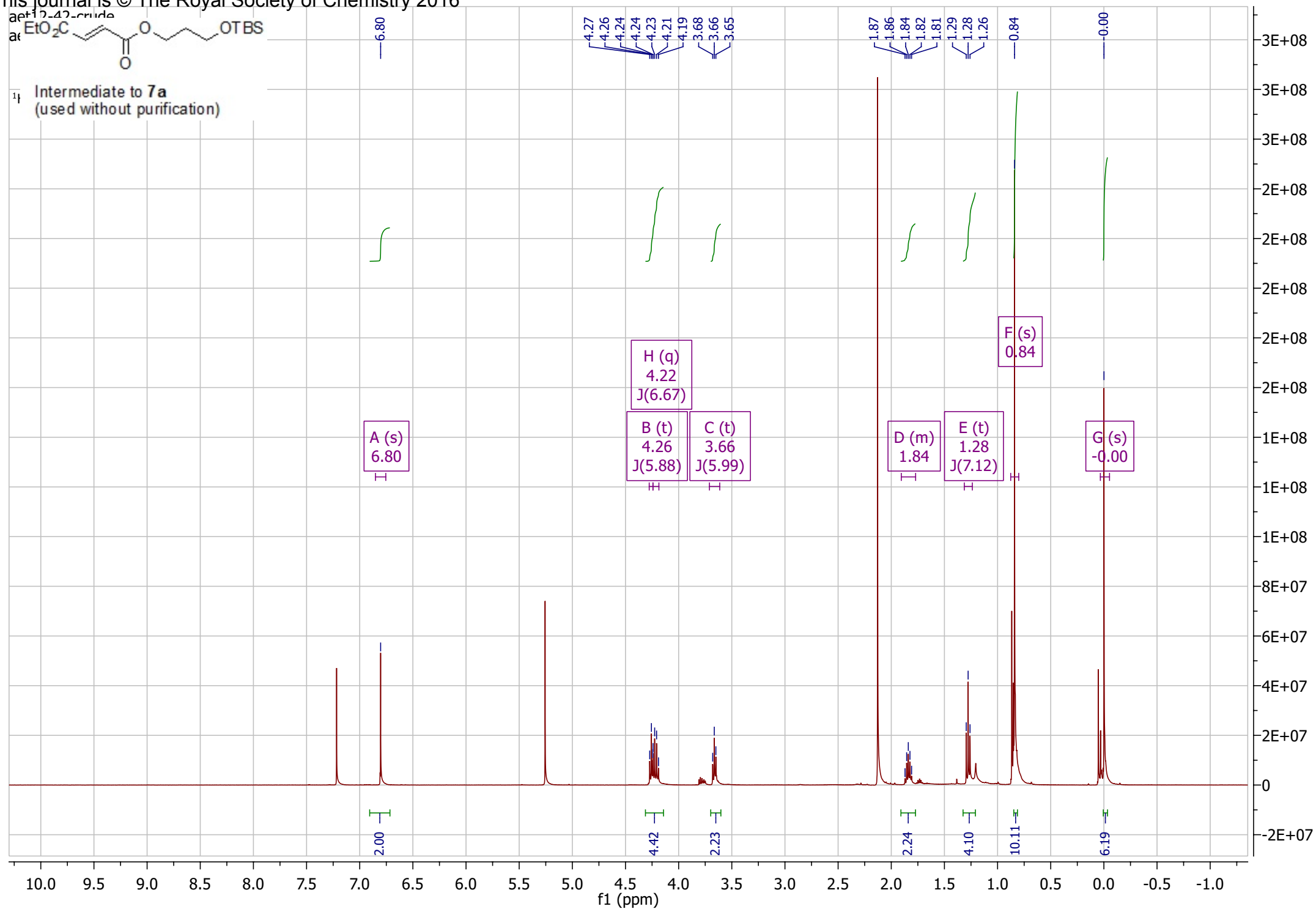
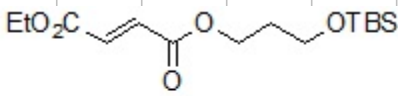


