Supporting Information

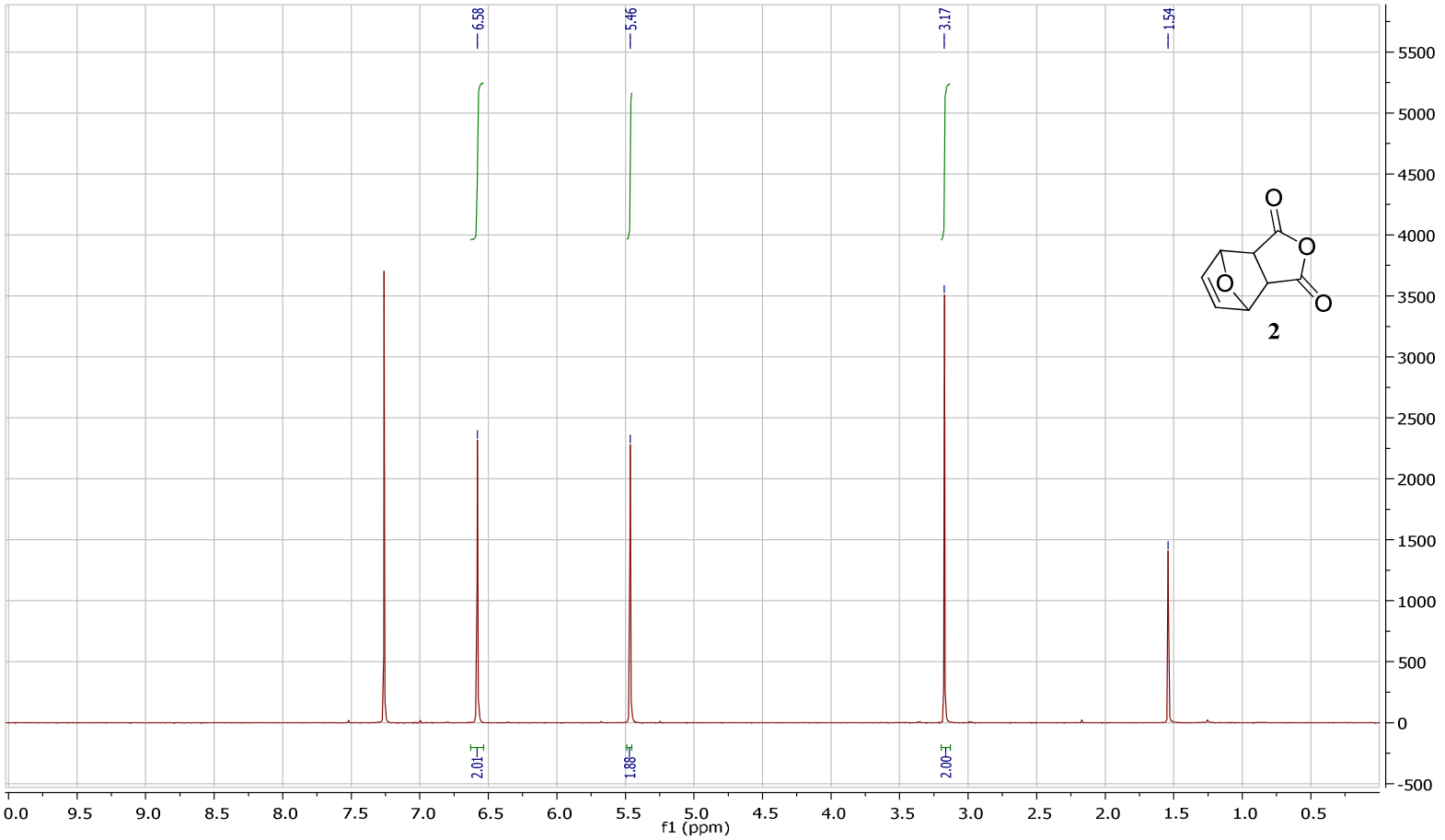
Aarhus Sensor Green: A Fluorescent Probe for Singlet Oxygen

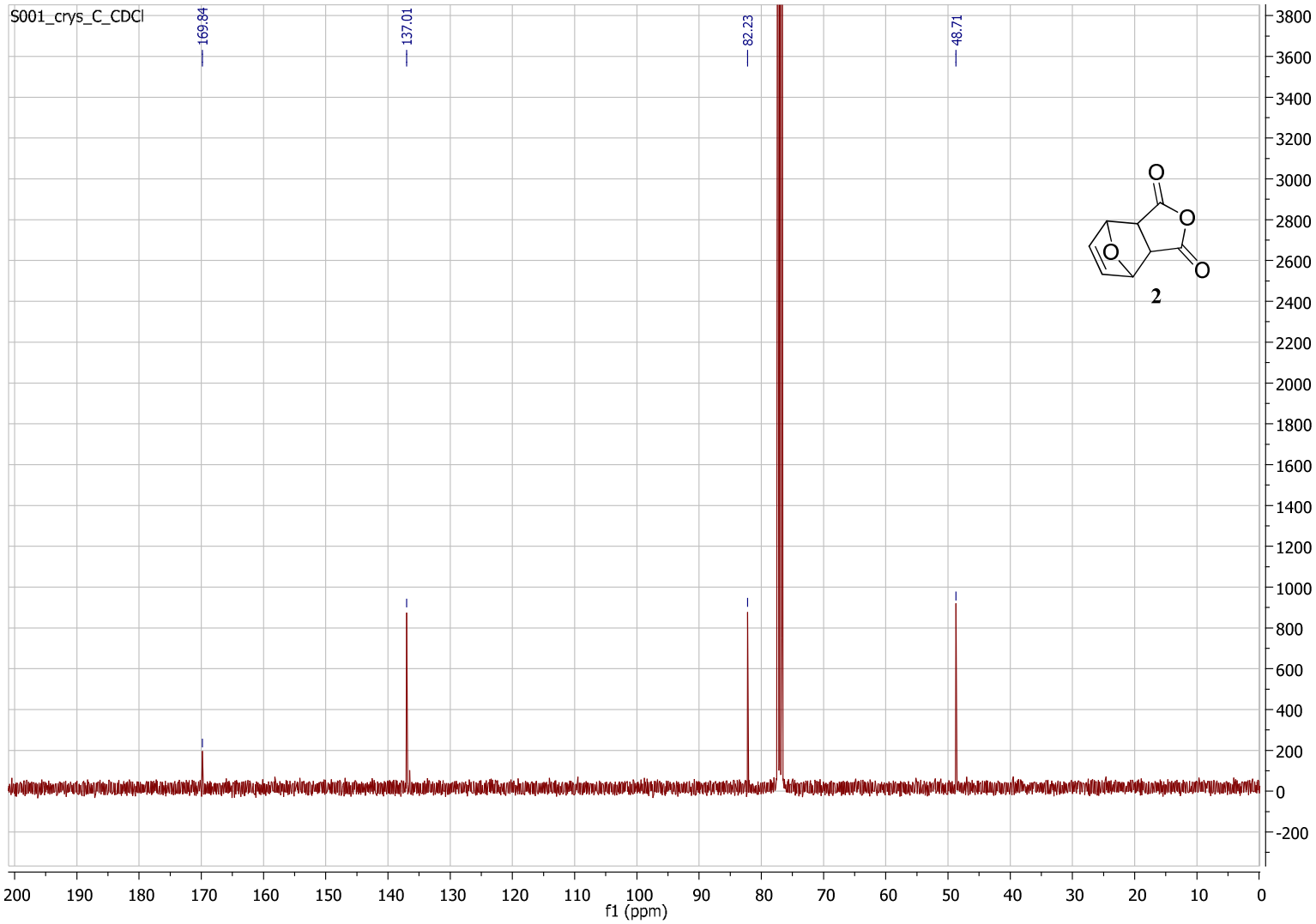
Stephan K. Pedersen,[†] Jeppe Holmehave,[†] Frances H. Blaikie, Anita Gollmer, Thomas Breitenbach, Henrik Helligsø Jensen, and Peter R. Ogilby*

