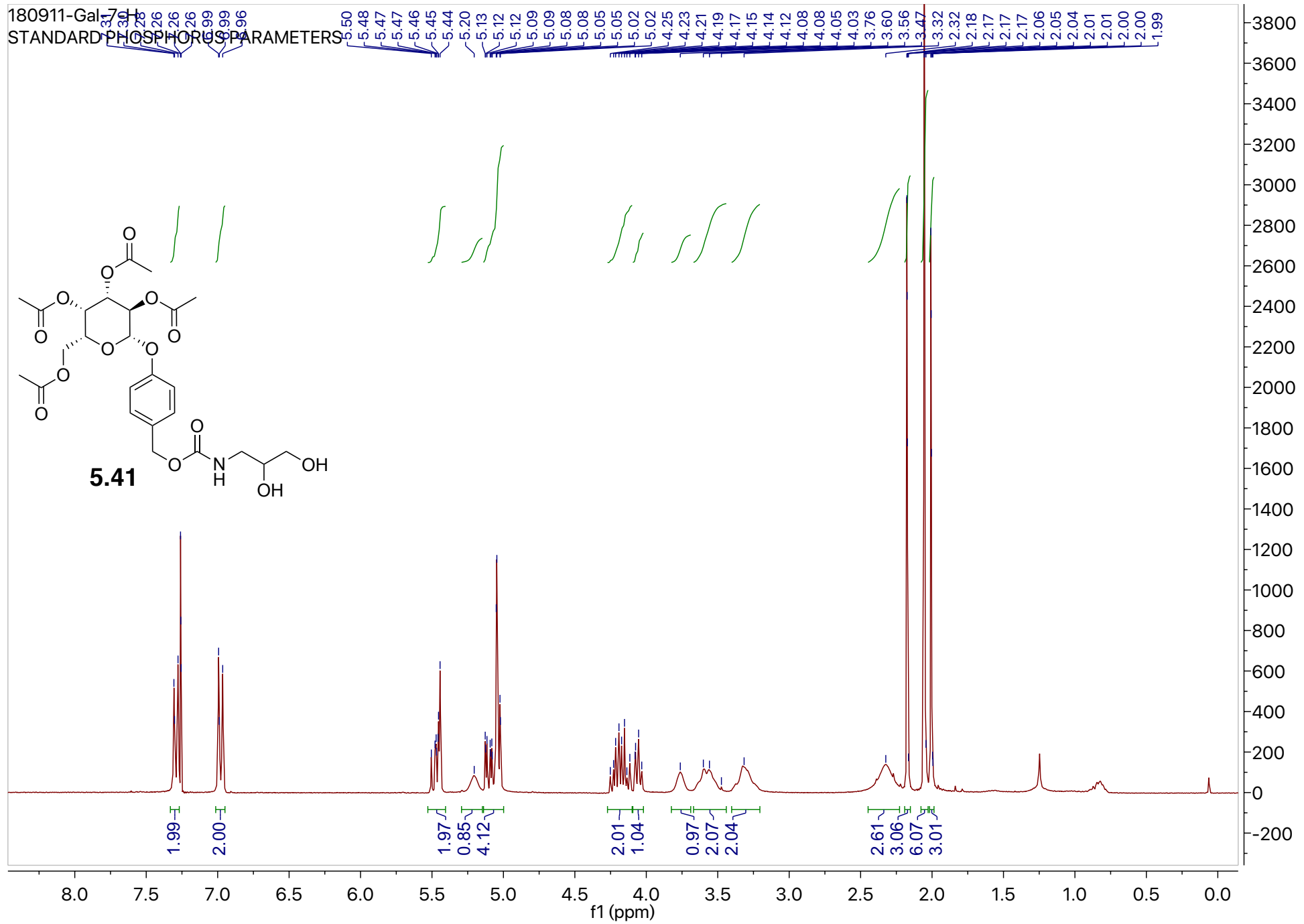
190324-AL-301-H
STANDARD PHOSPHORUS PARAMETERS

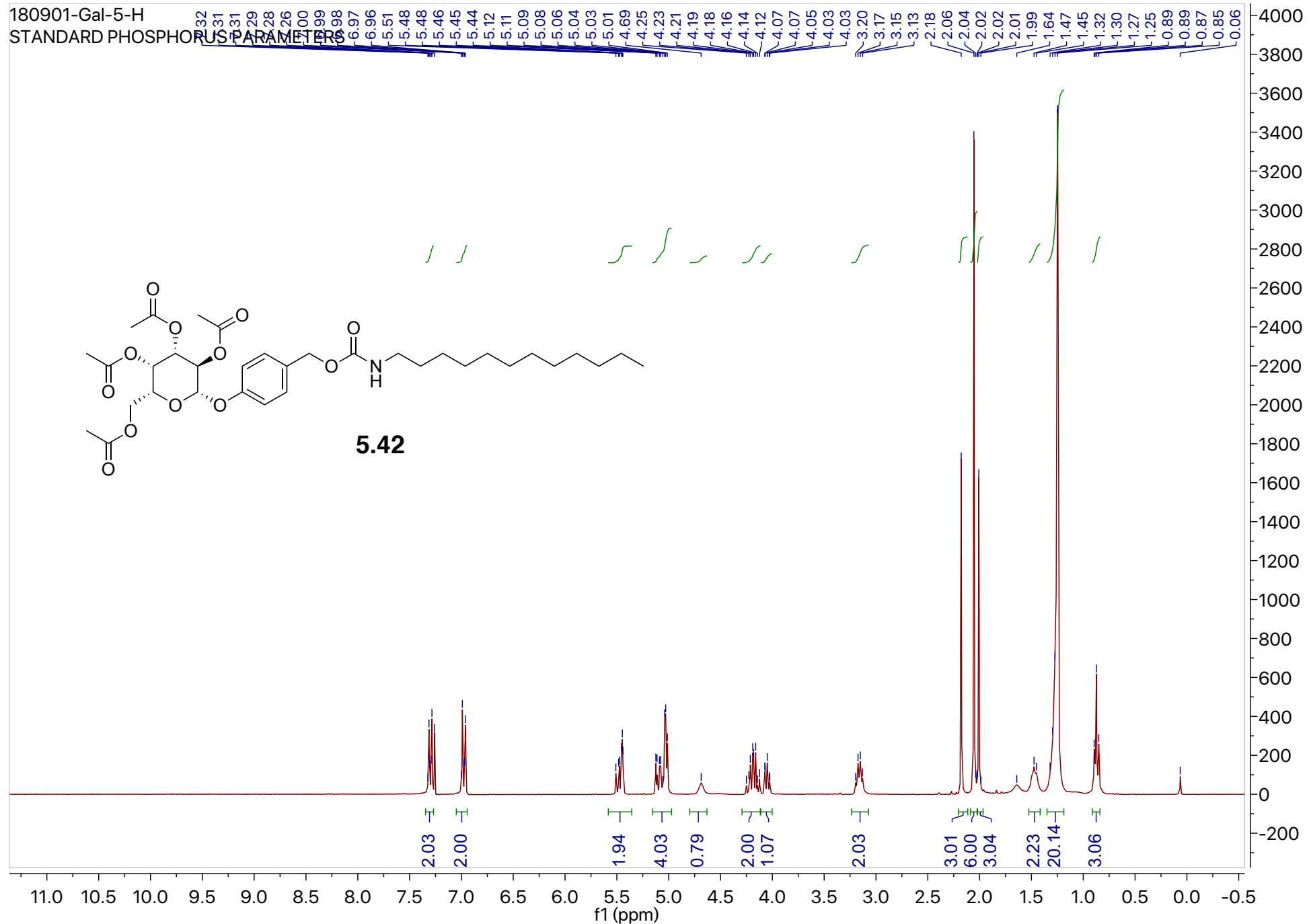
190324-AL-301-C
STANDARD PHOSPHORUS PARAMETERS





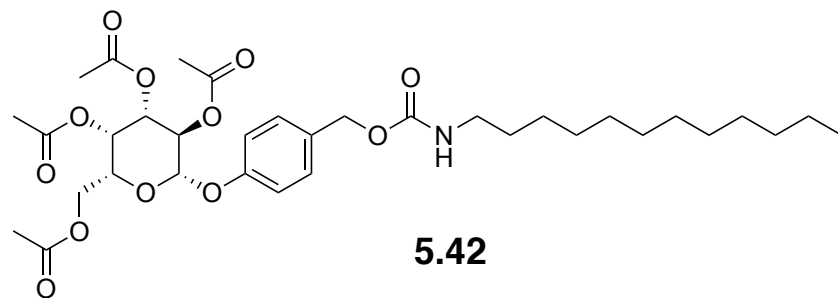




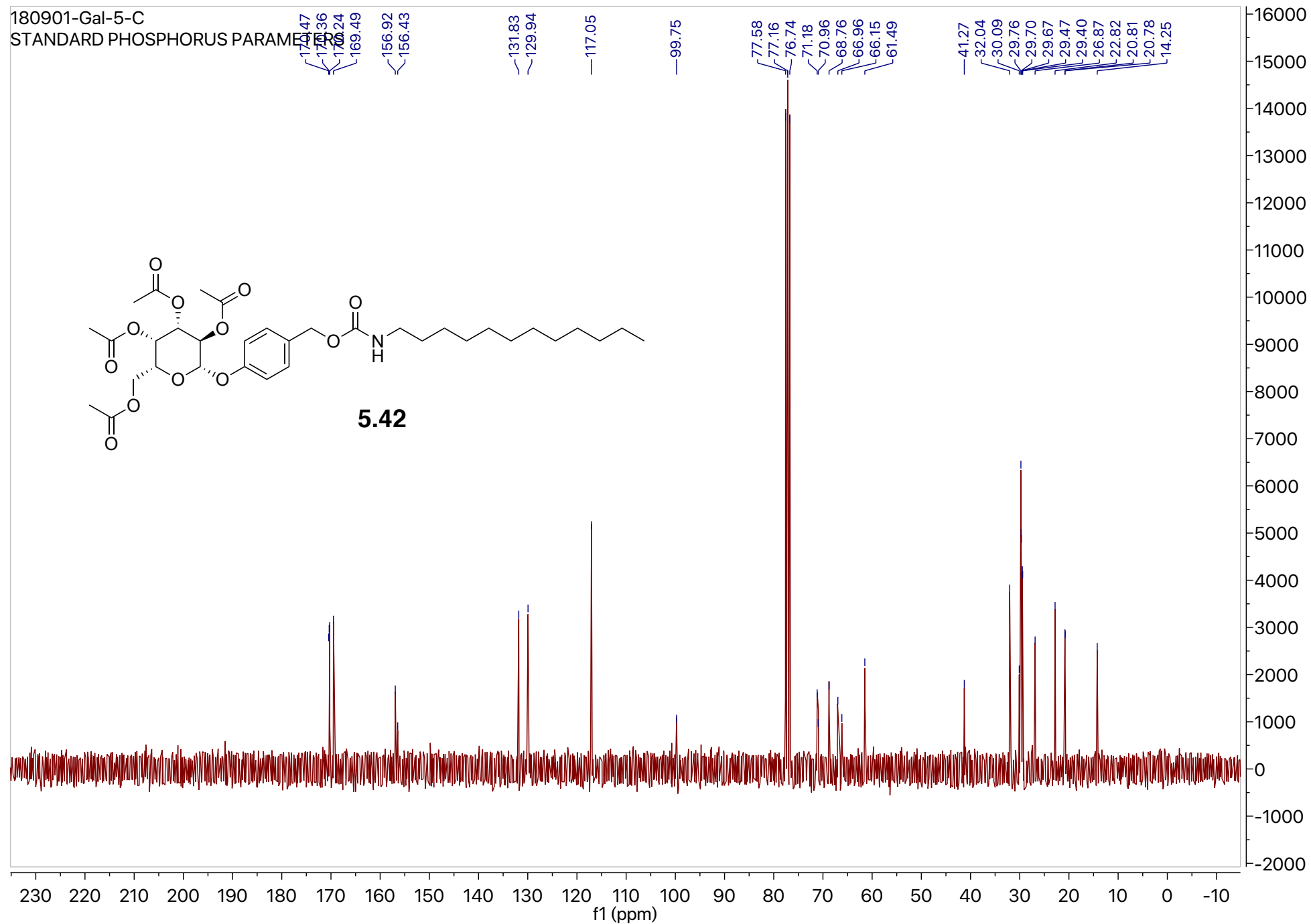


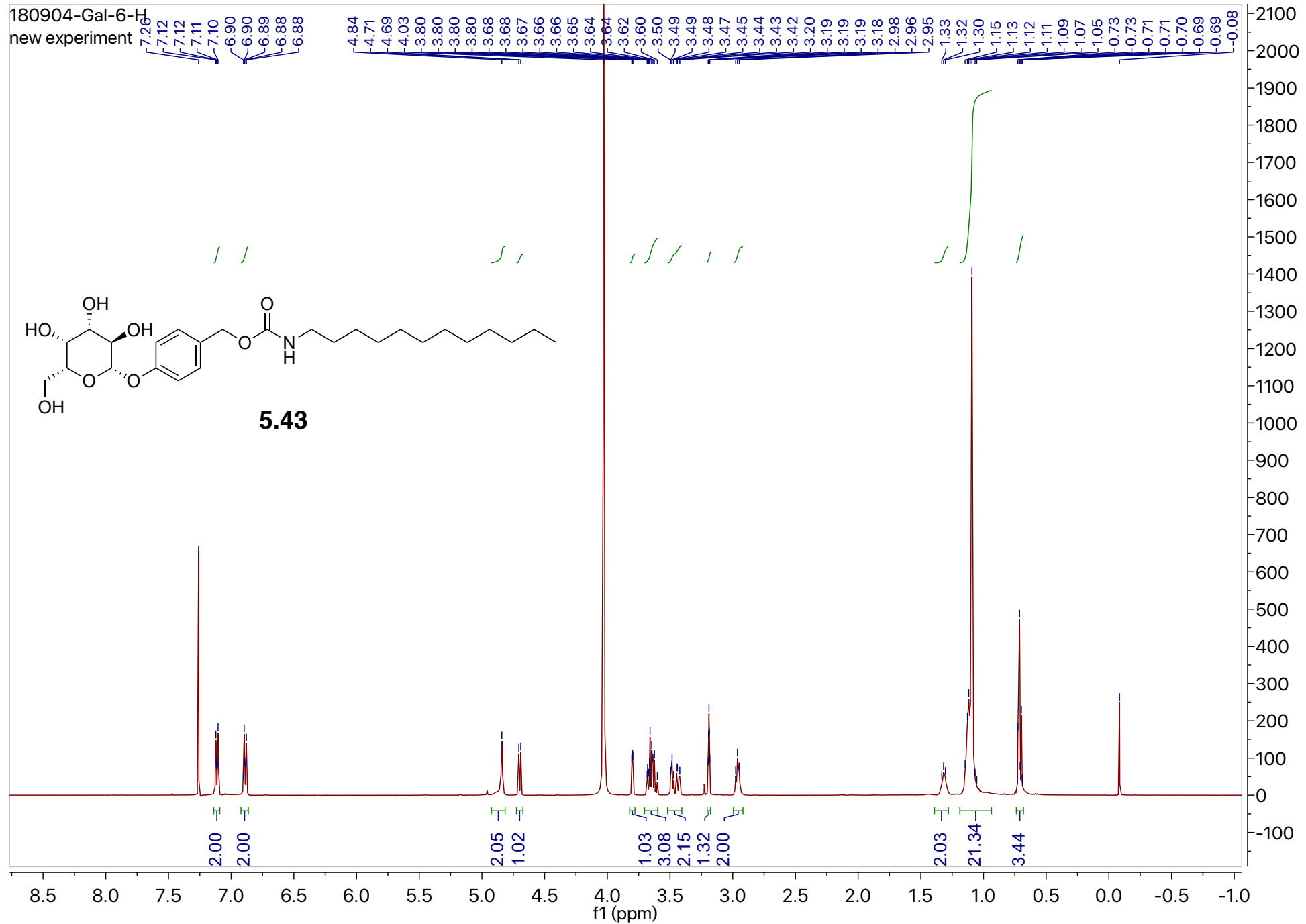
180901-Gal-5-C

STANDARD PHOSPHORUS PARAMETER

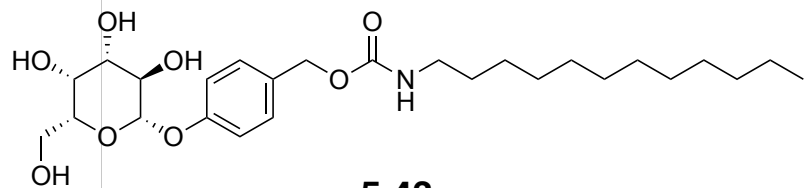


5.42

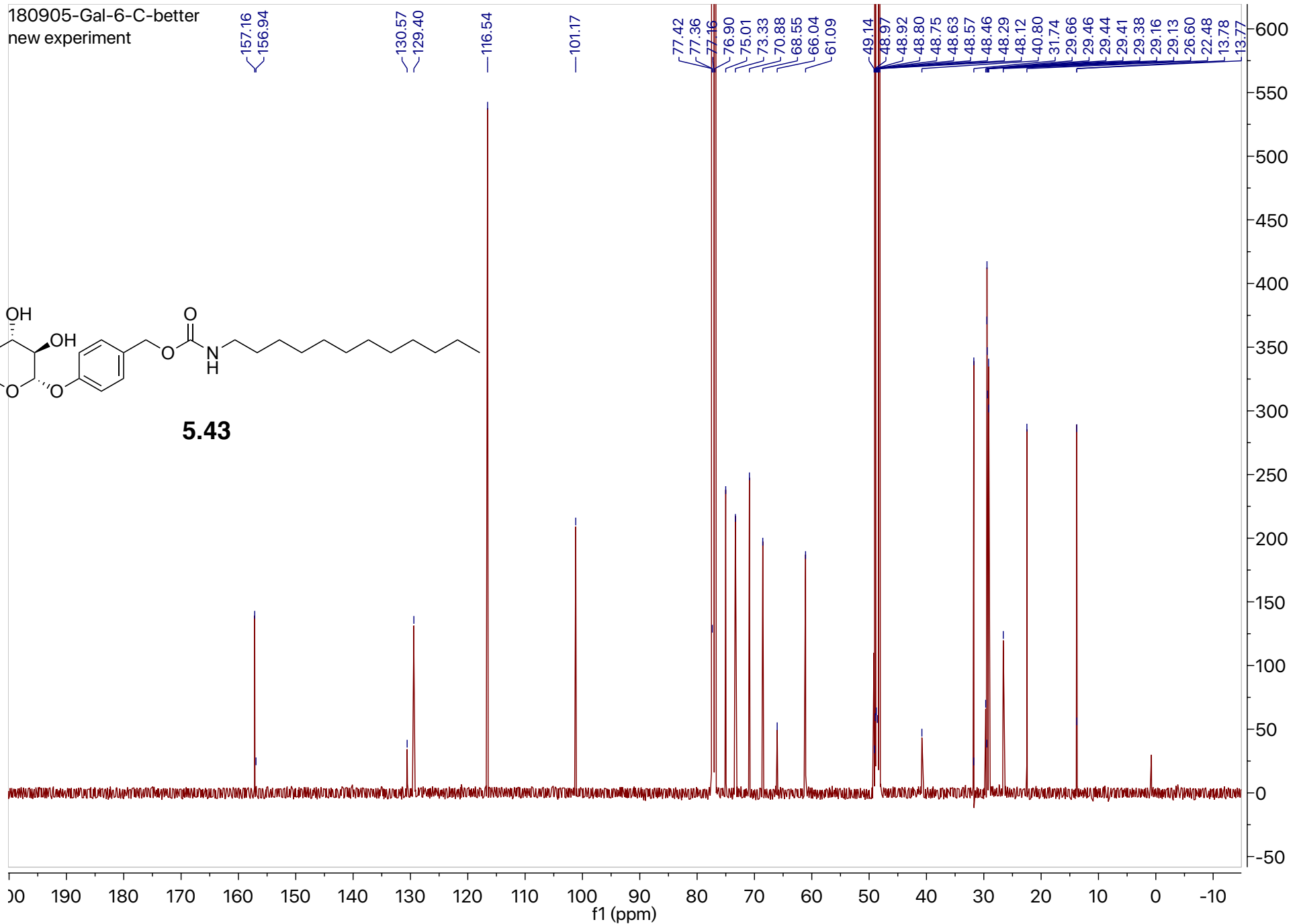




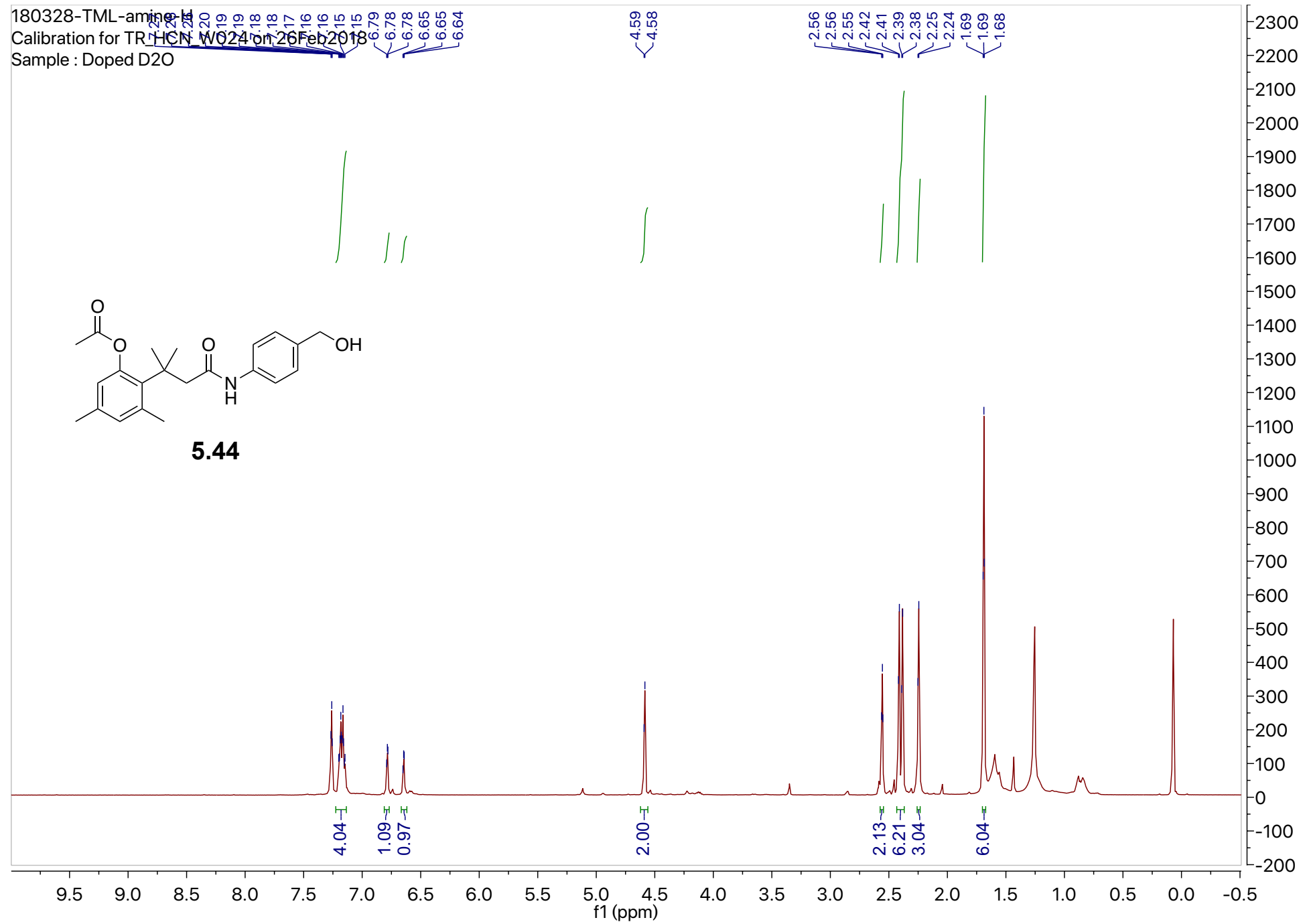
180905-Gal-6-C-better
new experiment



5.43



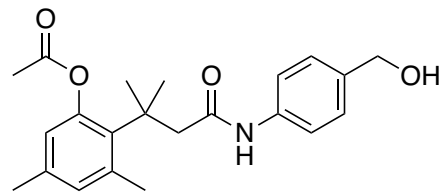
180328-TML-amine
 Calibration for TR-HCN W024 on 26 Feb 2018
 Sample : Doped D2O



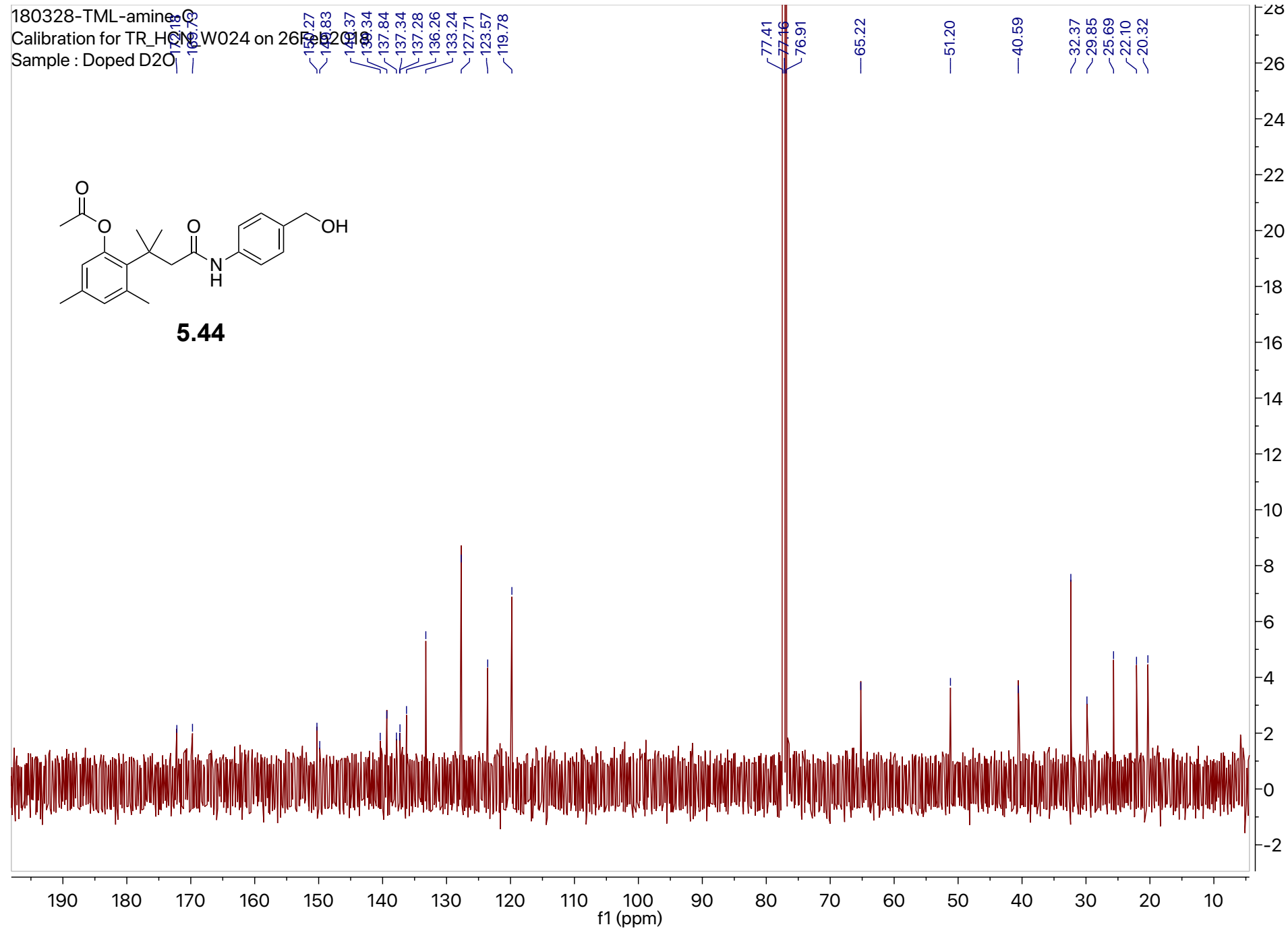
180328-TML-amine

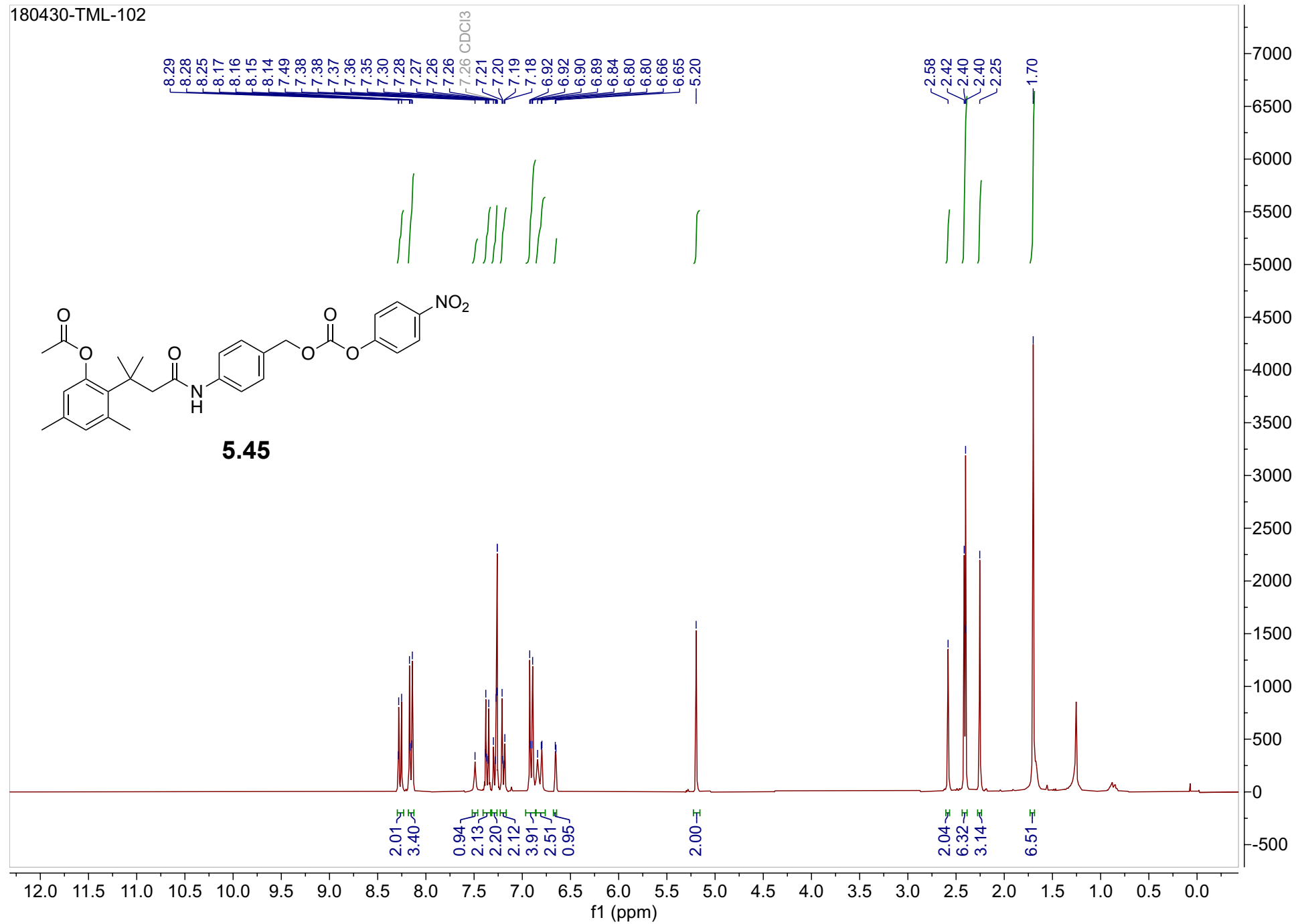
Calibration for TR_HCN W024 on 265

Sample : Doped D2O

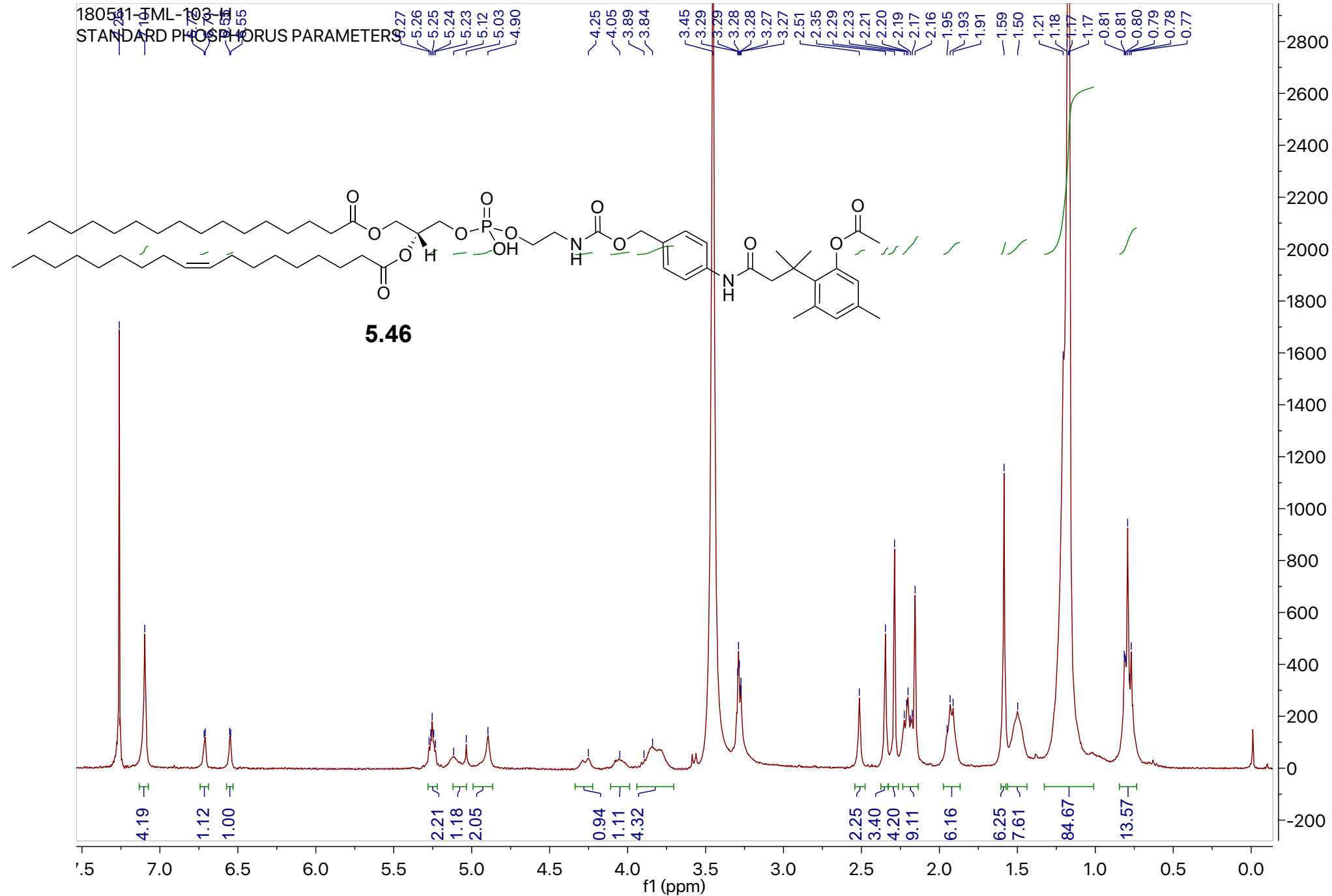


5.44

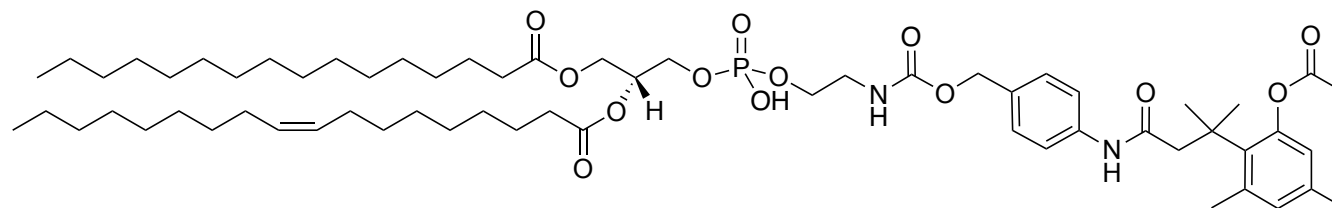
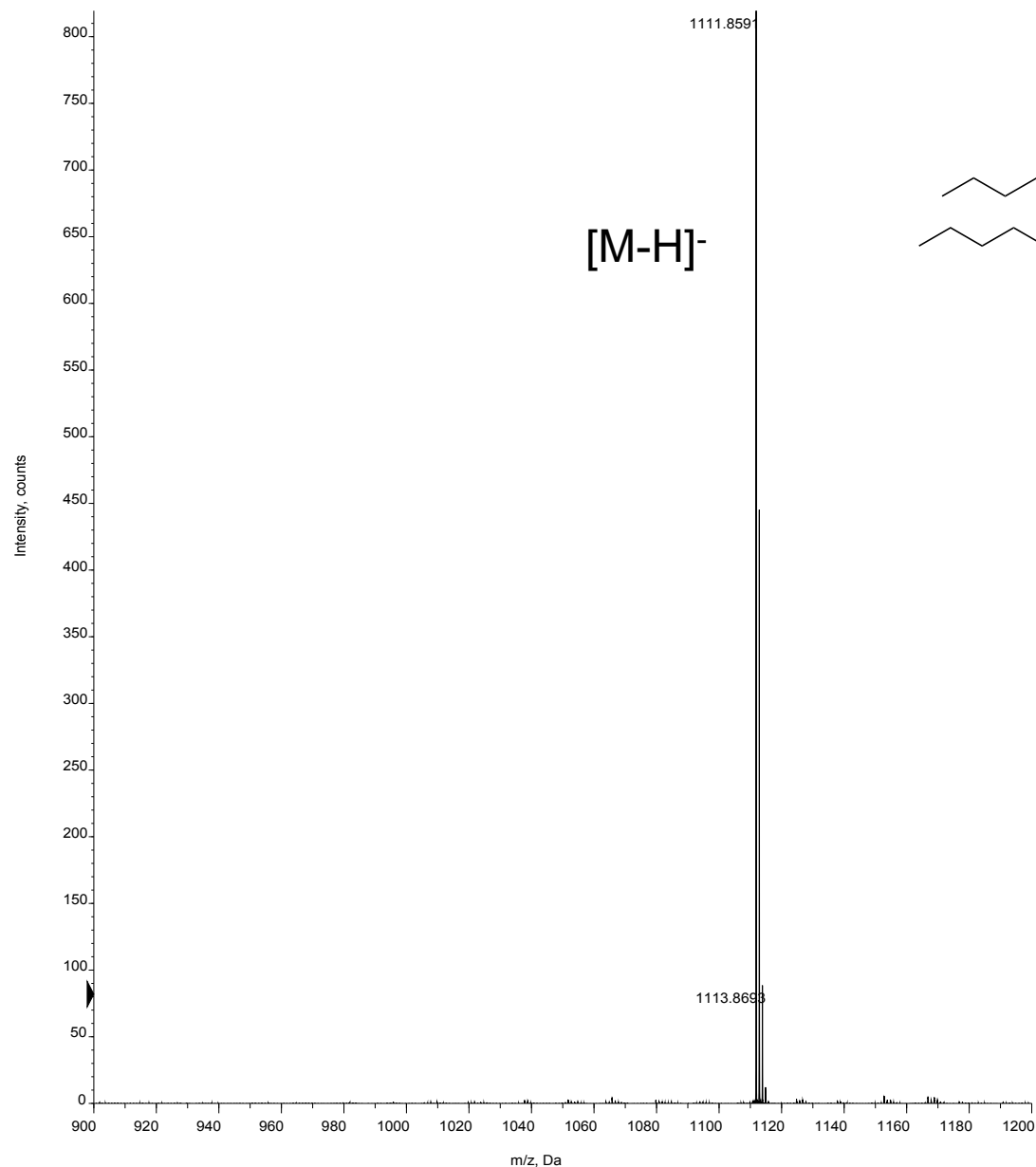




180511-TML-103-1
STANDARD PHOSPHORUS PARAMETERS



a=3.59195242851481960e-004, t0=7.27419015732936170e+001 (Turbo Spray)

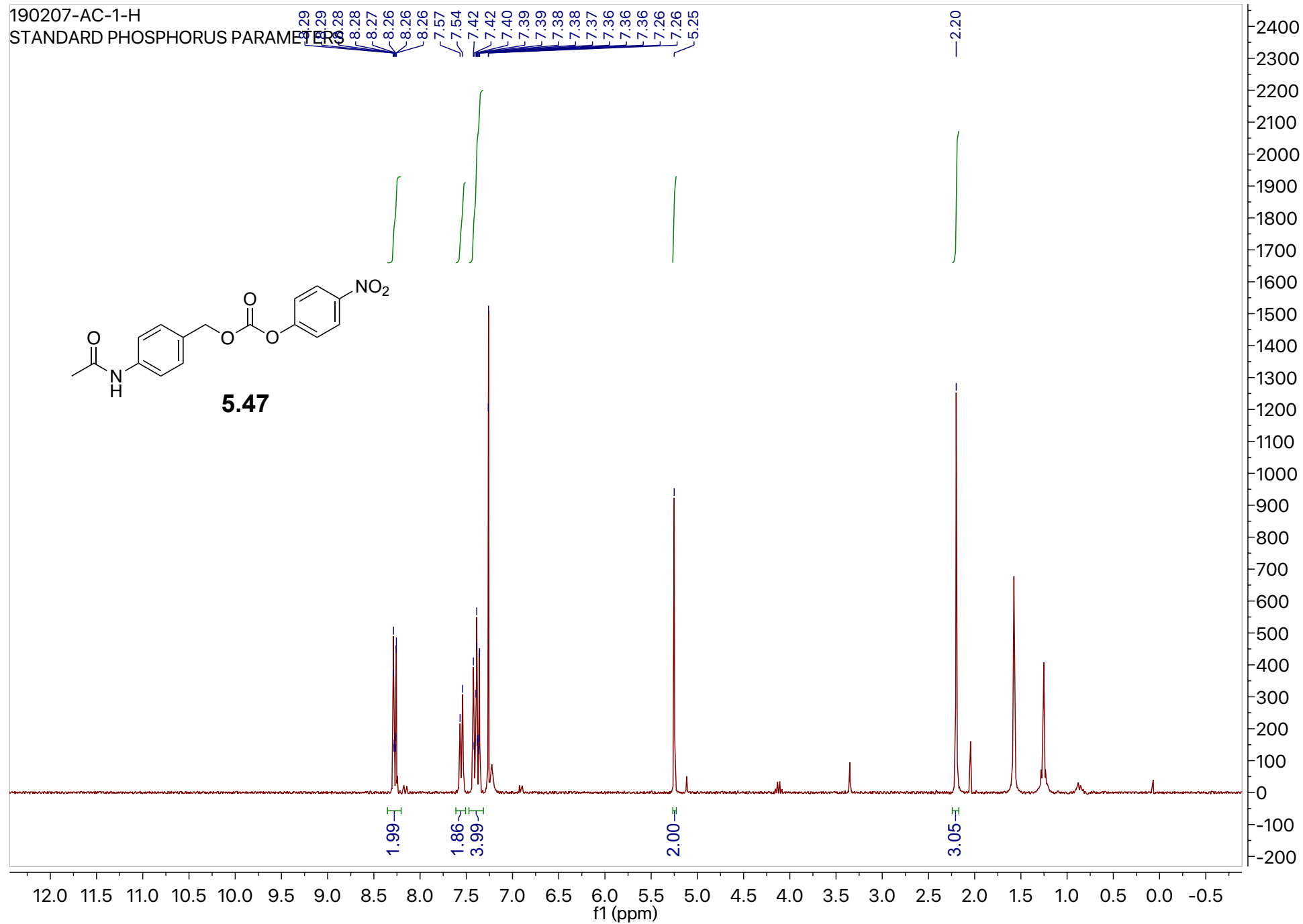


5.46

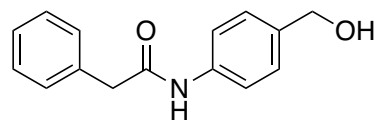
ESI-MS (negative mode):

[M-H]⁻ calcd for [C₆₂H₁₀₀N₂O₁₃P]⁻: 1111.6963

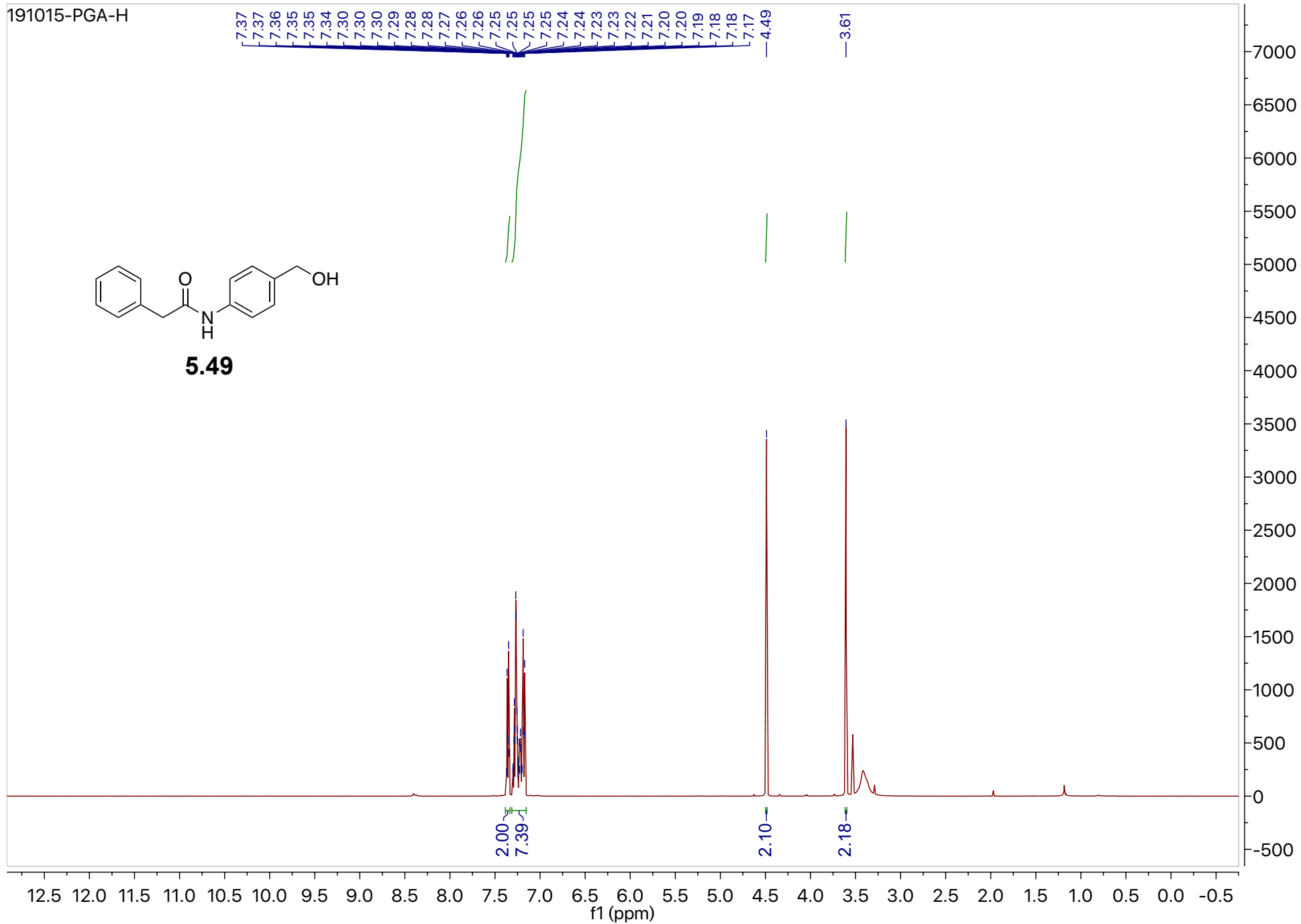
found: 1111.8591



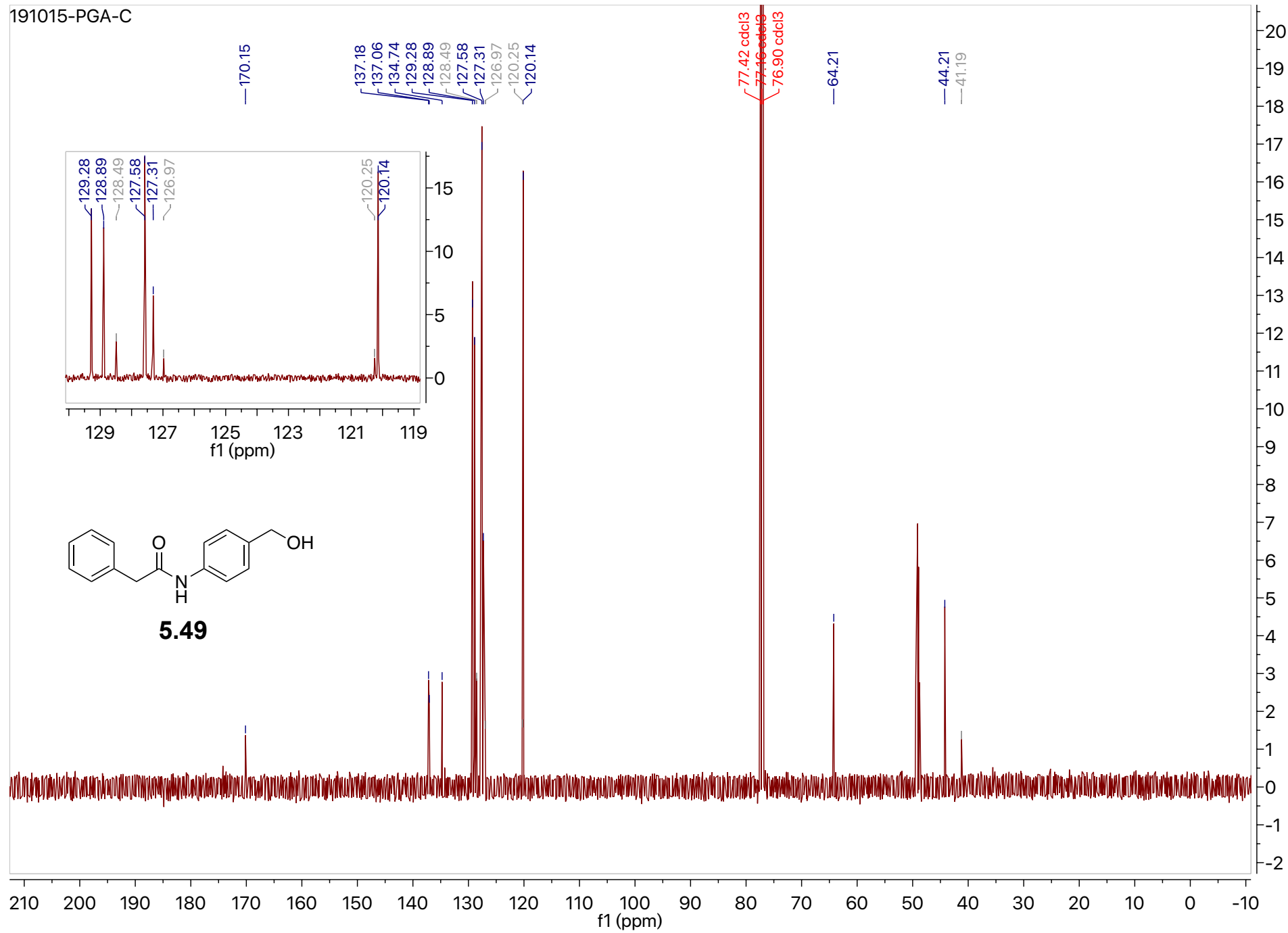
191015-PGA-H



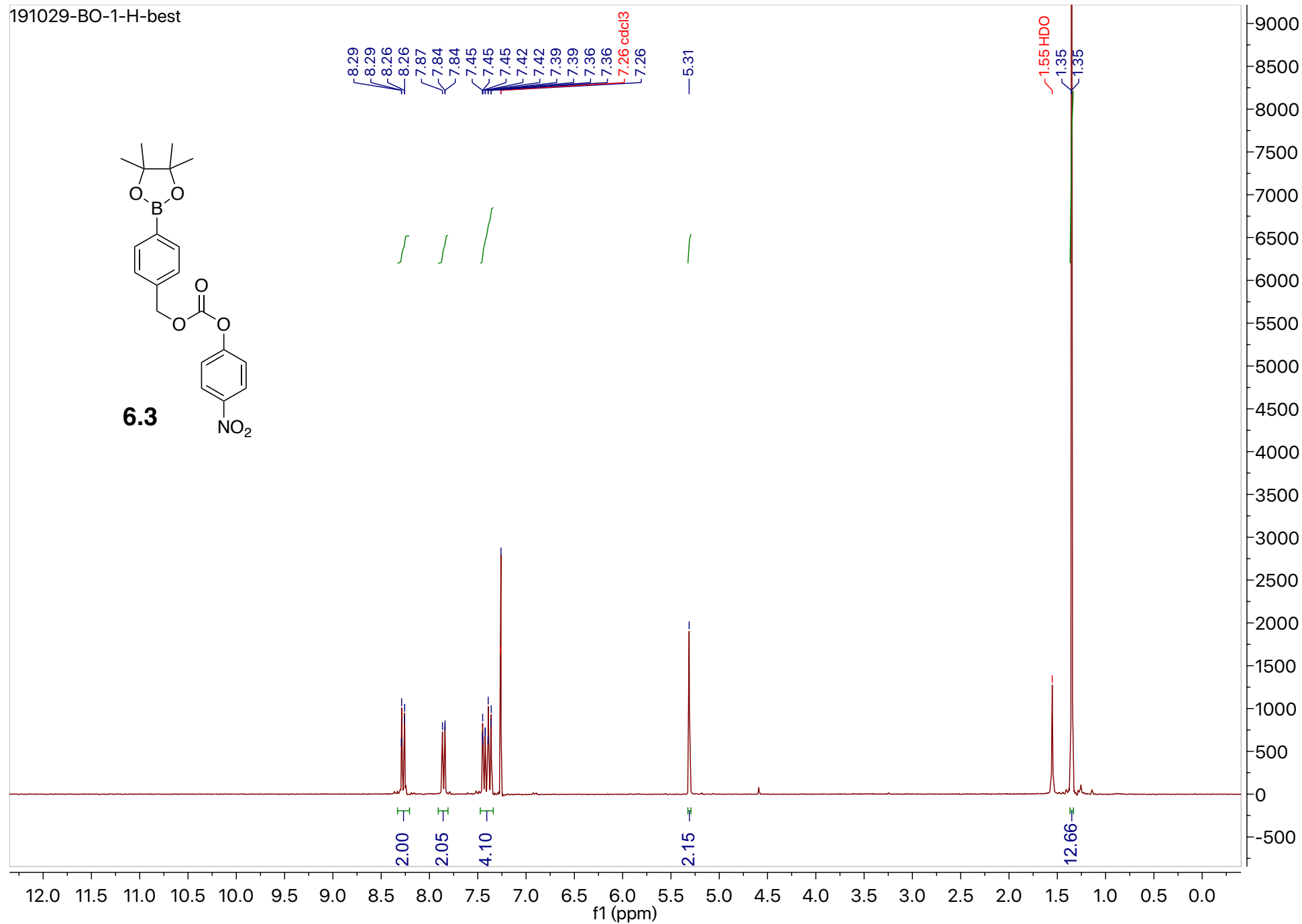
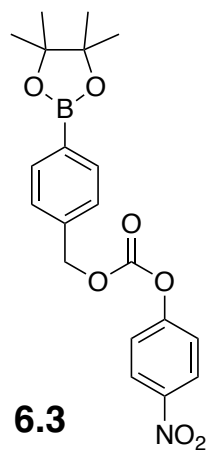
5.49



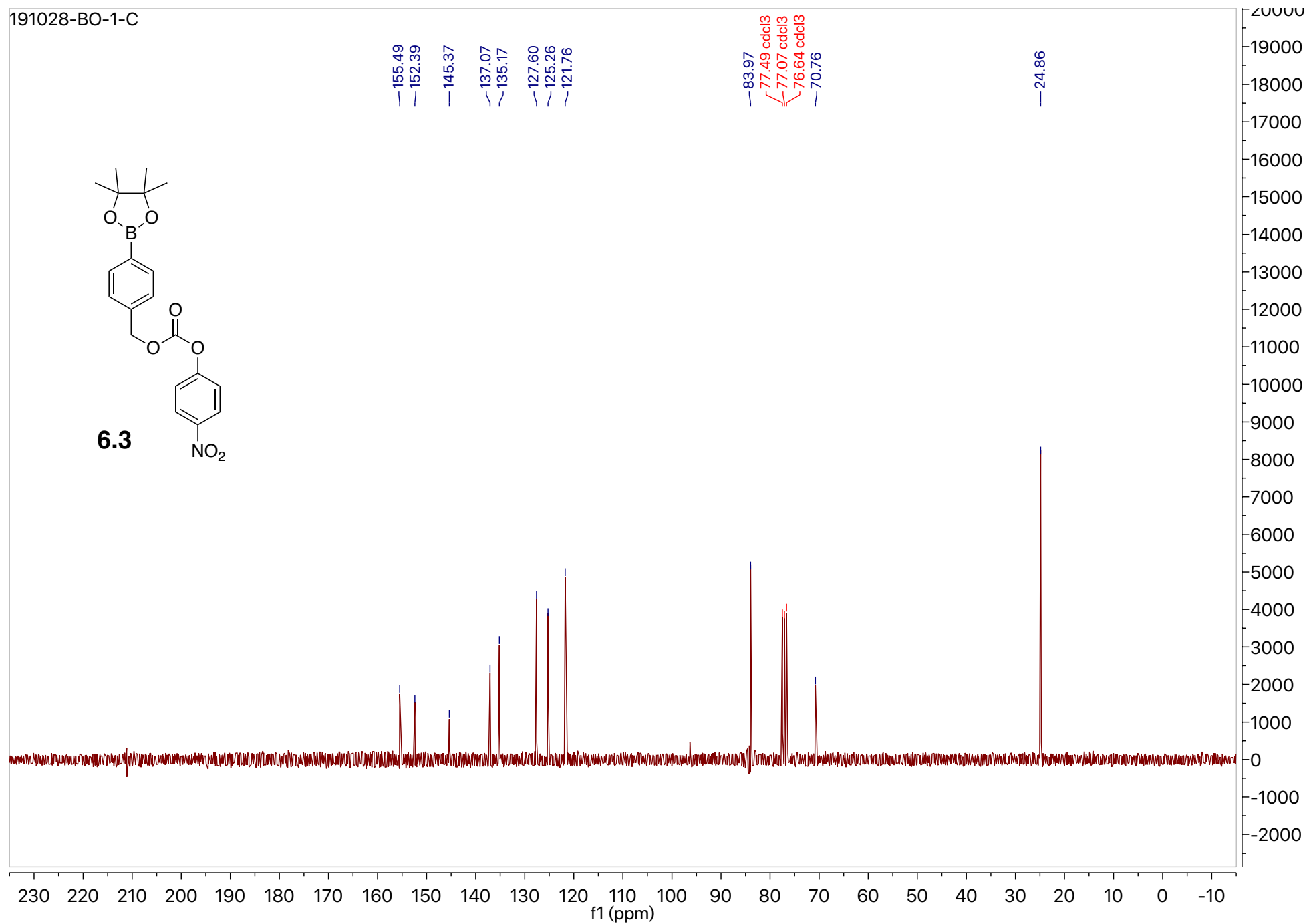
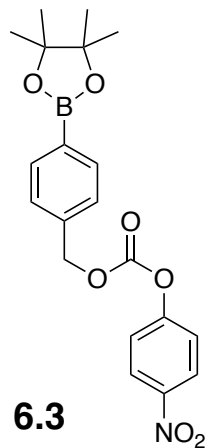
191015-PGA-C



191029-BO-1-H-best

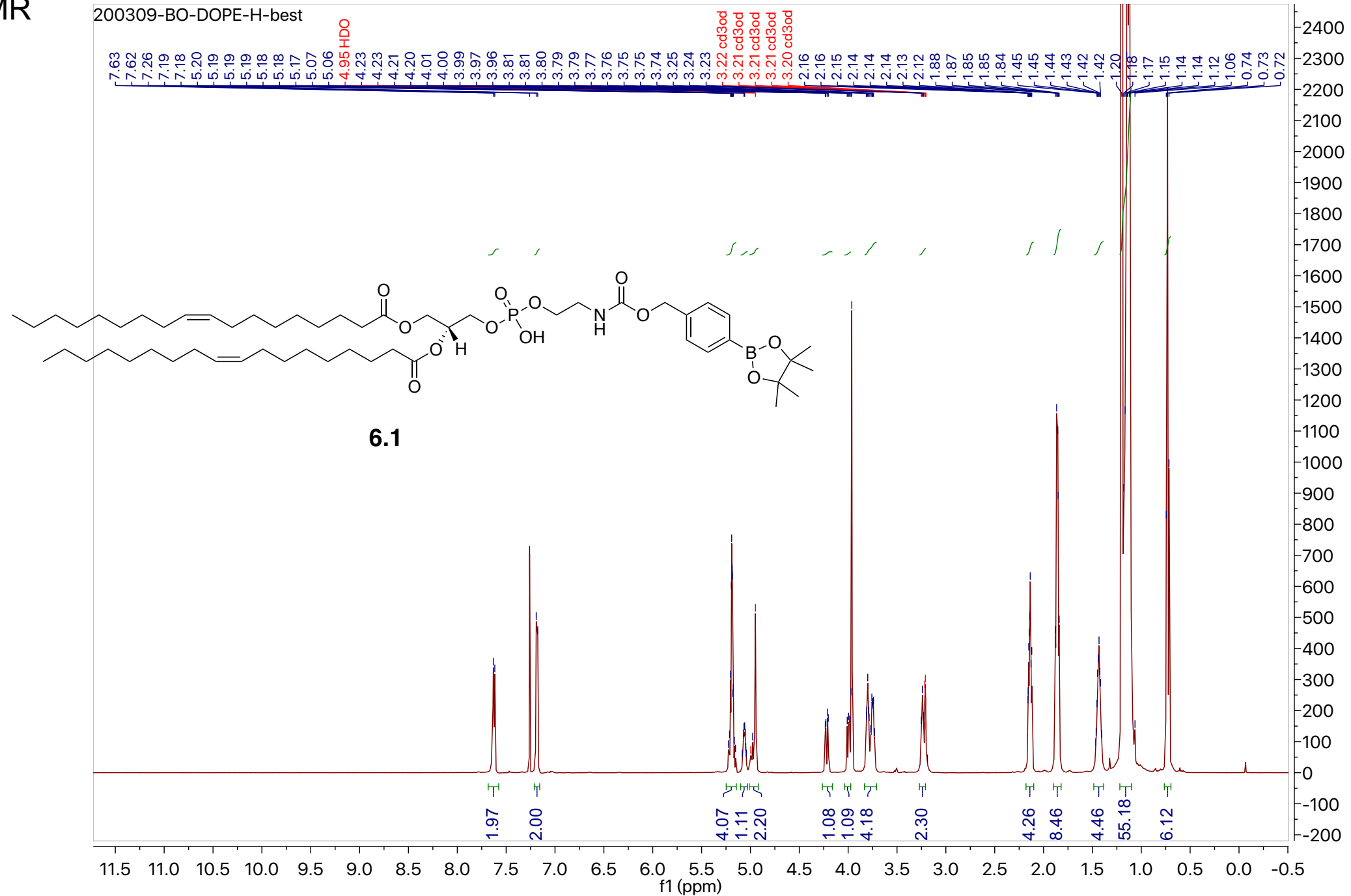


191028-BO-1-C



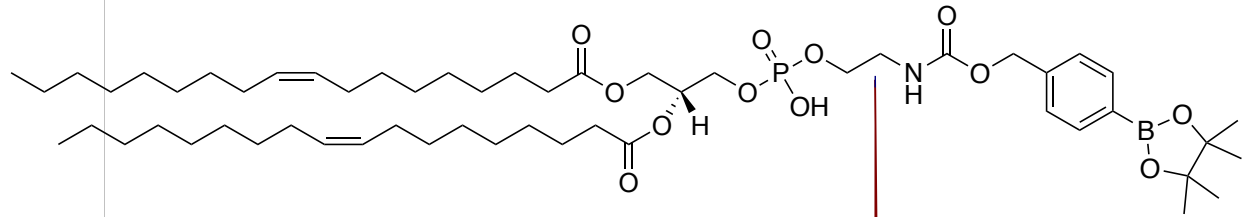
¹H NMR

200309-BO-DOPE-H-best

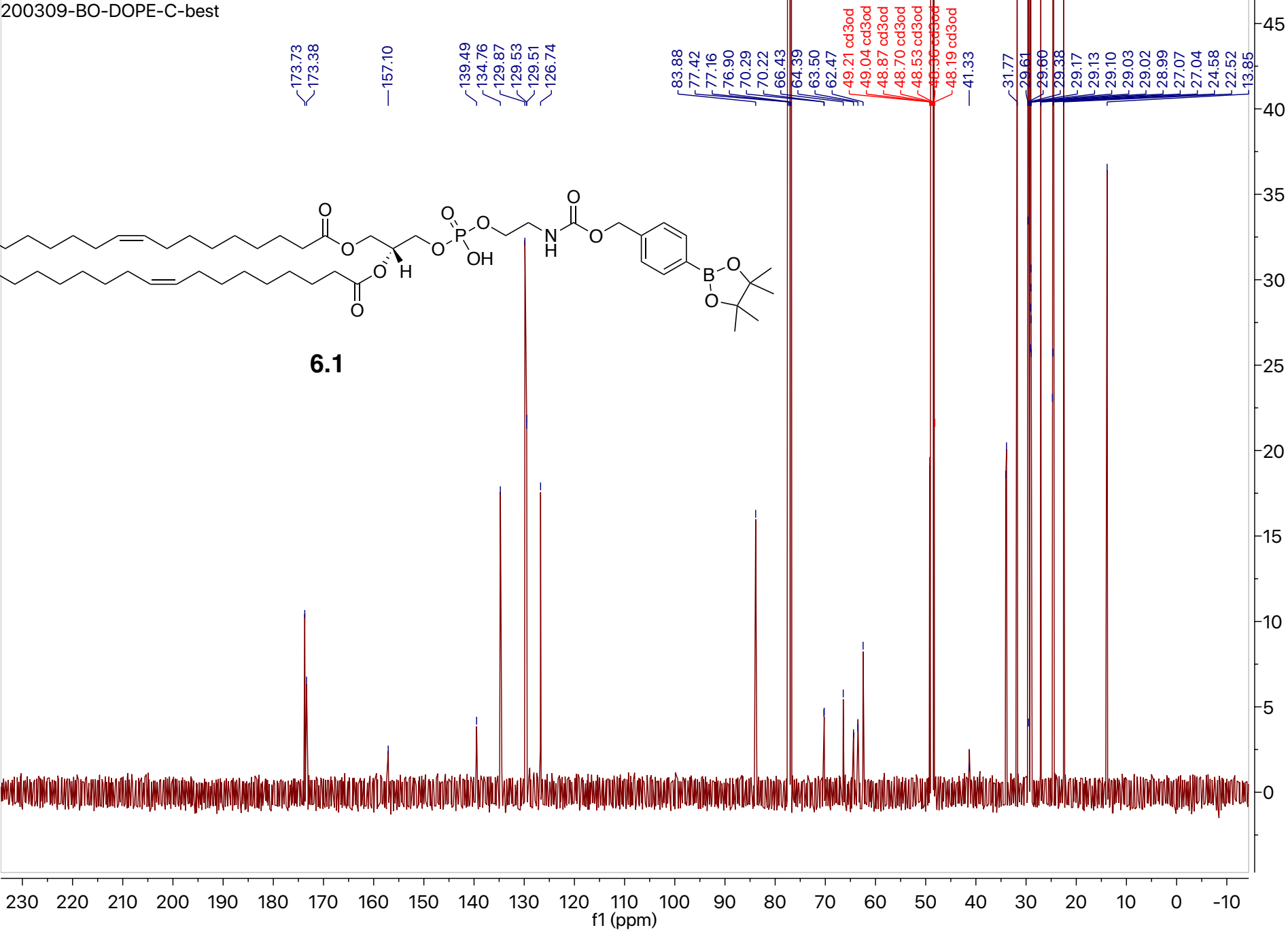


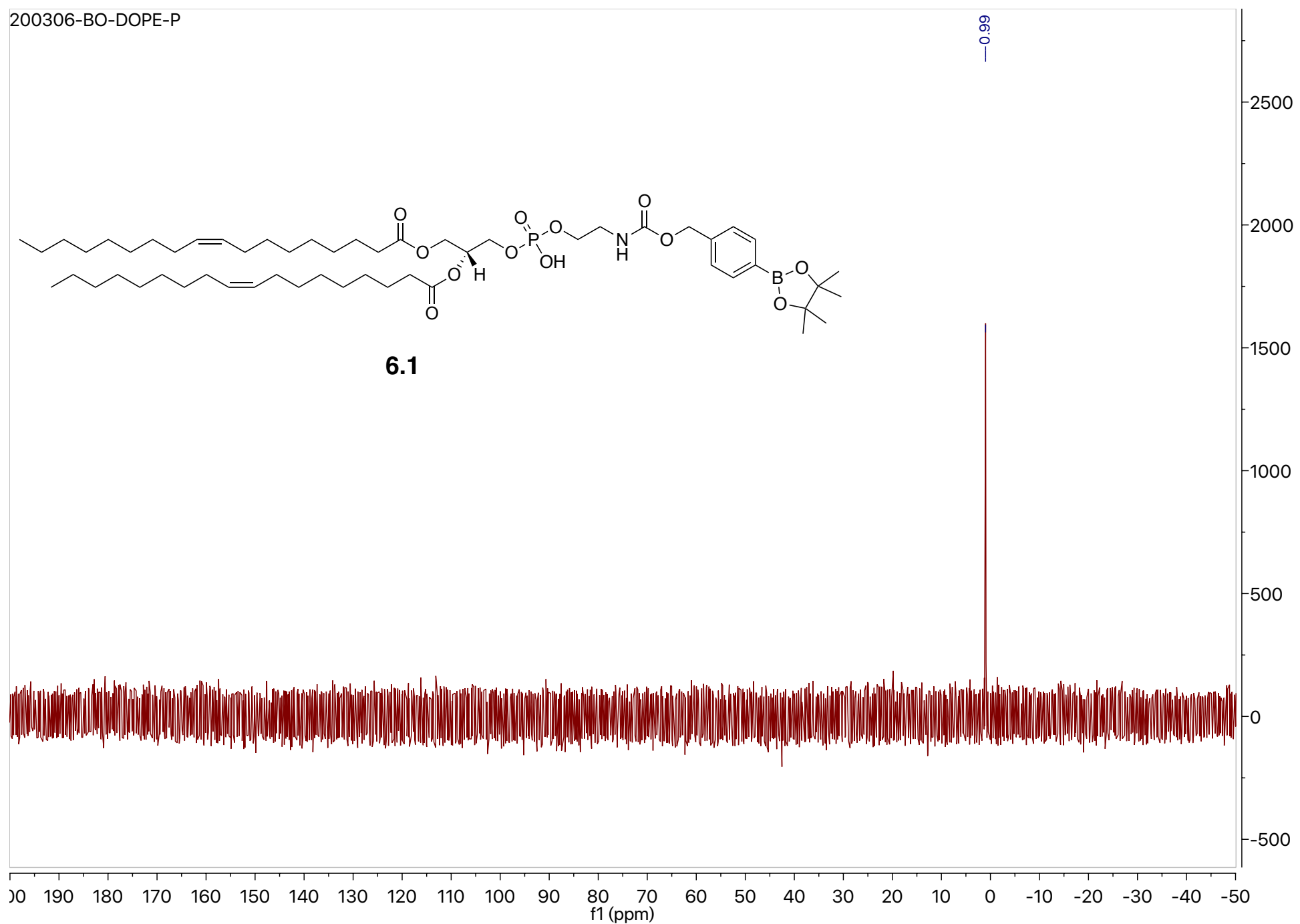
¹³C NMR

200309-BO-DOPE-C-best

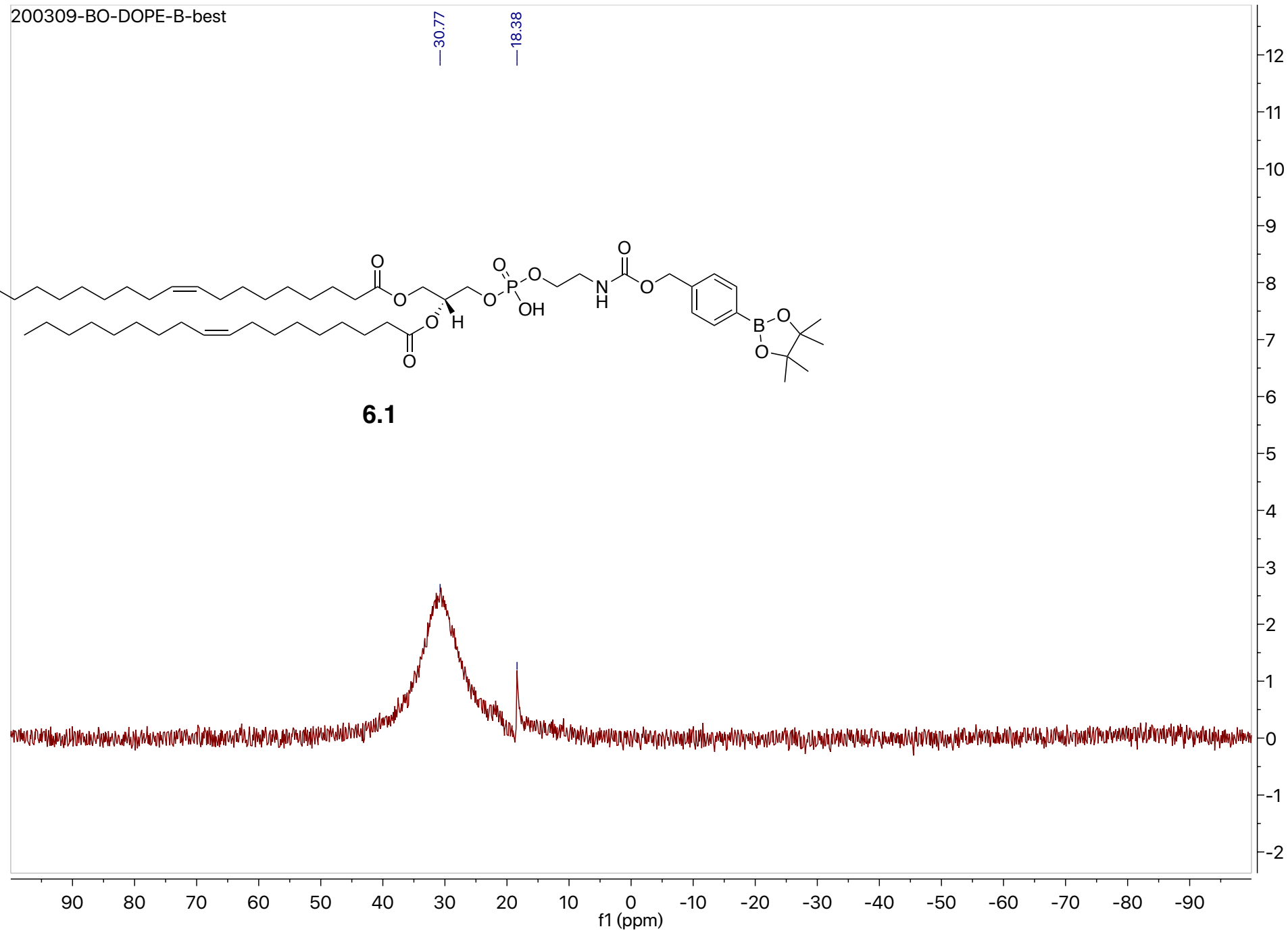
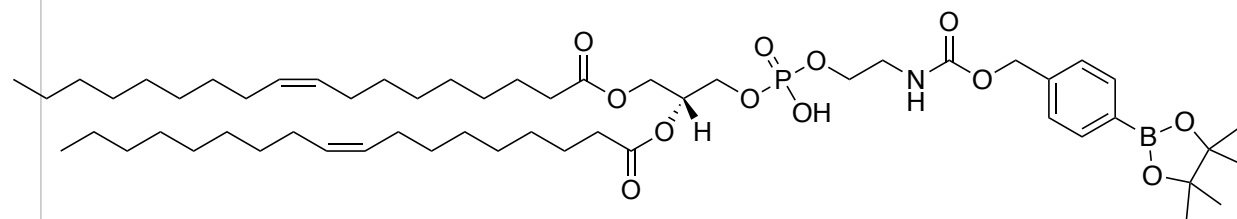


6.1

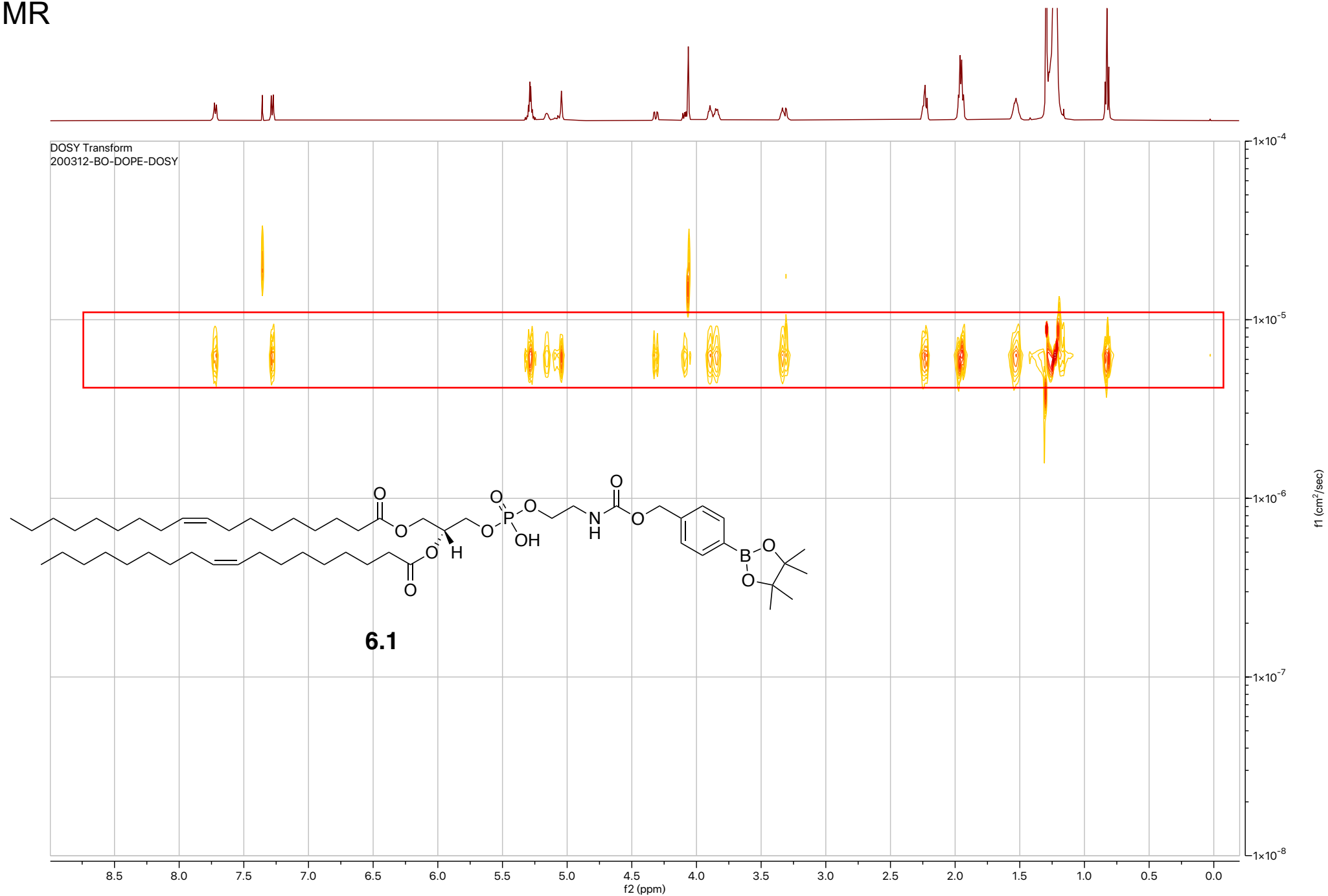




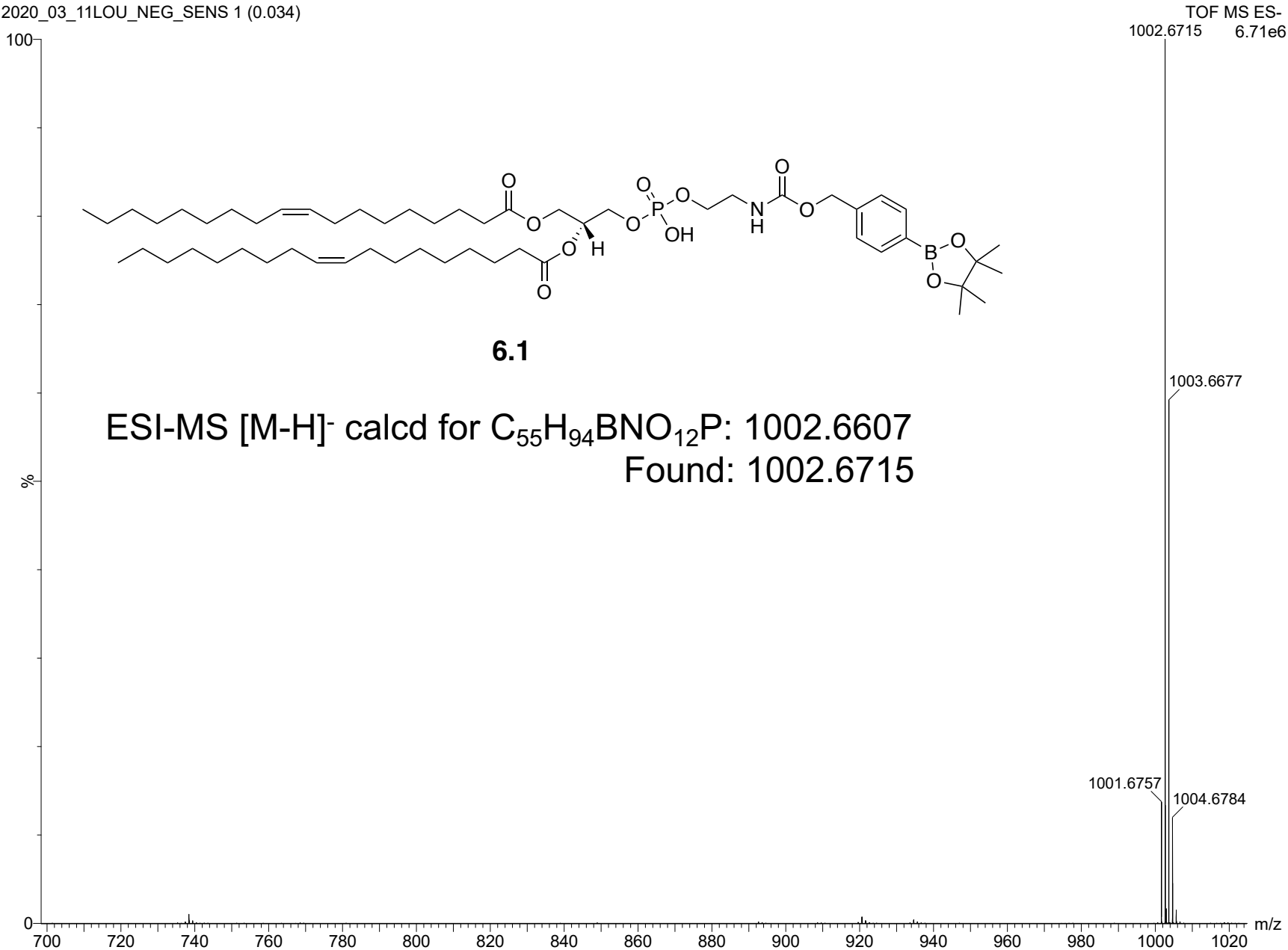
200309-BO-DOPE-B-best



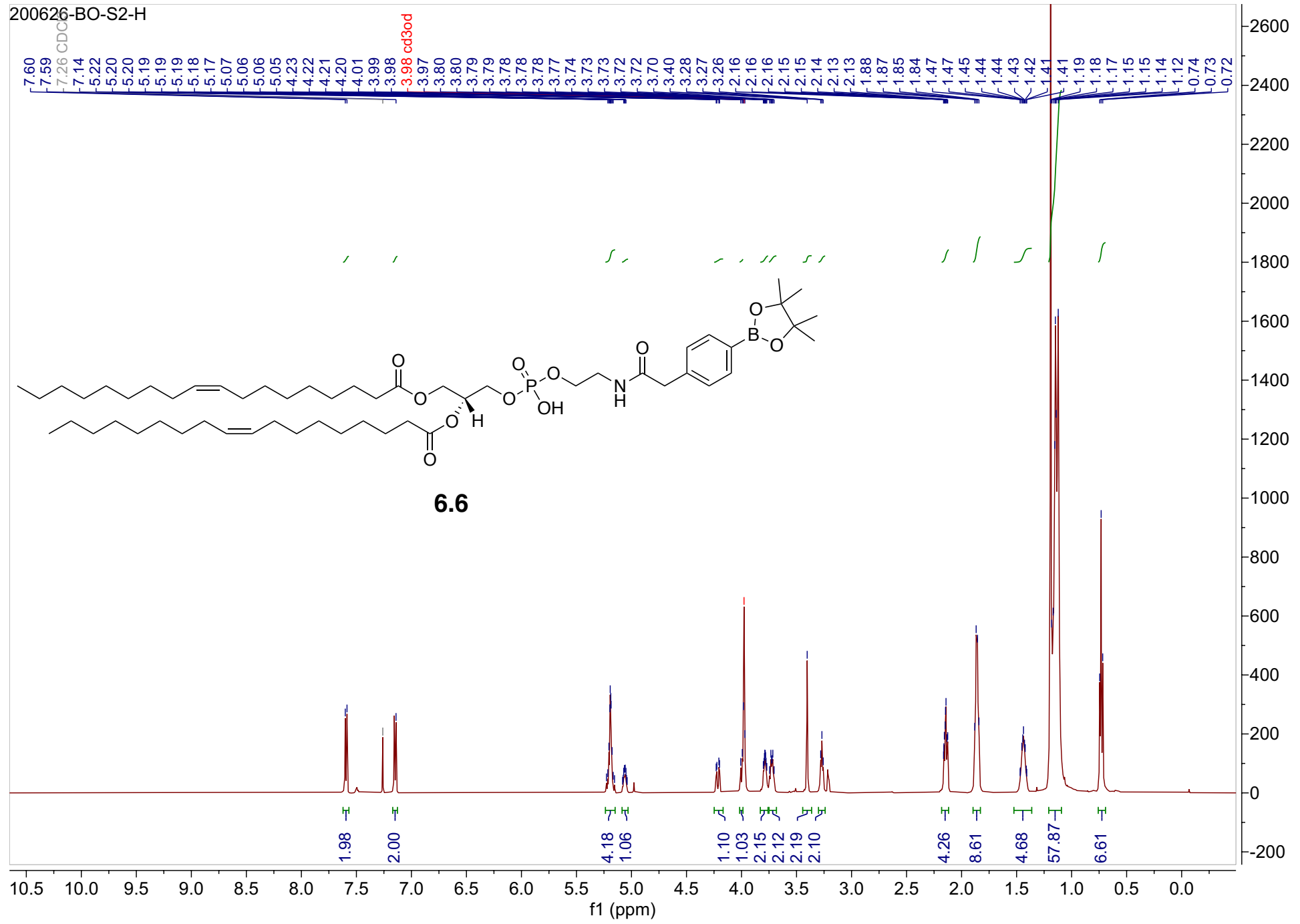
DOSY NMR

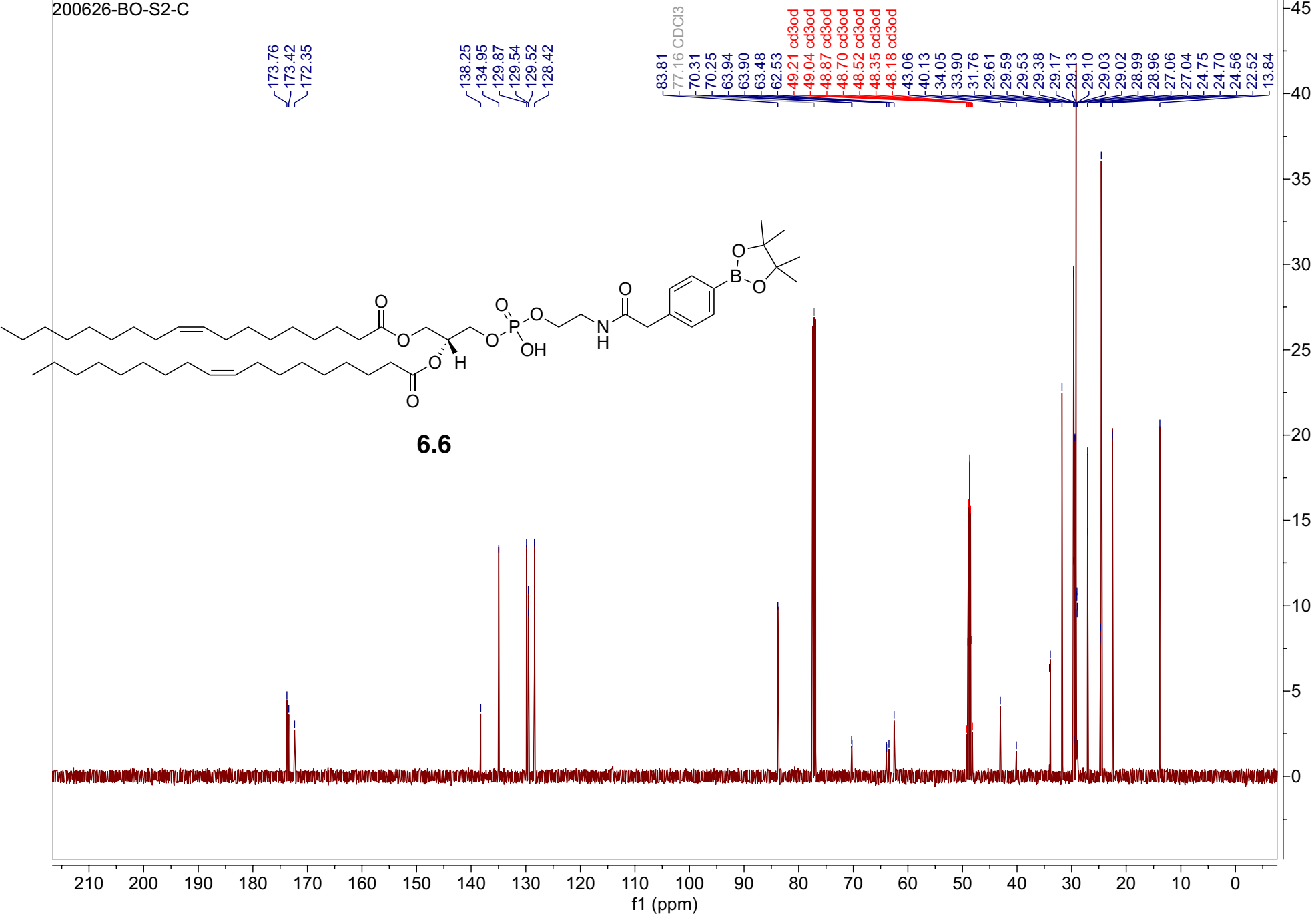


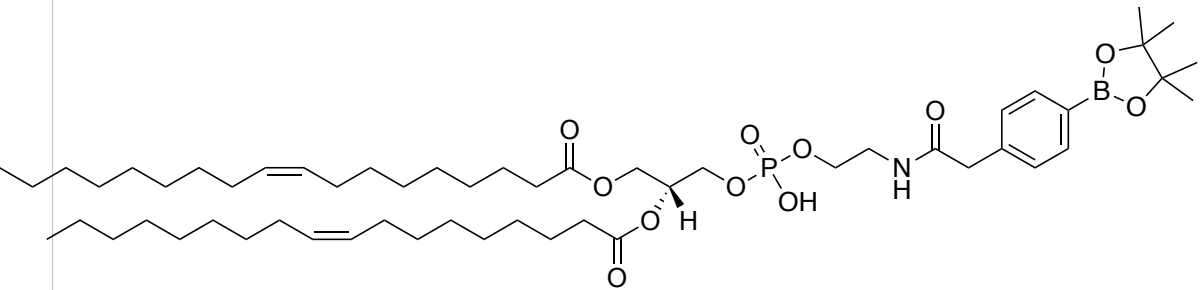
ESI-MS



¹H NMR

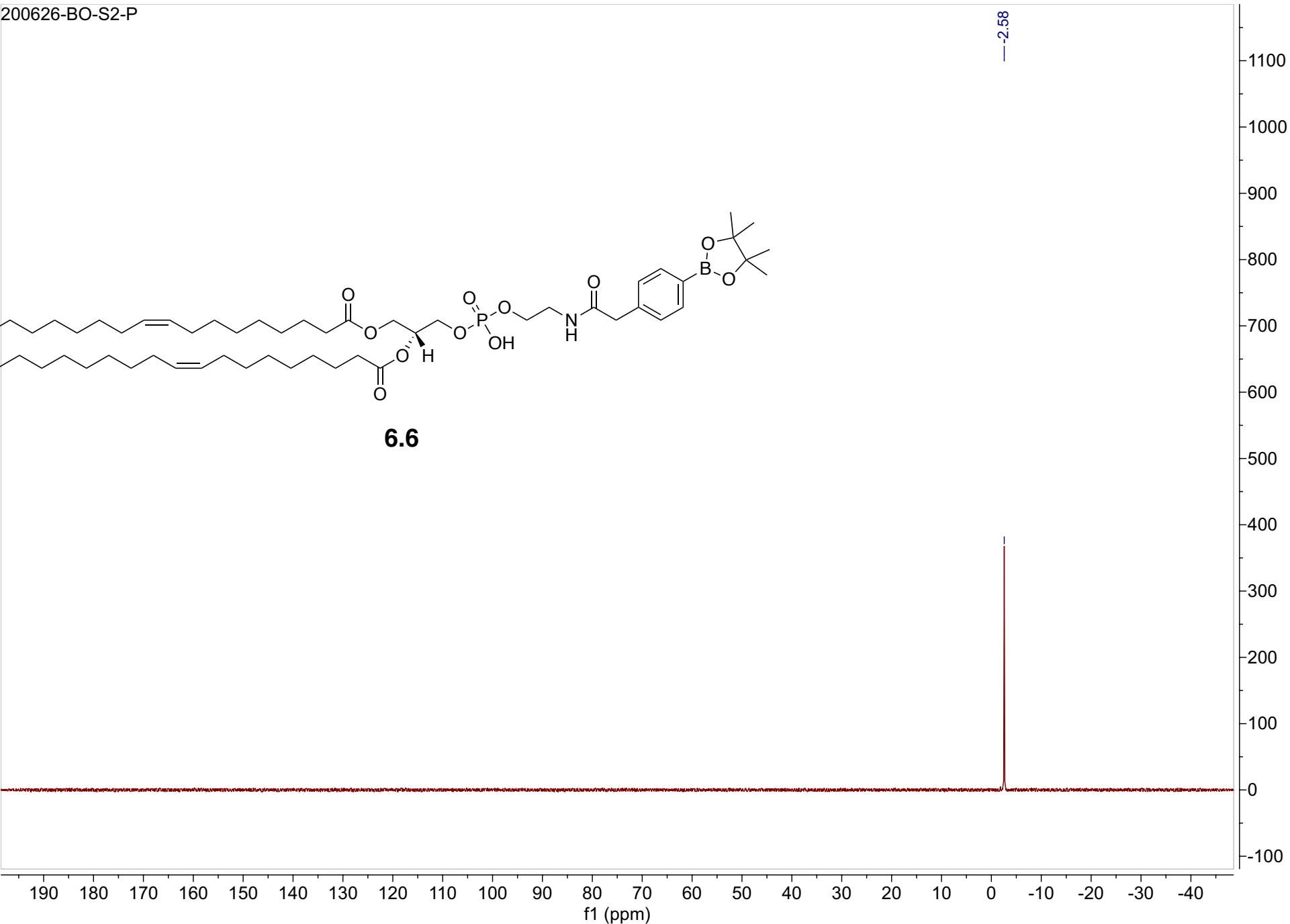


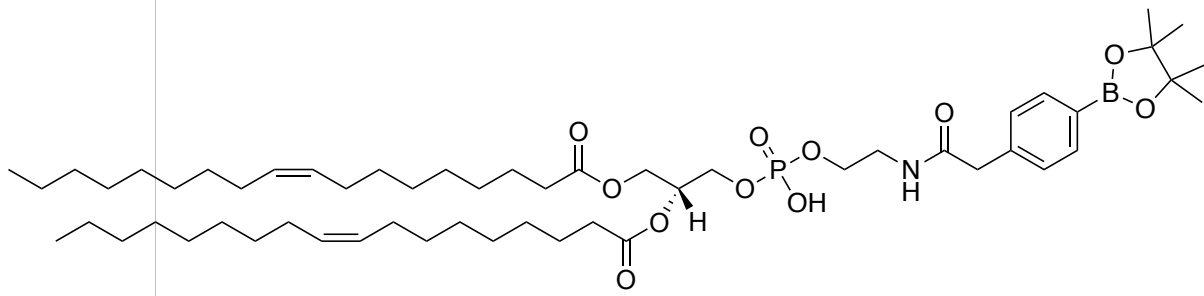




6.6

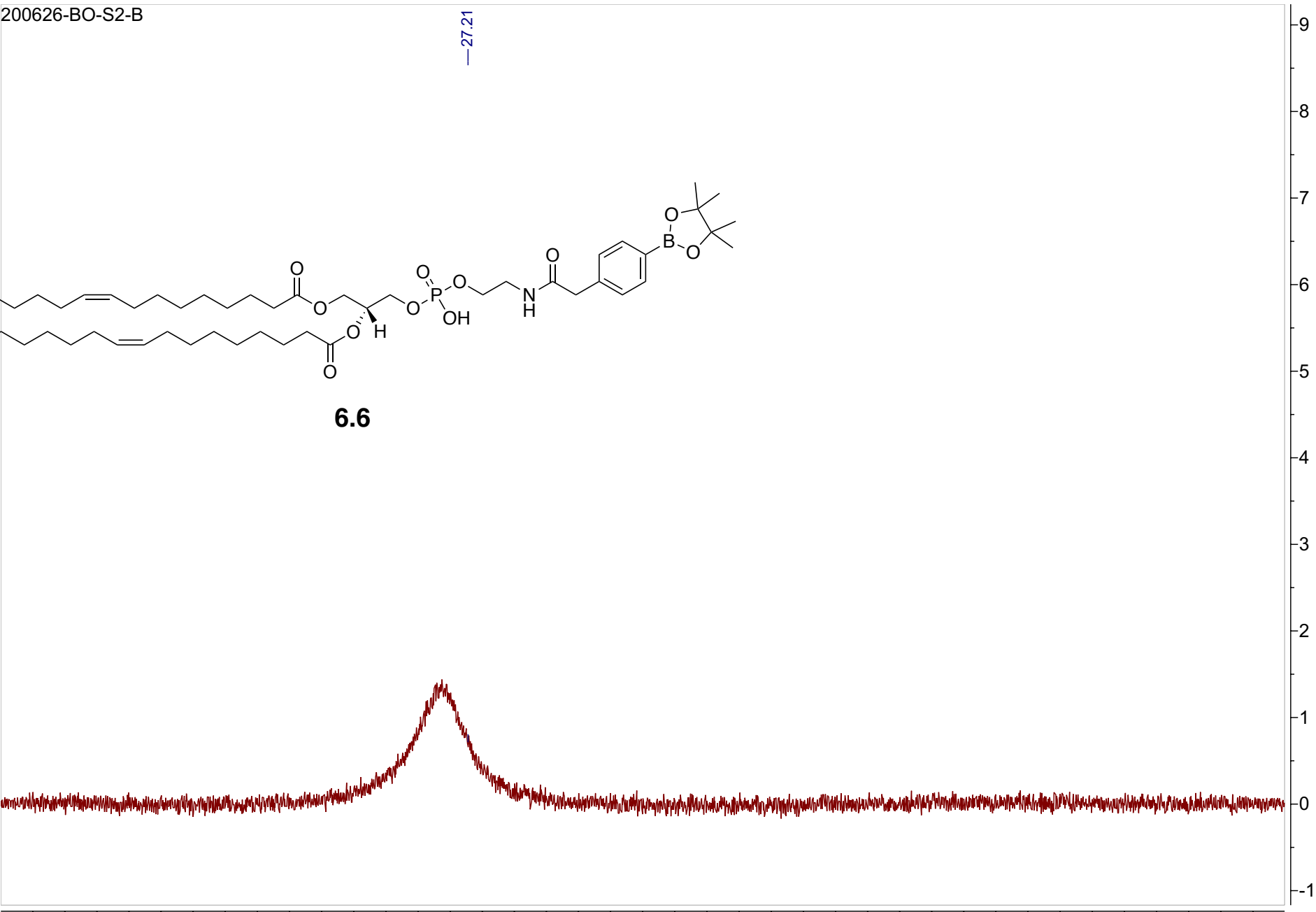
-2.58





6.6

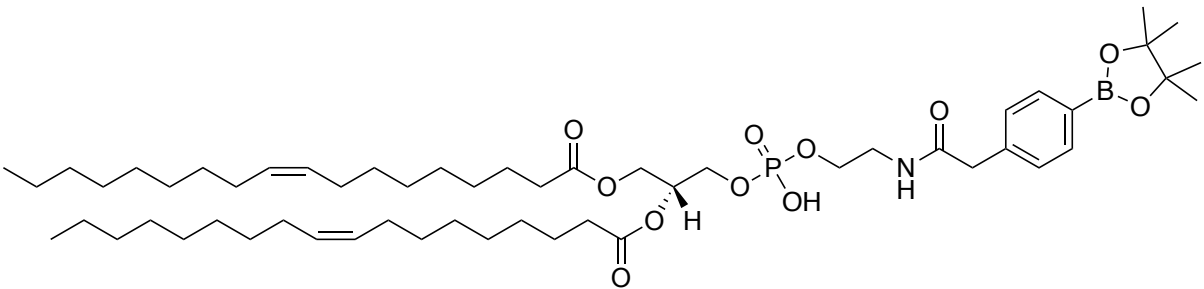
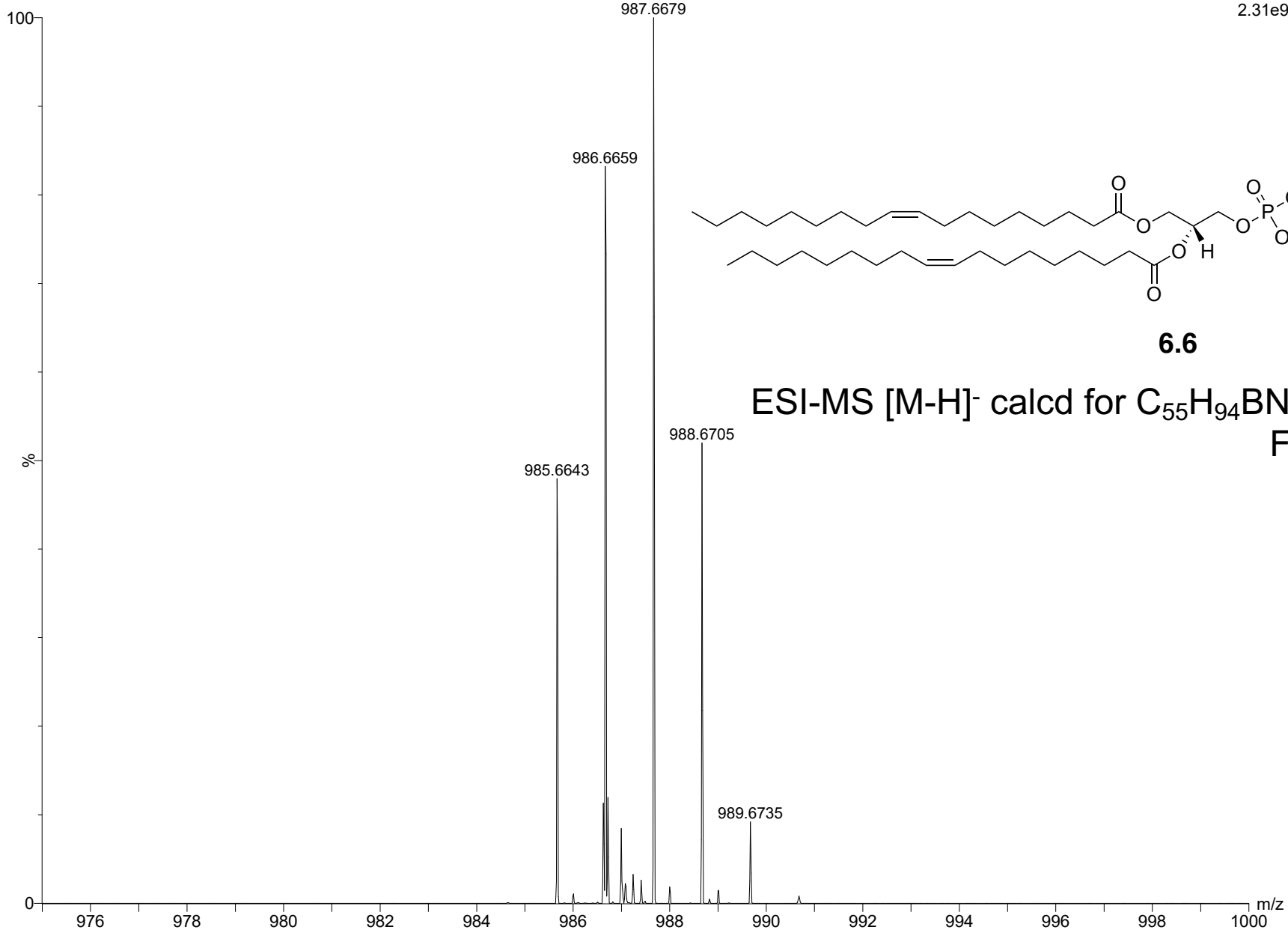
—27.21