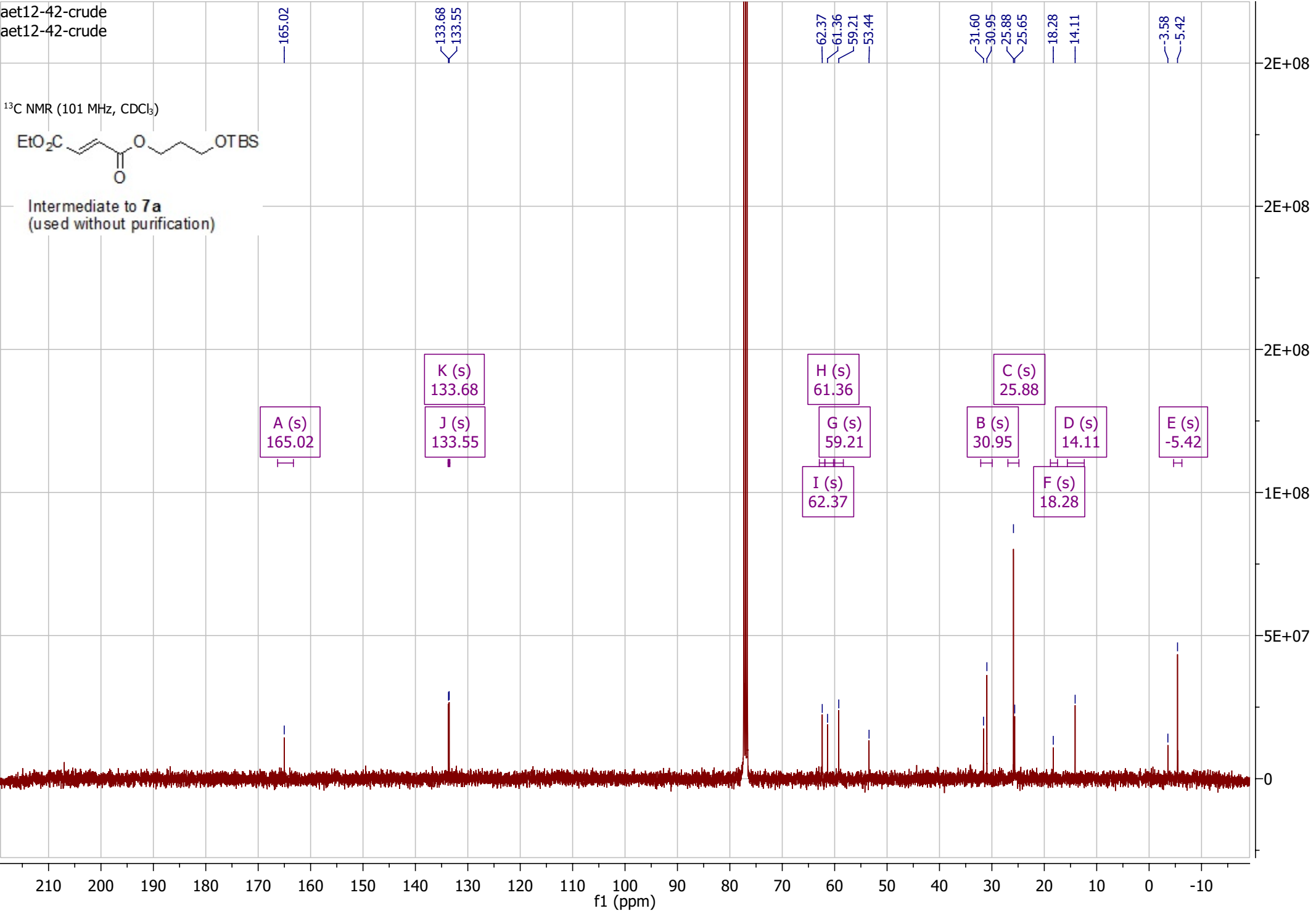


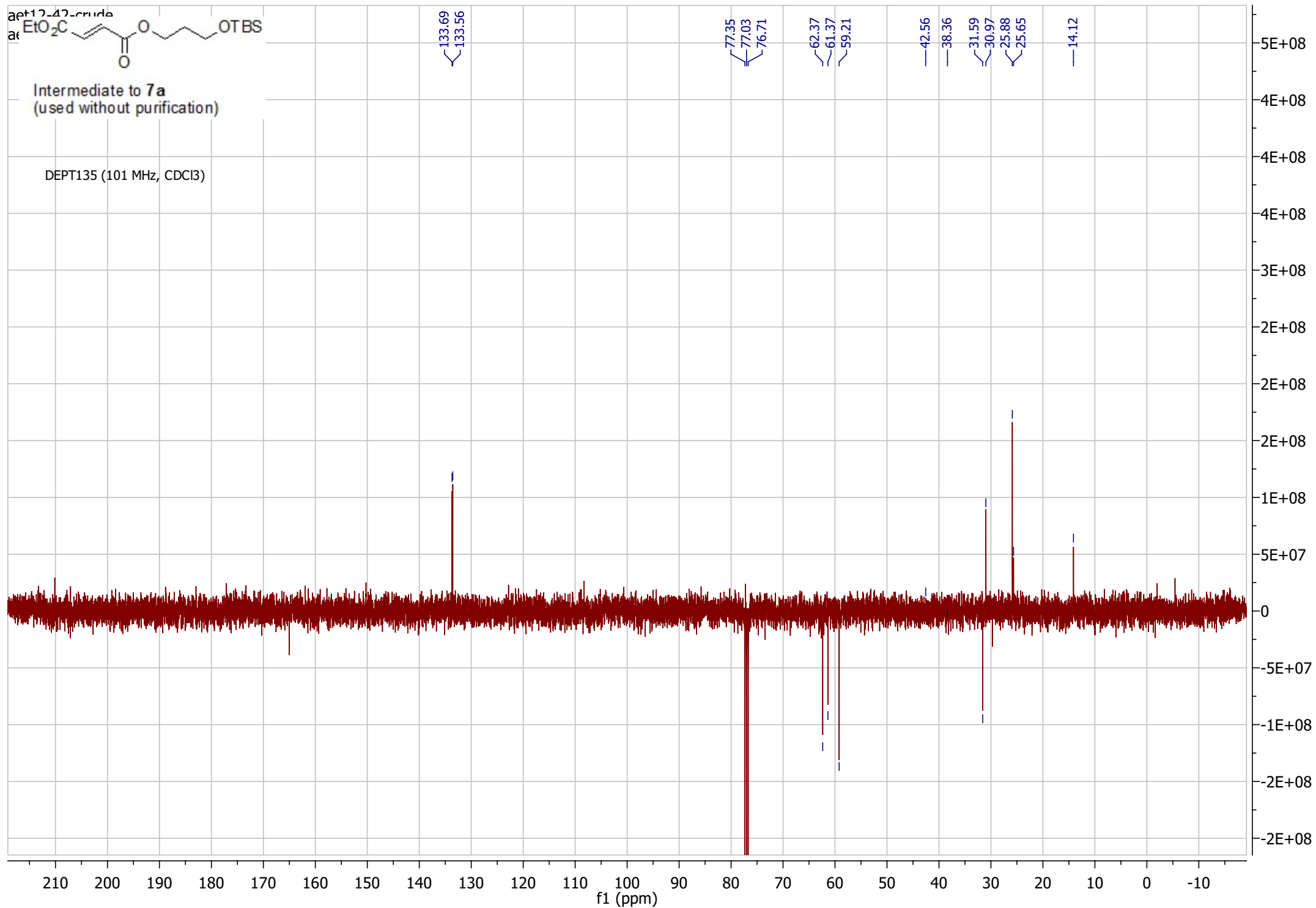
aet12-42-crude
aet12-42-crude

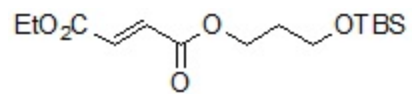
¹³C NMR (101 MHz, CDCl₃)



Intermediate to **7a**
(used without purification)

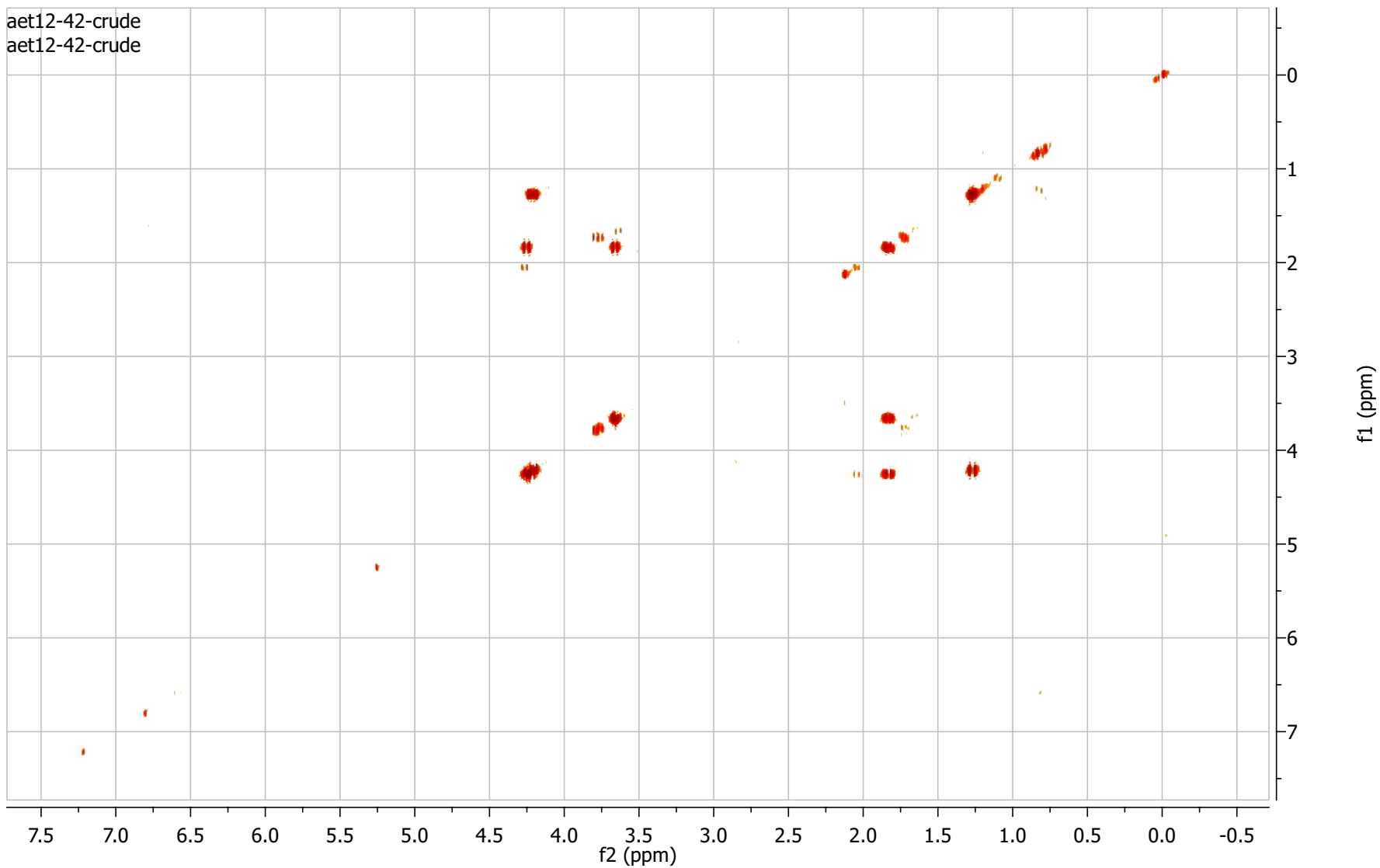


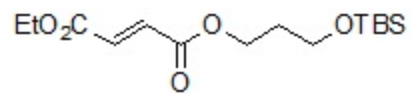




Intermediate to **7a**
(used without purification)