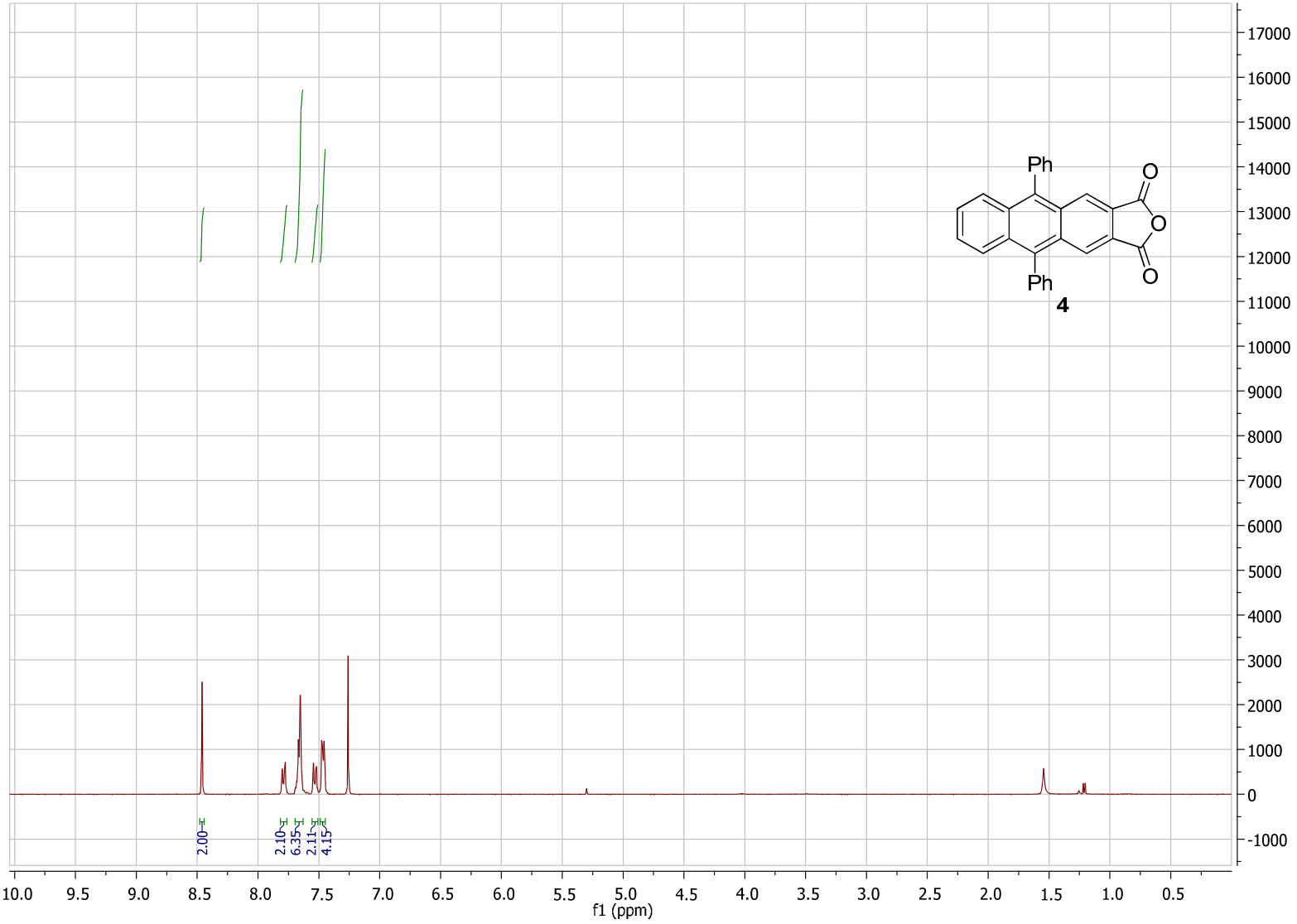
Center for Oxygen Microscopy and Imaging, Department of Chemistry, Aarhus University, Langelandsgade 140, Aarhus, 8000, Denmark.

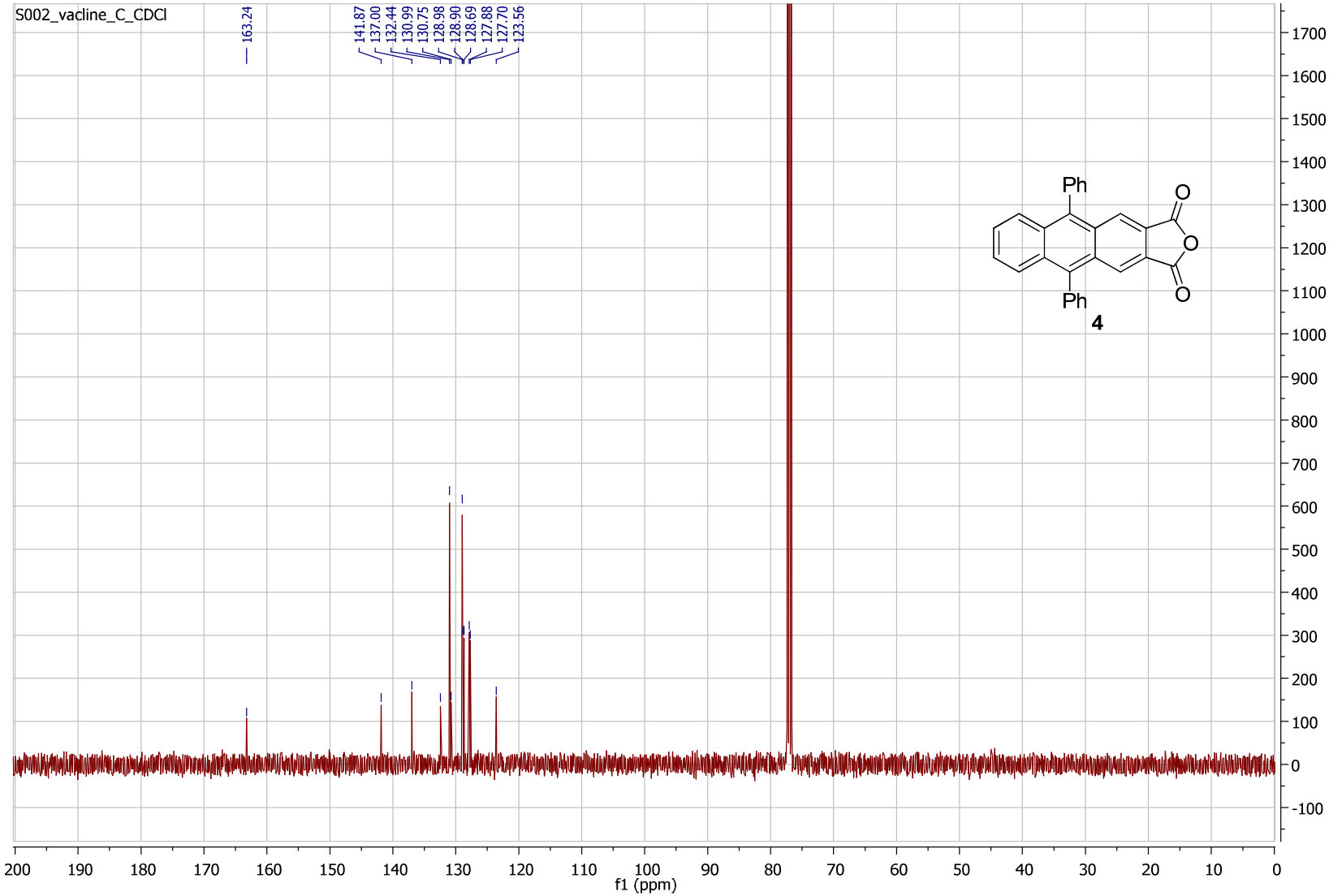
Corresponding Author: Peter R. Ogilby (e-mail: progilby@chem.au.dk)

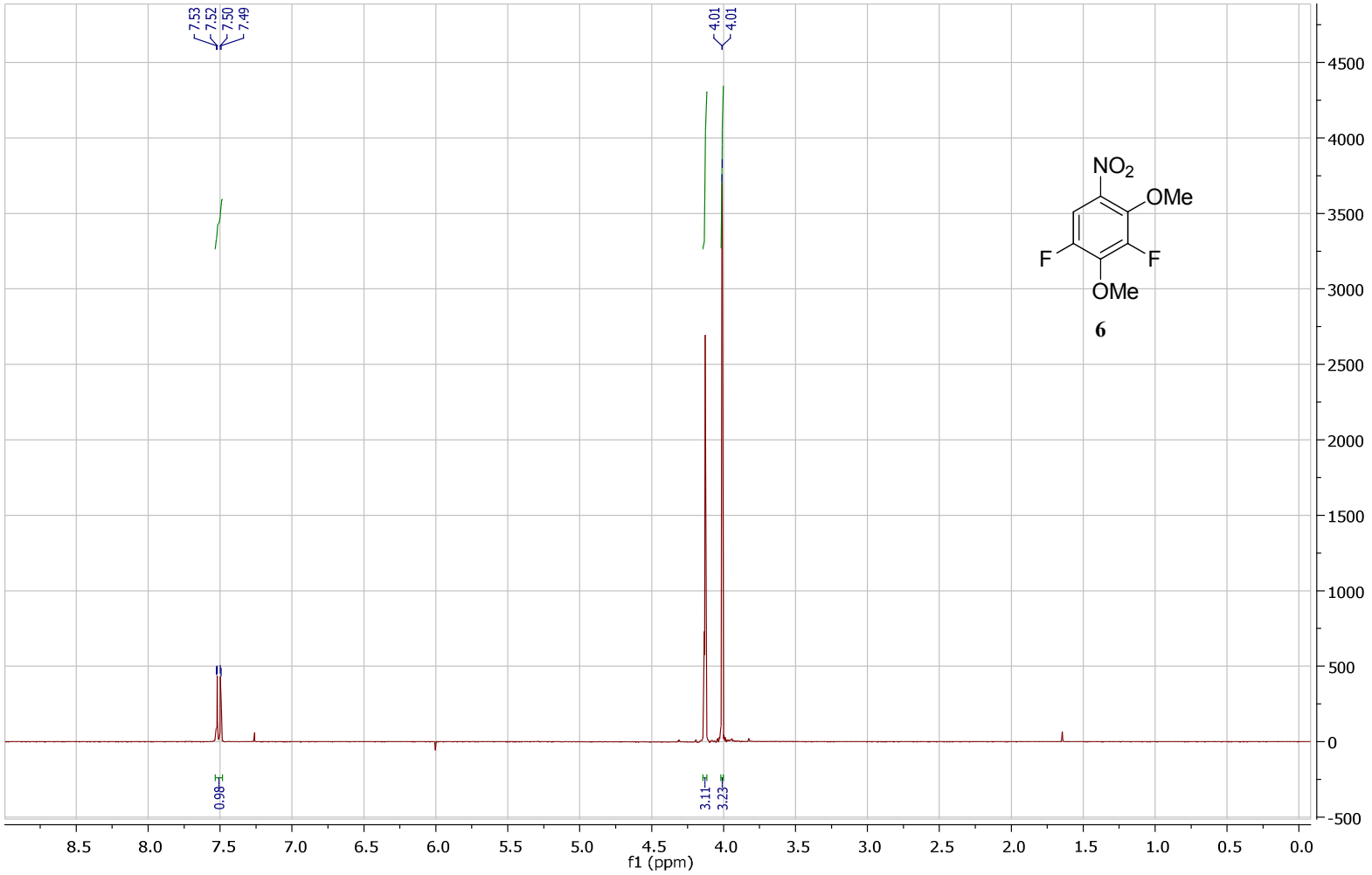
[†] S.K.P and J.H. contributed equally to this work.