ESI-MS

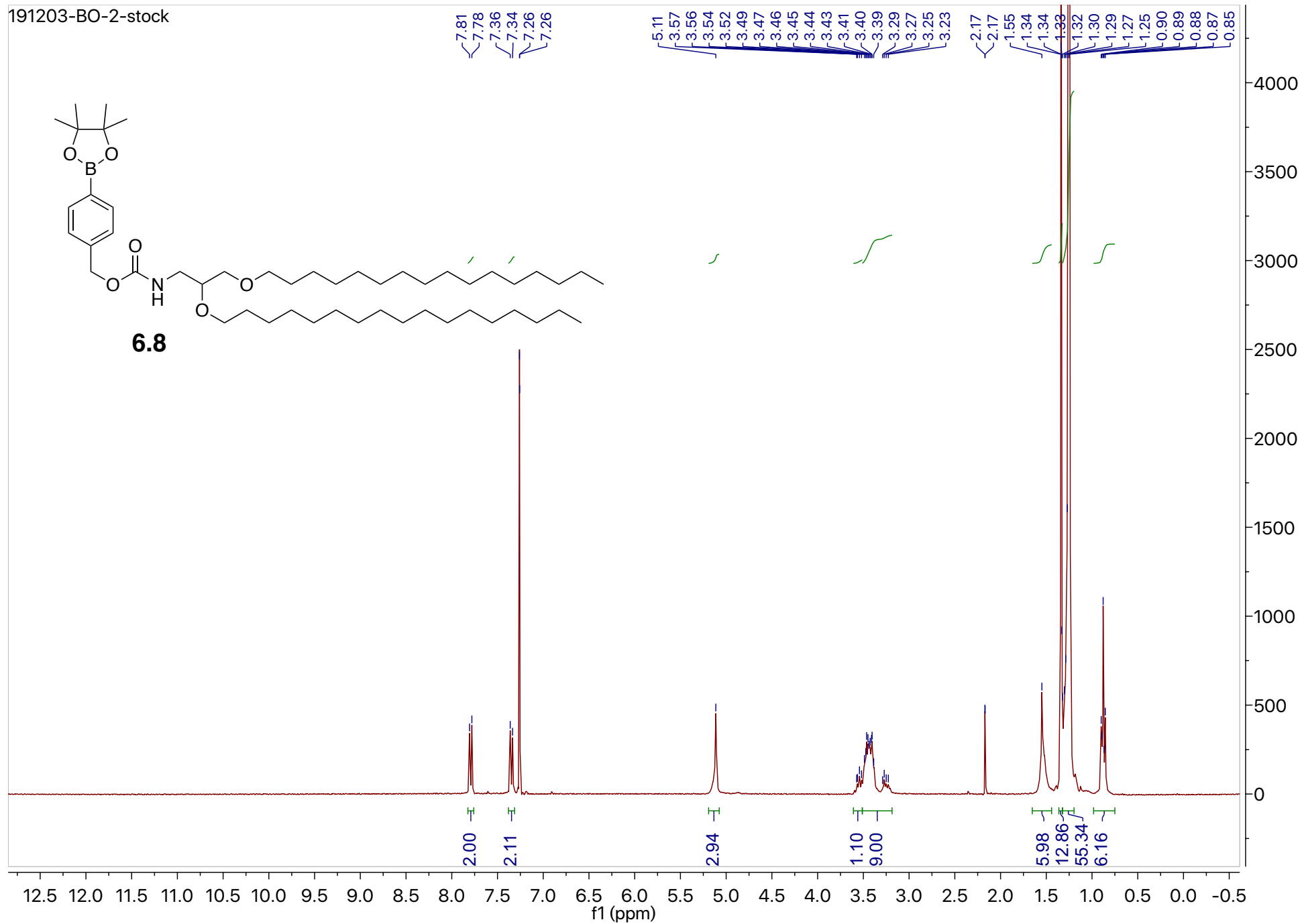
2020_07_06_LOU_BO_S2_NEG_2 43 (0.744) Cm (1:112)

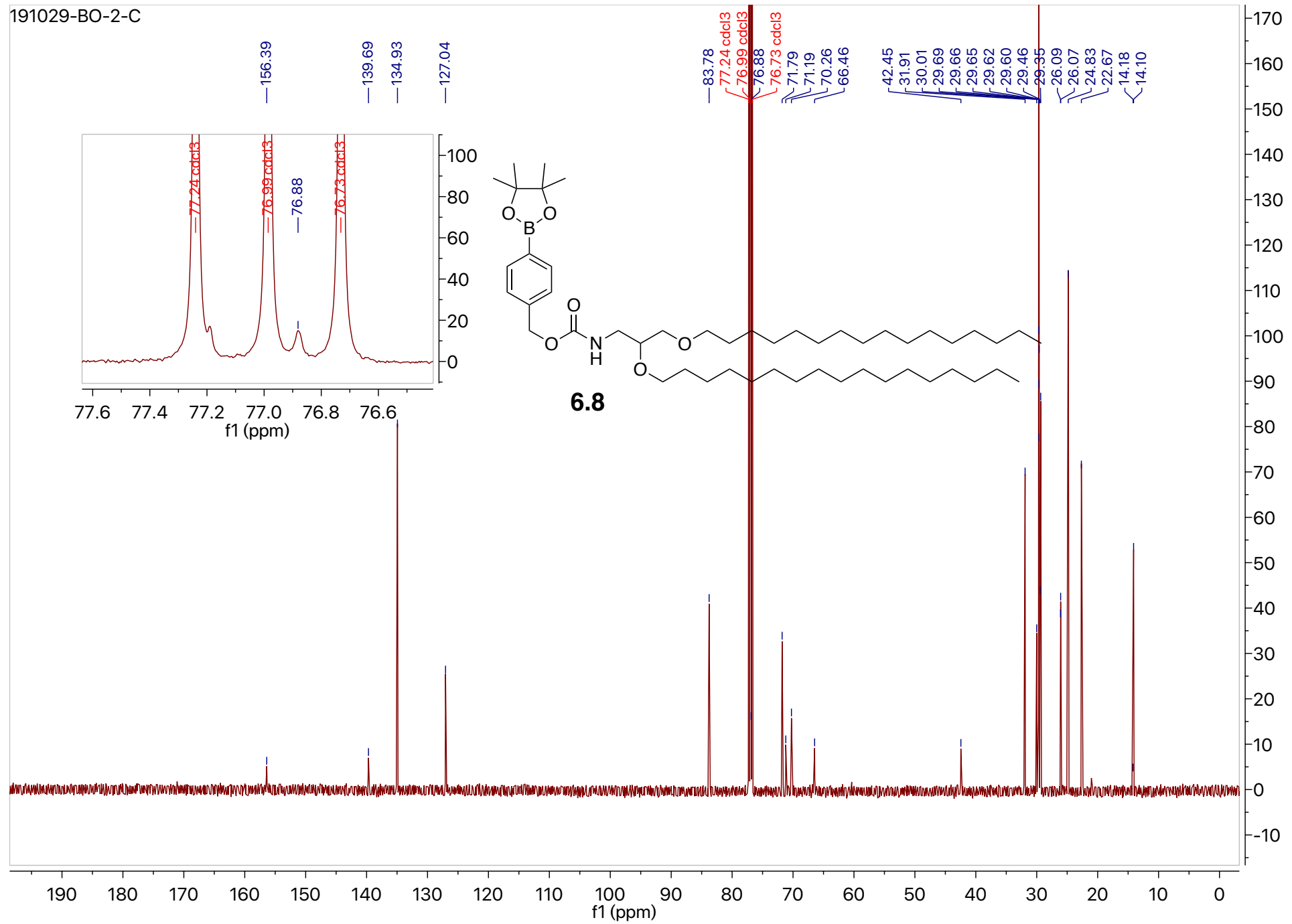
TOF MS ES-
2.31e9

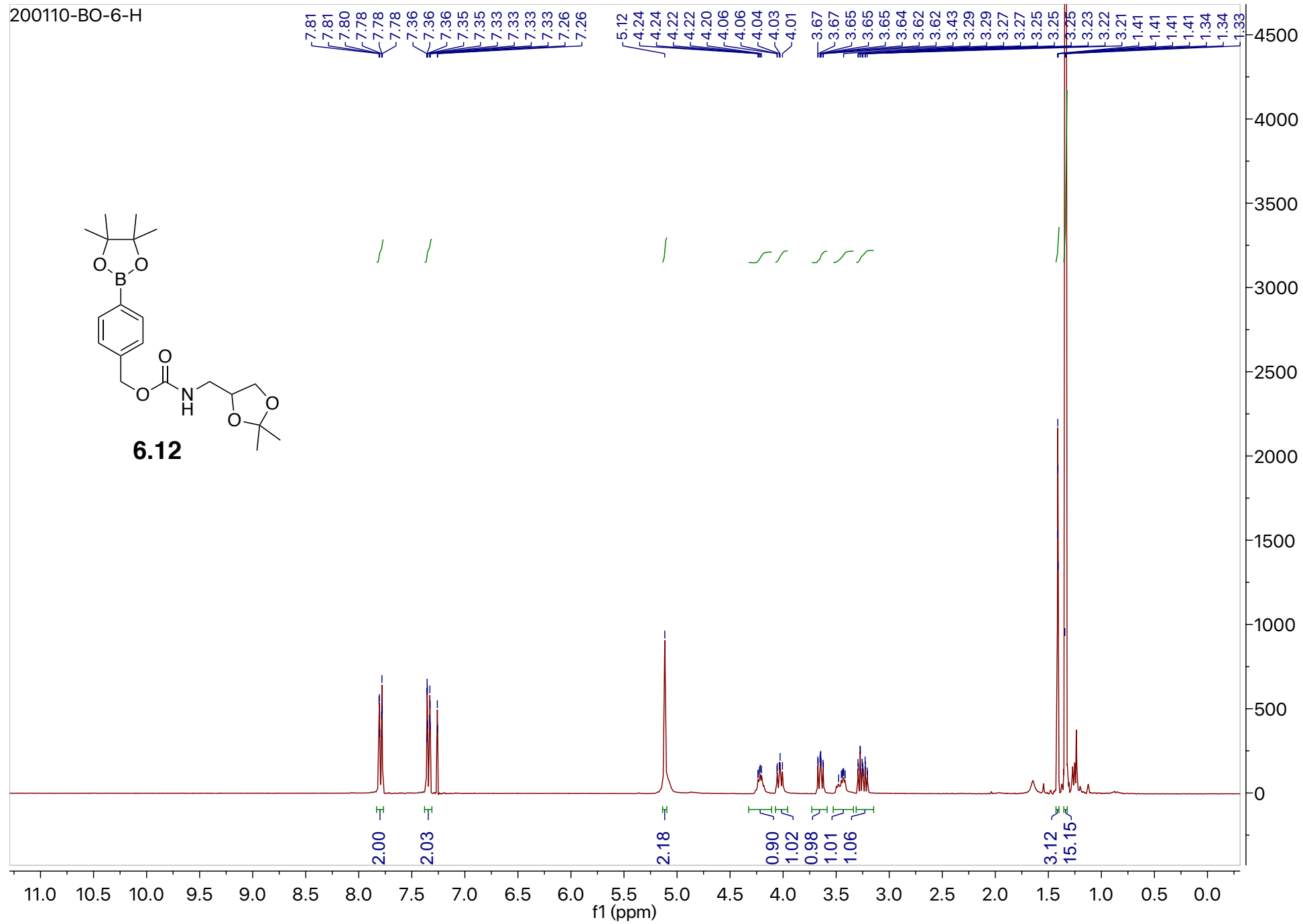


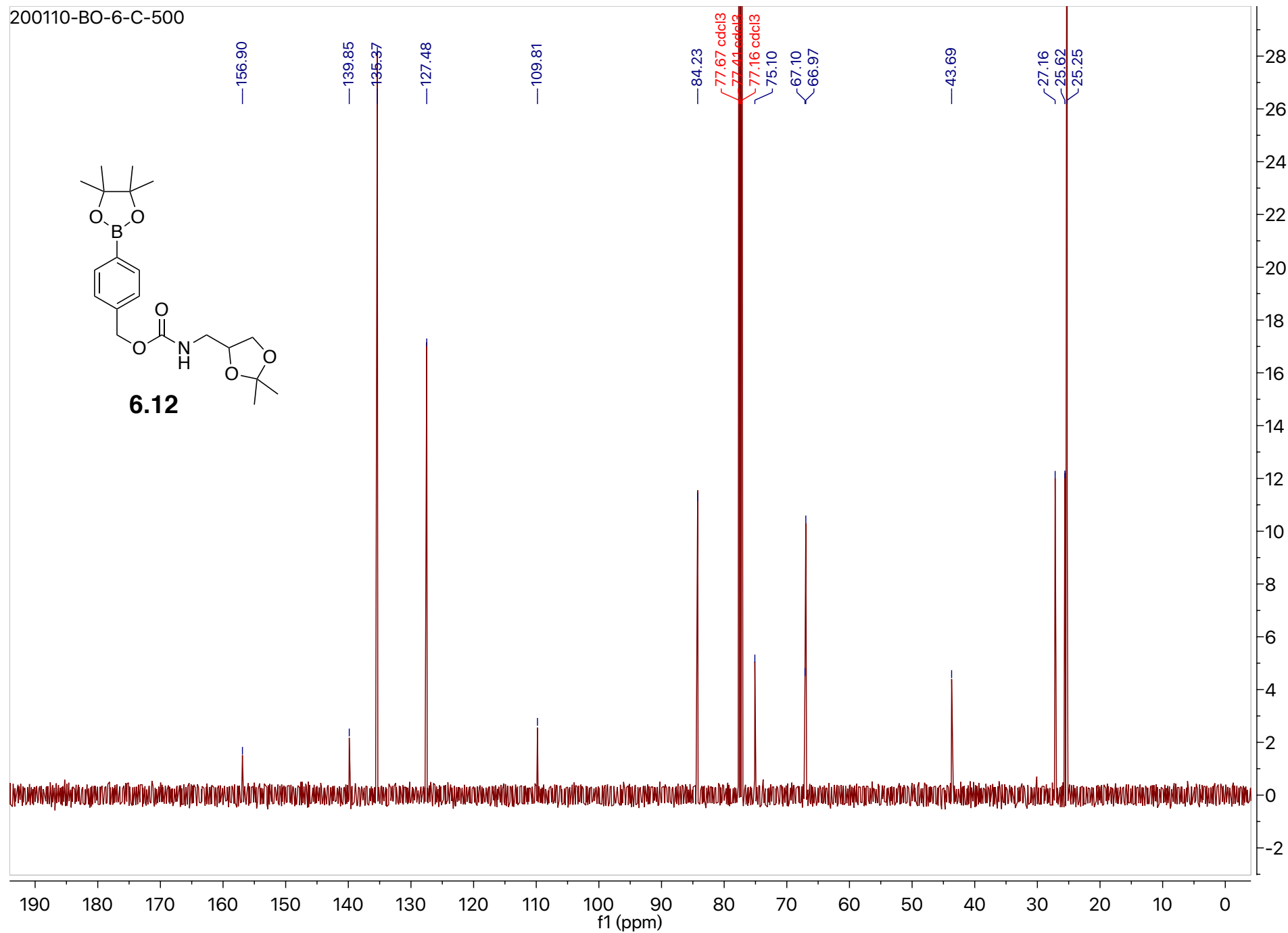
6.6

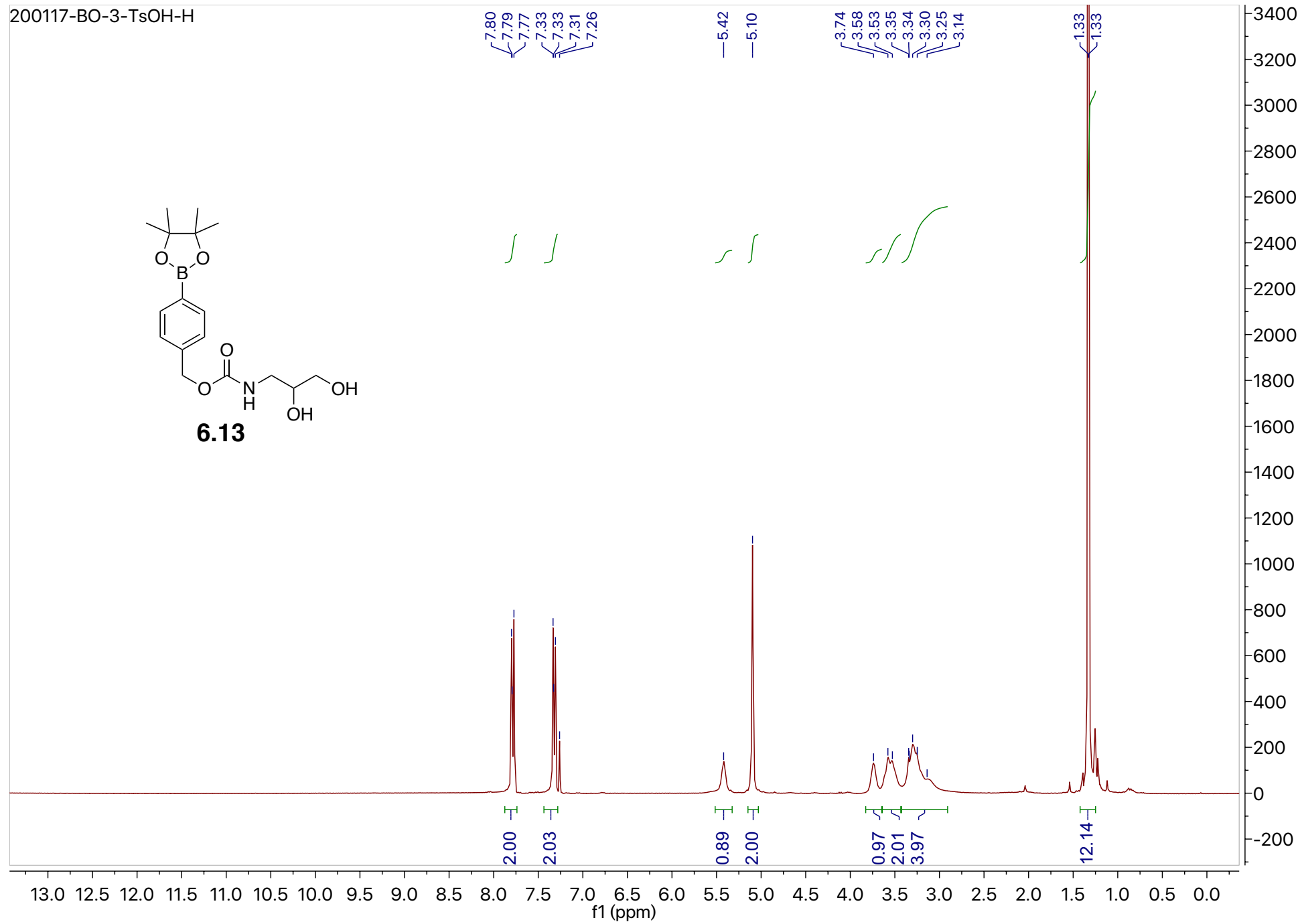
ESI-MS [M-H]⁻ calcd for C₅₅H₉₄BNO₁₁P: 986.6658
Found: 986.6659

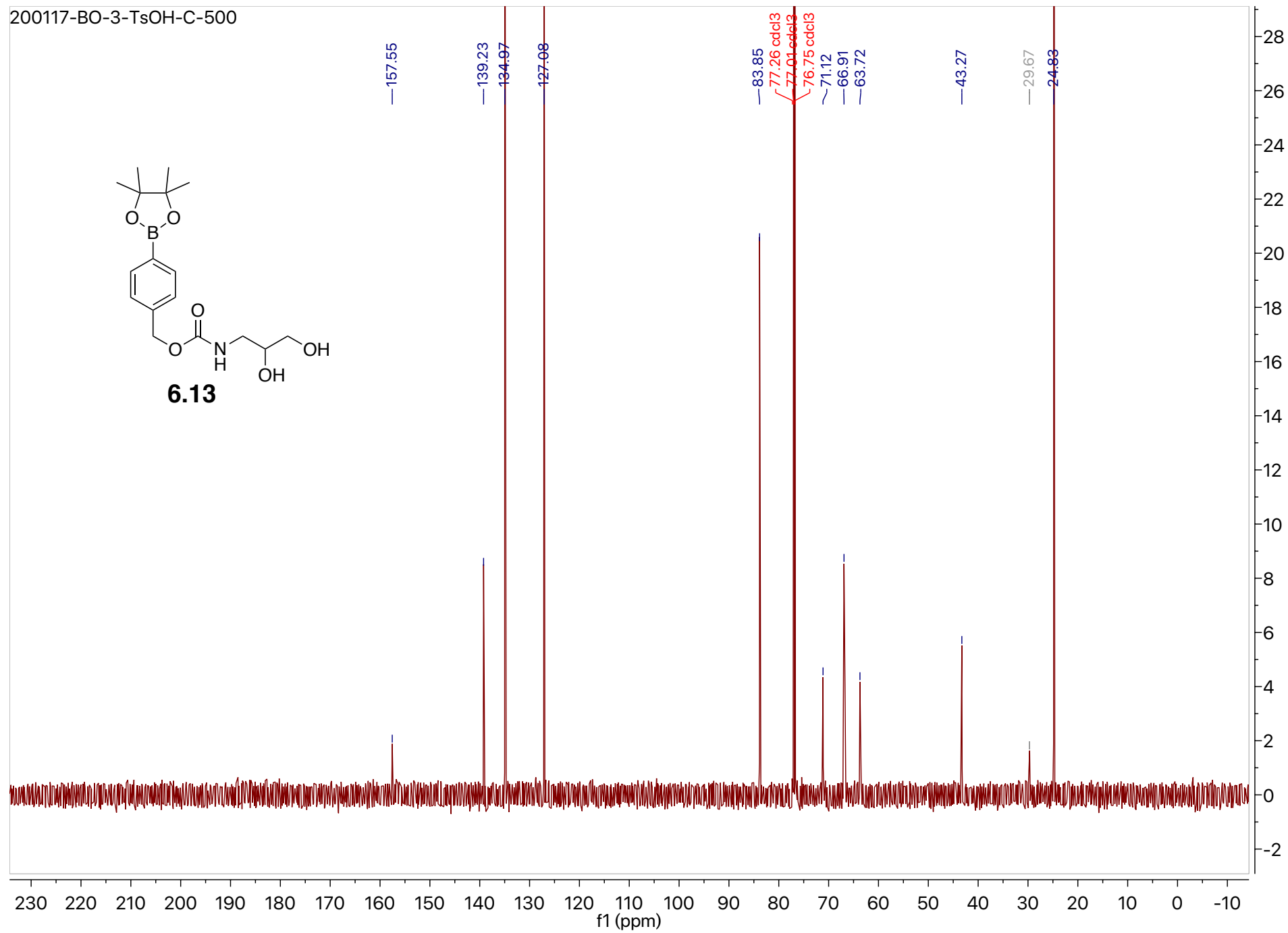




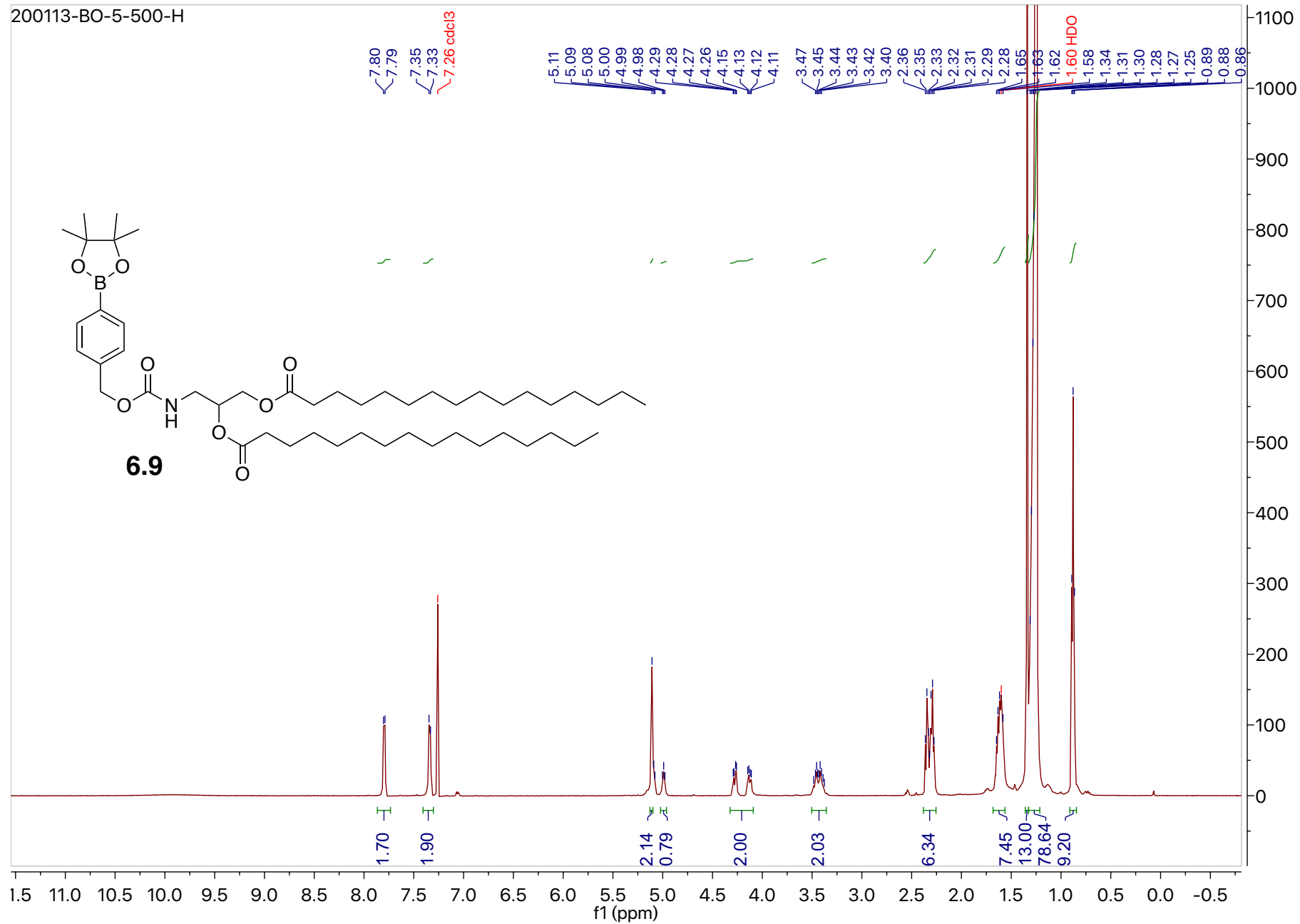


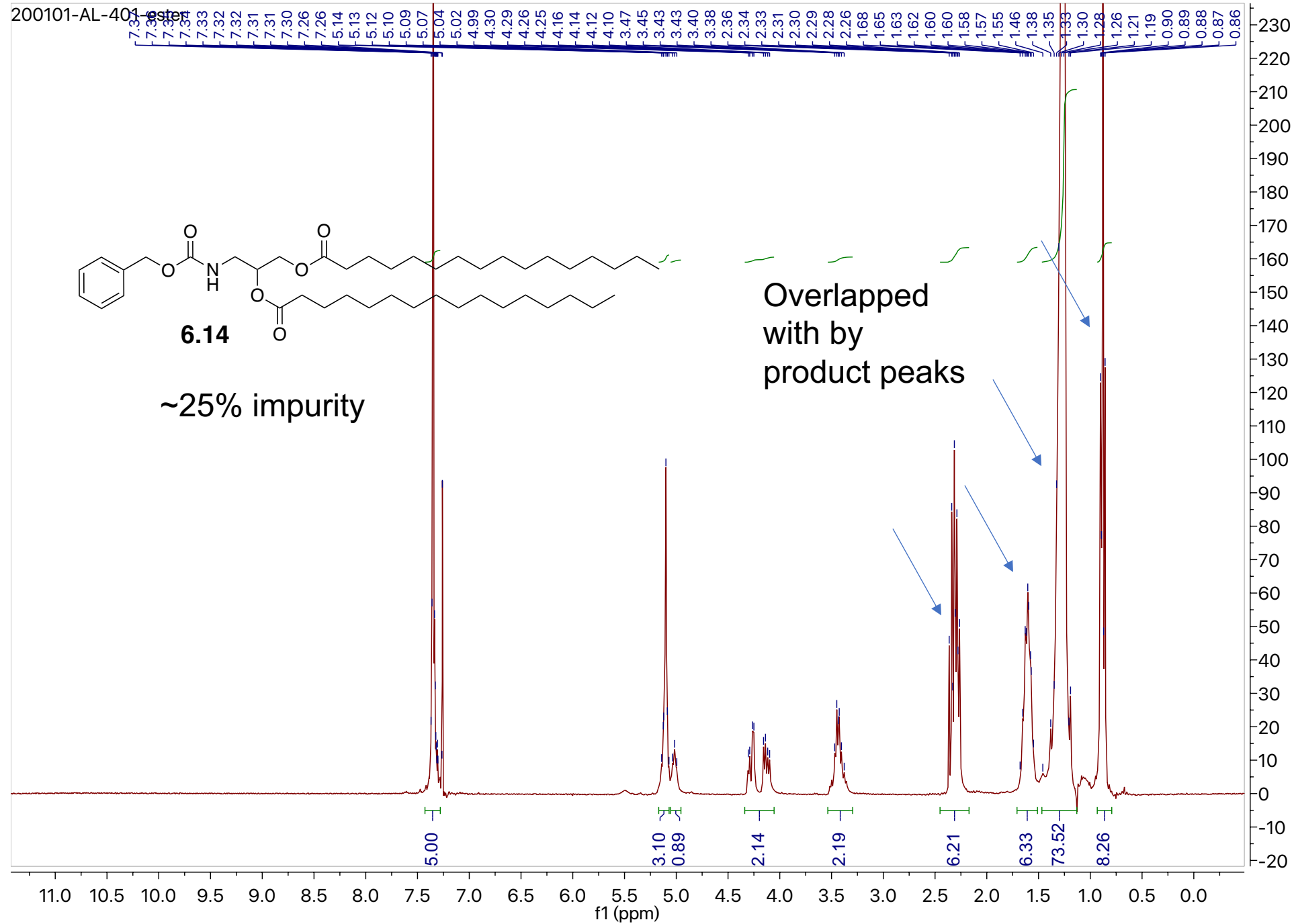


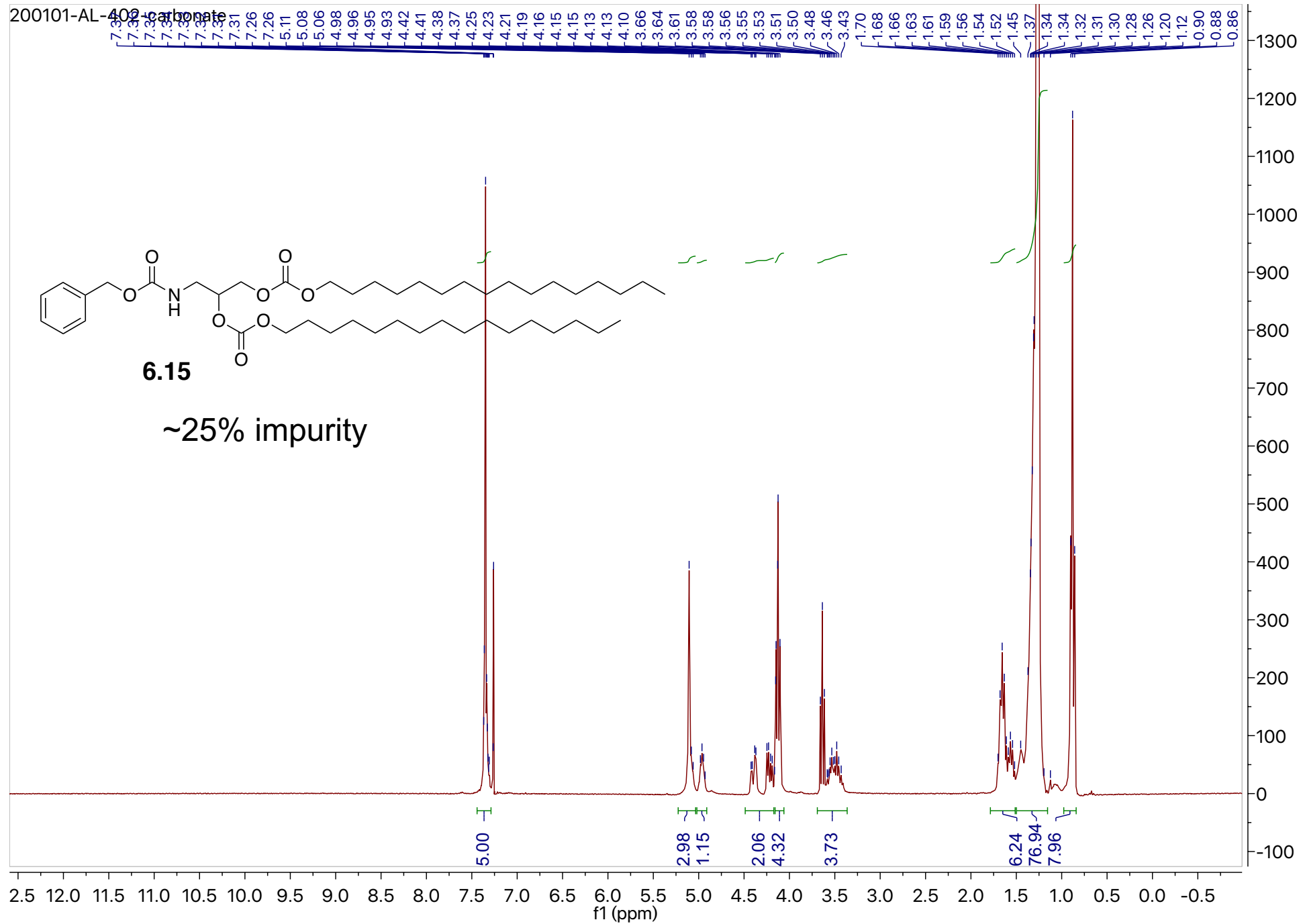


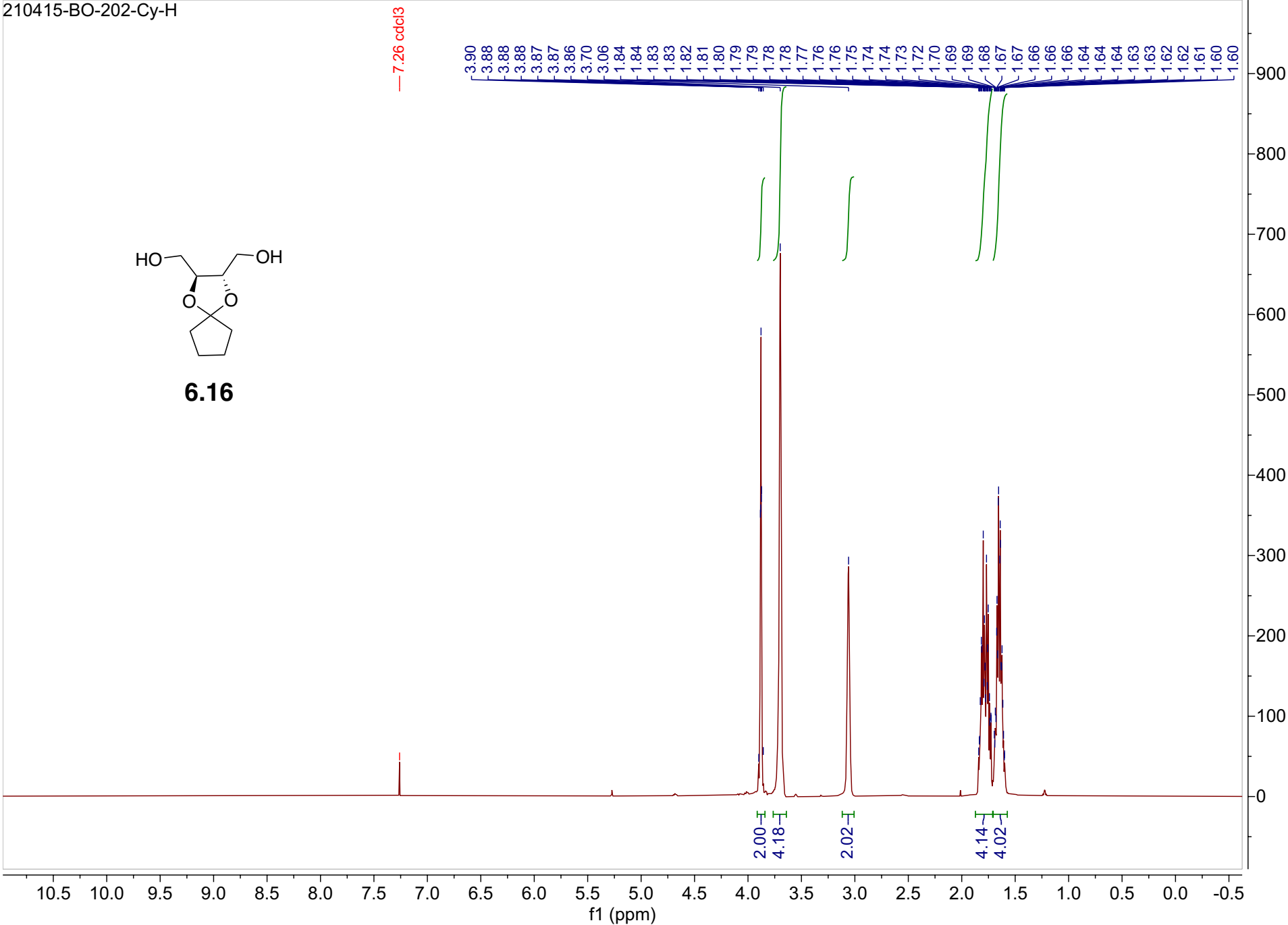
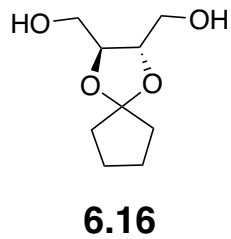


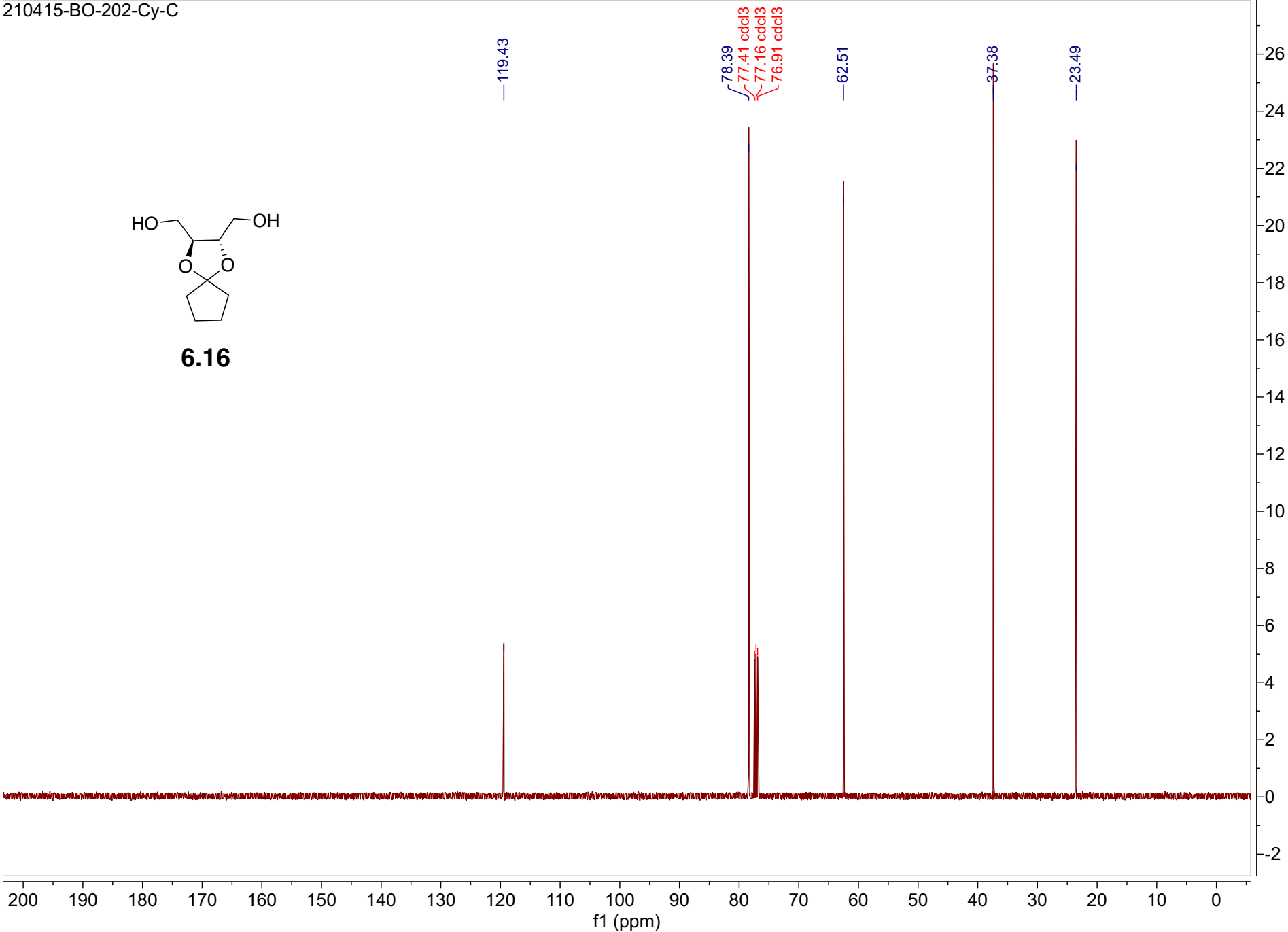
200113-BO-5-500-H

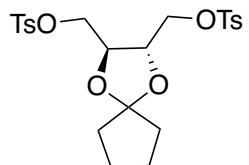
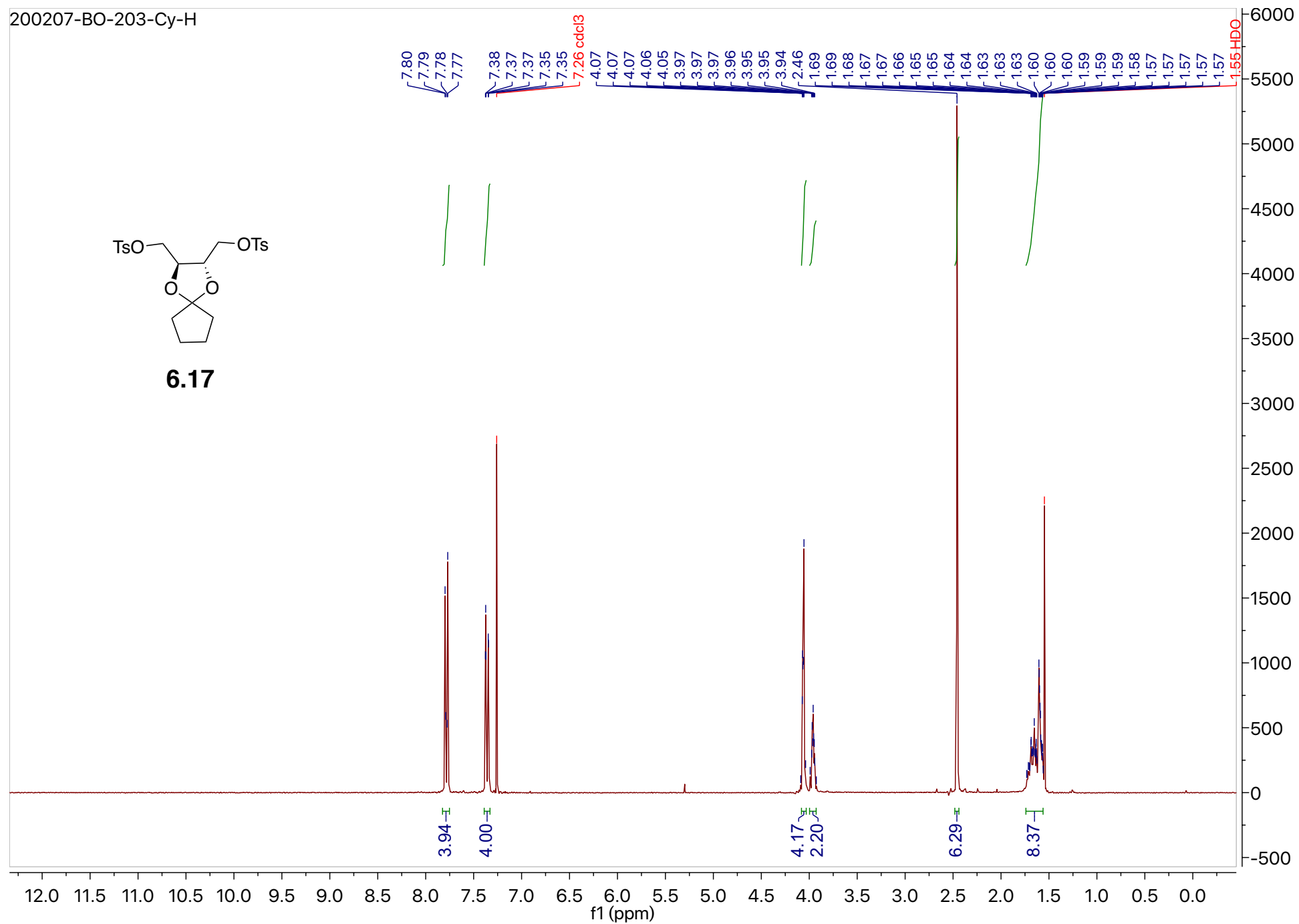


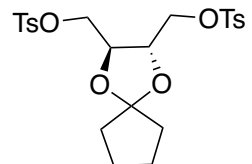
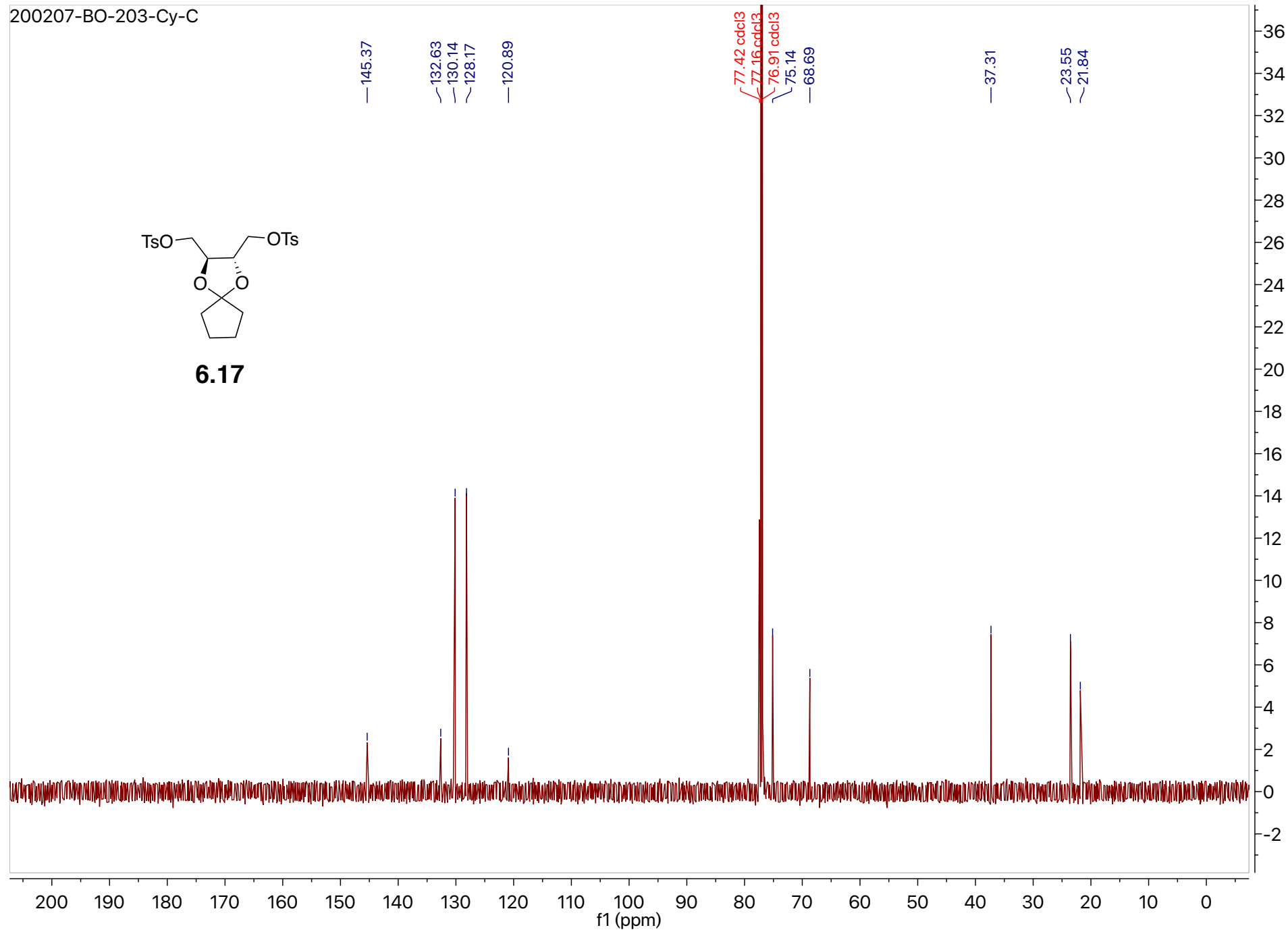


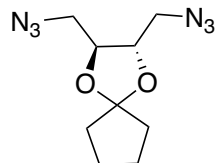
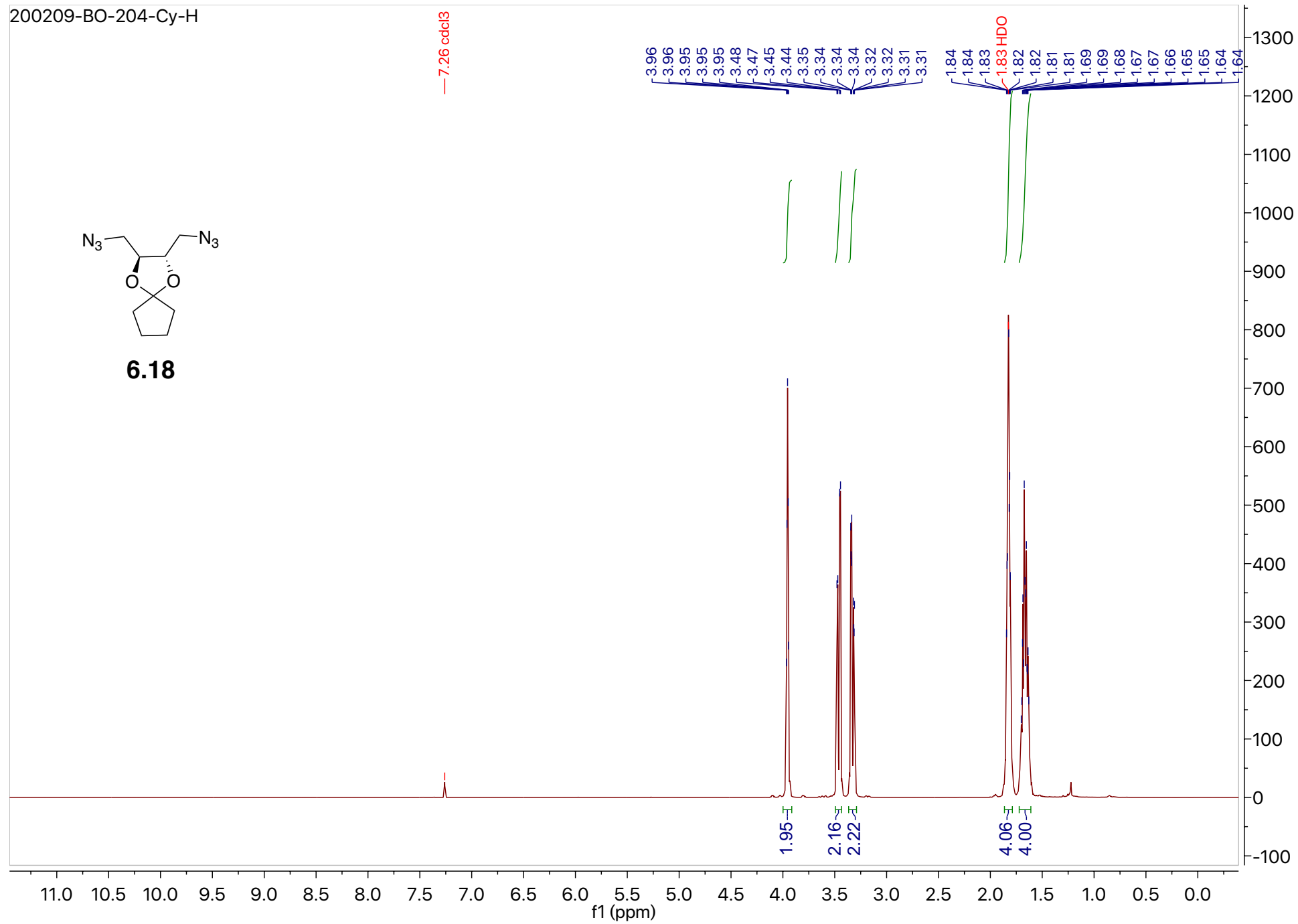


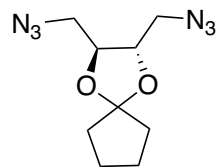
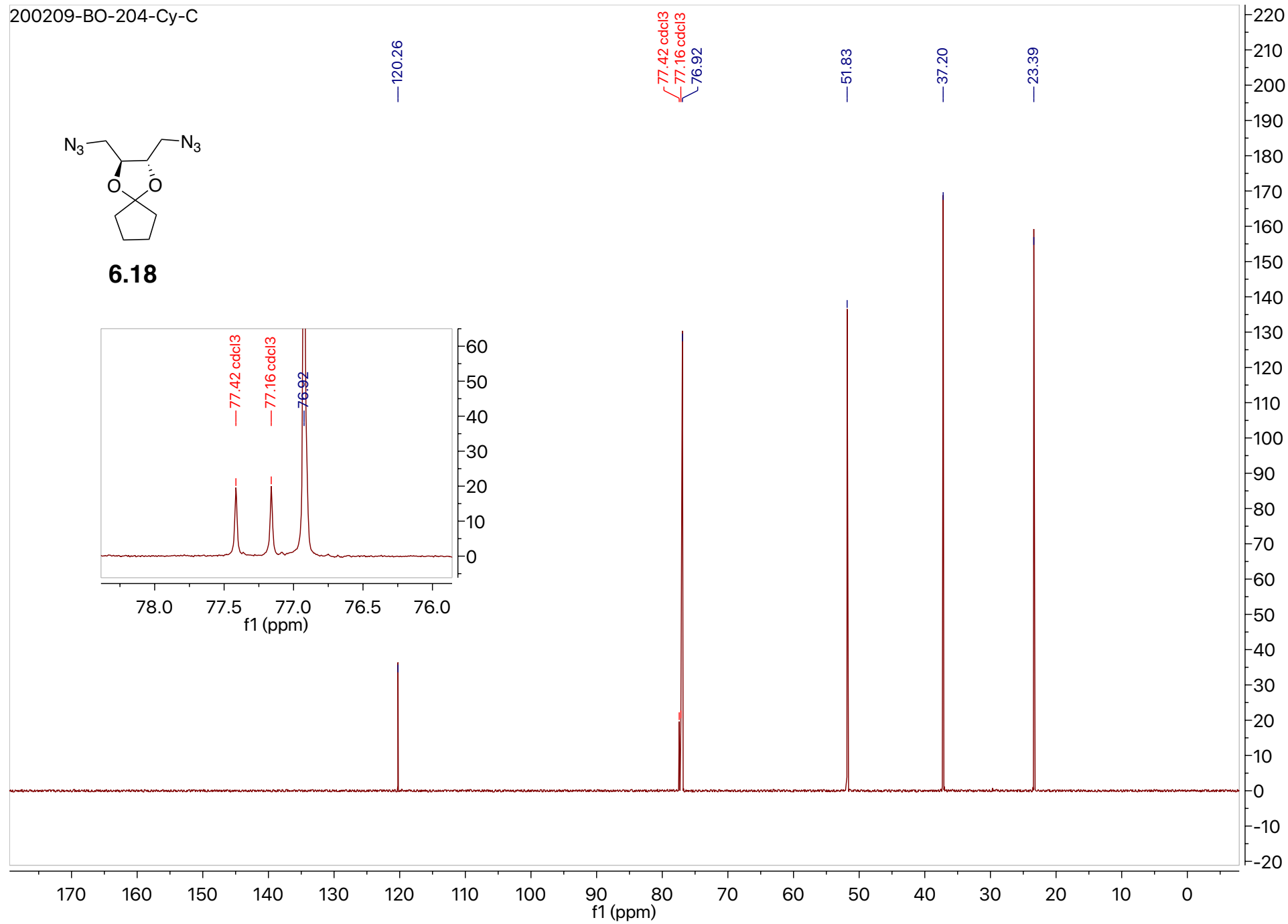