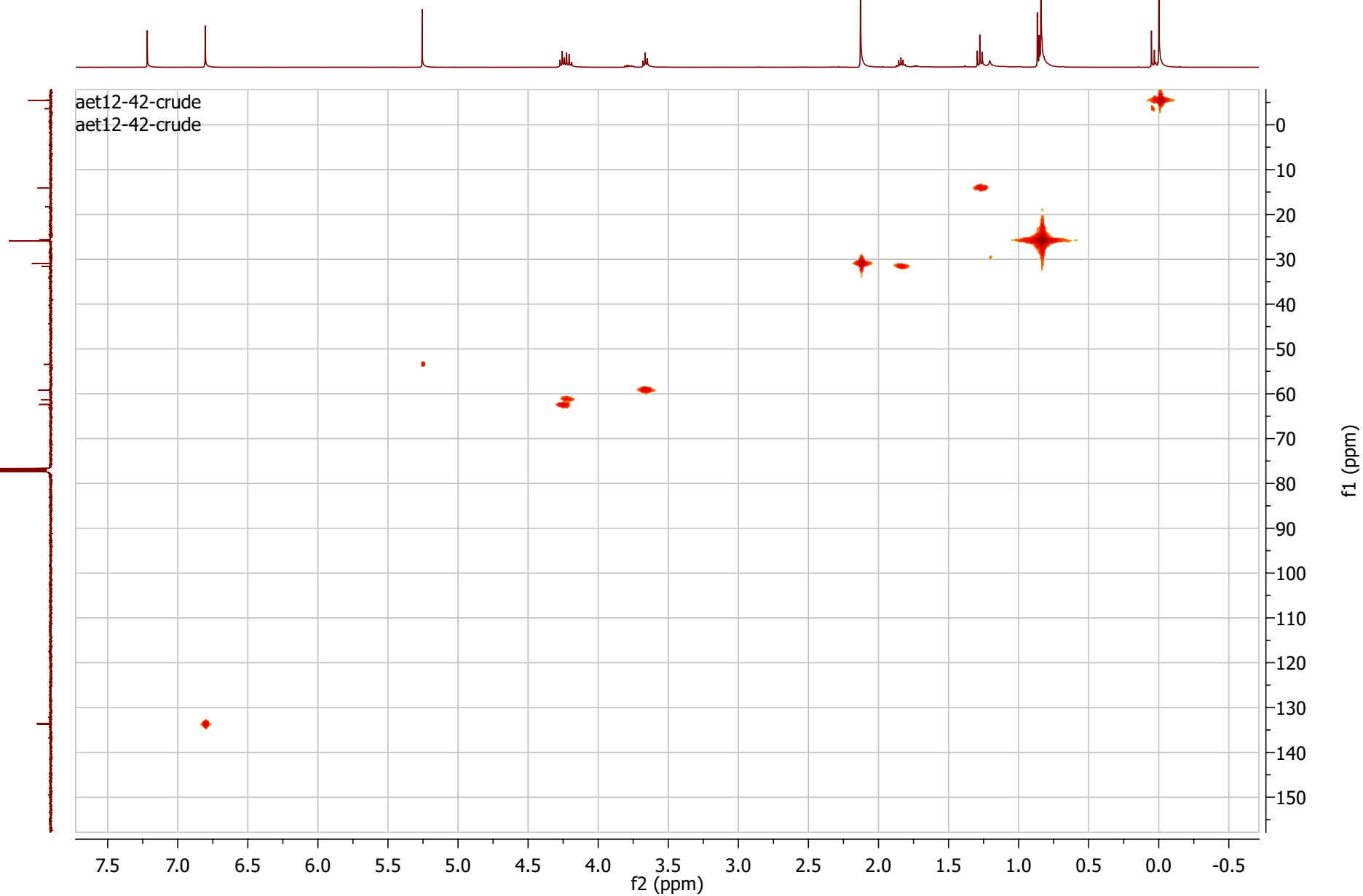
COSY (400 MHz, CDCl₃)





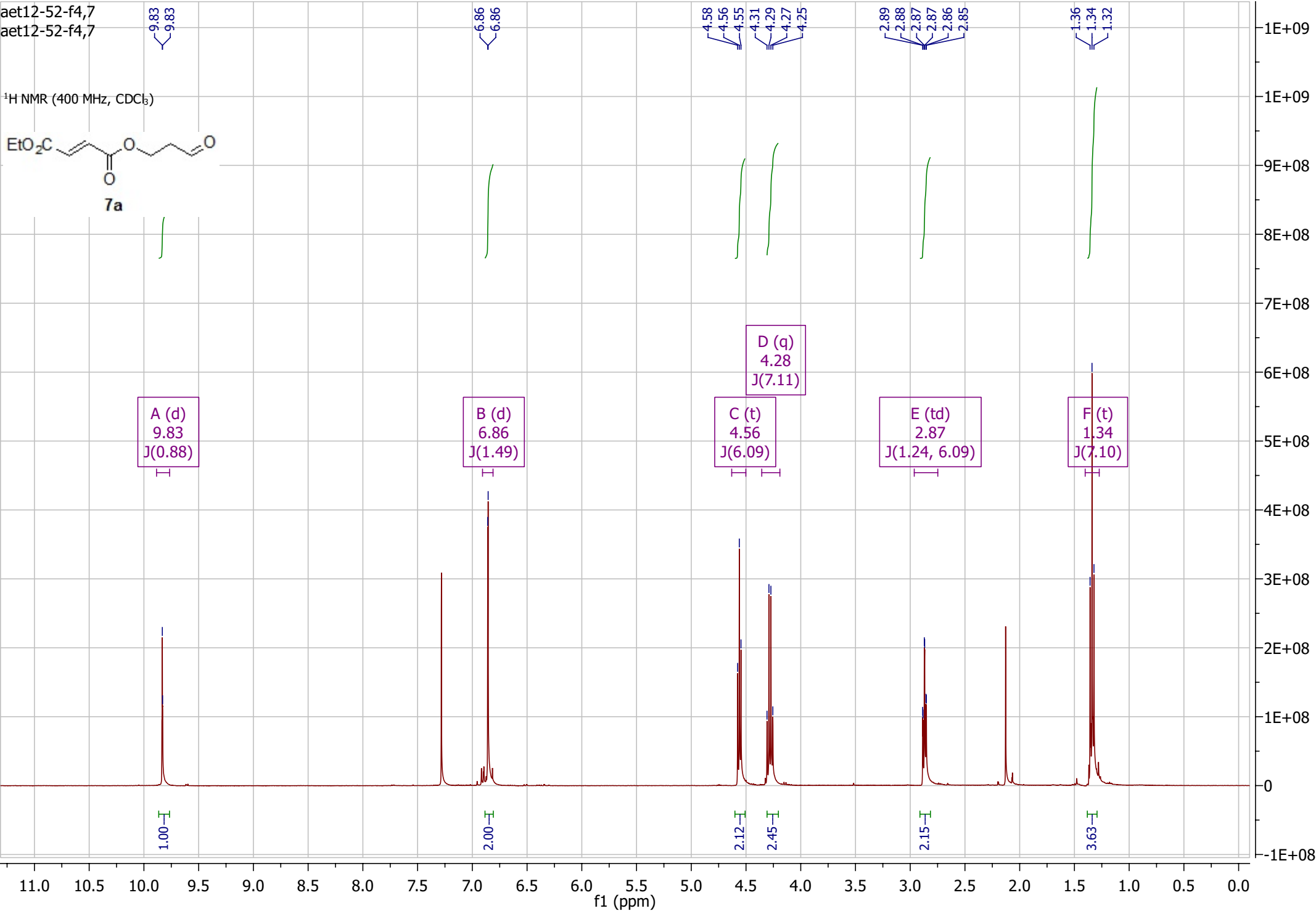
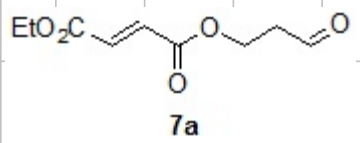
Intermediate to **7a**
(used without purification)