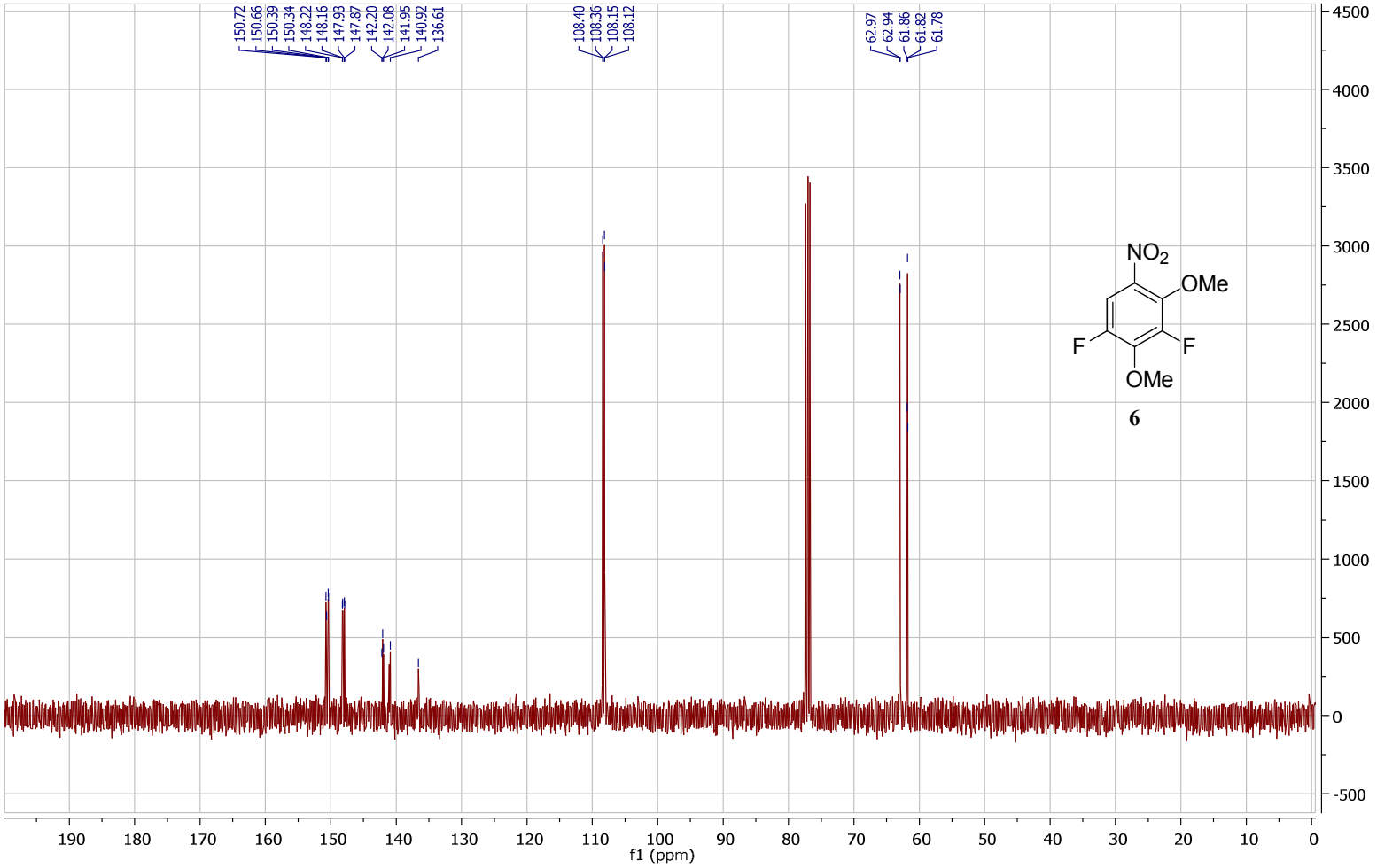

6.58
5.46
3.17
1.54
2.01
1.88
2.00
f1 (ppm)
2

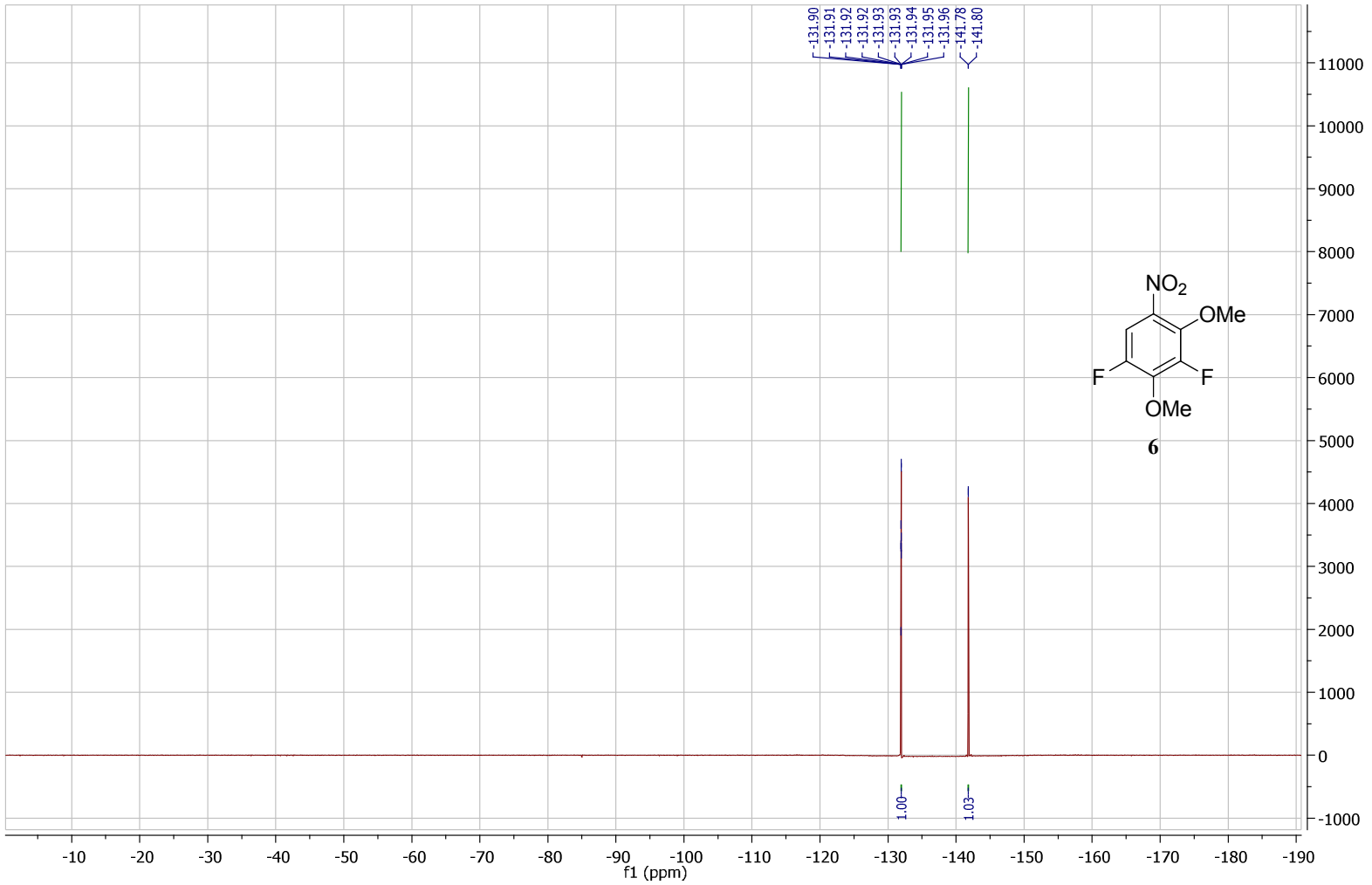

S001_crys_C_CDCl
169.84
137.01
82.23
48.71
O
O
O
O
2
3800
3600
3400
3200
3000
2800
2600
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
-200
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
f1 (ppm)


Ph
O
O
O
Ph
4
2.00
2.10
6.35
2.11
4.15
f1 (ppm)