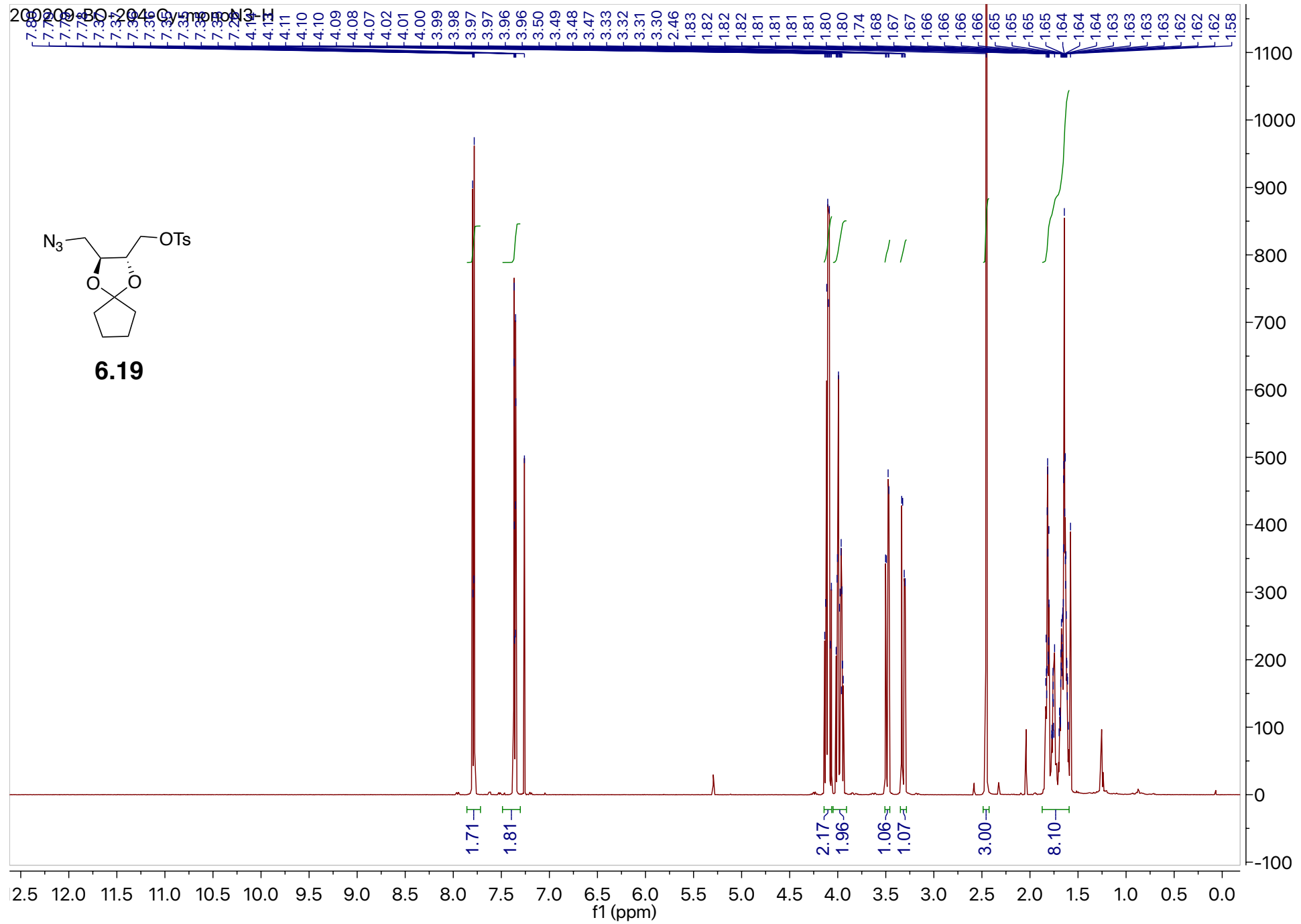


**6.17**

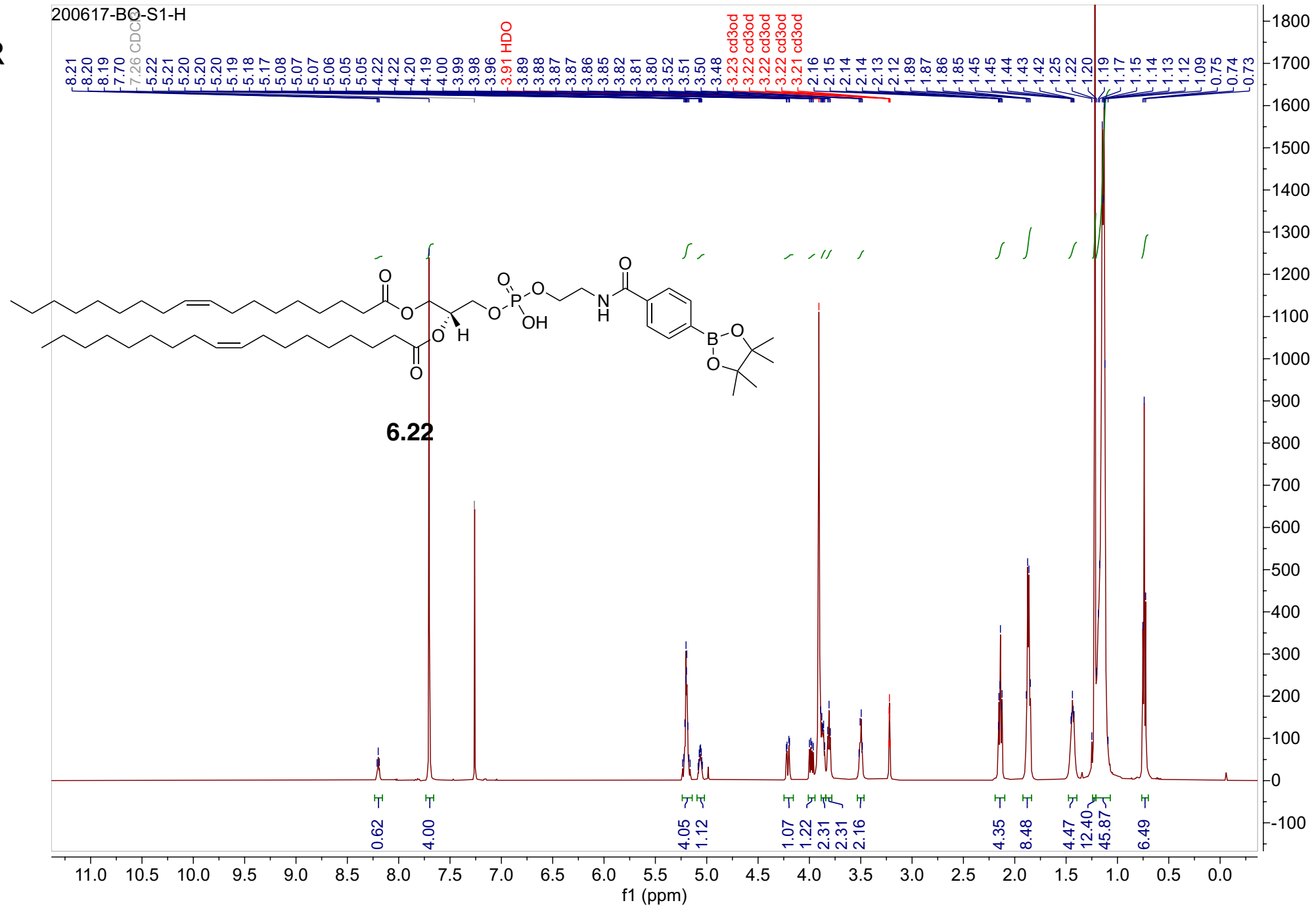
**6.17**

**6.18**

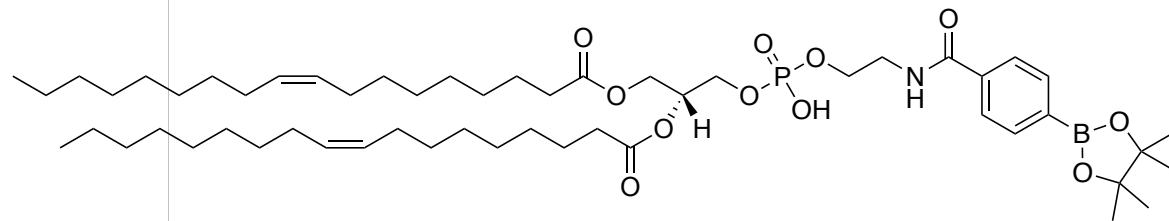
**6.18**



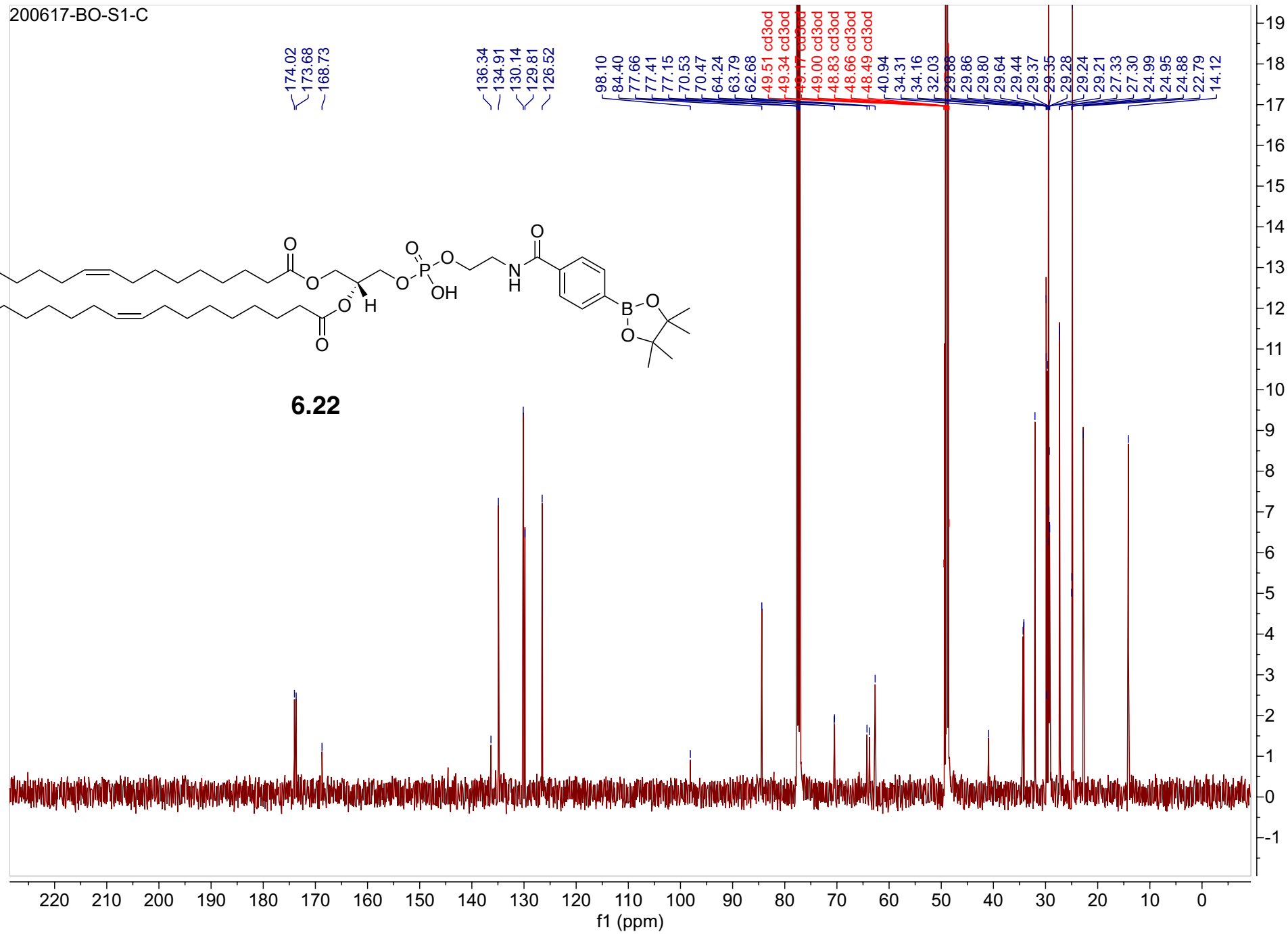
H NMR



C NMR

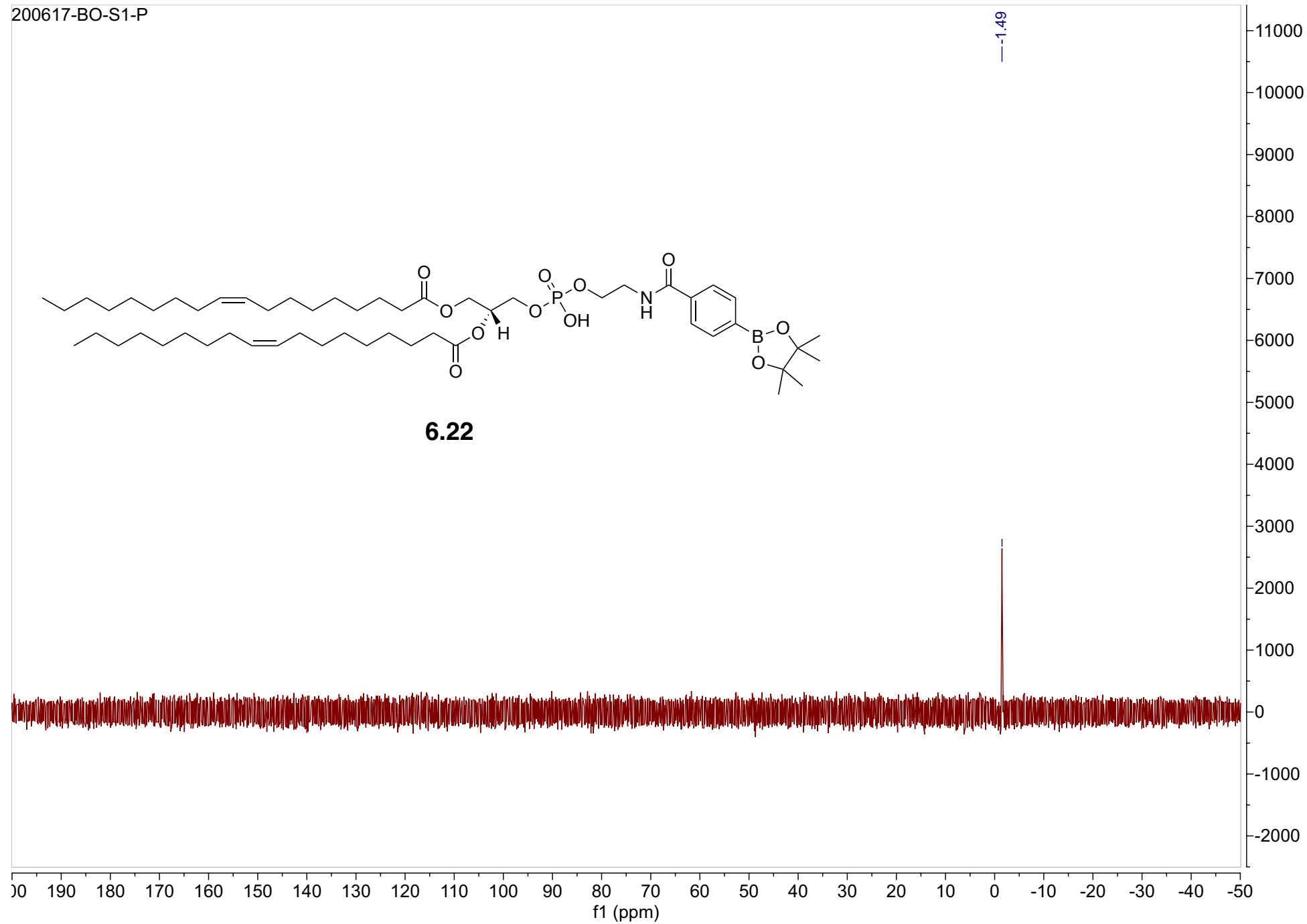


6.22



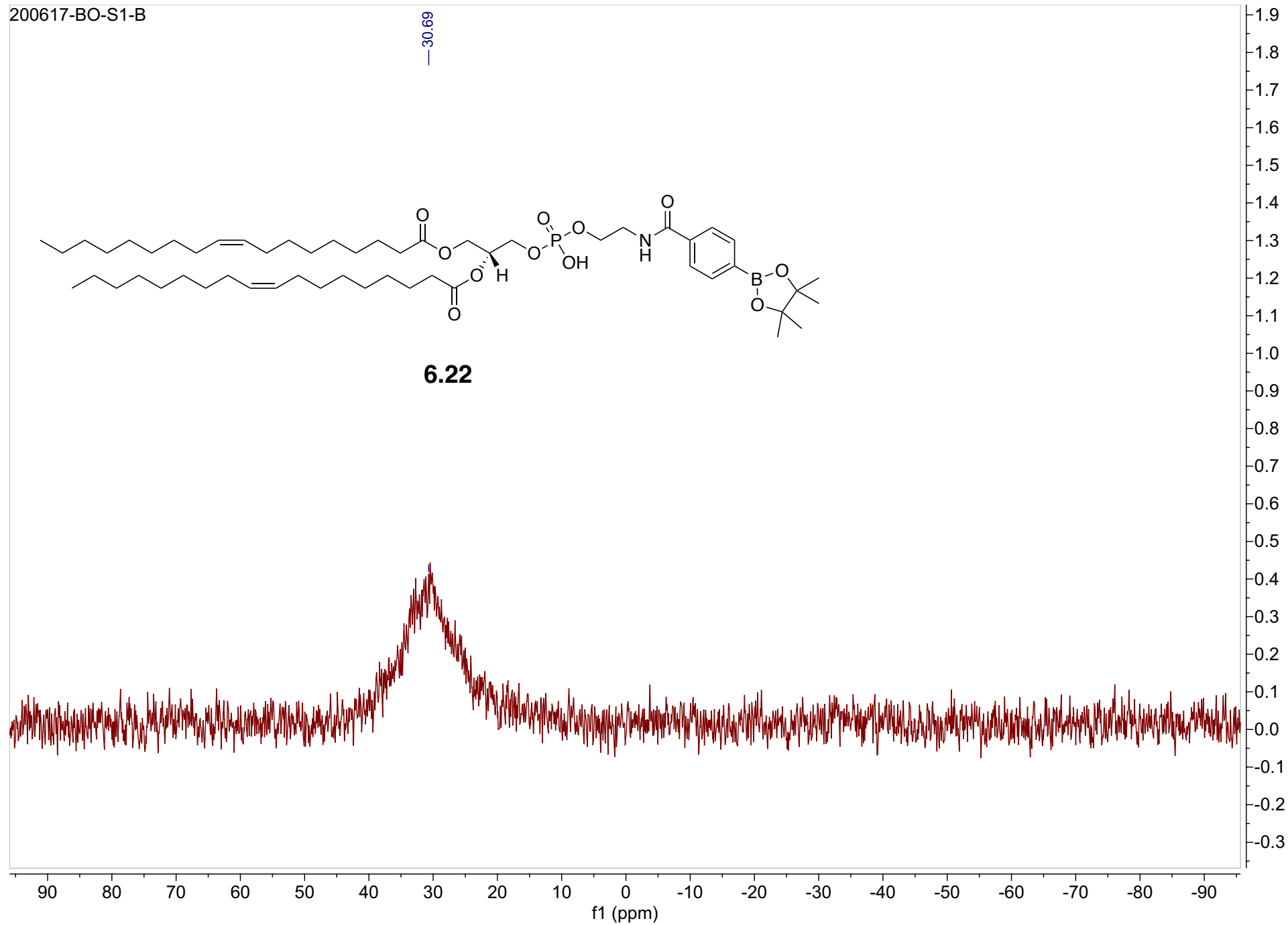
P NMR

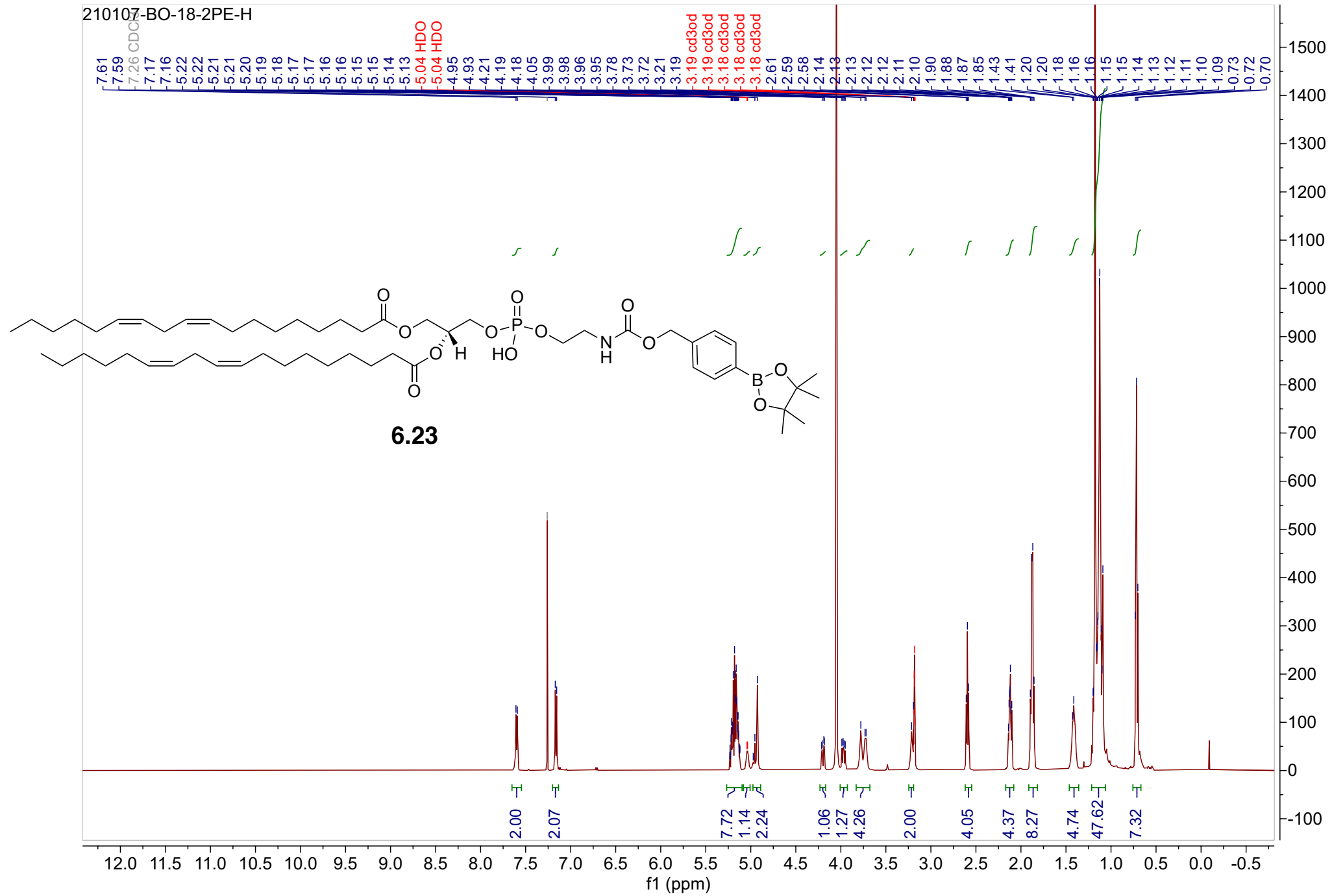
200617-BO-S1-P

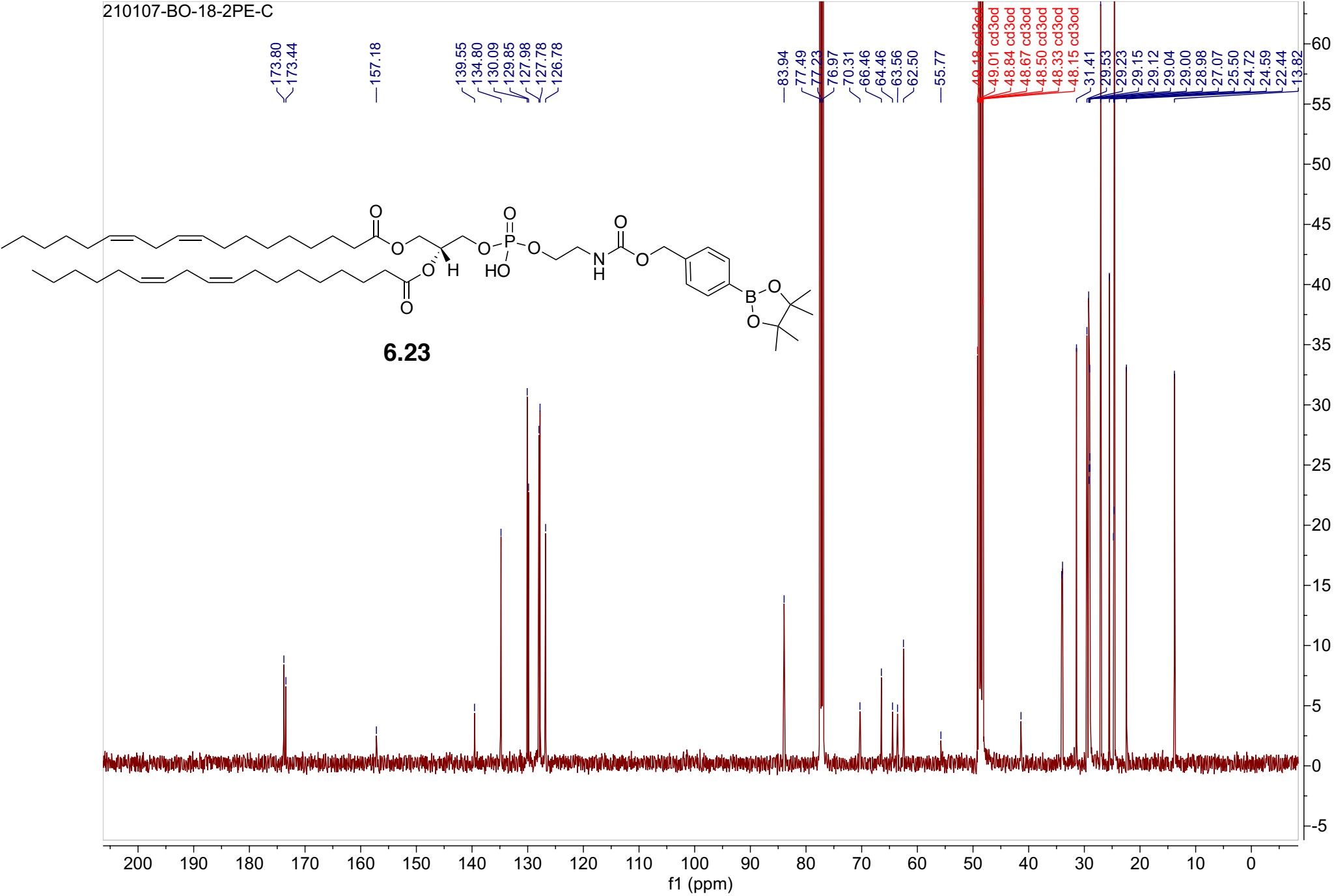


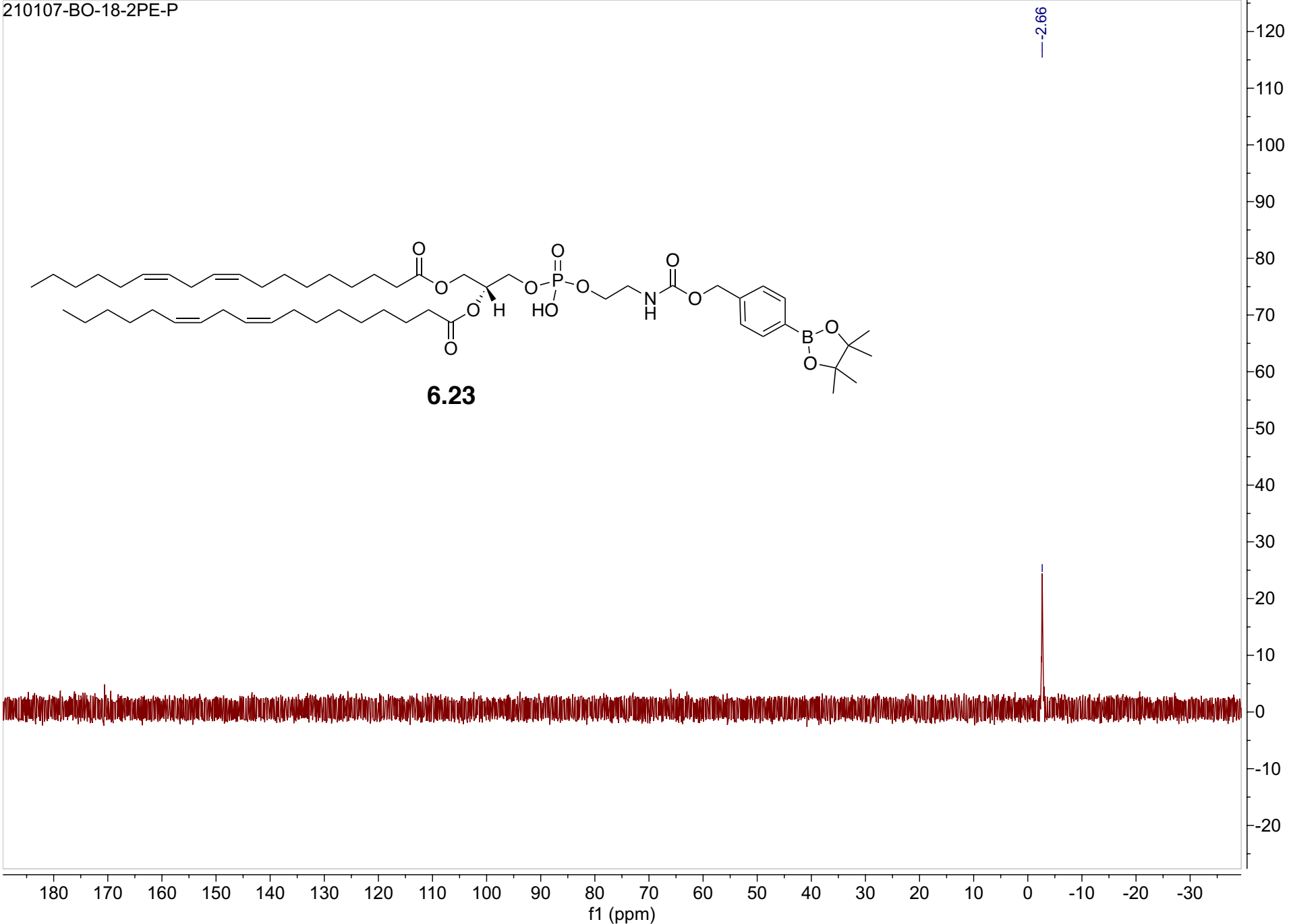
B NMR

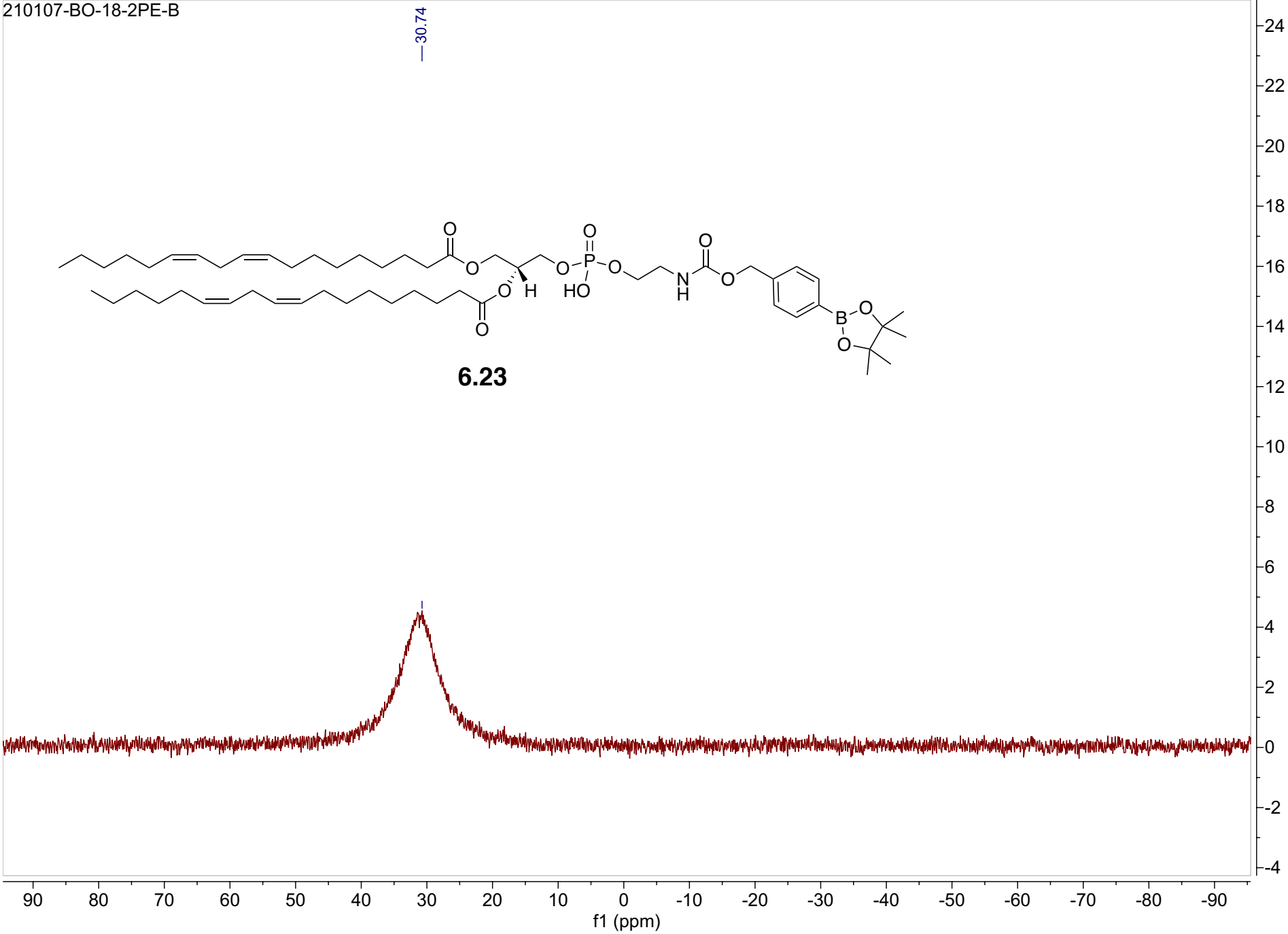
200617-BO-S1-B

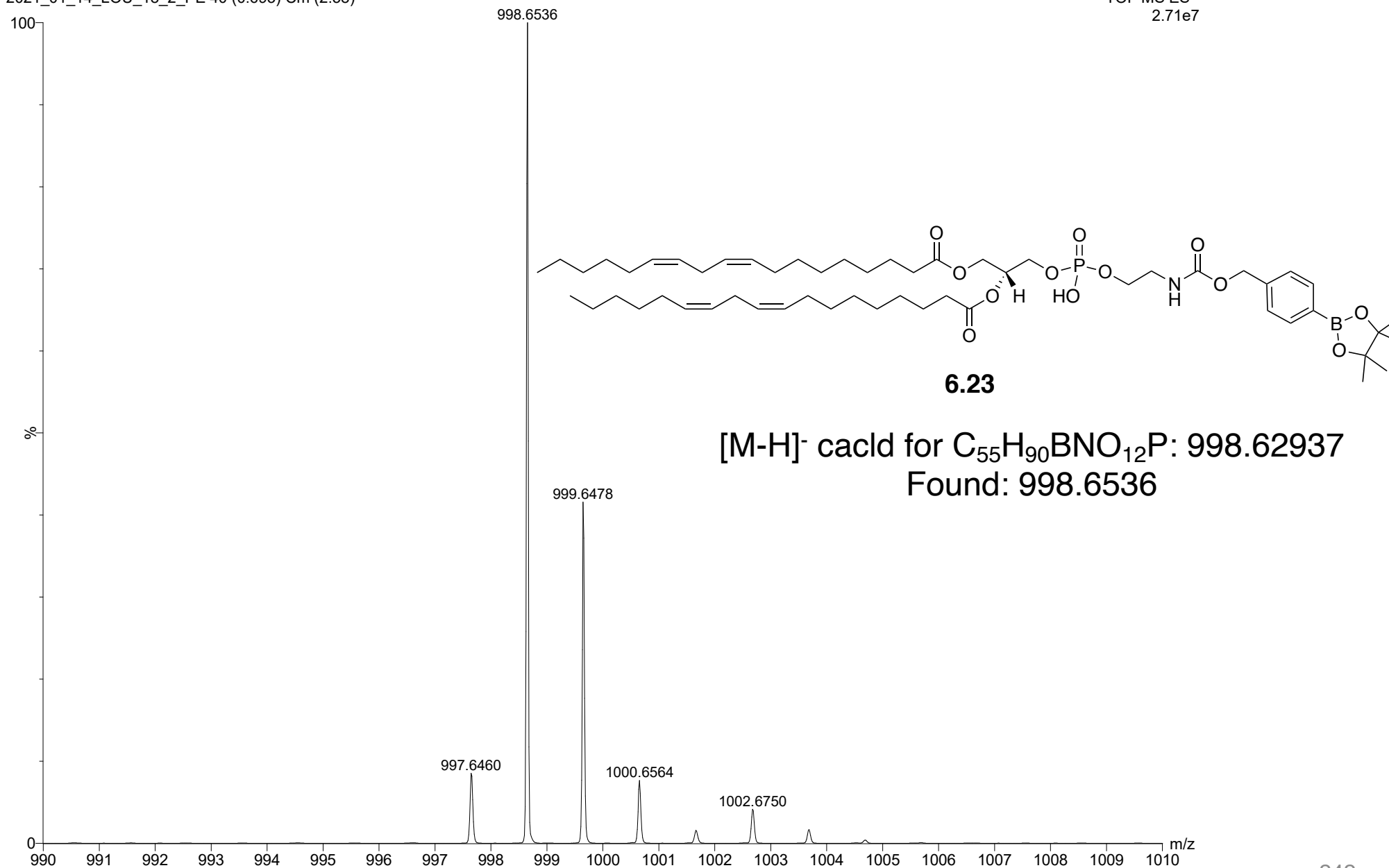


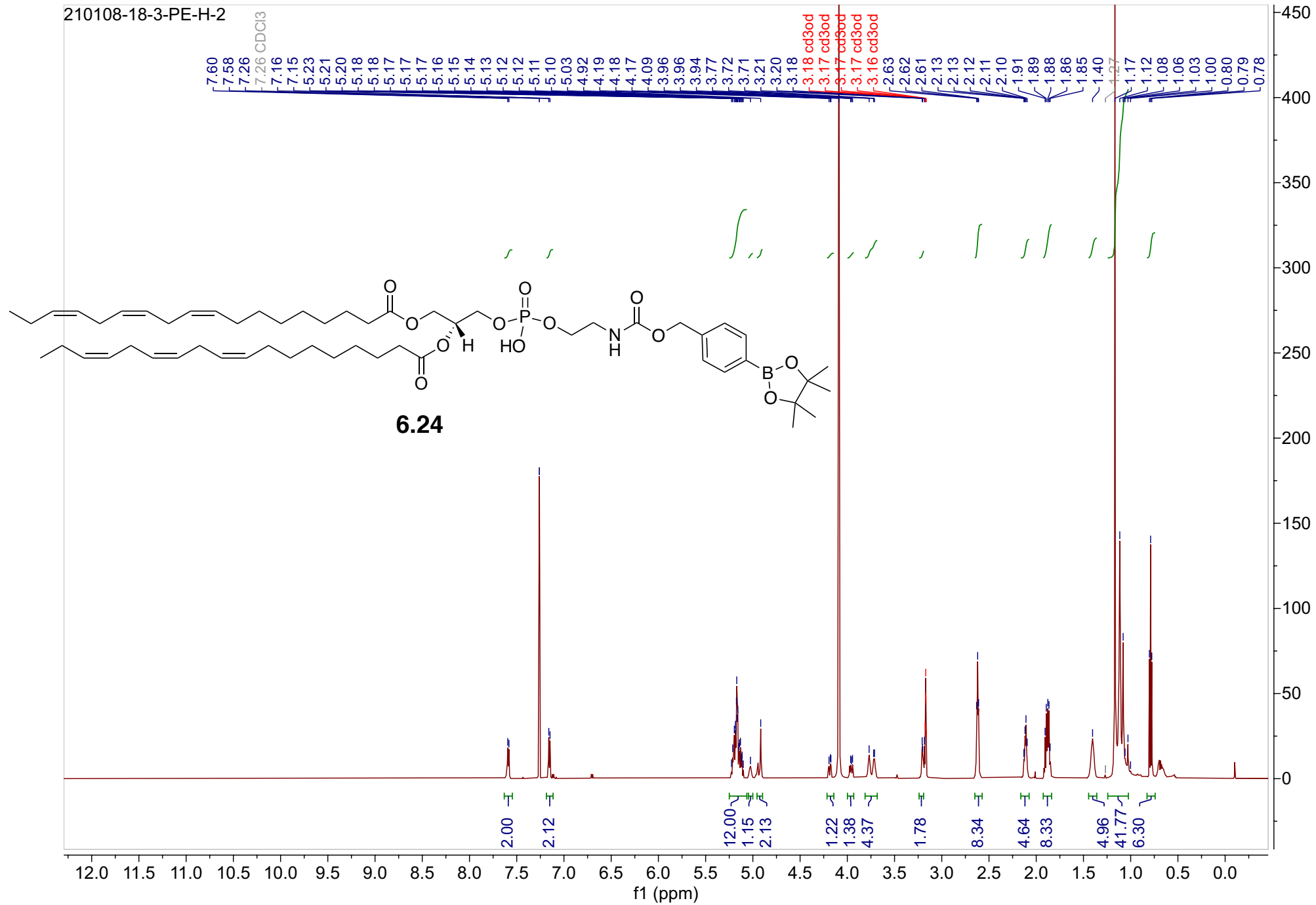


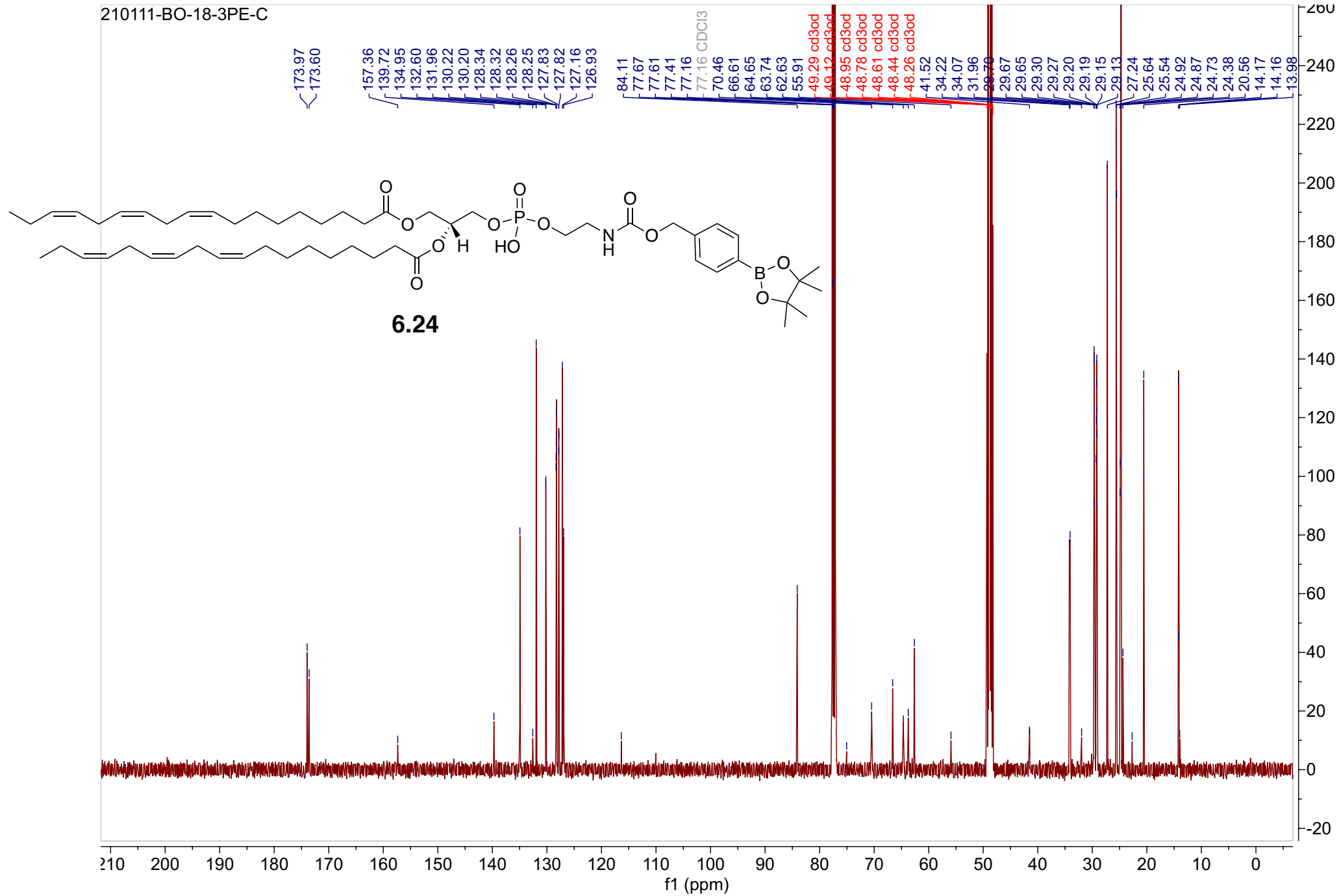


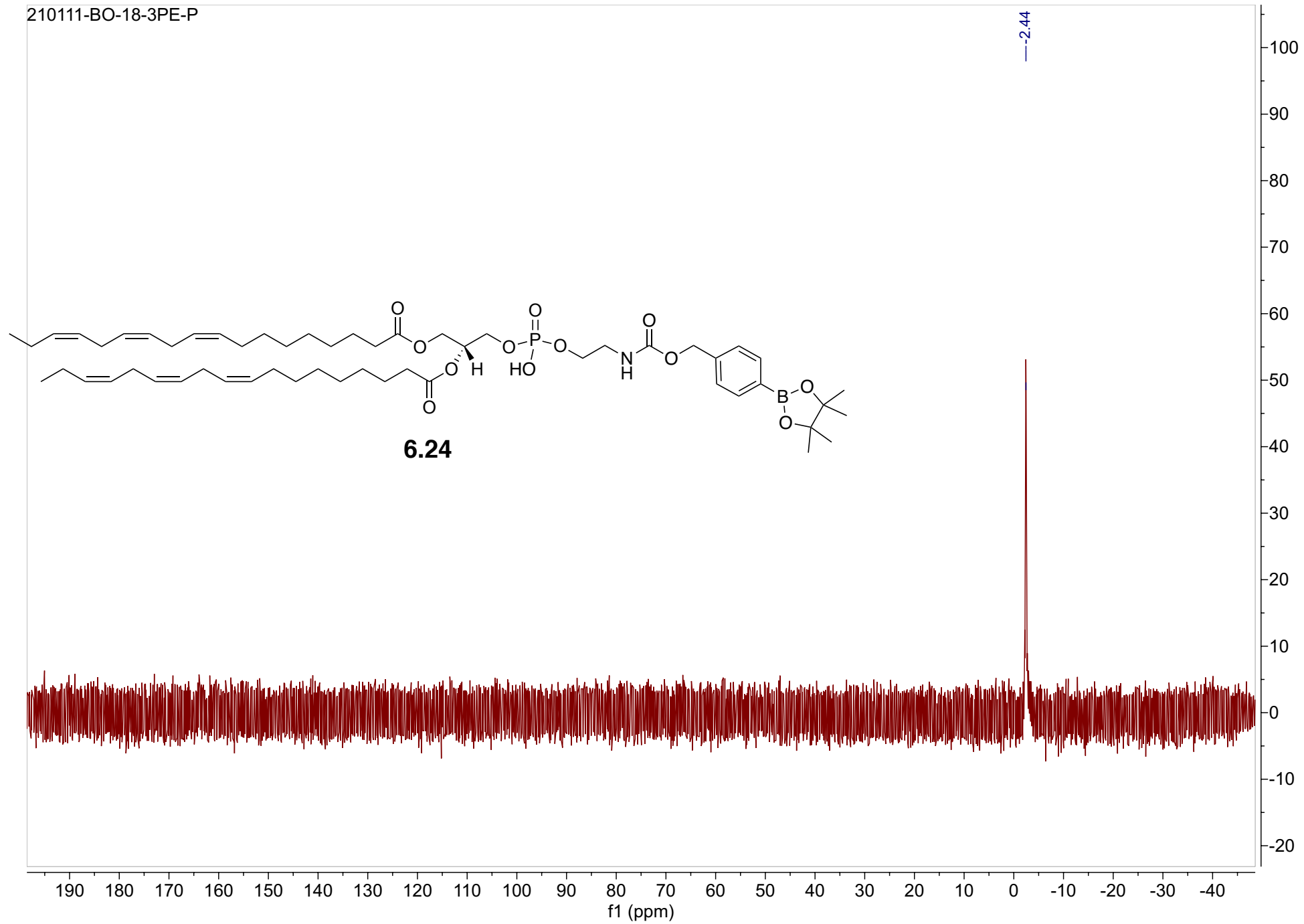


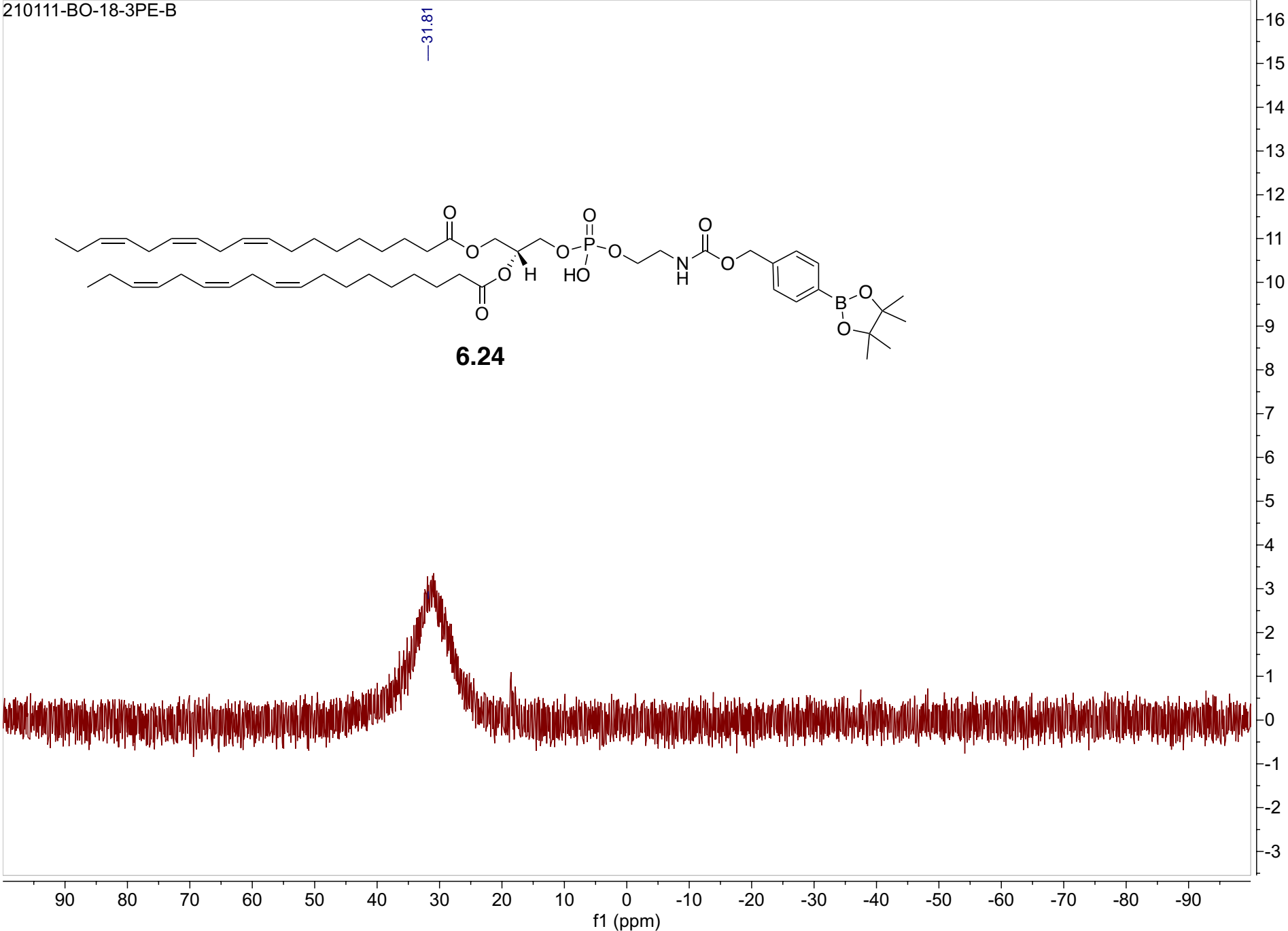






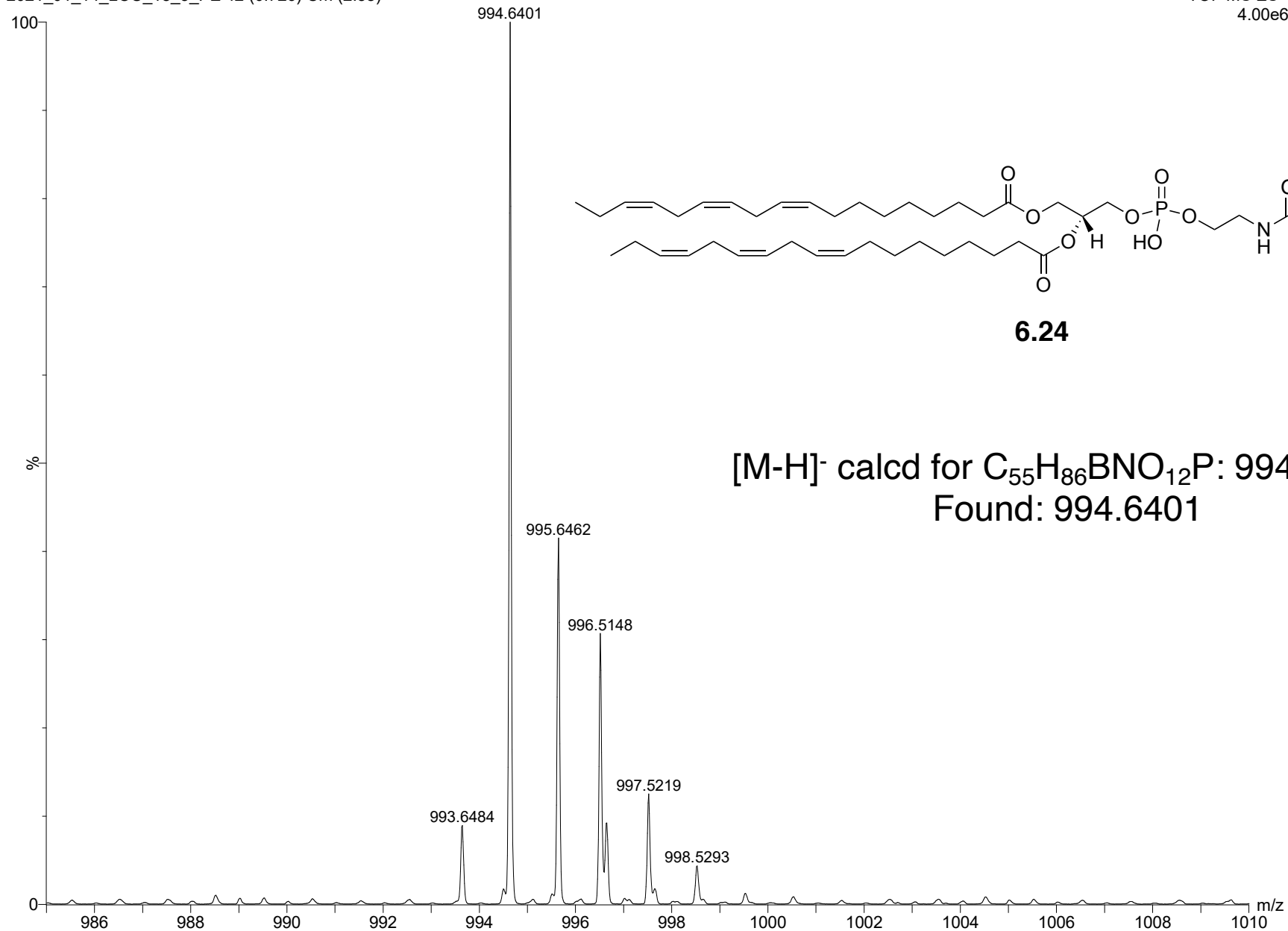


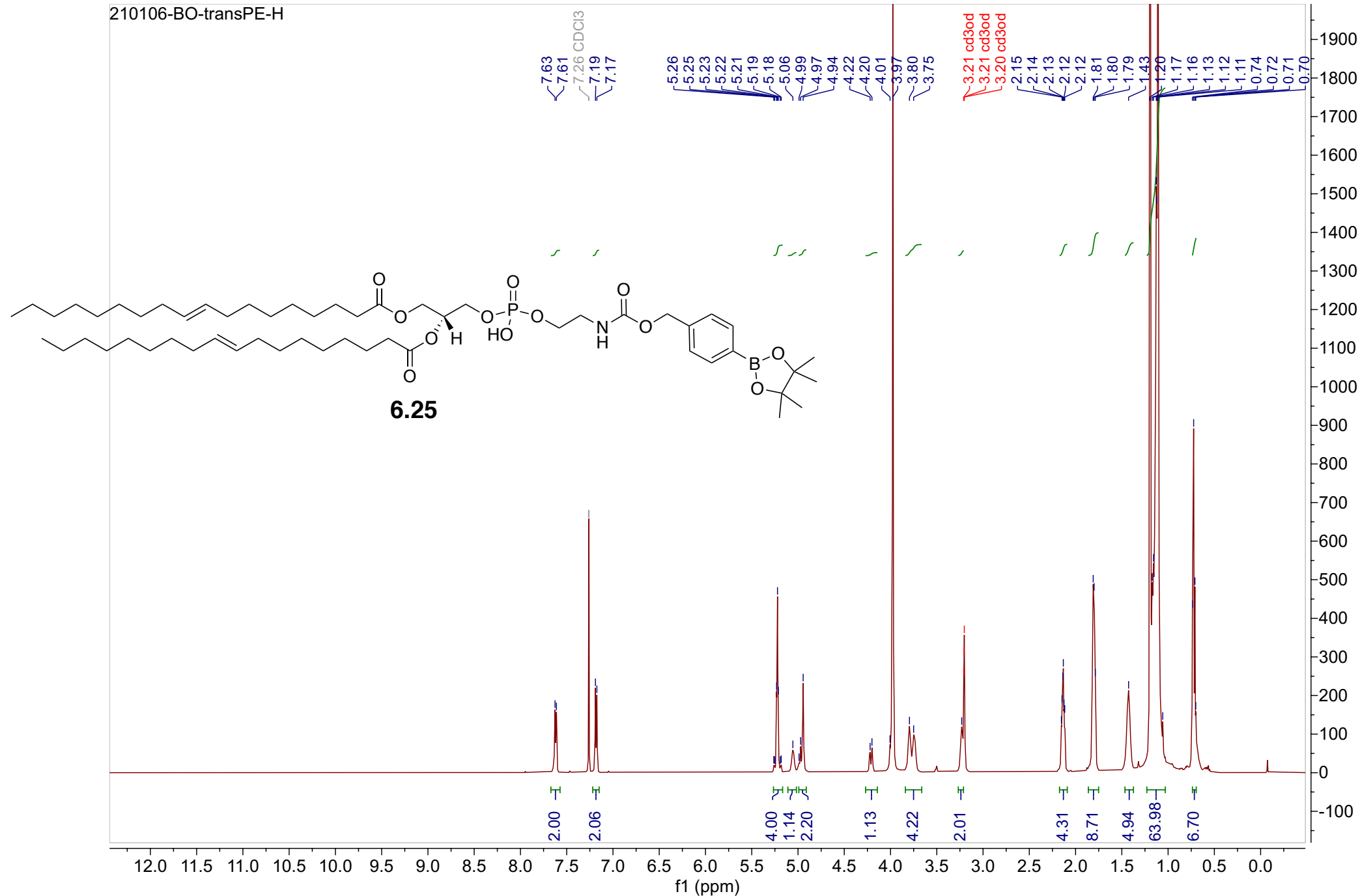


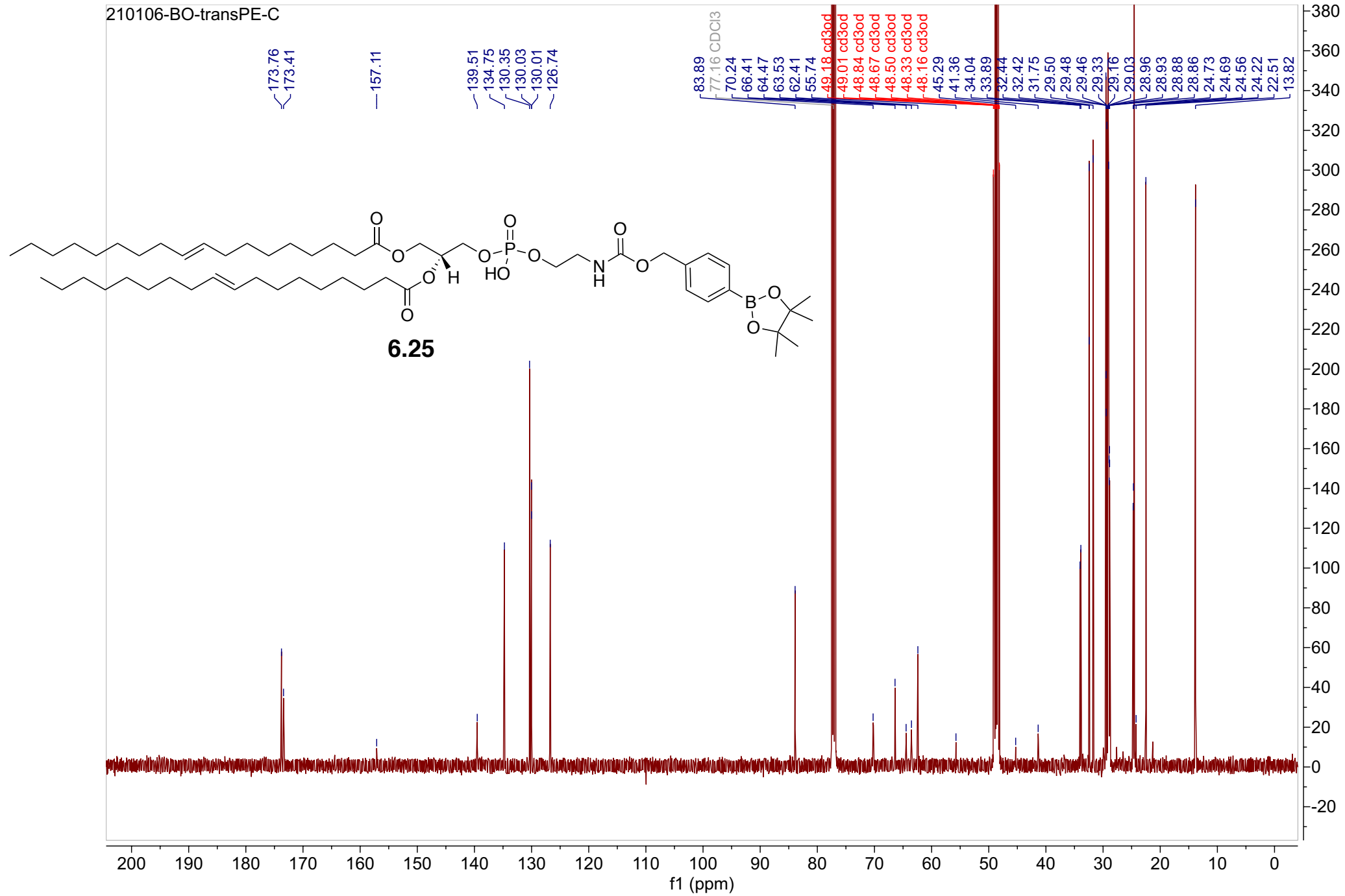


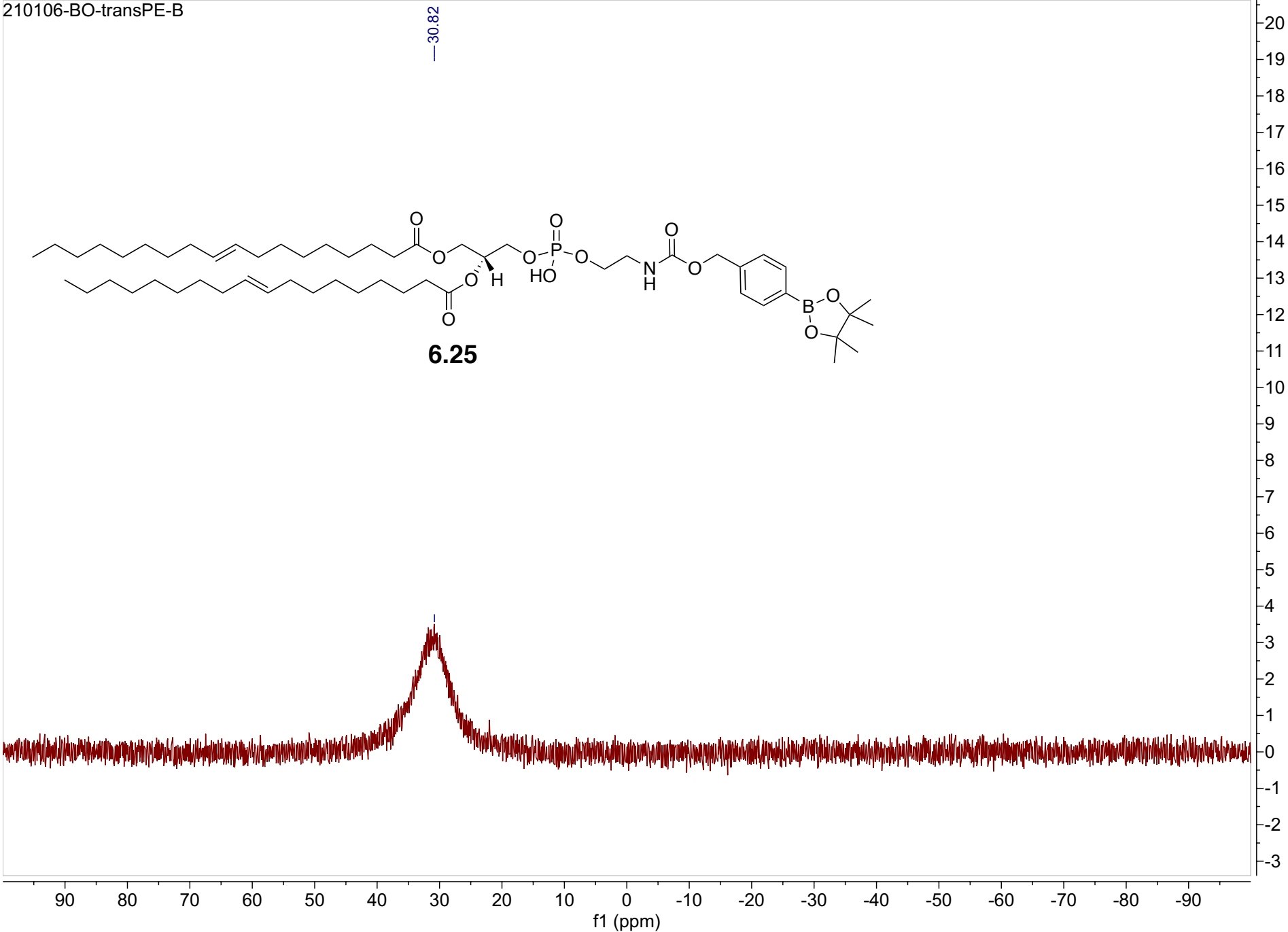
2021_01_14_LOU_18_3_PE 42 (0.726) Cm (2:58)

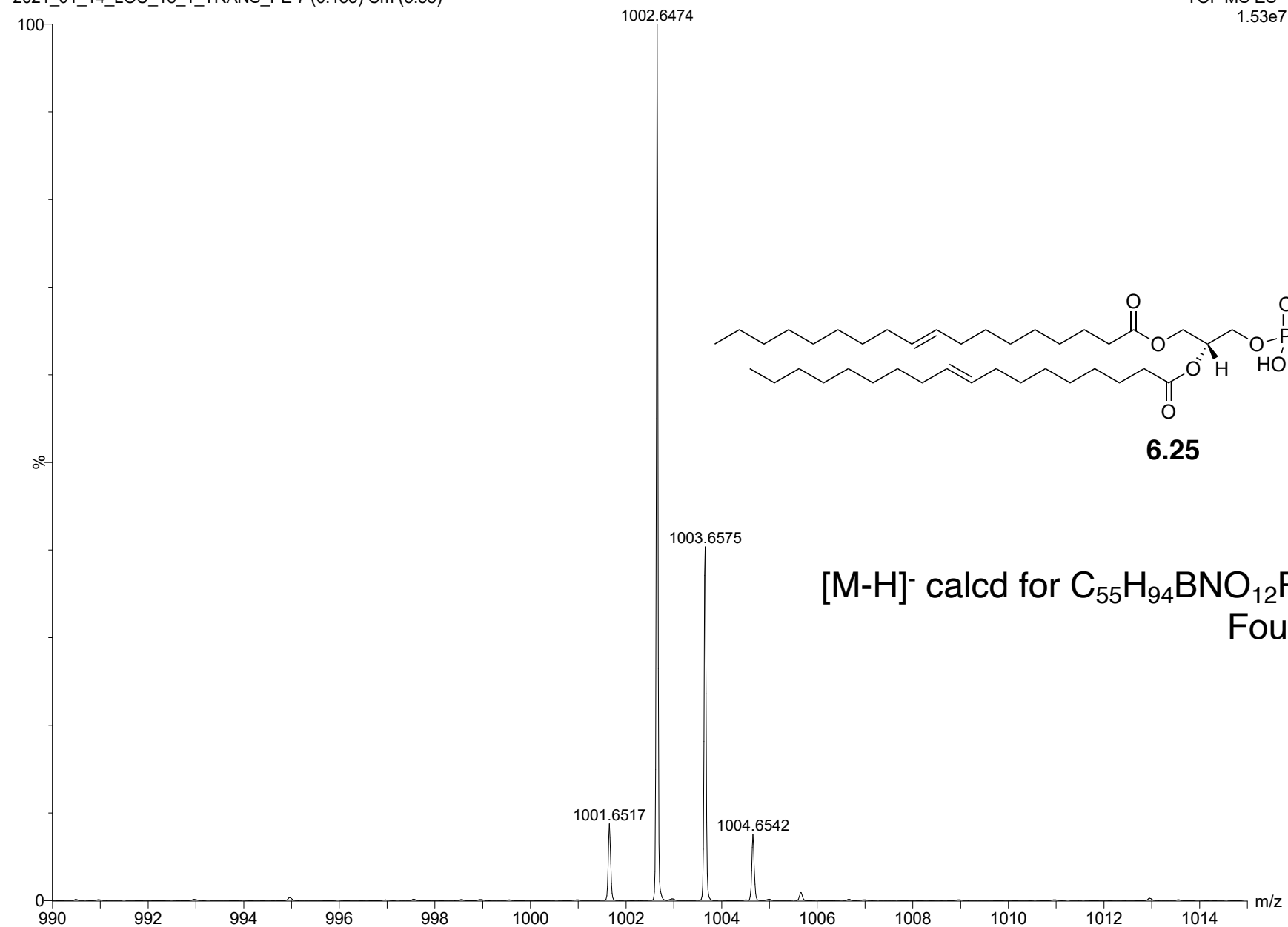
TOF MS ES-
4.00e6



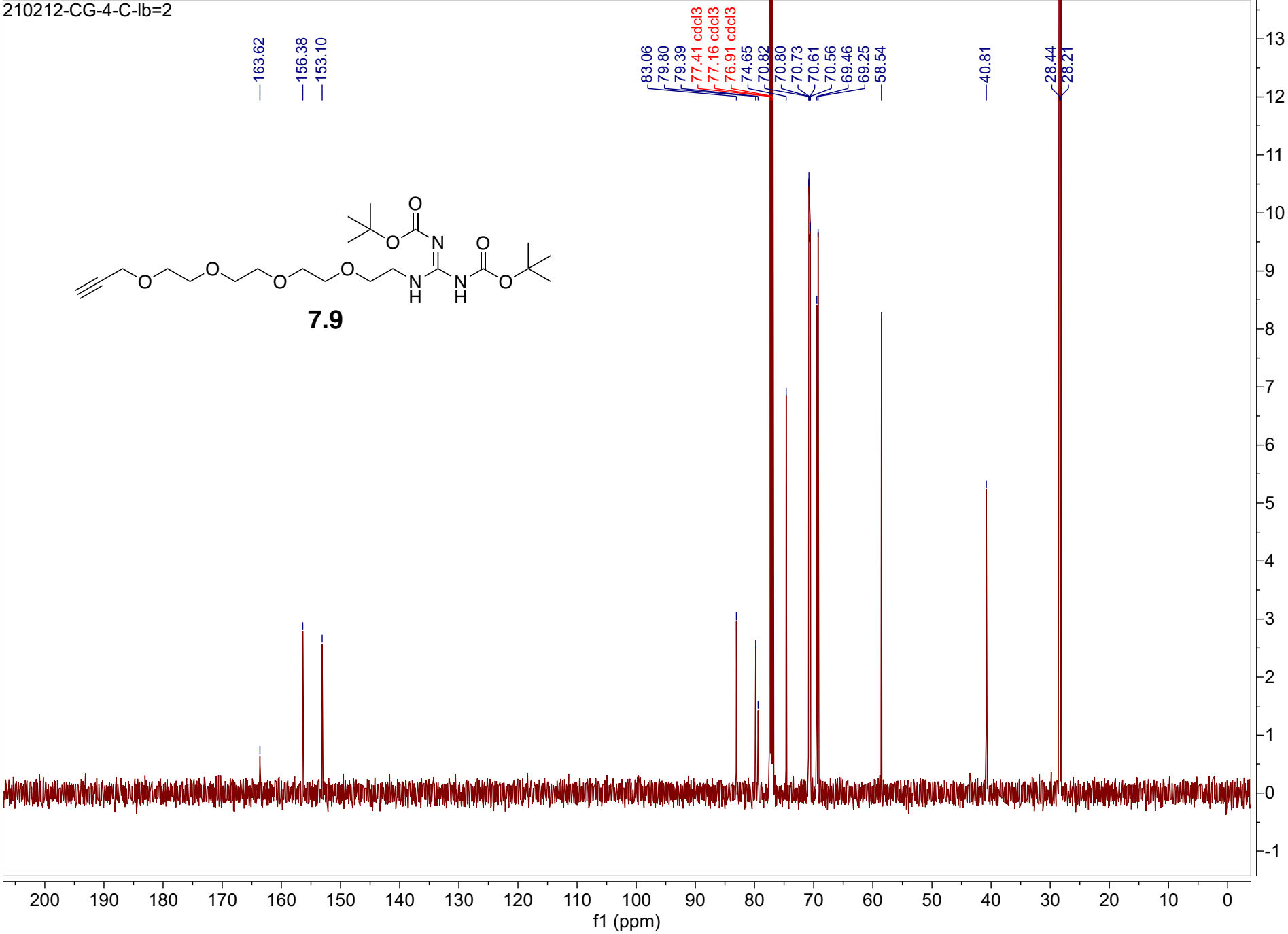


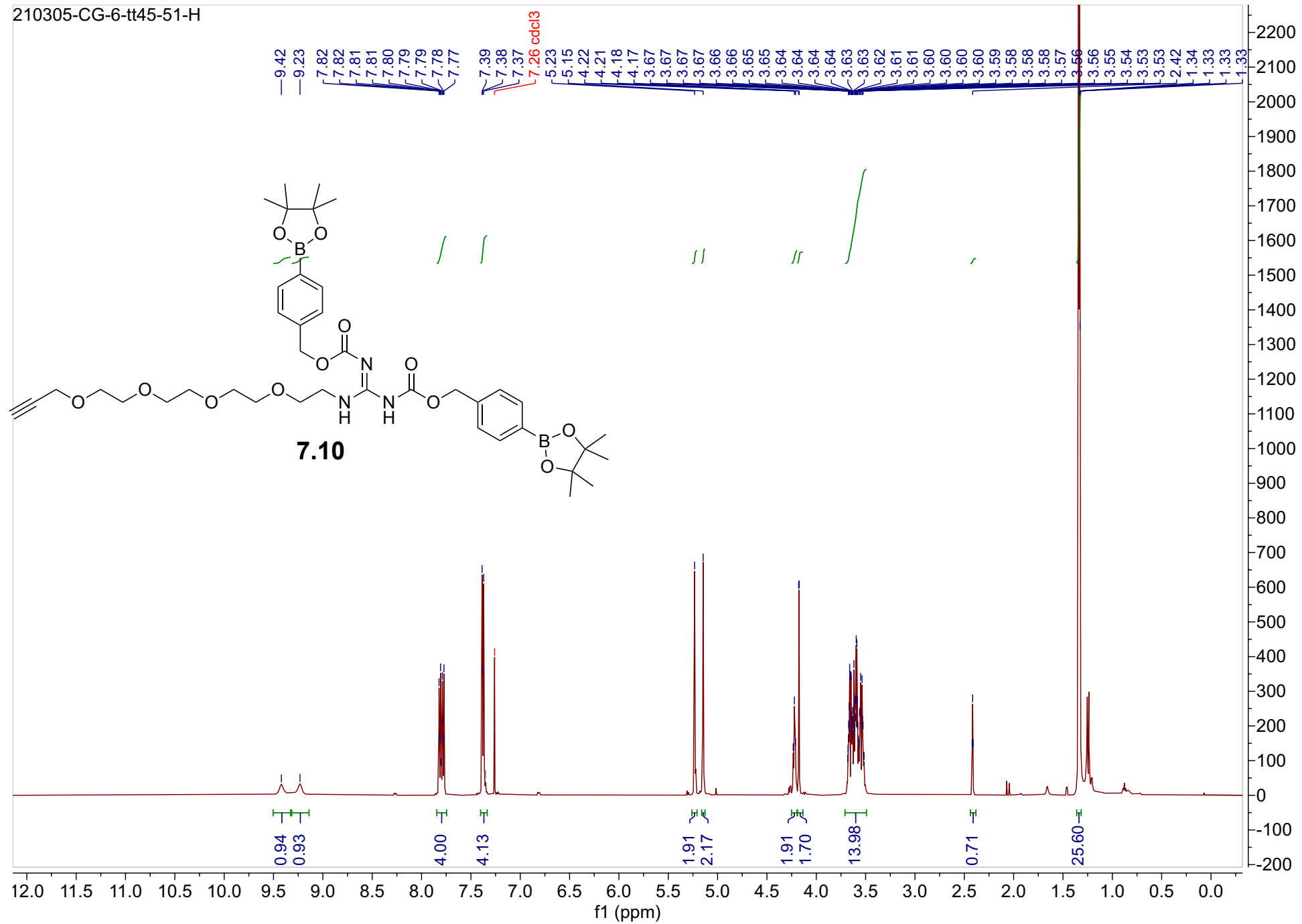


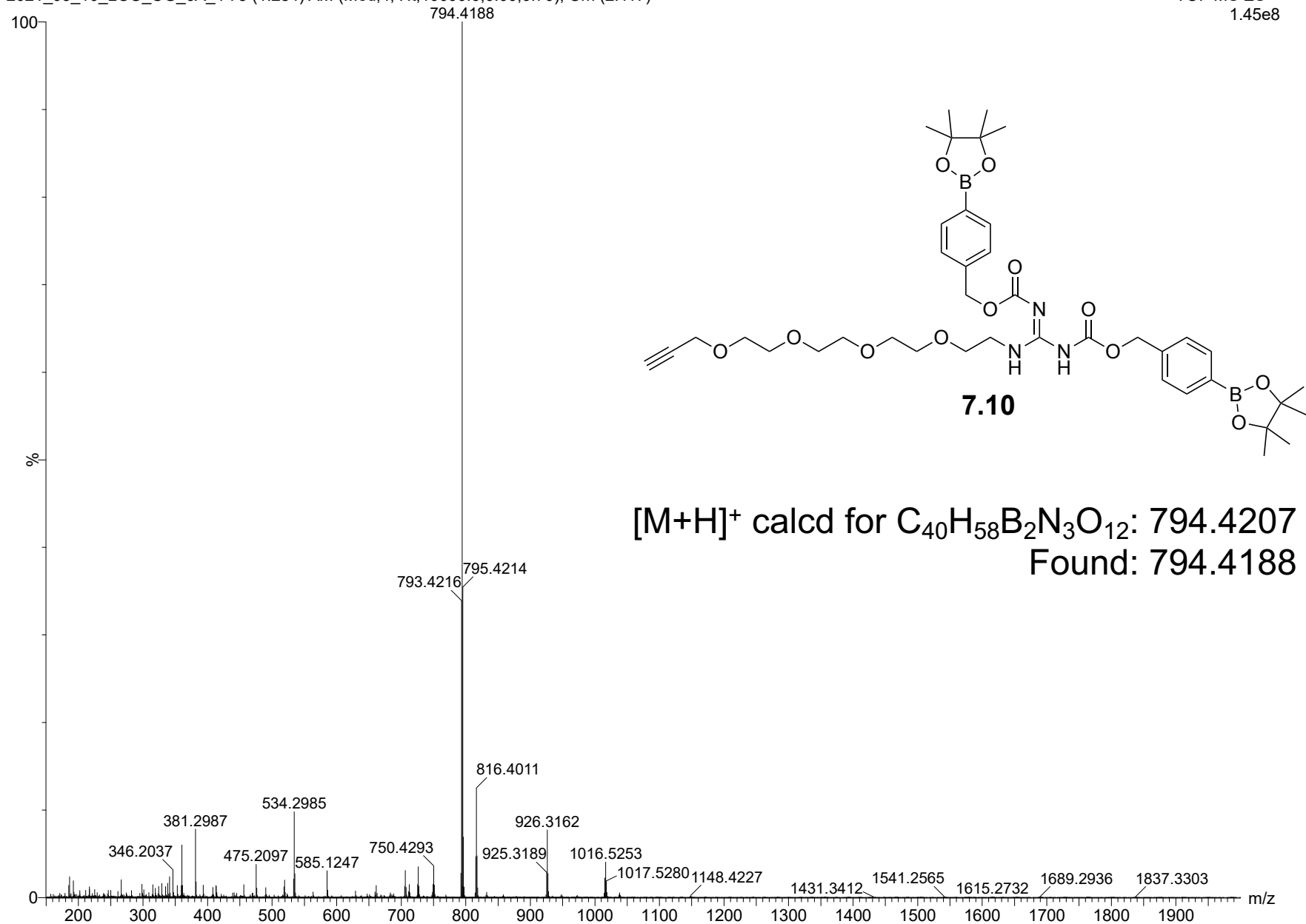


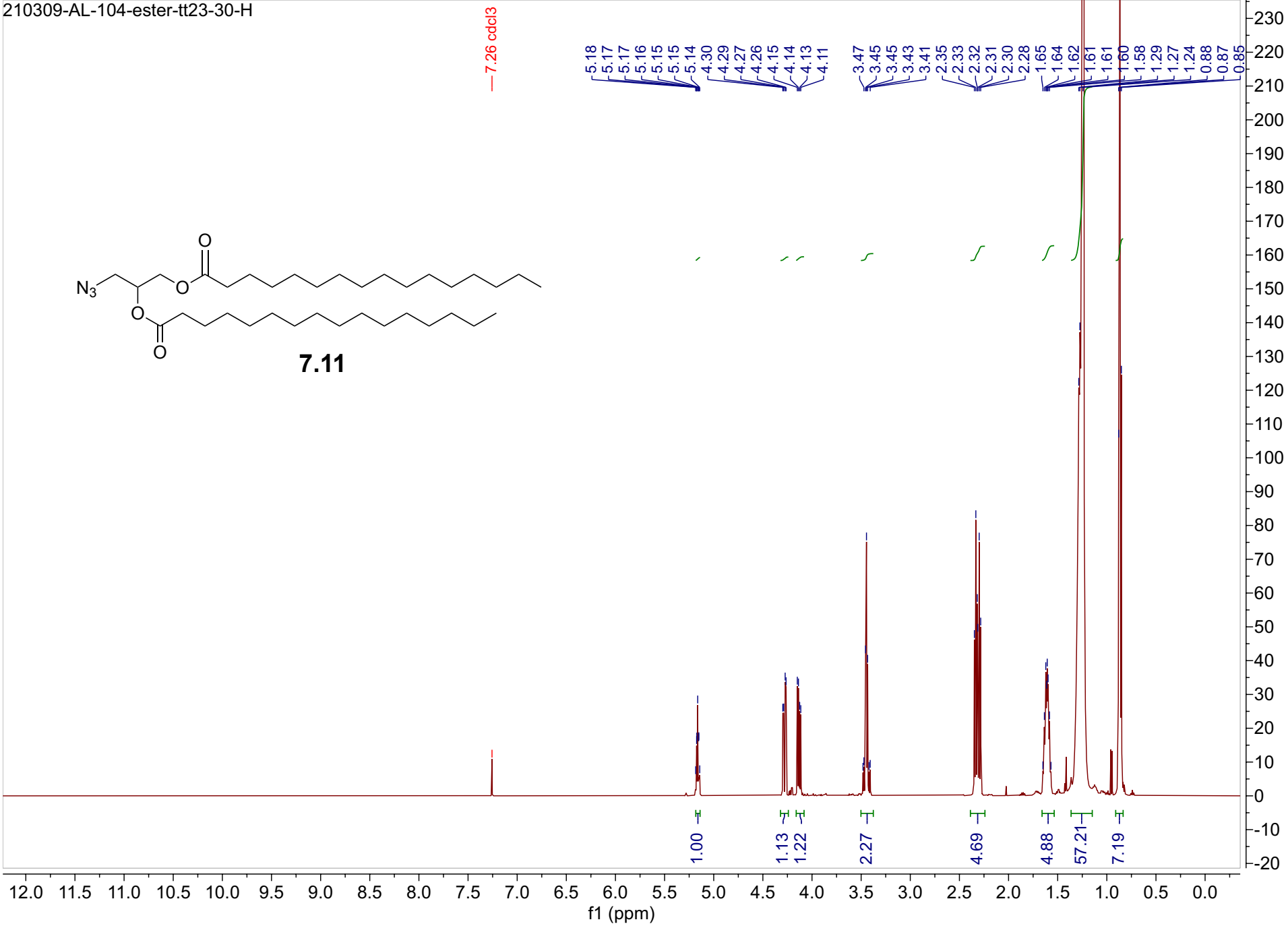


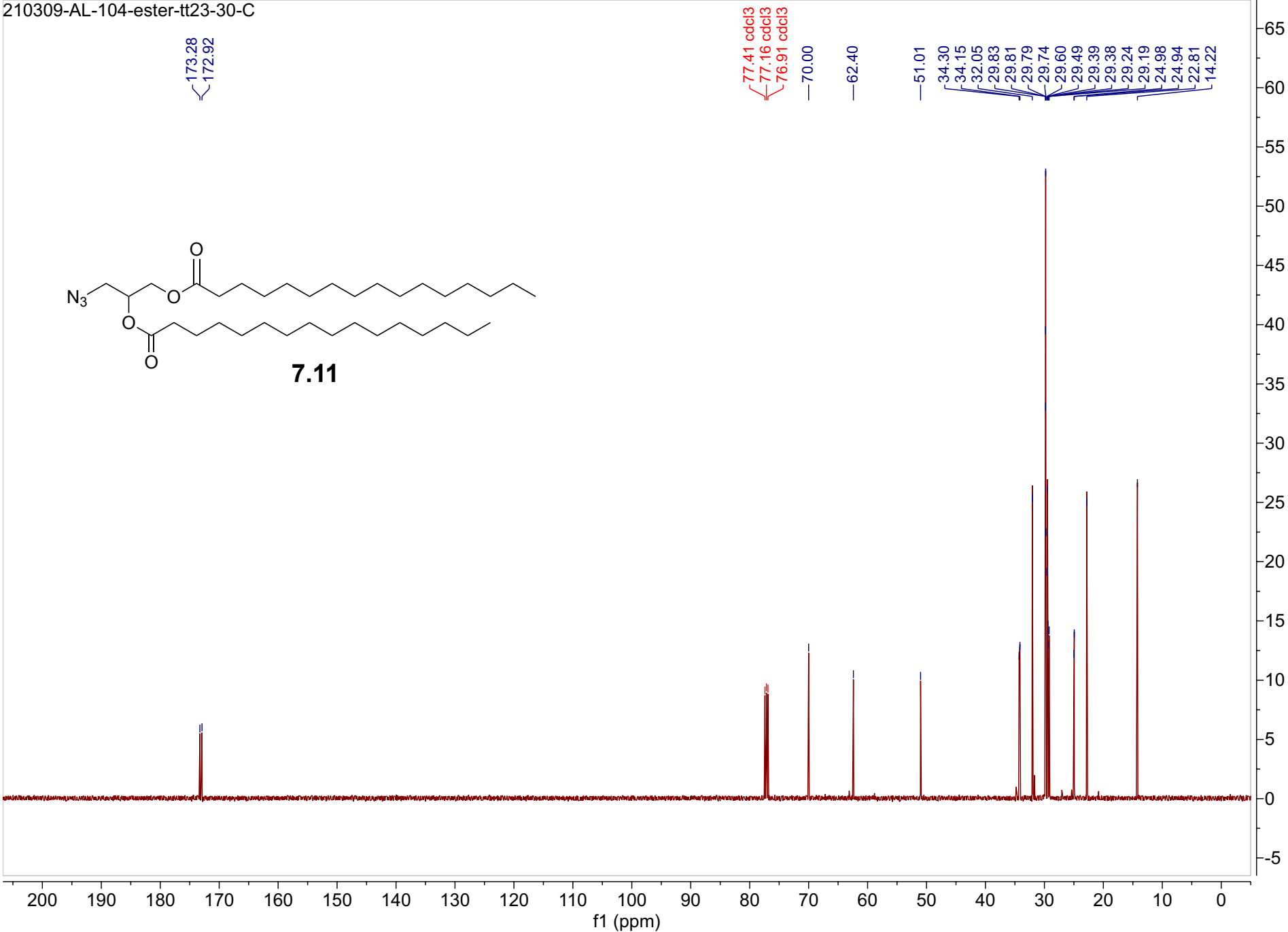


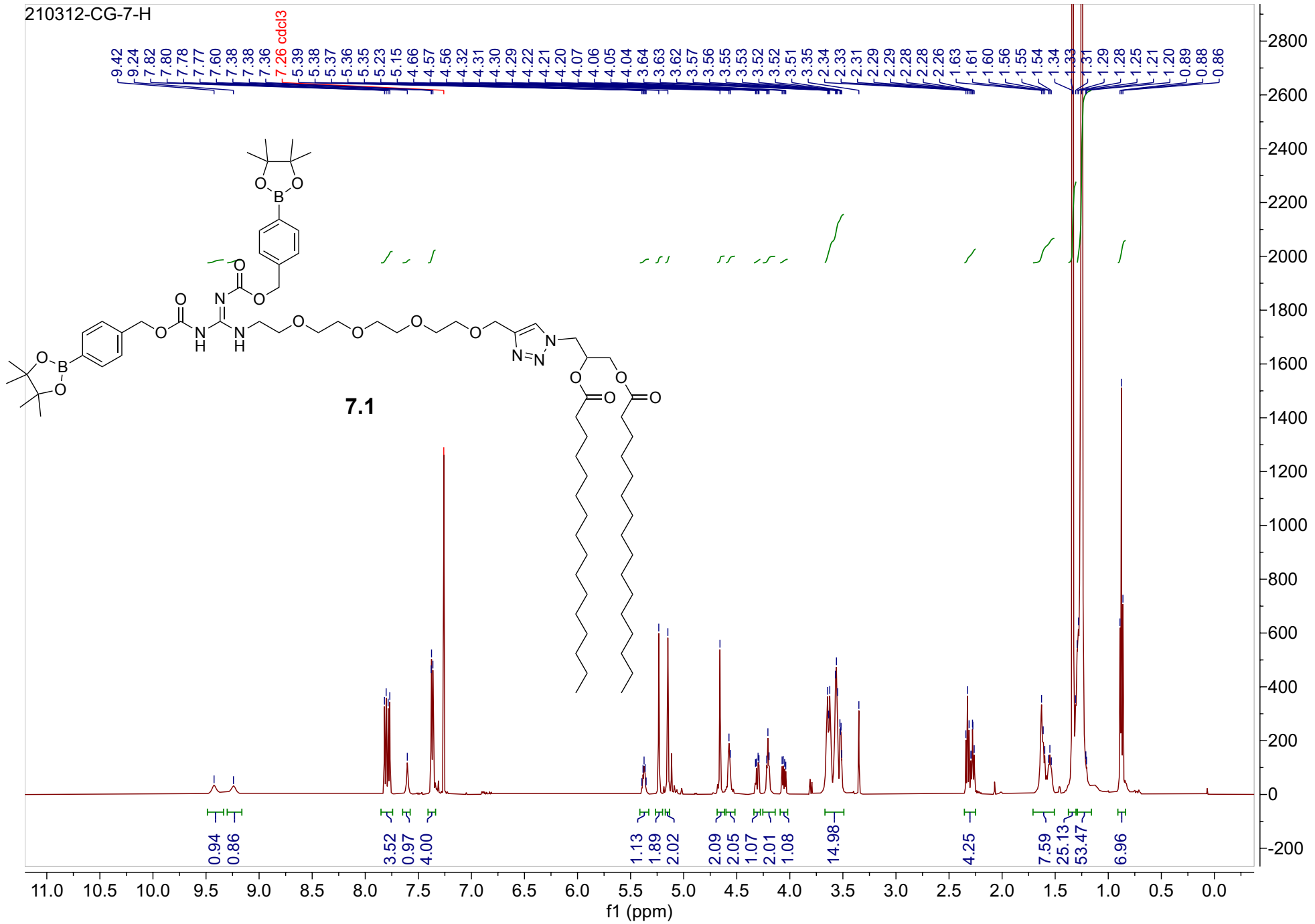




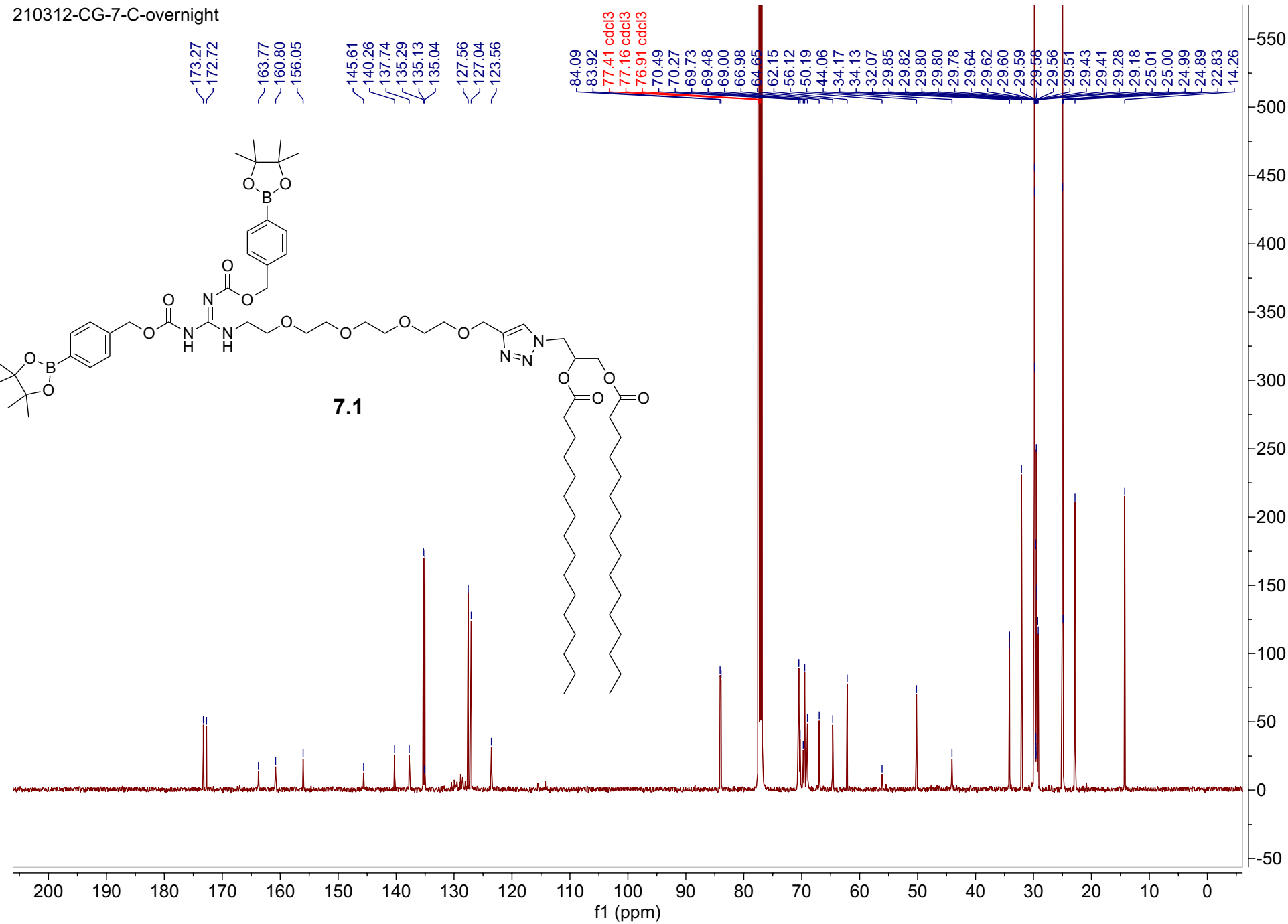
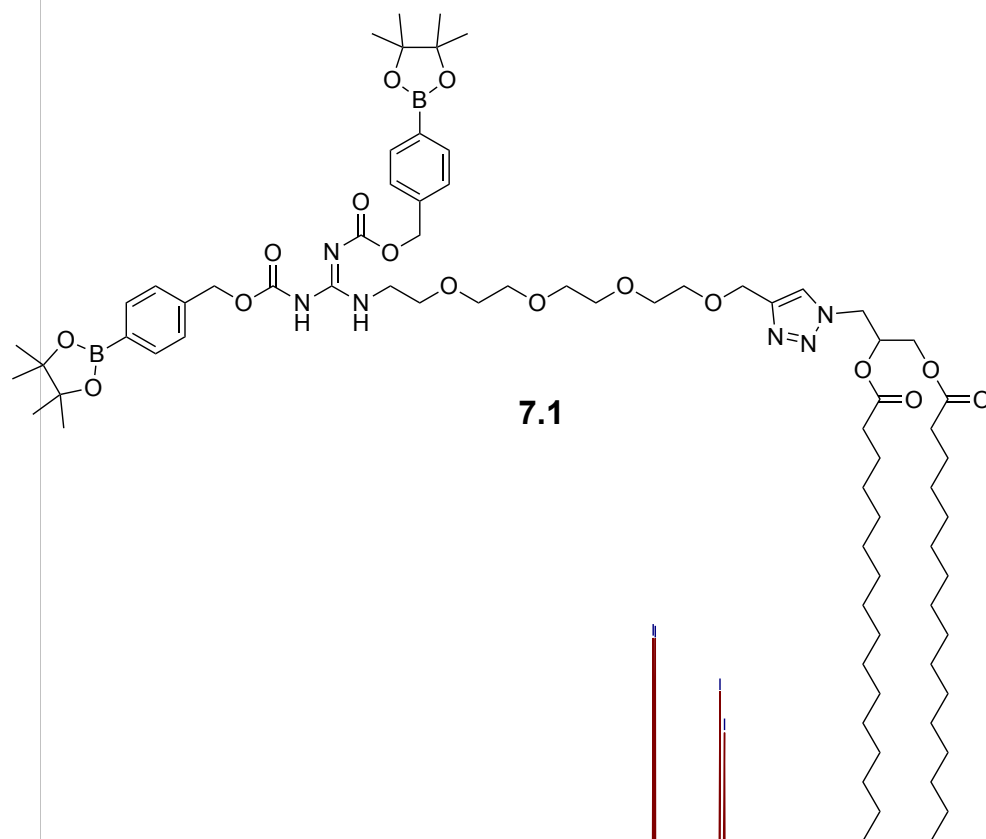


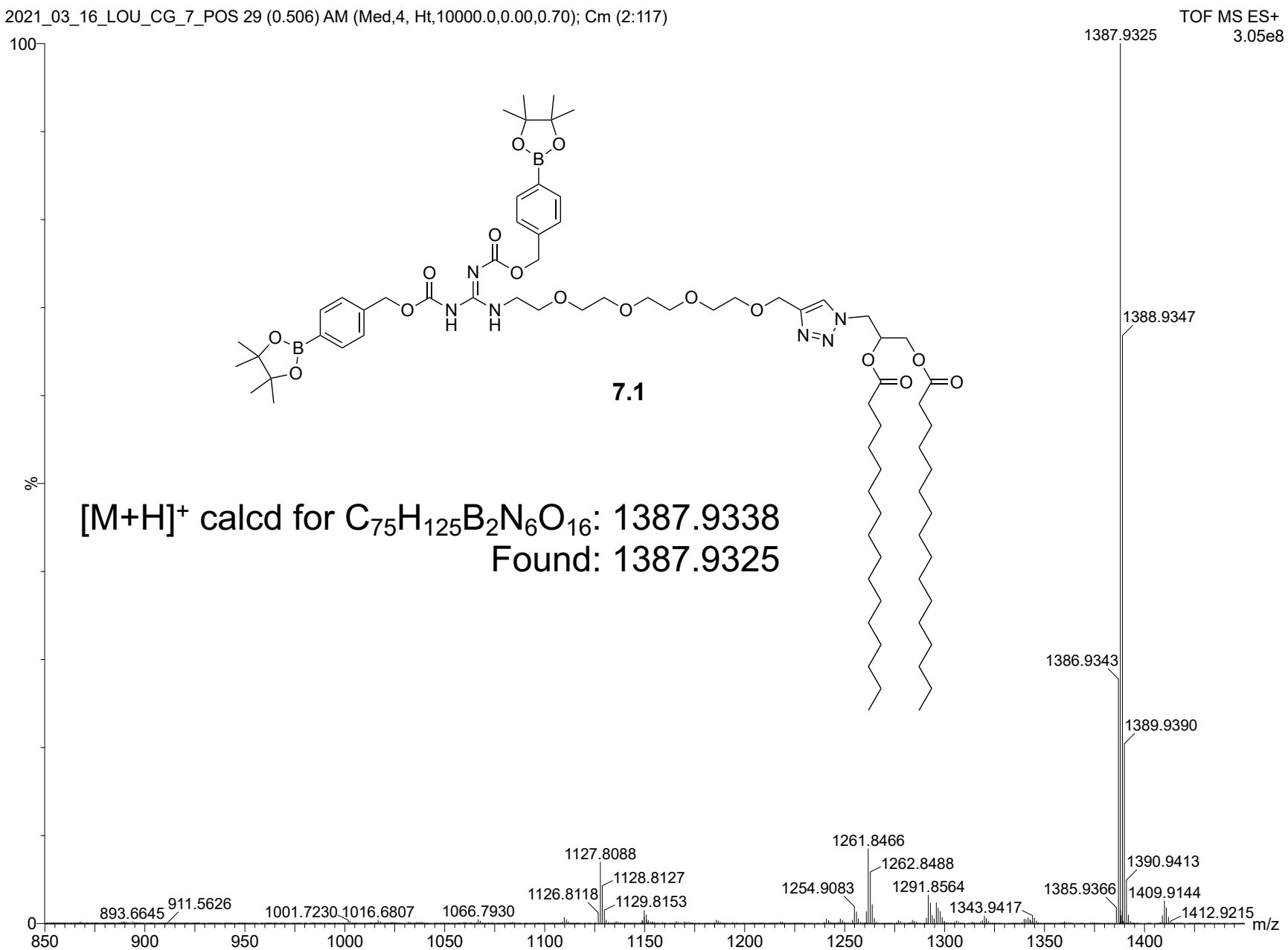




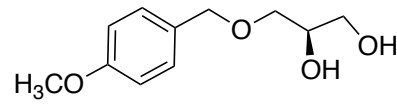


210312-CG-7-C-overnight

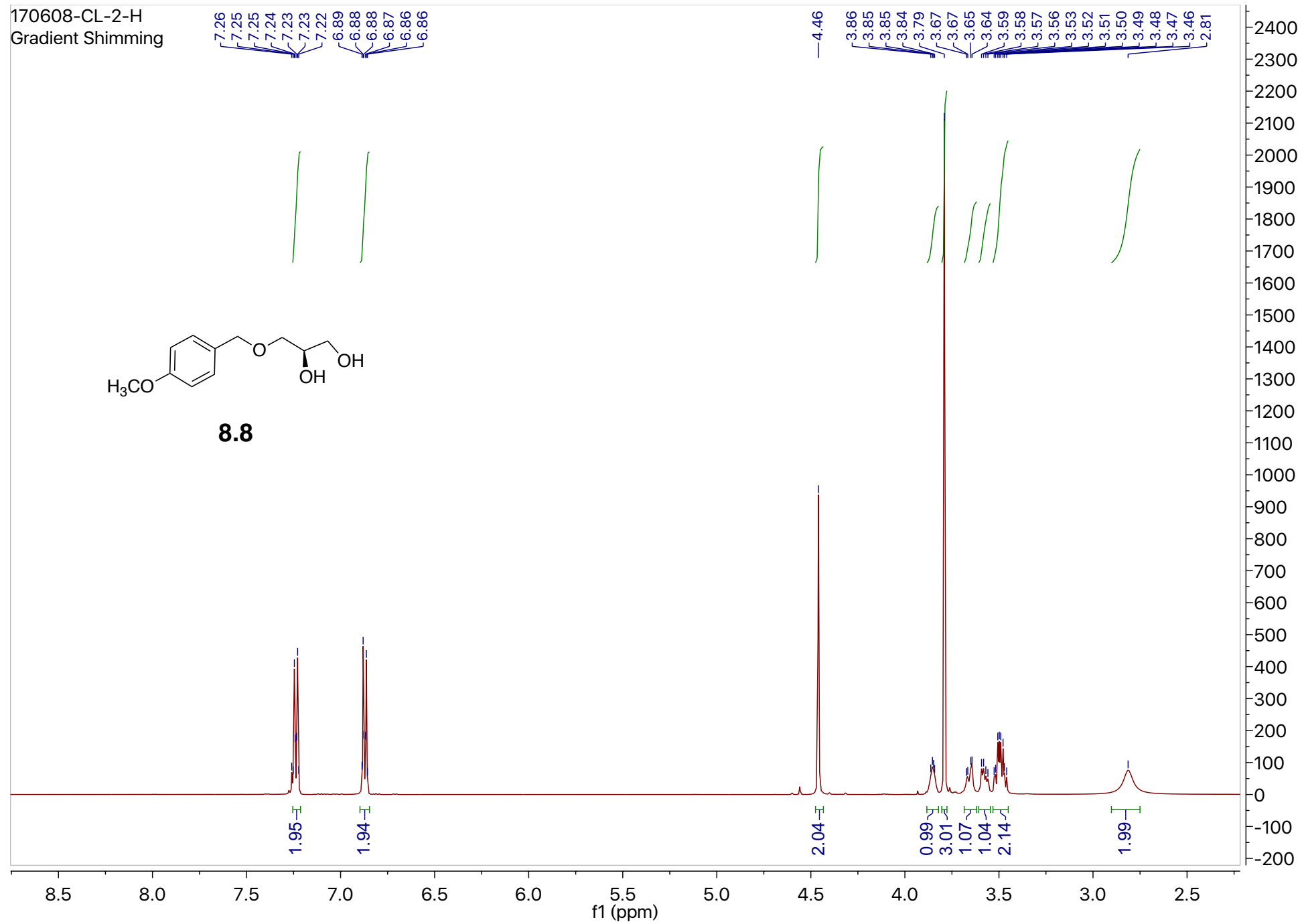


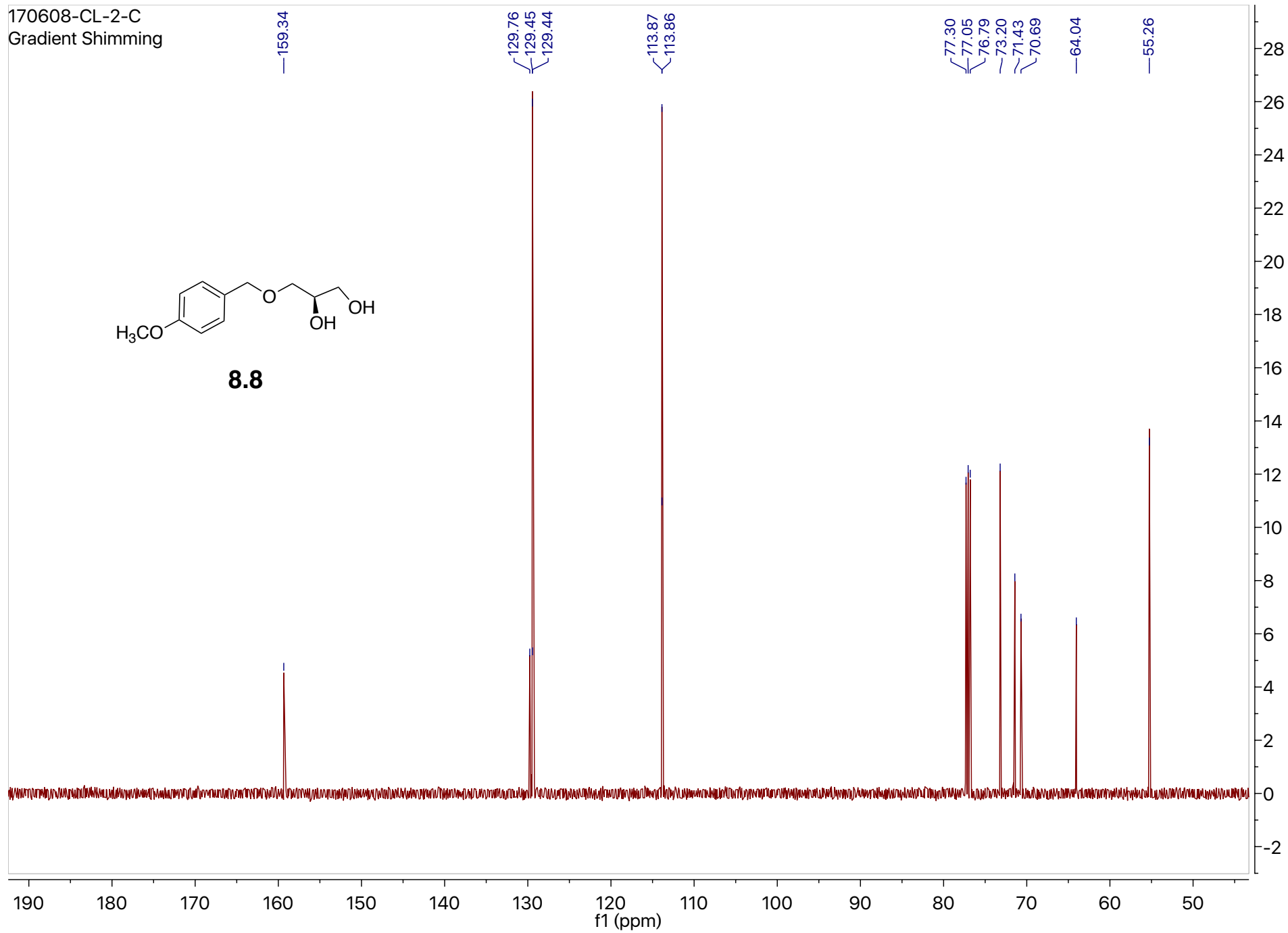


170608-CL-2-H
Gradient Shimming



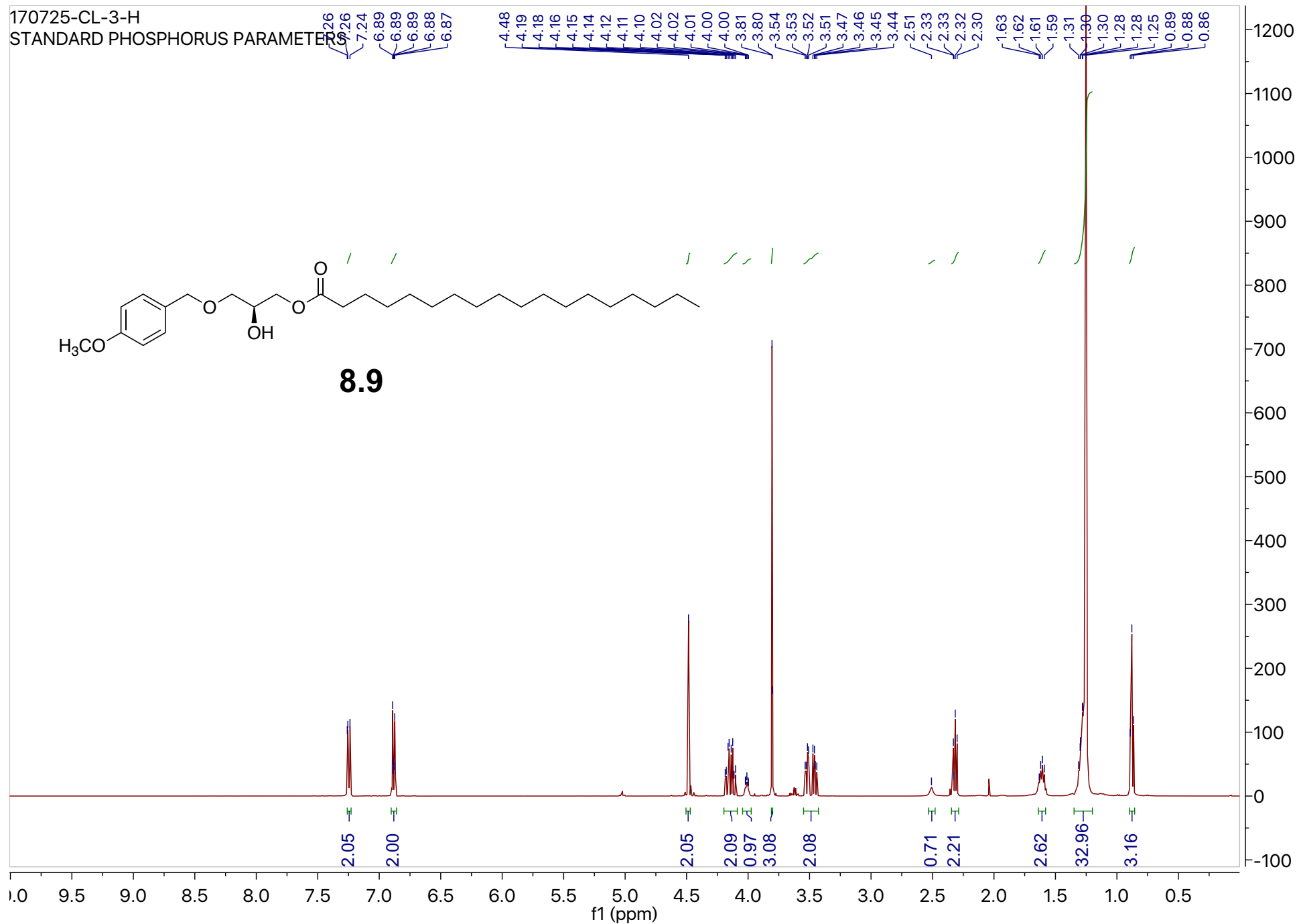
8.8

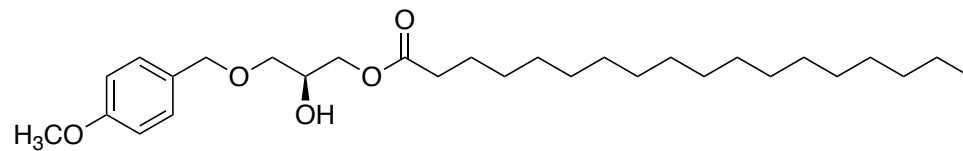




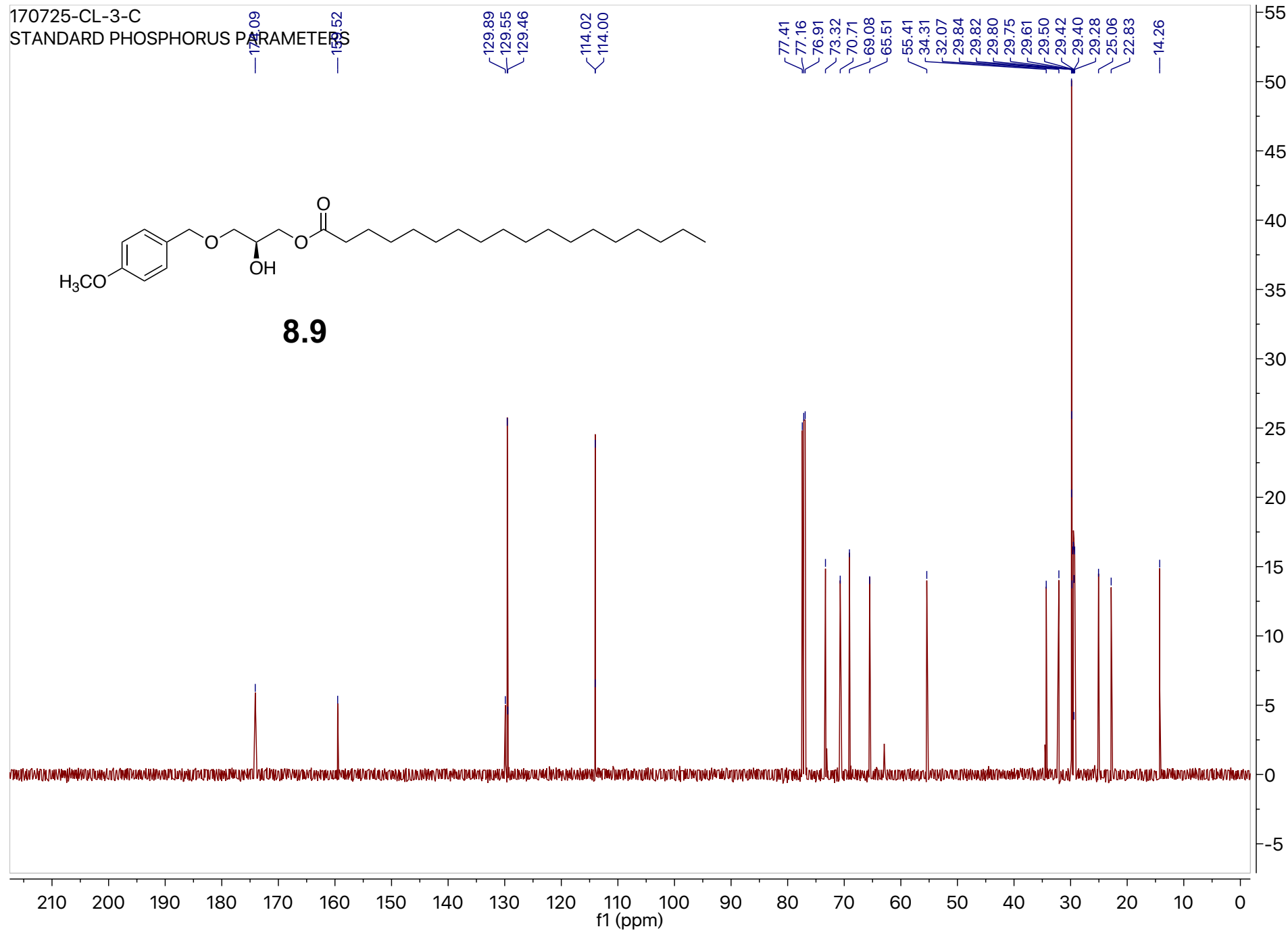
170725-CL-3-H

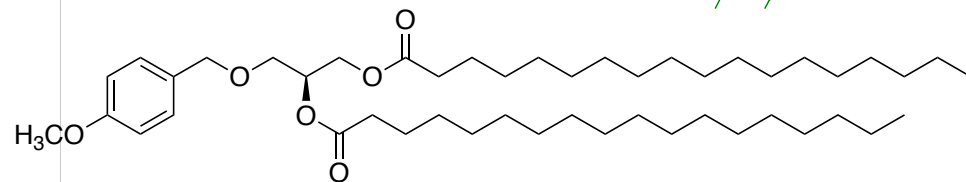
STANDARD PHOSPHORUS PARAMETER



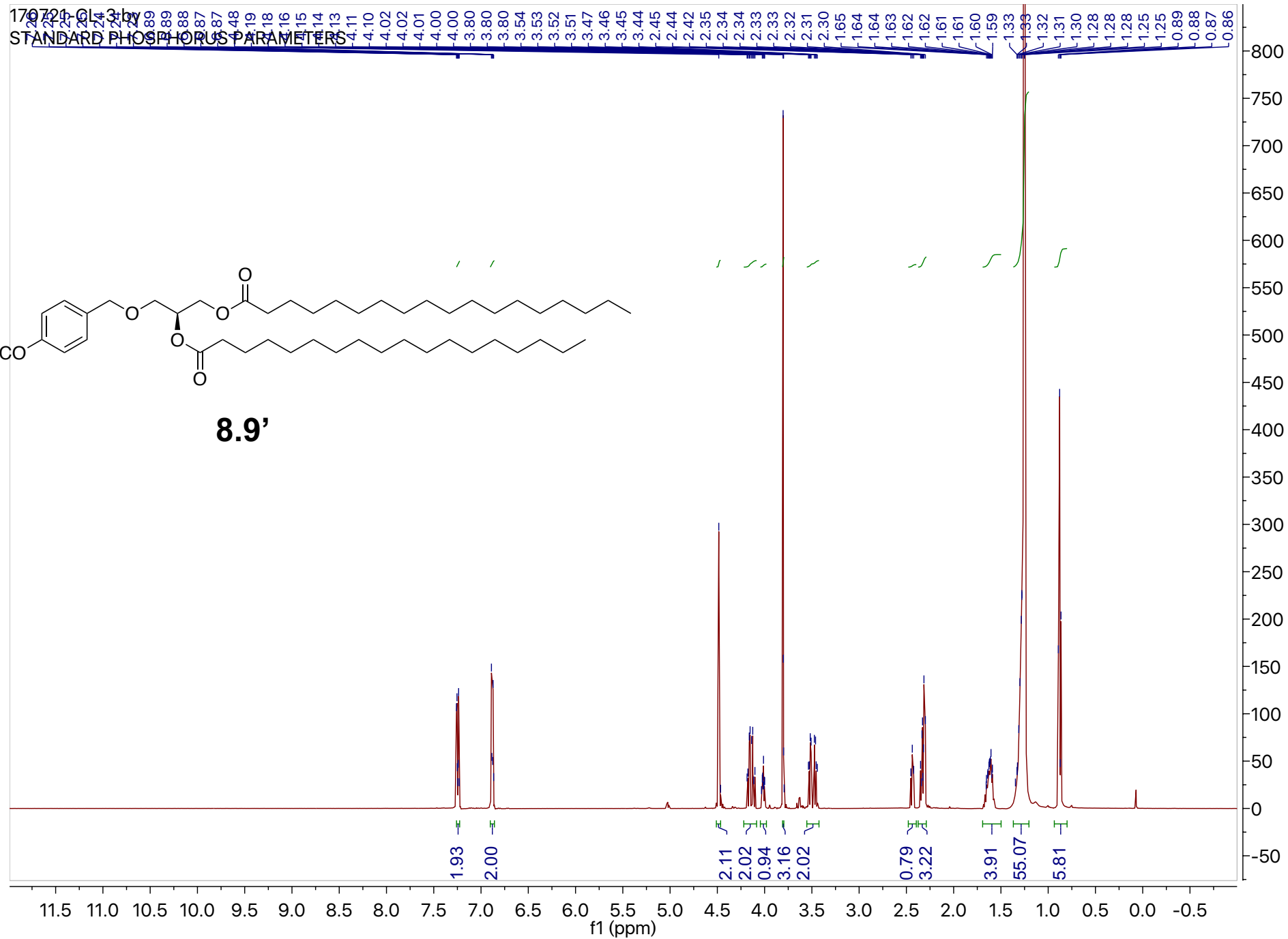


8.9

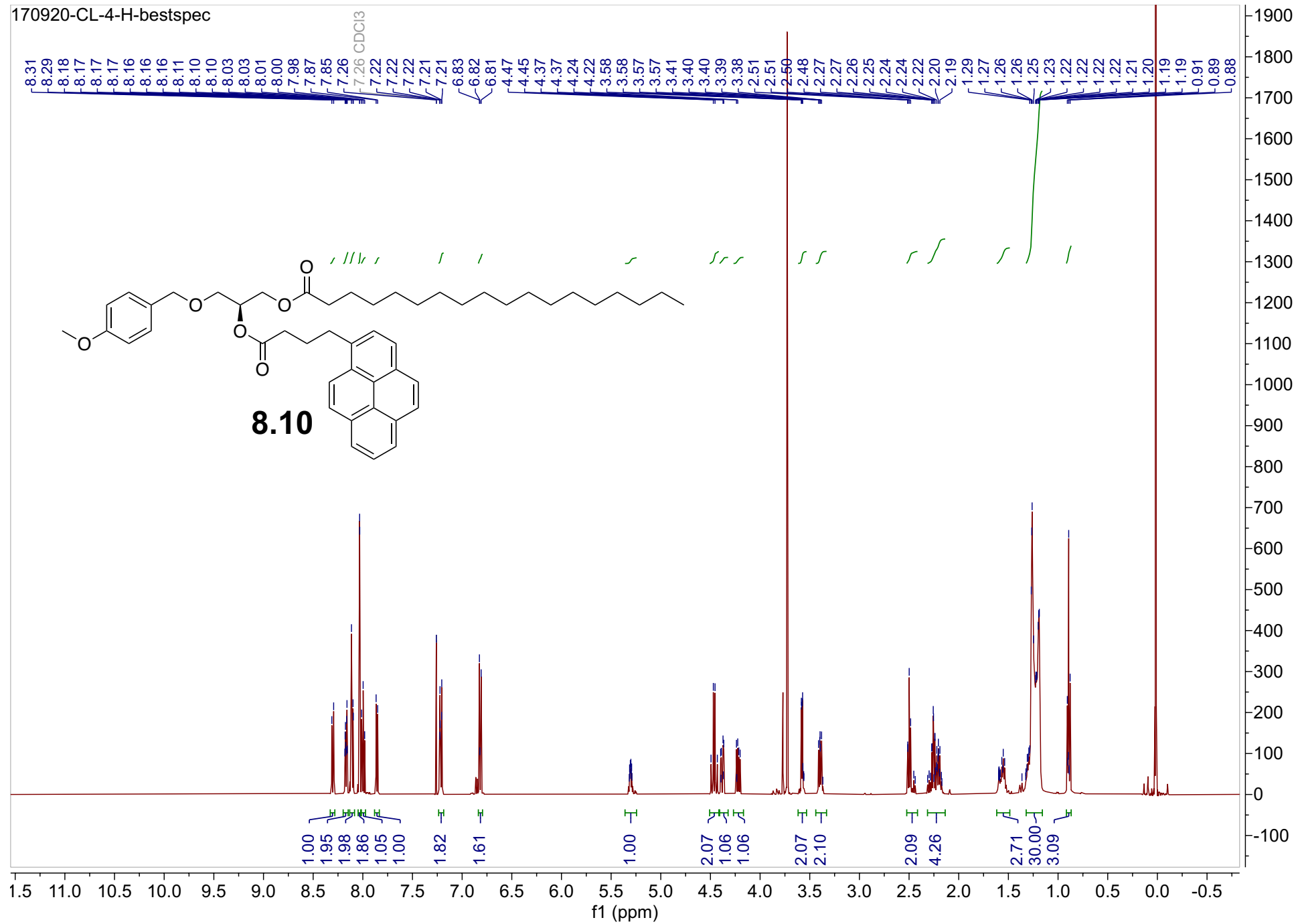


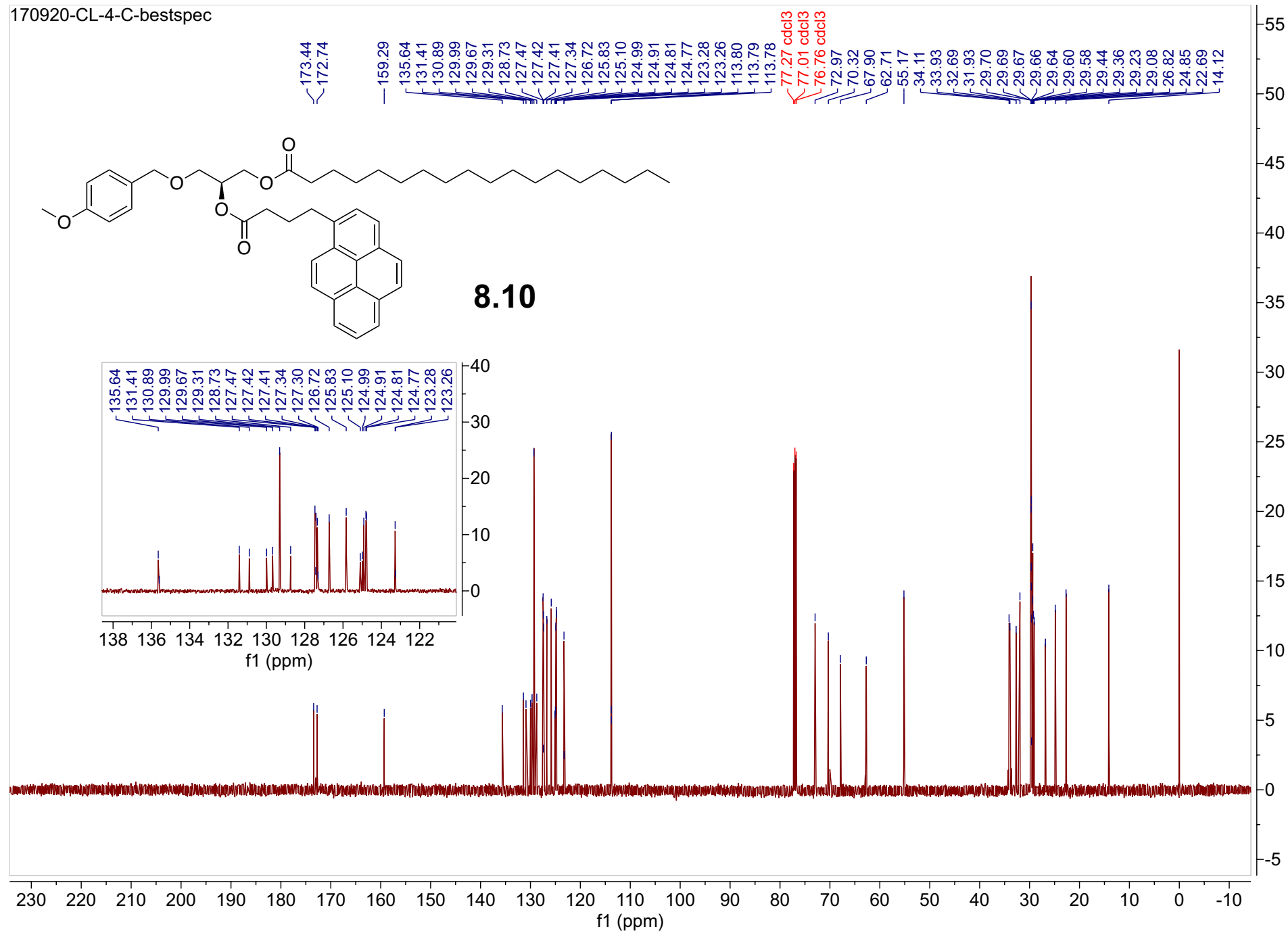


8.9'