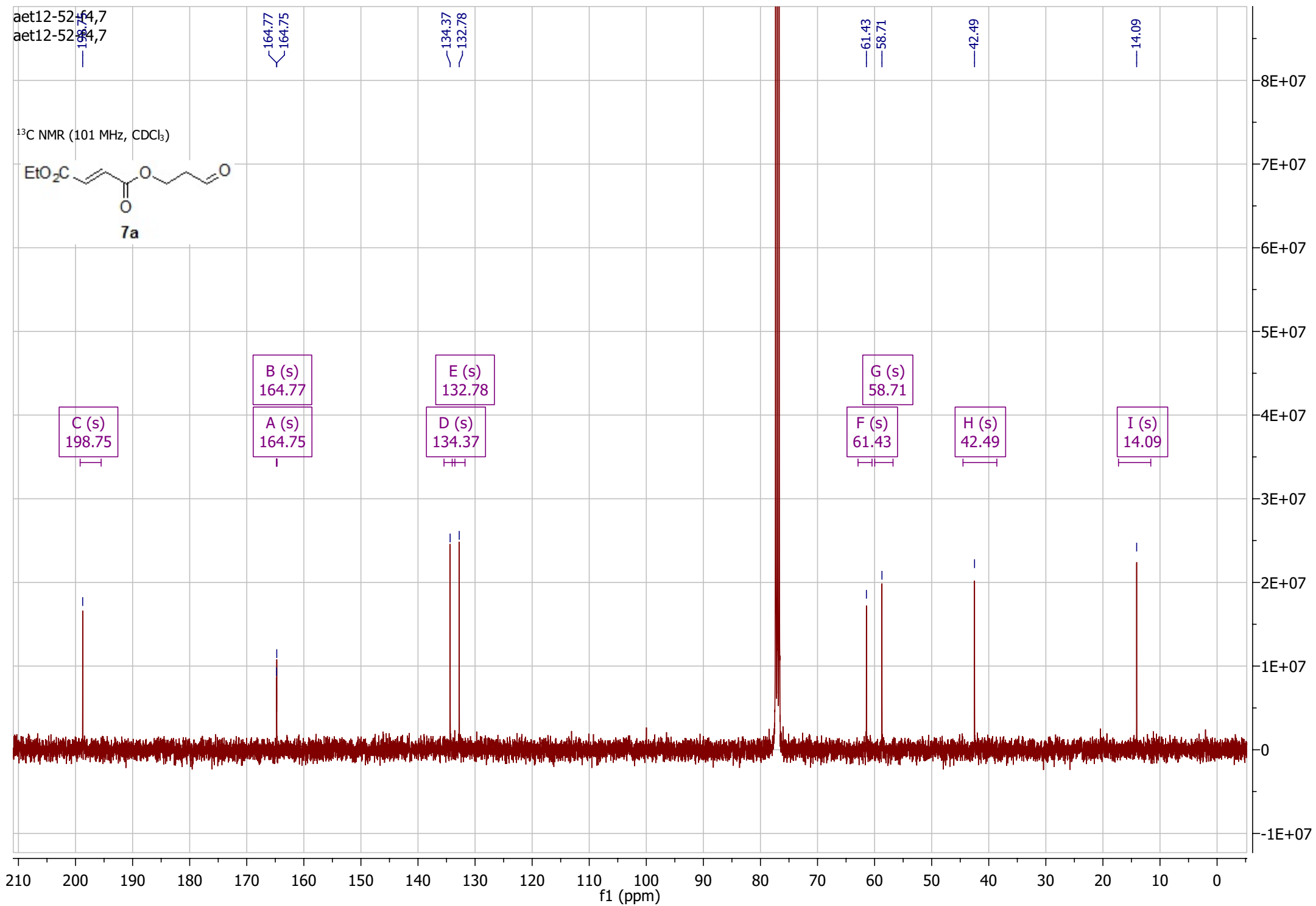
HMQC (CDCl₃)