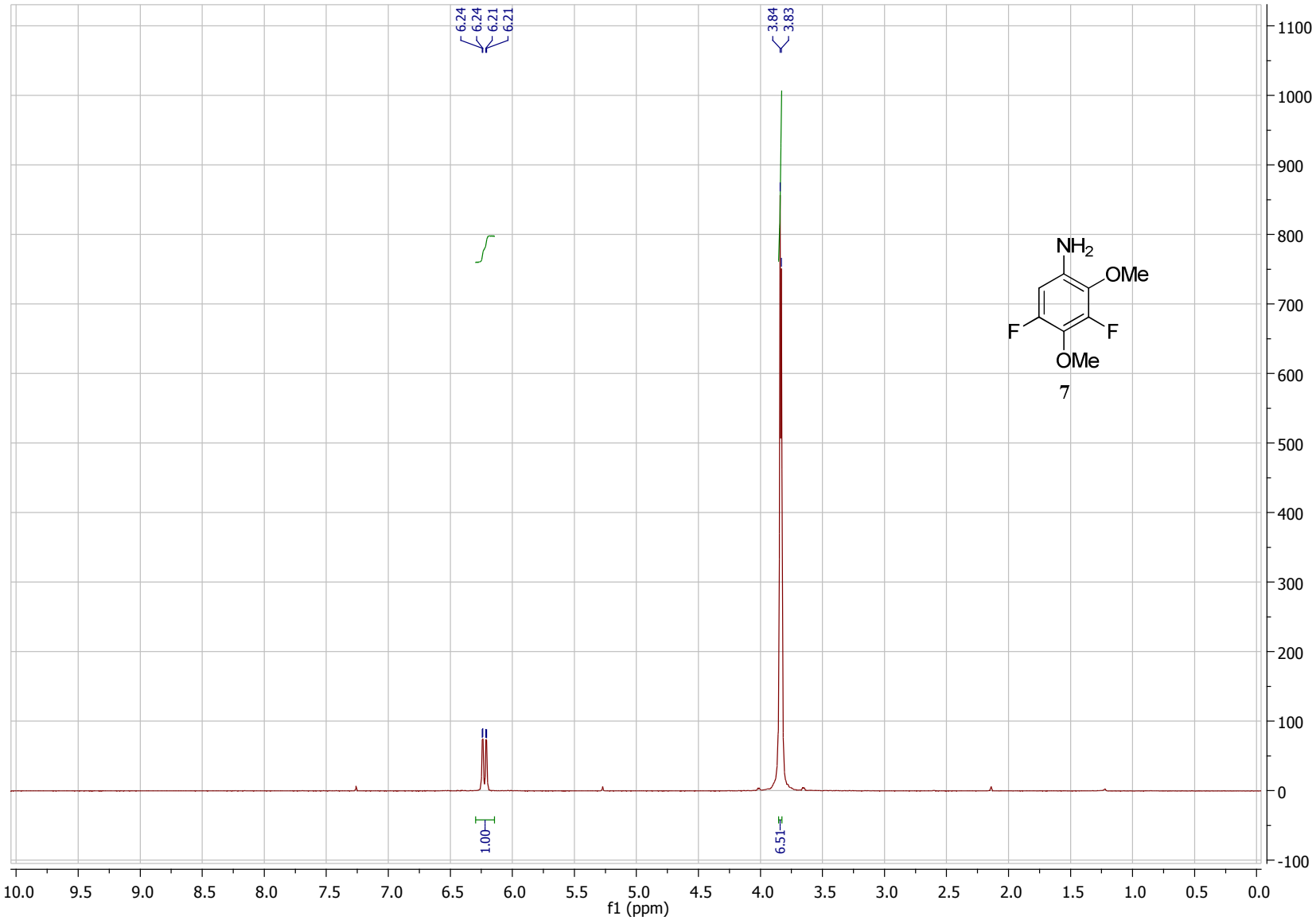

S002_vacline_C_CDCl
163.24
141.87
137.00
132.44
130.99
130.75
128.98
128.90
128.69
127.88
127.70
123.56
Ph
Ph
O
O
O
4
f1 (ppm)

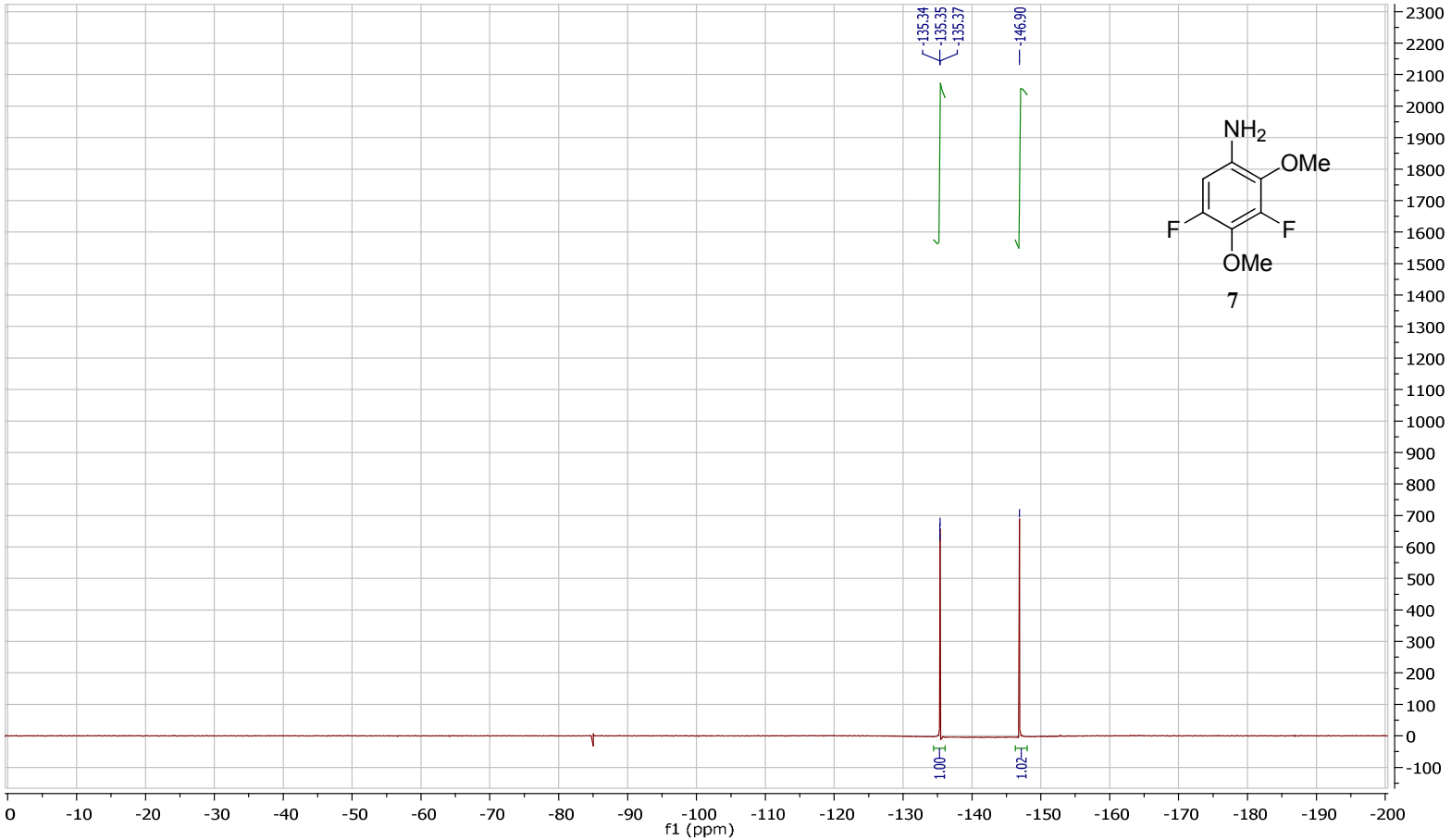

7.53
7.52
7.50
7.49
4.01
4.01
NO2
OMe
F
F
OMe
6
0.98
3.11
3.23
f1 (ppm)

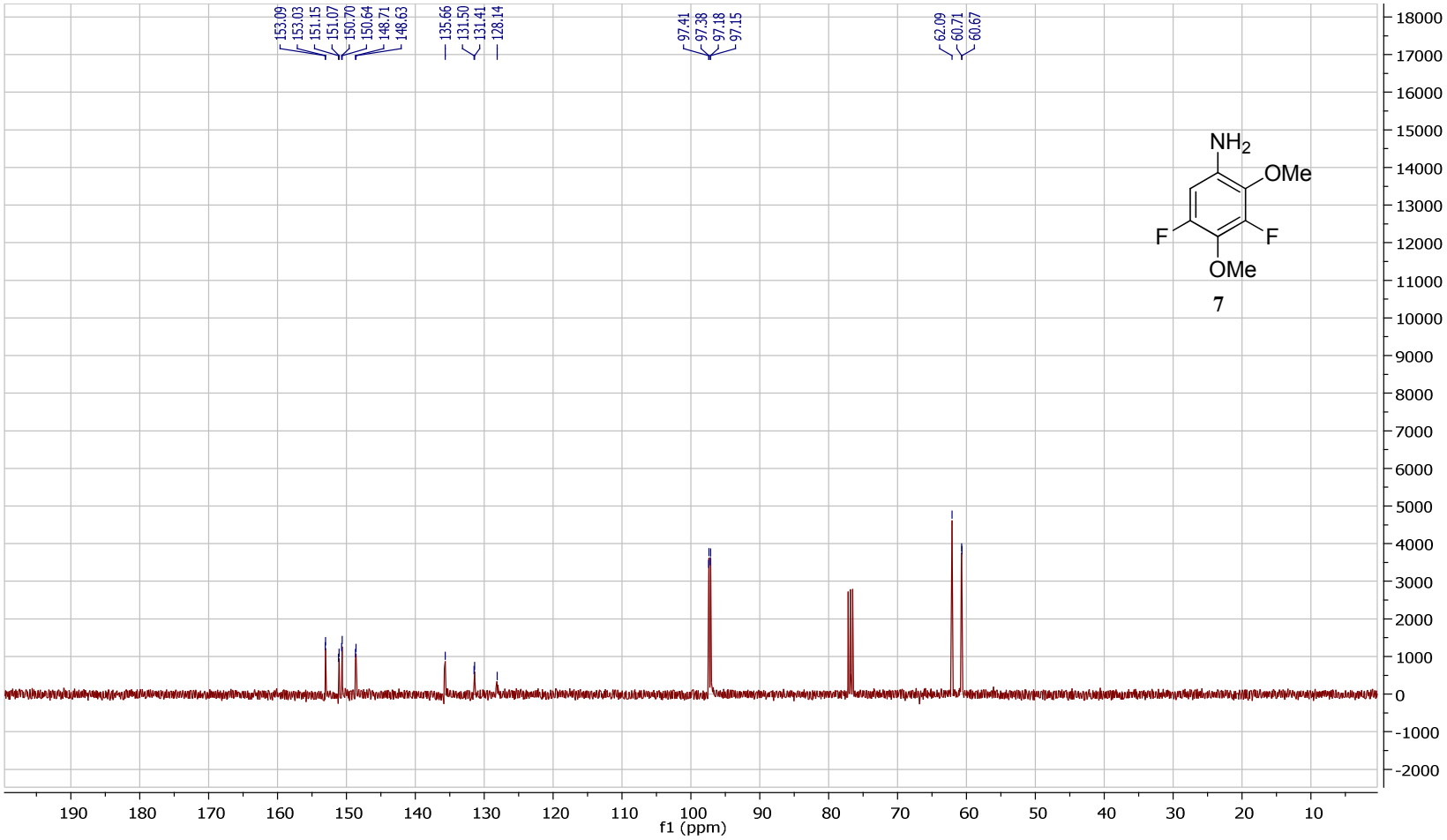

150.72
150.66
150.39
150.34
148.22
148.16
147.93
147.87
142.20
142.08
141.95
140.92
136.61
108.40
108.36
108.15
108.12
62.97
62.94
61.86
61.82
61.78
NO2
OMe
F
F
OMe
6
f1 (ppm)