170920-CL-4-H-bestspect

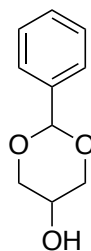




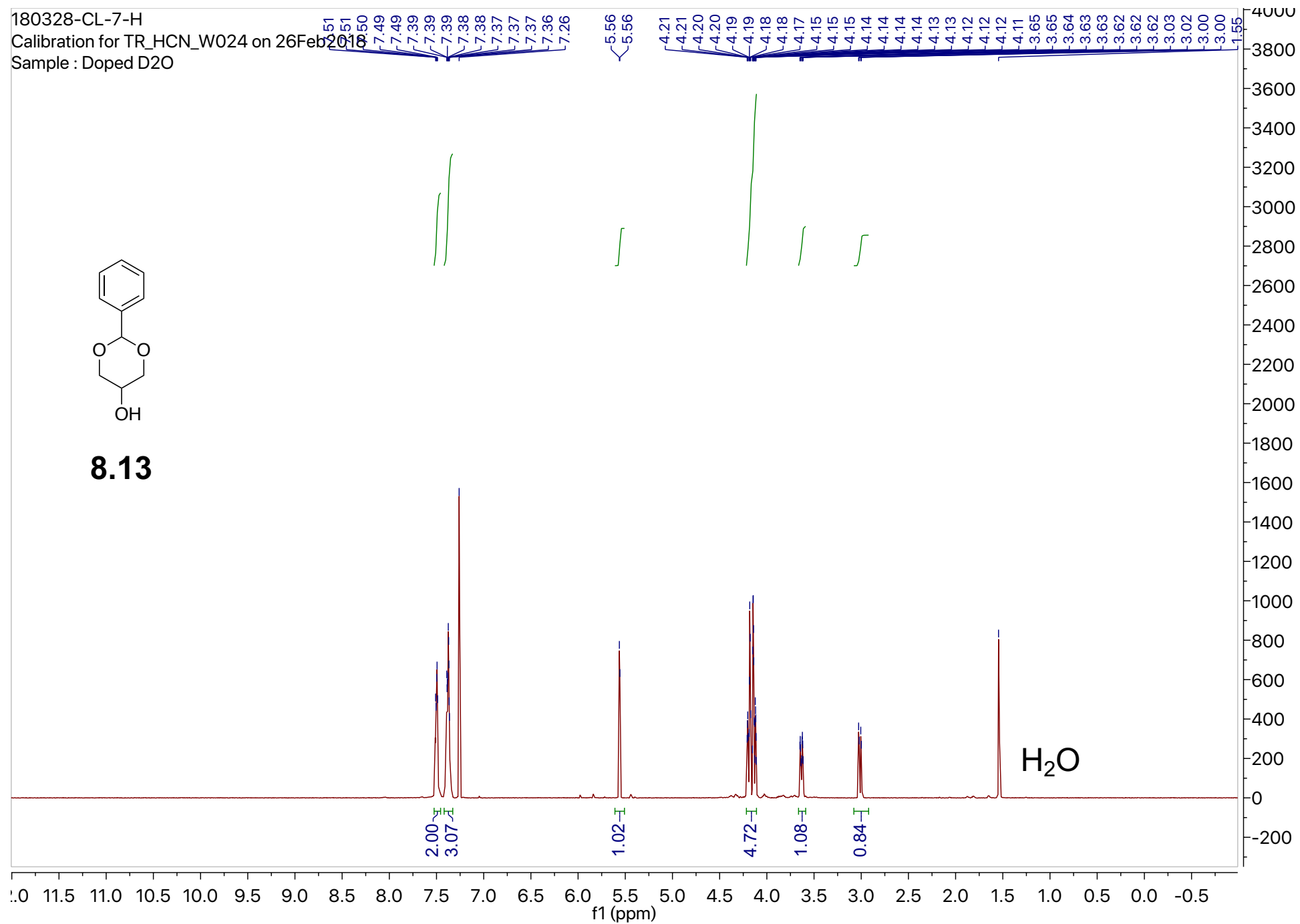
180328-CL-7-H

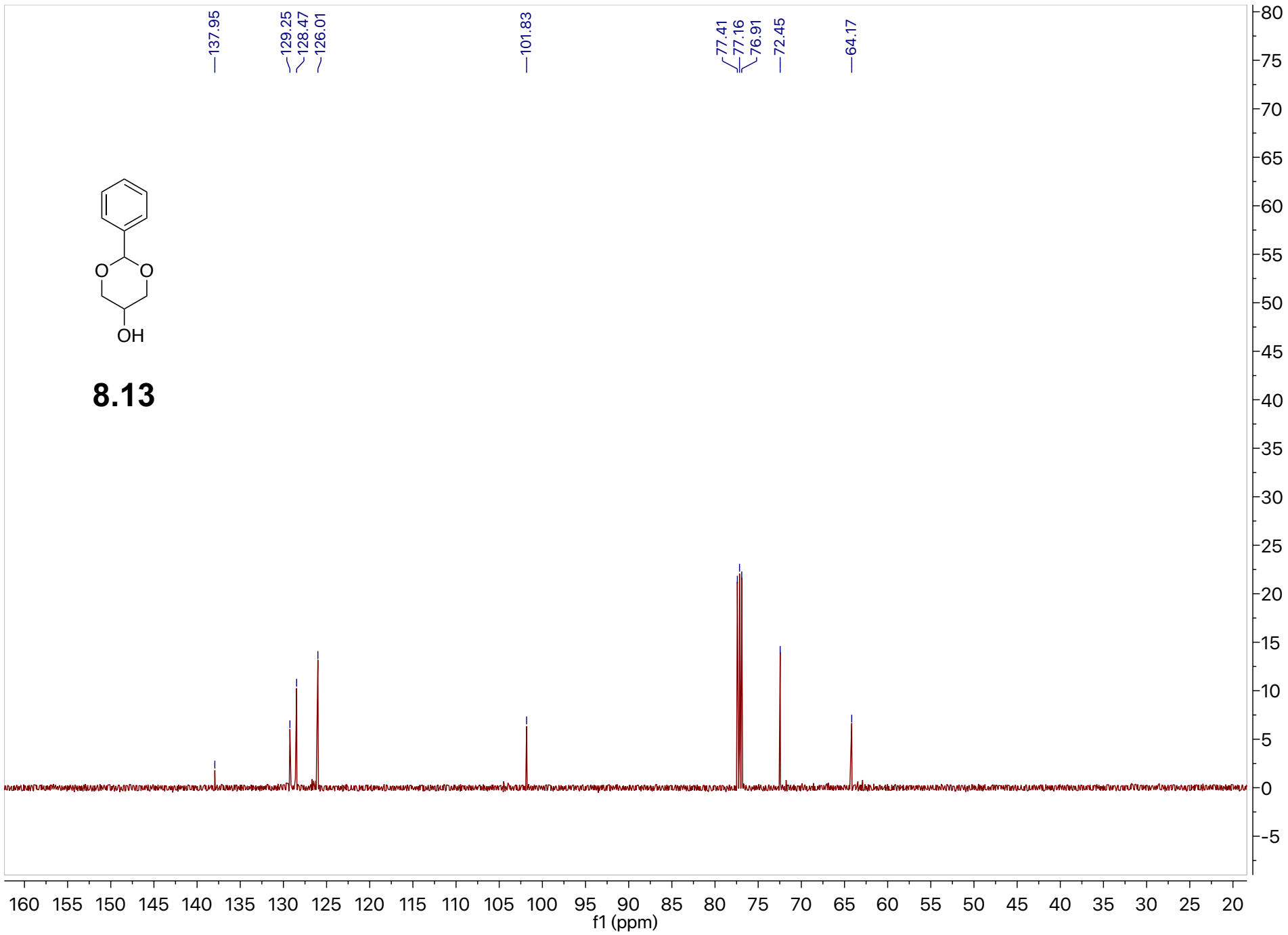
Calibration for TR_HCN_W024 on 26Feb2018

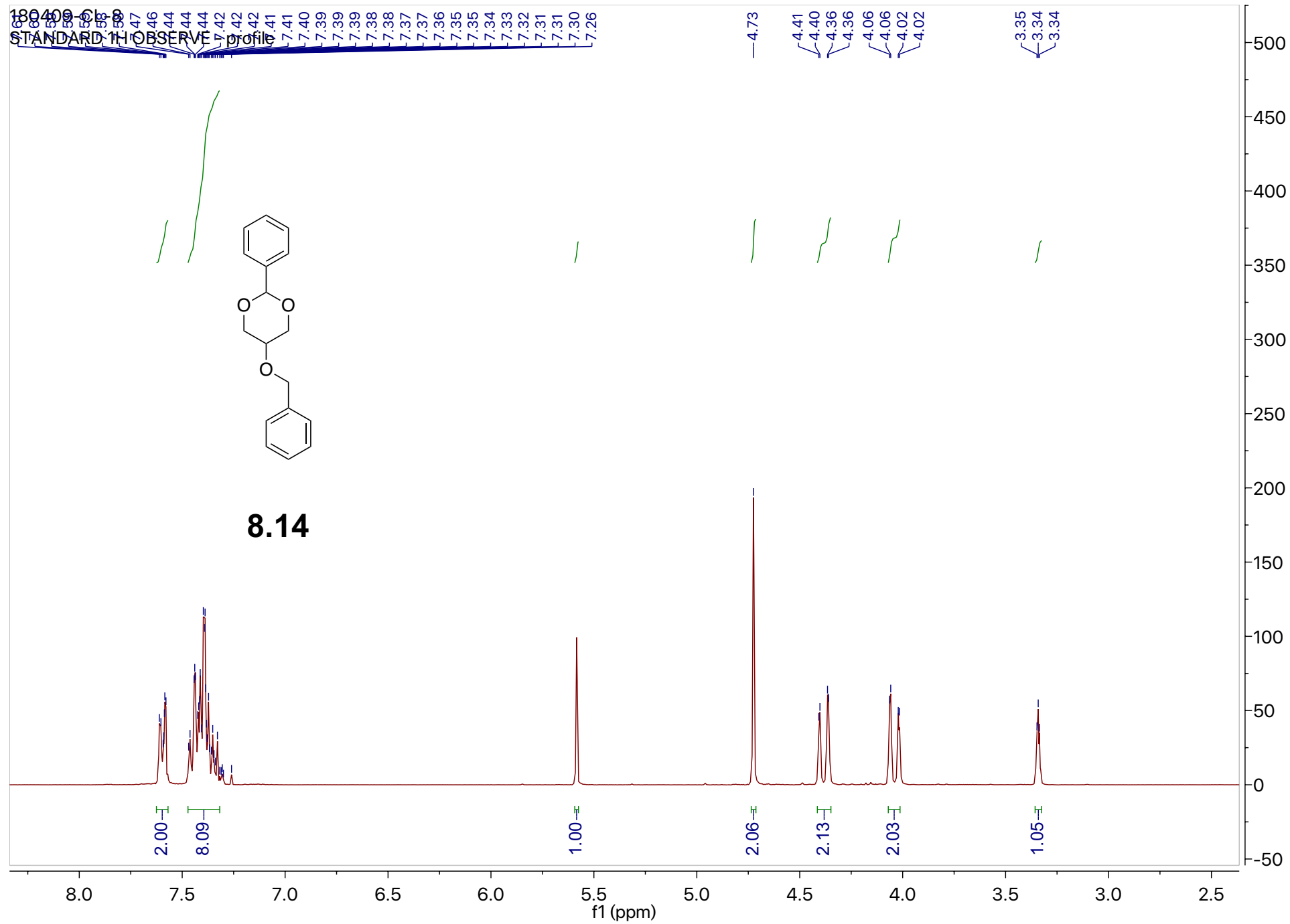
Sample : Doped D2O



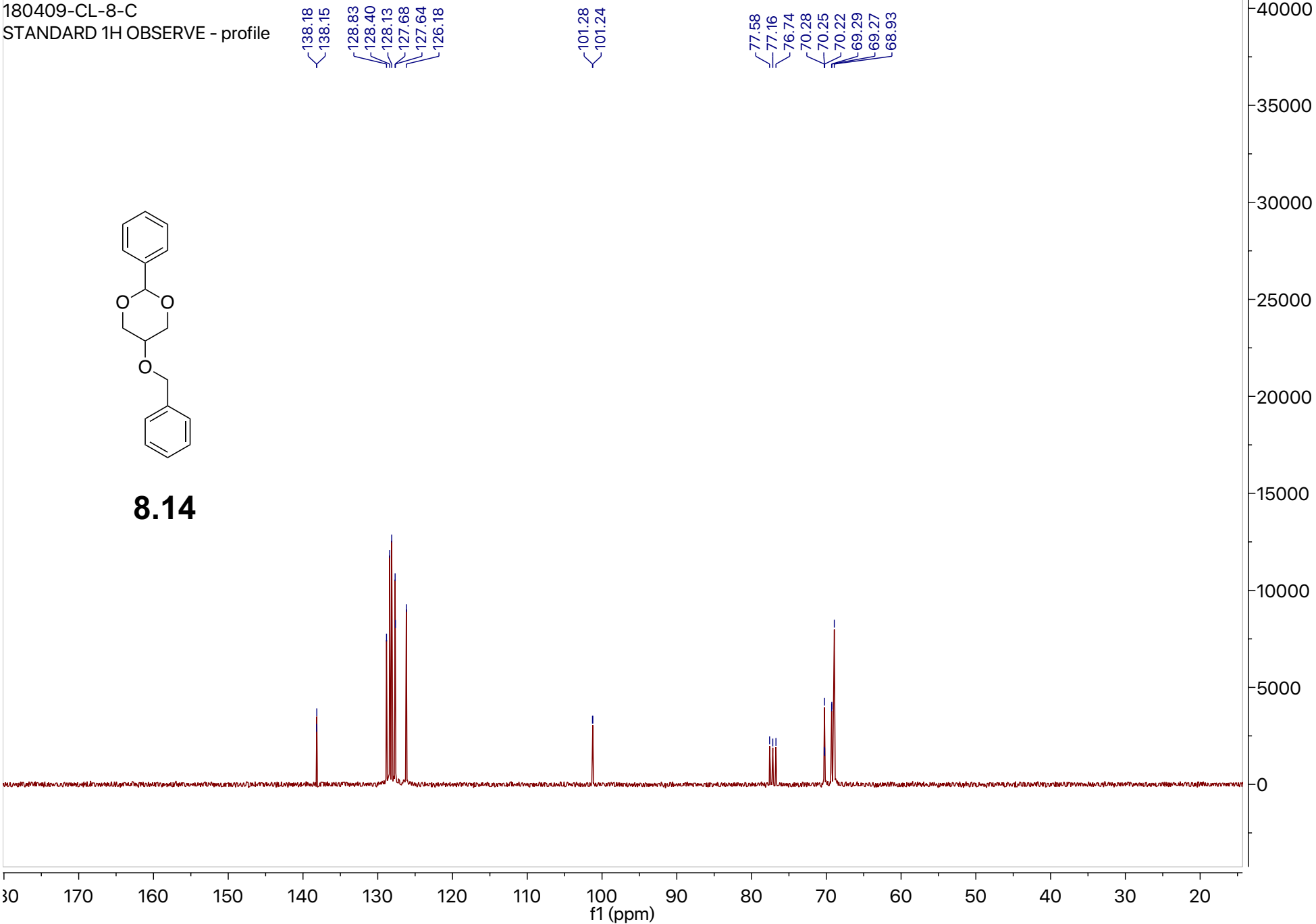
8.13

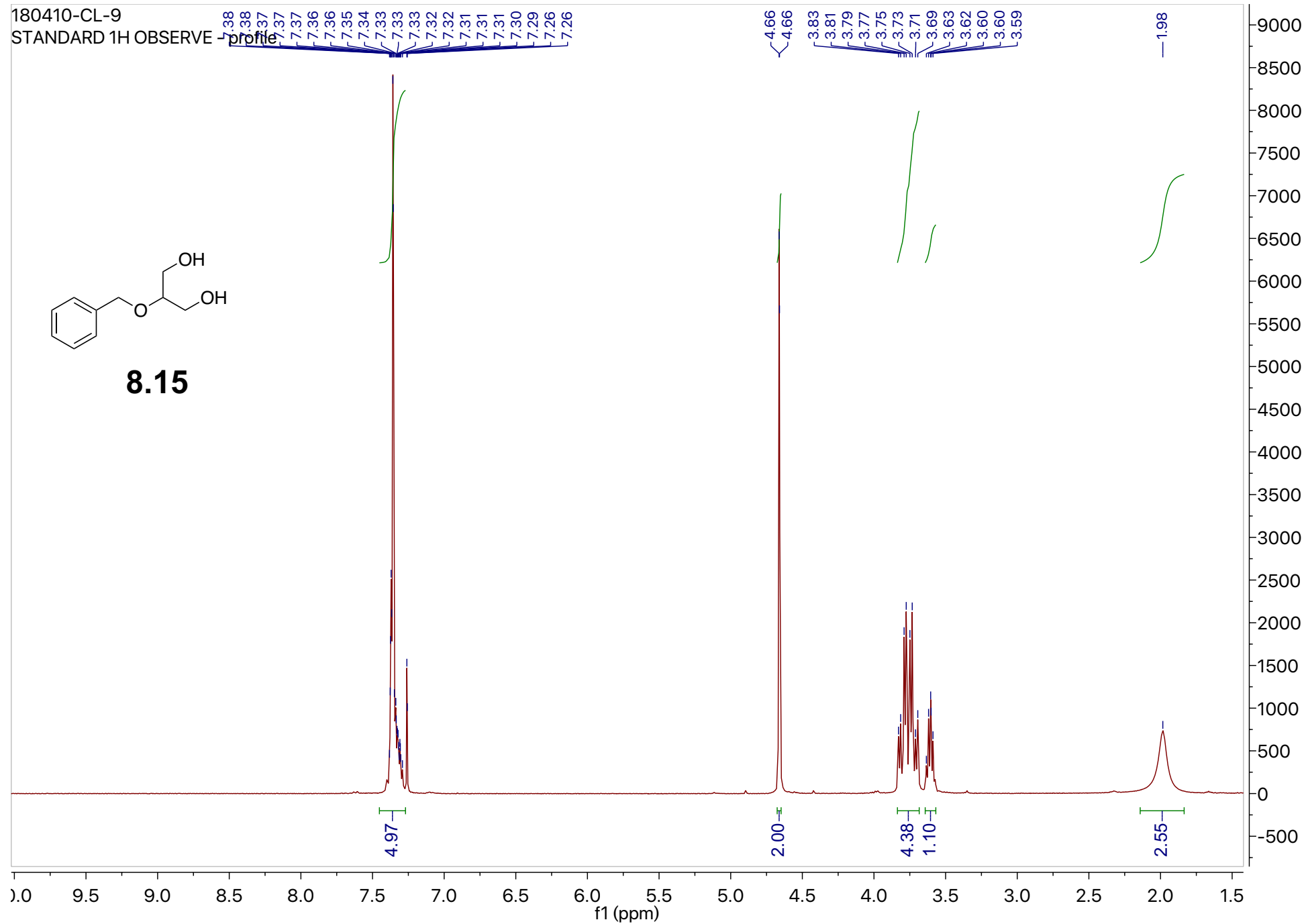




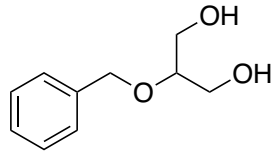


180409-CL-8-C
STANDARD 1H OBSERVE - profile

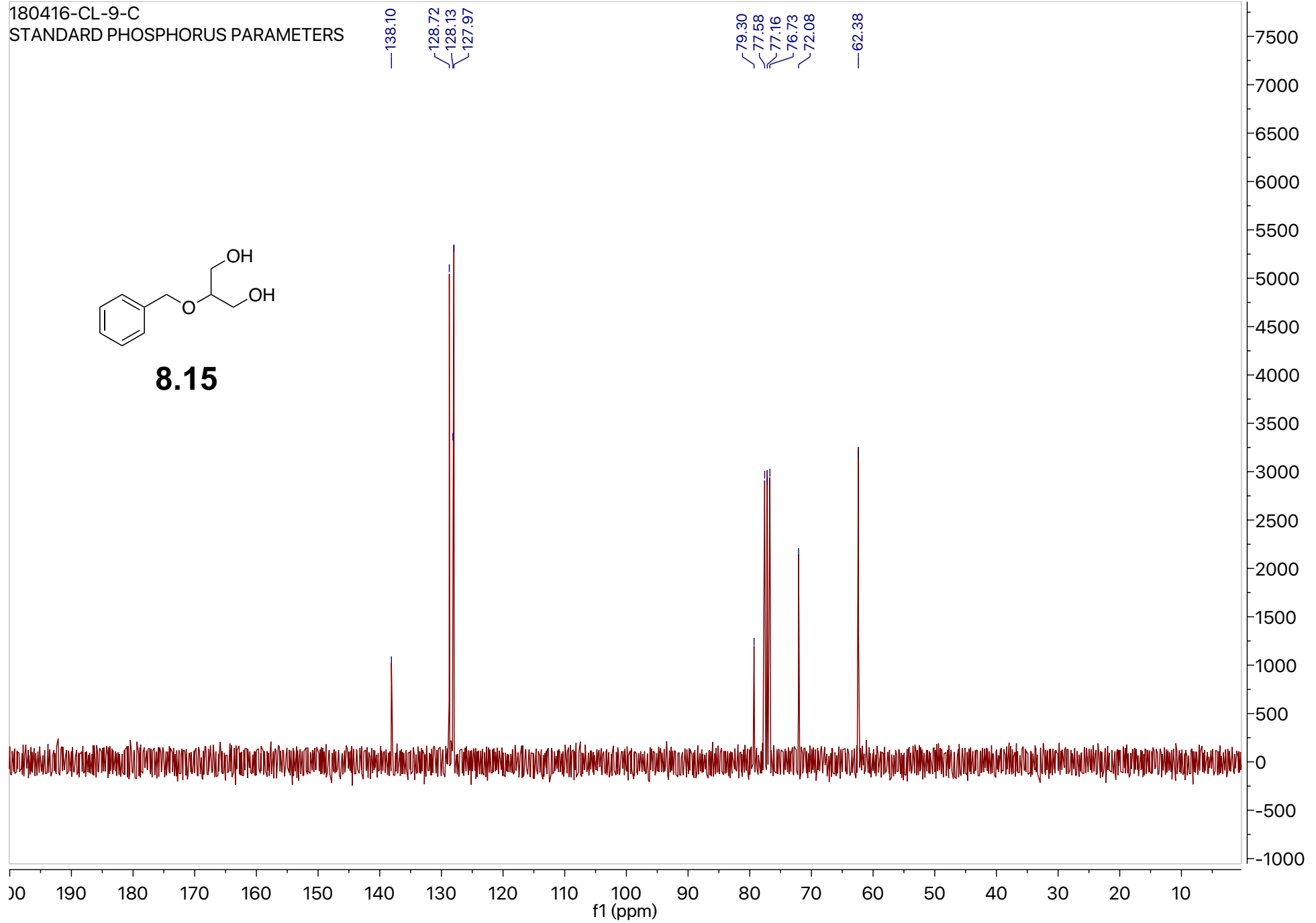




180416-CL-9-C
STANDARD PHOSPHORUS PARAMETERS

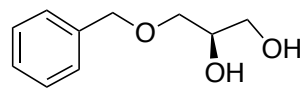
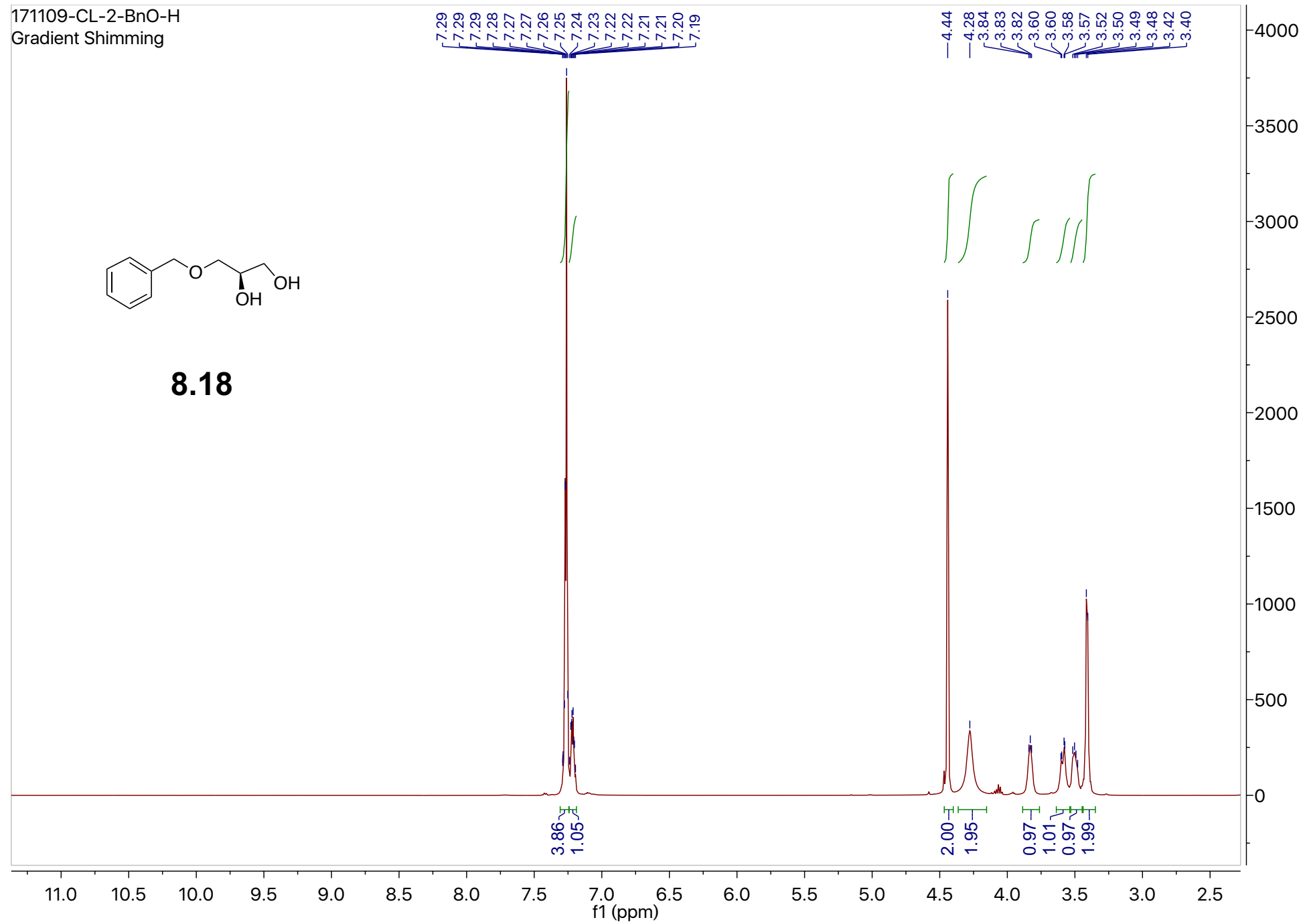


8.15

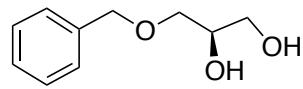


171109-CL-2-BnO-H

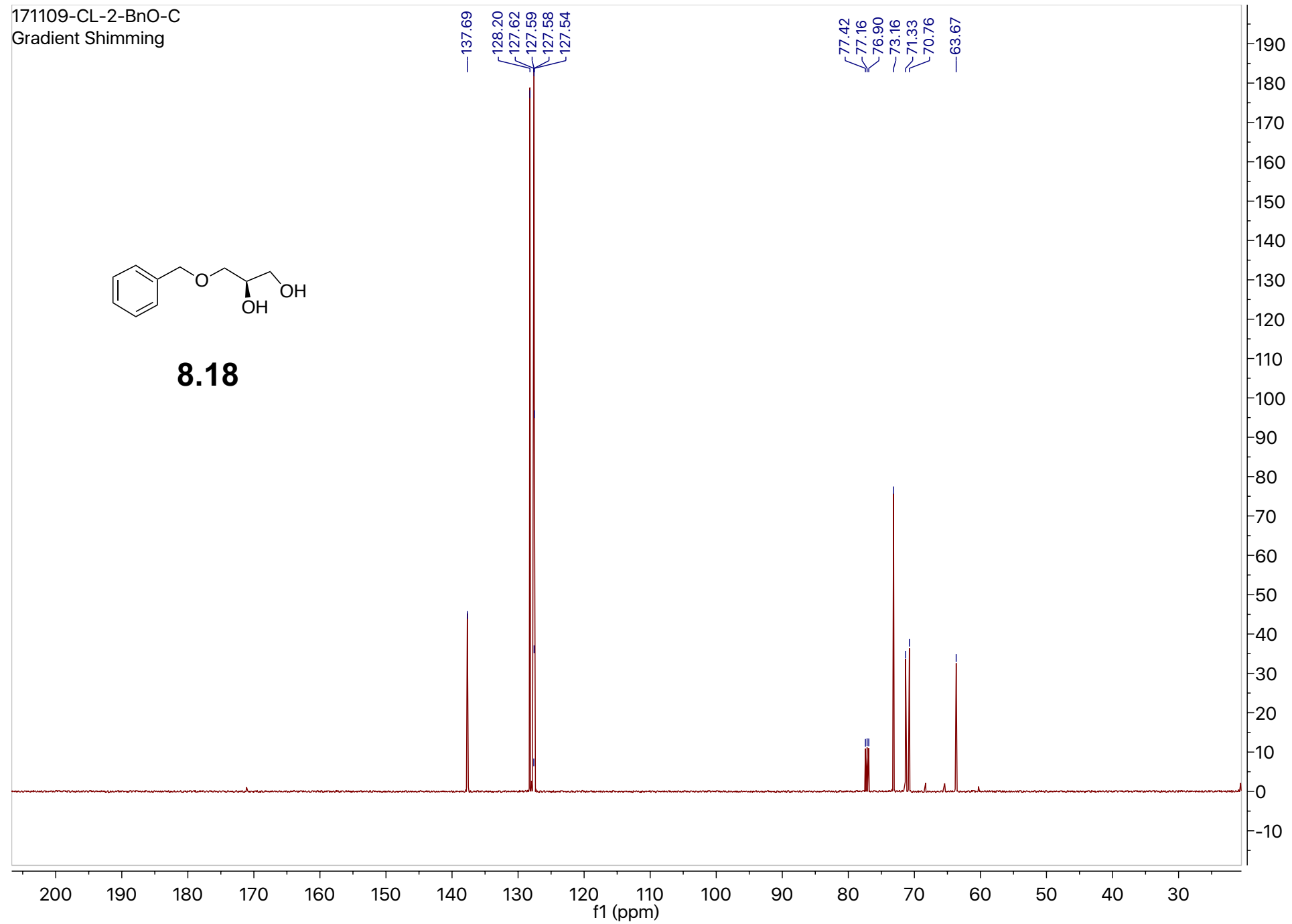
Gradient Shimming

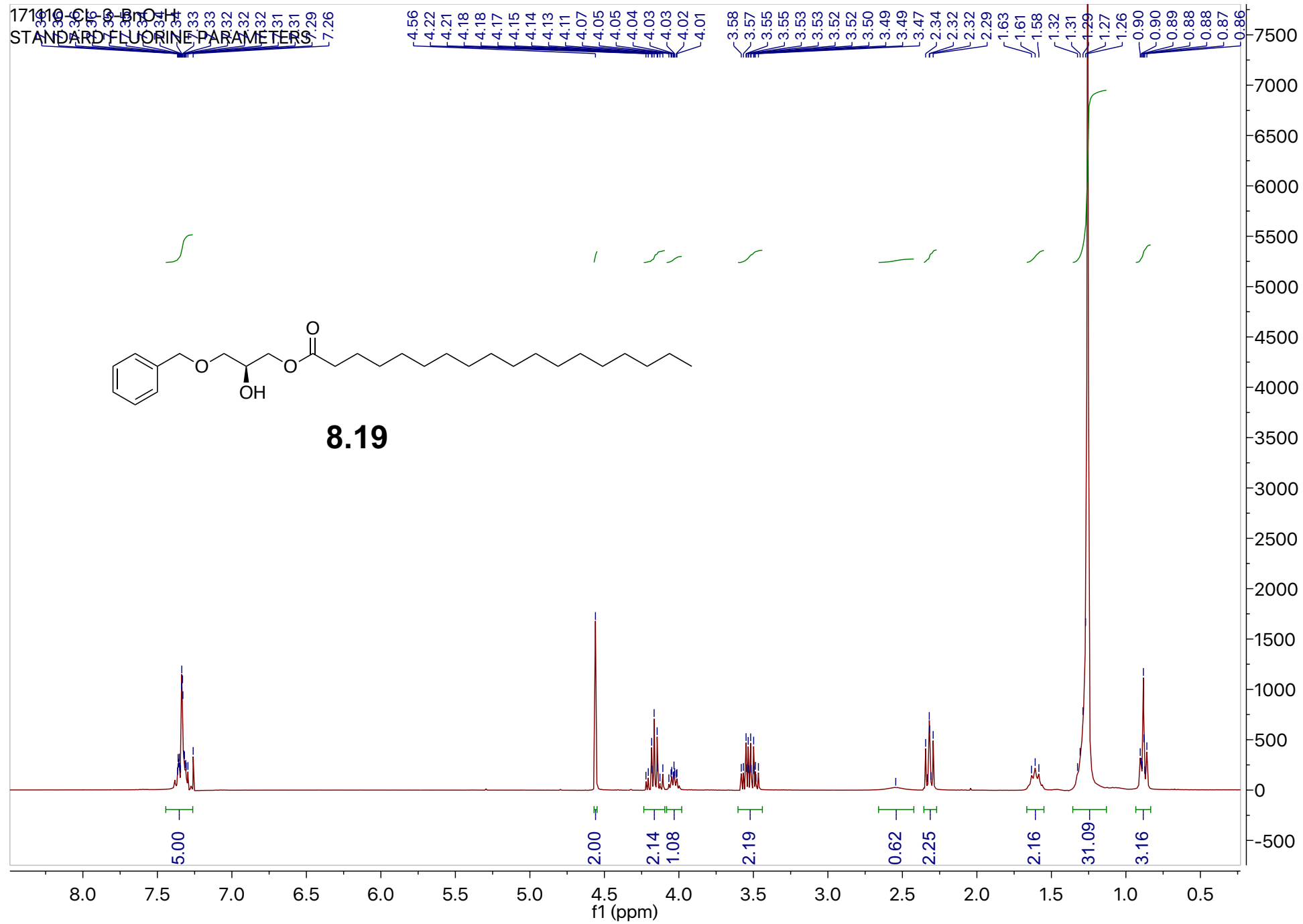
**8.18**

171109-CL-2-BnO-C
Gradient Shimming

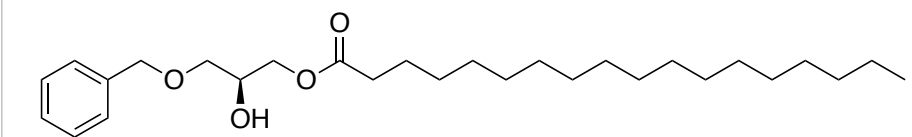


8.18

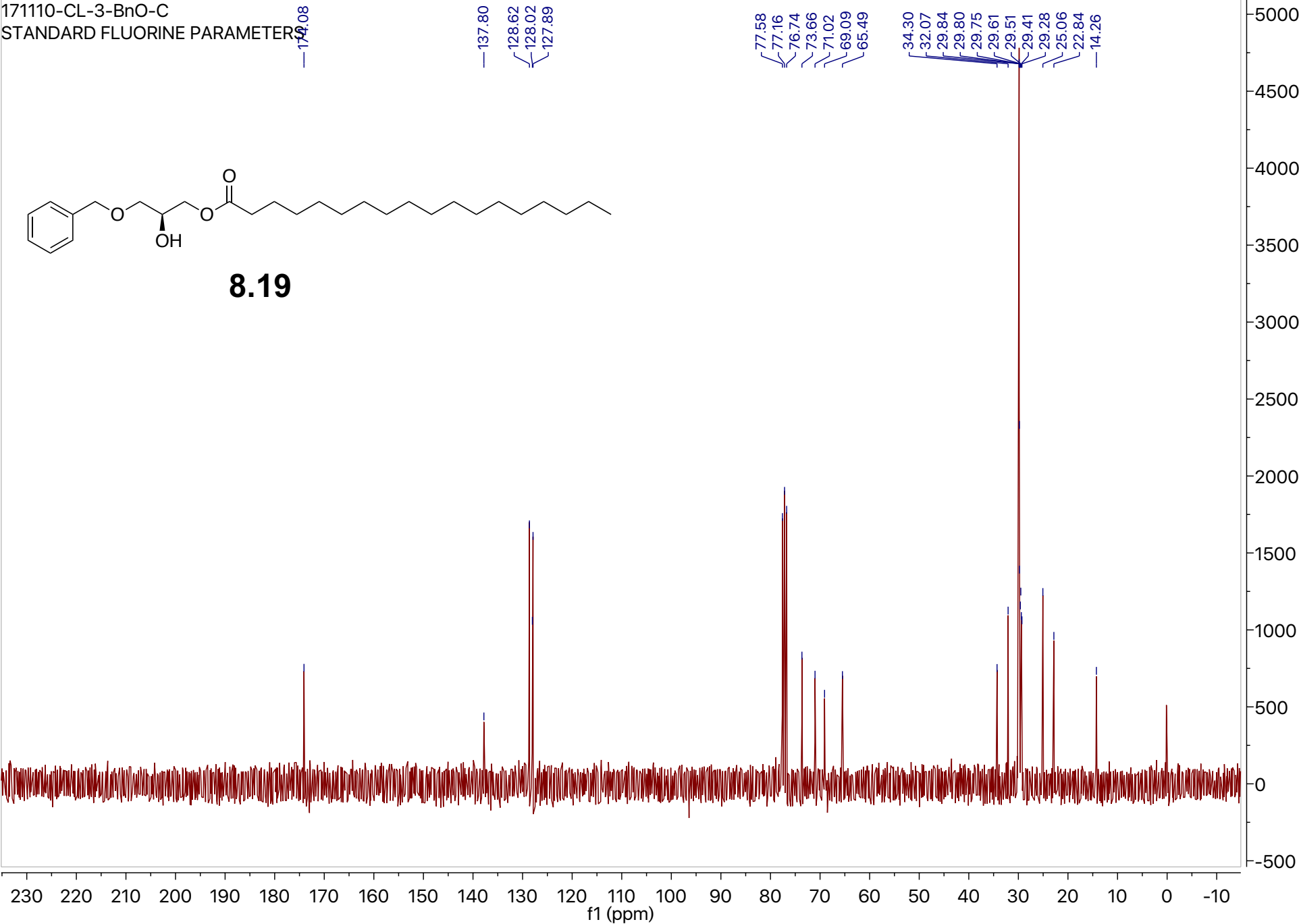


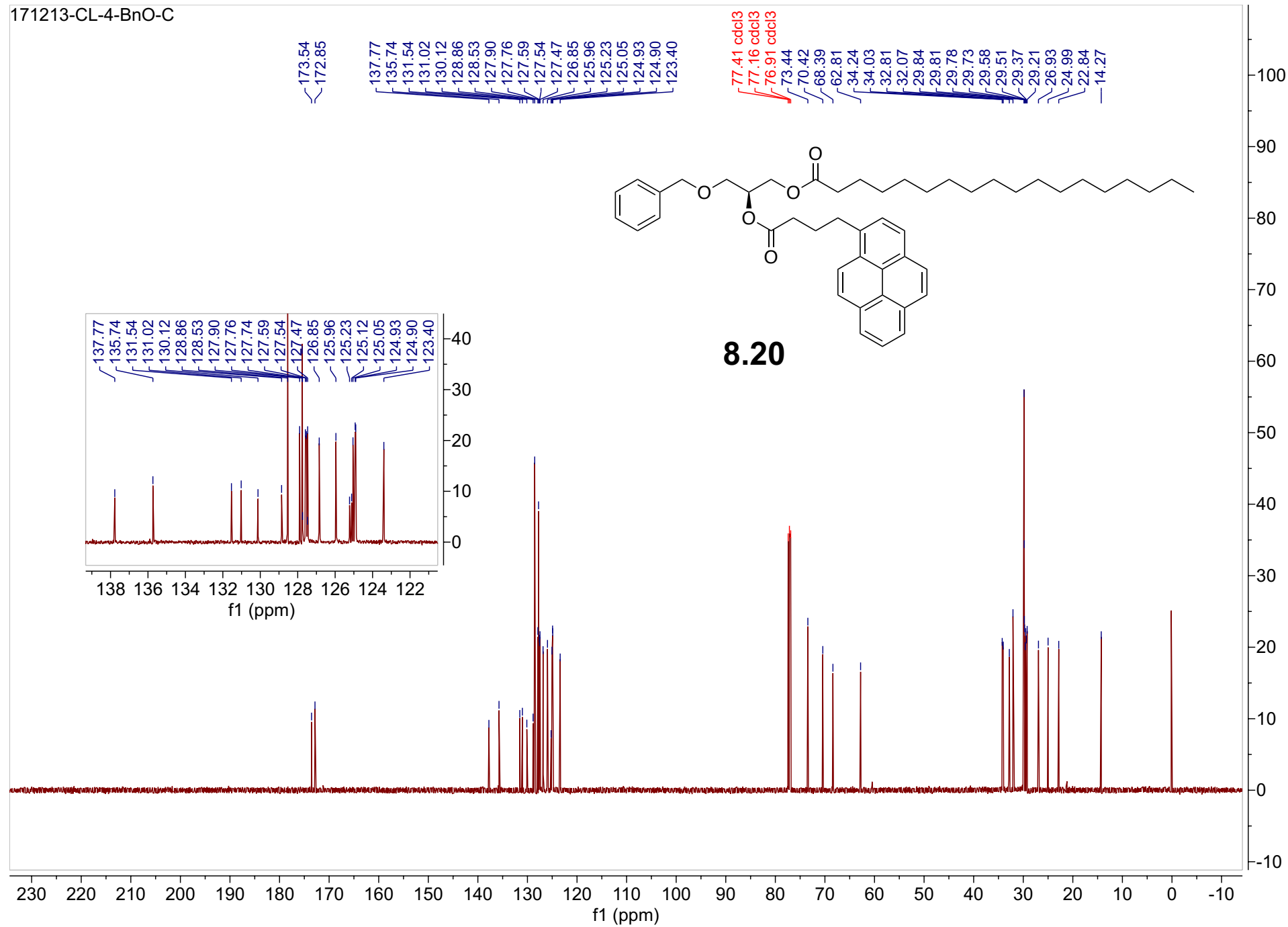


171110-CL-3-BnO-C
STANDARD FLUORINE PARAMETER

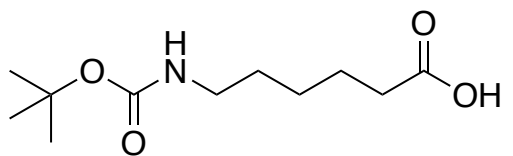


8.19

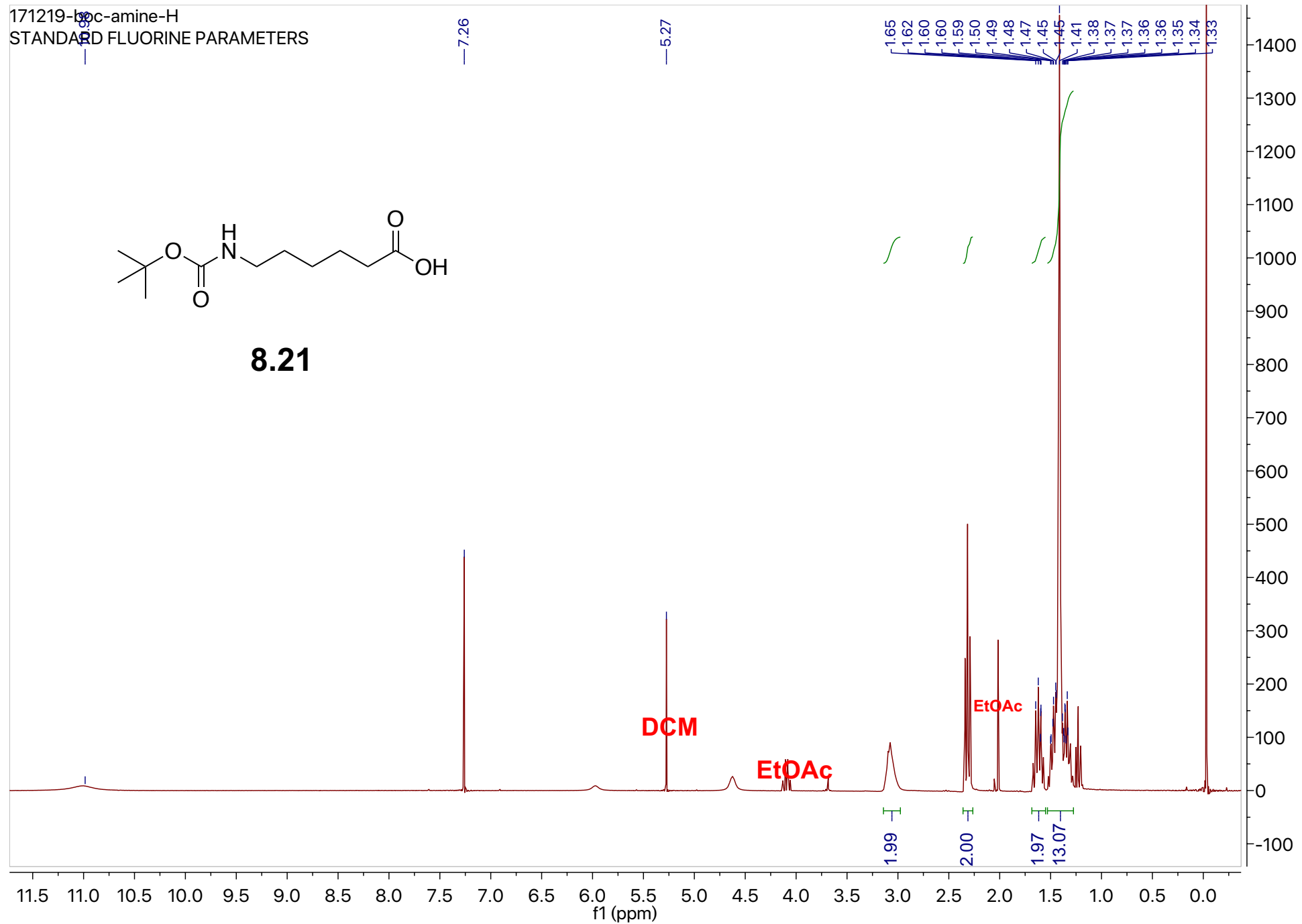


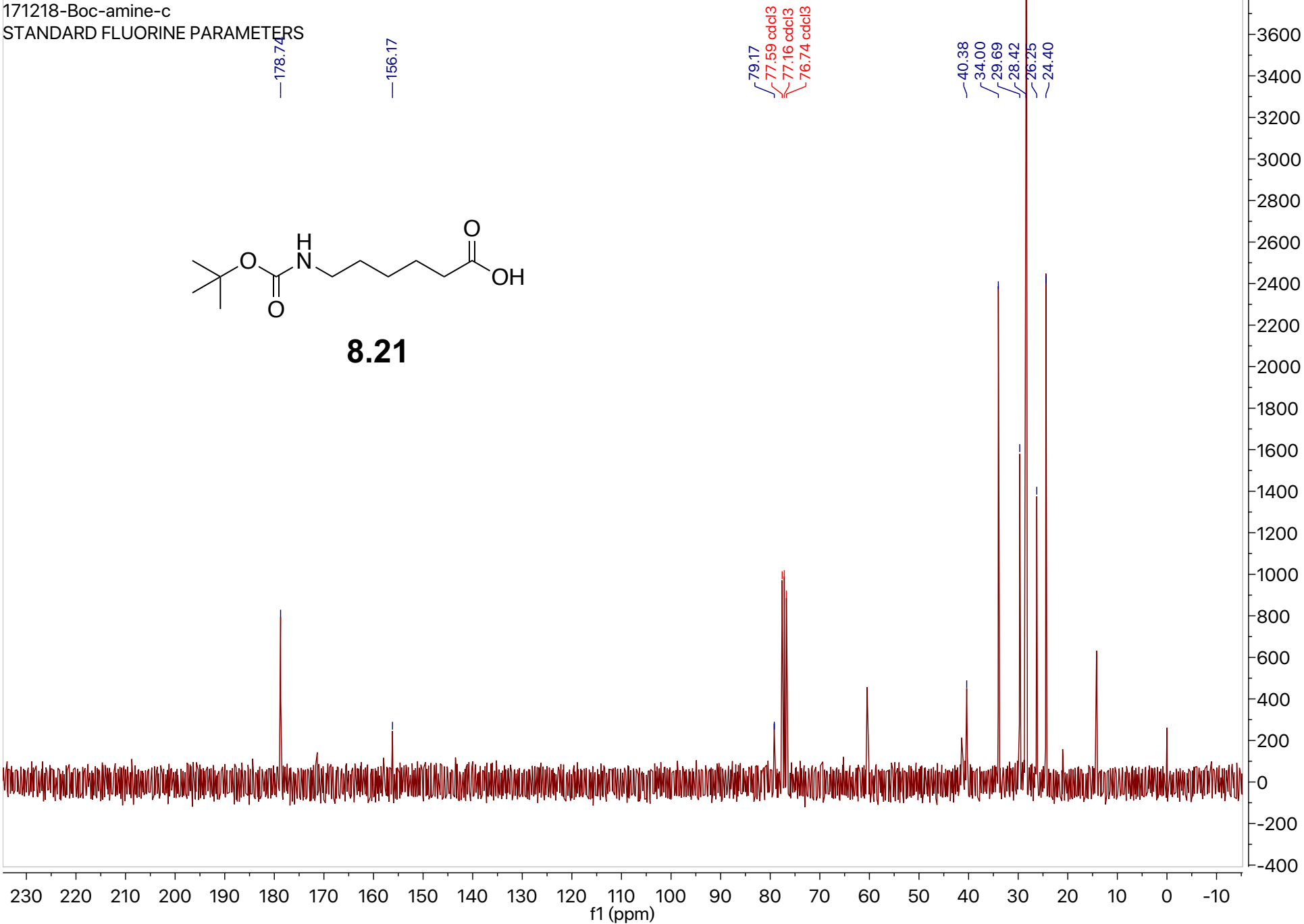


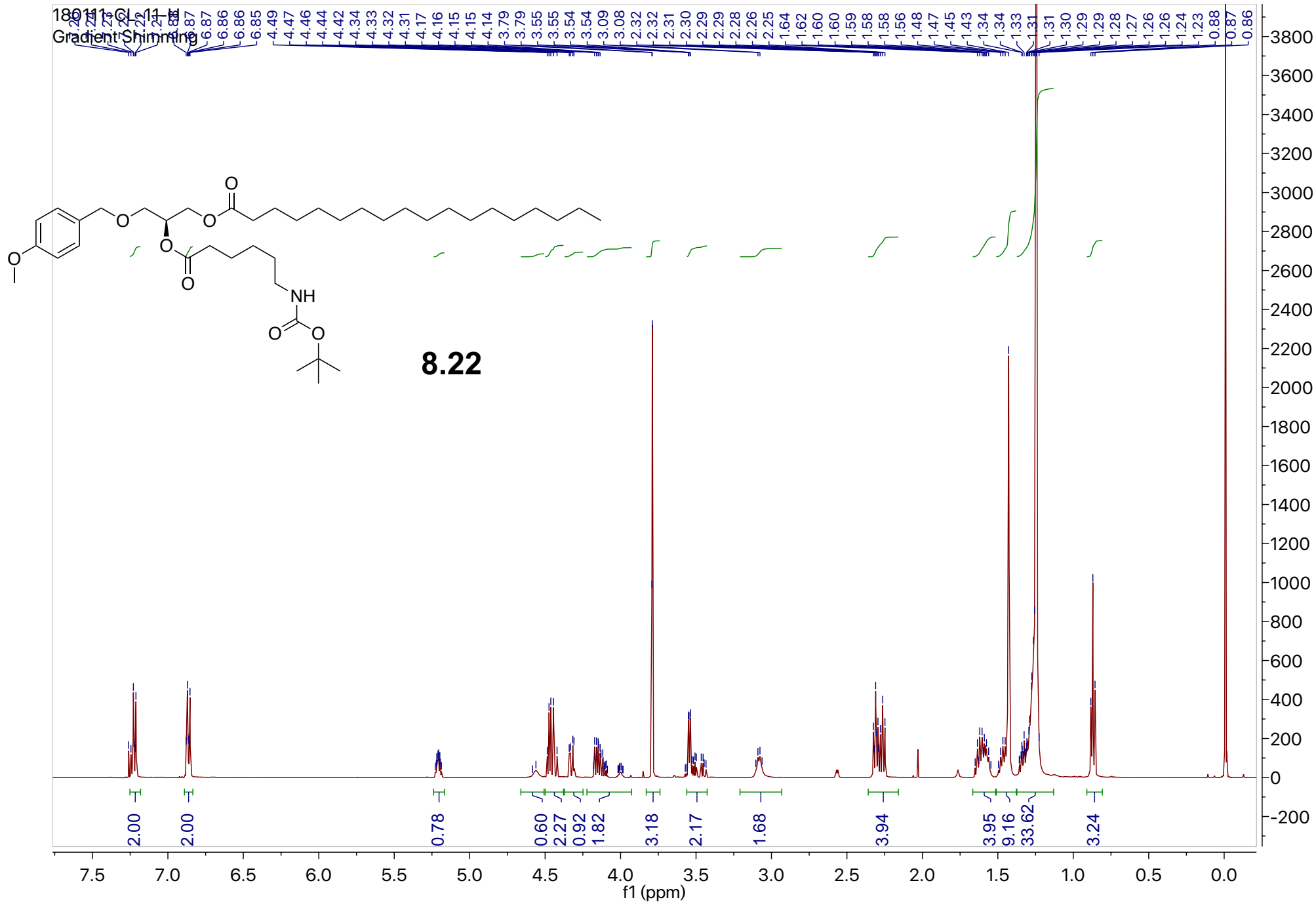
171219-10c-amine-H
STANDARD FLUORINE PARAMETERS