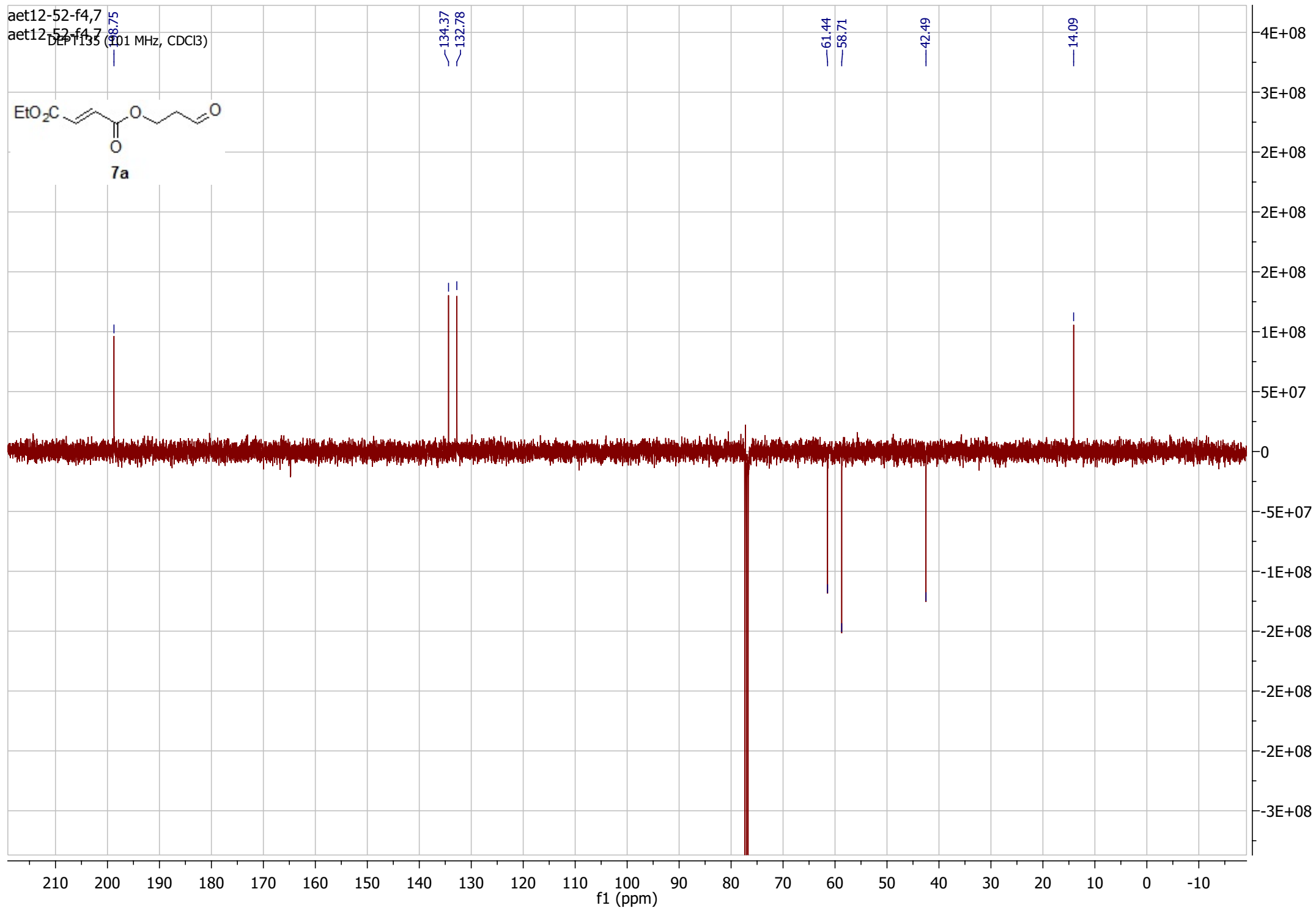


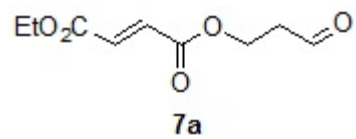
aet12-52-f4,7
aet12-52-f4,7

¹H NMR (400 MHz, CDCl₃)