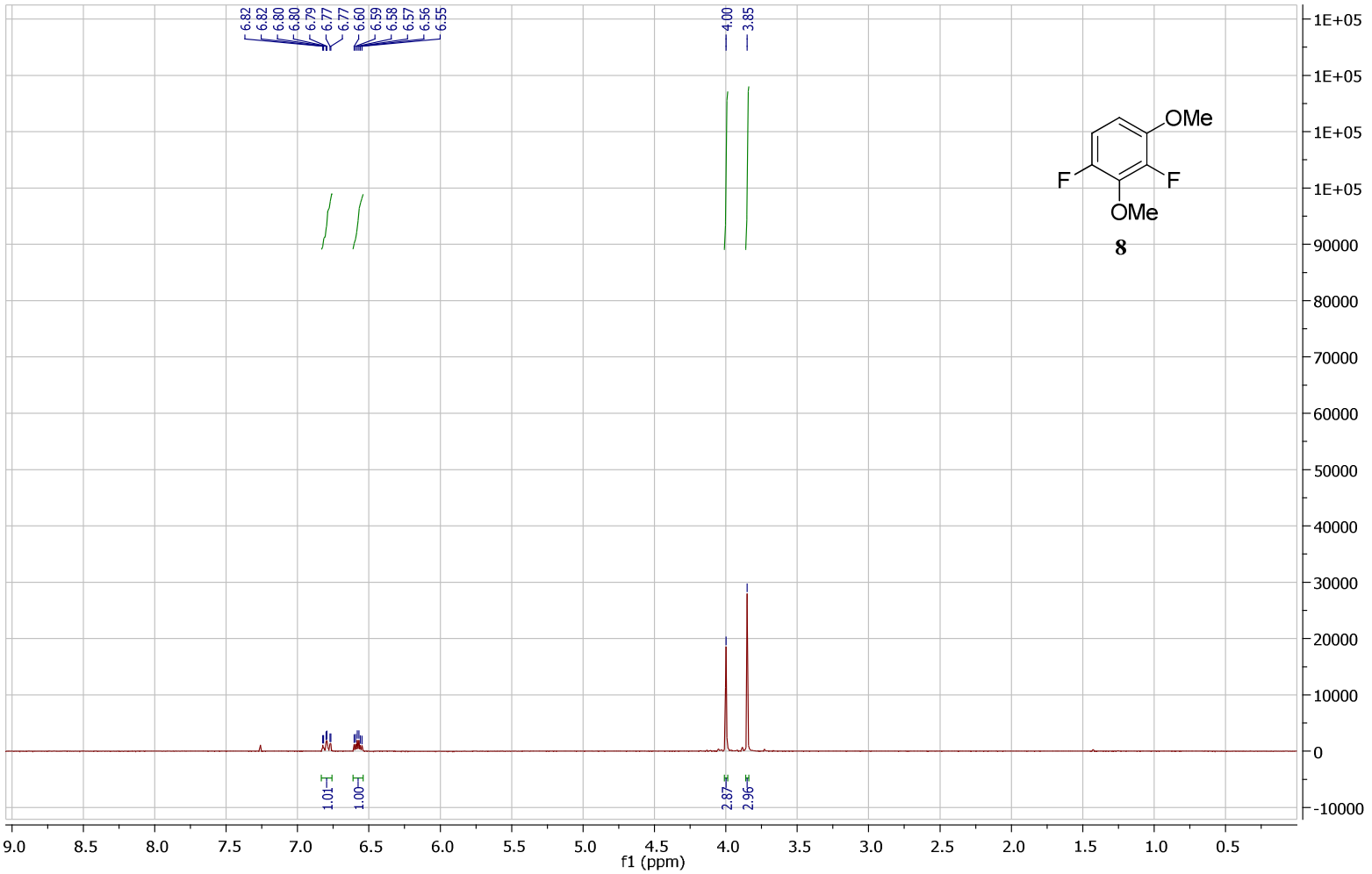

-131.90
-131.91
-131.92
-131.92
-131.93
-131.93
-131.94
-131.95
-131.96
-141.78
-141.80
11000
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
-1000
1.00
1.03
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
-160
-170
-180
-190
f1 (ppm)
NO2
OMe
F
F
OMe