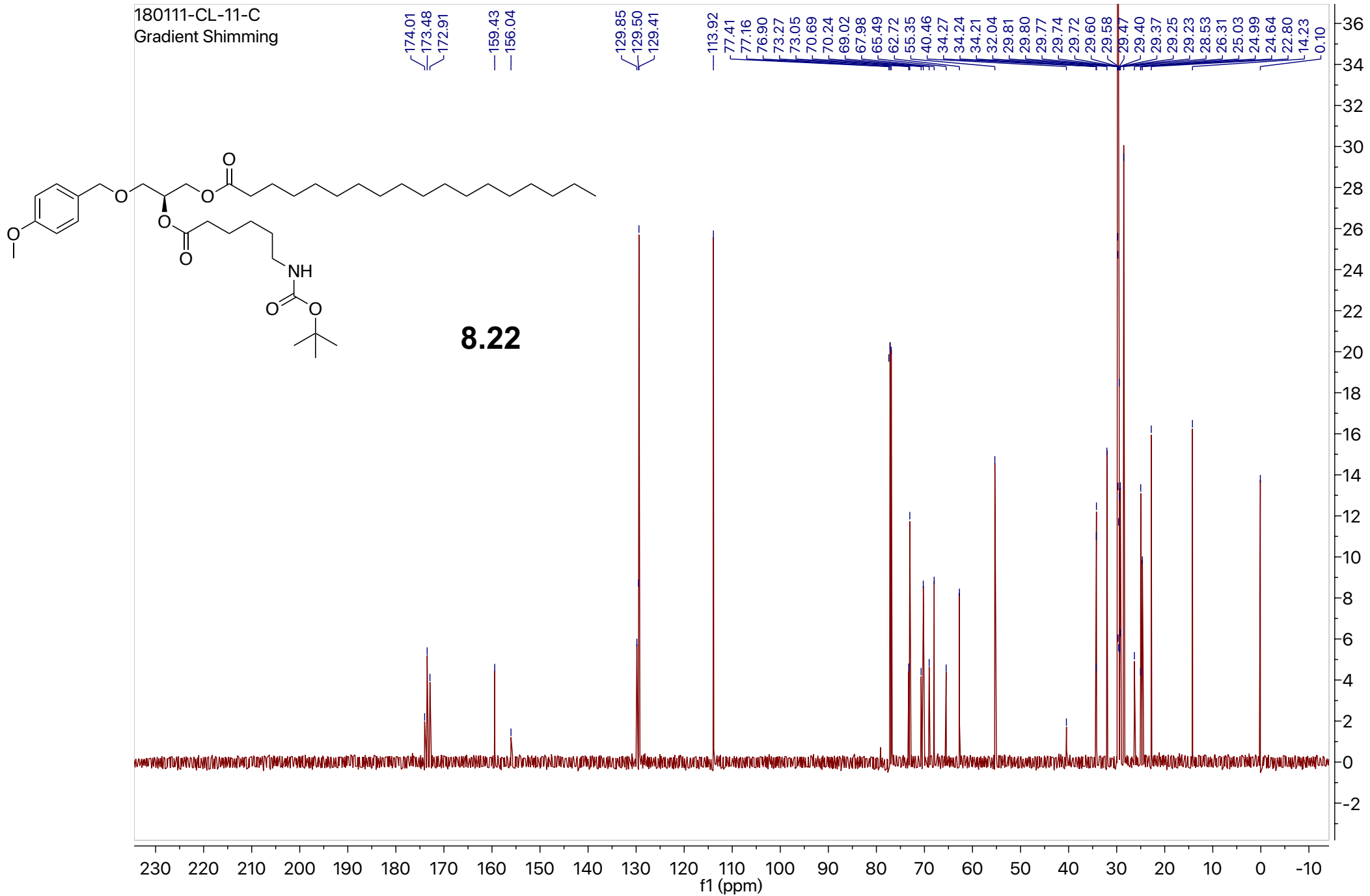


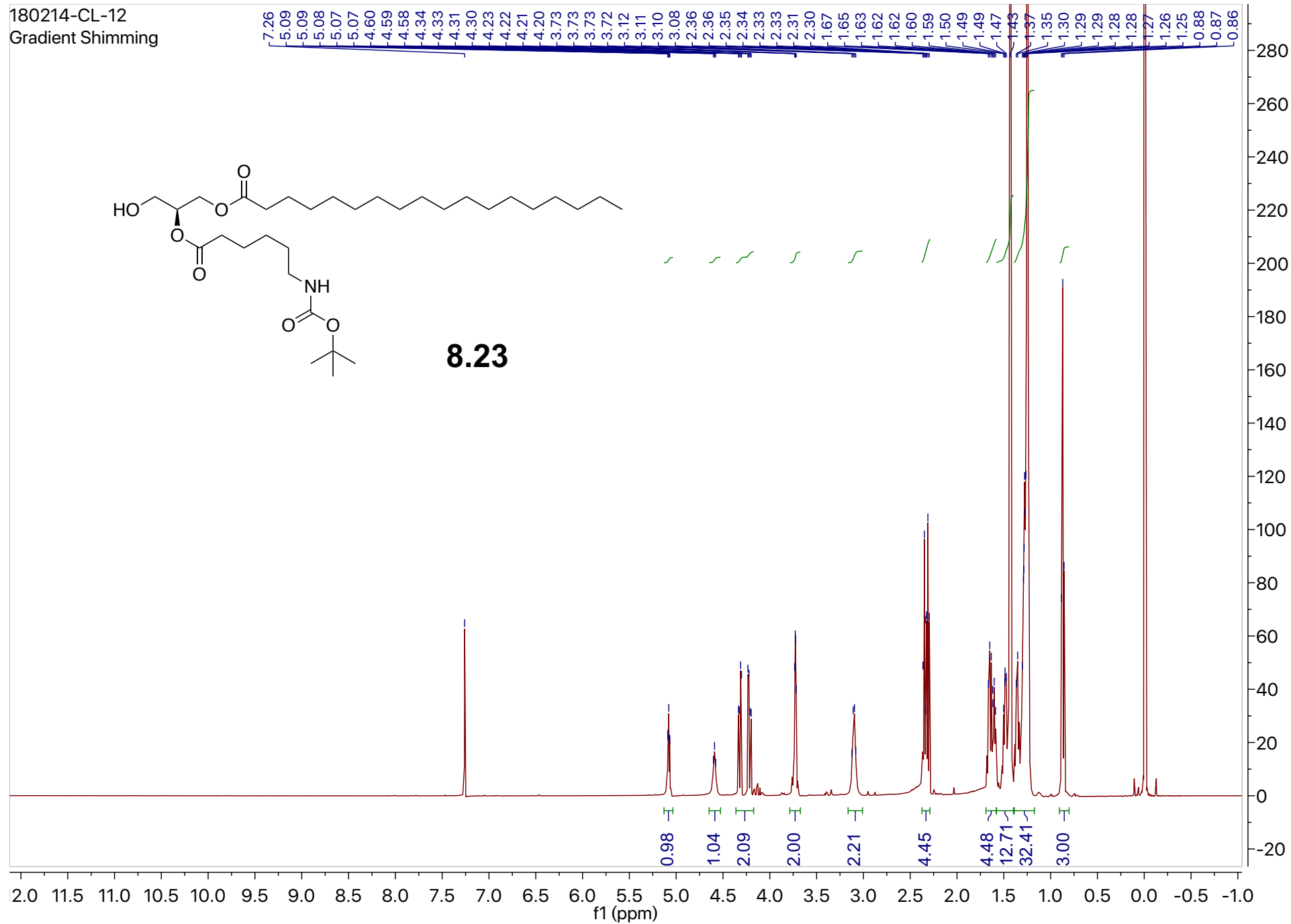
8.21

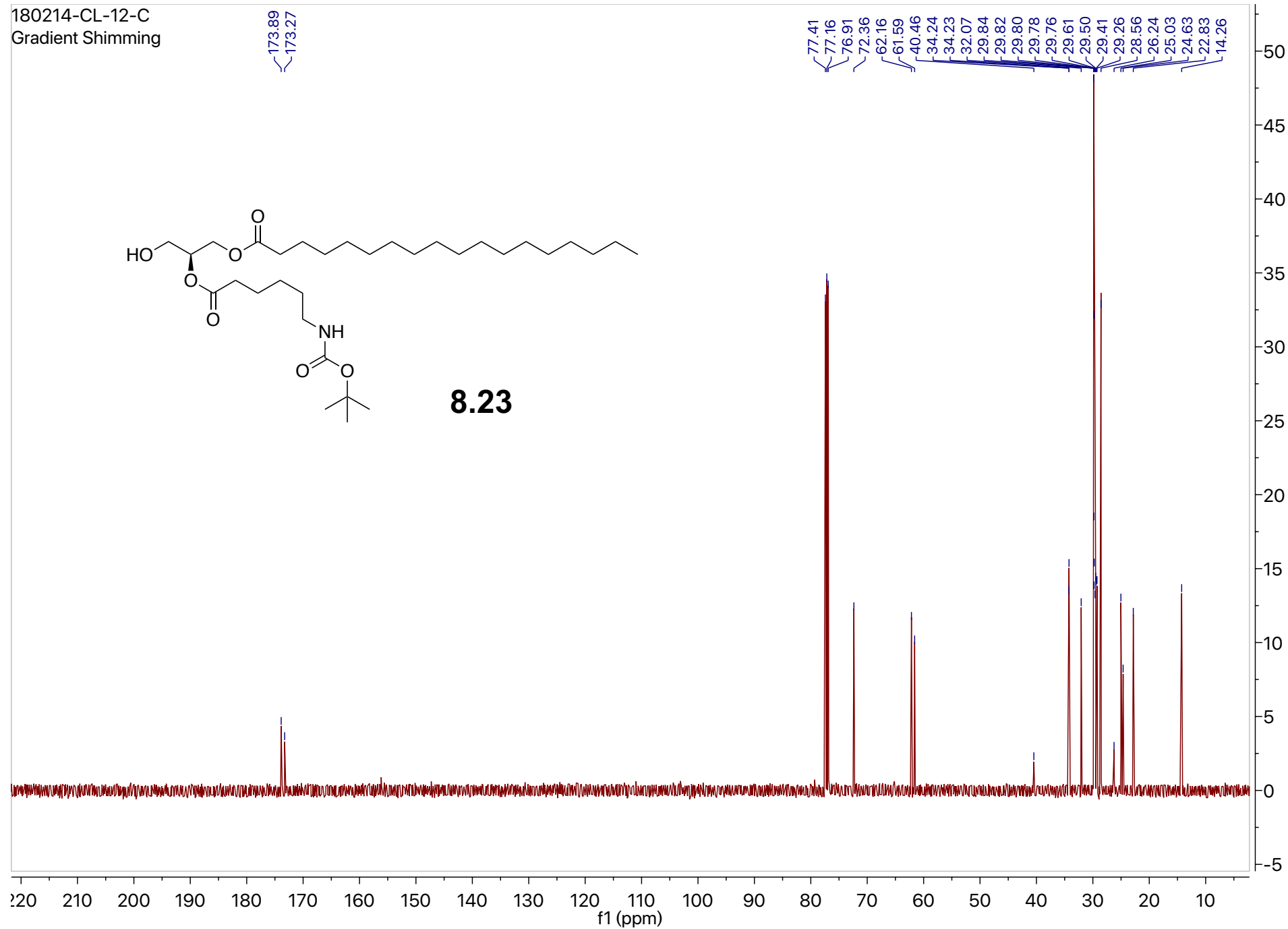


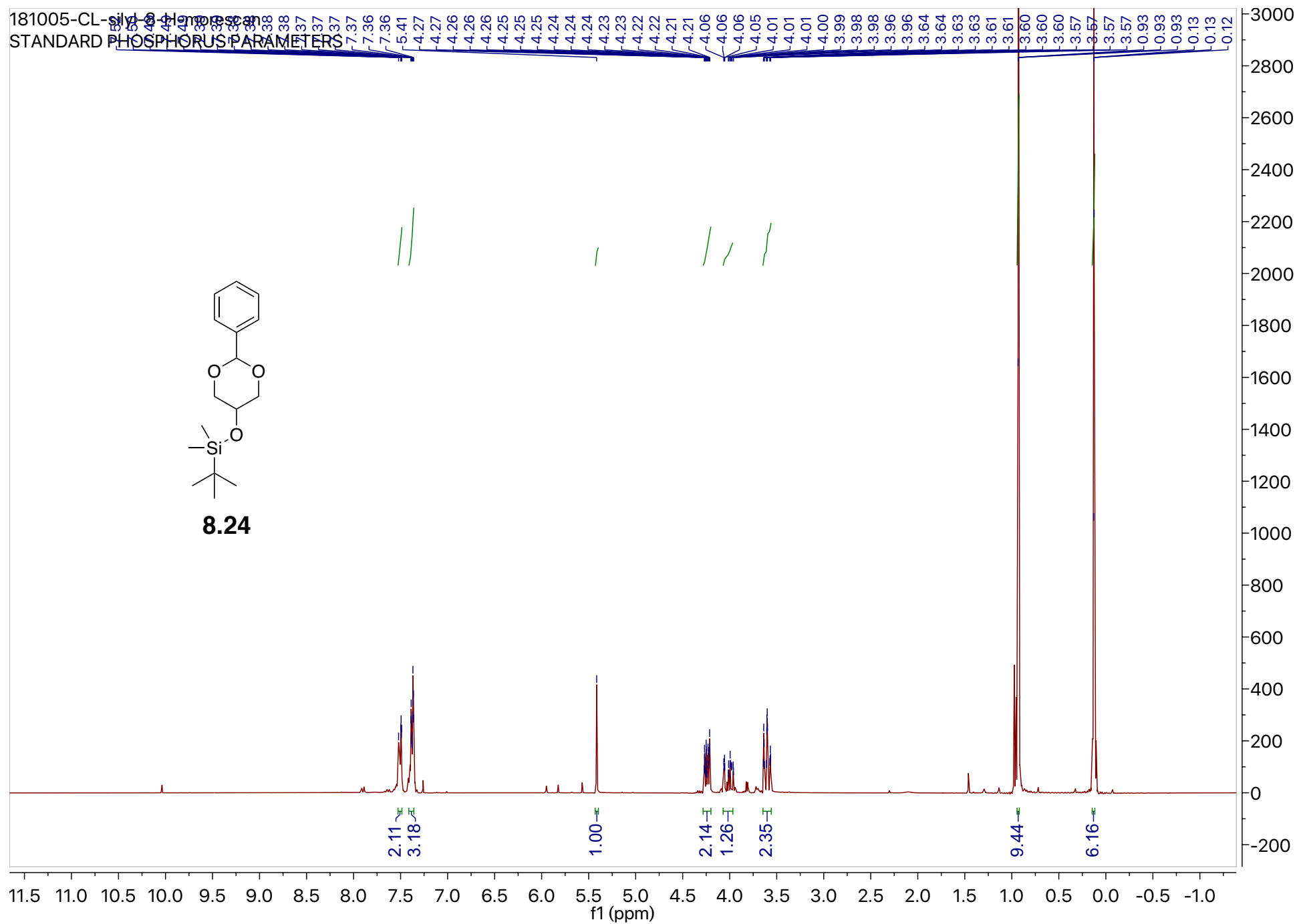


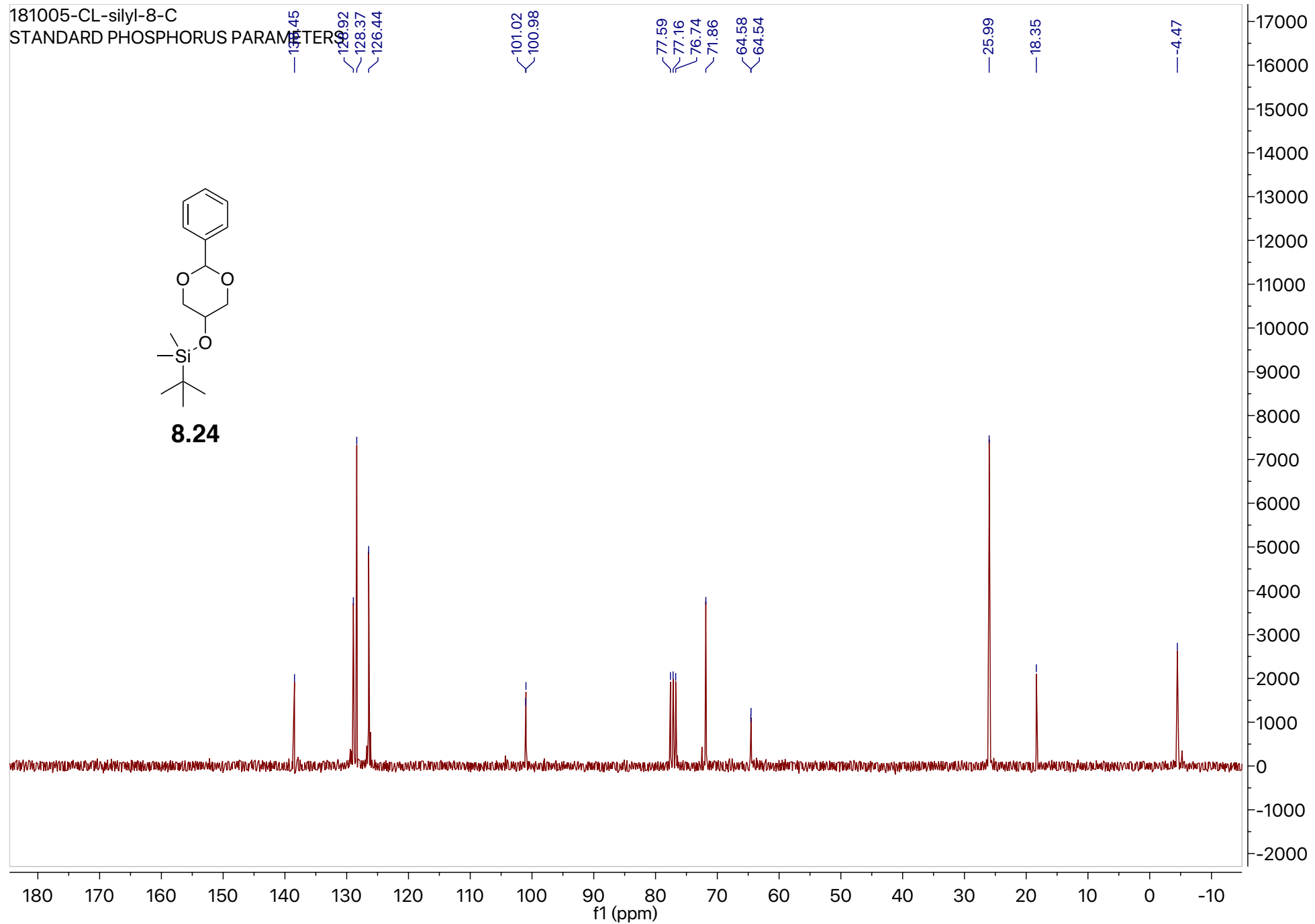


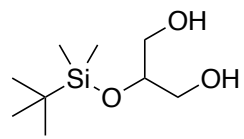




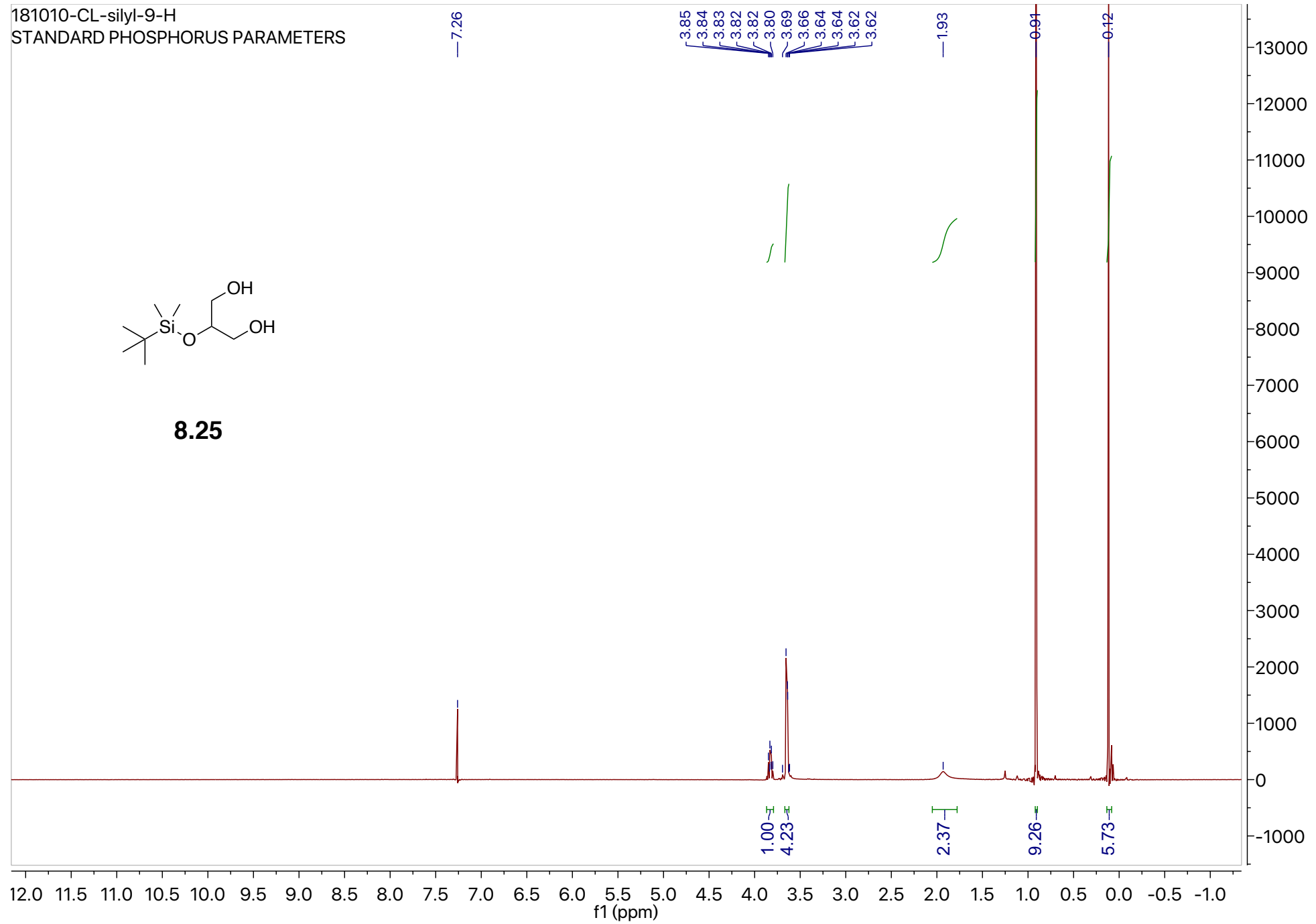


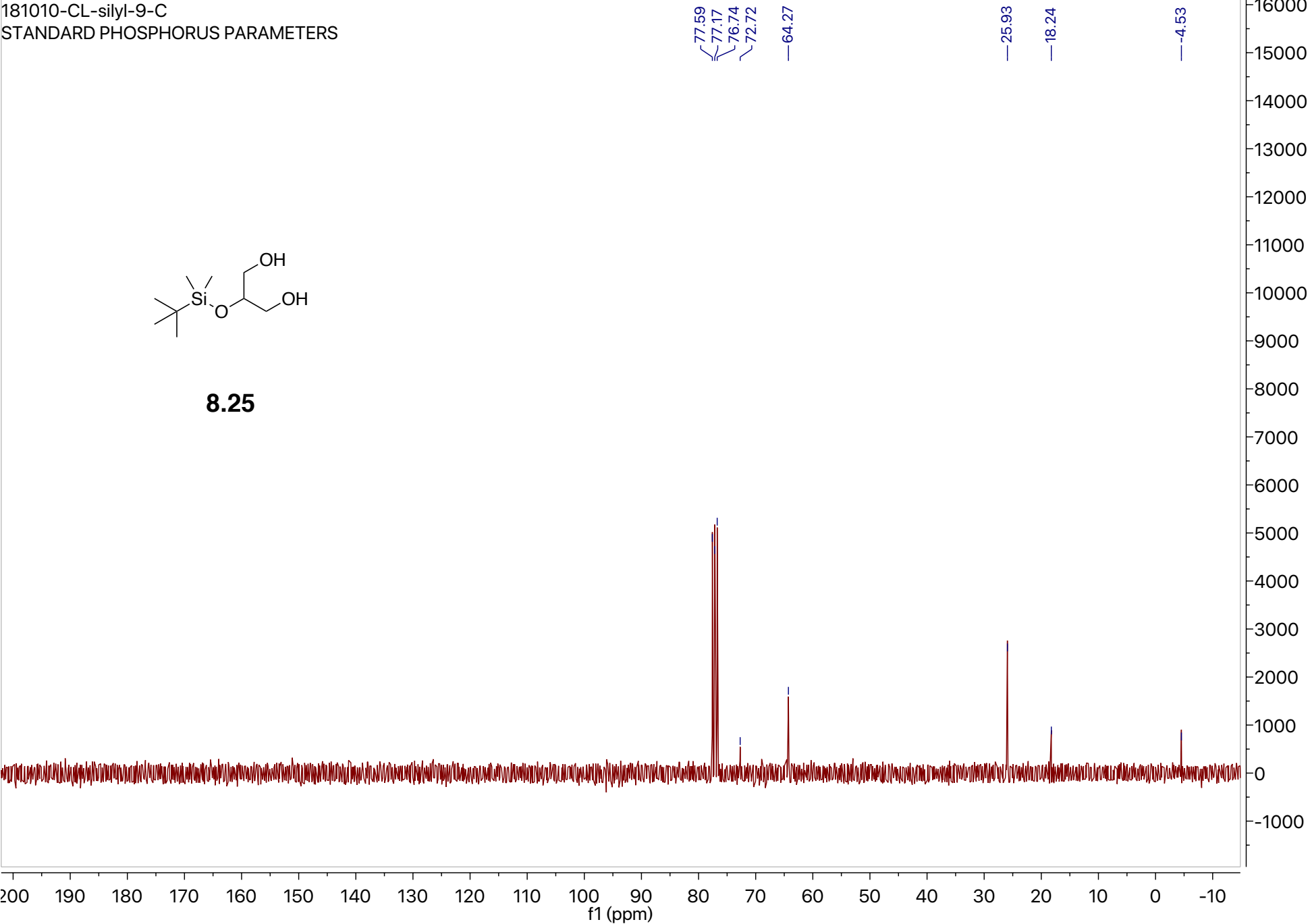




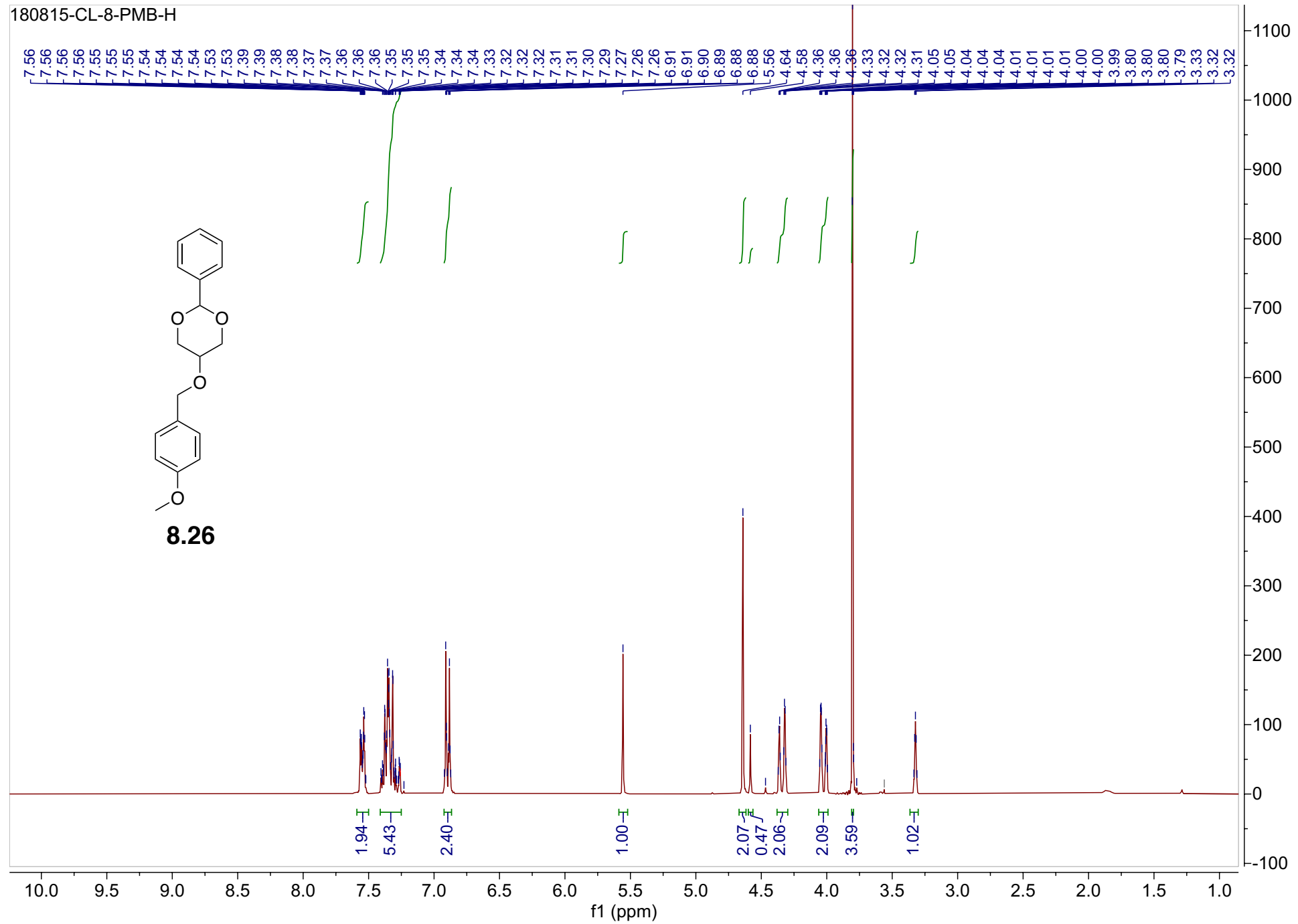


8.25



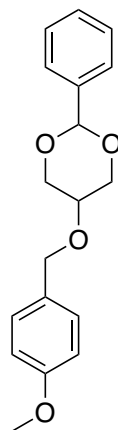


180815-CL-8-PMB-H

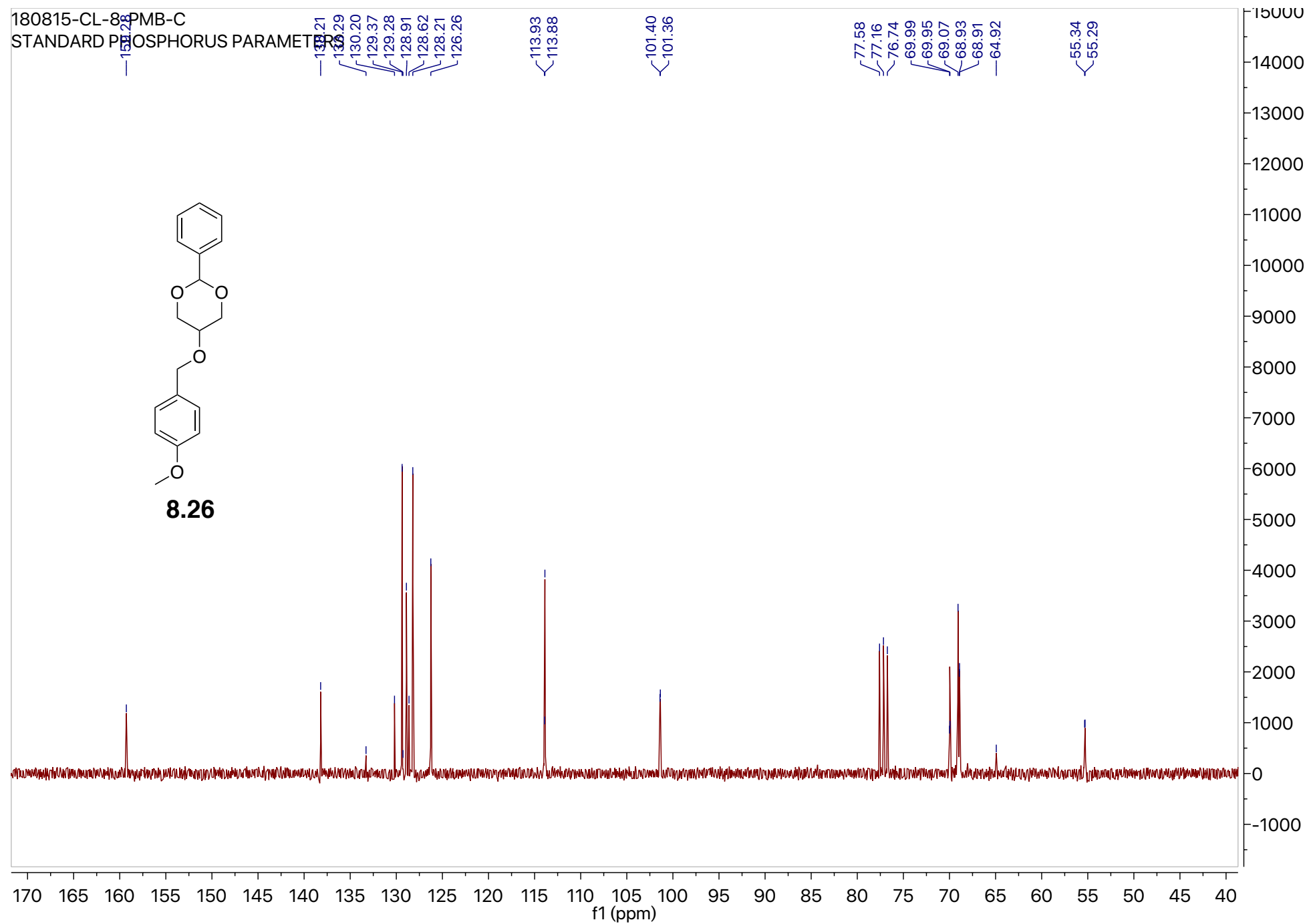


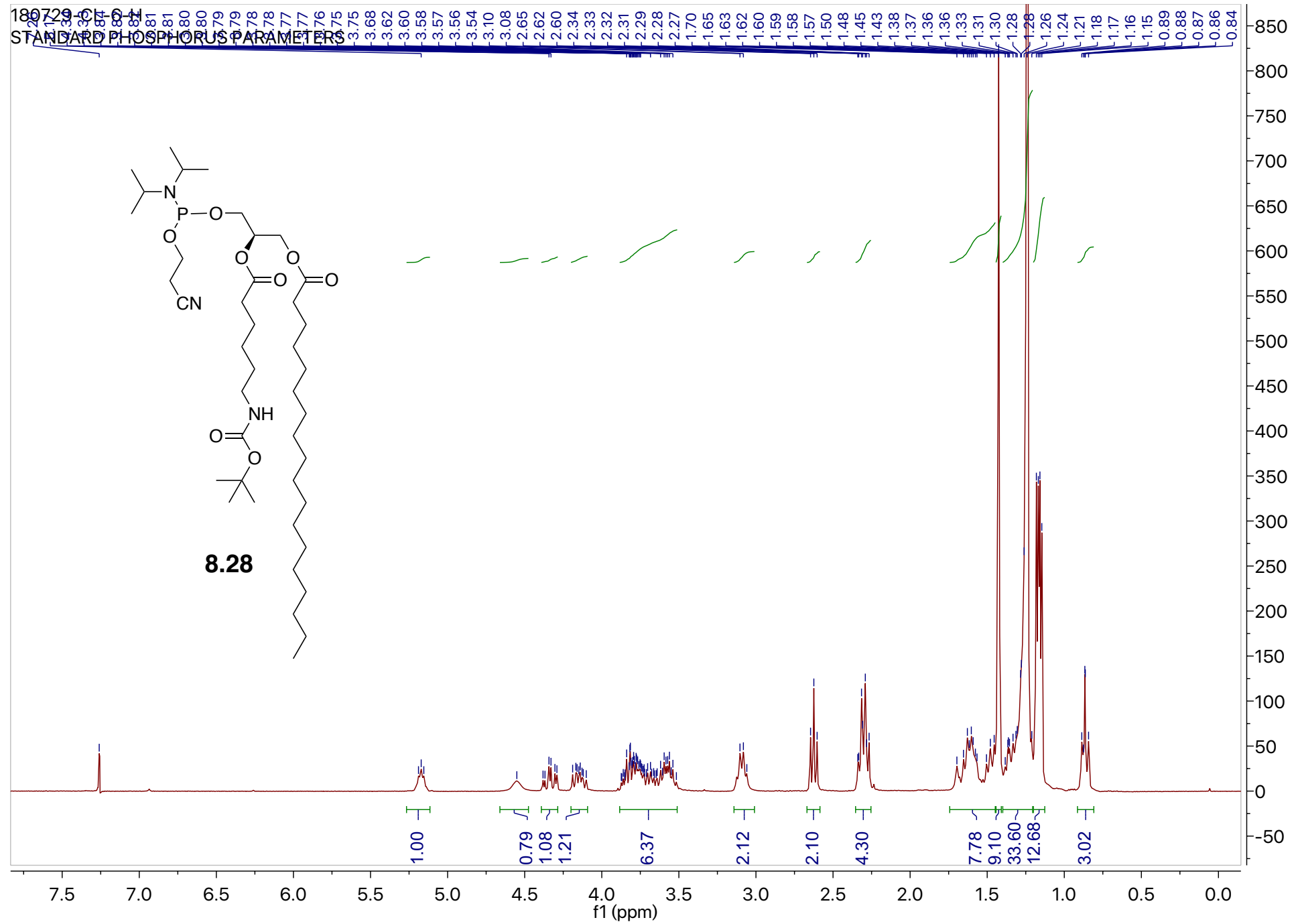
180815-CL-8-PMB-C

STANDARD PHOSPHORUS PARAMETER

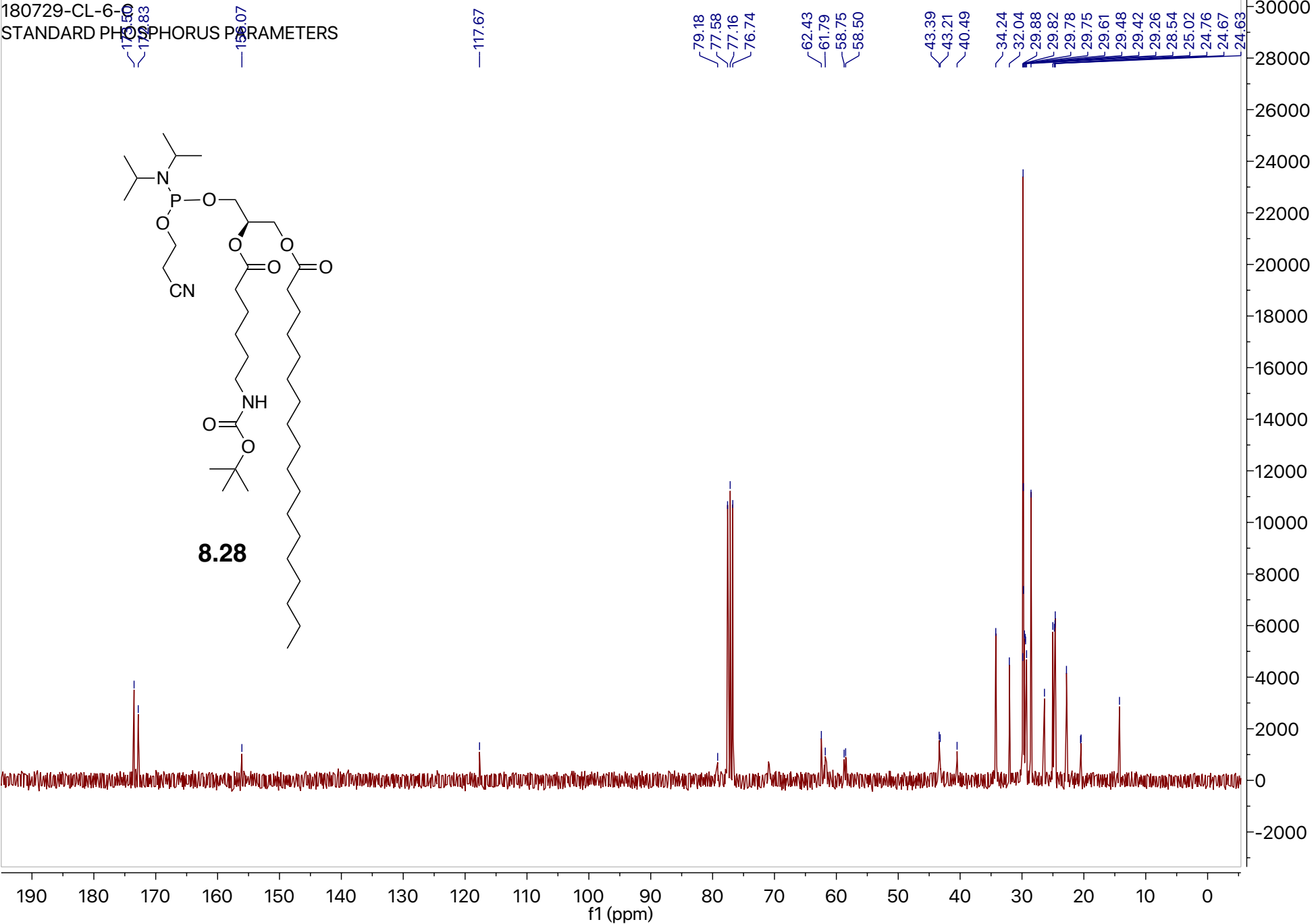


8.26

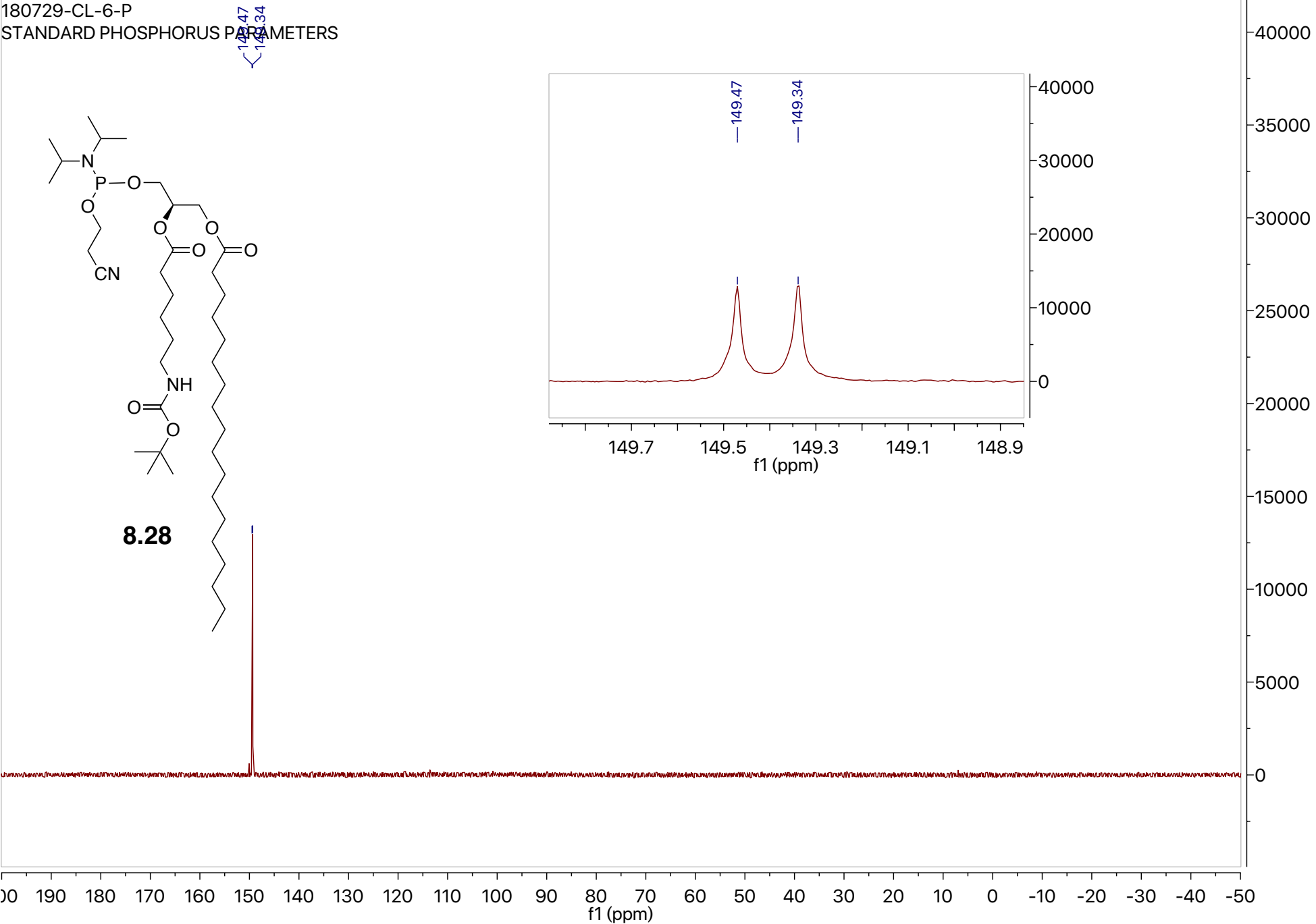


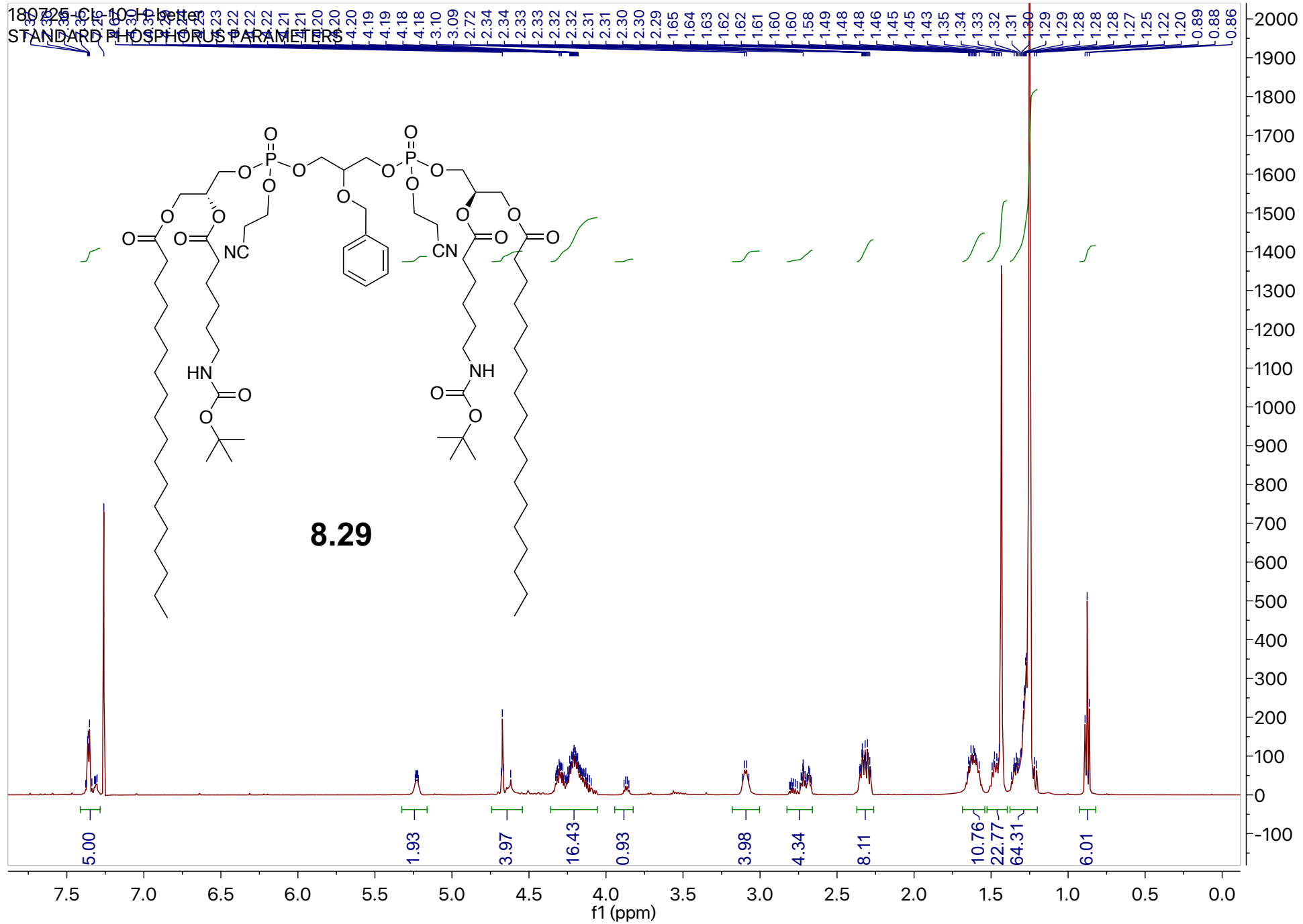


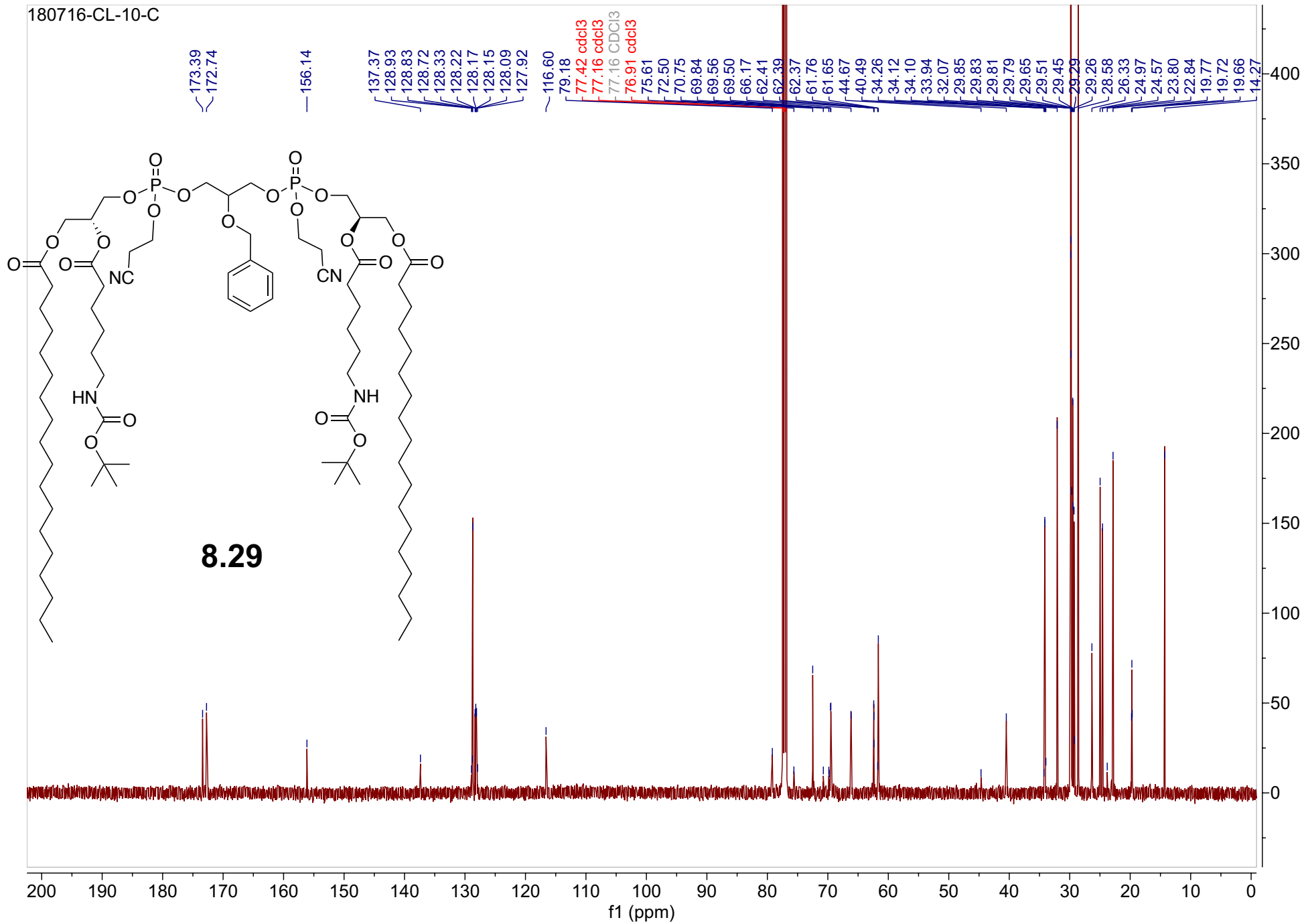
180729-CL-6-
STANDARD PHOSPHORUS PARAMETERS



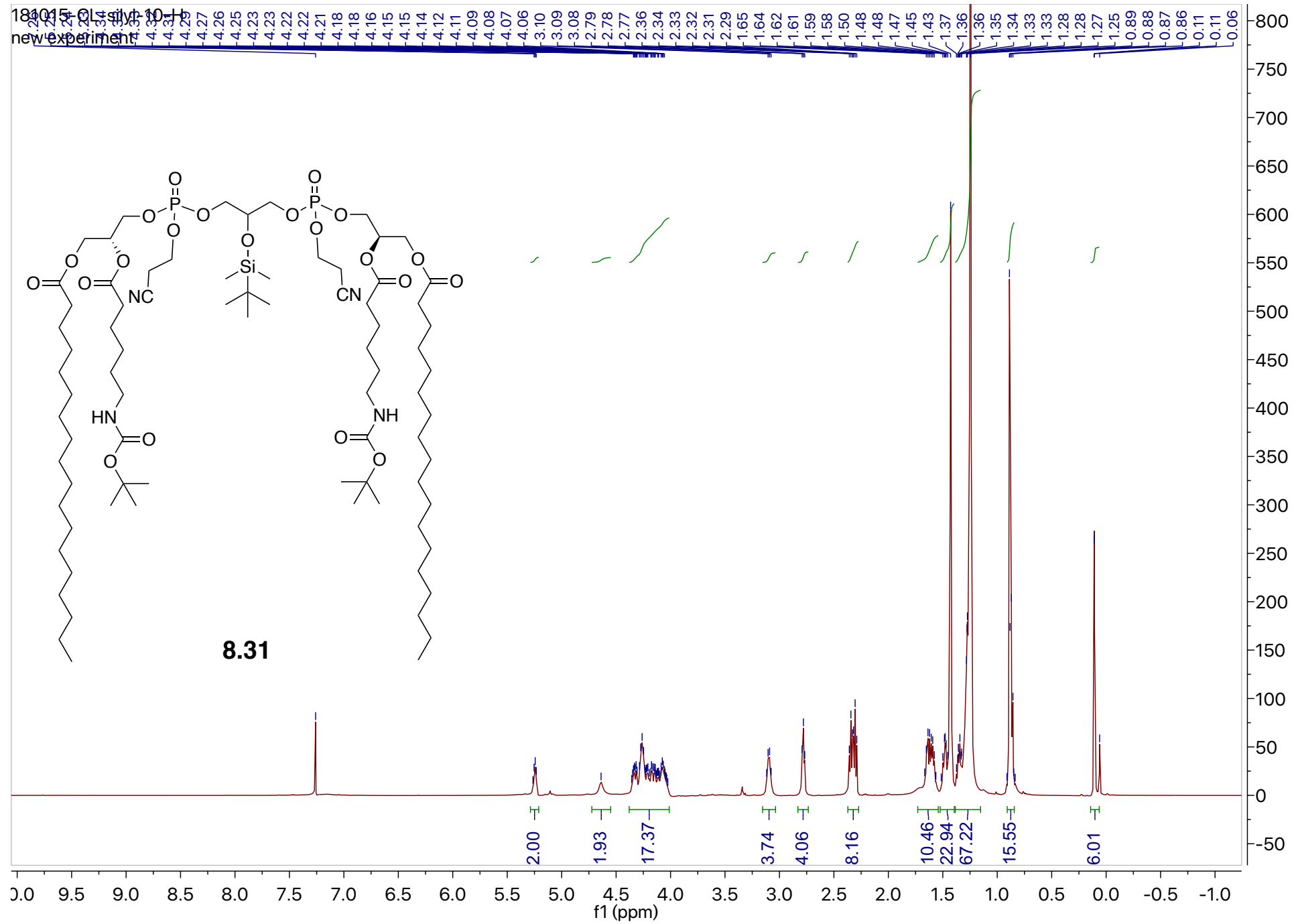
8.28



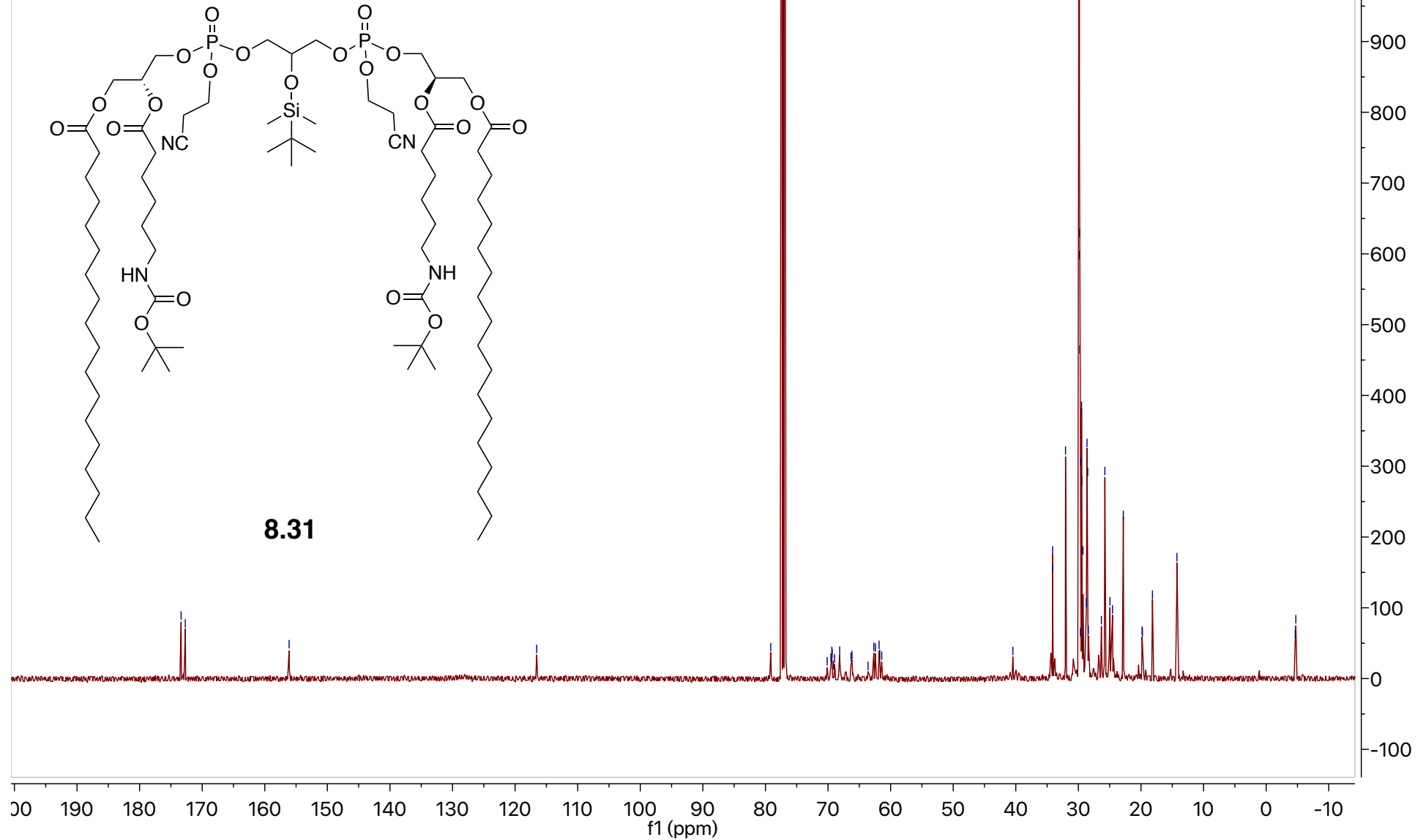


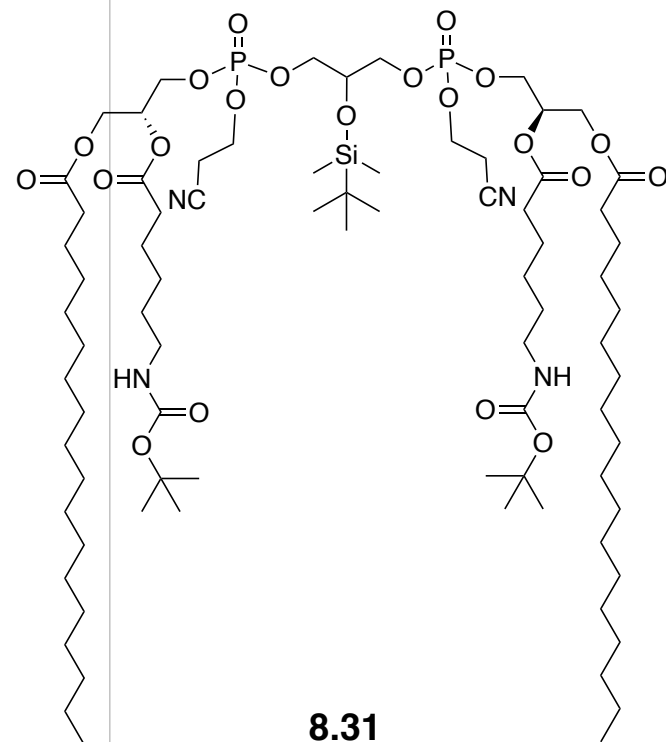




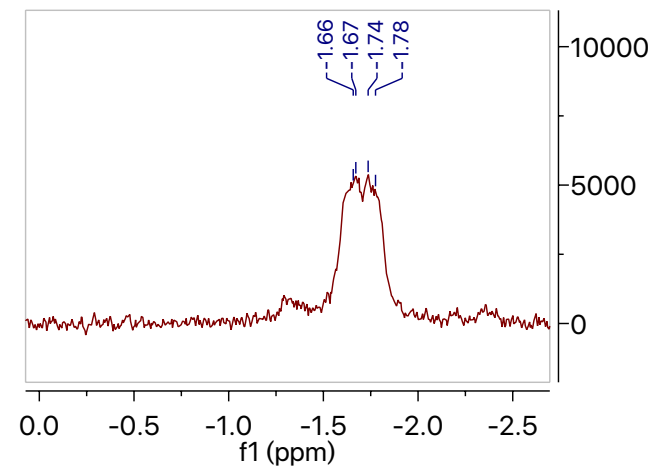


181015-CL-Si-10-4
STANDARD PHOSPHORUS PARAMETERS

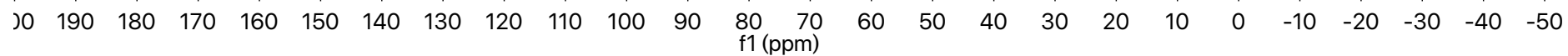




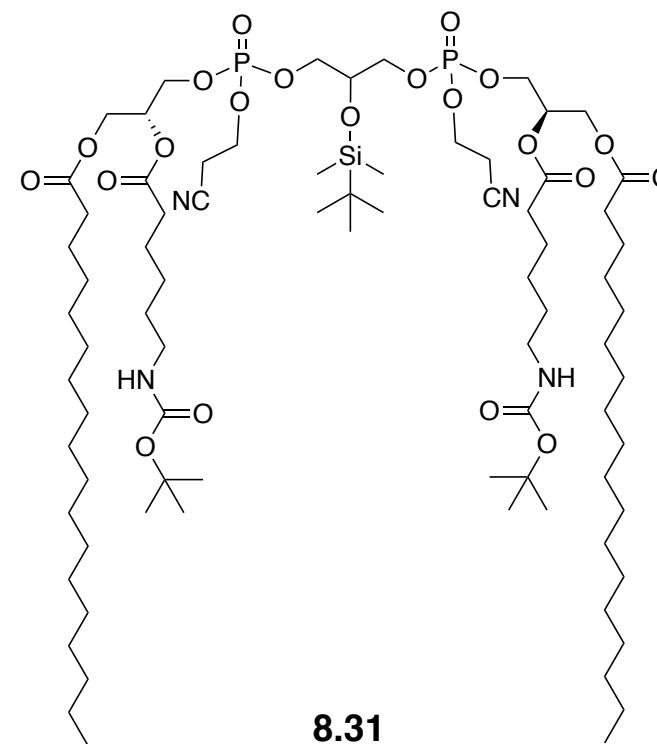
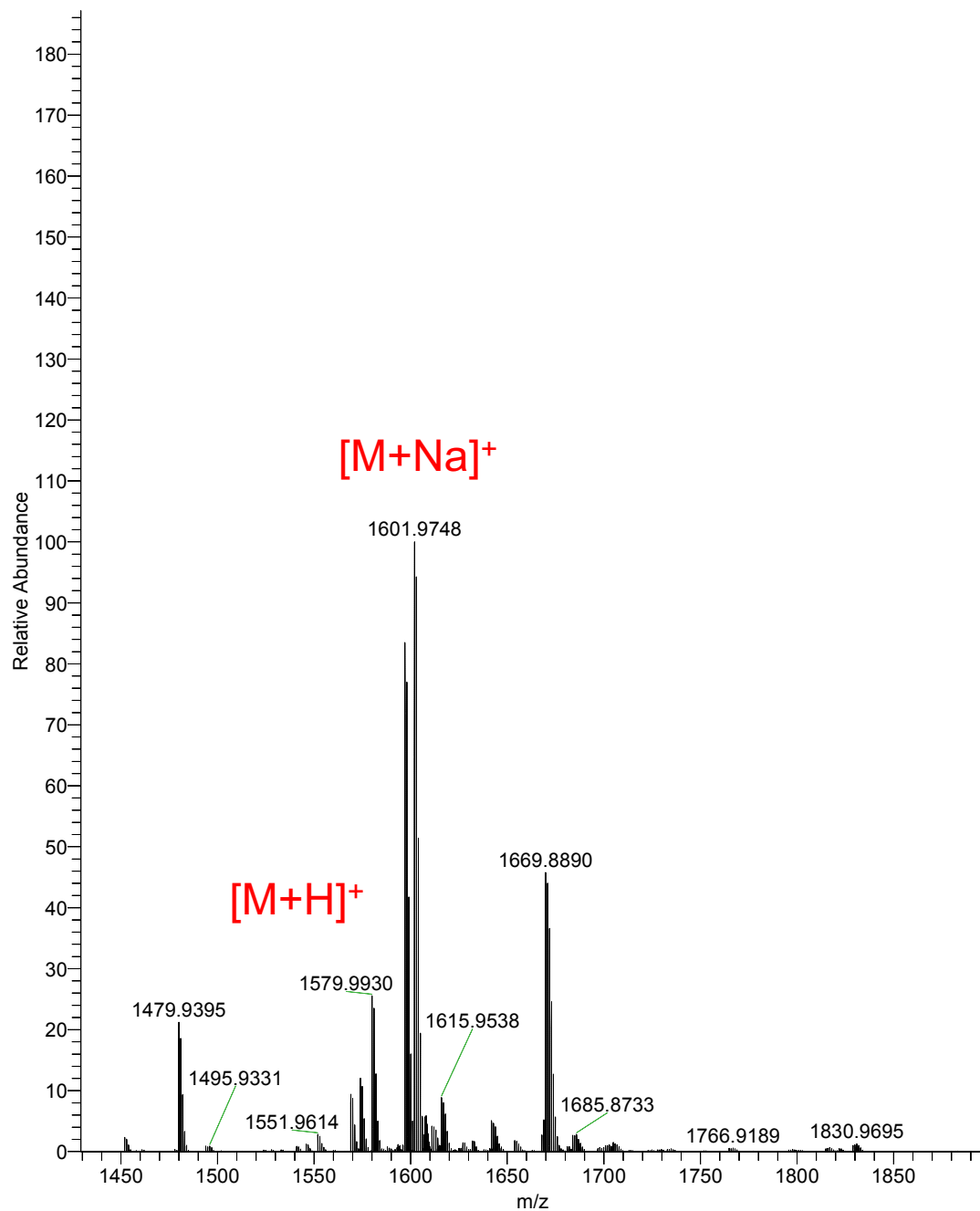
8.31



-1.66
-1.67
-1.74
-1.78



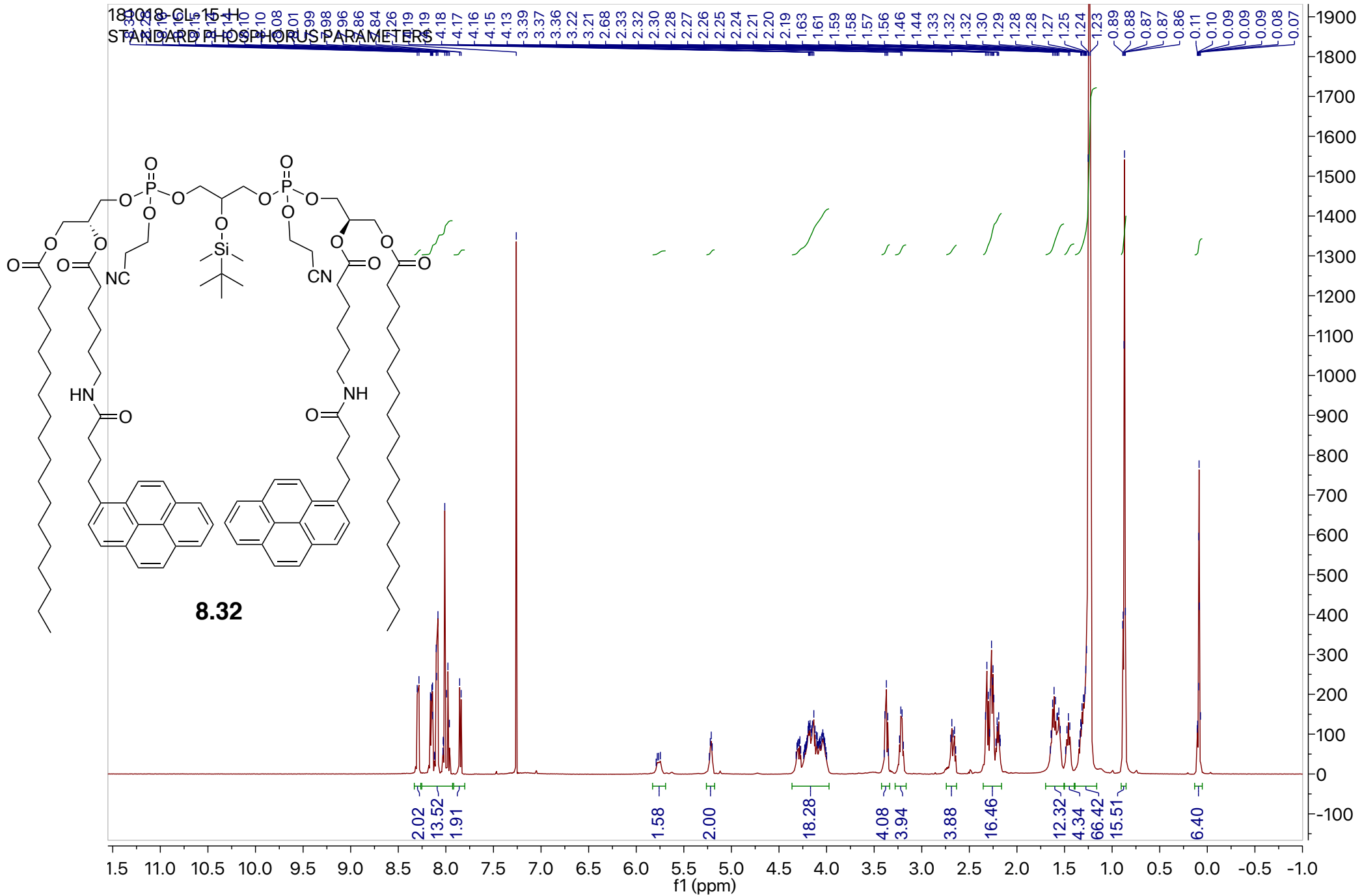
2018_10_19_Cl_si_10 #10-33 RT: 0.37-1.02 AV: 24 NL: 6.18E7
T: FTMS + p ESI Full ms [130.0000-1950.0000]



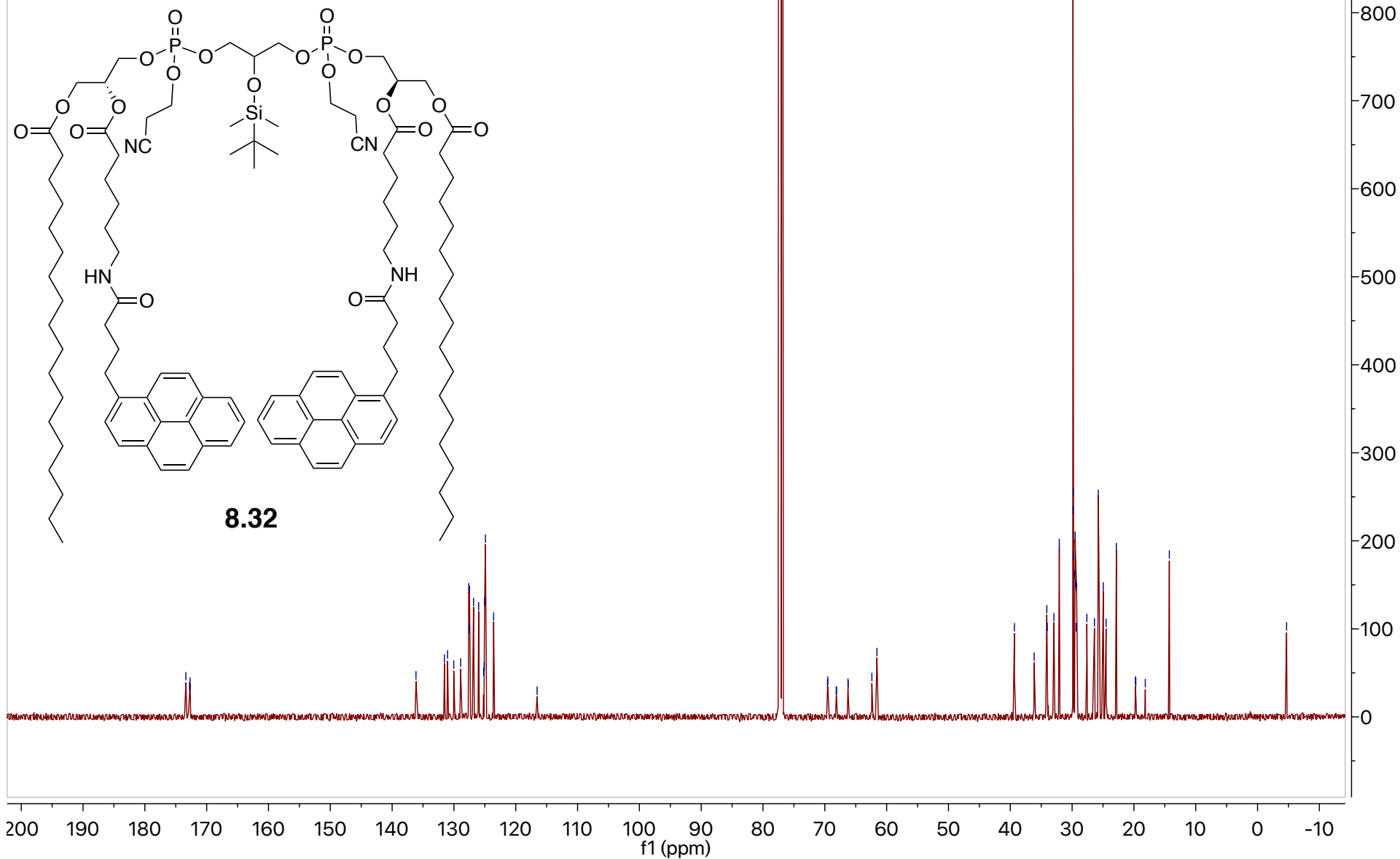
8.31

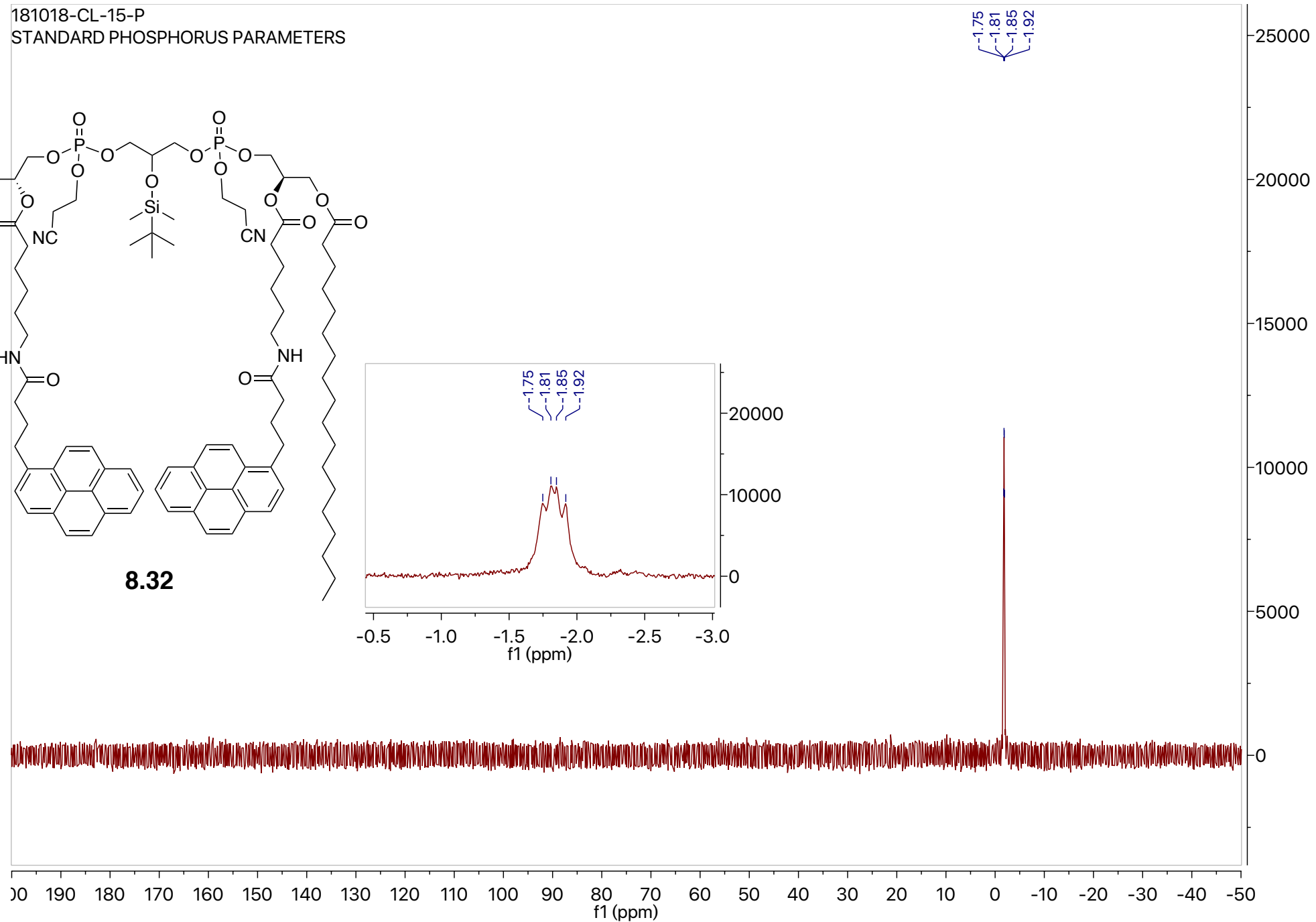
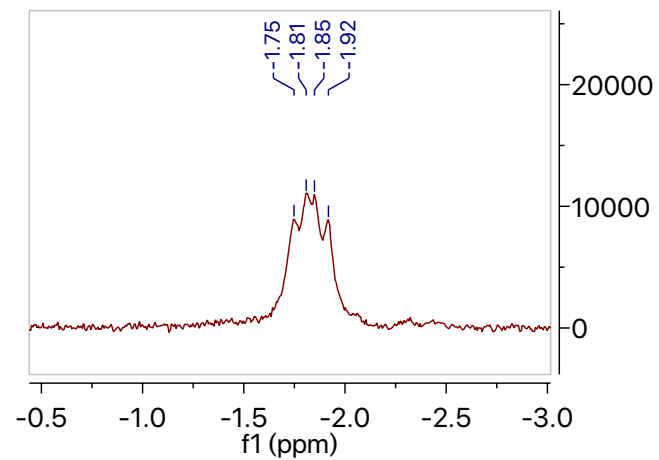
ESI-MS: $[M+H]^+$ calcd for $C_{79}H_{149}O_{21}N_4P_2Si$, 1579.9959
found 1579.9930

$[M+Na]^+$ calcd for $C_{79}H_{148}O_{21}N_4P_2SiNa$, 1601.9778
found 1601.9748



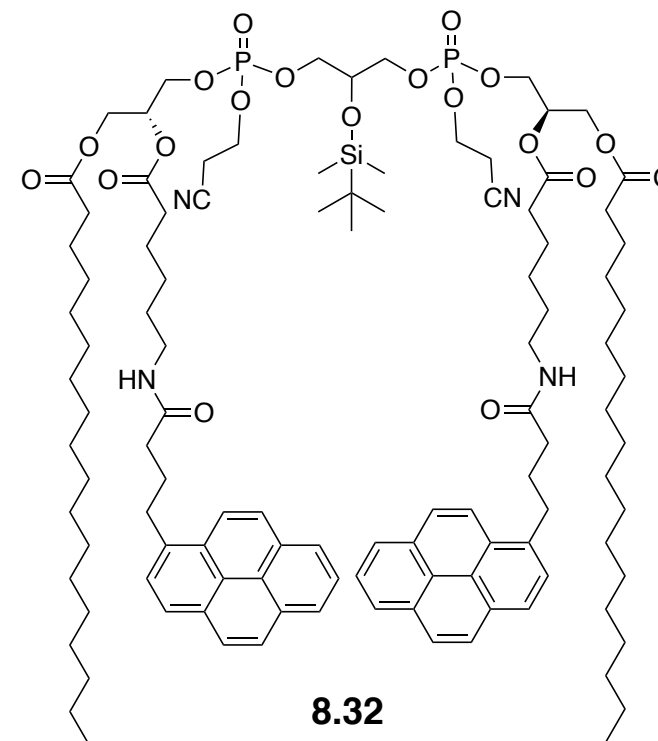
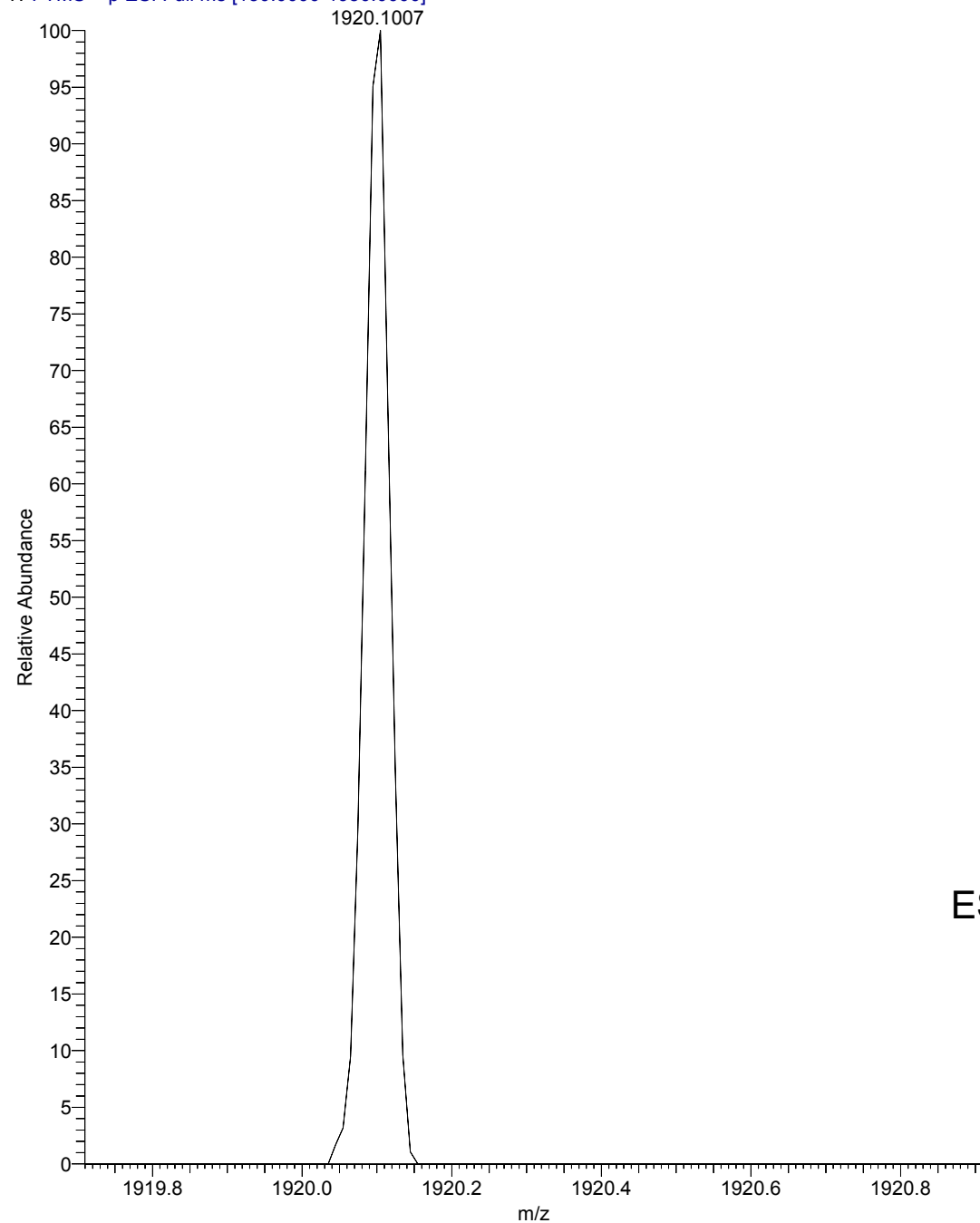
181018-CL-15-C
STANDARD PHOSPHORUS PARAMETER



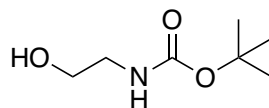
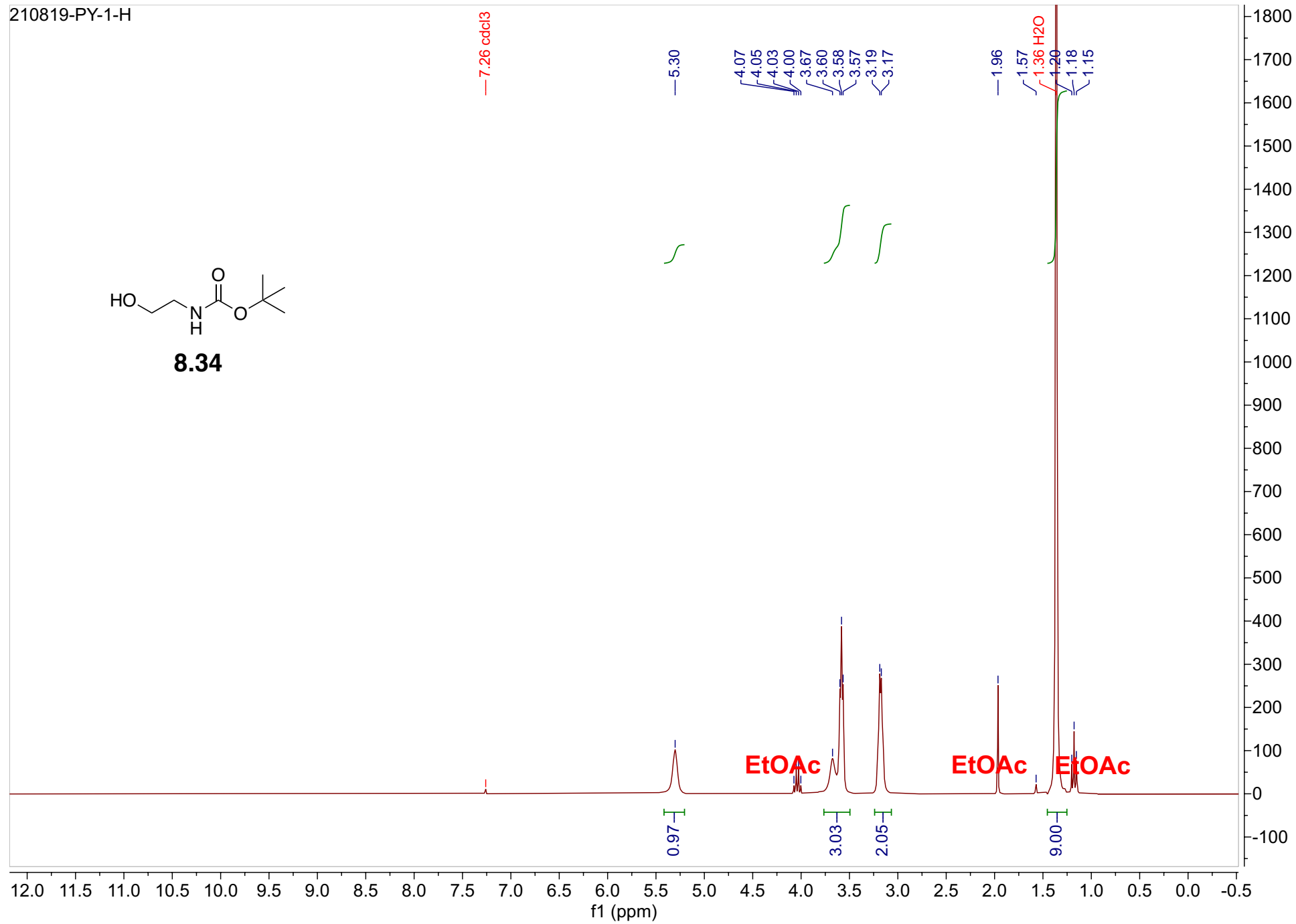


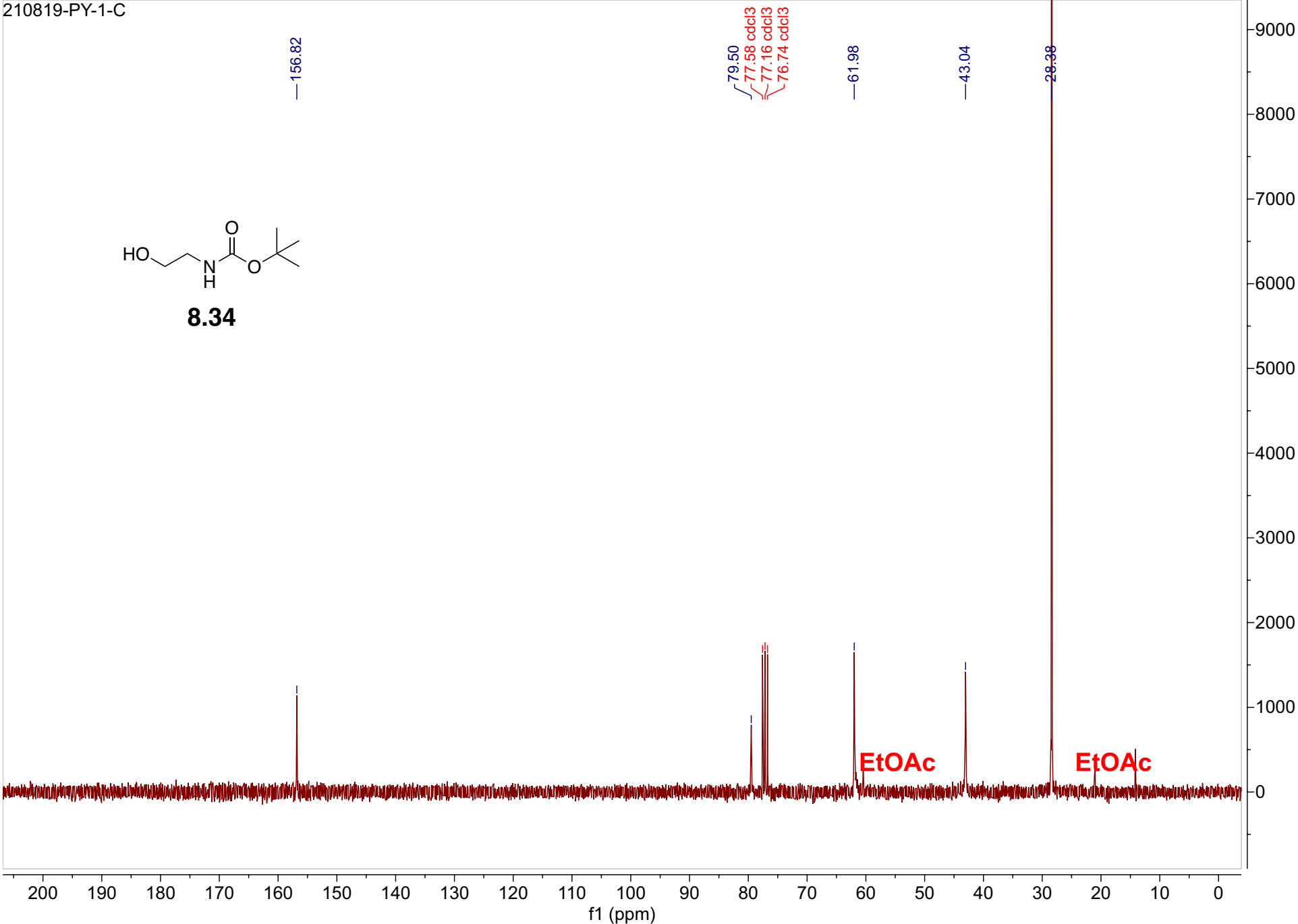
2018_10_19_CL-15 #28 RT: 0.79 AV: 1 NL: 1.12E6

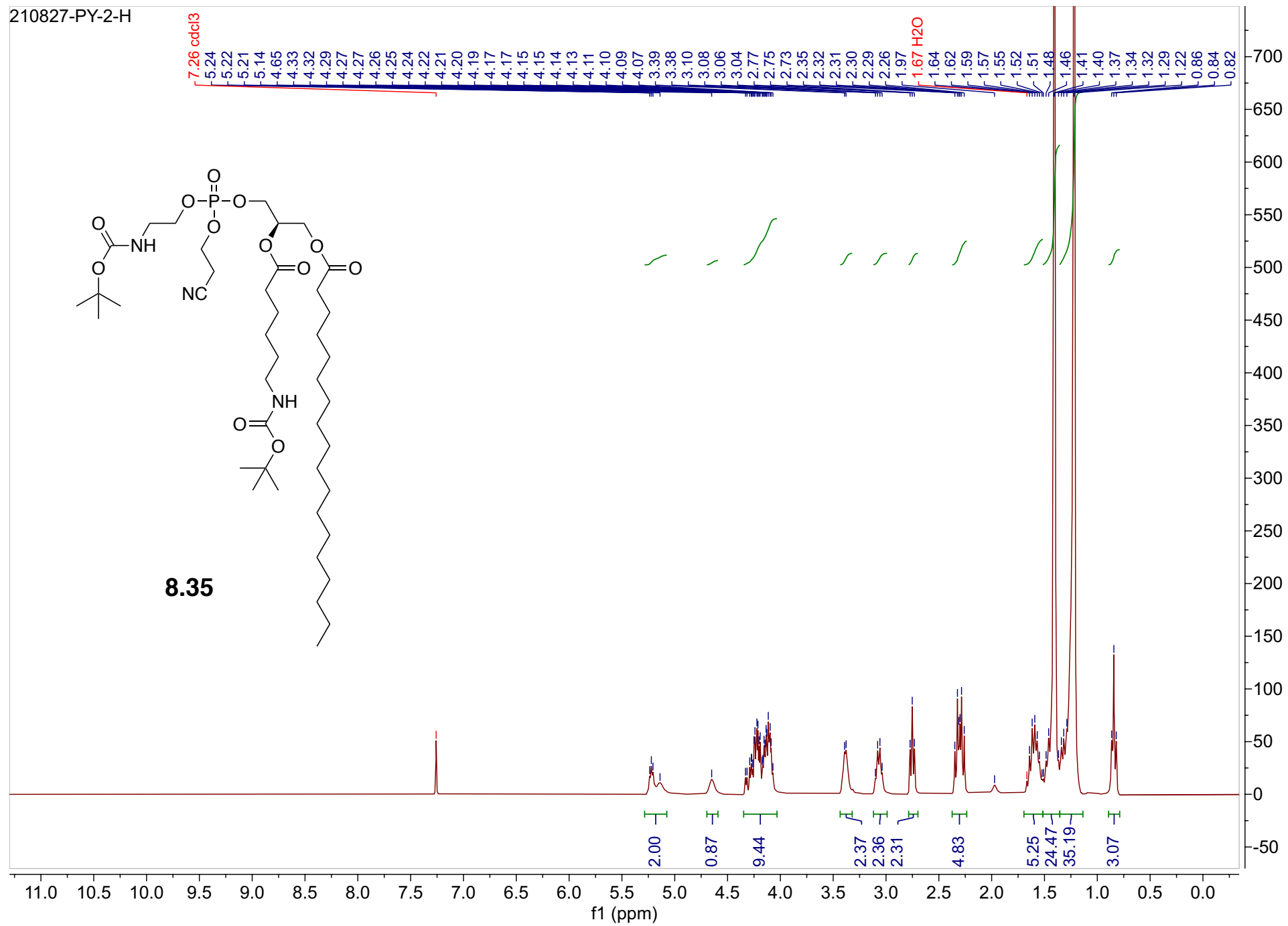
T: FTMS + p ESI Full ms [130.0000-1950.0000]



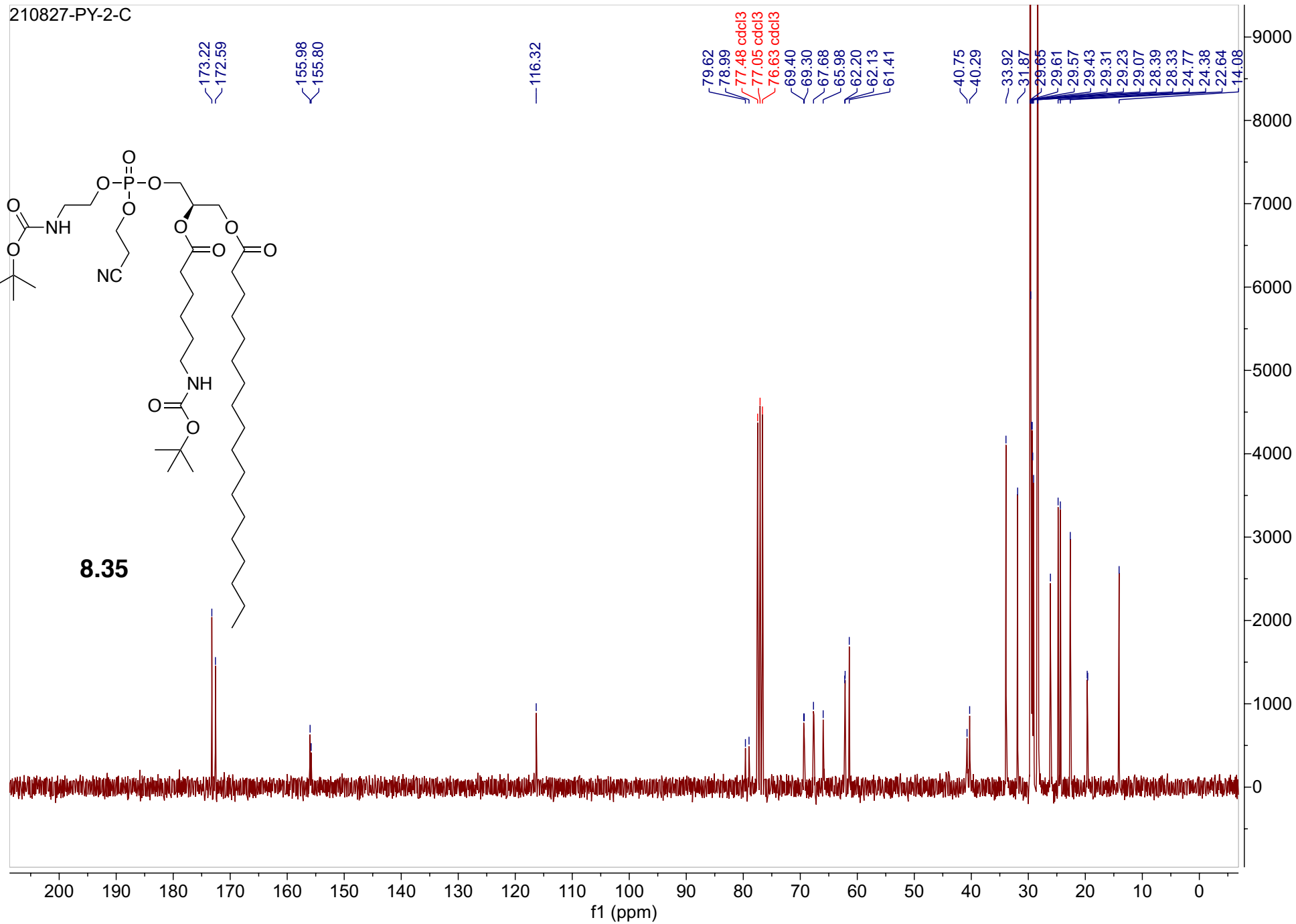
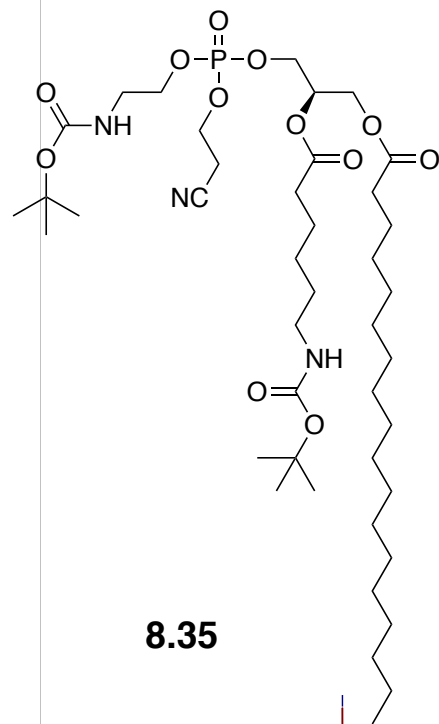
ESI-MS: $[M+H]^+$ calcd for $C_{109}H_{161}O_{19}N_4P_2Si$, 1920.09996
found 1920.1007

**8.34**

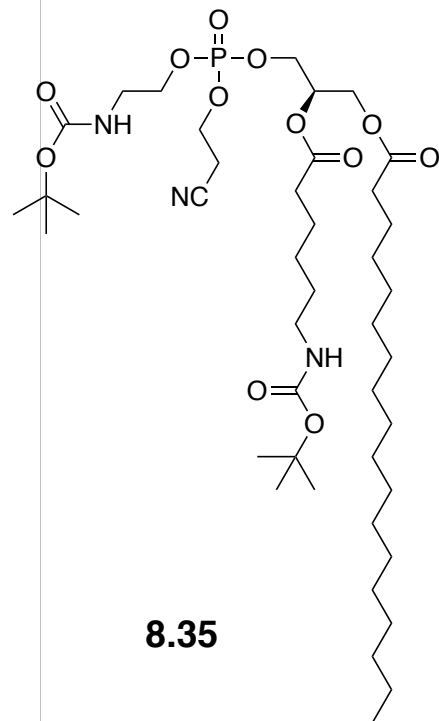




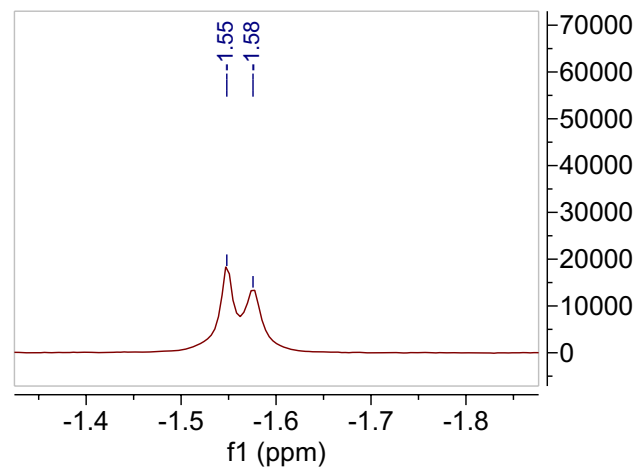
210827-PY-2-C



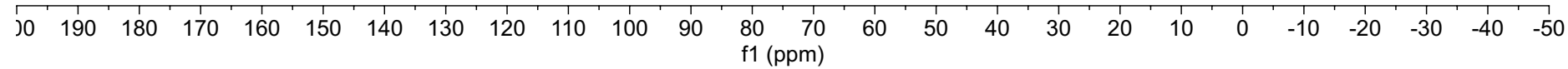
210827-PY-2-P

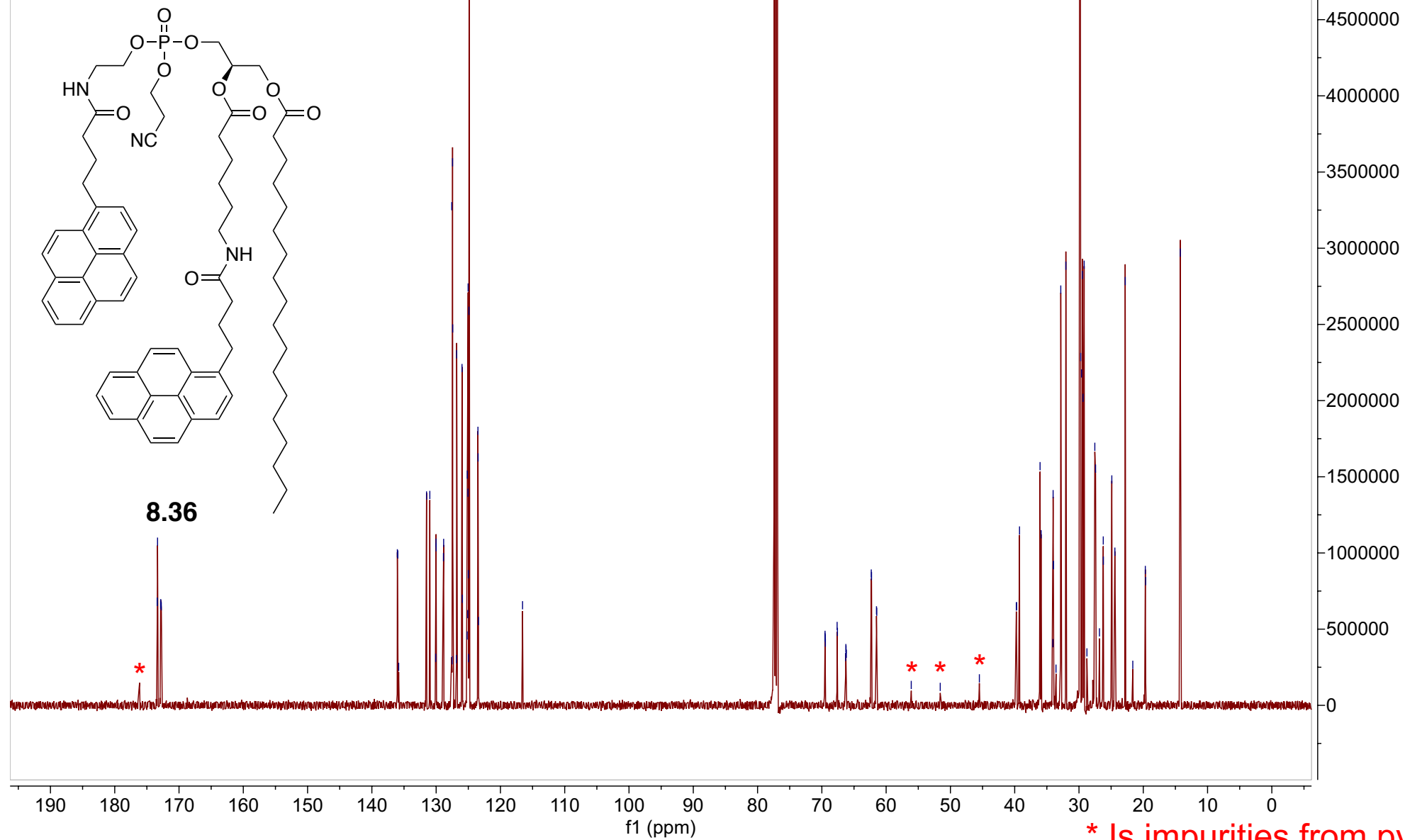


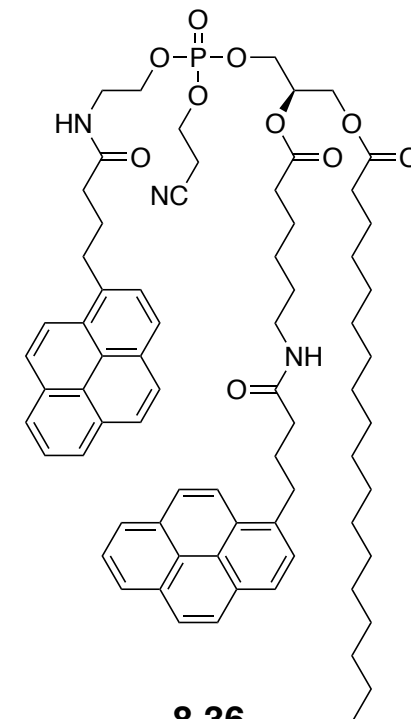
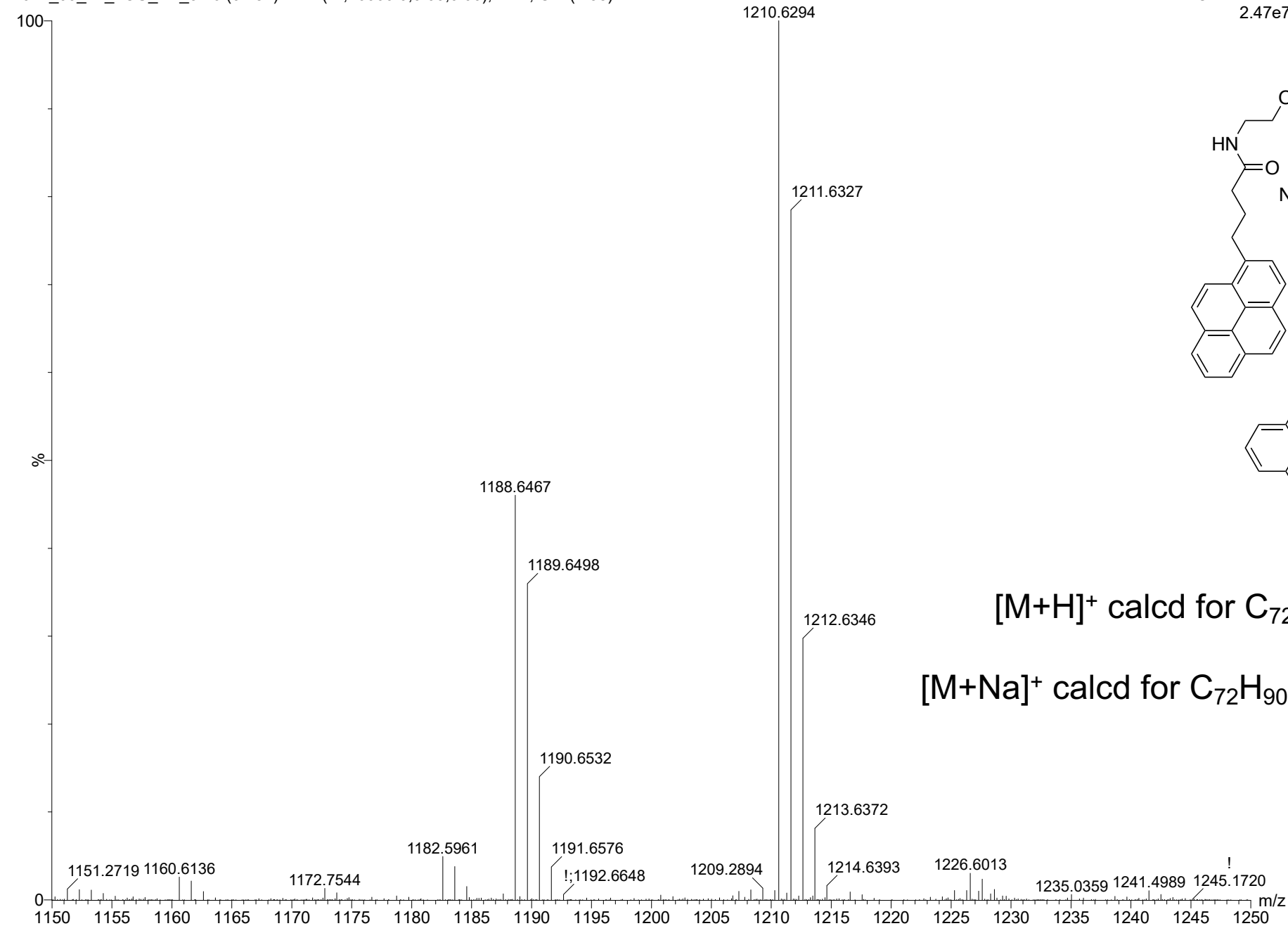
8.35



1.55
1.58







8.36

[M+H]⁺ calcd for C₇₂H₉₁N₃O₁₀P: 1188.6442

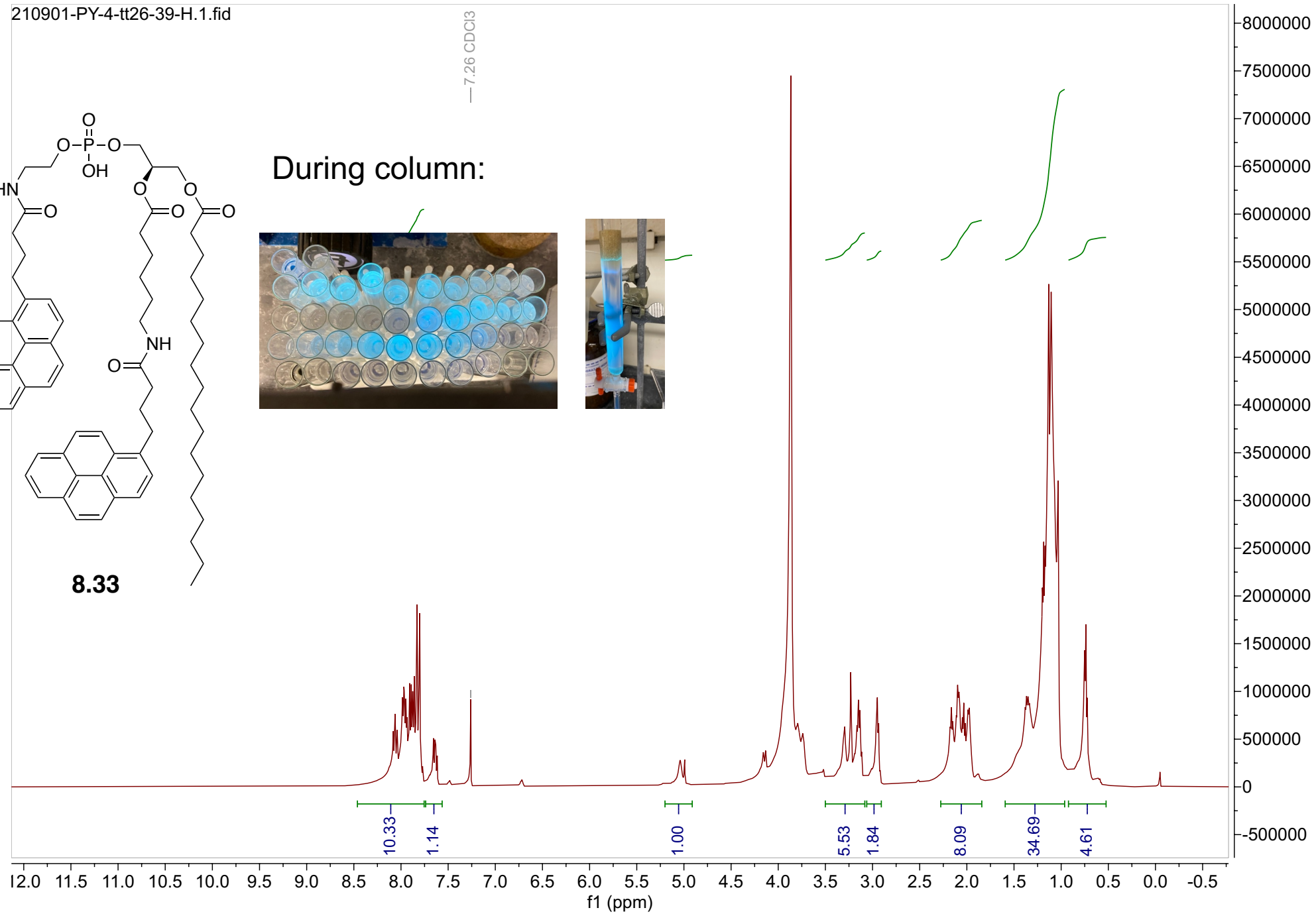
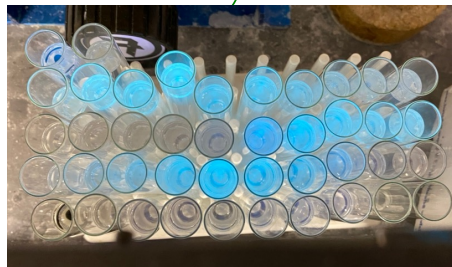
Found: 1188.6467

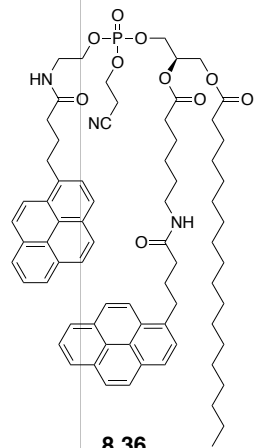
[M+Na]⁺ calcd for C₇₂H₉₀N₃O₁₀PNa: 1210.6262

Found: 1210.6294



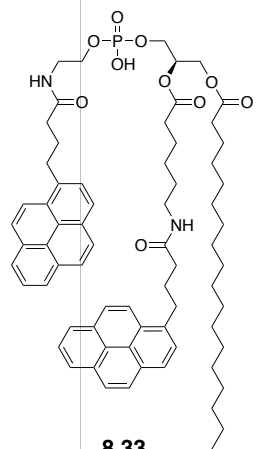
During column:





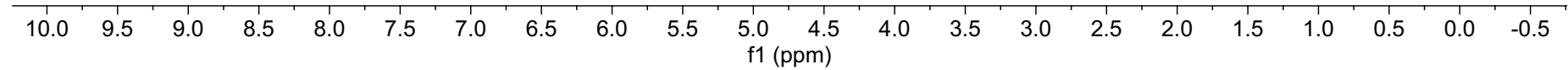
8.36

210830-PY-3.1.fid



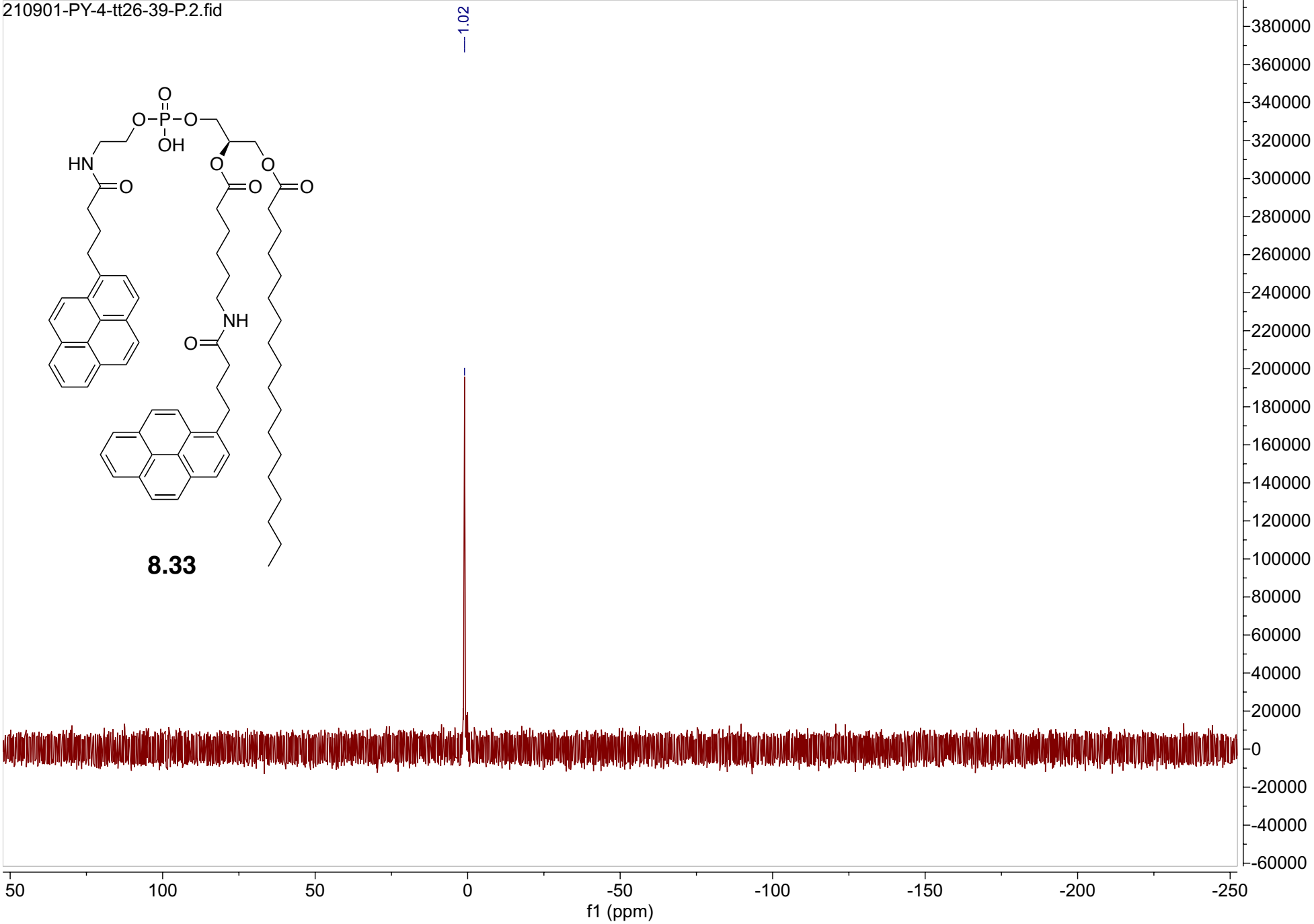
8.33

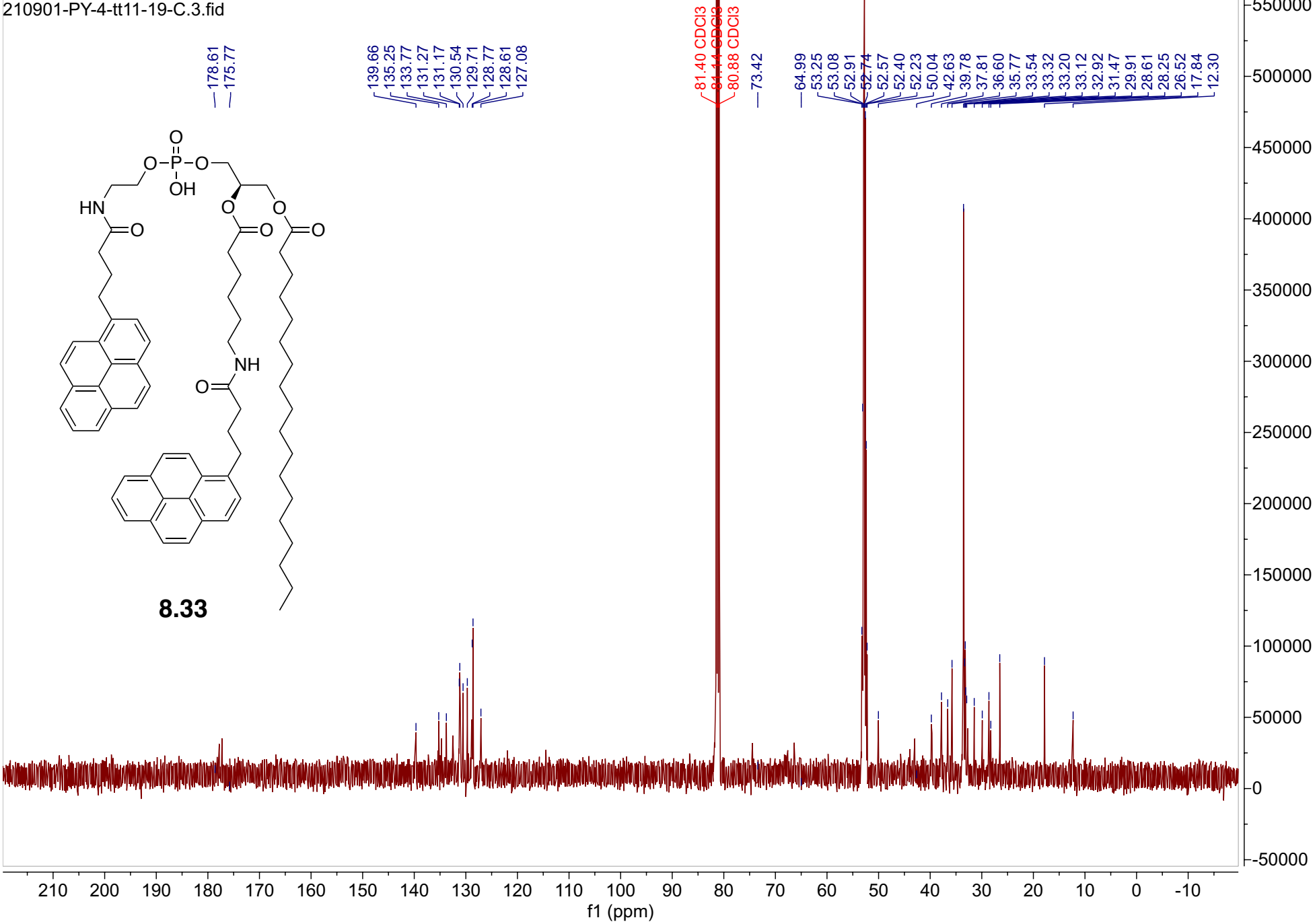
210901-PY-4-tt26-39-H.1.fid

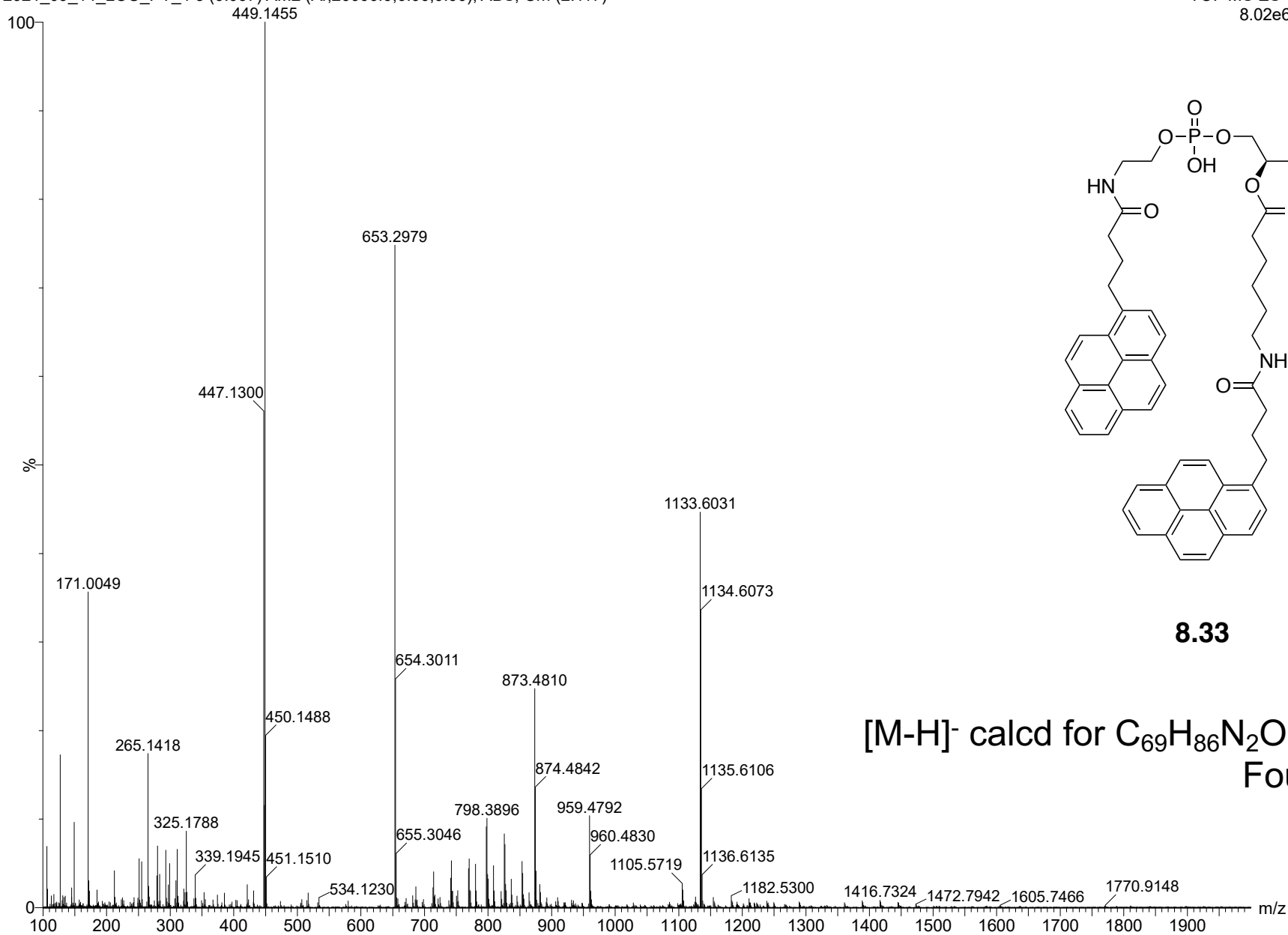


2

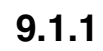
1

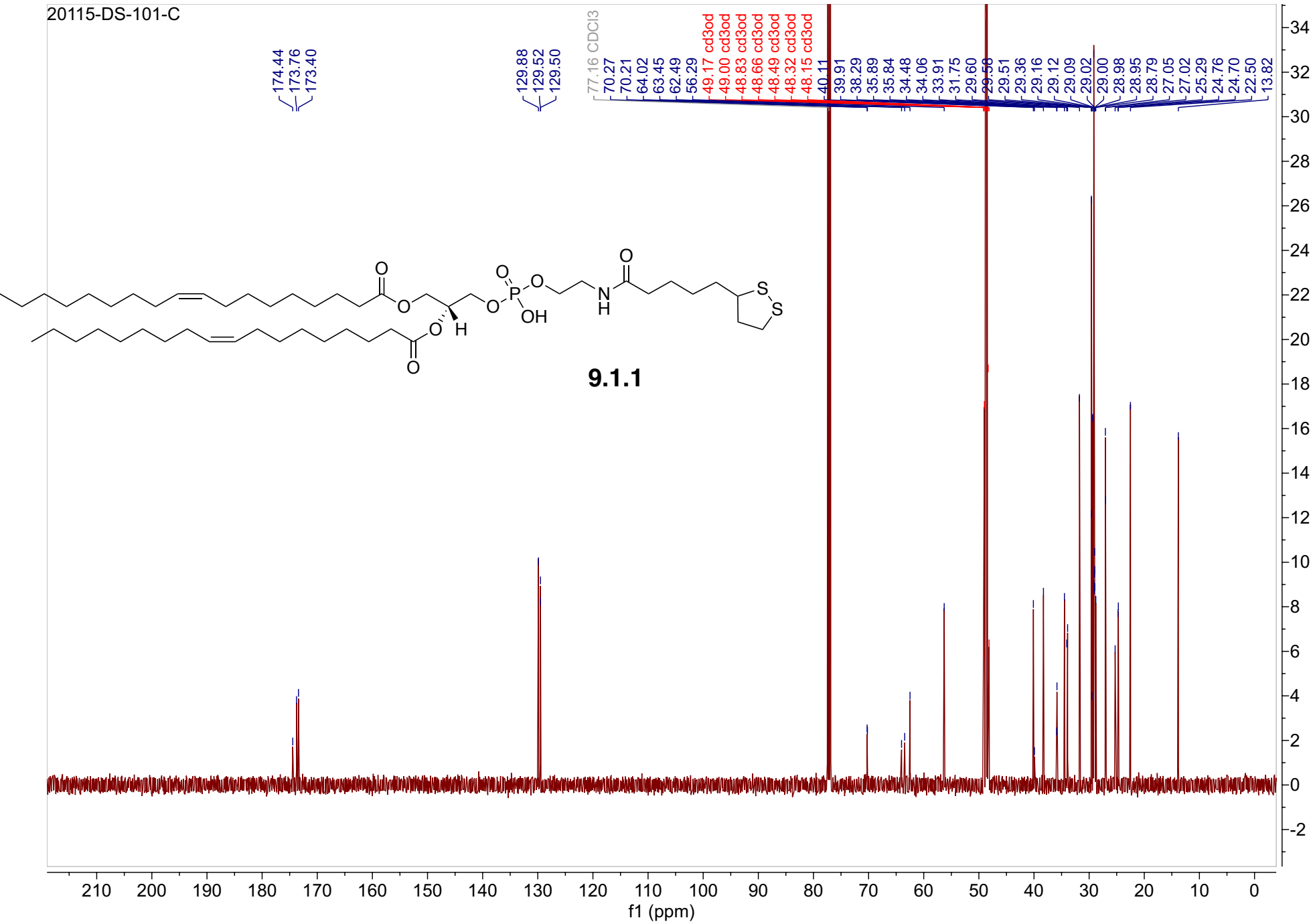


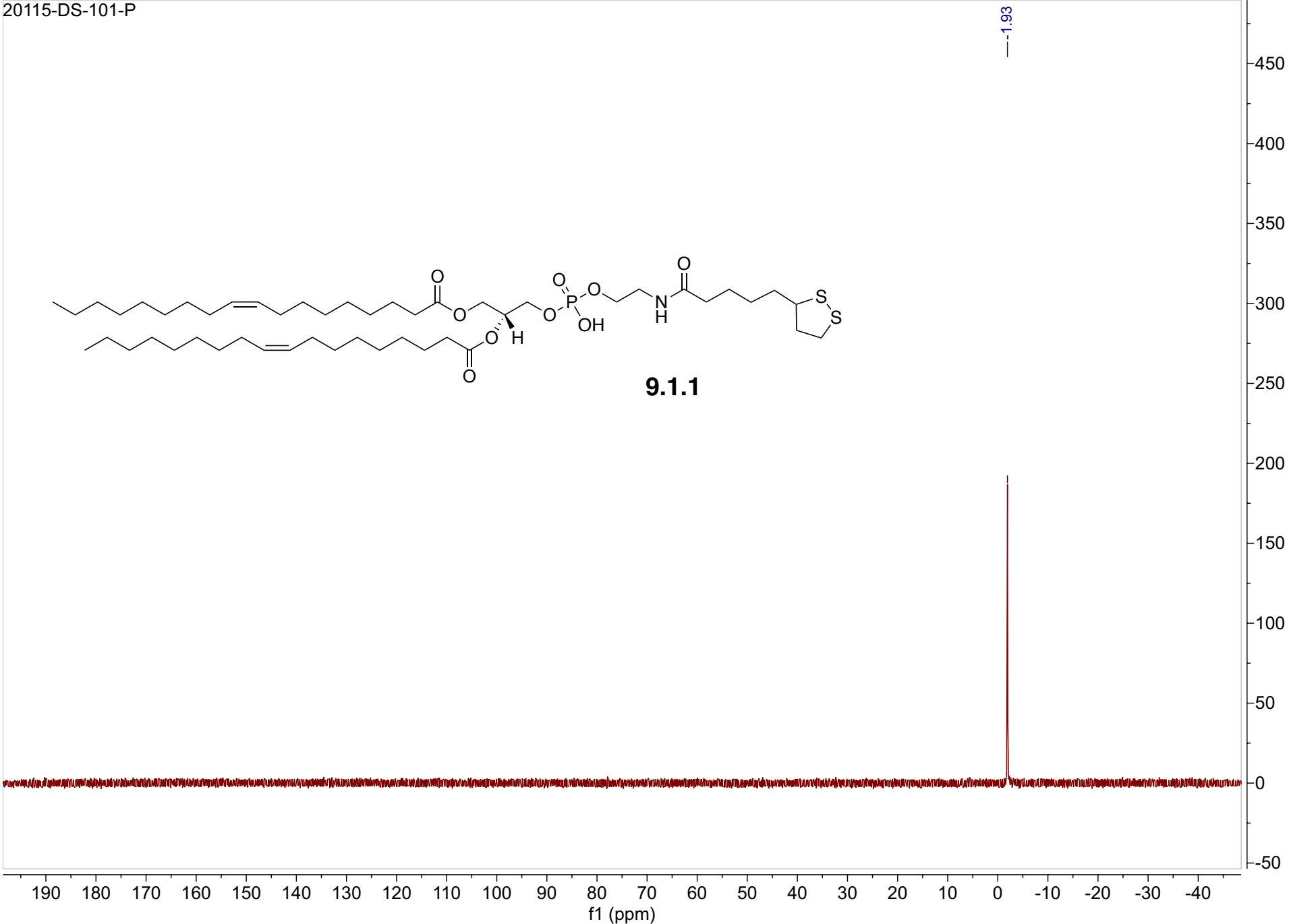


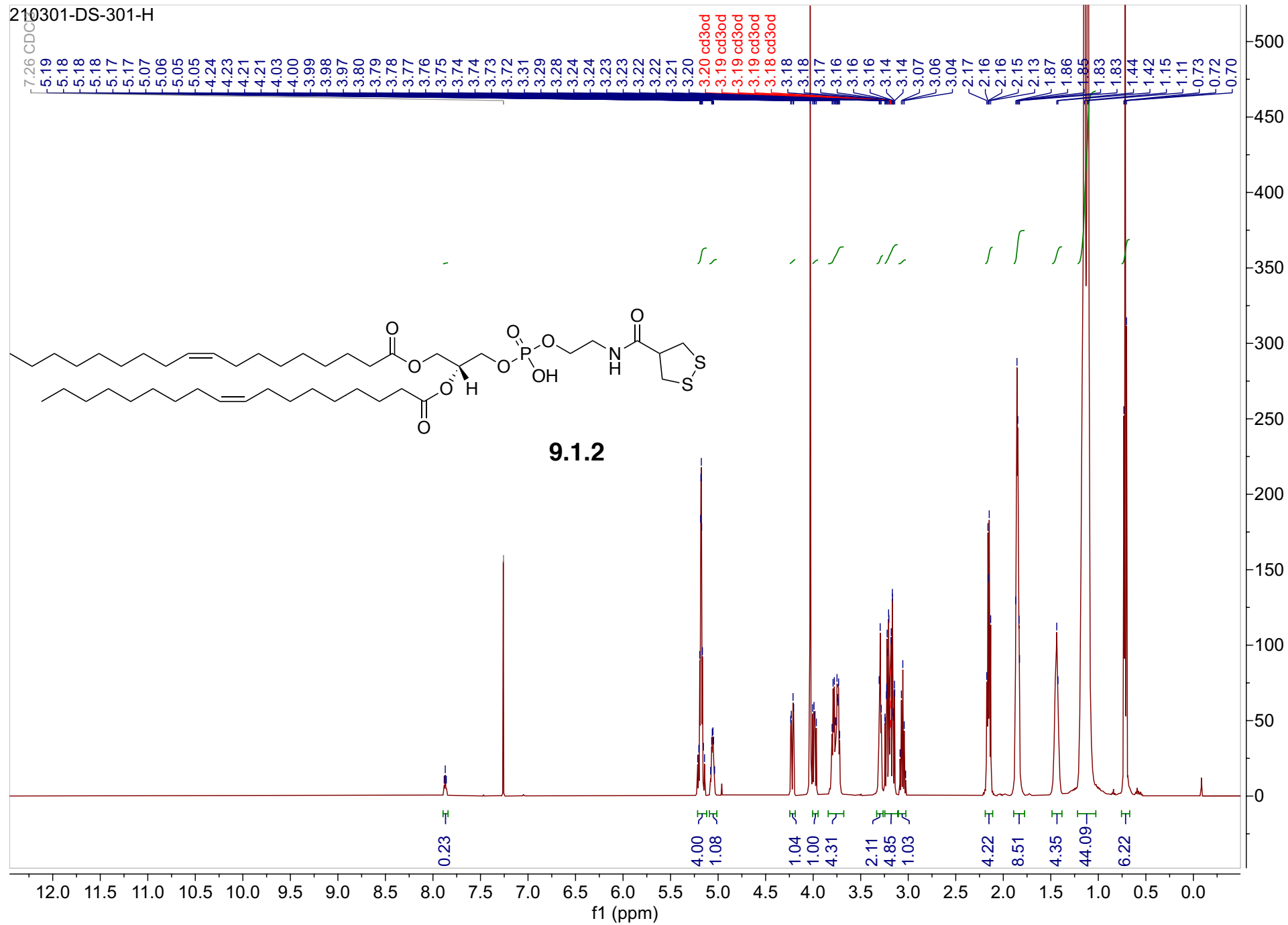


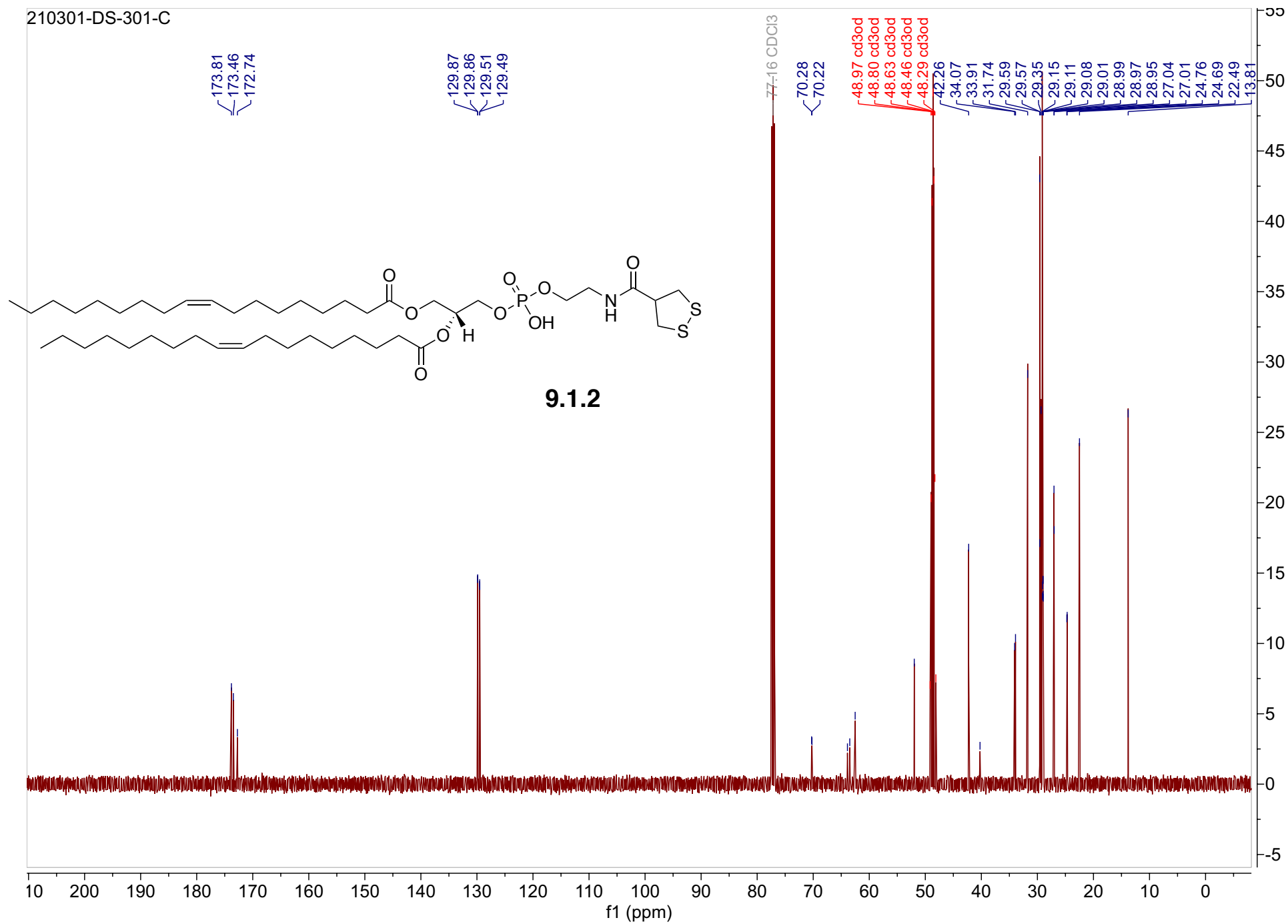
[M-H]⁻ calcd for C₆₉H₈₆N₂O₁₀P: 1133.6020
Found: 1133.6031

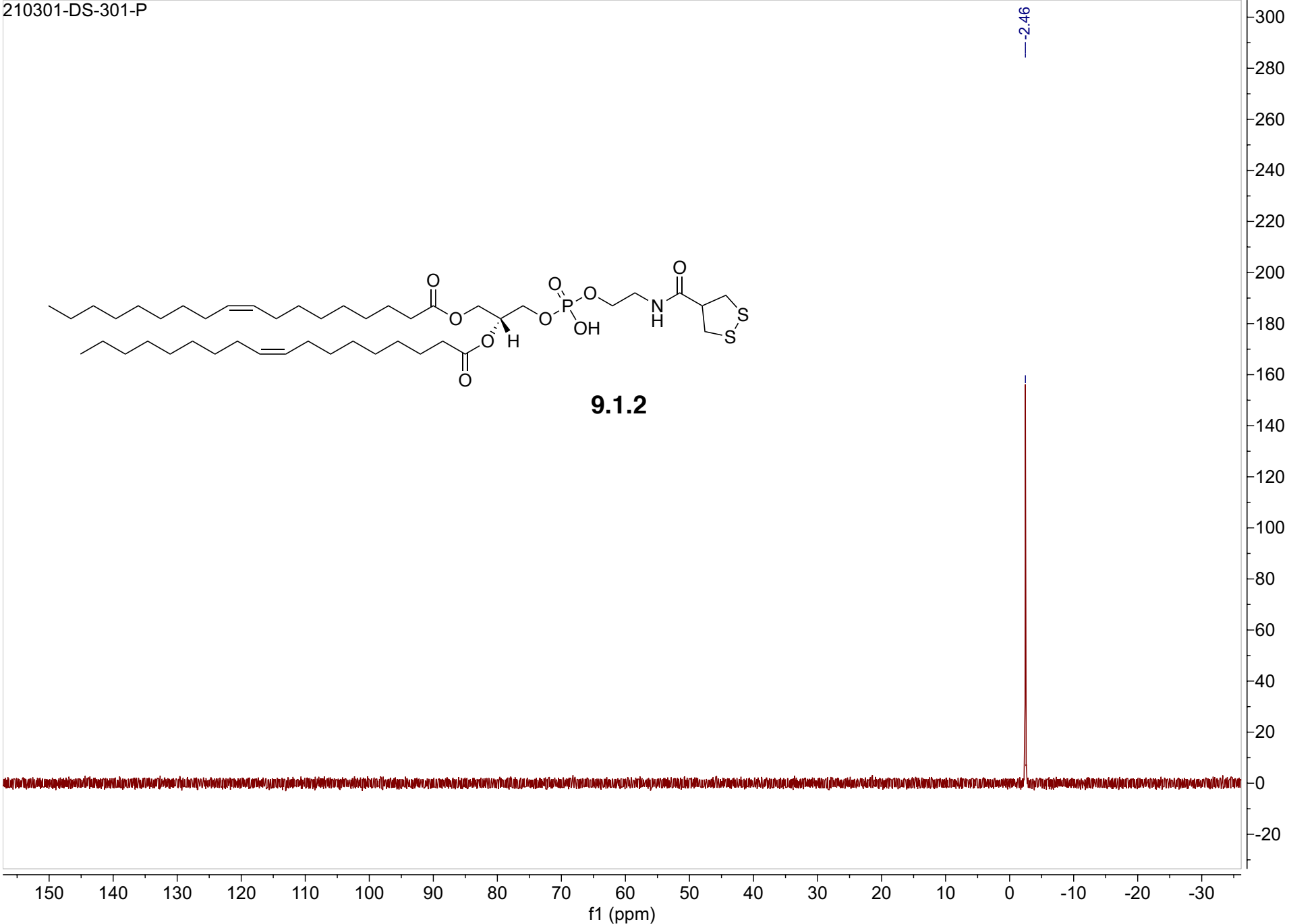


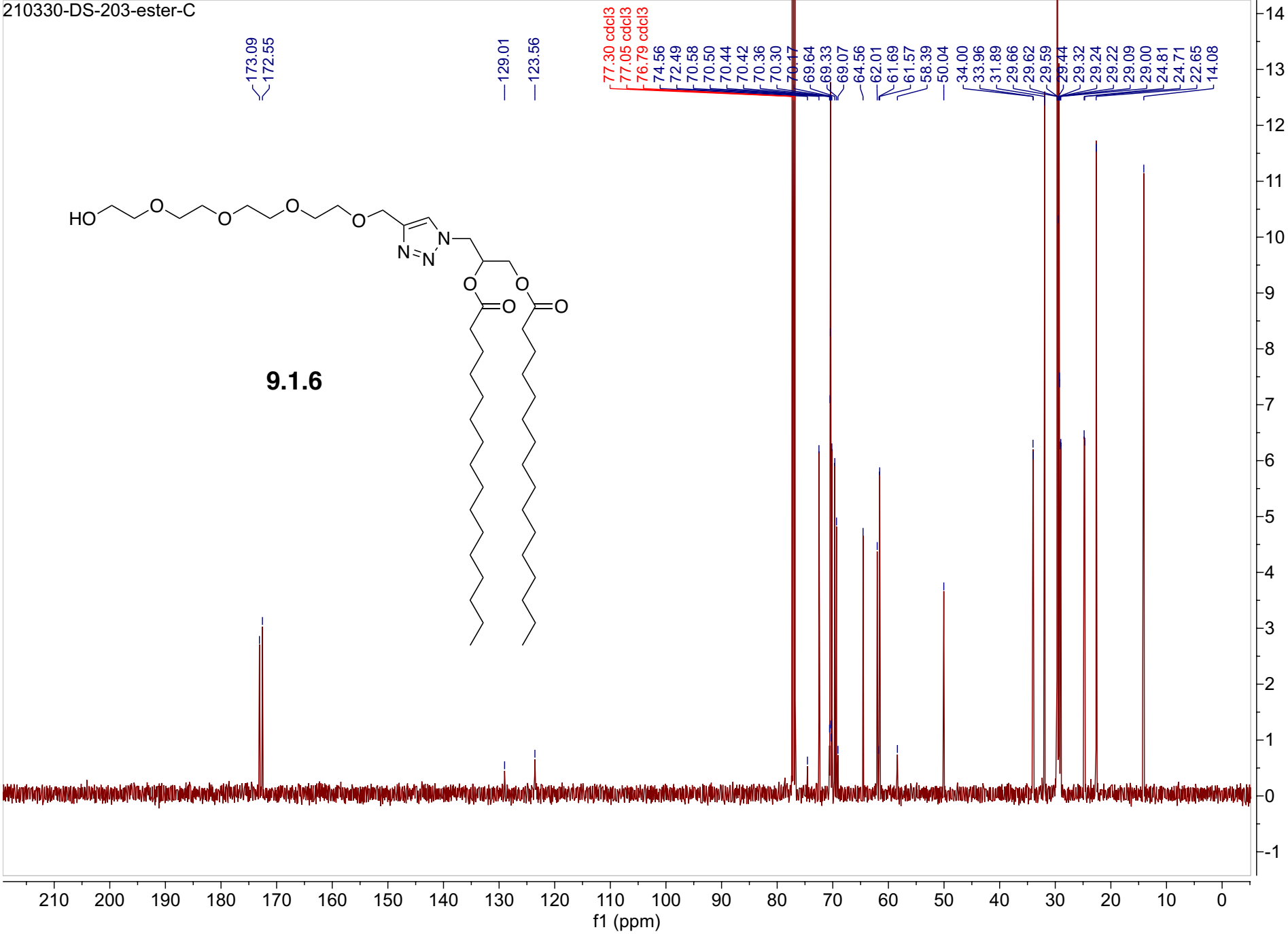


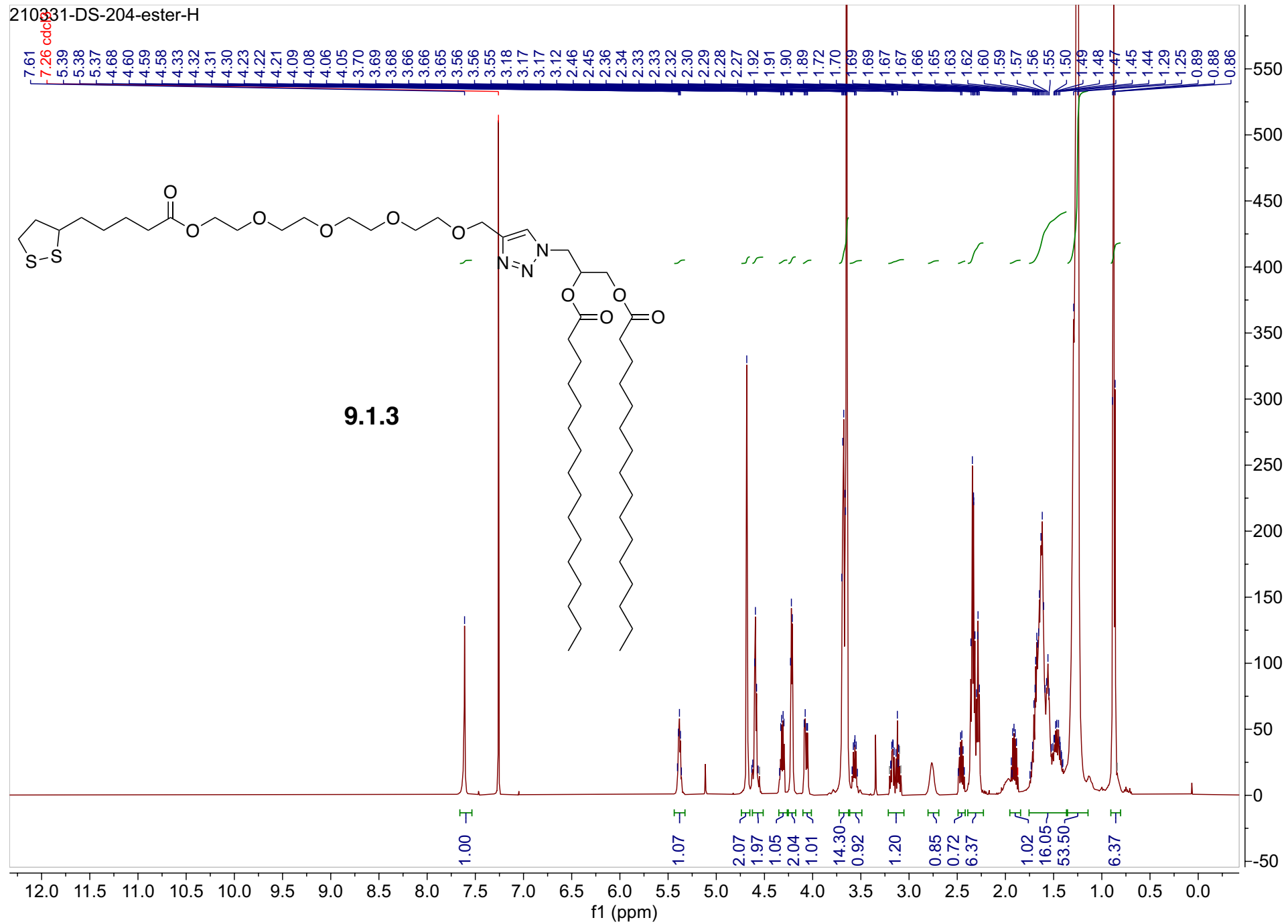


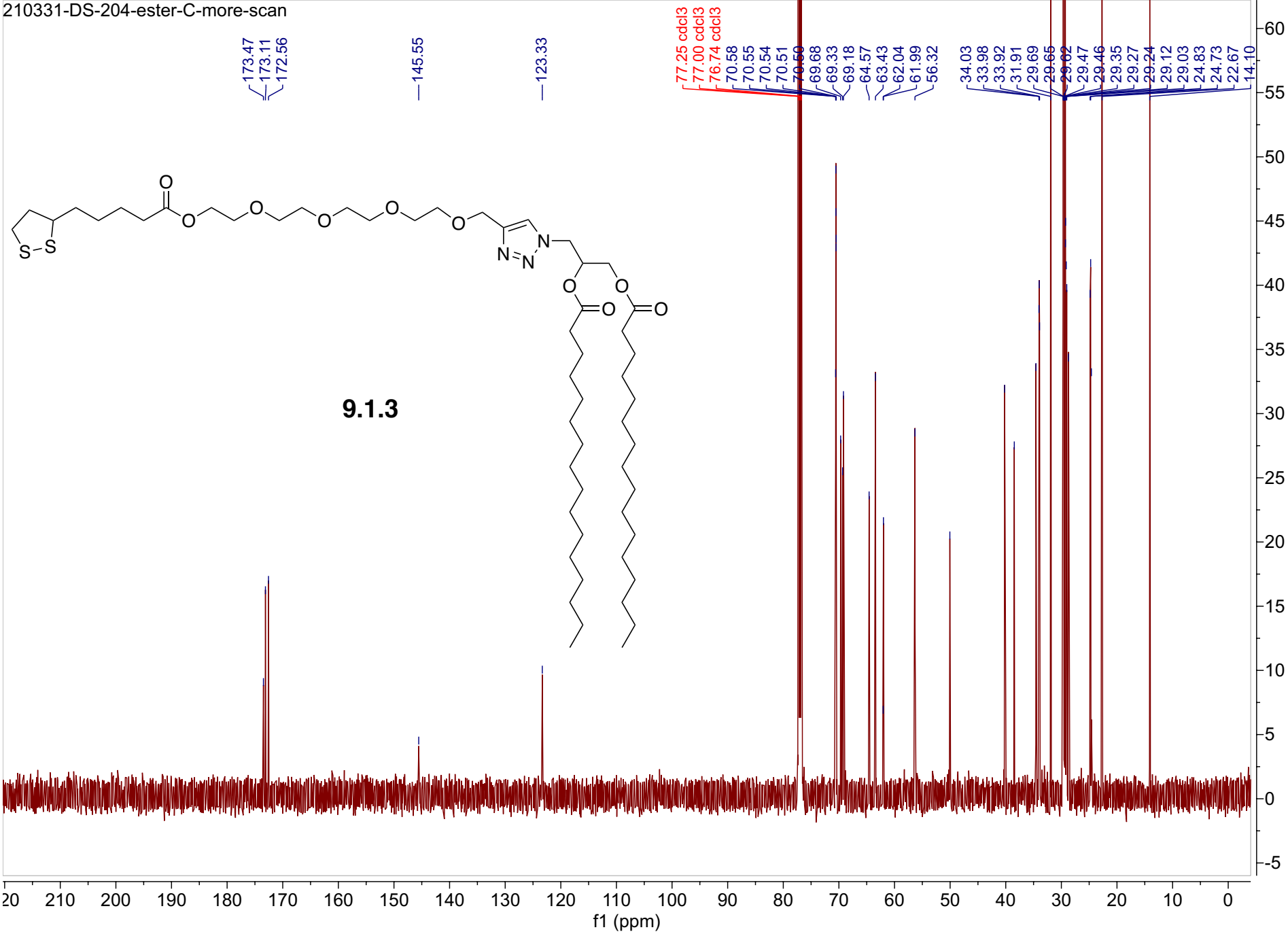


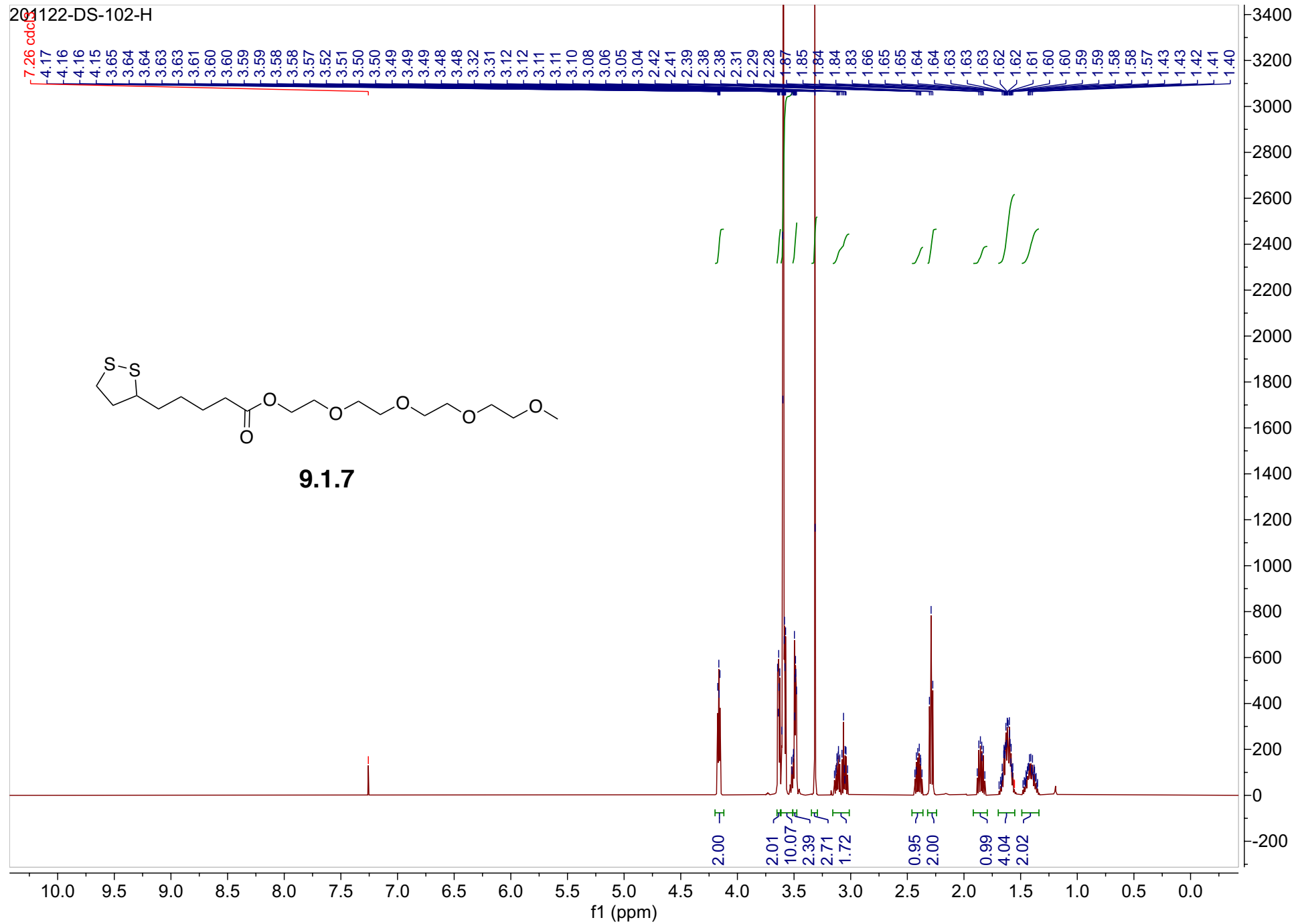


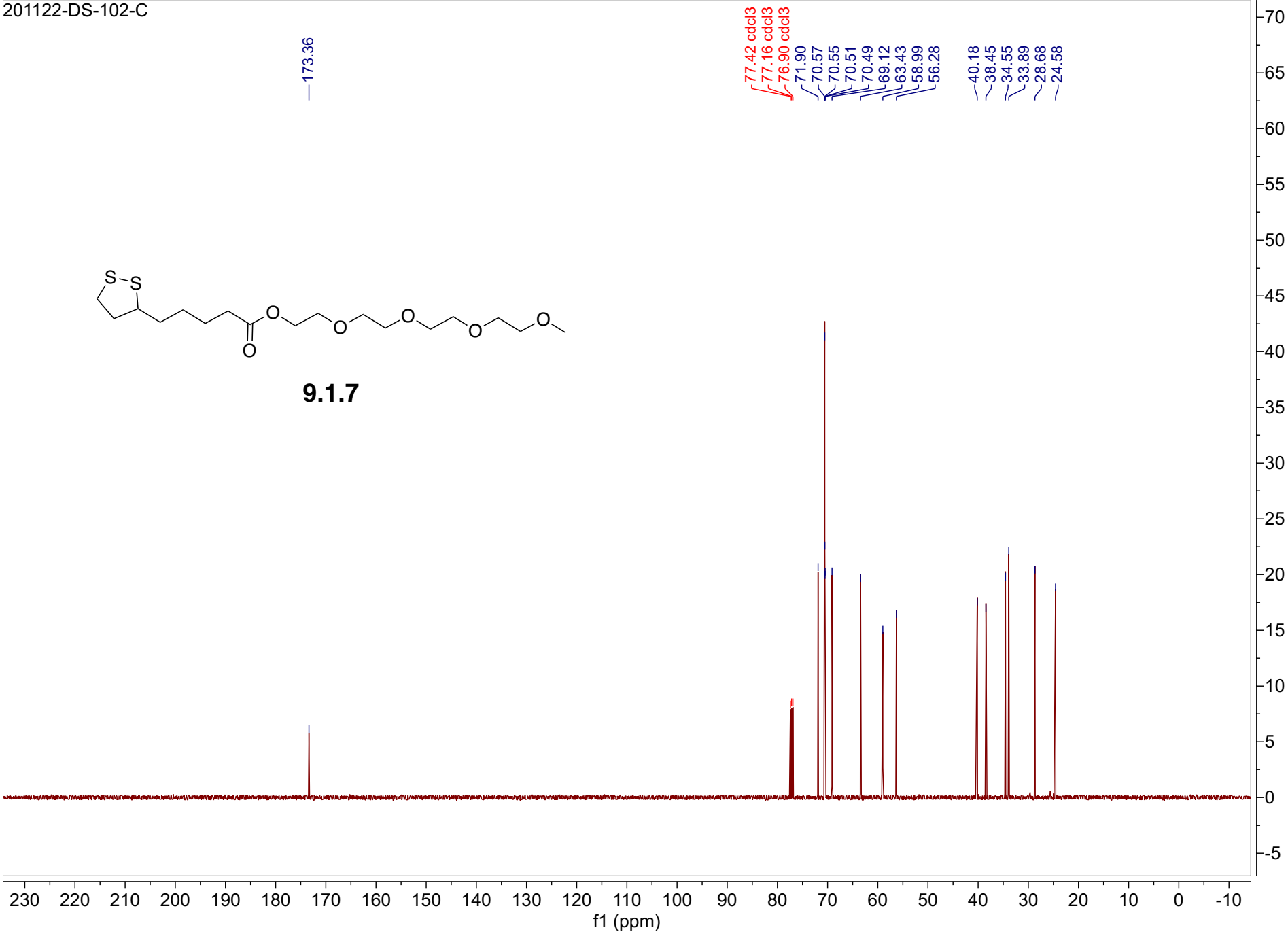


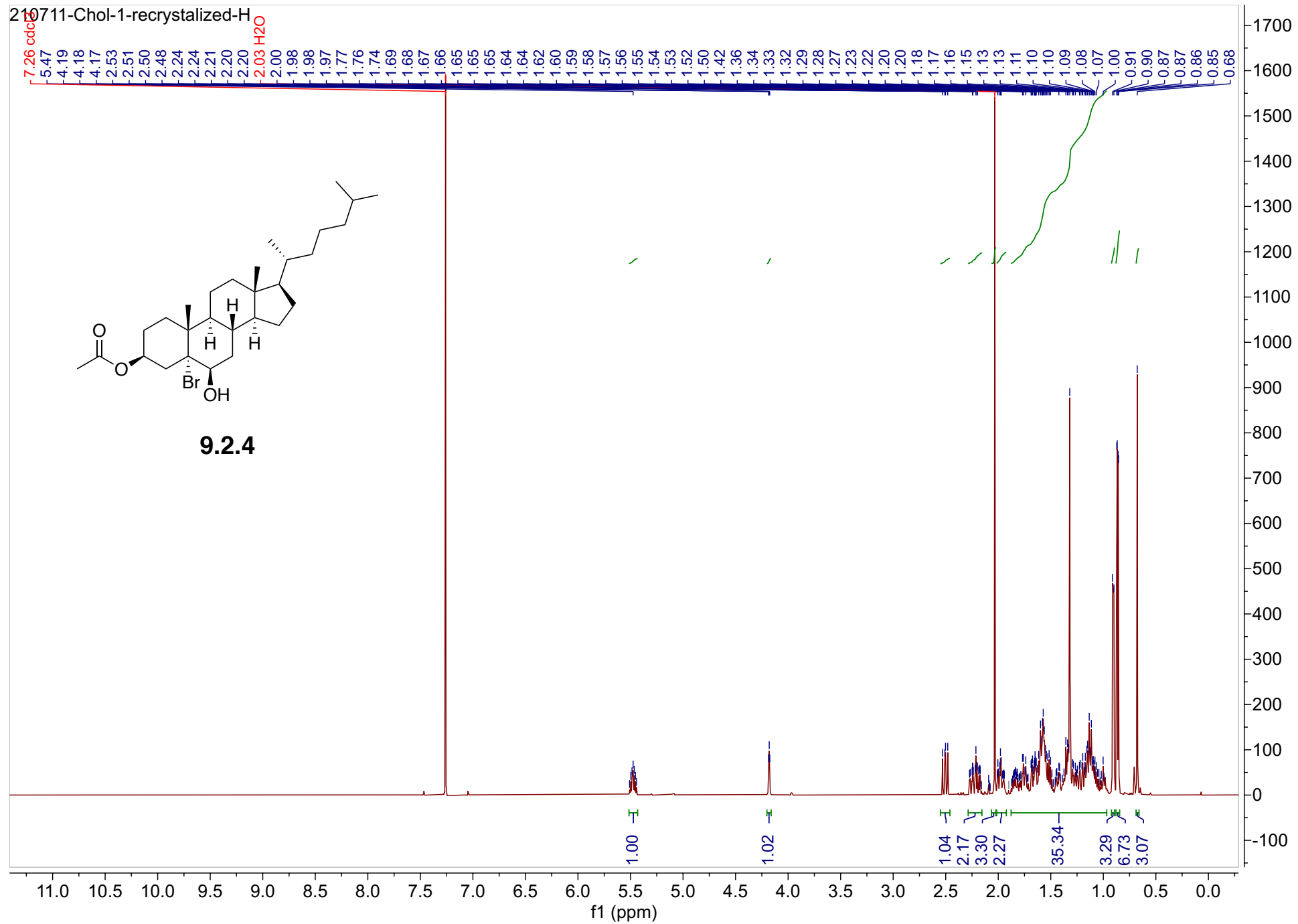


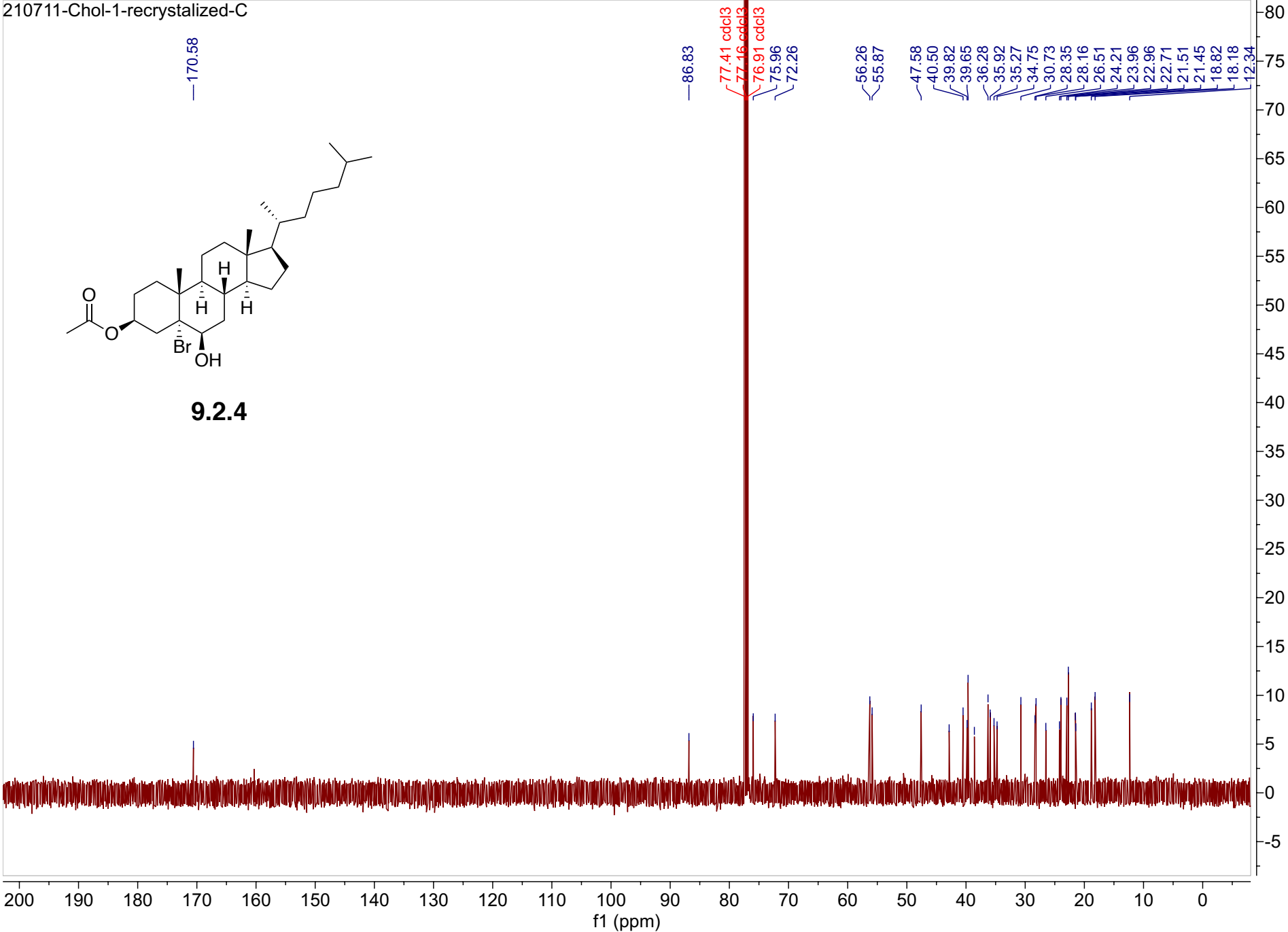




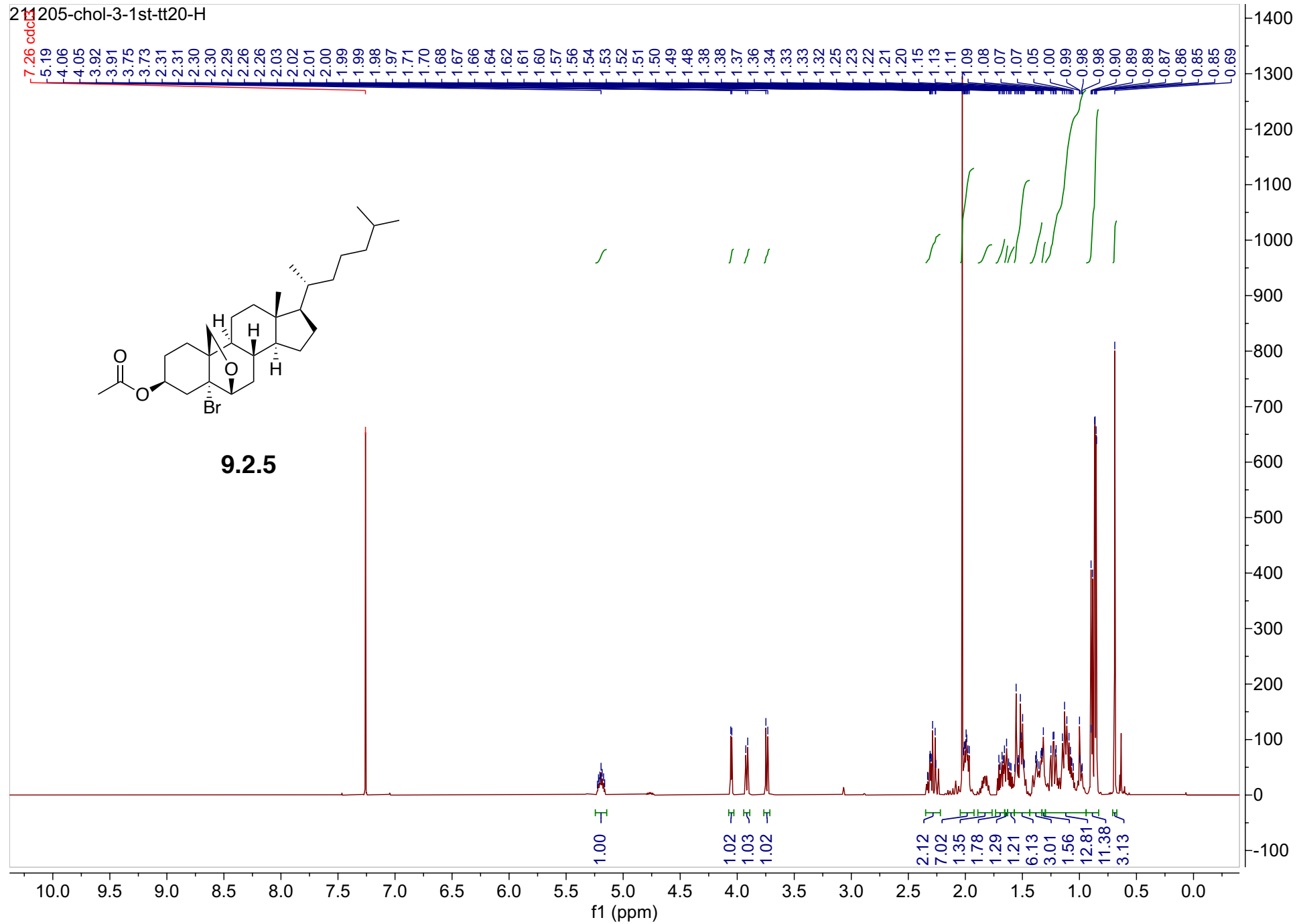


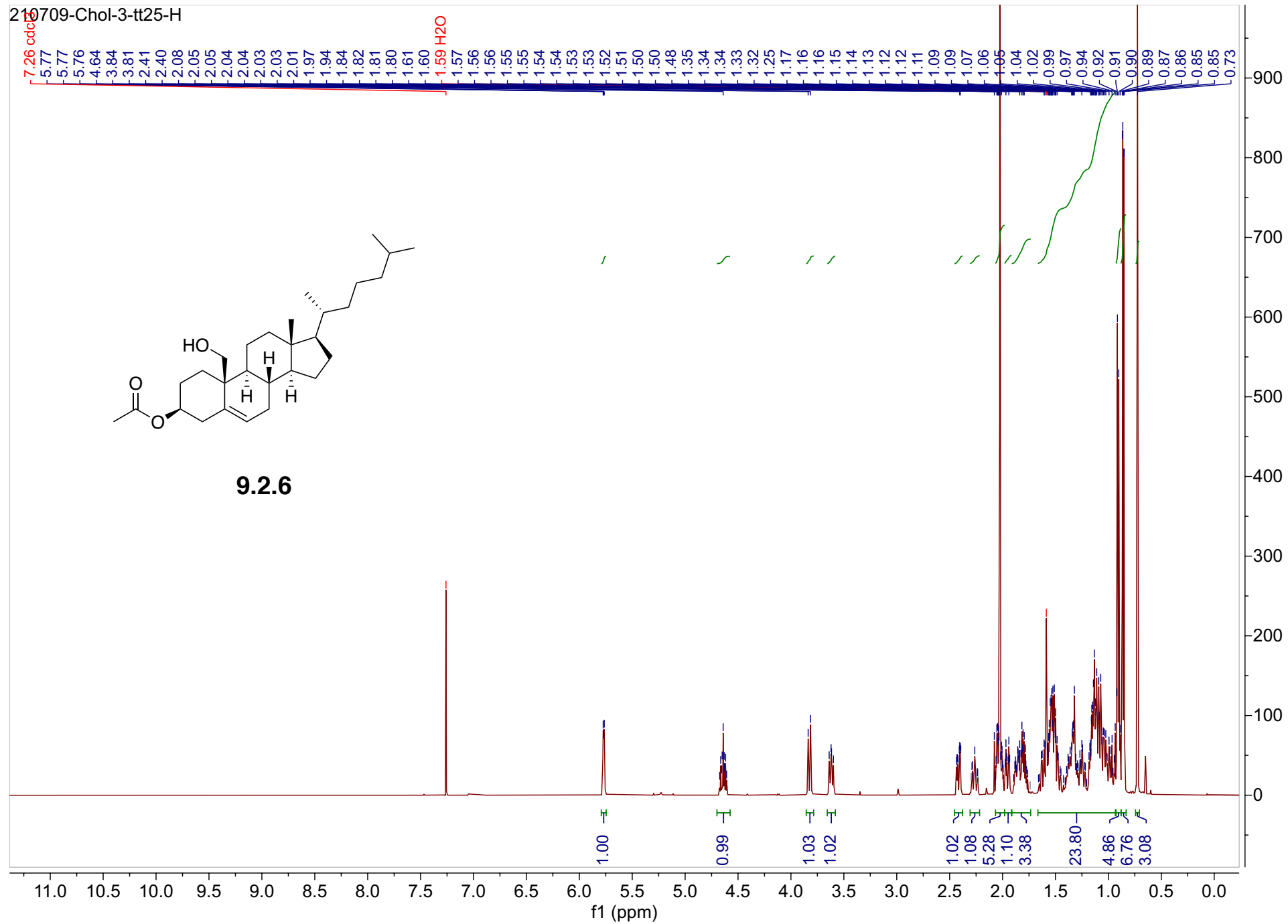


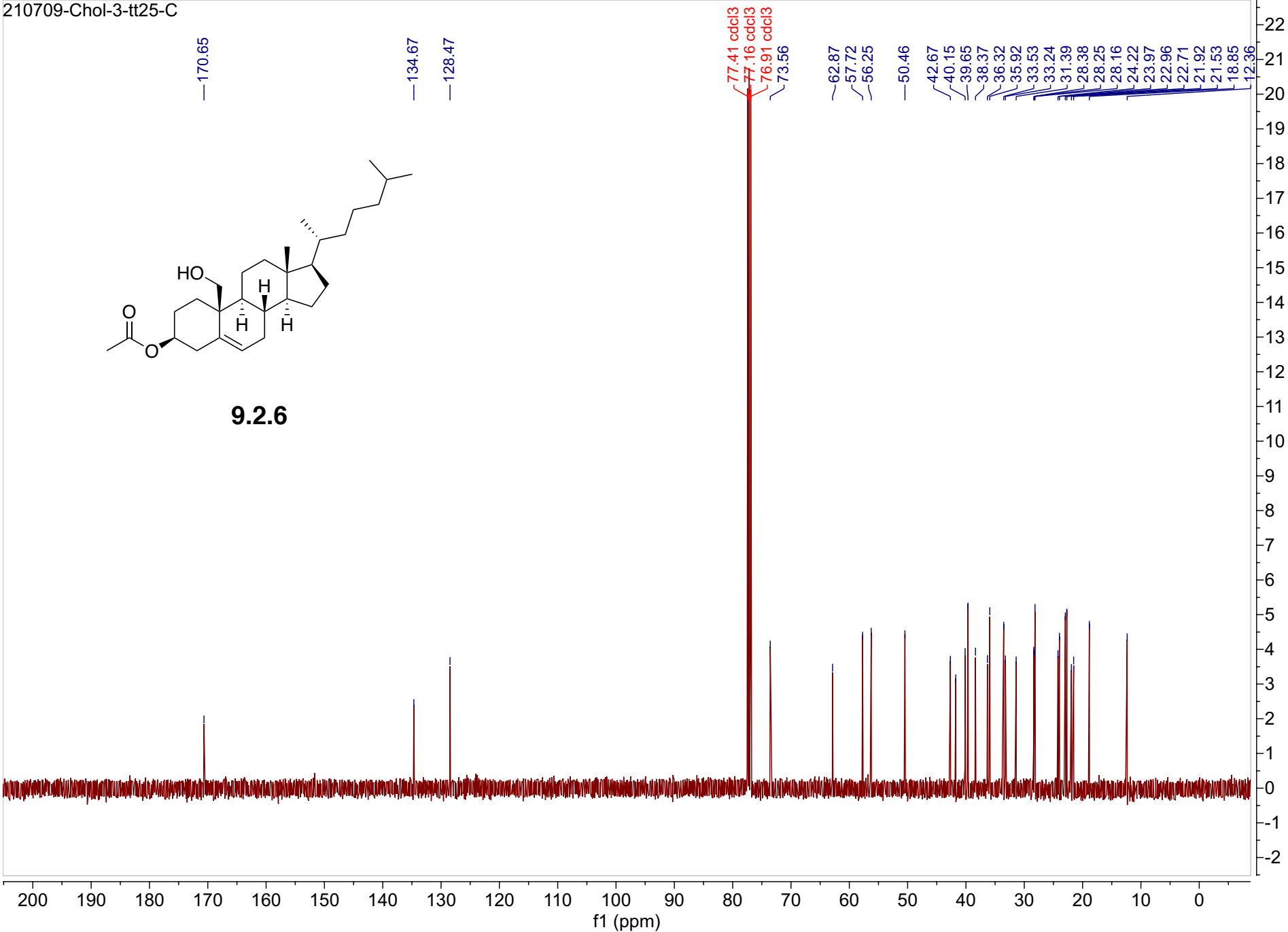


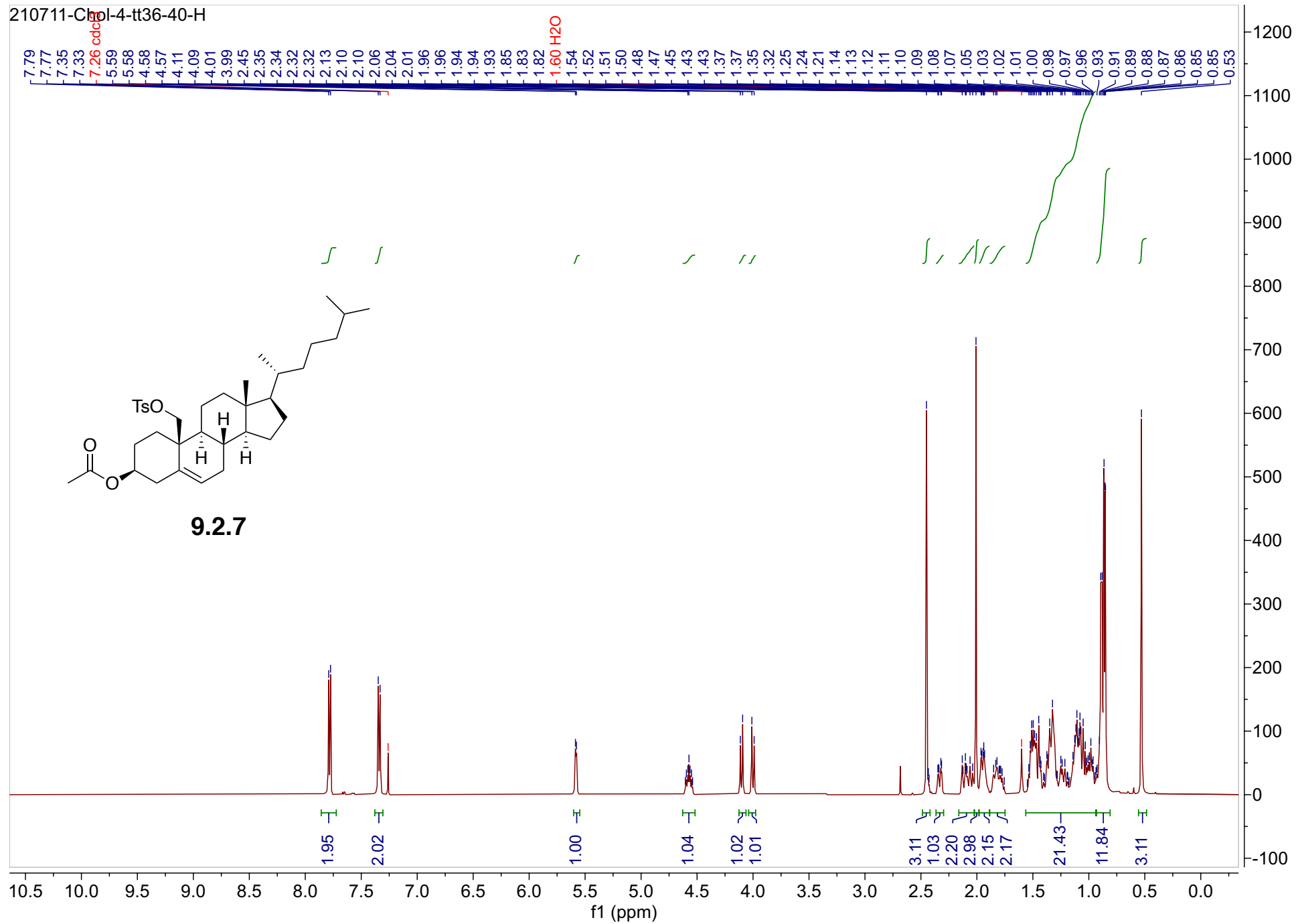


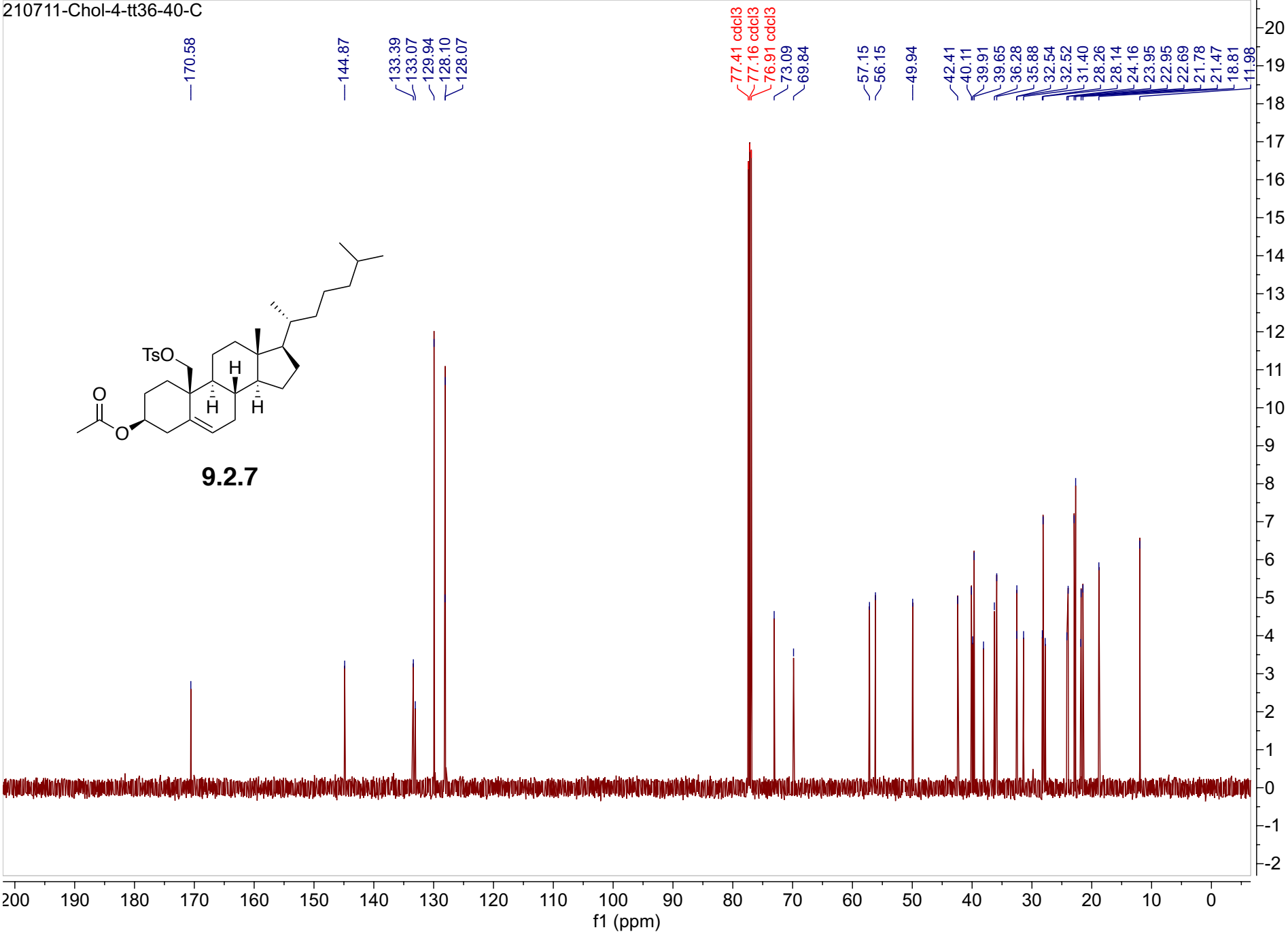
2105-chol-3-1st-tt20-H

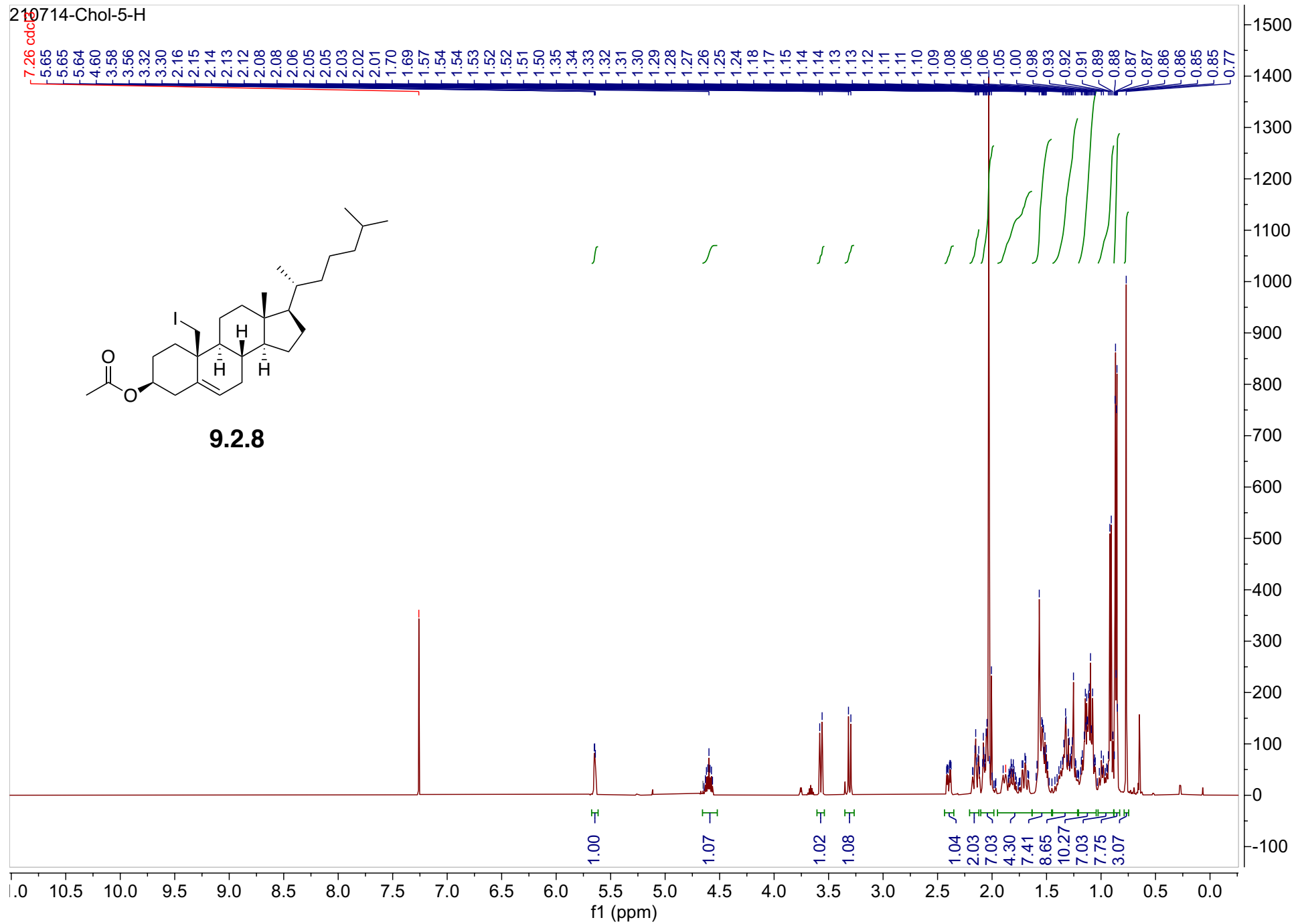


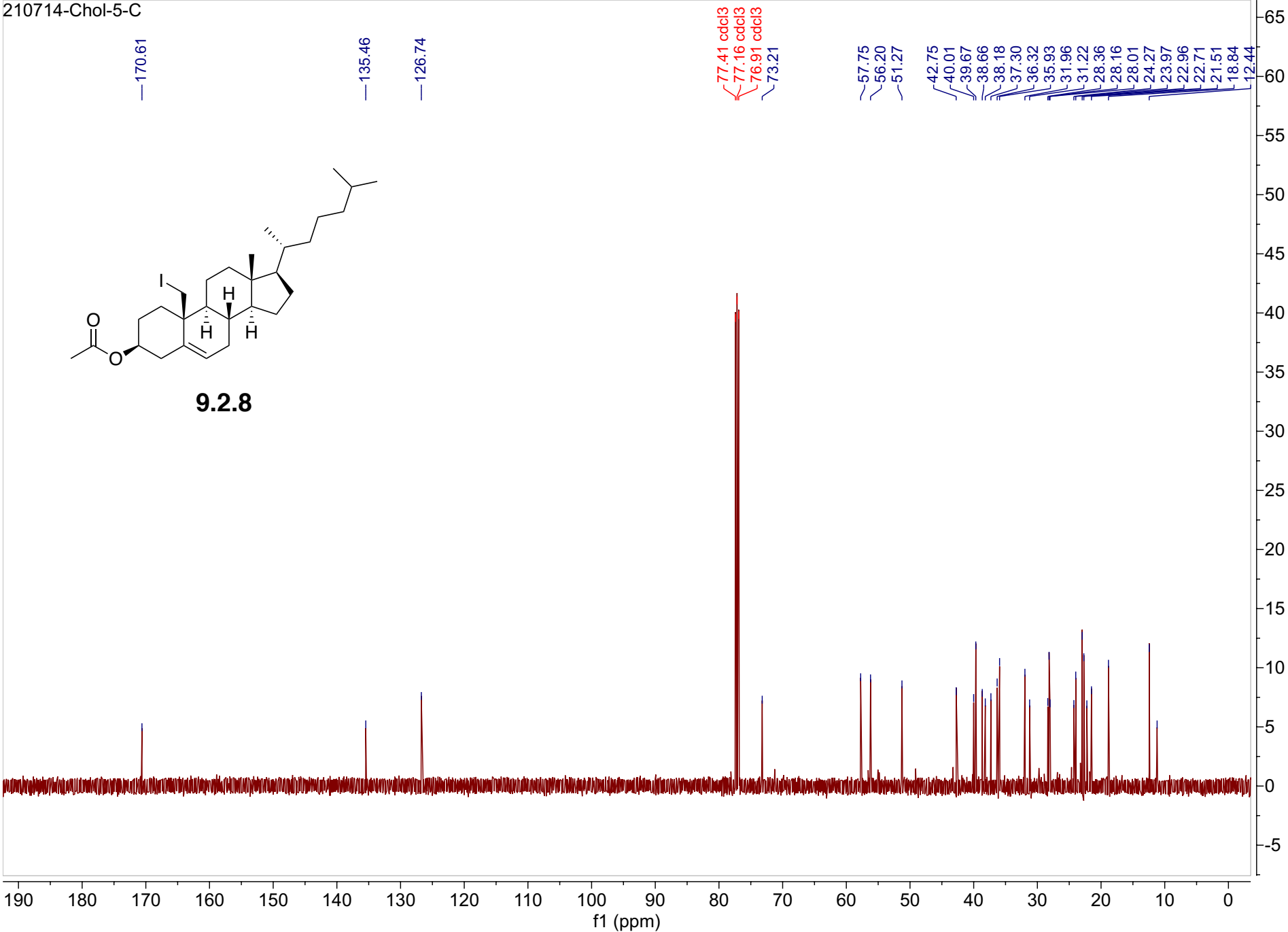




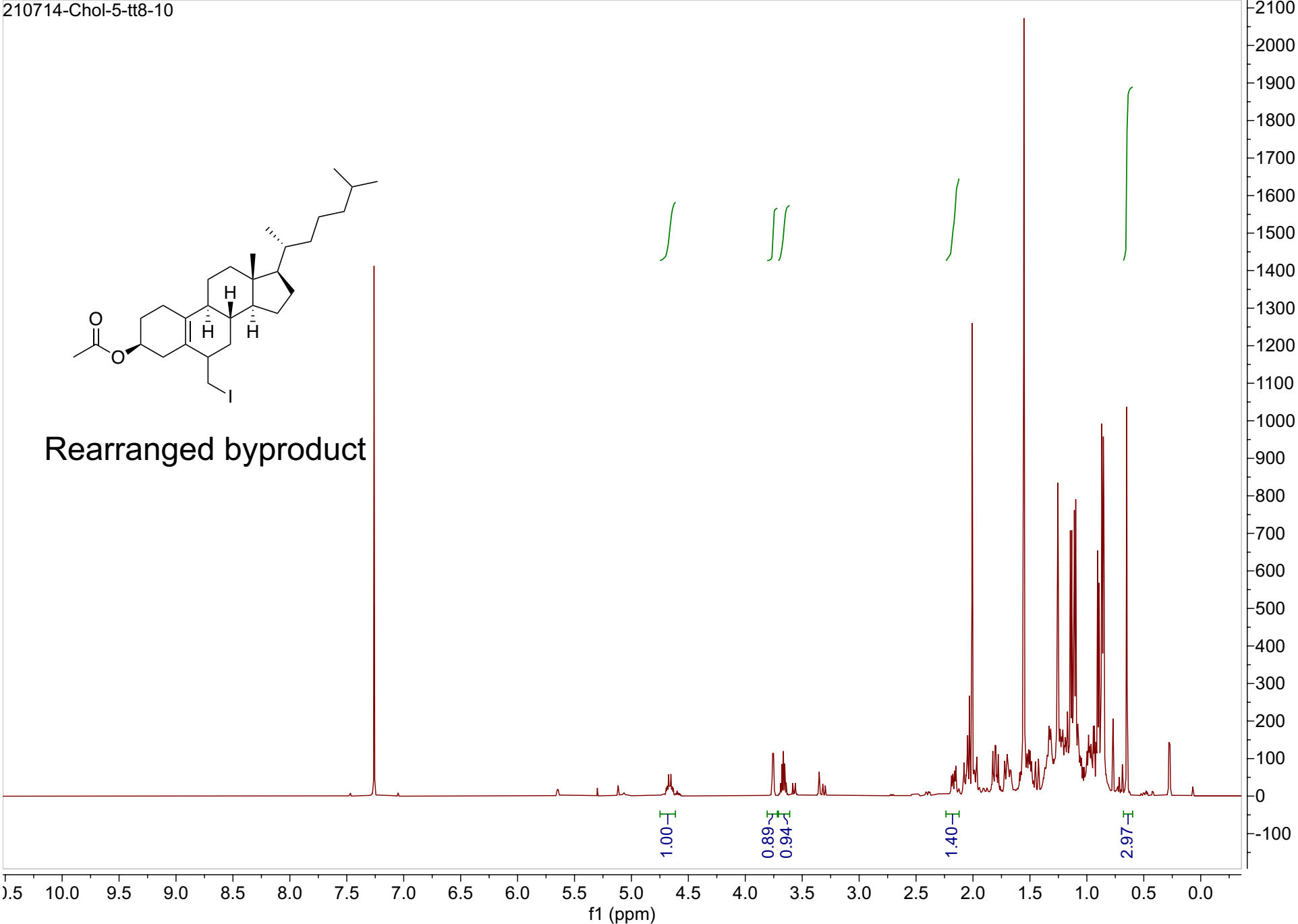


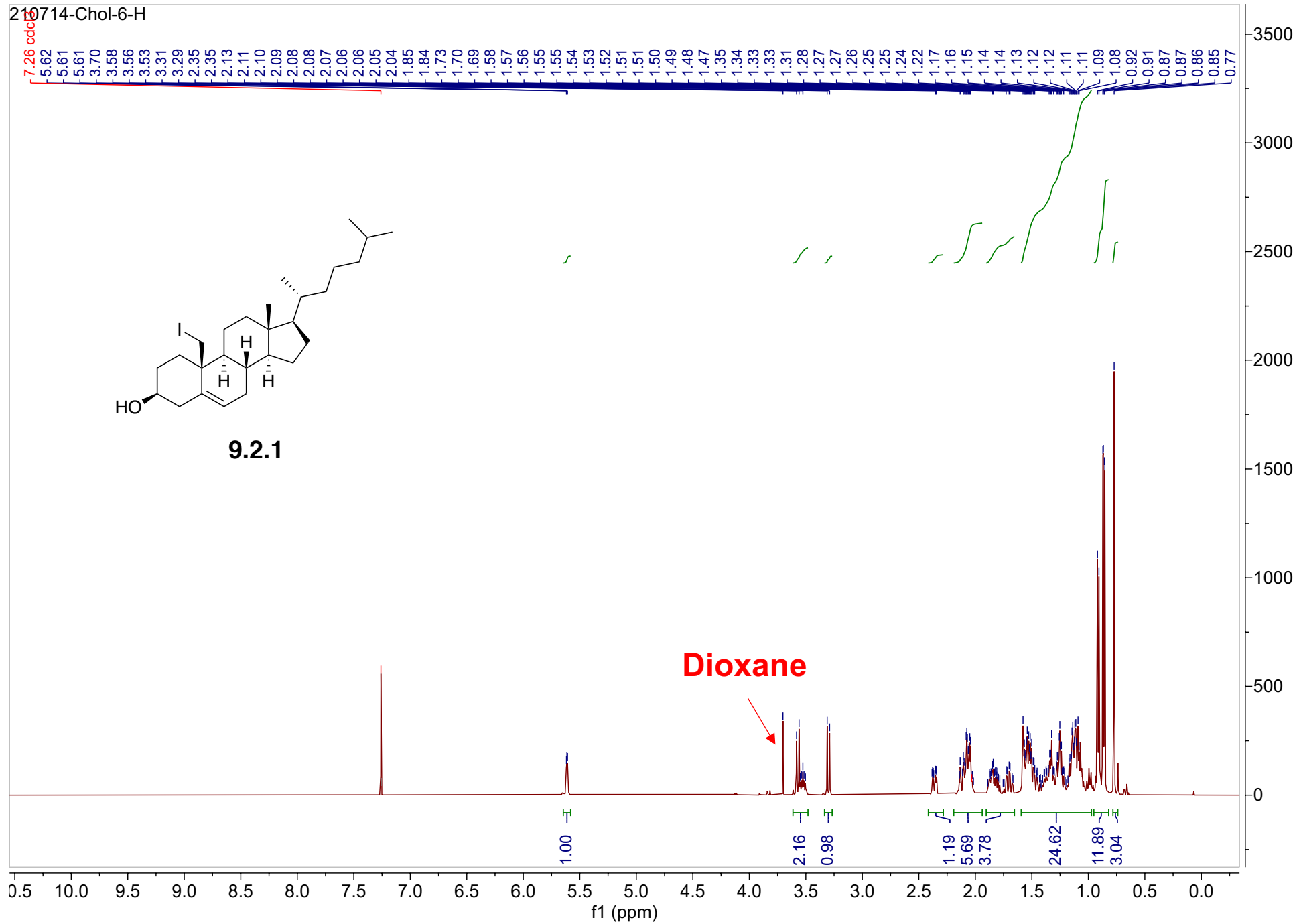


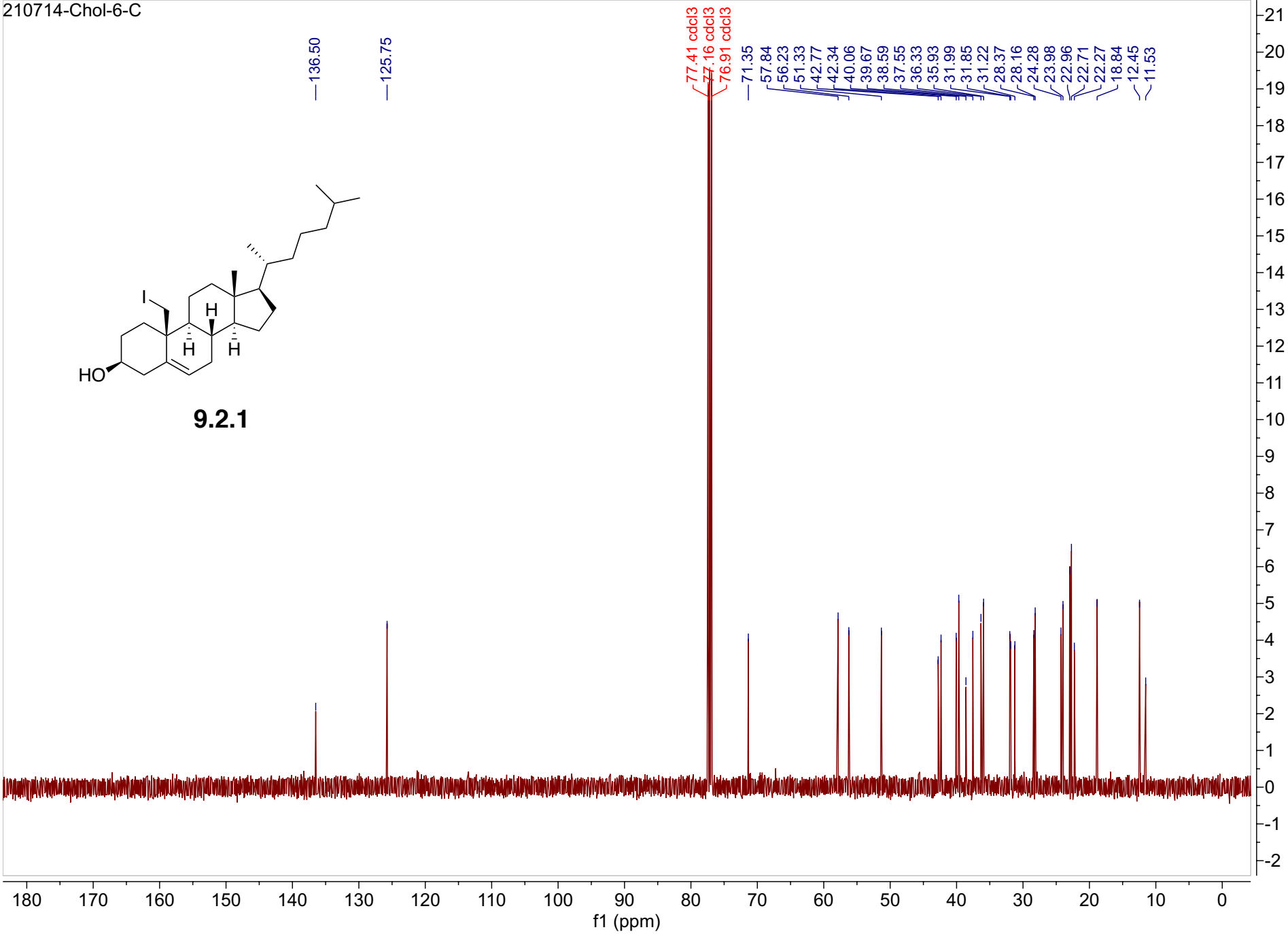




9.2.8







Acq. Data Name: 210714_Best_Lou_chol-6

Internal Sample Id:

Ionization Mode: ESI+

MS Calibration Name: DART(+)/PEG 1000 05202021

Reduction History: Determine m/z[Peak Detect[Centroid,15,Area]; Correct Base[]; Smooth[5]; Correct Base[5.0%]; Average[MS[1] 0.396,0.419]

Experiment Date/Time: 7/14/2021 5:53:40 PM

Orifice1 Volt Sweep: 10V

Acquired m/z Range: 300.0..700.0

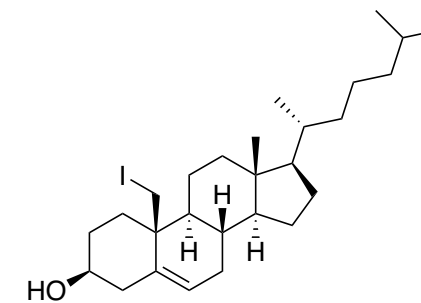
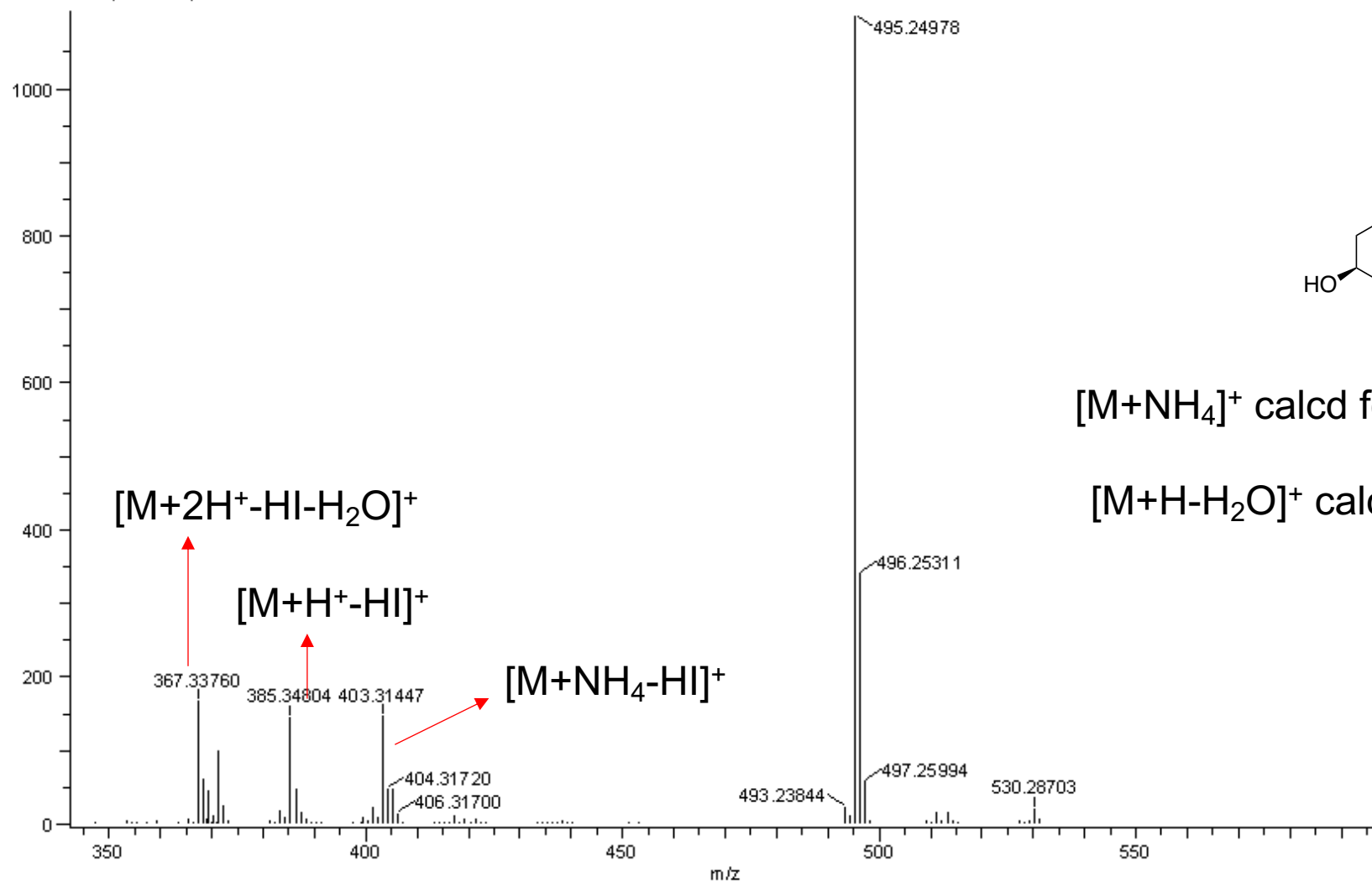
Spec. Record Interval: 1.0[s]

Ring Lens Volt: 5[V]

Time of Maximum: 0.400[min]

Operator Name: jlou4

$\times 10^3$ Area (1099156)



9.2.1

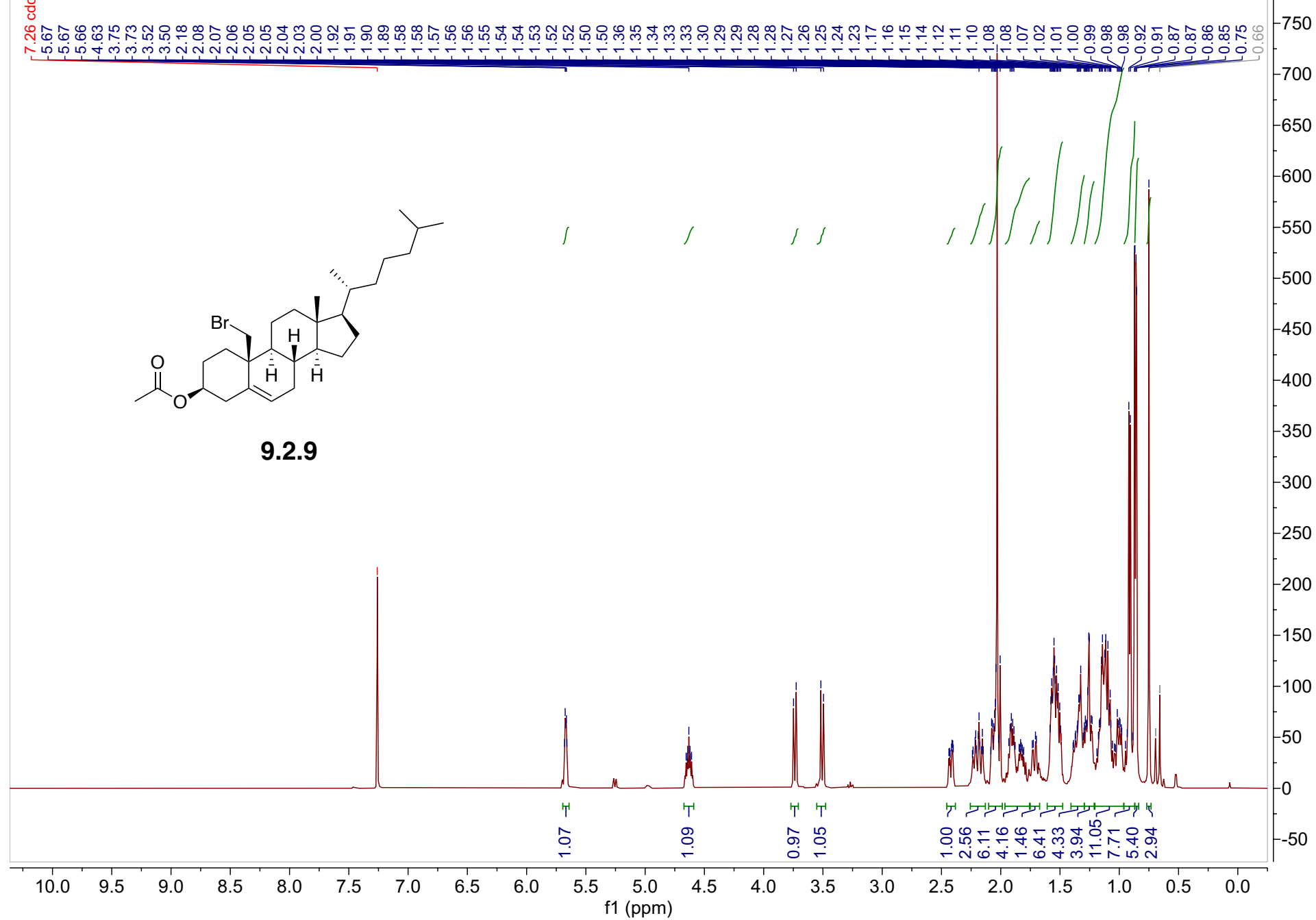
$[M+NH_4]^+$ calcd for $C_{27}H_{49}INO$: 530.2859

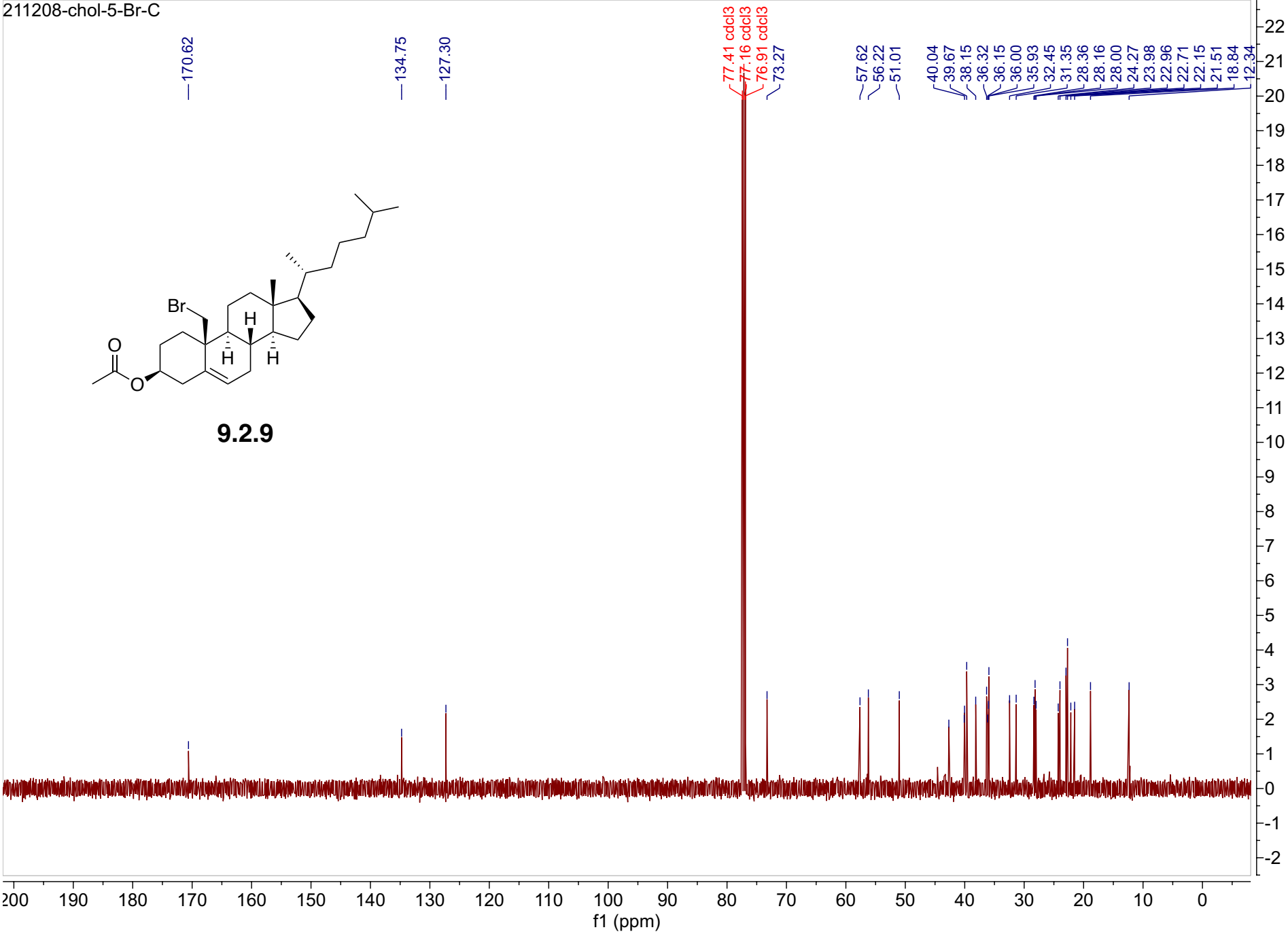
Found: 530.2890

$[M+H-H_2O]^+$ calcd for $C_{27}H_{44}I$: 495.2488

Found: 495.2498

2108-chol-5-Br-H





Acq. Data Name: 211208_Best_Lou_chol-5-Br

Internal Sample Id:

Ionization Mode: ESI+

MS Calibration Name: DART(+)-PEG_1000_05202021

Reduction History: Determine m/z[Peak Detect[Centroid,15,Area];Correct Base[];Smooth[5];Correct Base[5.0%];Average[MS[1] 0.326..0.354]

Experiment Date/Time: 12/8/2021 5:48:04 PM

Orifice1 Volt Sweep: 30V

Acquired m/z Range: 300.0..600.0

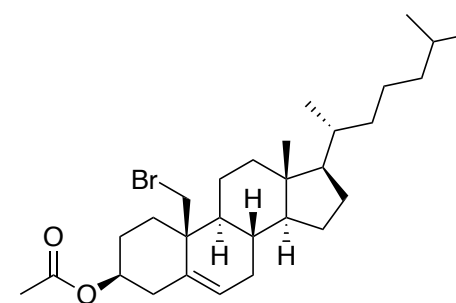
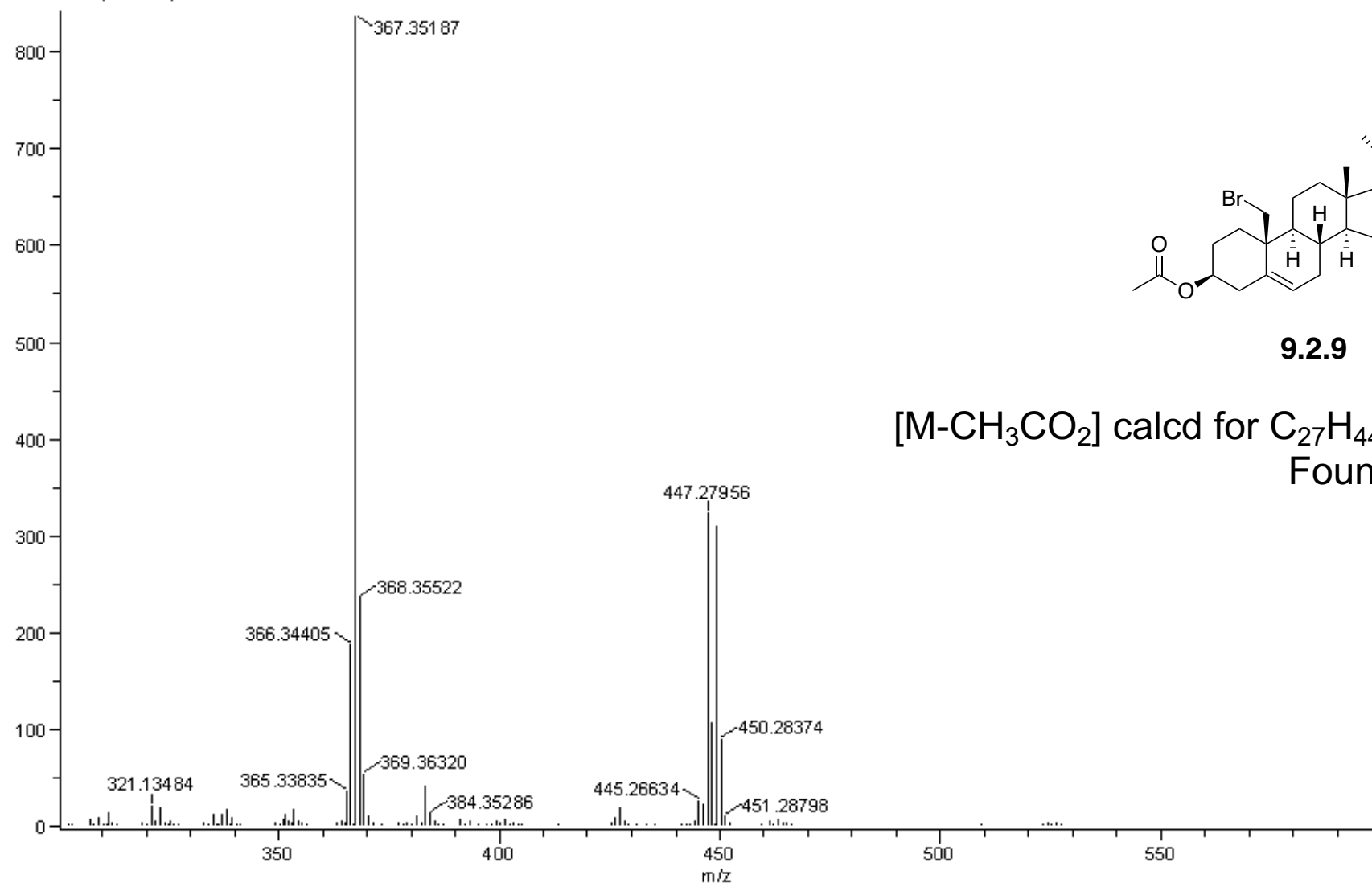
Spec. Record Interval: 1.0[s]

Ring Lens Volt: 5[V]

Time of Maximum: 0.332[min]

Operator Name: jlou4

$\times 10^3$ Area (837375)

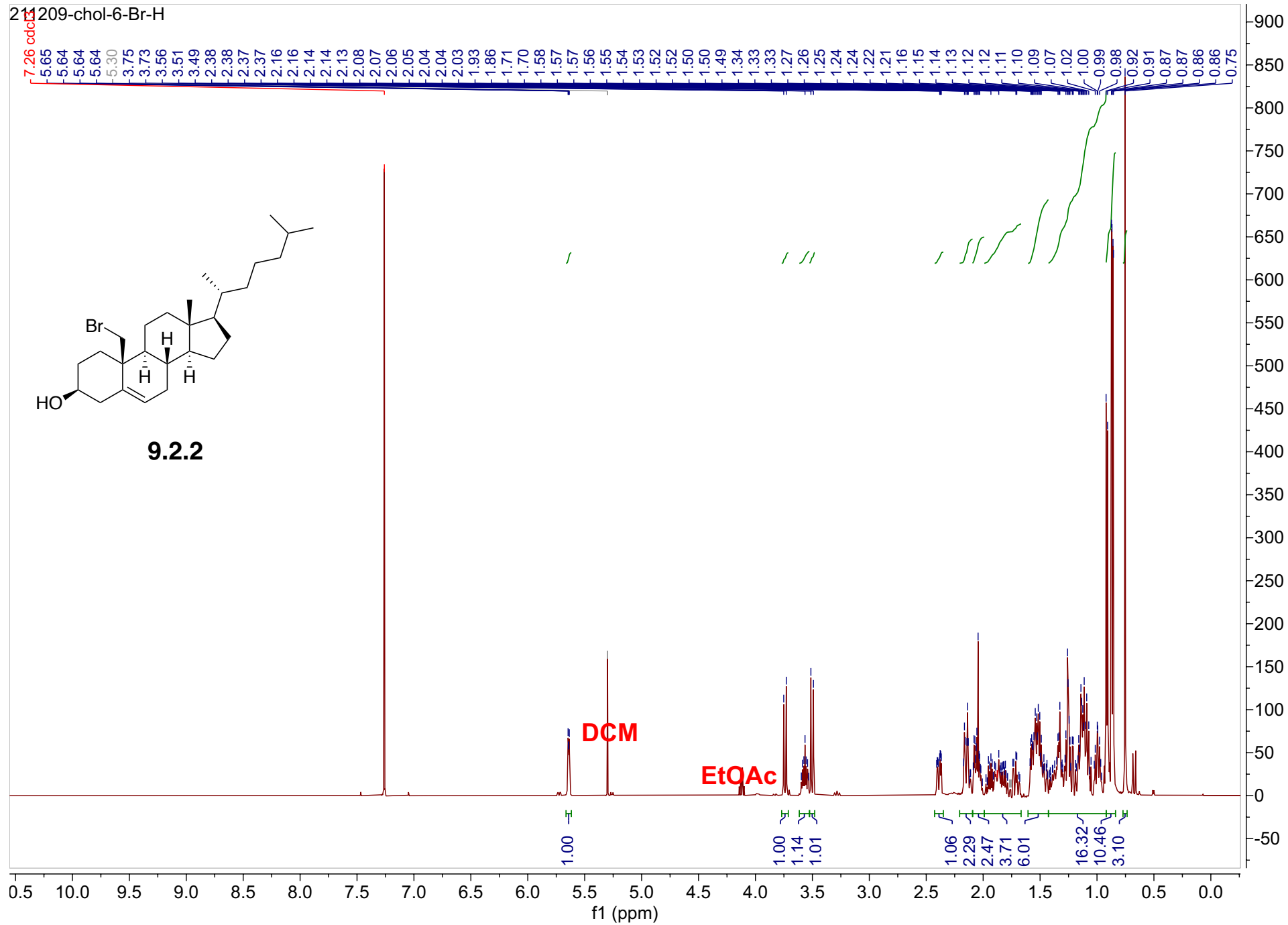


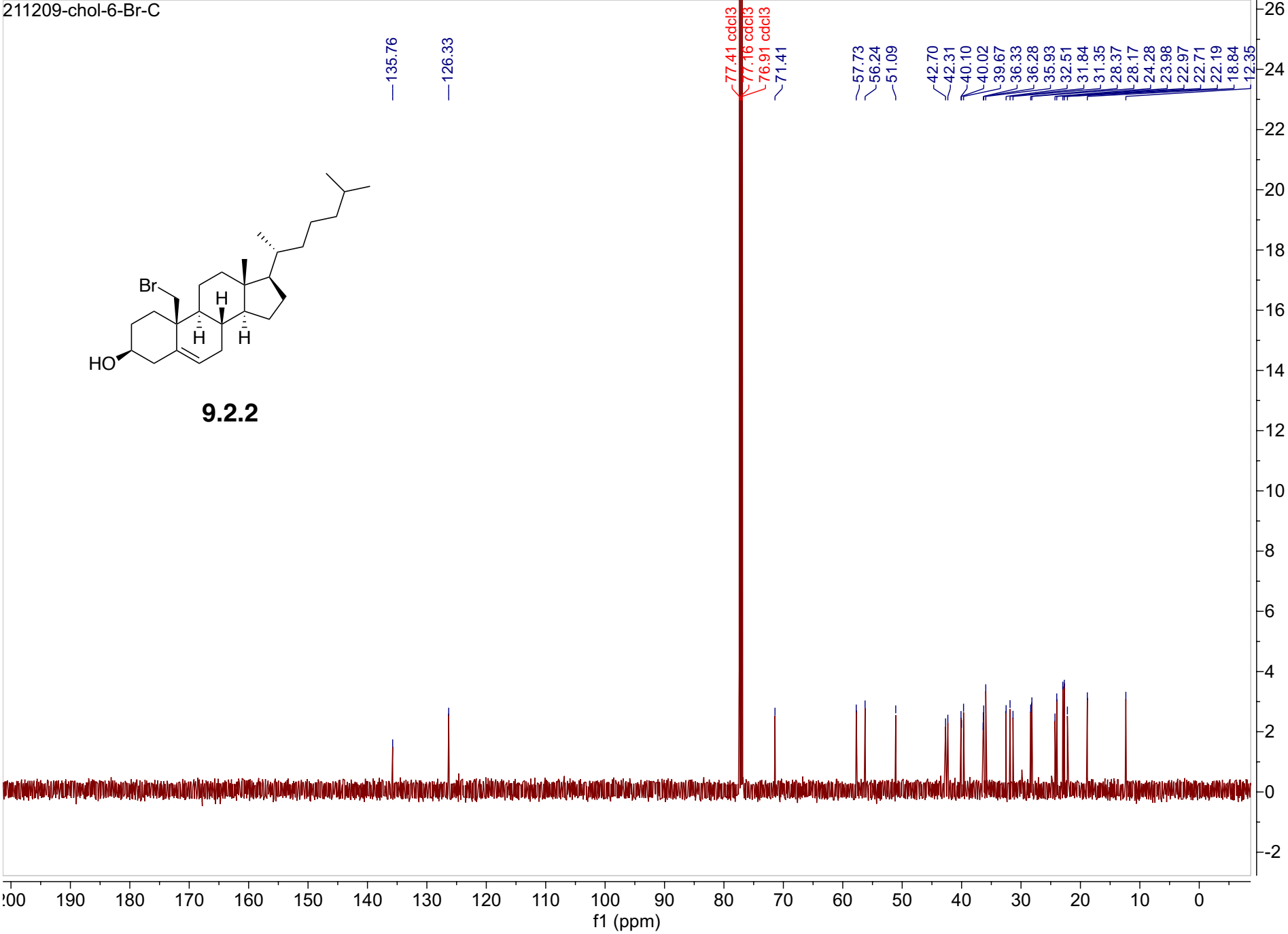
9.2.9

[M-CH₃CO₂] calcd for C₂₇H₄₄Br: 447.2626

Found: 447.2796

2109-chol-6-Br-H





Acq. Data Name: 211209 Best Lou chol-6-Br

Internal Sample Id:

Ionization Mode: ESI+

MS Calibration Name: DART(+)PEG 1000 05202021

Reduction History: Determine m/z[Peak Detect[Centroid,15,Area]; Correct Base[]; Smooth[5]; Correct Base[5.0%]; Average[MS[1] 0.407 .0.426]

Experiment Date/Time: 12/9/2021 1:48:17 PM

Orifice1 Volt Sweep: 30V

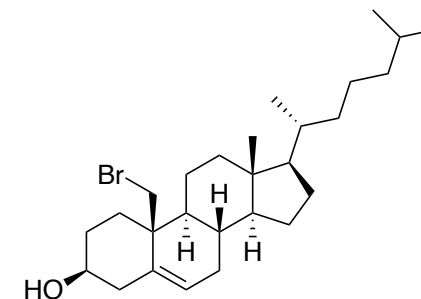
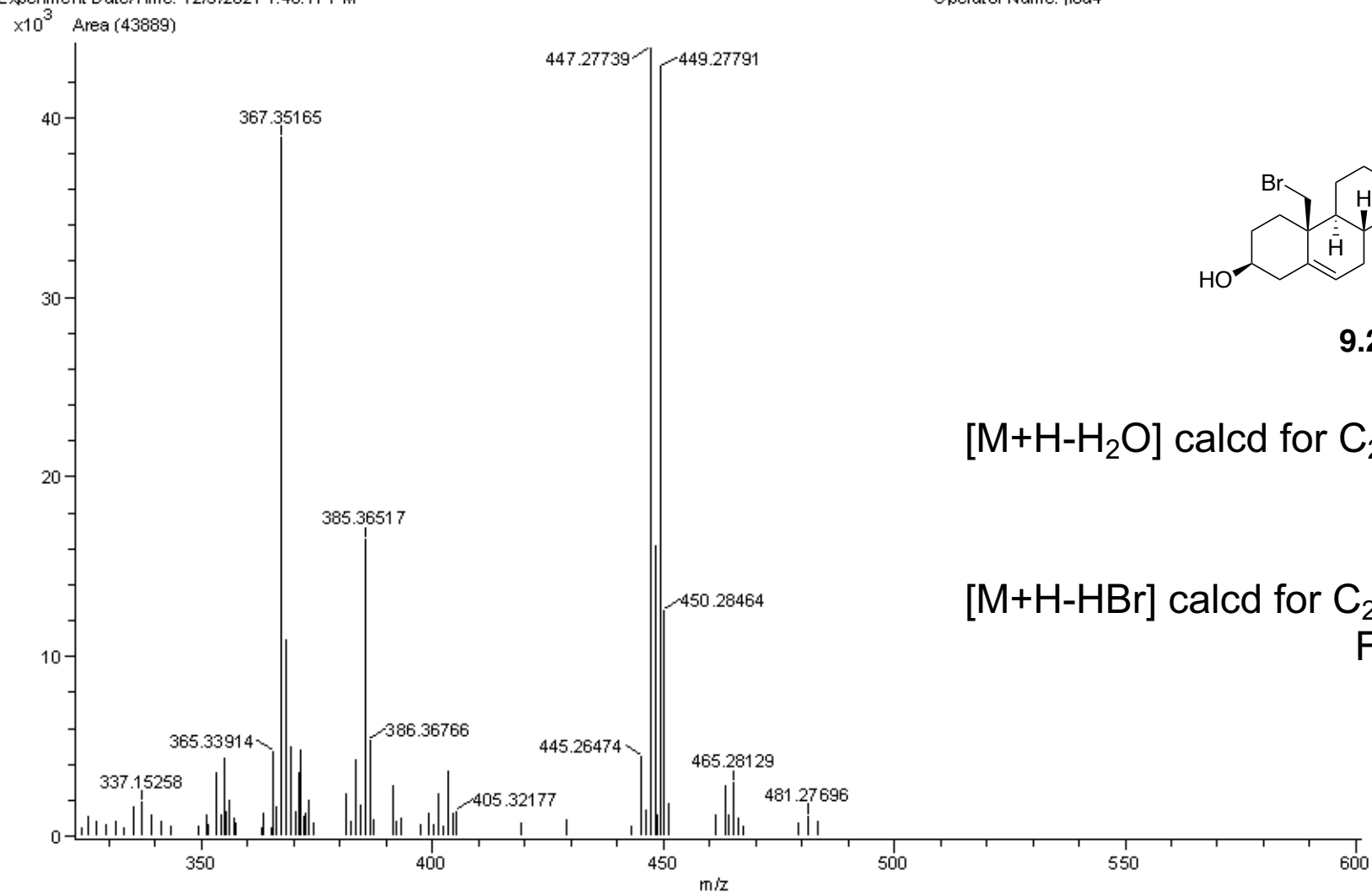
Acquired m/z Range: 300.0..600.0

Spec. Record Interval: 1.0[s]

Ring Lens Volt: 5[V]

Time of Maximum: 0.413[min]

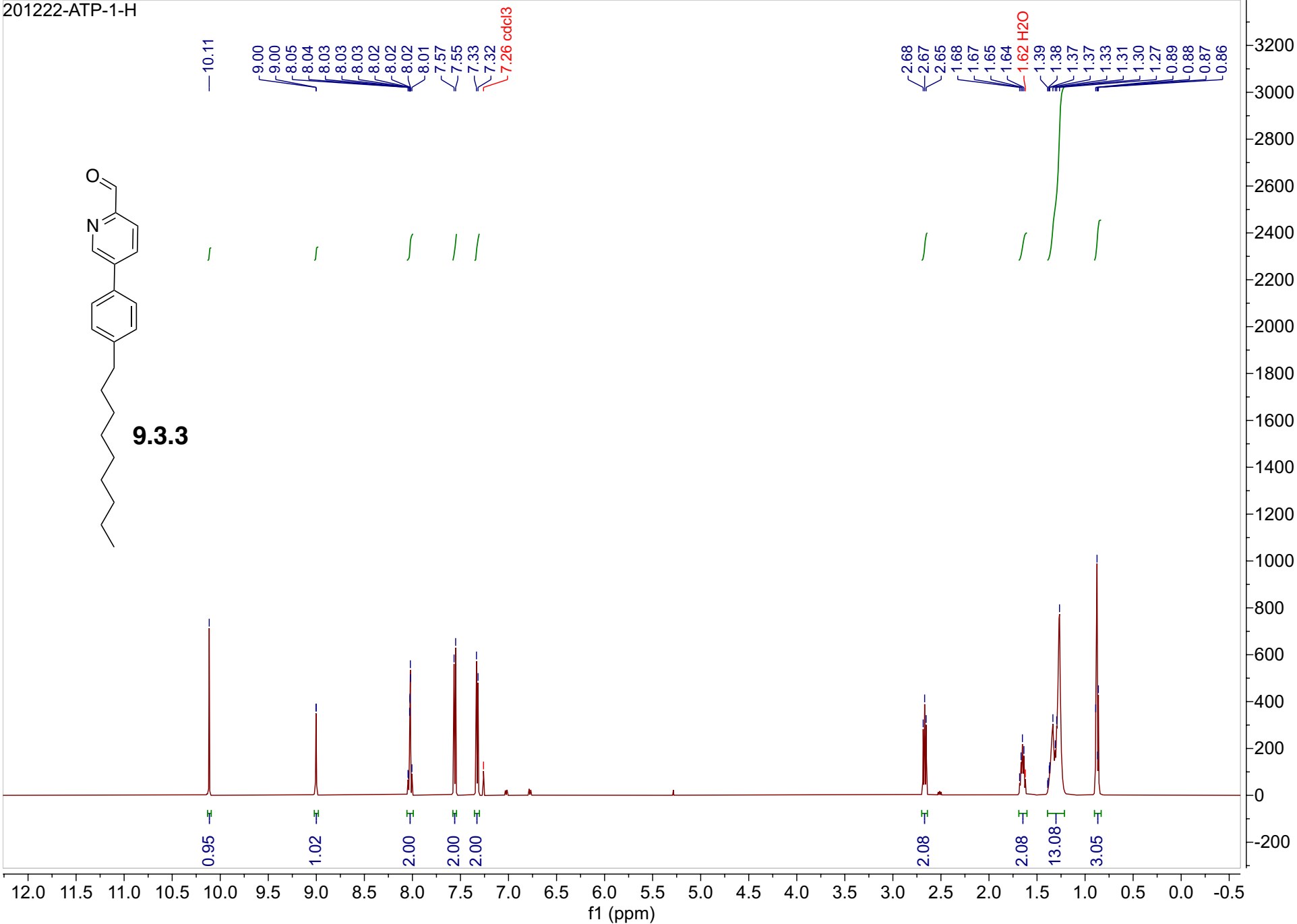
Operator Name: jlou4

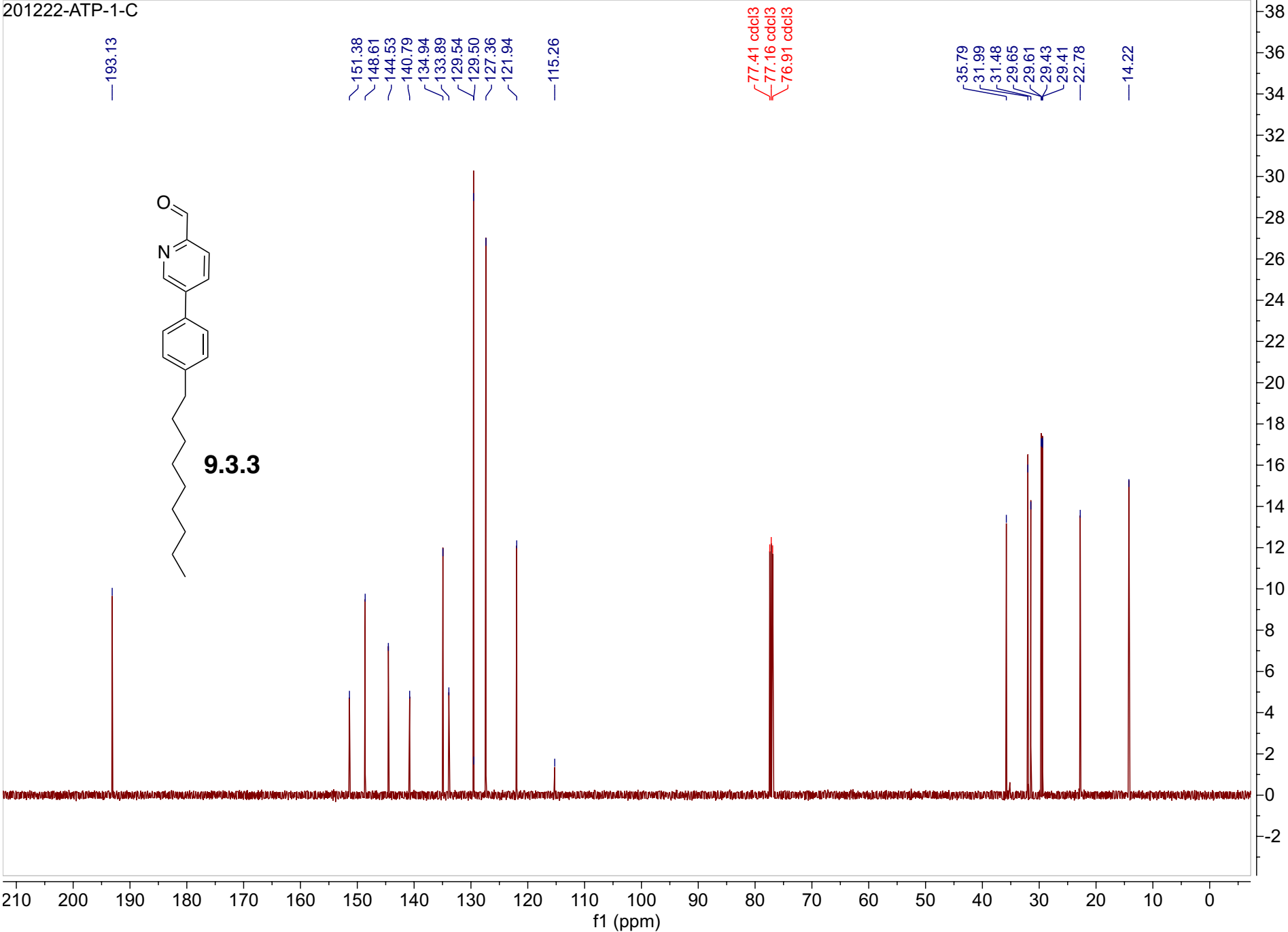


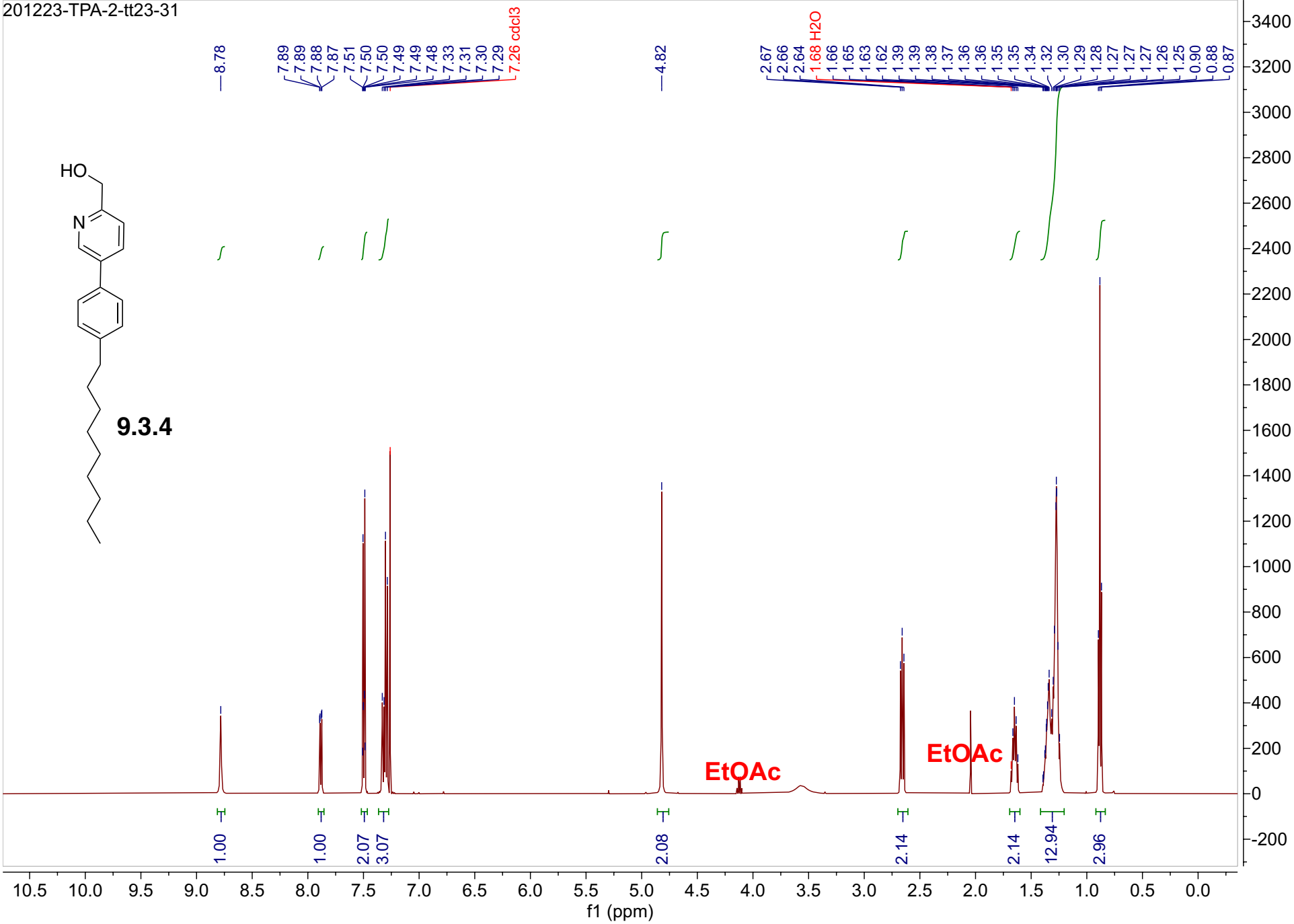
9.2.2

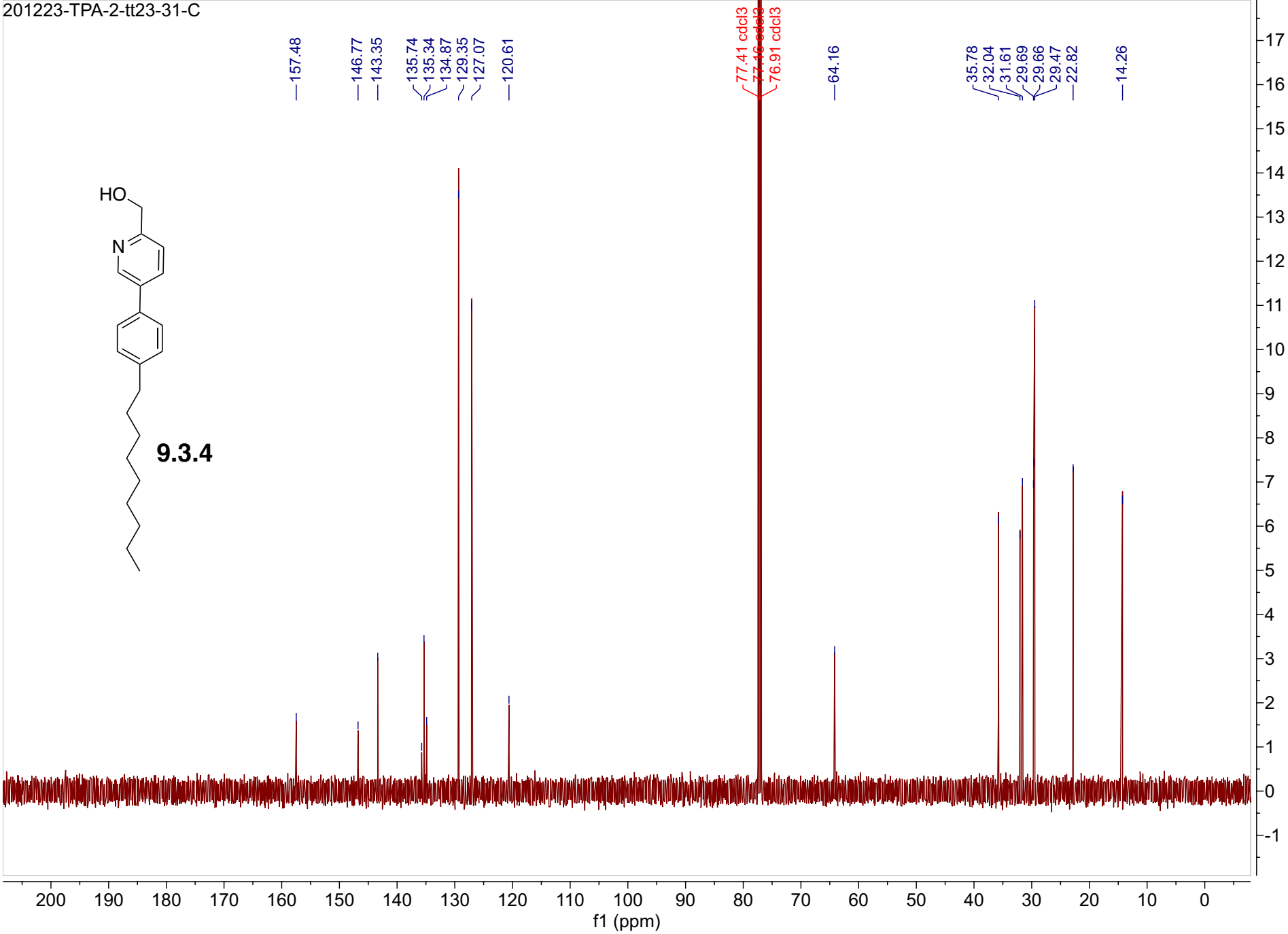
[M+H-H₂O] calcd for C₂₇H₄₄Br: 447.2626
Found: 447.2774

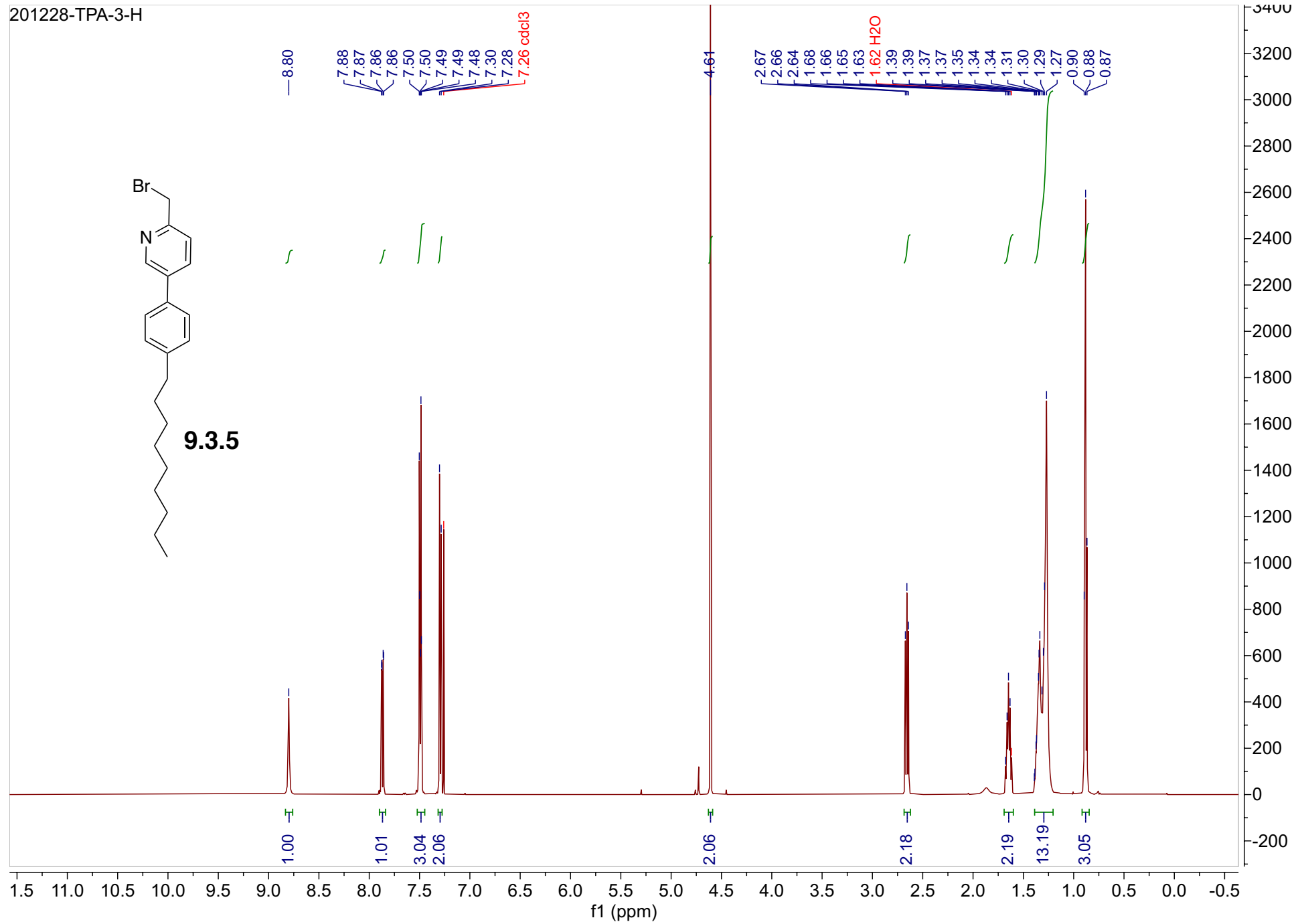
[M+H-HBr] calcd for C₂₇H₄₅O: 385.3470
Found: 385.3652

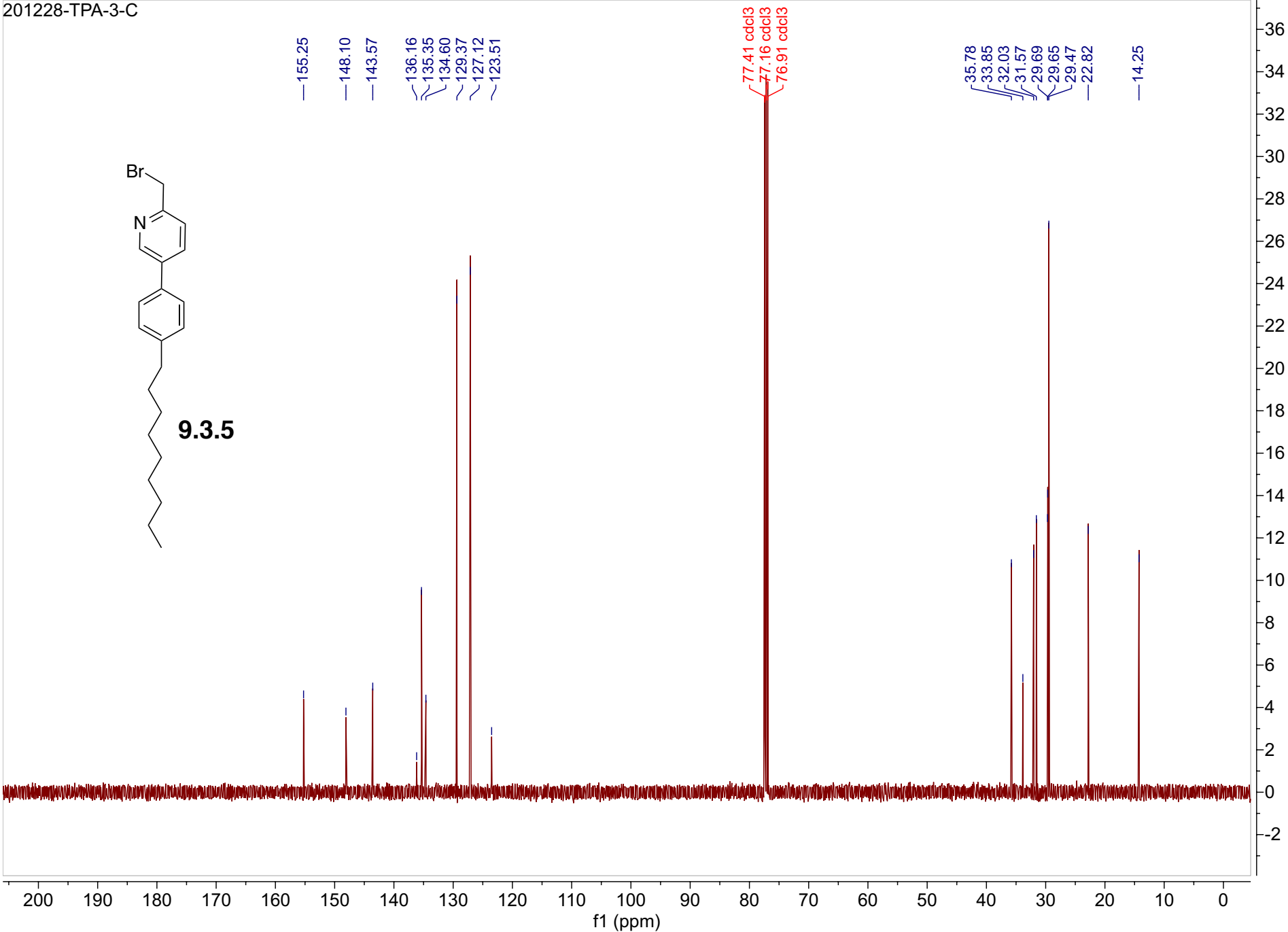




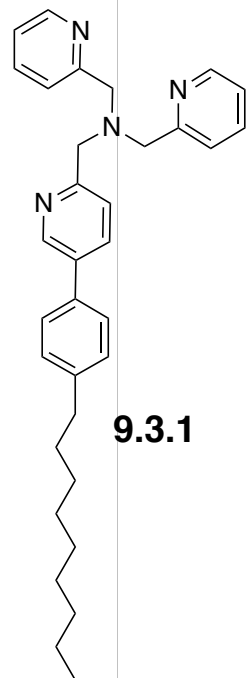




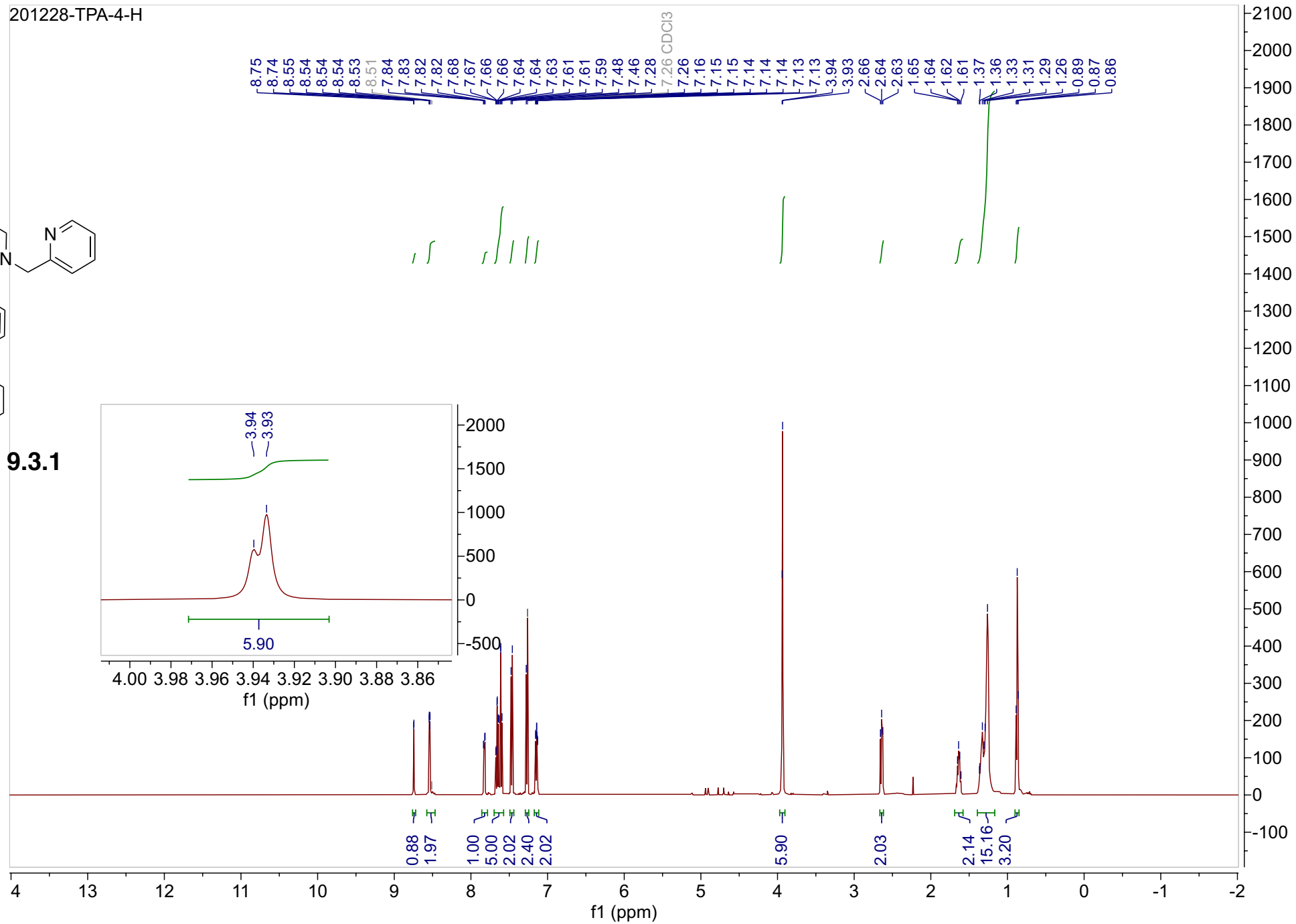


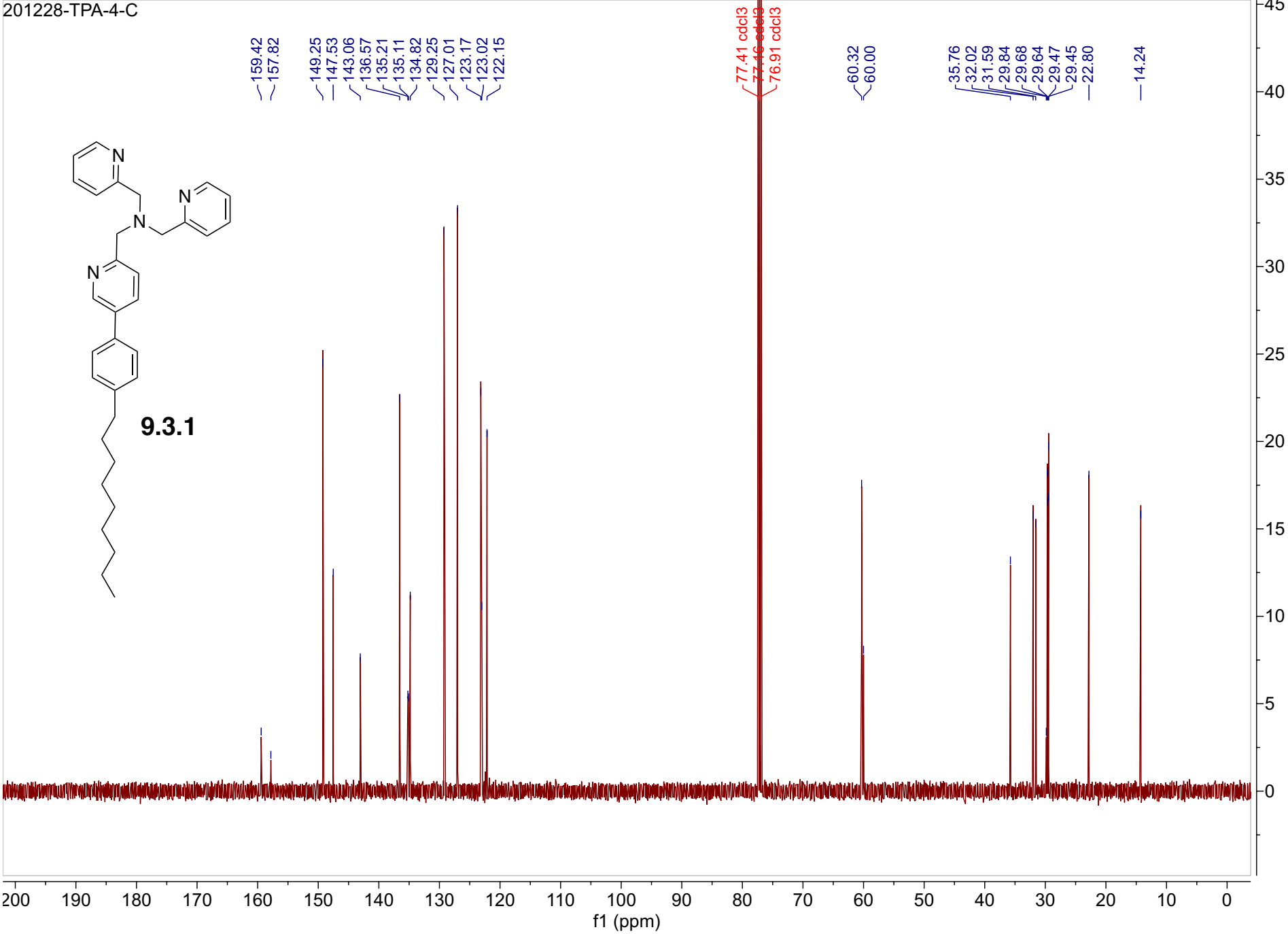


201228-TPA-4-H



9.3.1





Acq. Data Name: 201229_Best_Lou_TPA-4-column

Internal Sample Id:

Ionization Mode: ESI+

MS Calibration Name: DART(+)-PEG_1000_09112019

Reduction History: Determine m/z[Peak Detect[Centroid,15,Area]; Correct Base[]; Smooth[5]; Correct Base[5.0%]; Average(MS[1] 0.910..0.960)

Experiment Date/Time: 12/29/2020 10:37:21 AM

Orifice1 Volt Sweep: 10V

Acquired m/z Range: 400.0..600.0

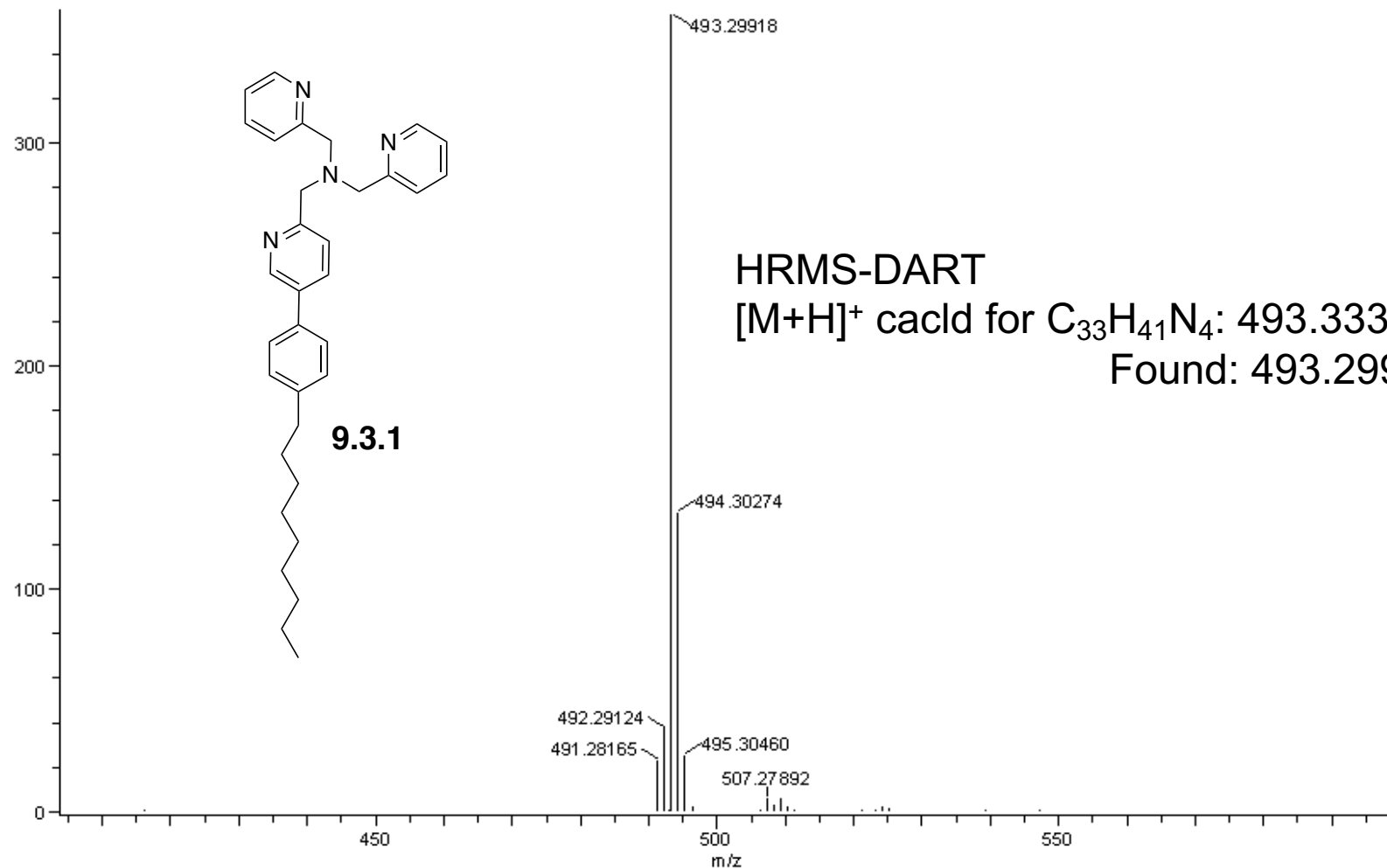
Spec. Record Interval: 1.0[s]

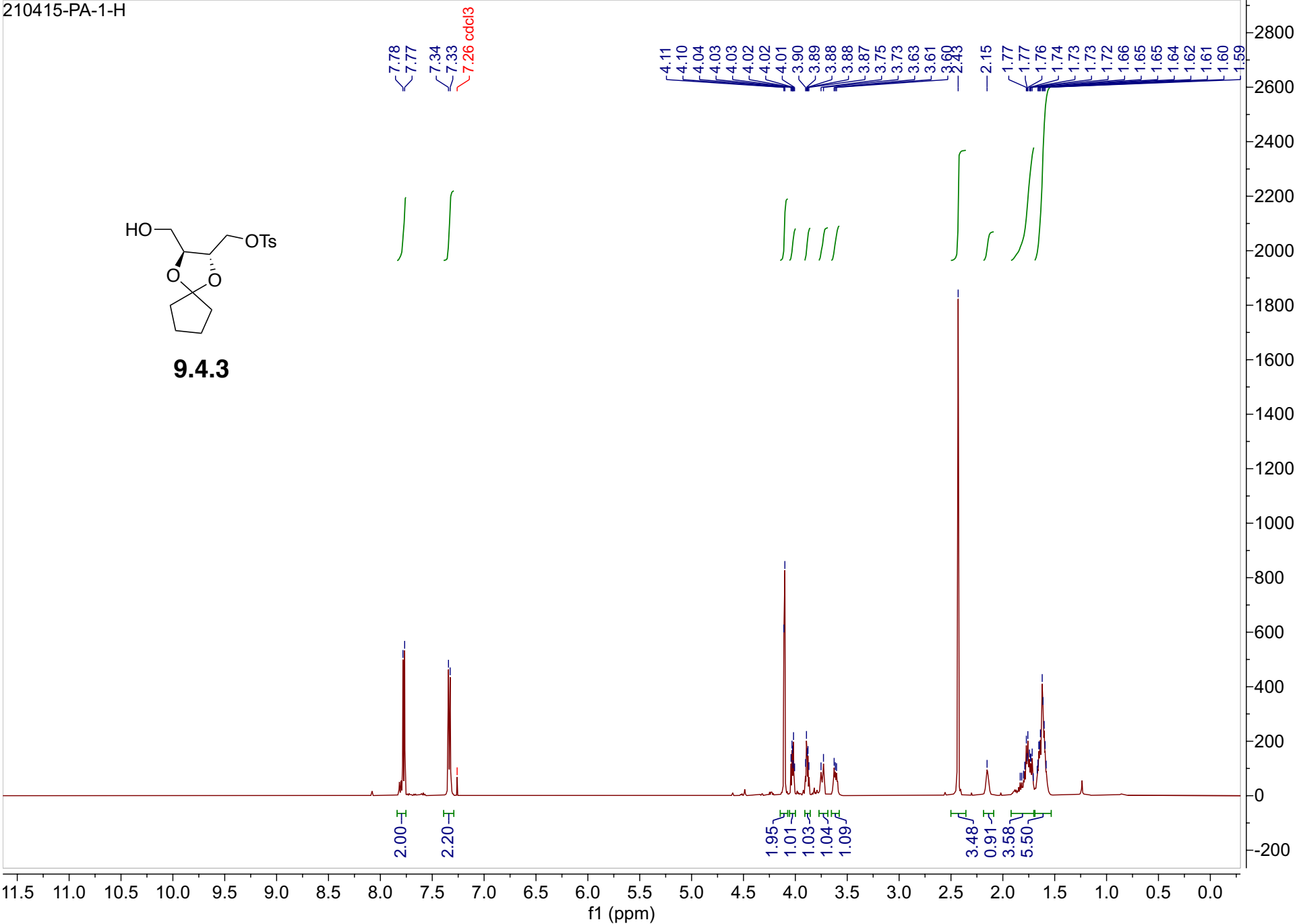
Ring Lens Volt: 5[V]

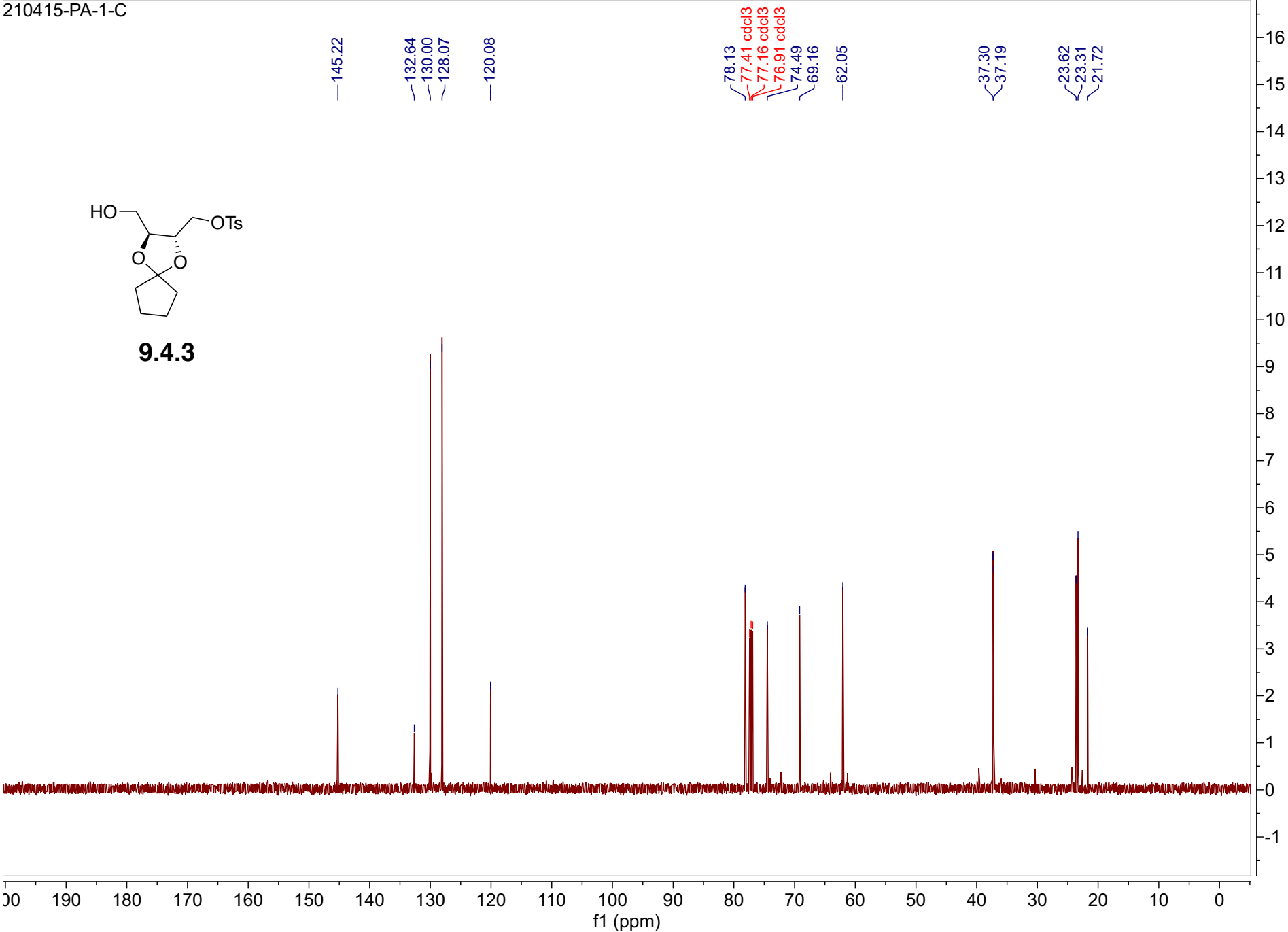
Time of Maximum: 0.948[min]

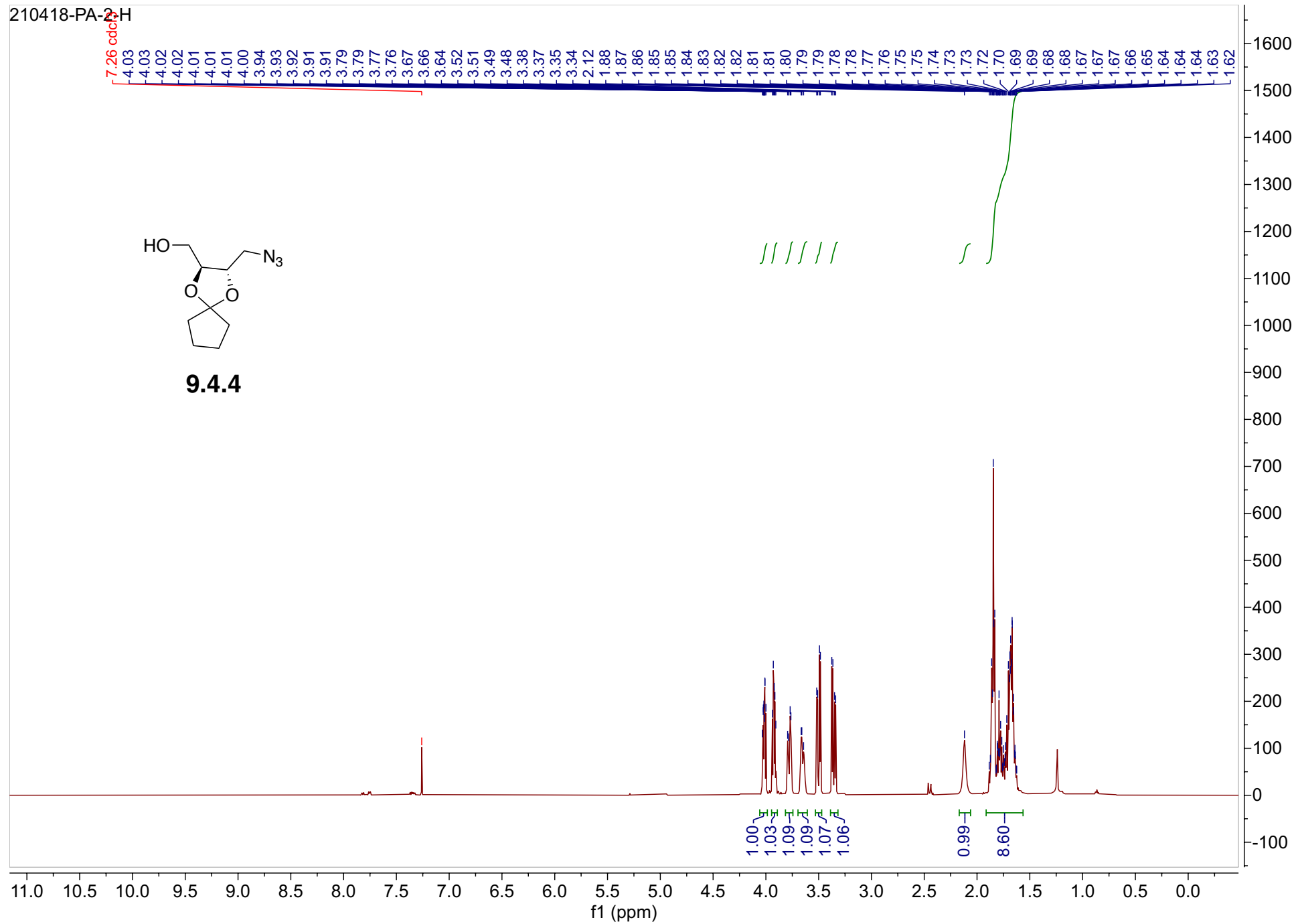
Operator Name: jlou4

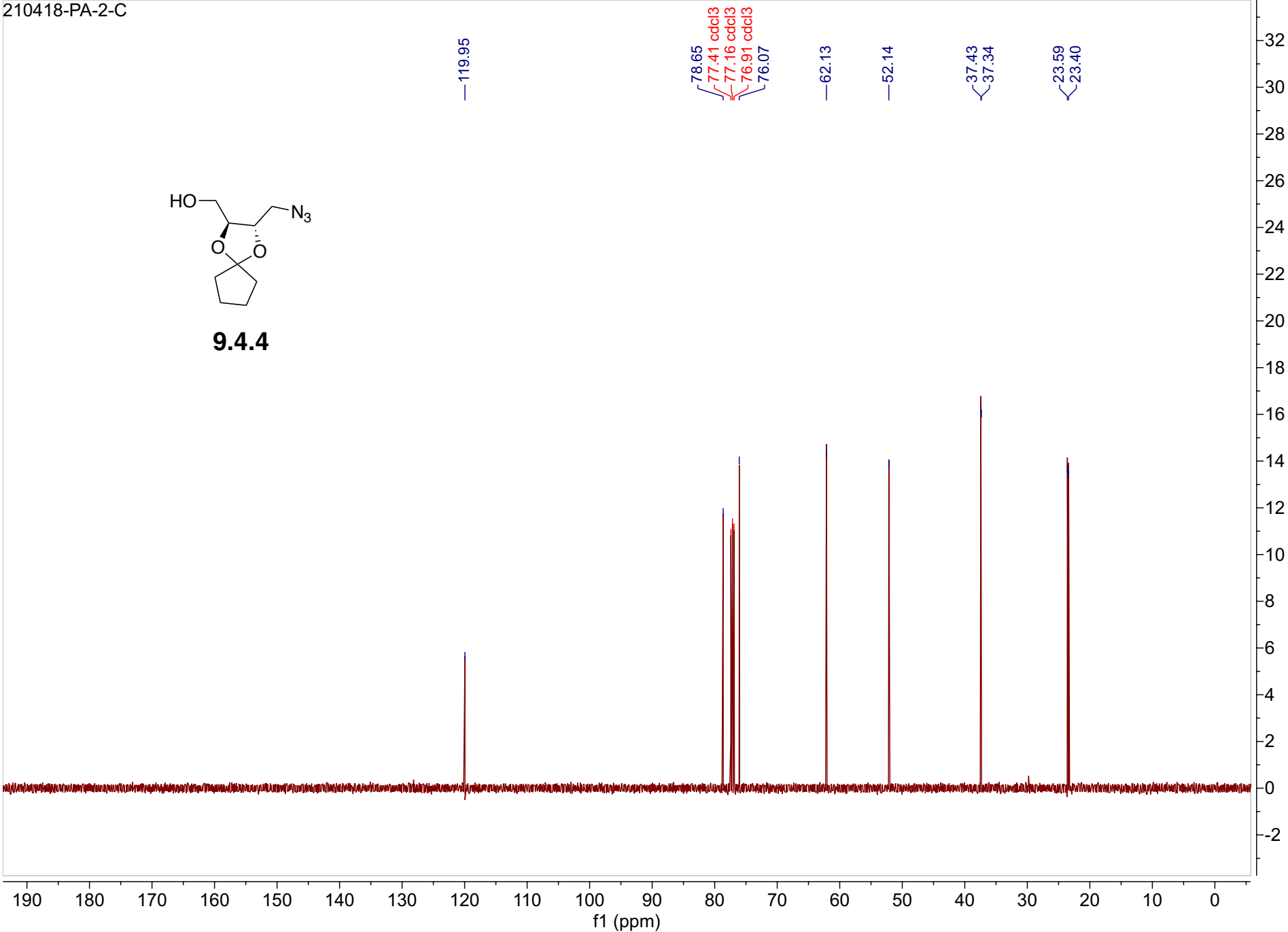
x10³ Area (357829)

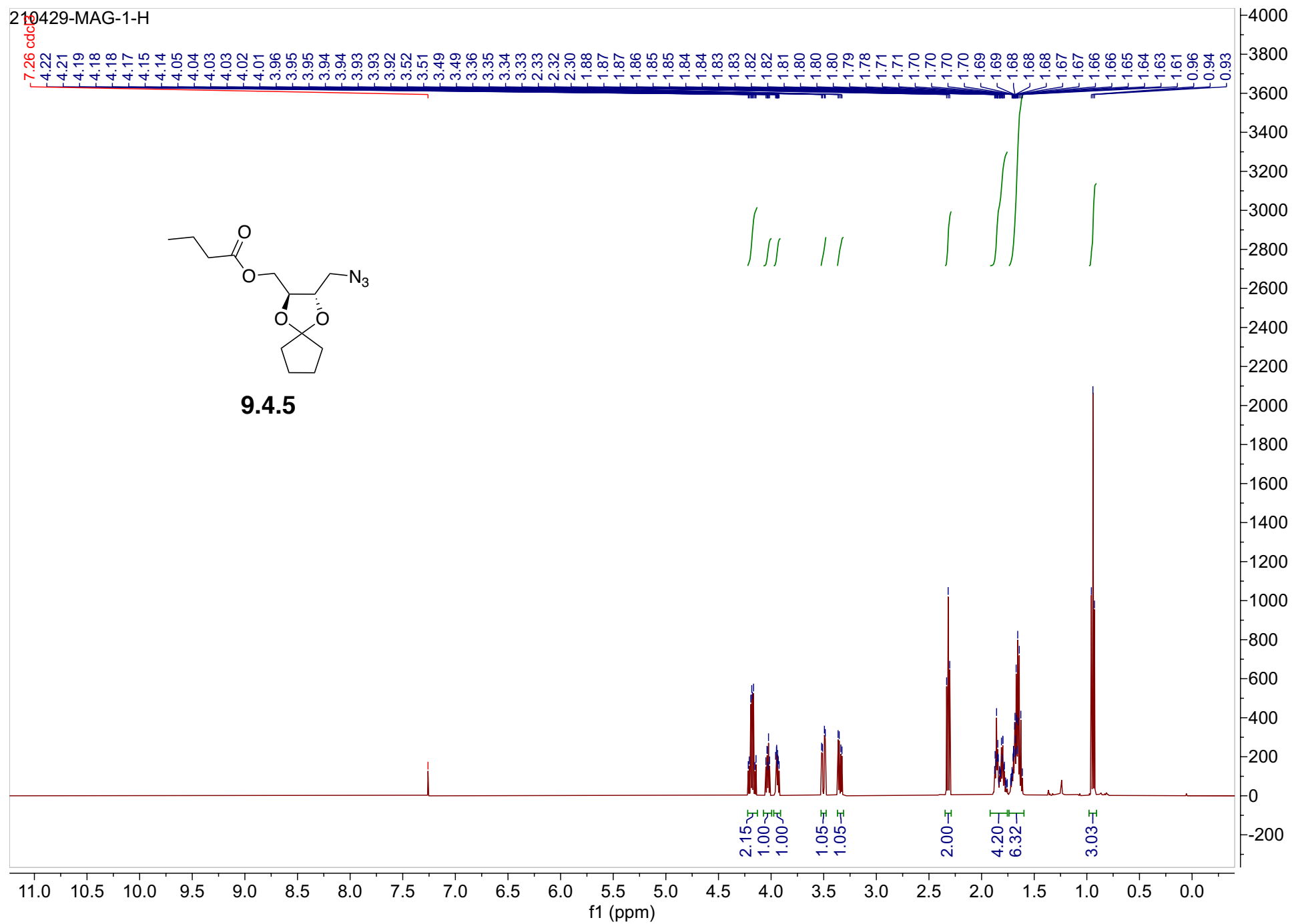


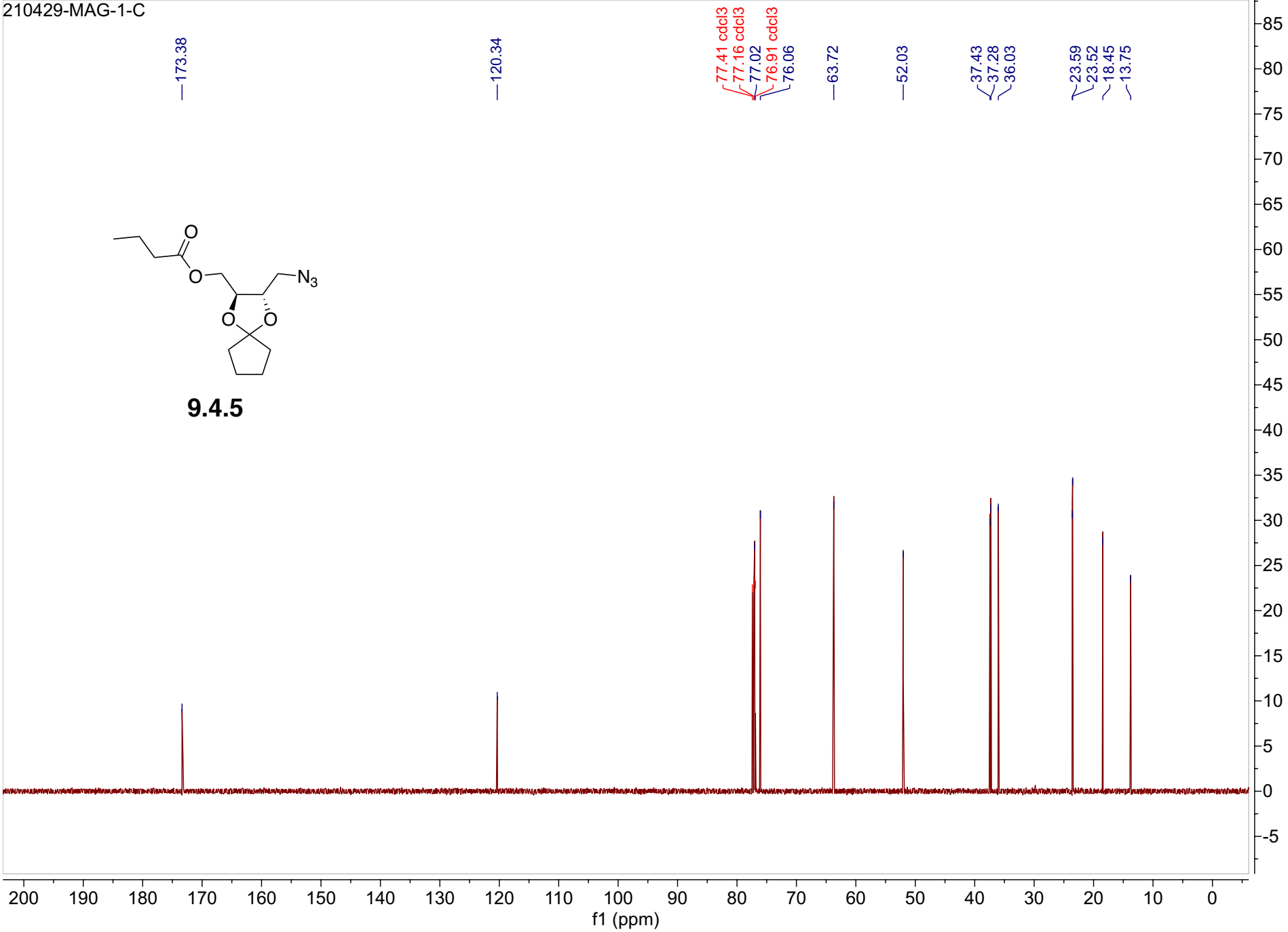


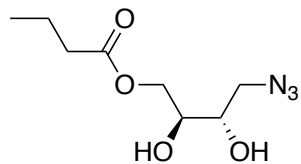




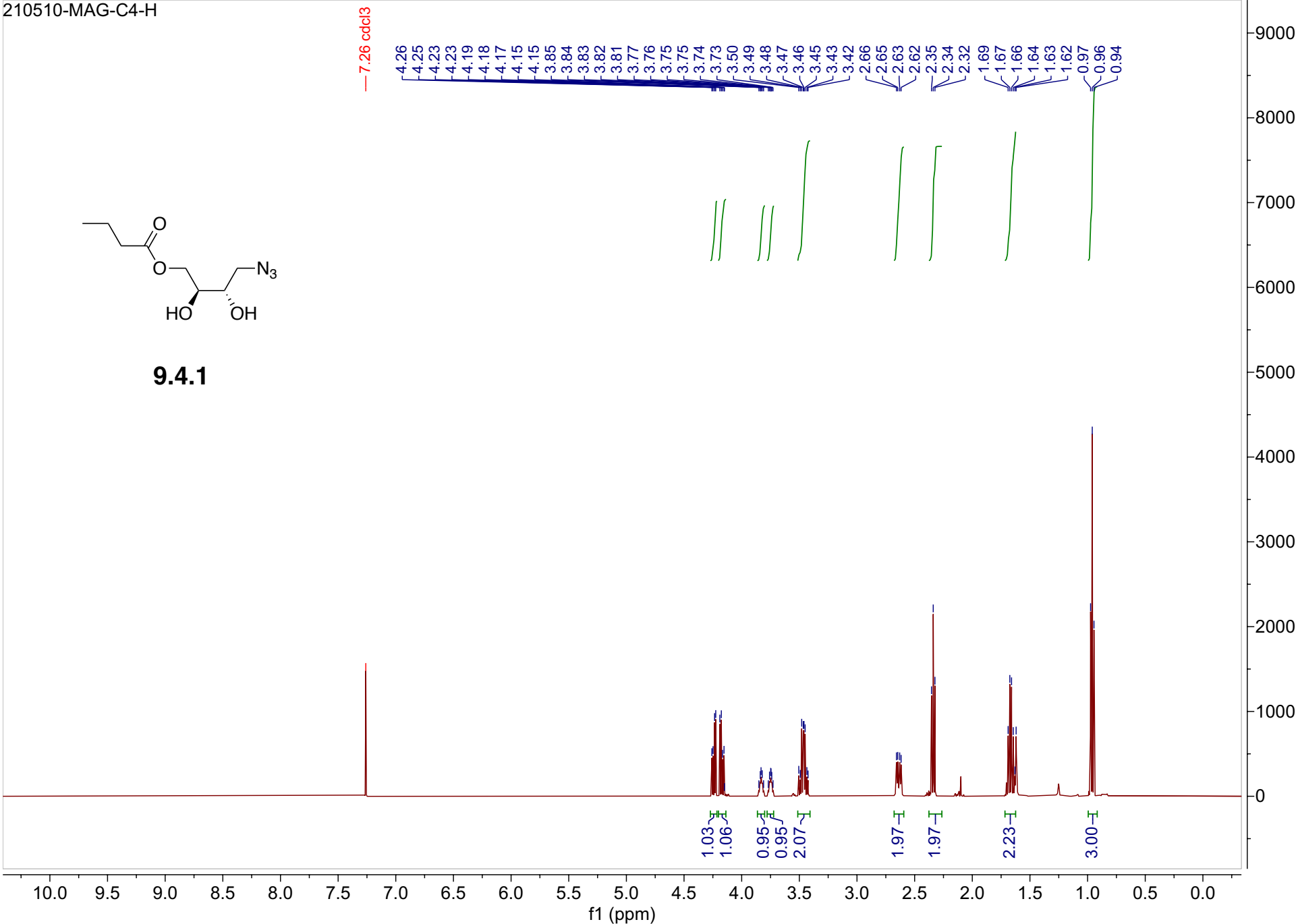


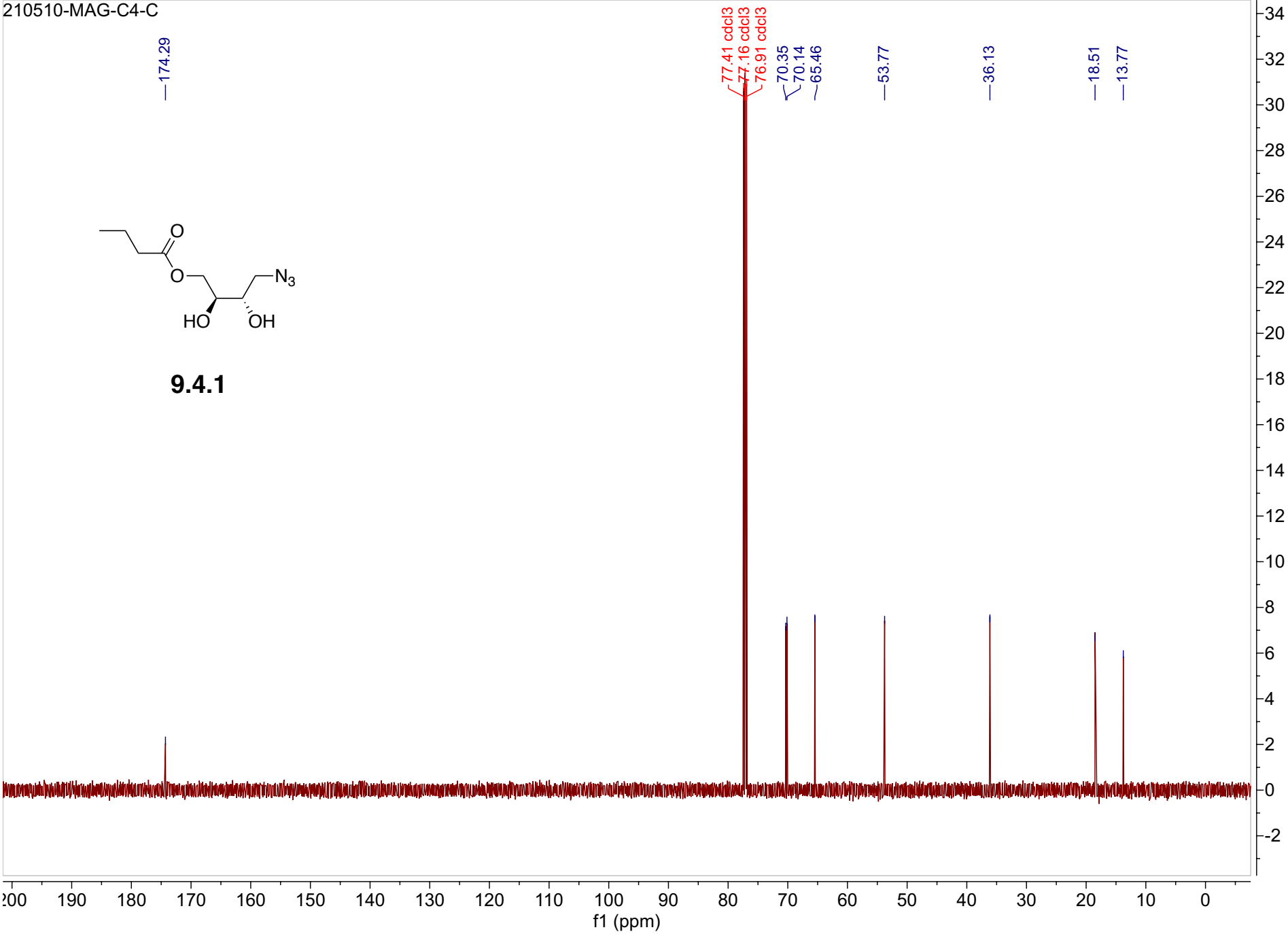


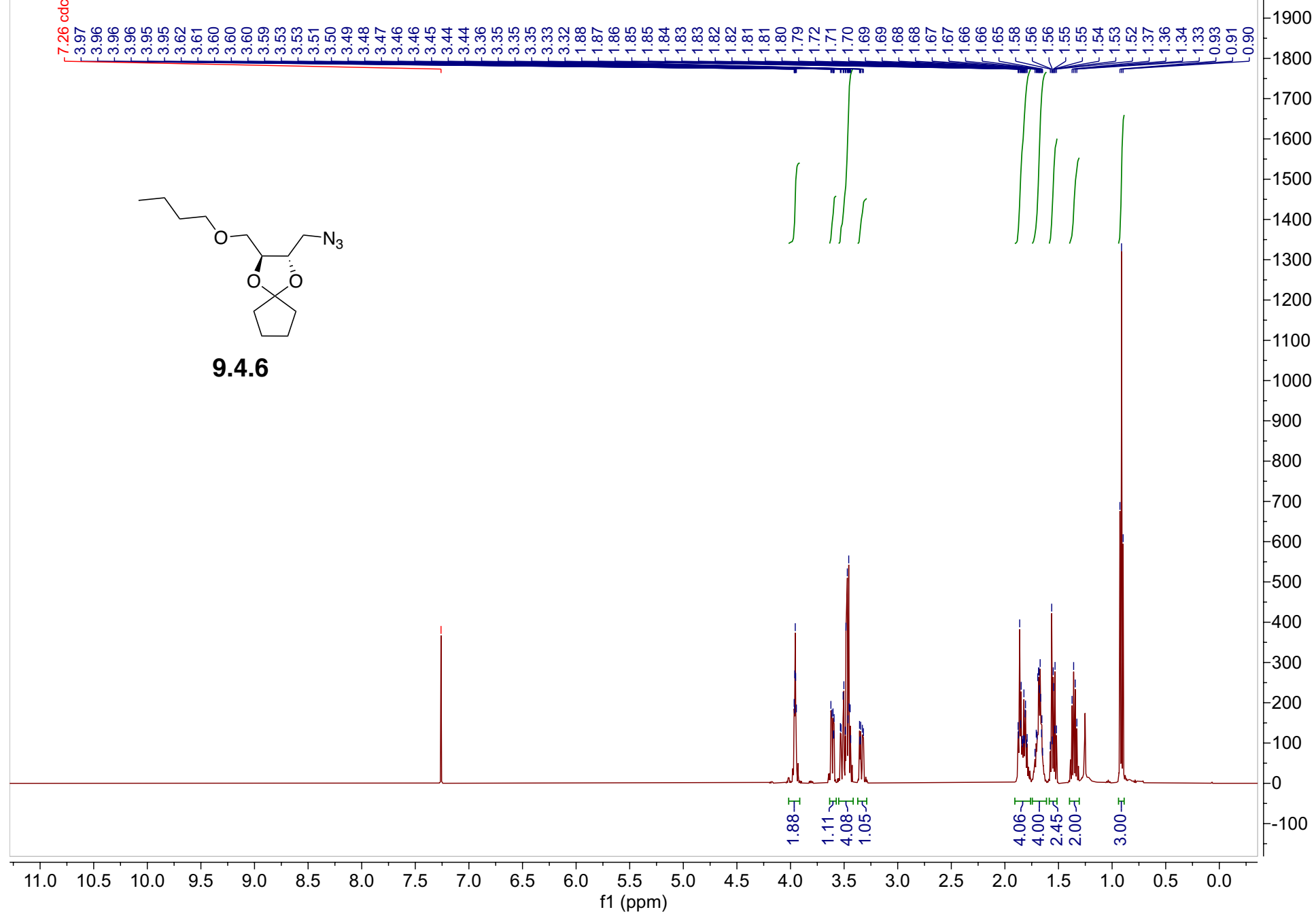


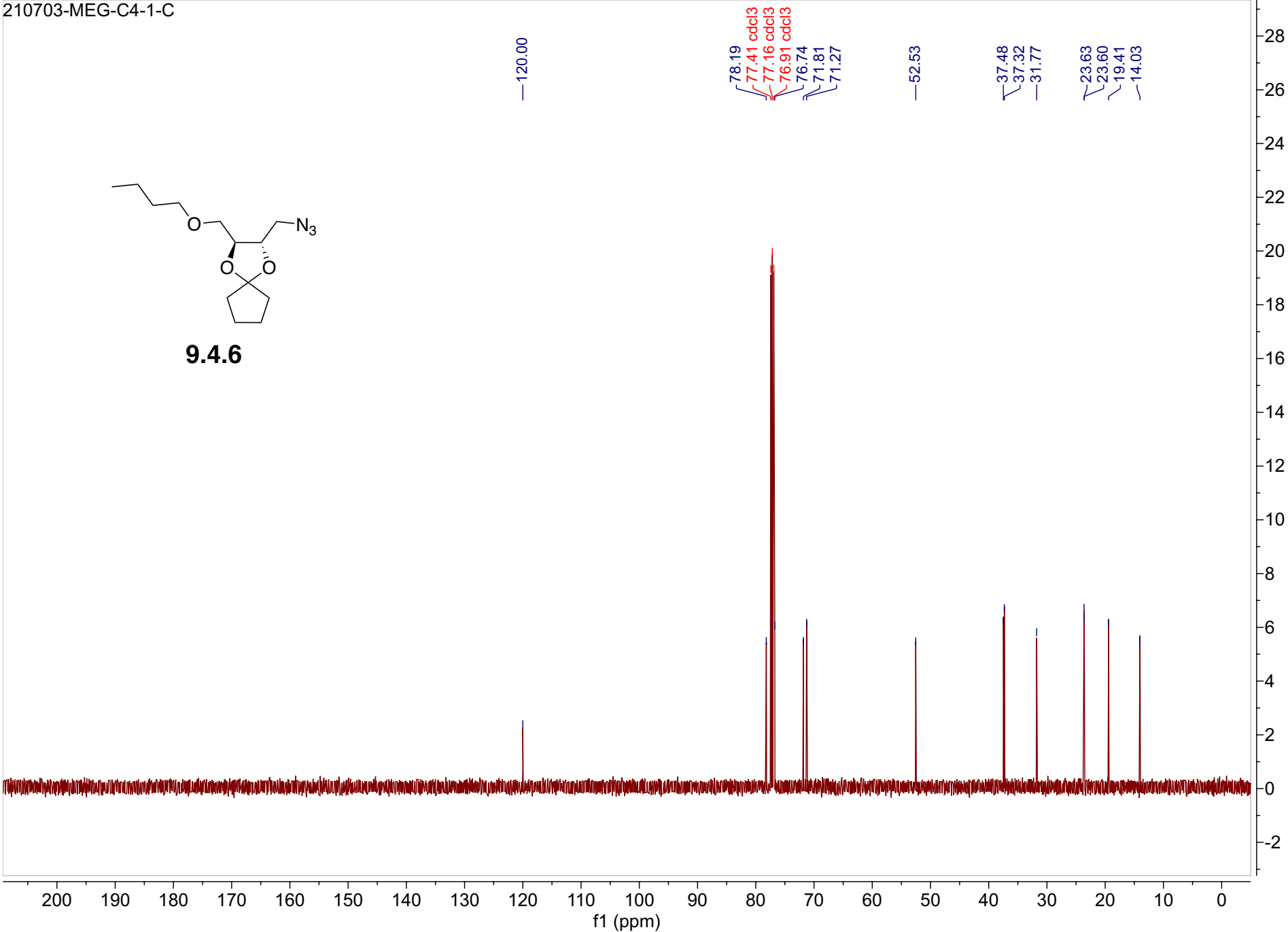


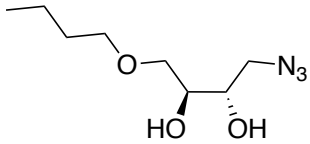
9.4.1



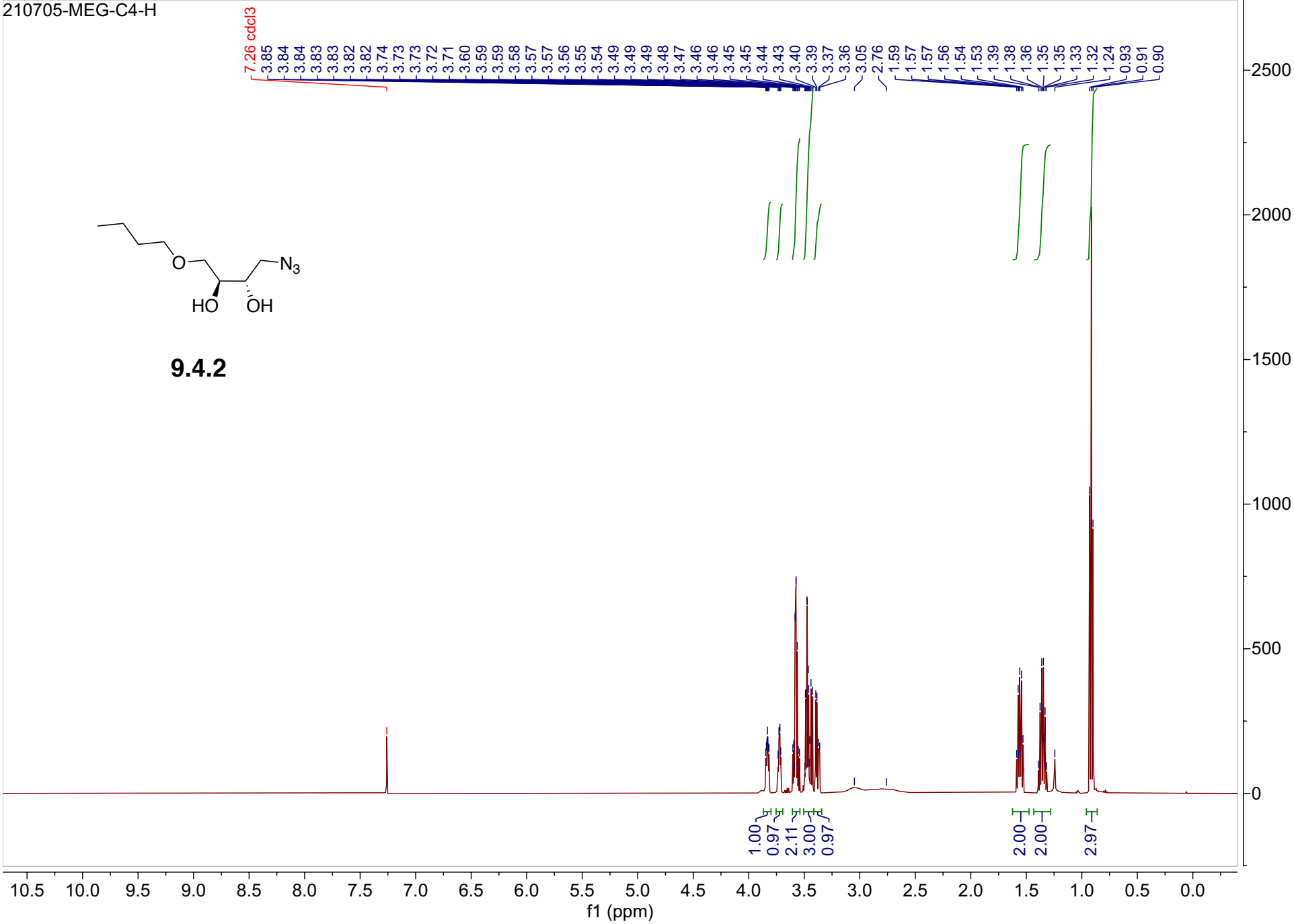


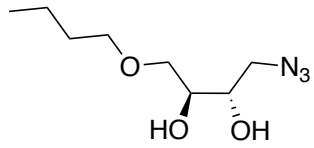




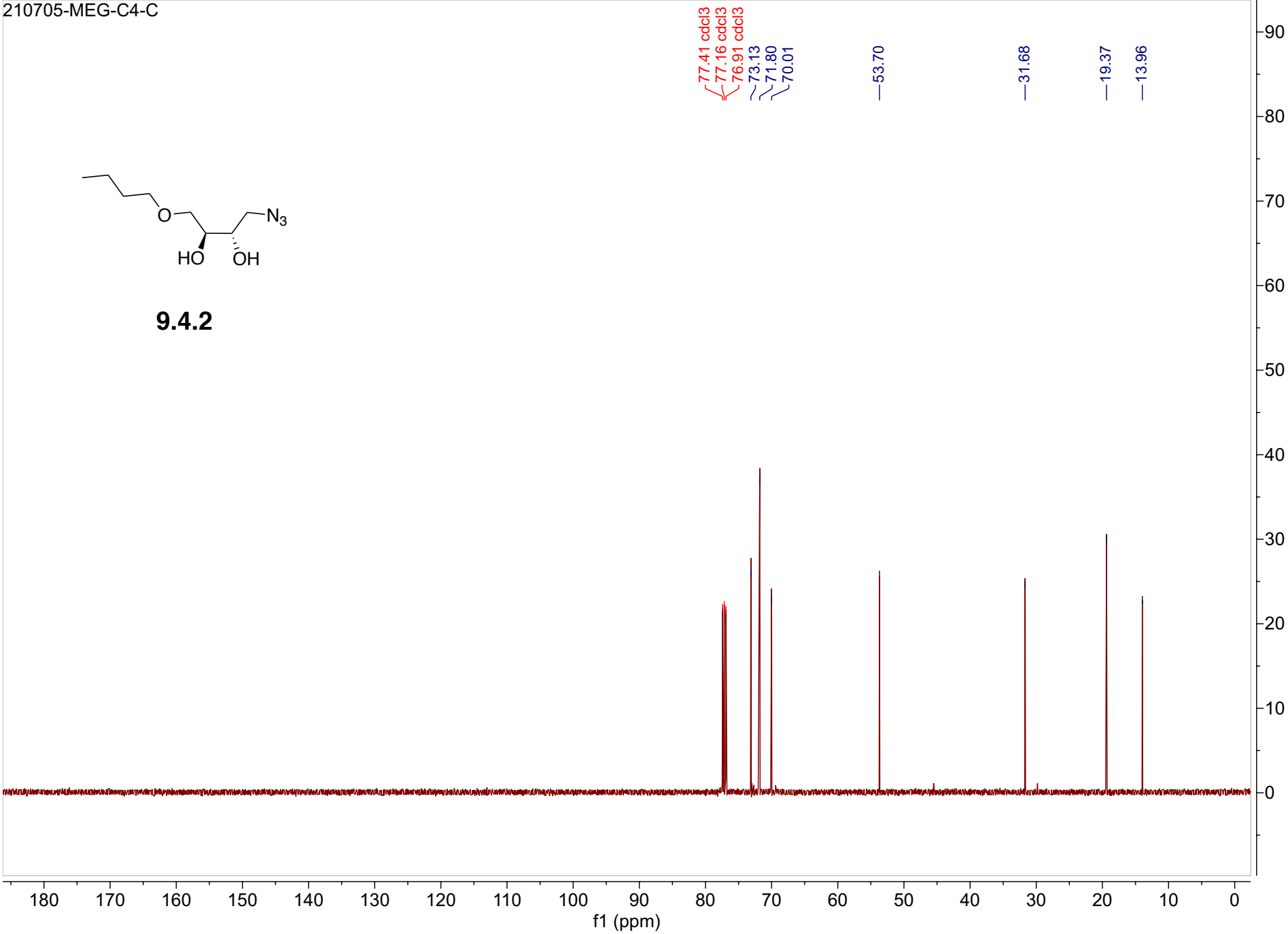


9.4.2





9.4.2



Acq. Data Name: 210705_Best_Lou_MEG-C4_column

Internal Sample Id:

Ionization Mode: ESI+

MS Calibration Name: DART(+)PEG_1000_05202021

Reduction History: Determine m/z[Peak Detect[Centroid,15,Area]; Correct Base[]; Smooth[5]]; Correct Base[5.0%]; Average[MS[1] 0.156..0.175]

Experiment Date/Time: 7/5/2021 11:37:02 AM

Orifice1 Volt Sweep: 10V

Acquired m/z Range: 100.0..300.0

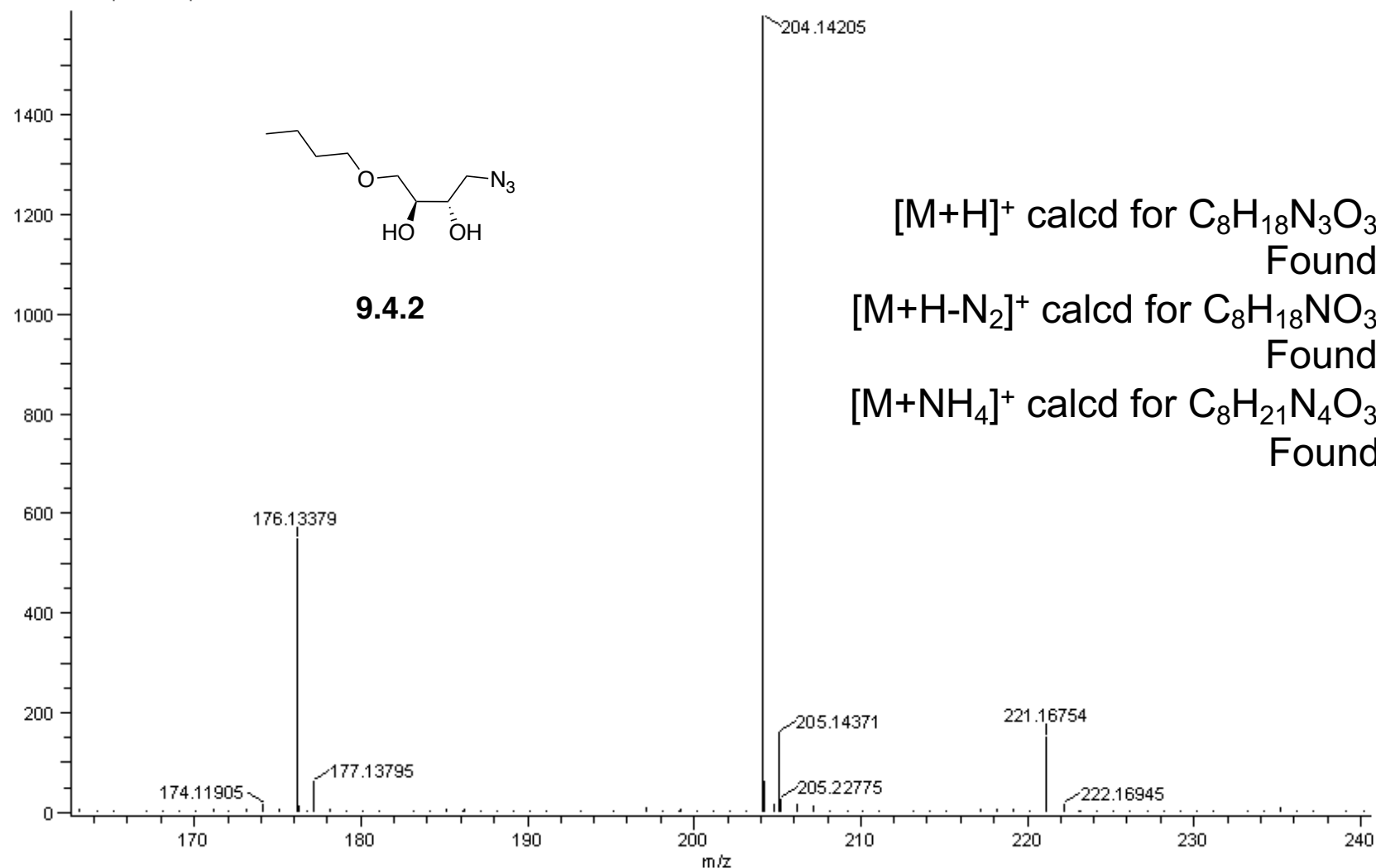
Spec. Record Interval: 1.0[s]

Ring Lens Volt: 5[V]

Time of Maximum: 0.165[min]

Operator Name: jlou4

$\times 10^3$ Area (1598676)



$[M+H]^+$ calcd for $C_8H_{18}N_3O_3$: 204.1348

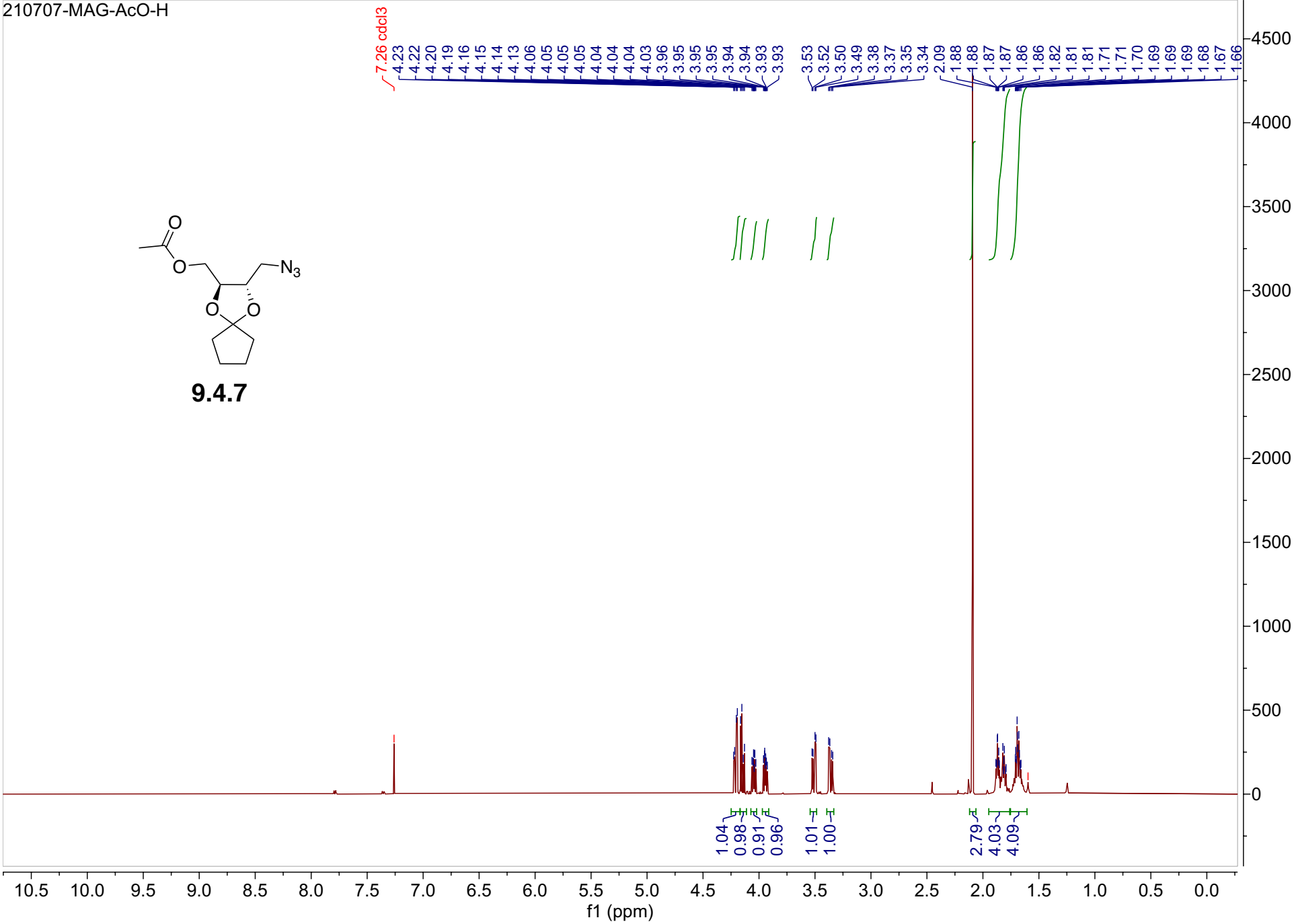
Found: 204.1420

$[M+H-N_2]^+$ calcd for $C_8H_{18}NO_3$: 176.1287

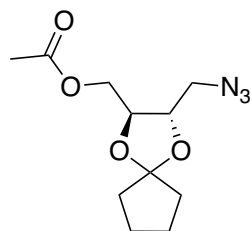
Found: 176.1338

$[M+NH_4]^+$ calcd for $C_8H_{21}N_4O_3$: 221.1614

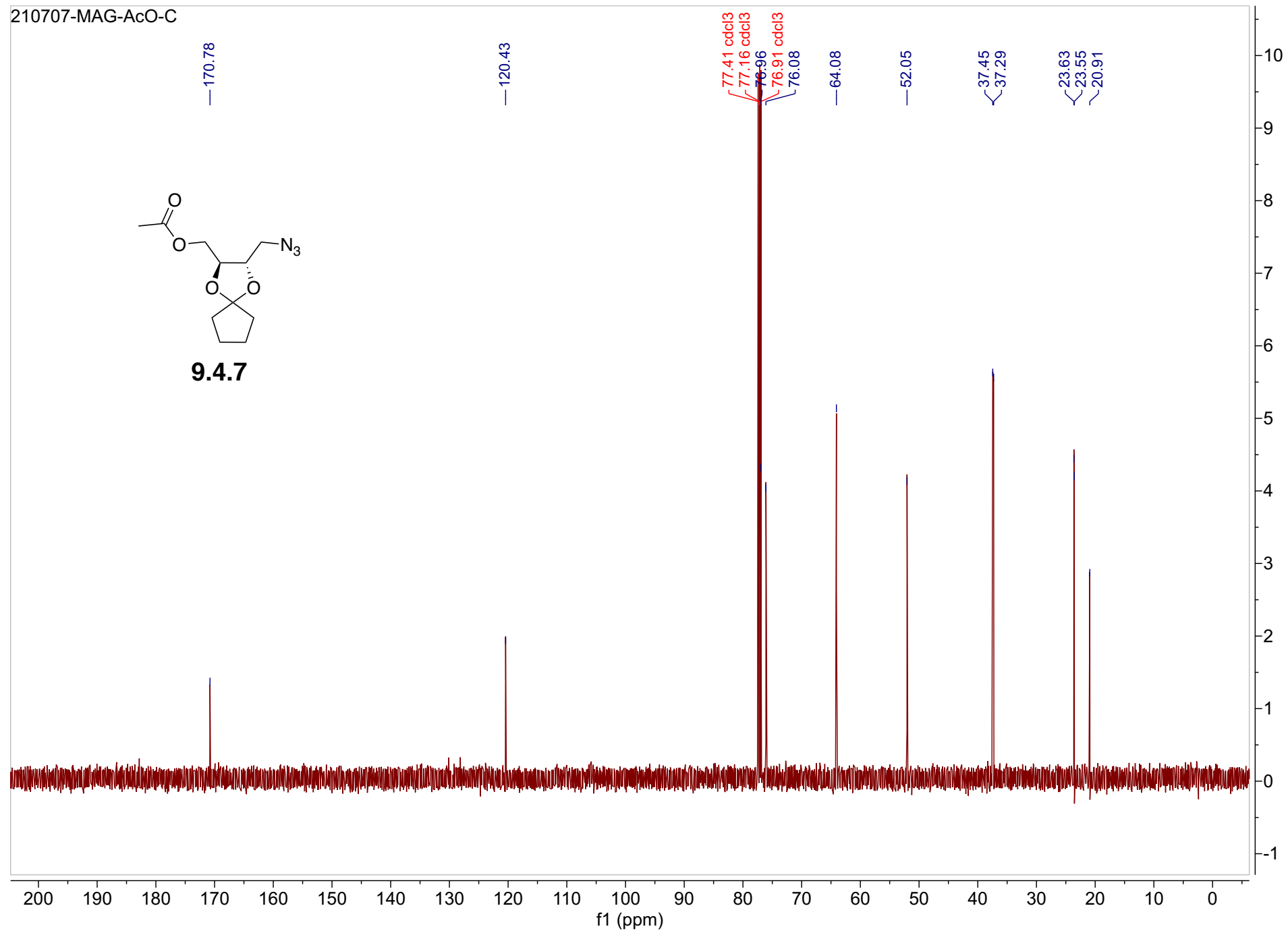
Found: 211.1675

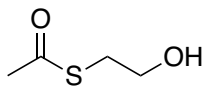


210707-MAG-AcO-C

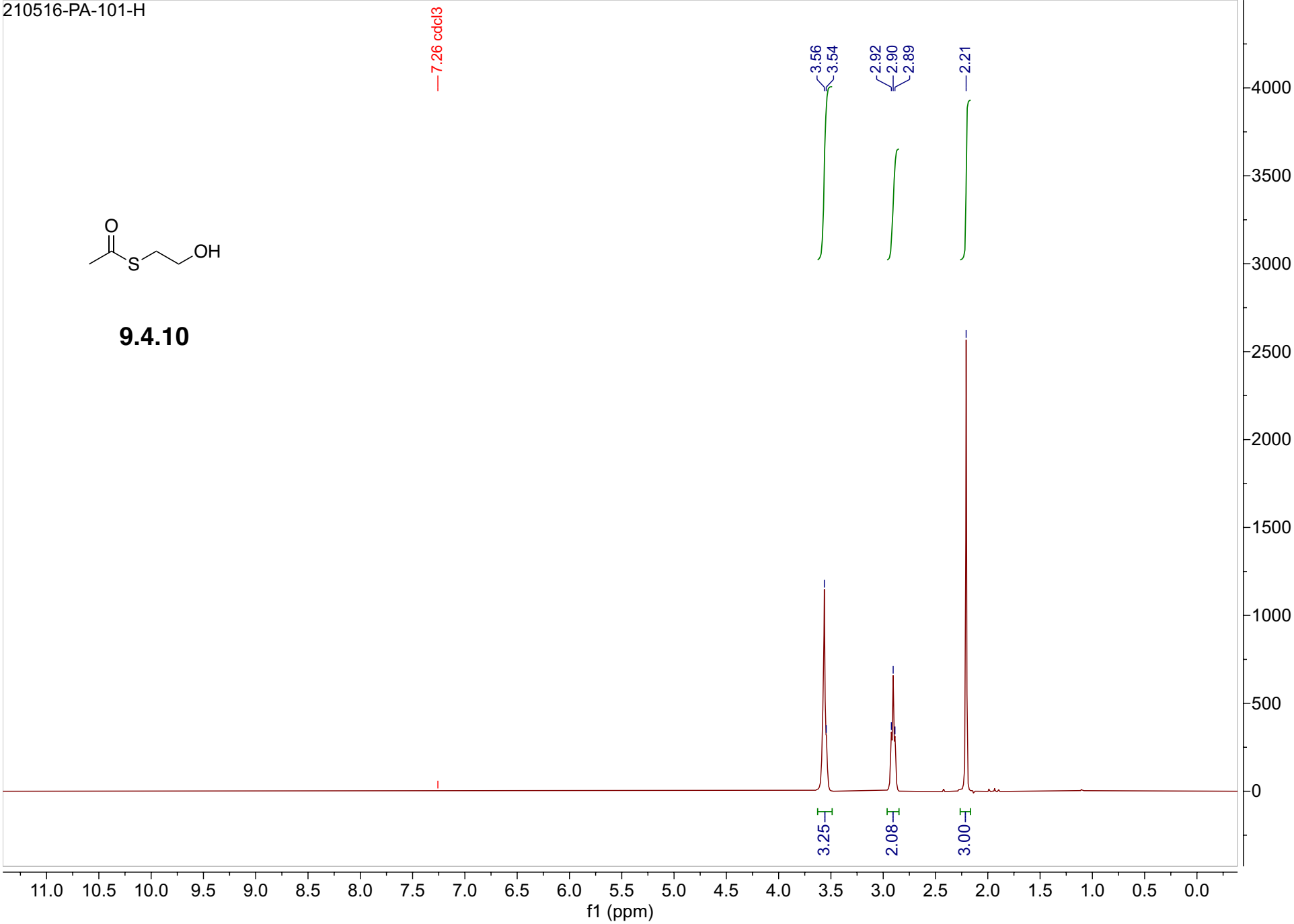


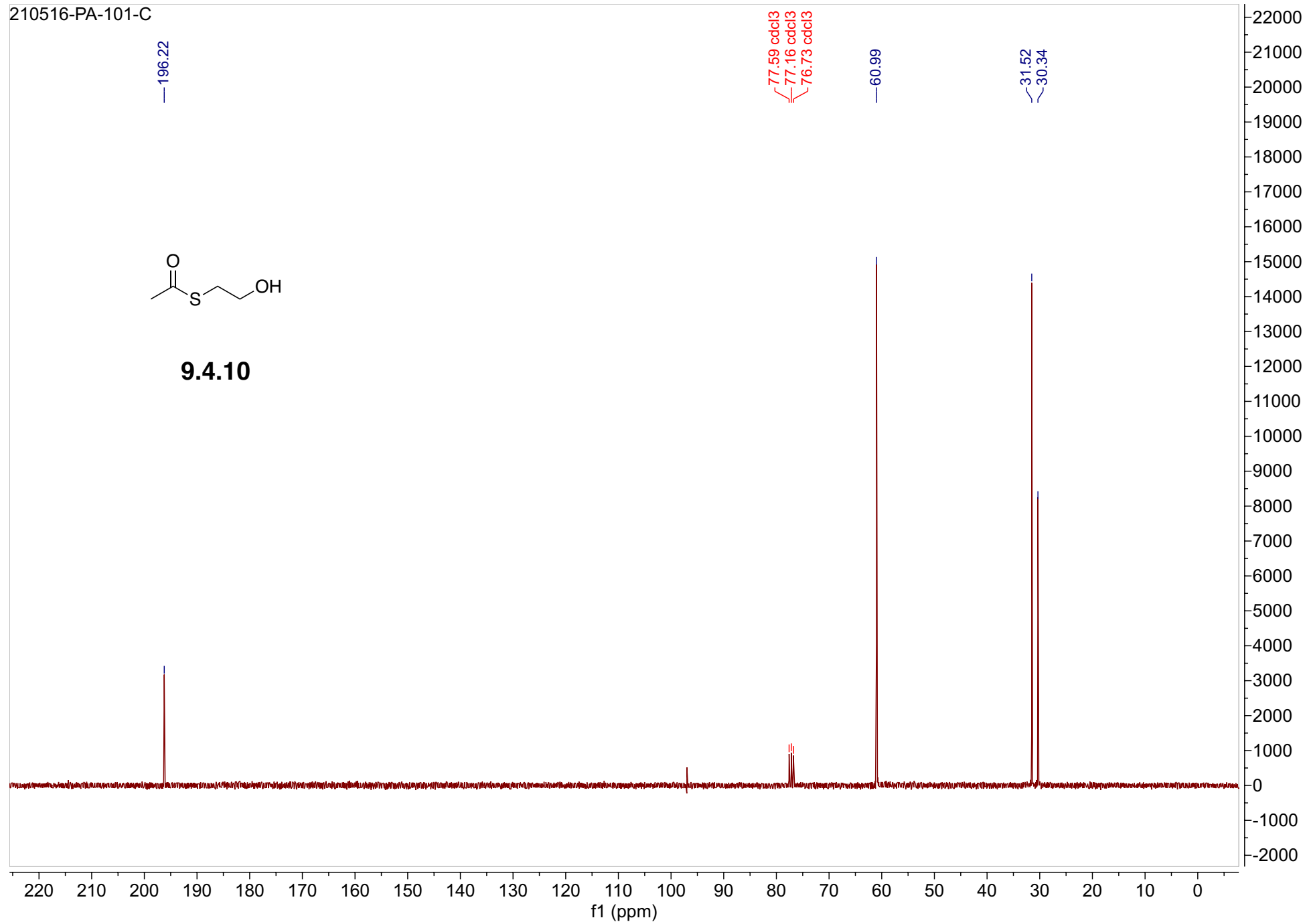
9.4.7

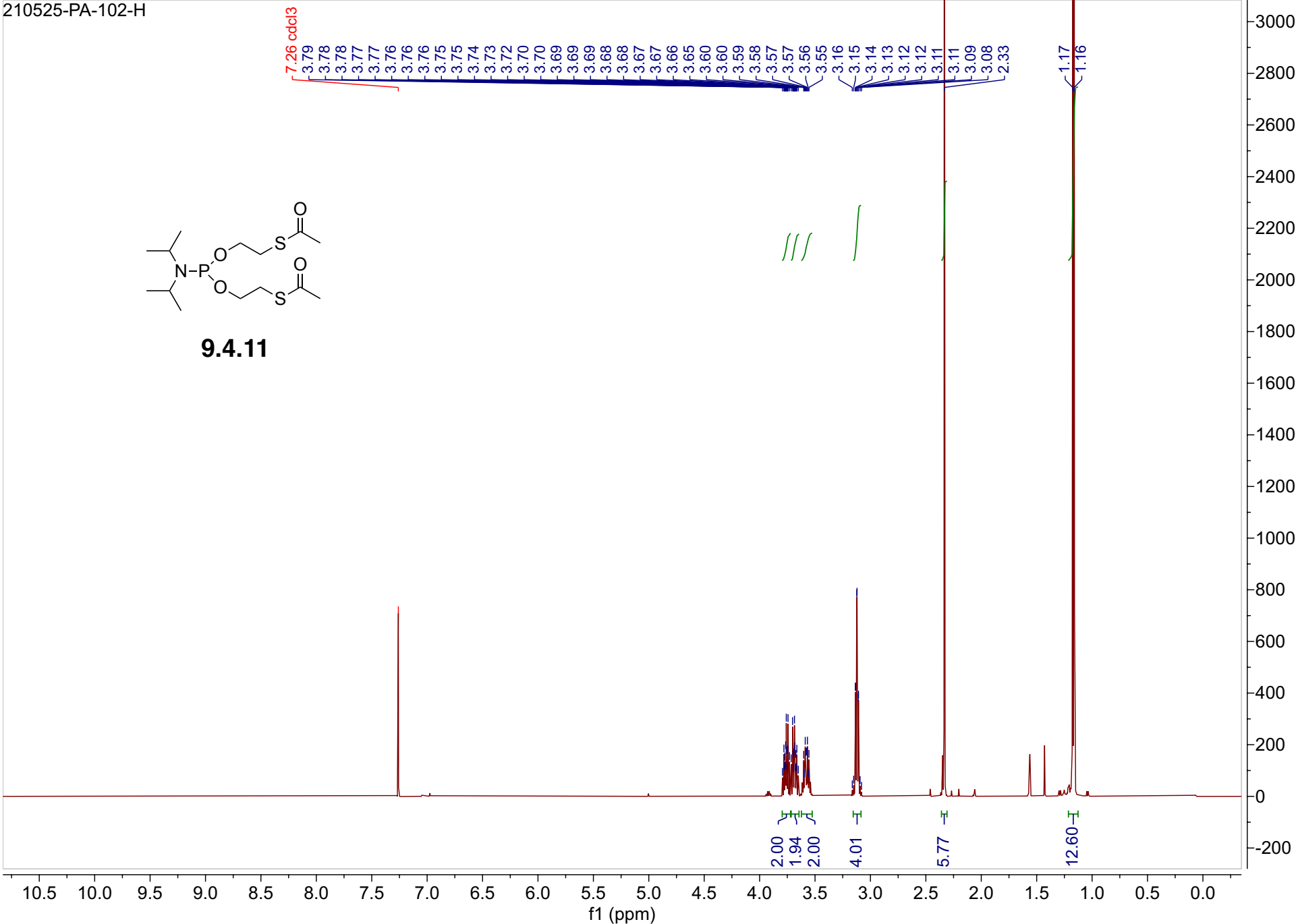


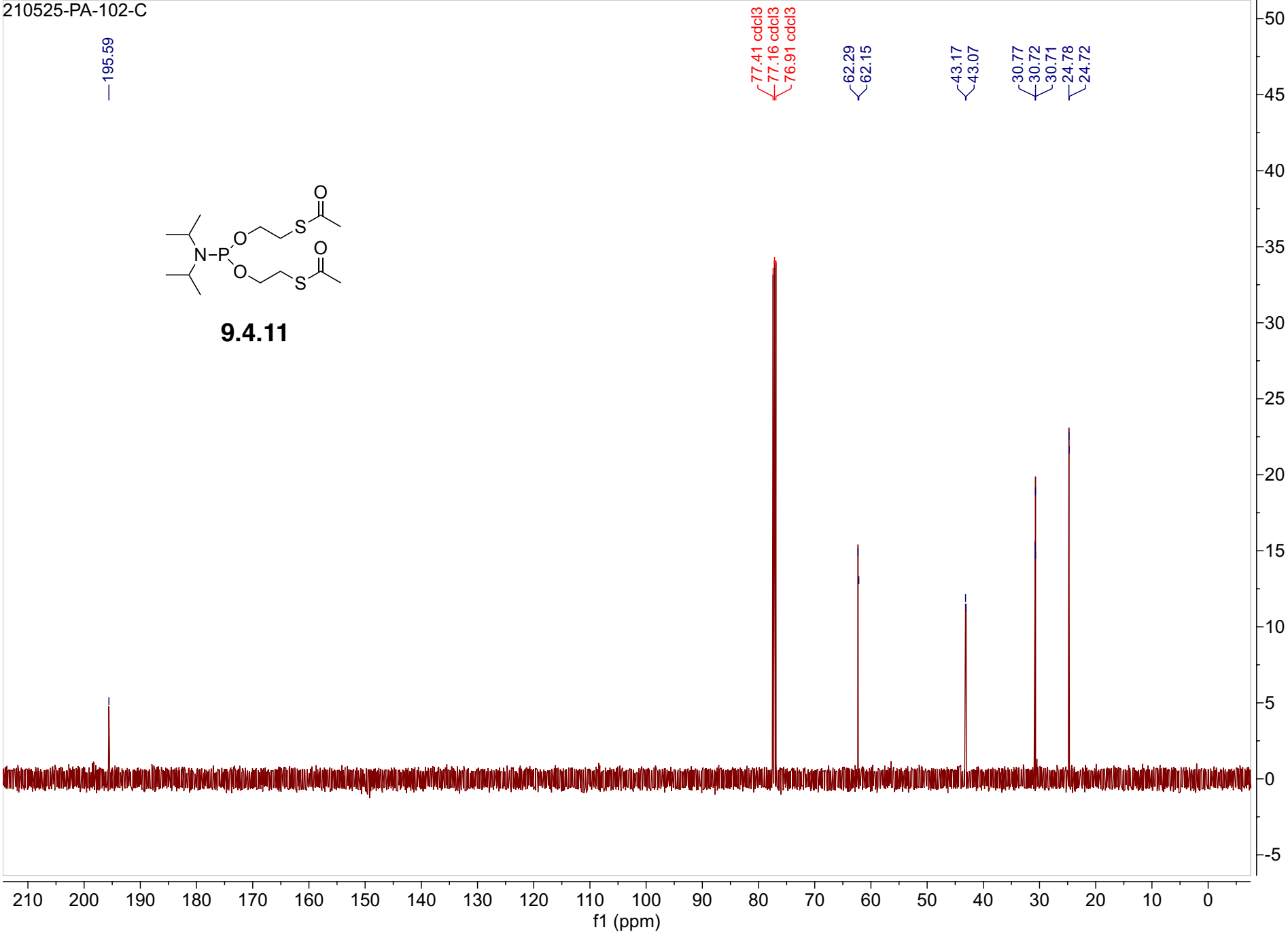


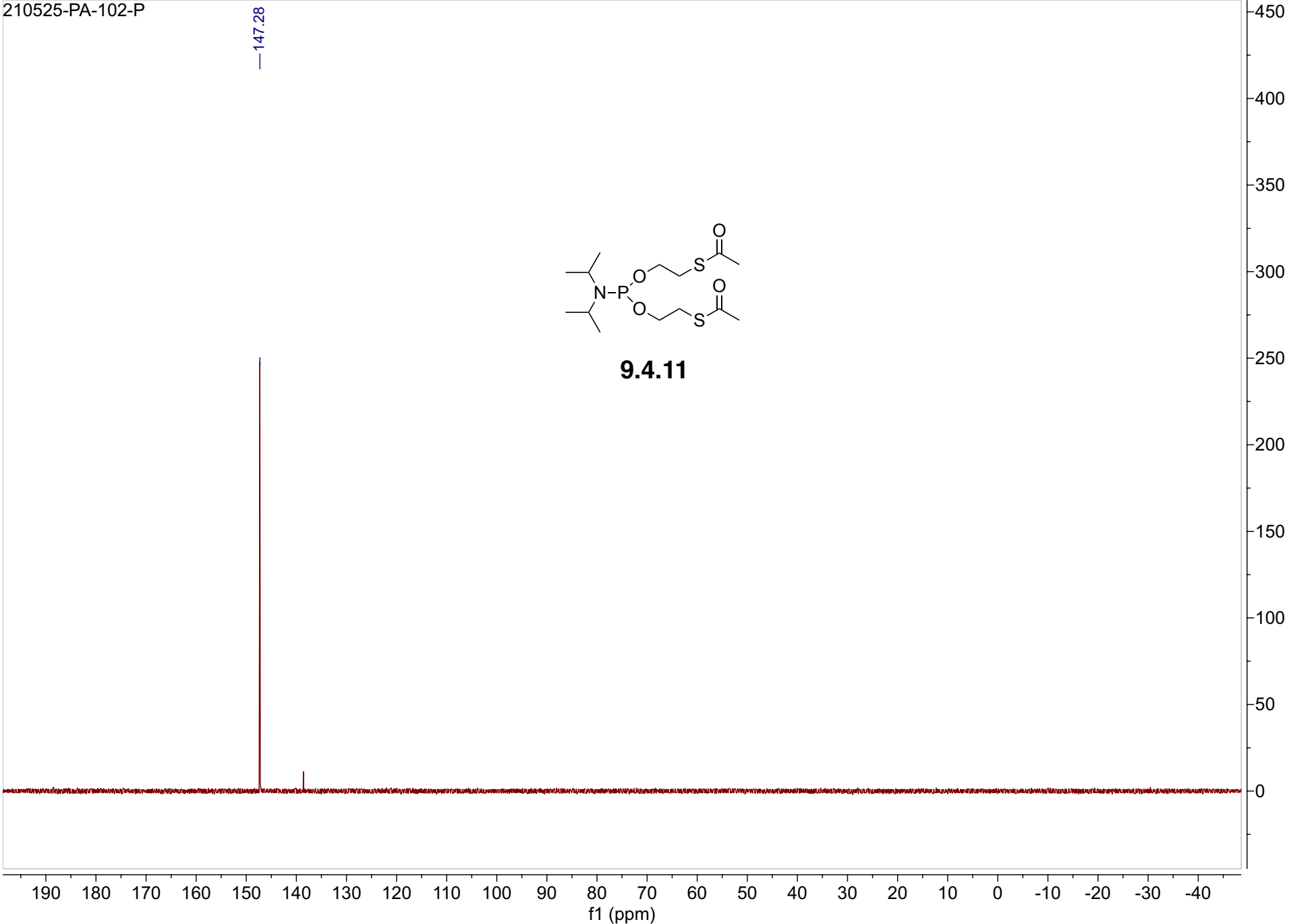
9.4.10

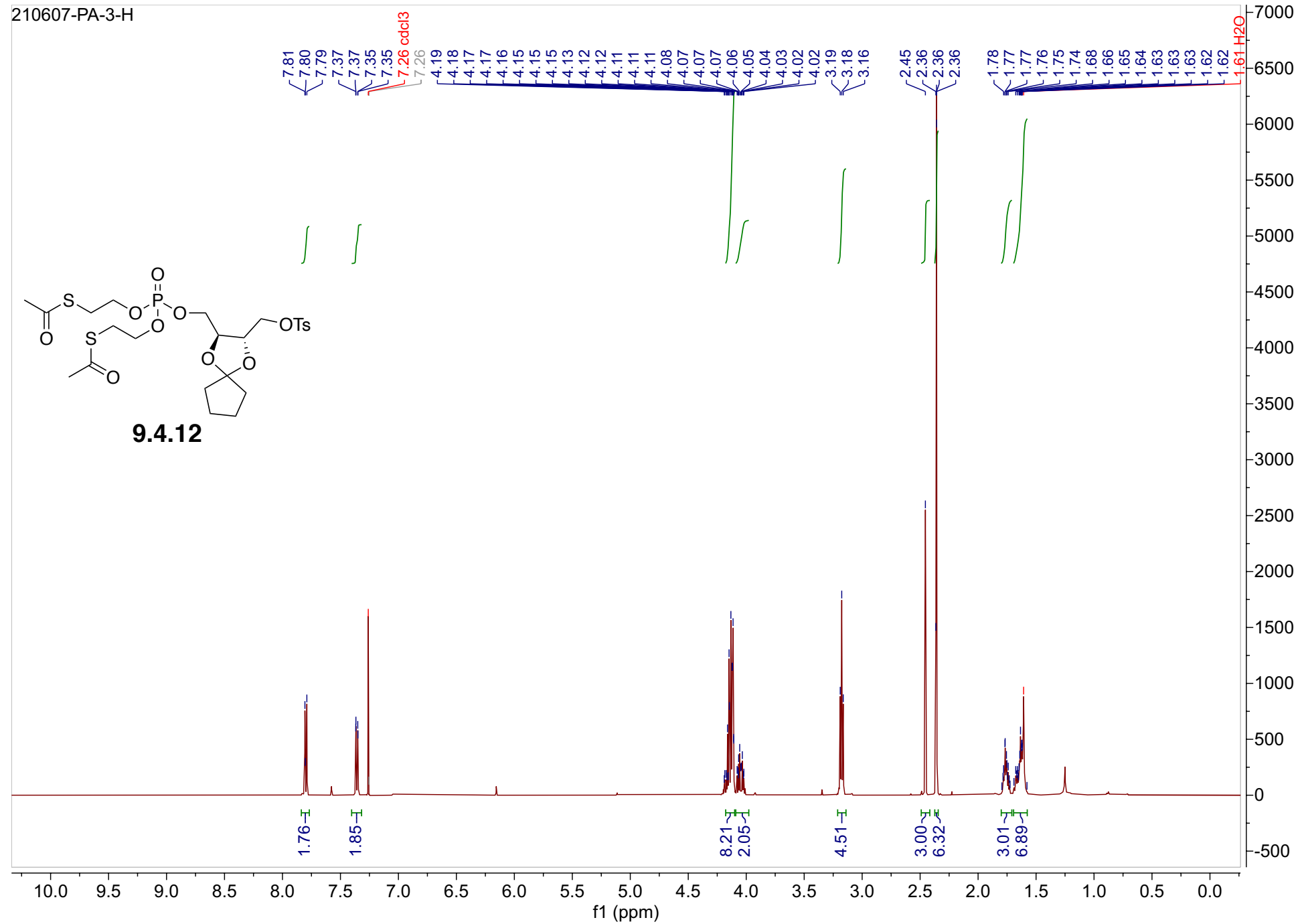


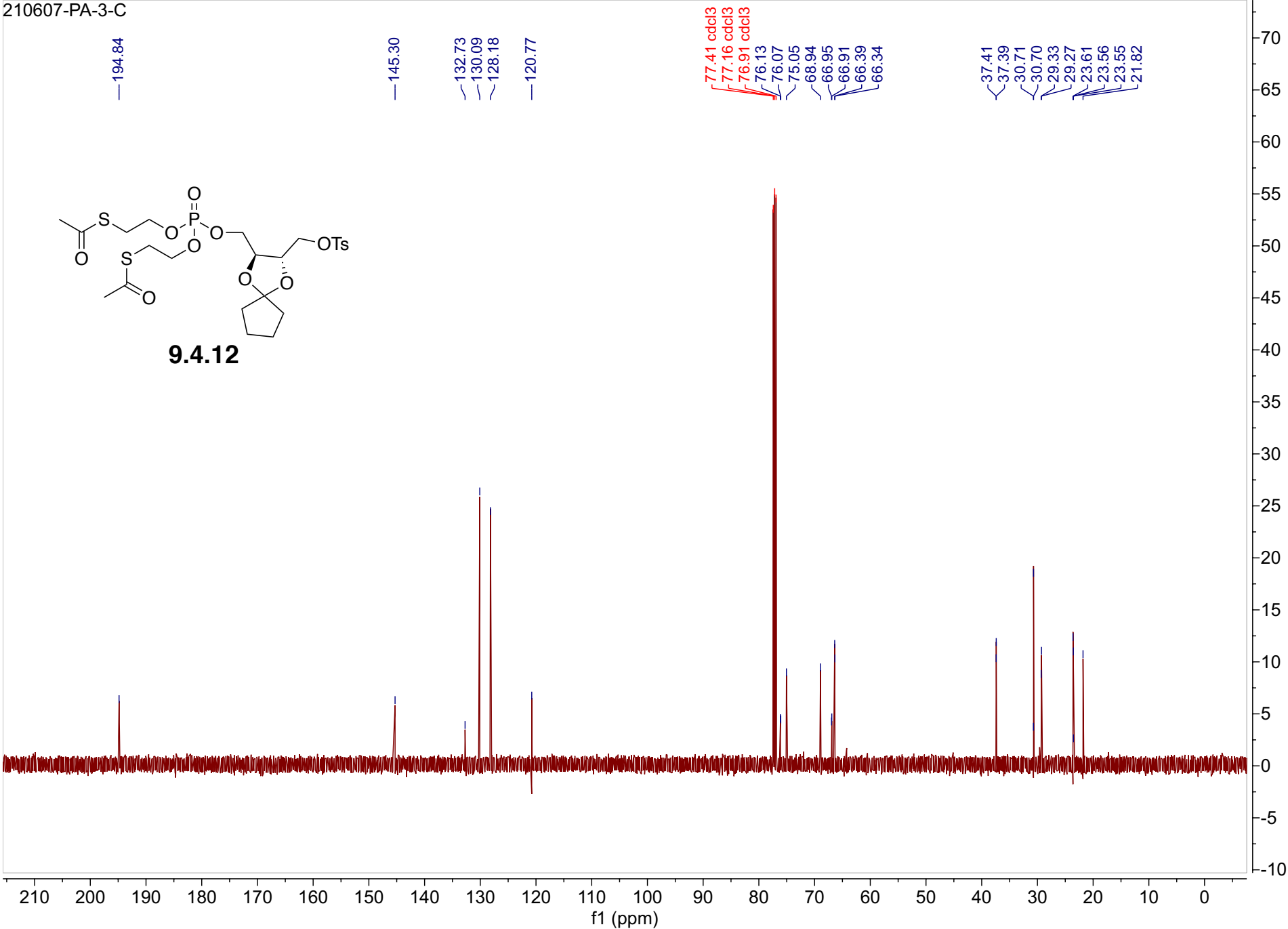


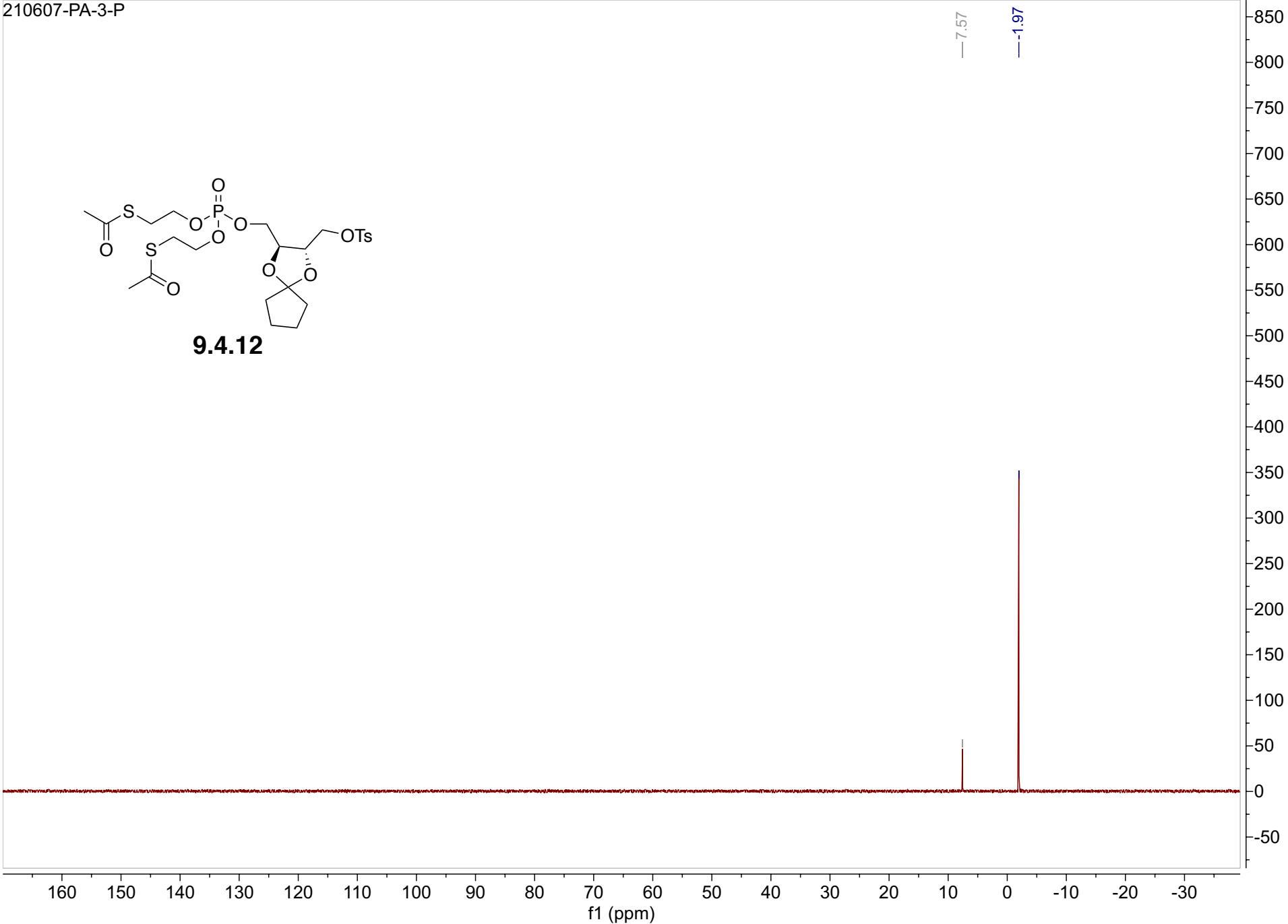


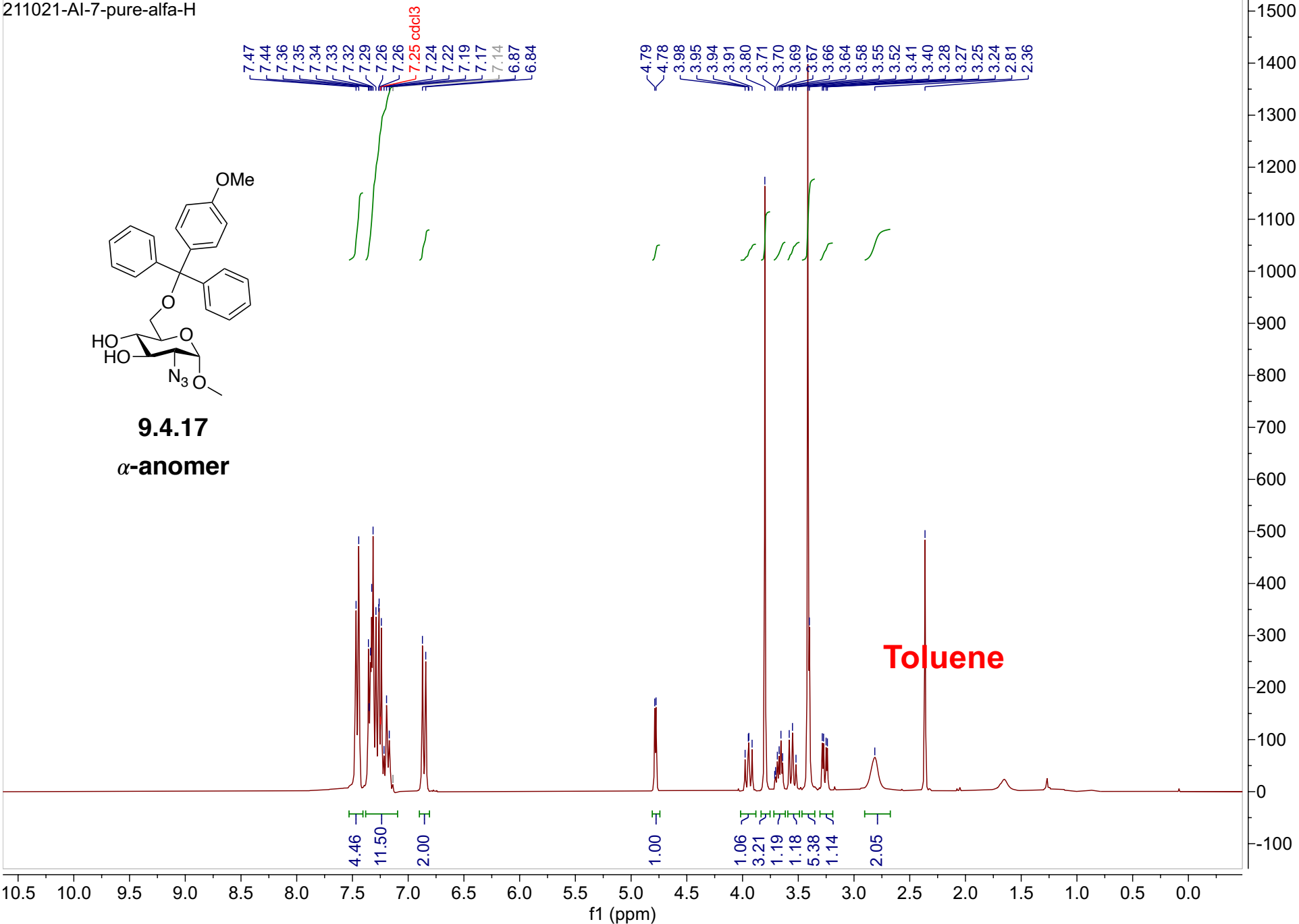


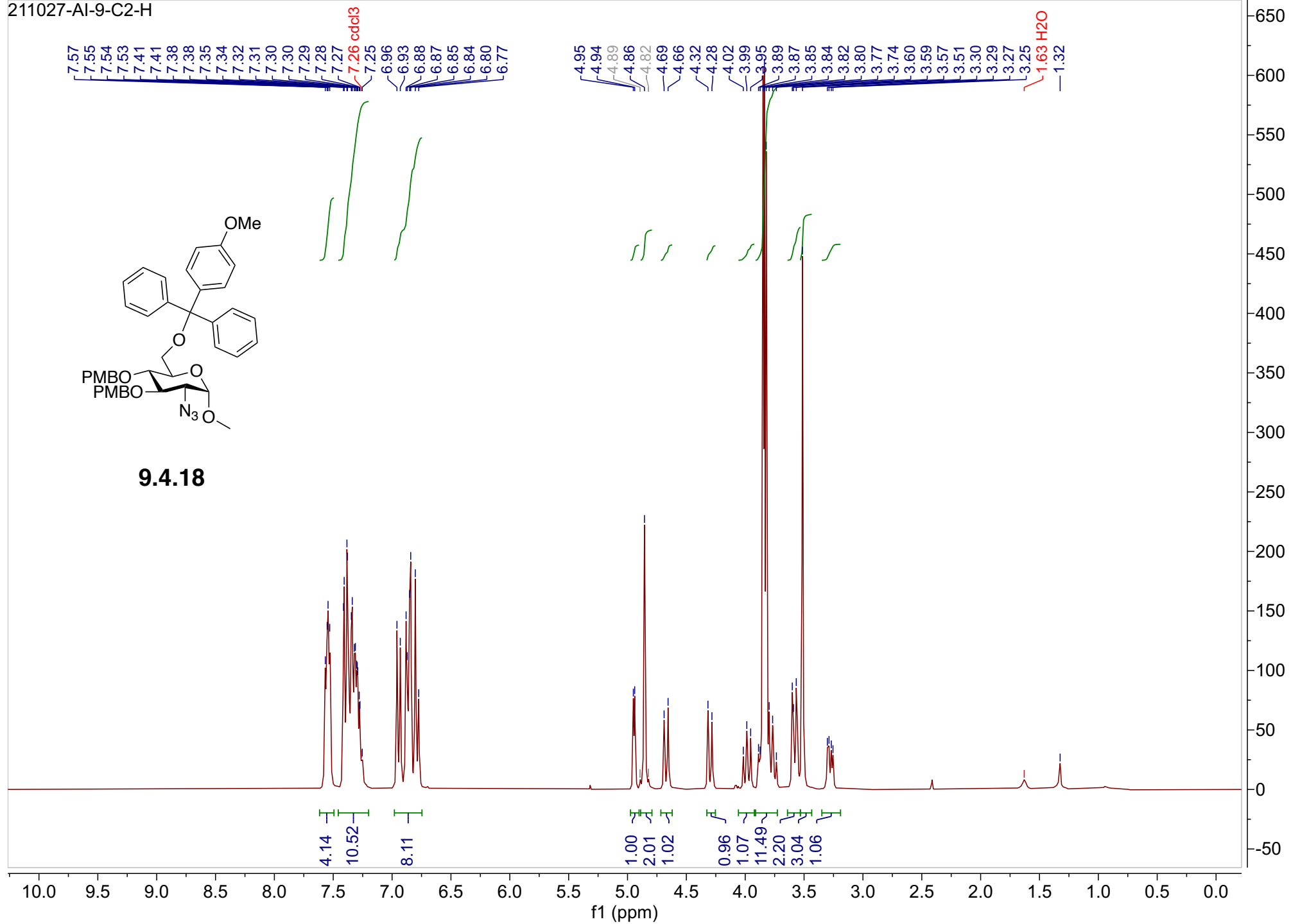


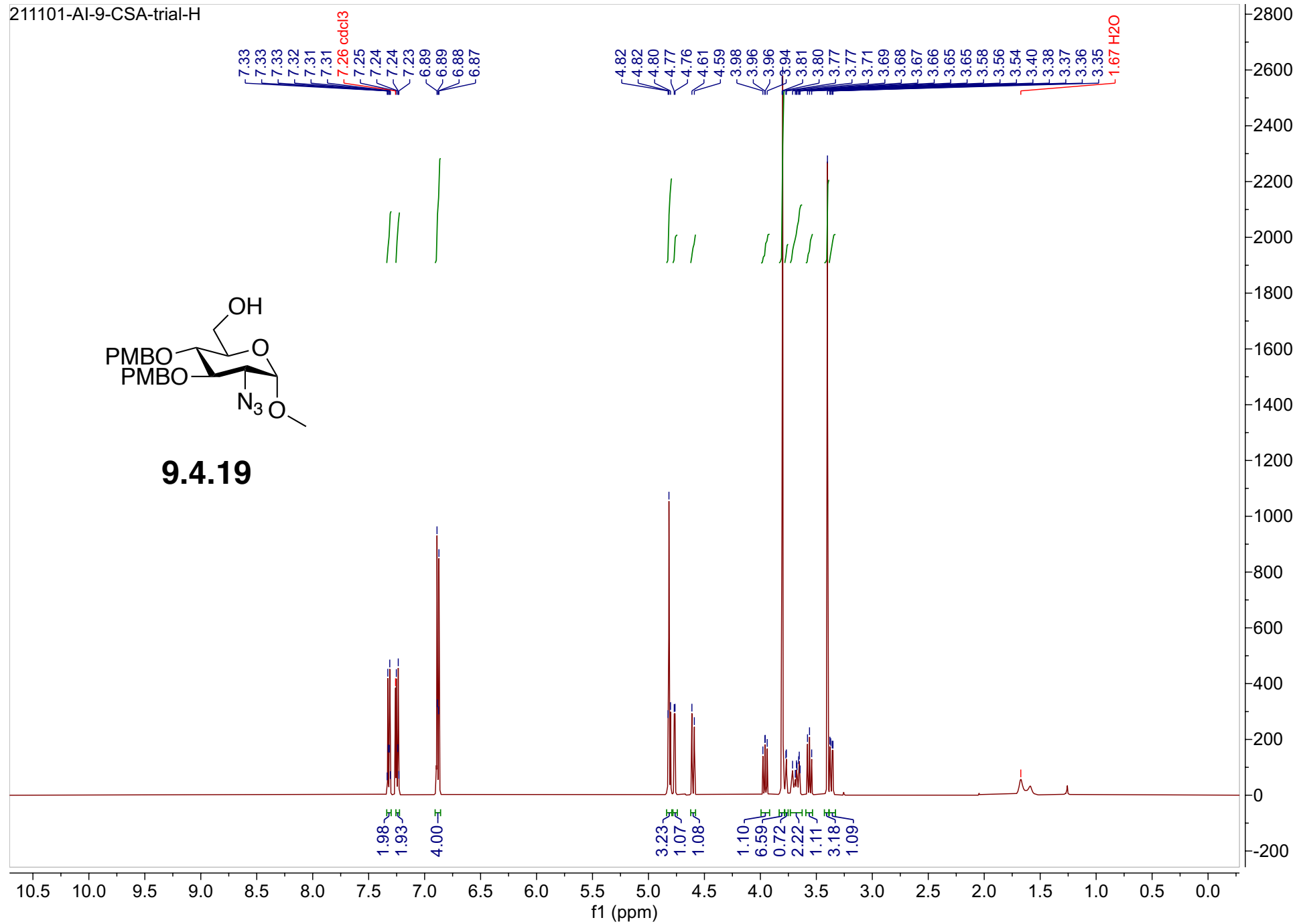


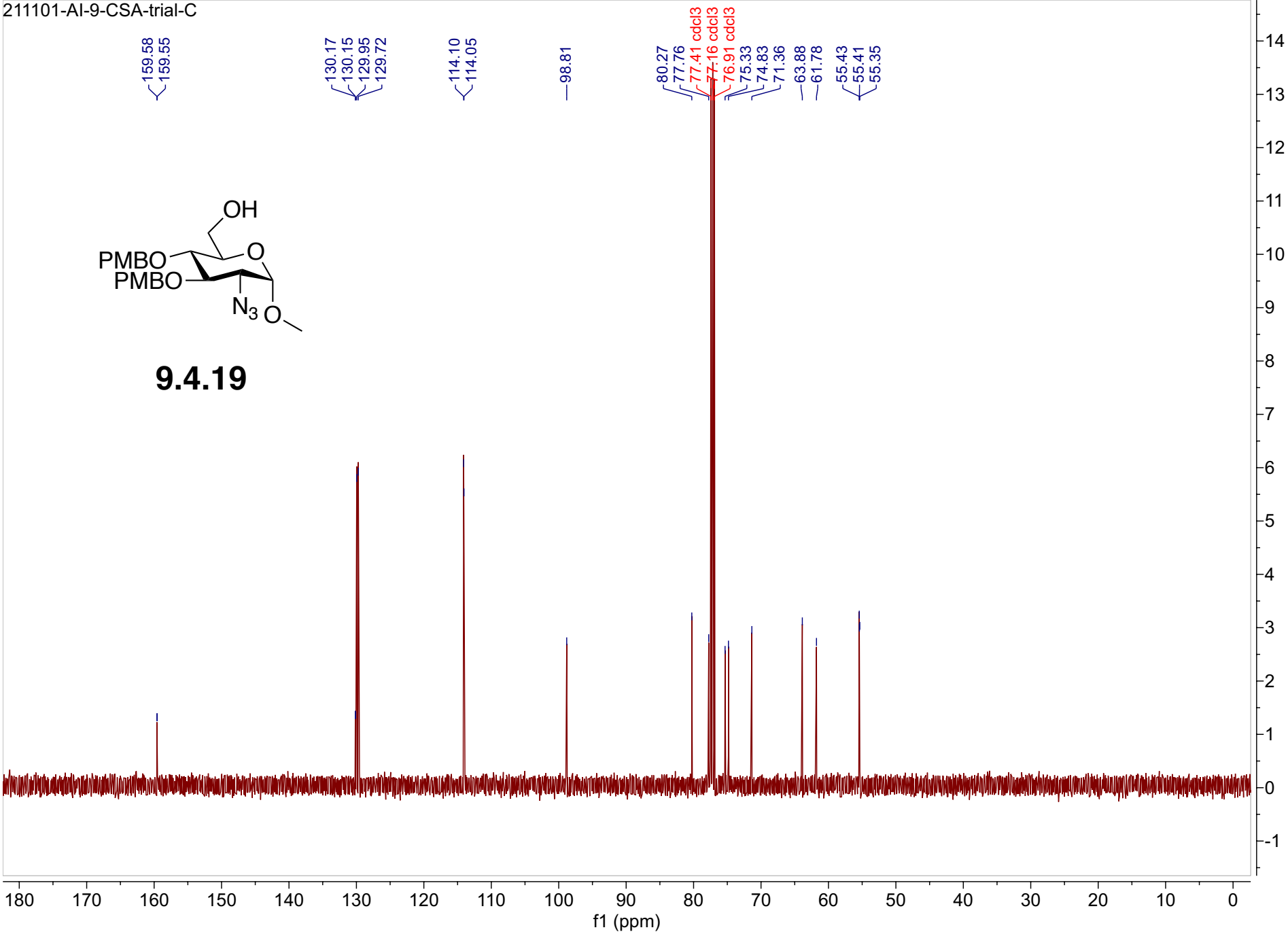


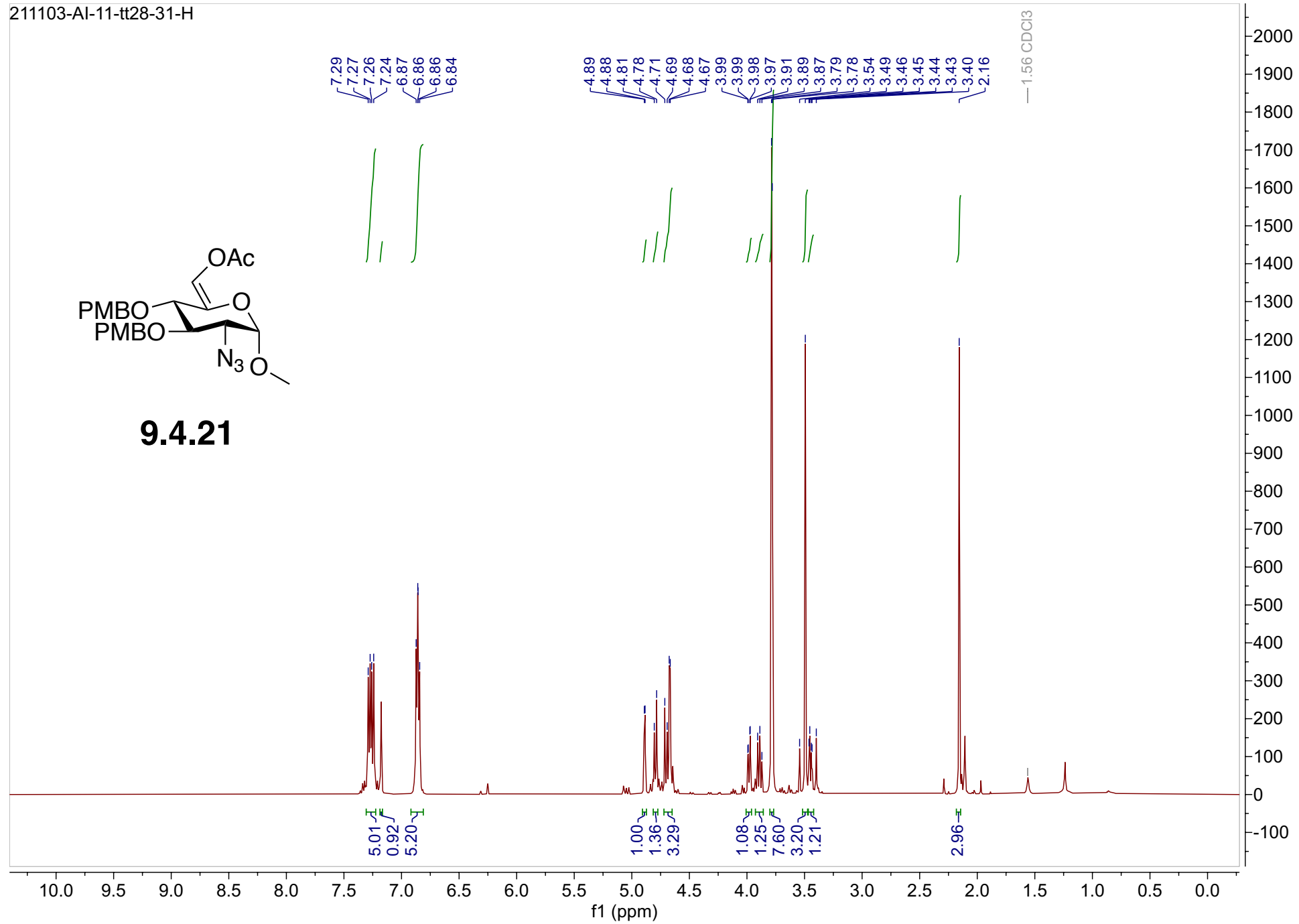


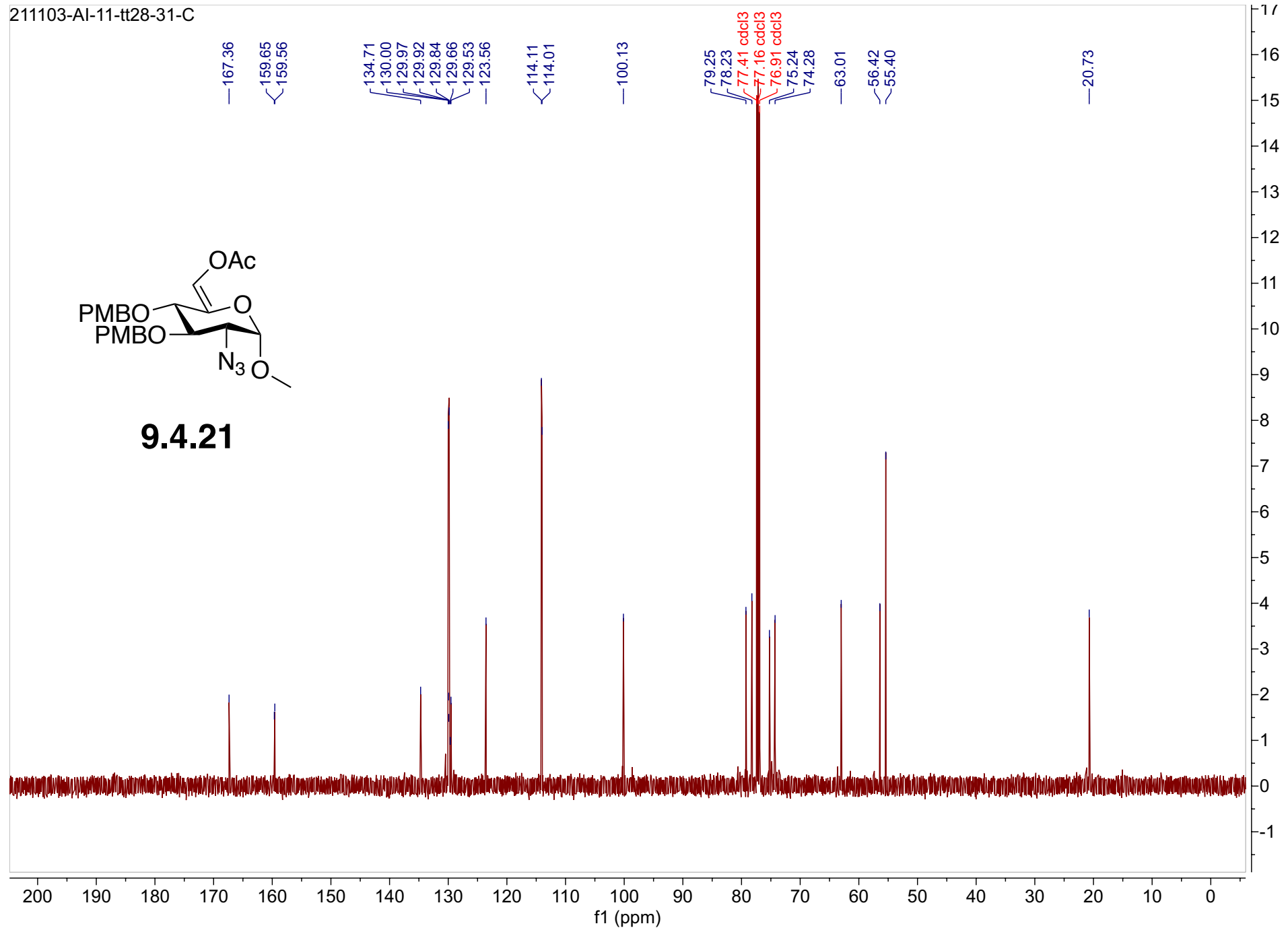


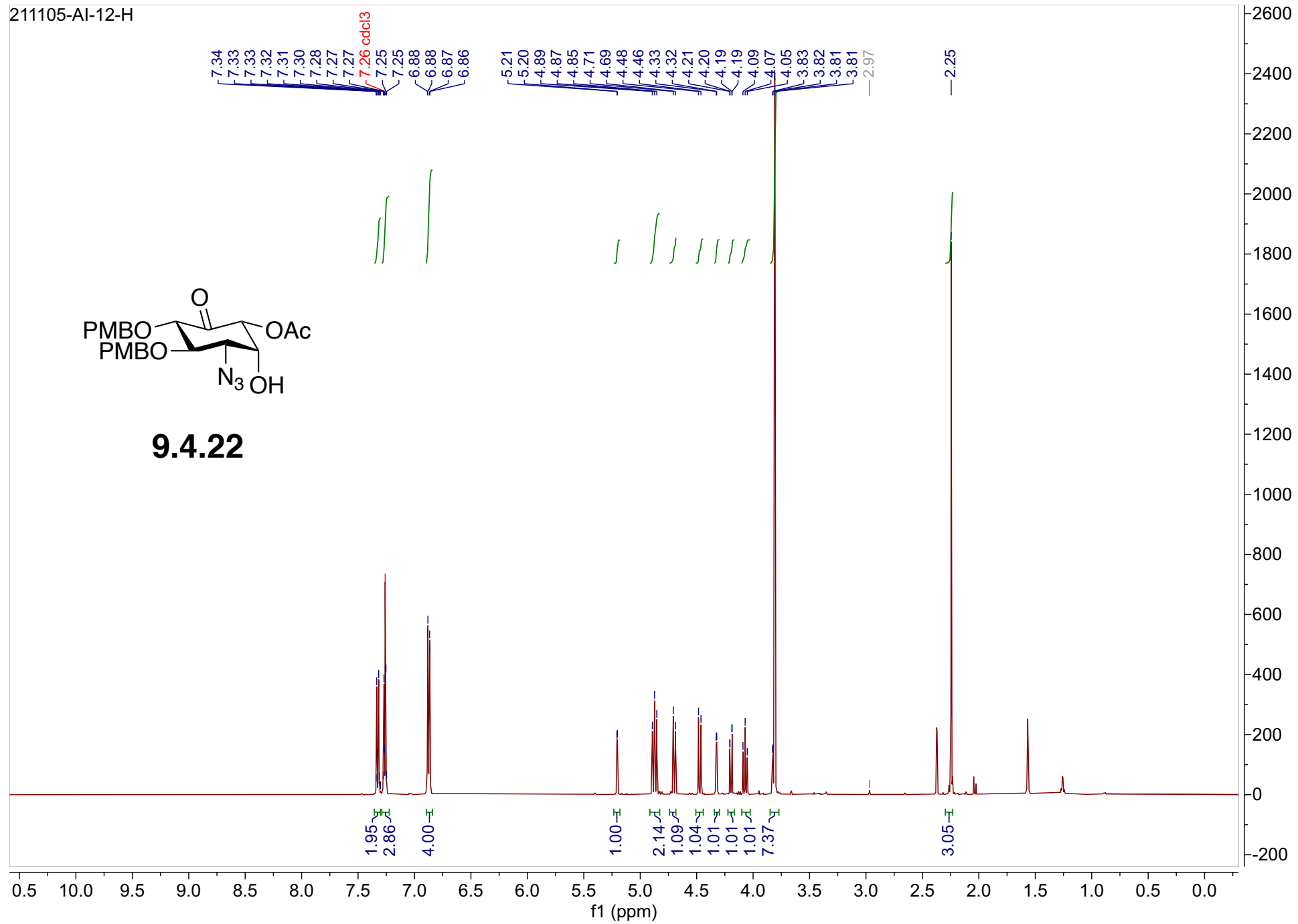


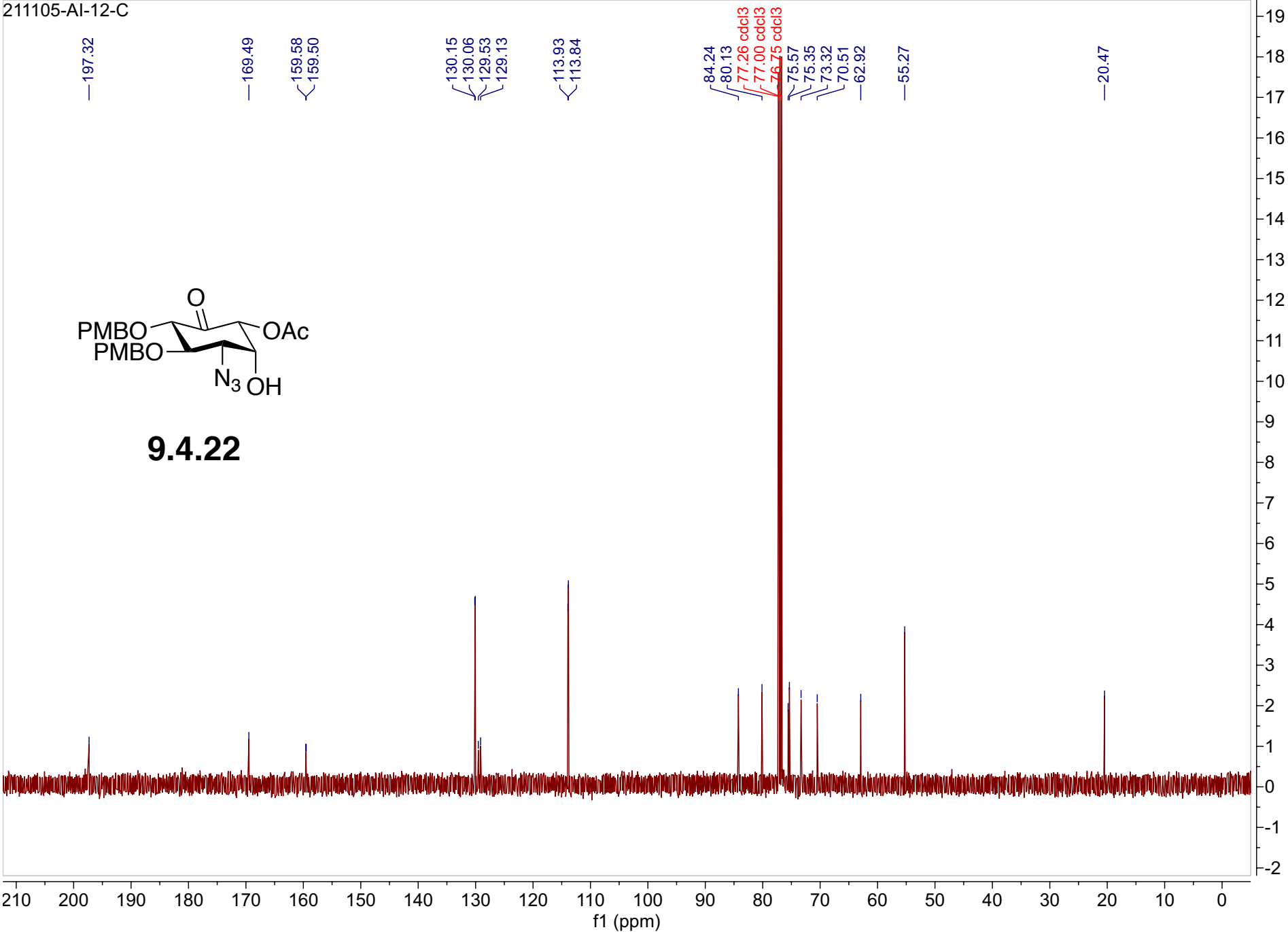


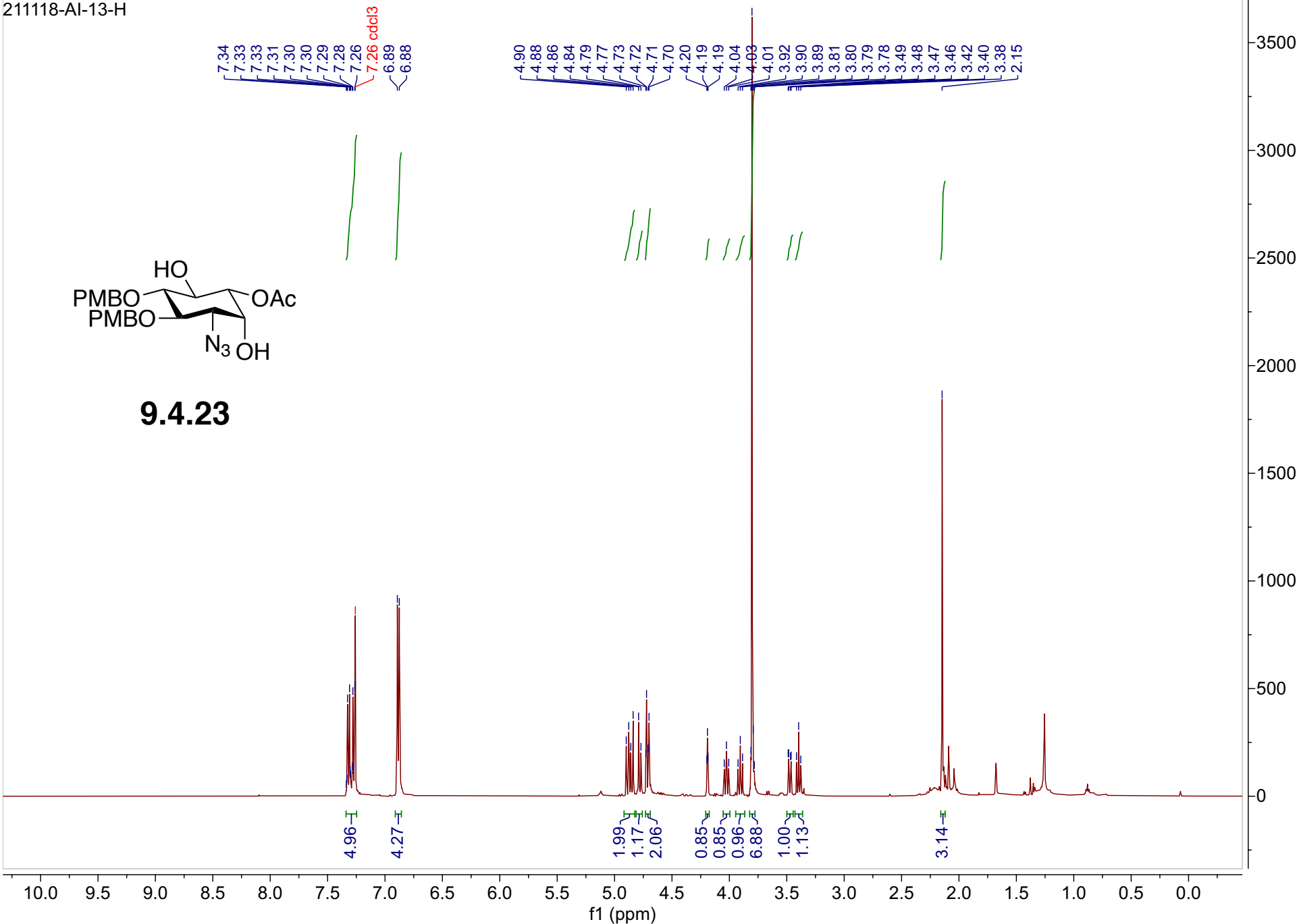


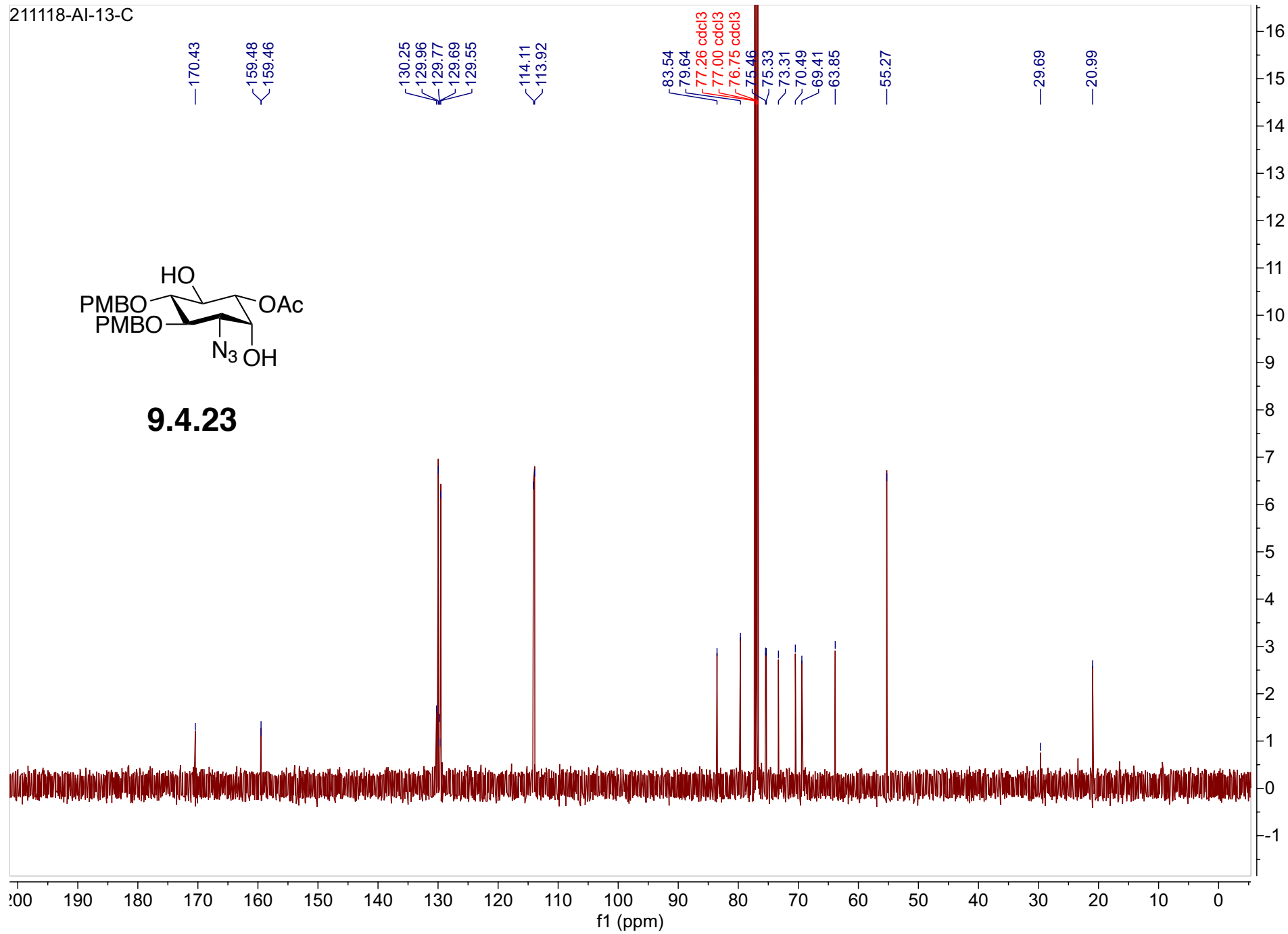


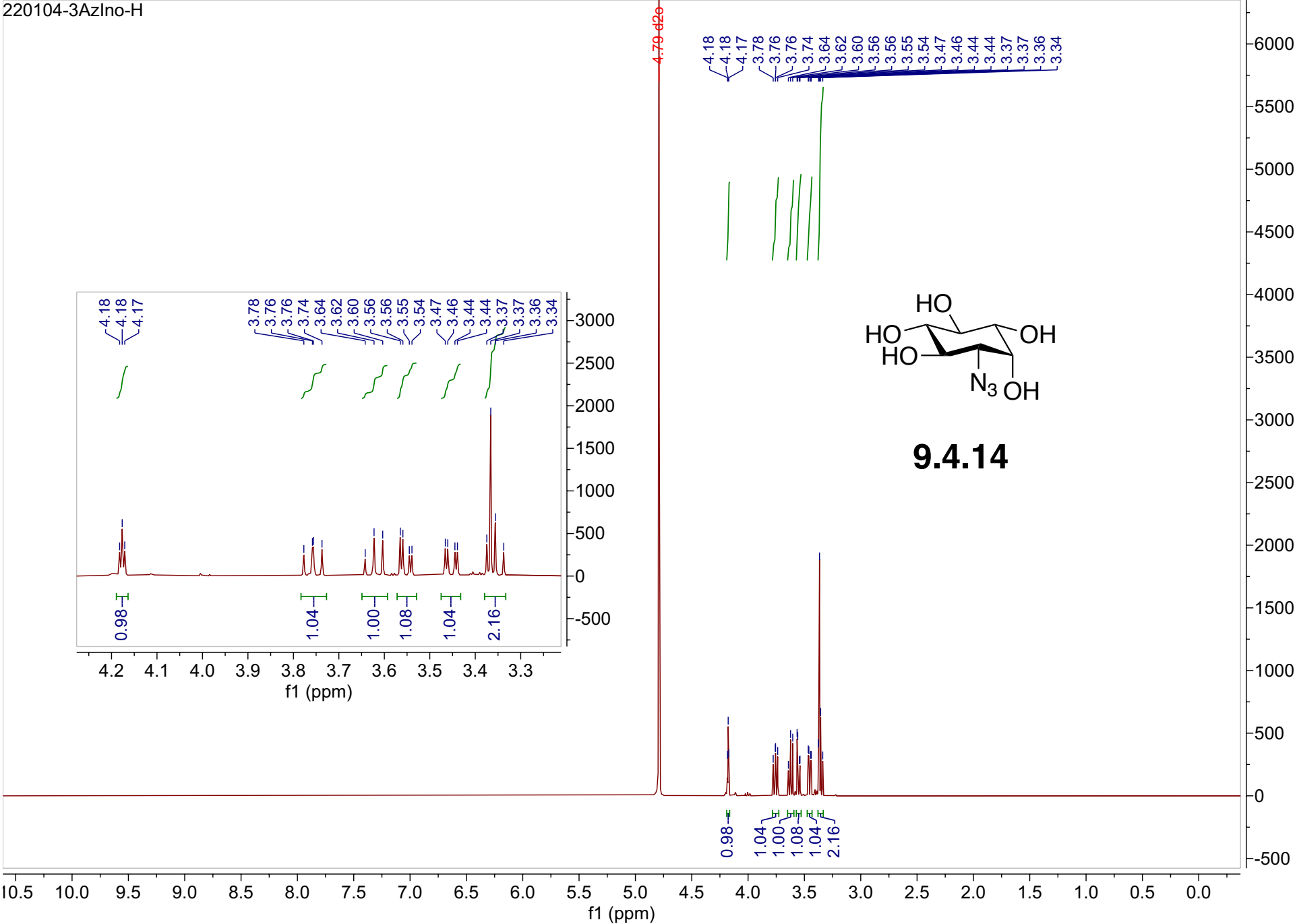


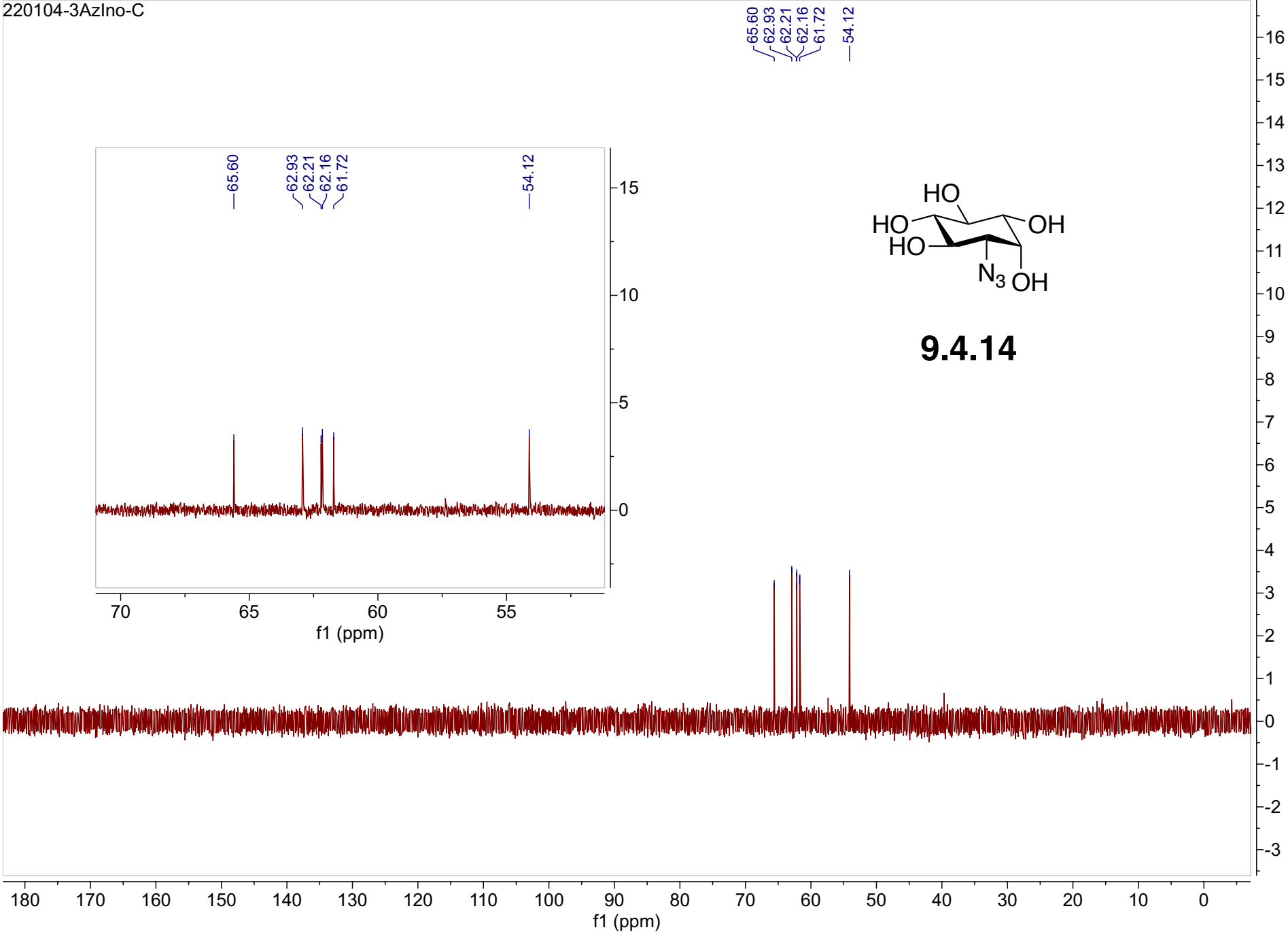












Acq. Data Name: 220104_Best_Lou_3Azno-2

Internal Sample Id:

Ionization Mode: ESI+

MS Calibration Name: DART(+)PEG_1000_05202021

Reduction History: Determine m/z[Peak Detect[Centroid,15,Area]; Correct Base[]; Smooth[5]; Correct Base(5.0%); Average(MS[1] 1.111..1.144)

Experiment Date/Time: 1/4/2022 3:36:15 PM

Orifice1 Volt Sweep: 30V

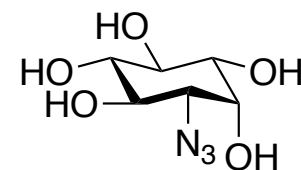
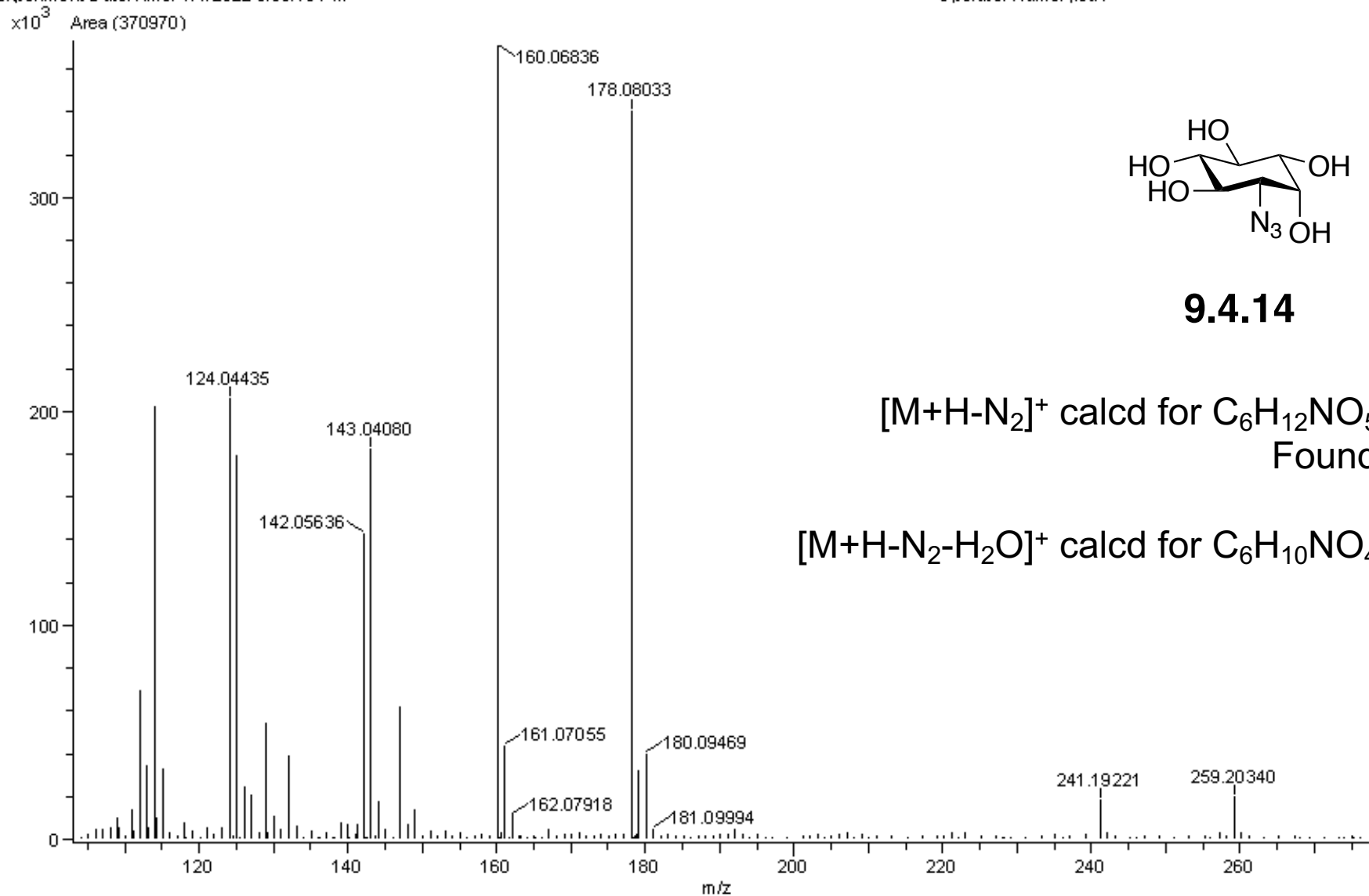
Acquired m/z Range: 100.0..350.0

Spec. Record Interval: 1.0[s]

Ring Lens Volt: 5[V]

Time of Maximum: 1.127[min]

Operator Name: jlou4



9.4.14

$[M+H-N_2]^+$ calcd for C₆H₁₂NO₅: 178.0715

Found: 178.0803

$[M+H-N_2-H_2O]^+$ calcd for C₆H₁₀NO₄: 160.0610

160.0684