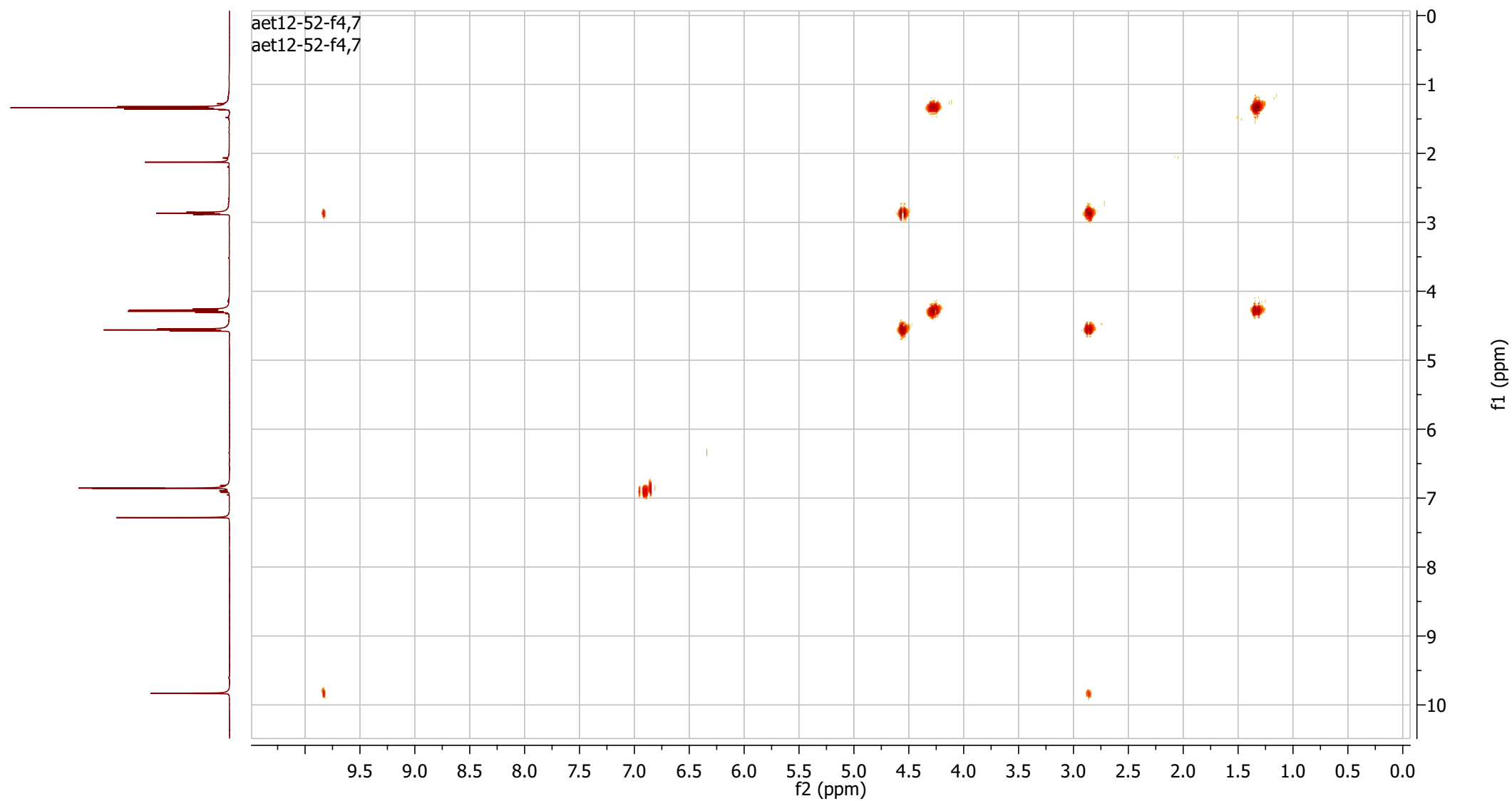


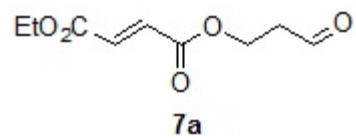




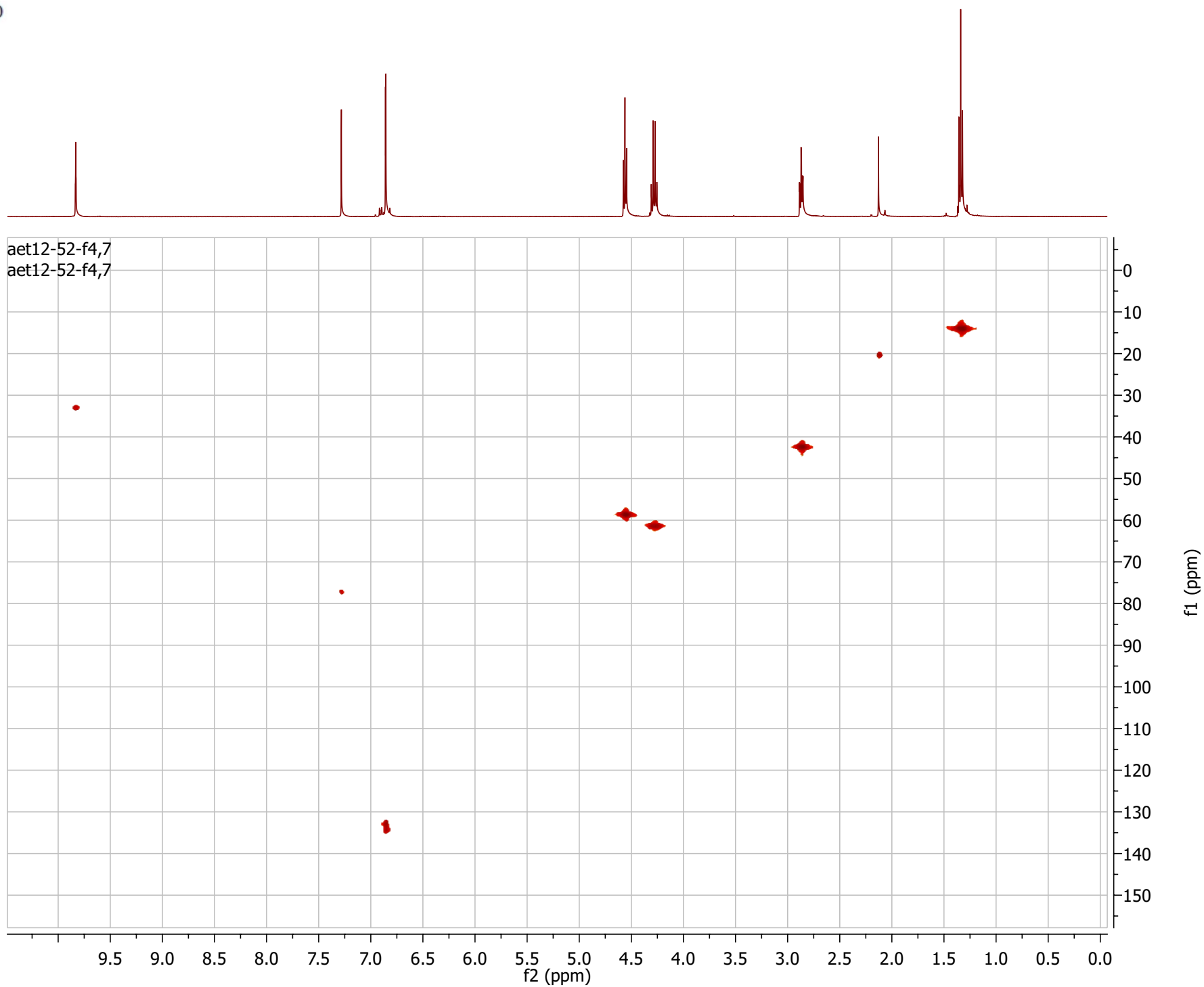


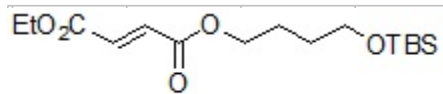
COSY (400 MHz, CDCl₃)





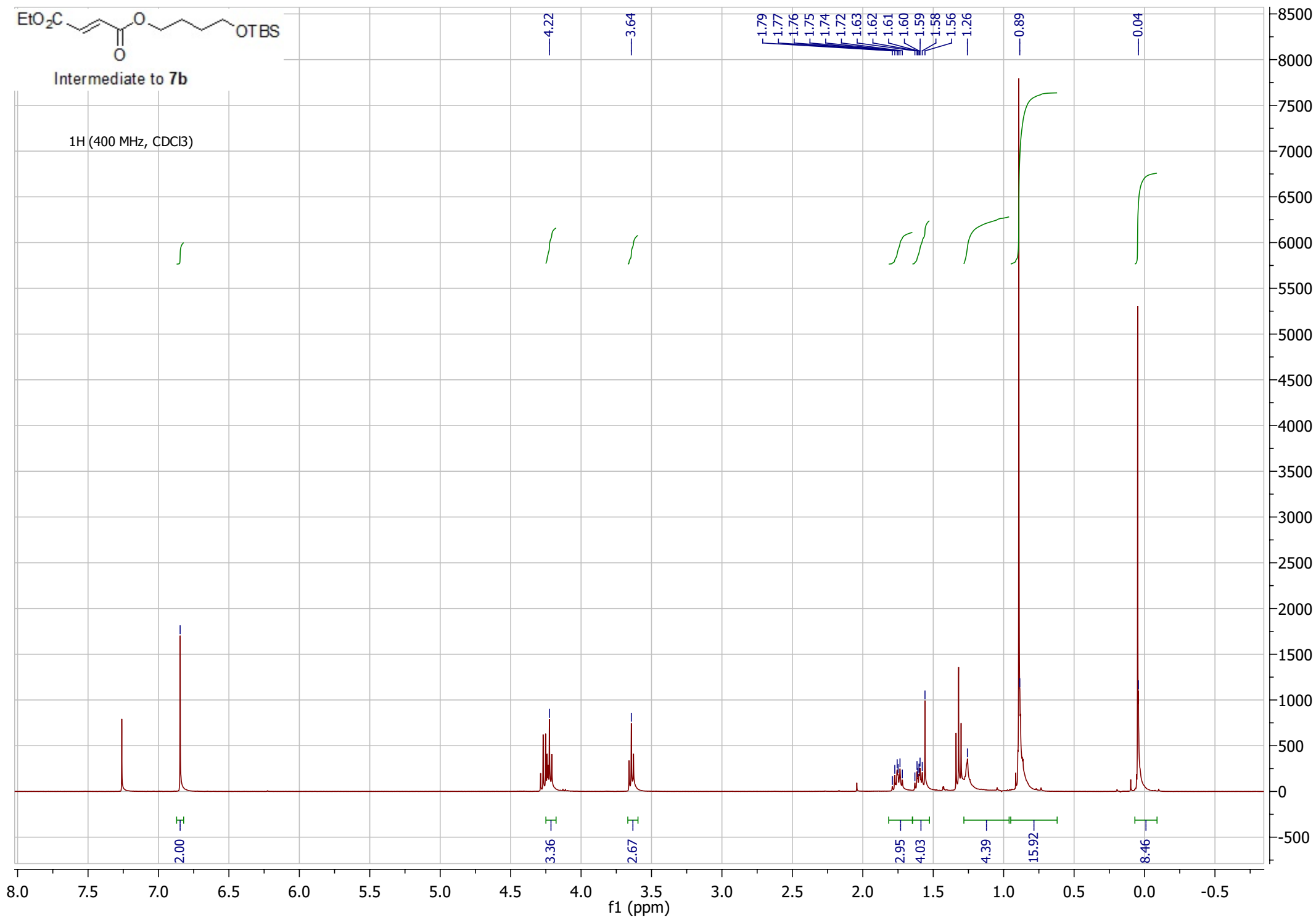
HMQC (CDCl₃)