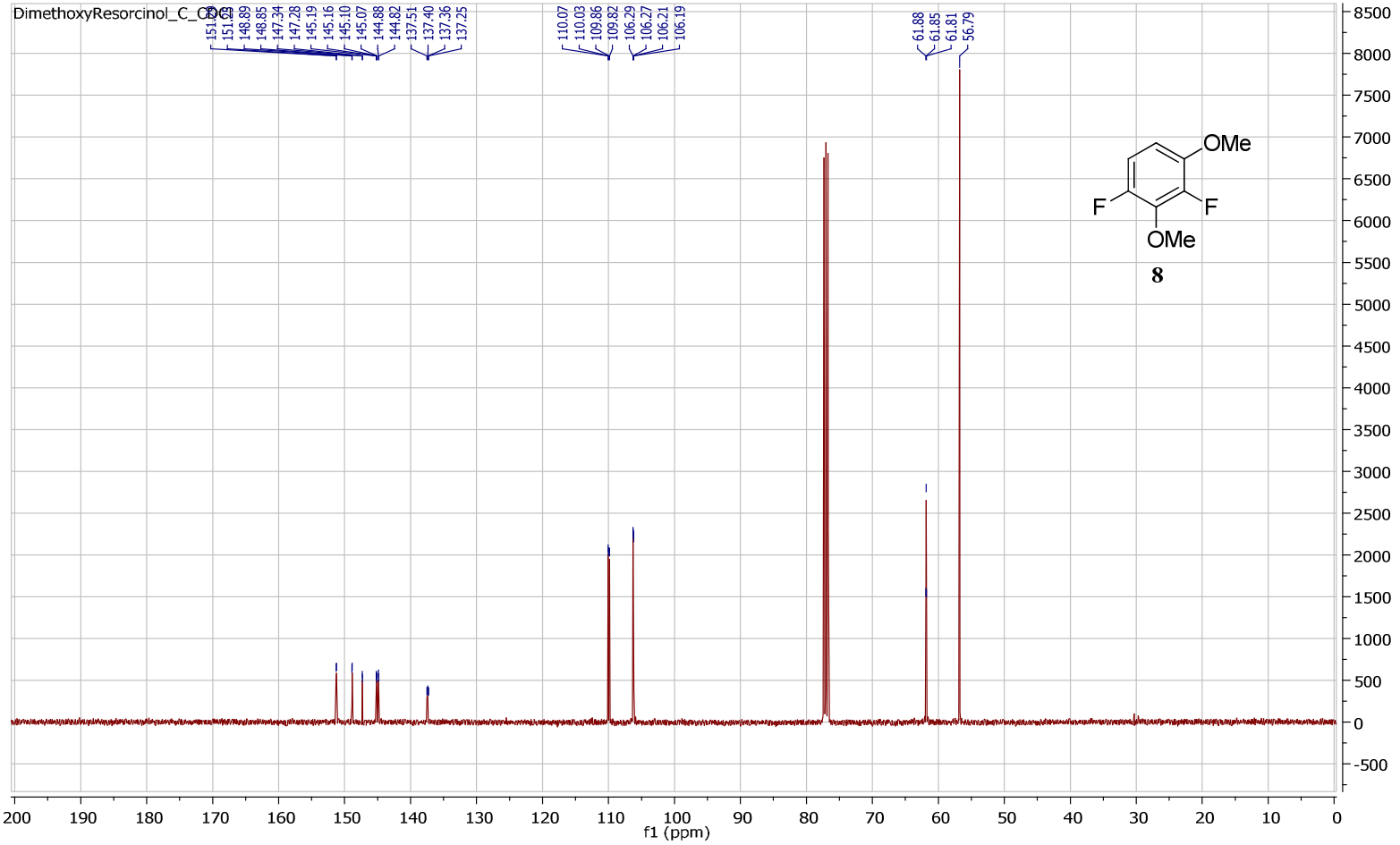
6

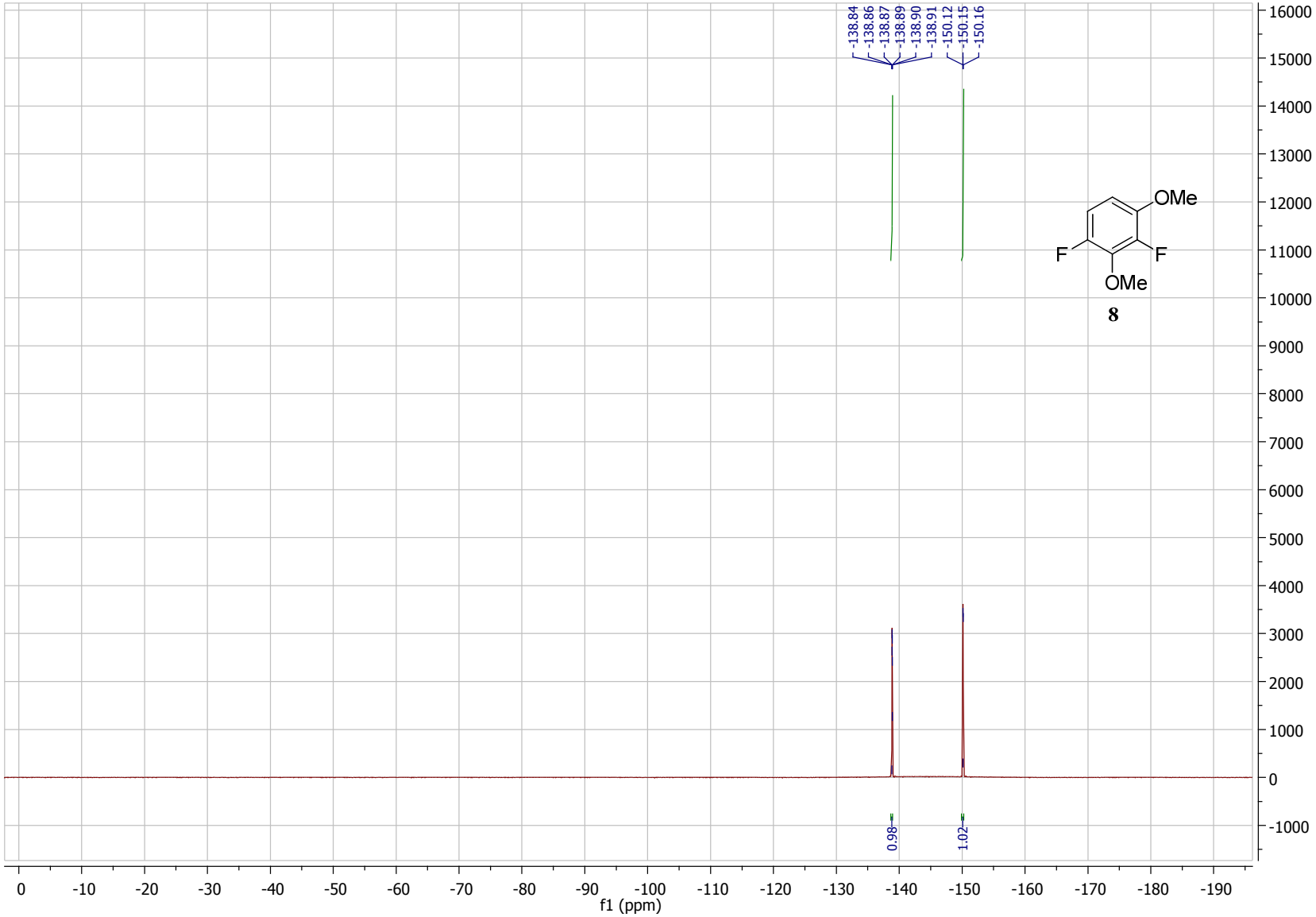

6.24
6.24
6.21
6.21
3.84
3.83
NH2
OMe
F
F
OMe
7
1.00
6.51
f1 (ppm)

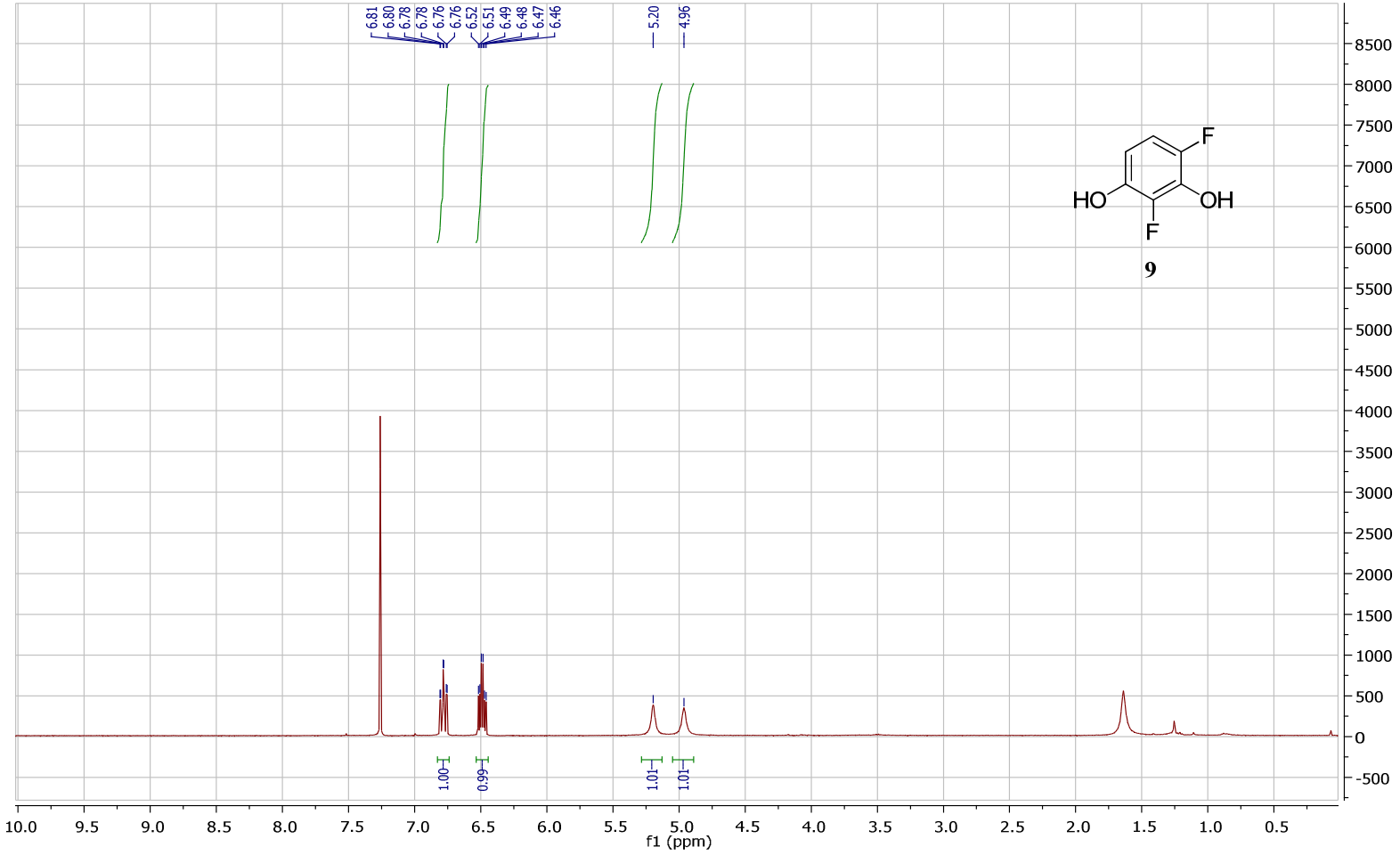

-135.34
-135.35
-135.37
-146.90
NH2
OMe
F
F
OMe
7
1.00
1.02
f1 (ppm)