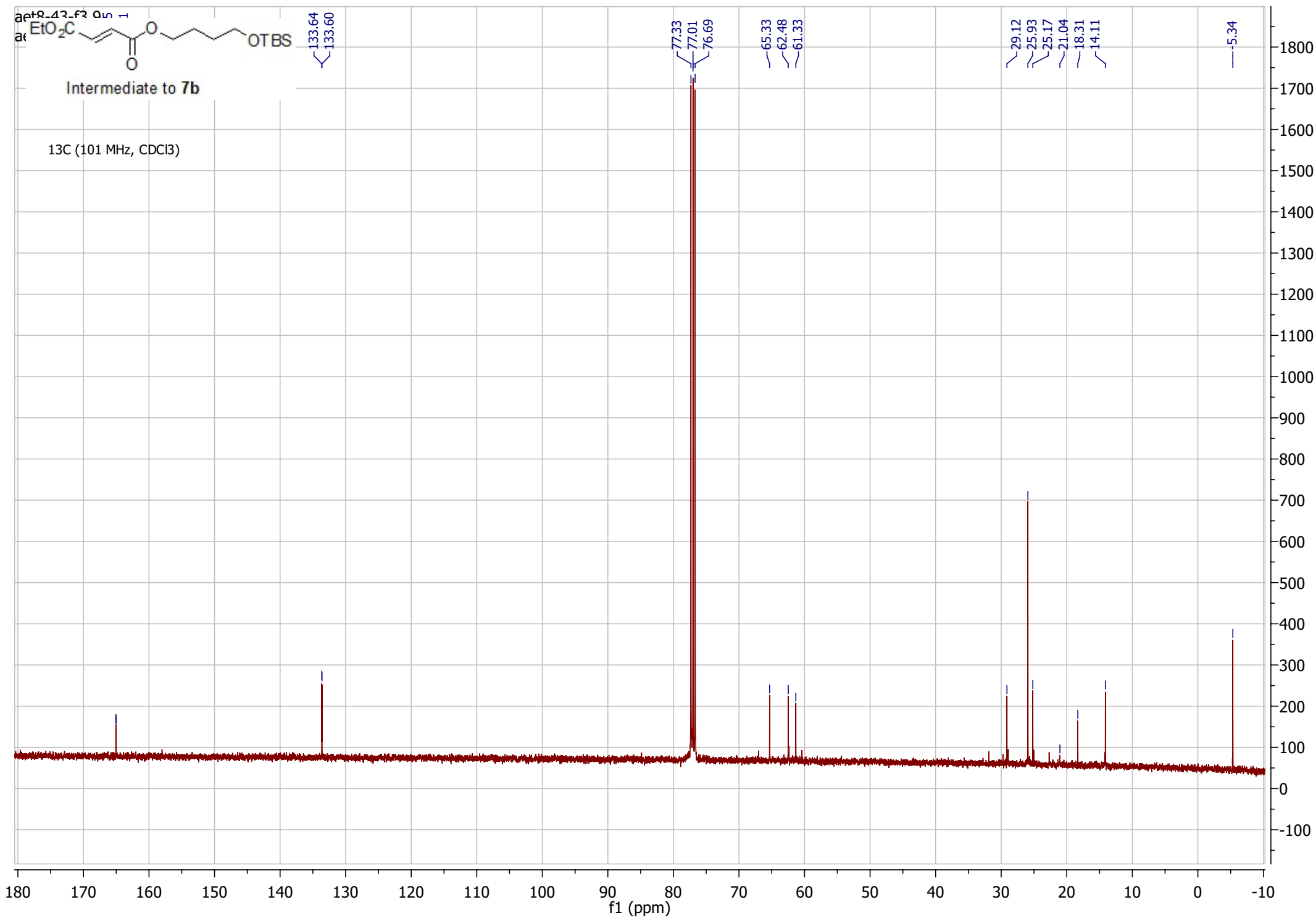


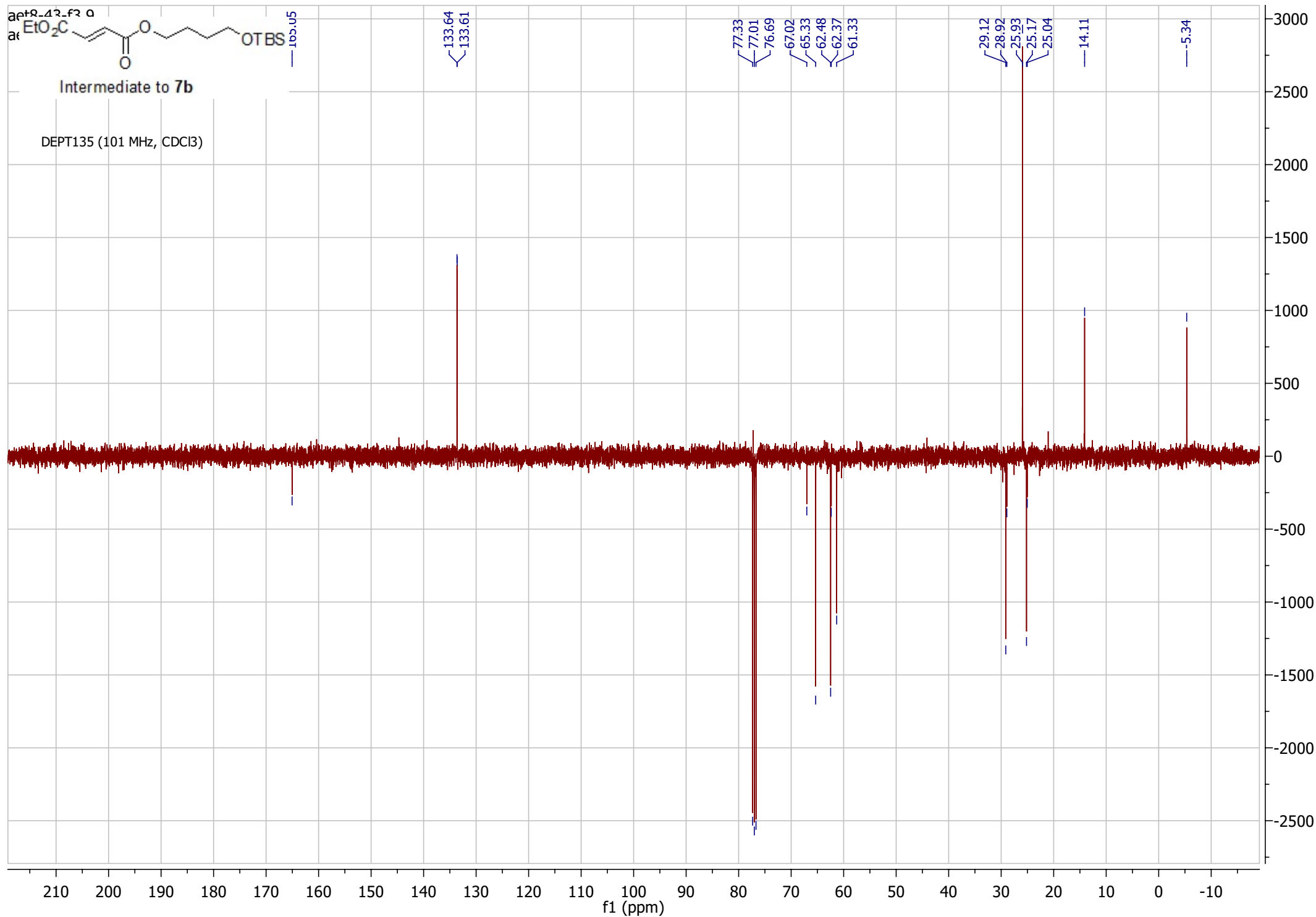


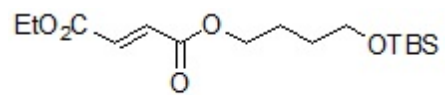
Intermediate to **7b**

¹H (400 MHz, CDCl₃)