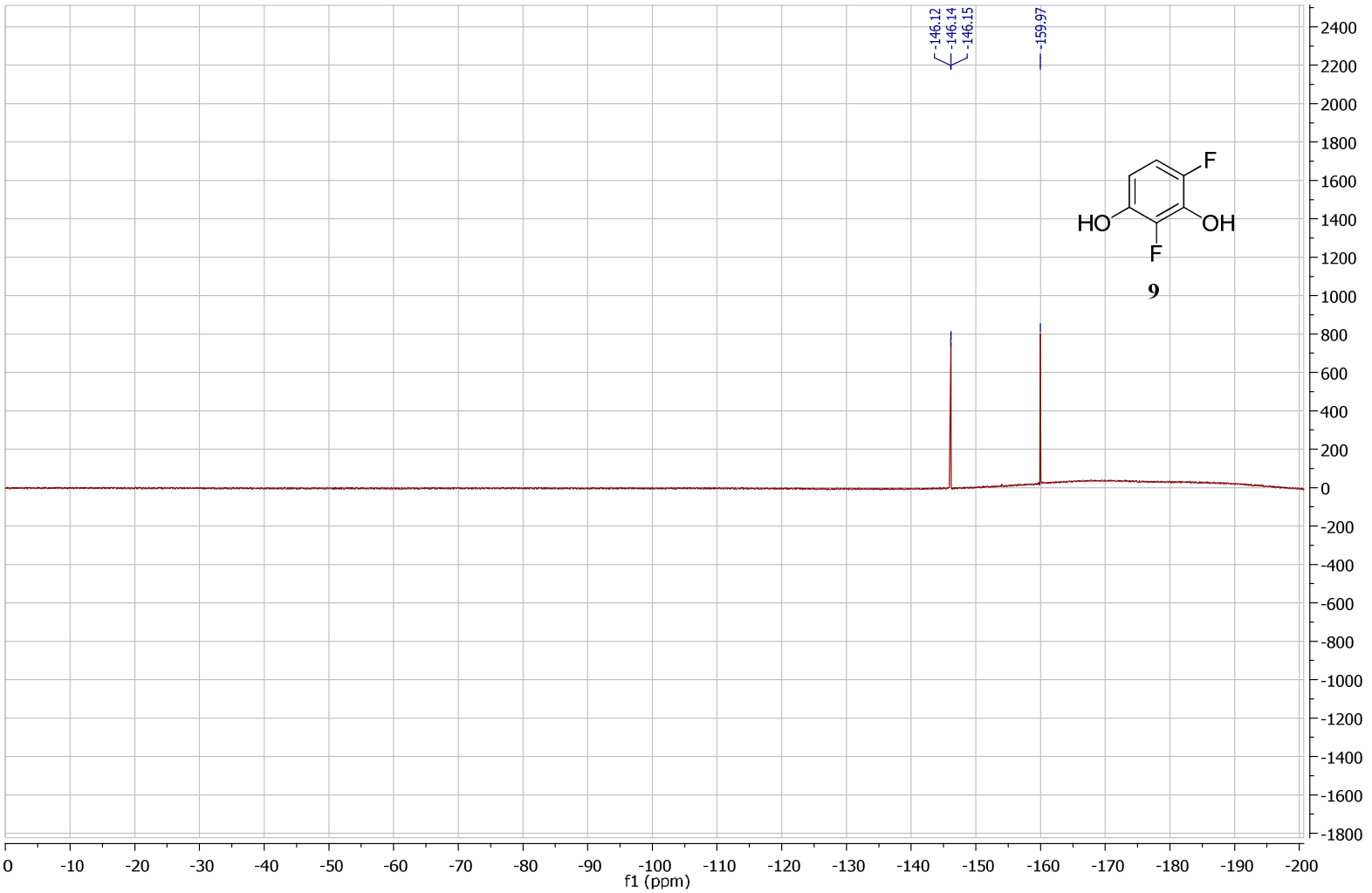

153.09
153.03
151.15
151.07
150.70
150.64
148.71
148.63
135.66
131.50
131.41
128.14
97.41
97.38
97.18
97.15
62.09
60.71
60.67
NH2
OMe
F
F
OMe
7
f1 (ppm)

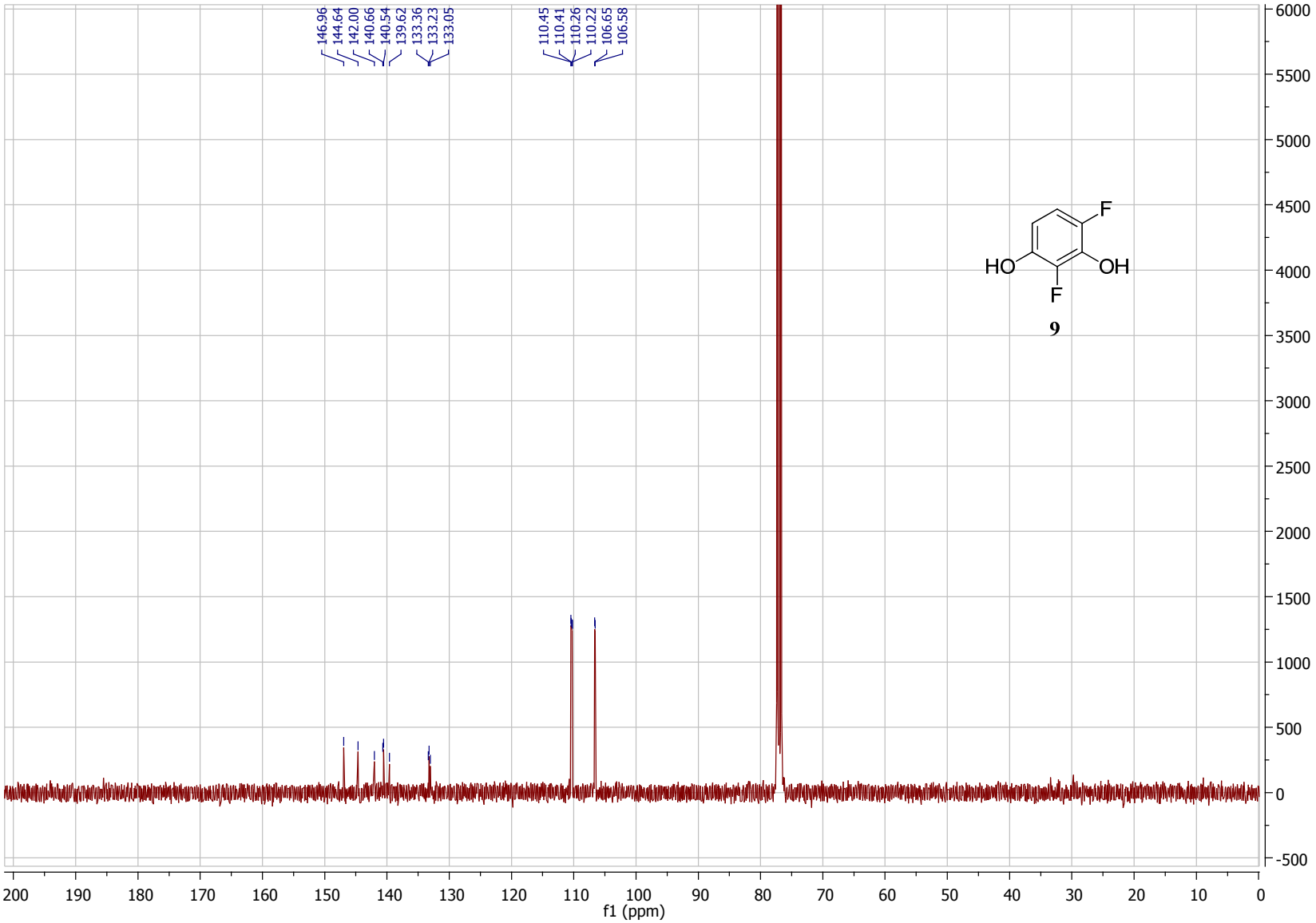

6.82
6.82
6.80
6.80
6.79
6.77
6.77
6.60
6.59
6.58
6.57
6.56
6.55
4.00
3.85
OMe
F
F
OMe
8
1.01
1.00
2.87
2.96
f1 (ppm)

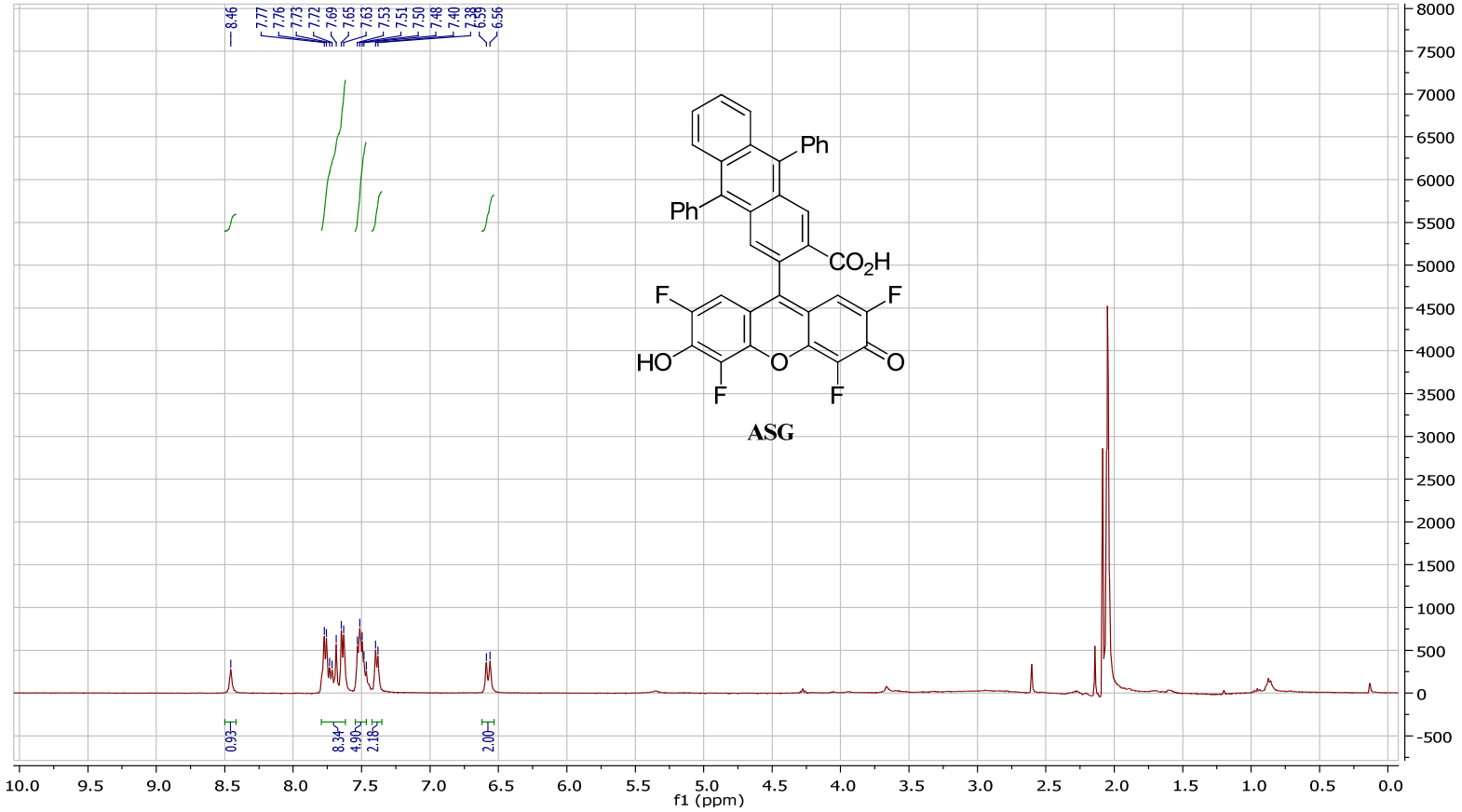

DimethoxyResorcinol_C_CDCl3
151.42
151.23
148.89
148.85
147.34
147.28
145.19
145.16
145.10
145.07
144.88
144.82
137.51
137.40
137.36
137.25
110.07
110.03
109.86
109.82
106.29
106.27
106.21
106.19
61.88
61.85
61.81
56.79
OMe
F
F
OMe
8
f1 (ppm)


-138.84
-138.86
-138.87
-138.89
-138.90
-138.91
-150.12
-150.15
-150.16
OMe
F
F
OMe
8
0.98
1.02
f1 (ppm)

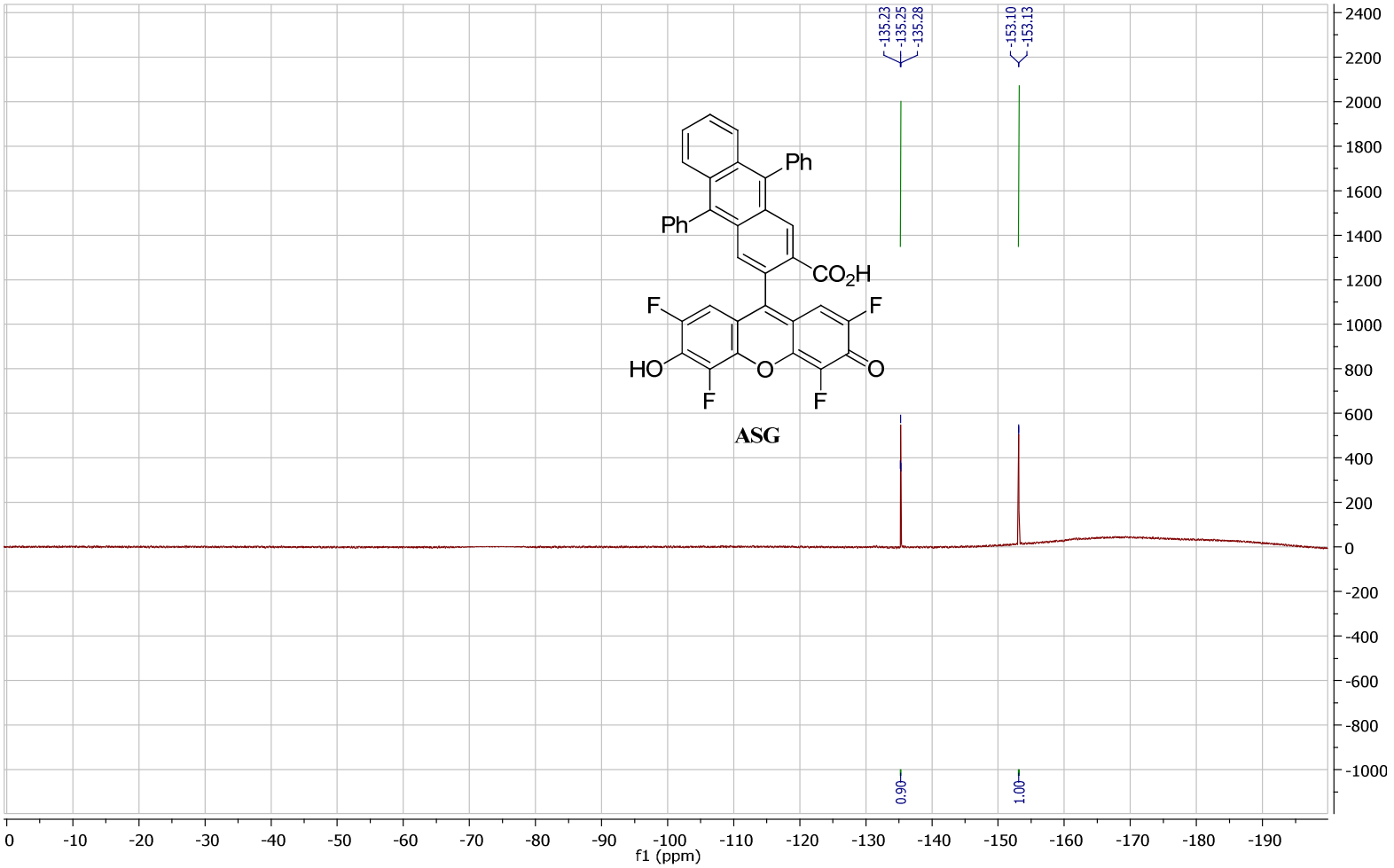

6.81
6.80
6.78
6.78
6.76
6.76
6.52
6.51
6.49
6.48
6.47
6.46
5.20
4.96
F
HO
OH
F
9
1.00
0.99
1.01
1.01
f1 (ppm)

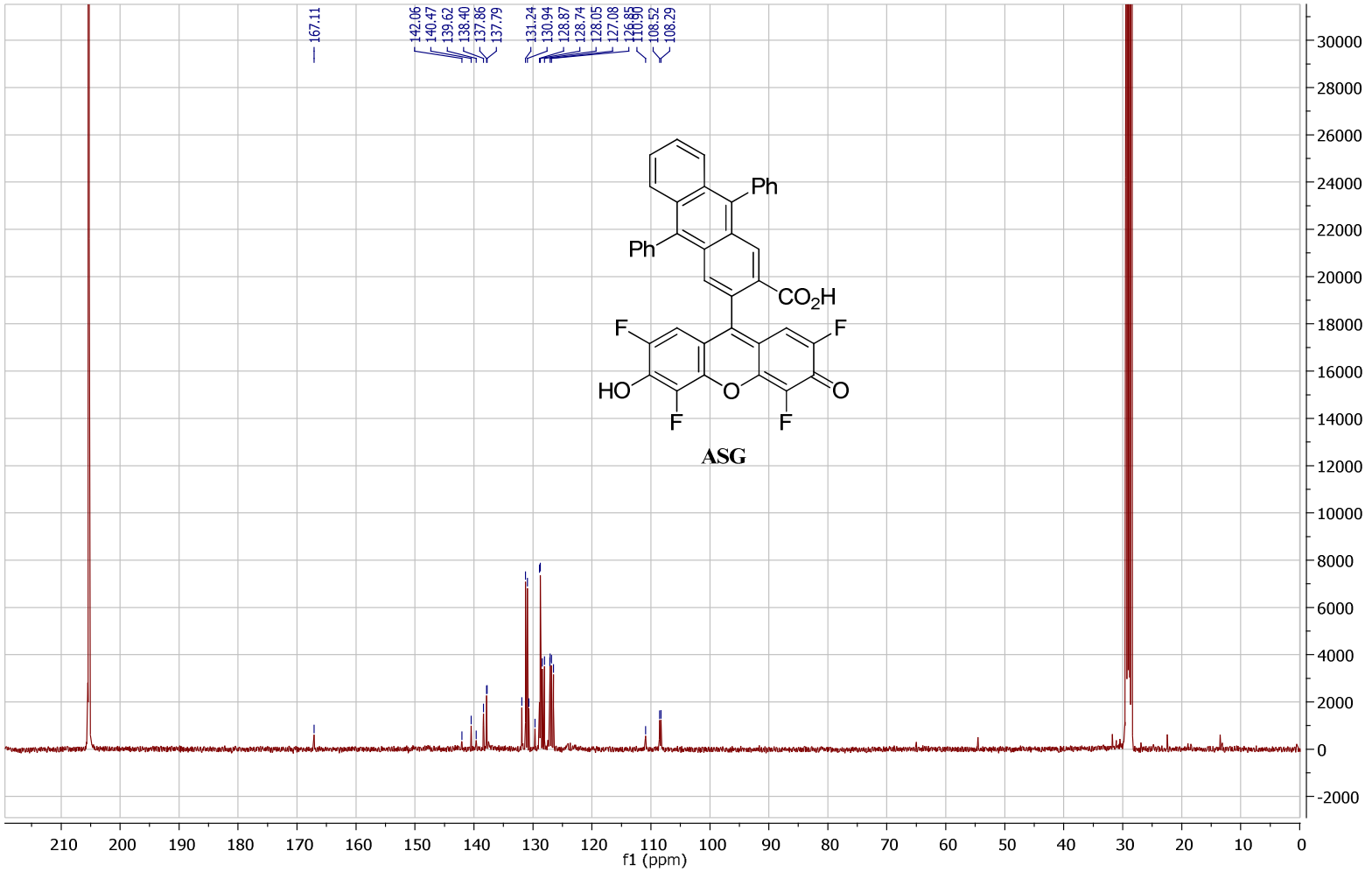

-146.12
-146.14
-146.15
-159.97
F
HO
OH
F
9
f1 (ppm)


146.96
144.64
142.00
140.66
140.54
139.62
133.36
133.23
133.05
110.45
110.41
110.26
110.22
106.65
106.58
F
HO
OH
F
9
f1 (ppm)


8.46
7.77
7.76
7.73
7.72
7.69
7.65
7.63
7.53
7.51
7.50
7.48
7.40
6.59
6.56
Ph
Ph
CO2H
F
F
HO
O
O
F
F
ASG
0.93
8.34
4.90
2.18
2.00
f1 (ppm)

Figur 1


-135.23
-135.25
-135.28
-153.10
-153.13
Ph
Ph
CO2H
F
F
HO
O
O
F
F
ASG
0.90
1.00
f1 (ppm)


167.11
142.06
140.47
139.62
138.40
137.86
137.79
131.24
130.94
128.87
128.74
128.05
127.08
108.52
108.29
Ph
Ph
CO2H
F
F
HO
O
O
F
F
ASG
f1 (ppm)