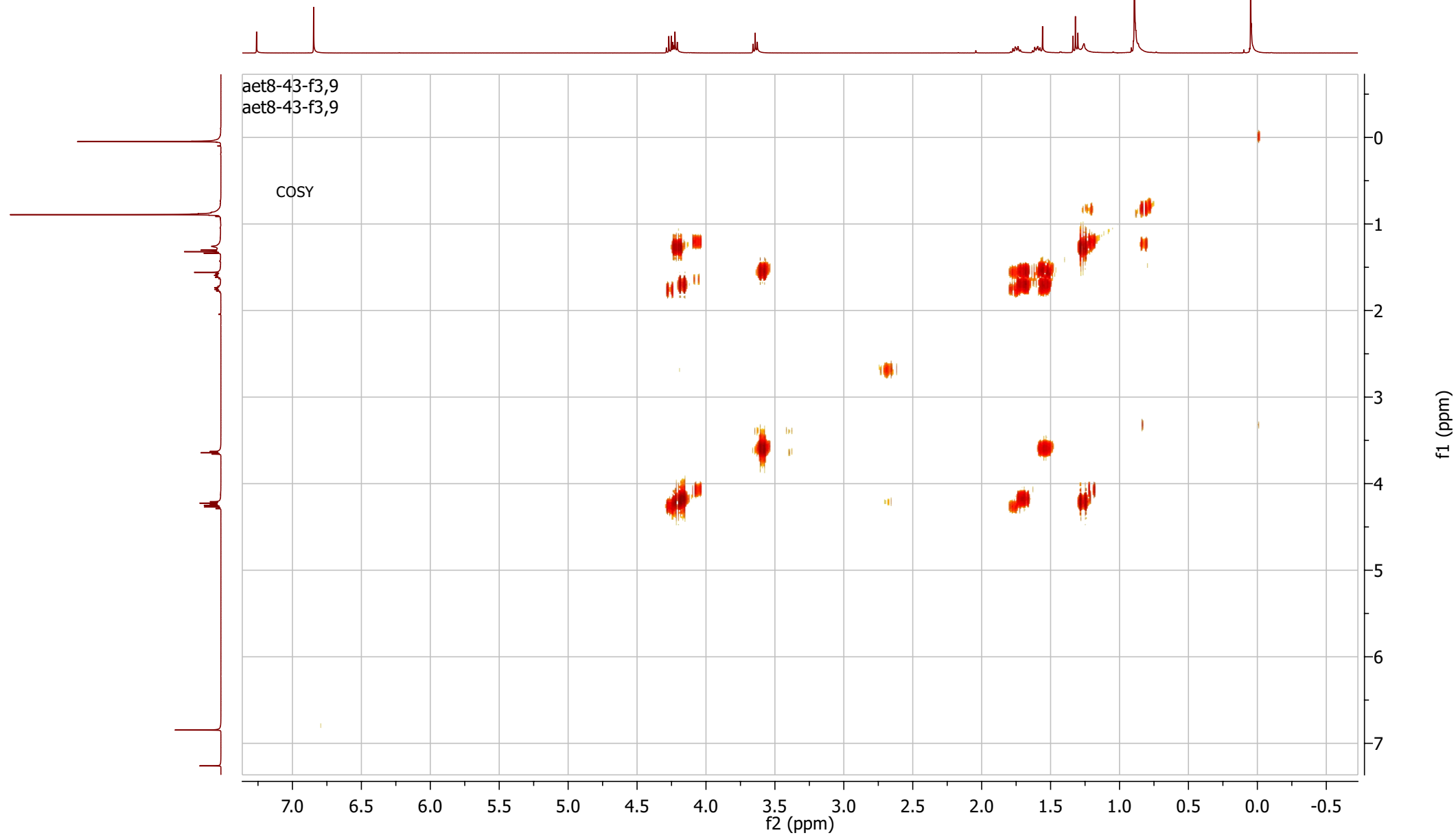


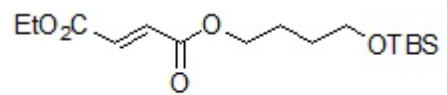




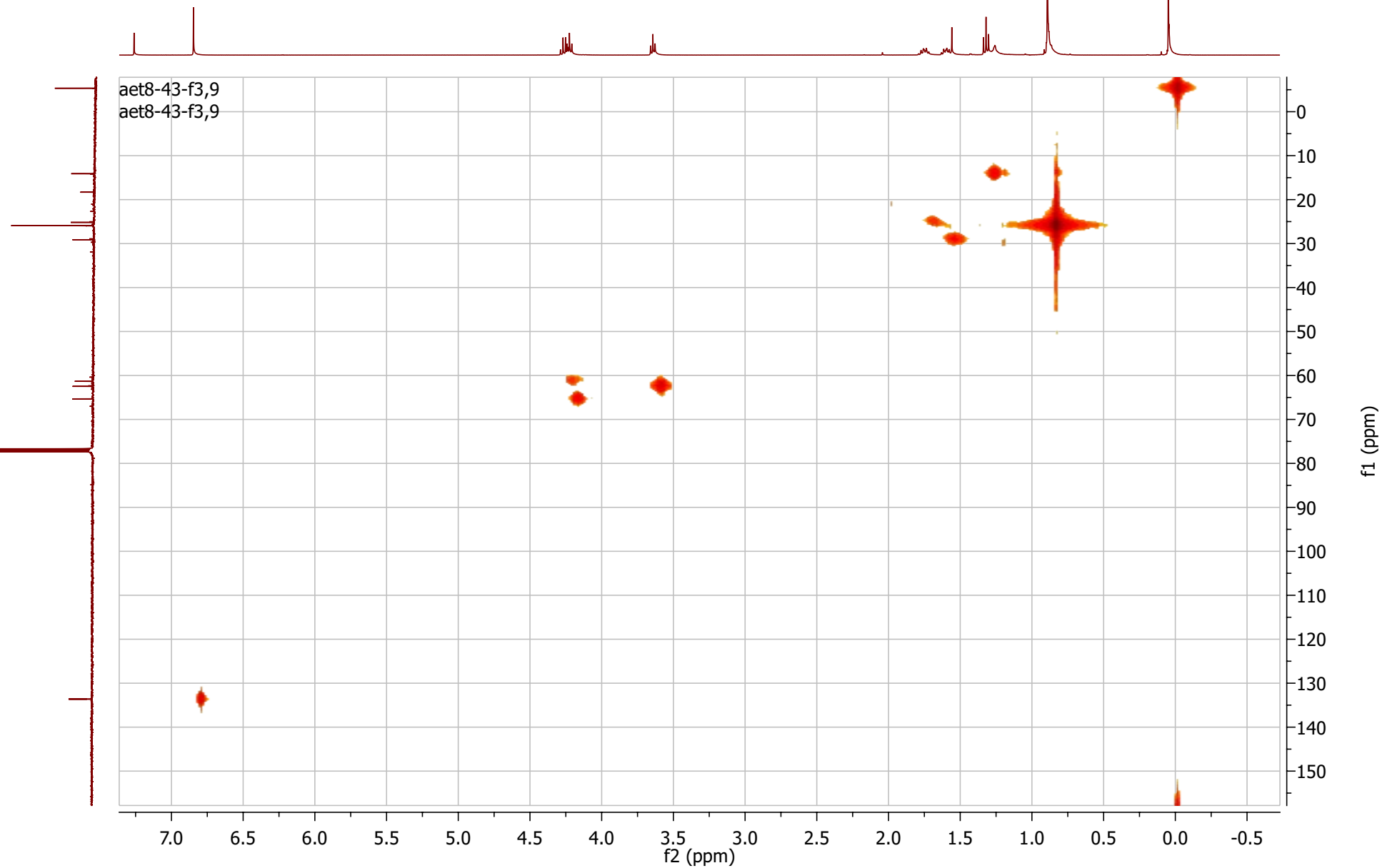


Intermediate to **7b**





Intermediate to **7b**



aet8-56-f16,23
aet8-56-f16,23

10.02
9.81
9.81
9.80
9.59

1H (400 MHz, CDCl3)

7.26

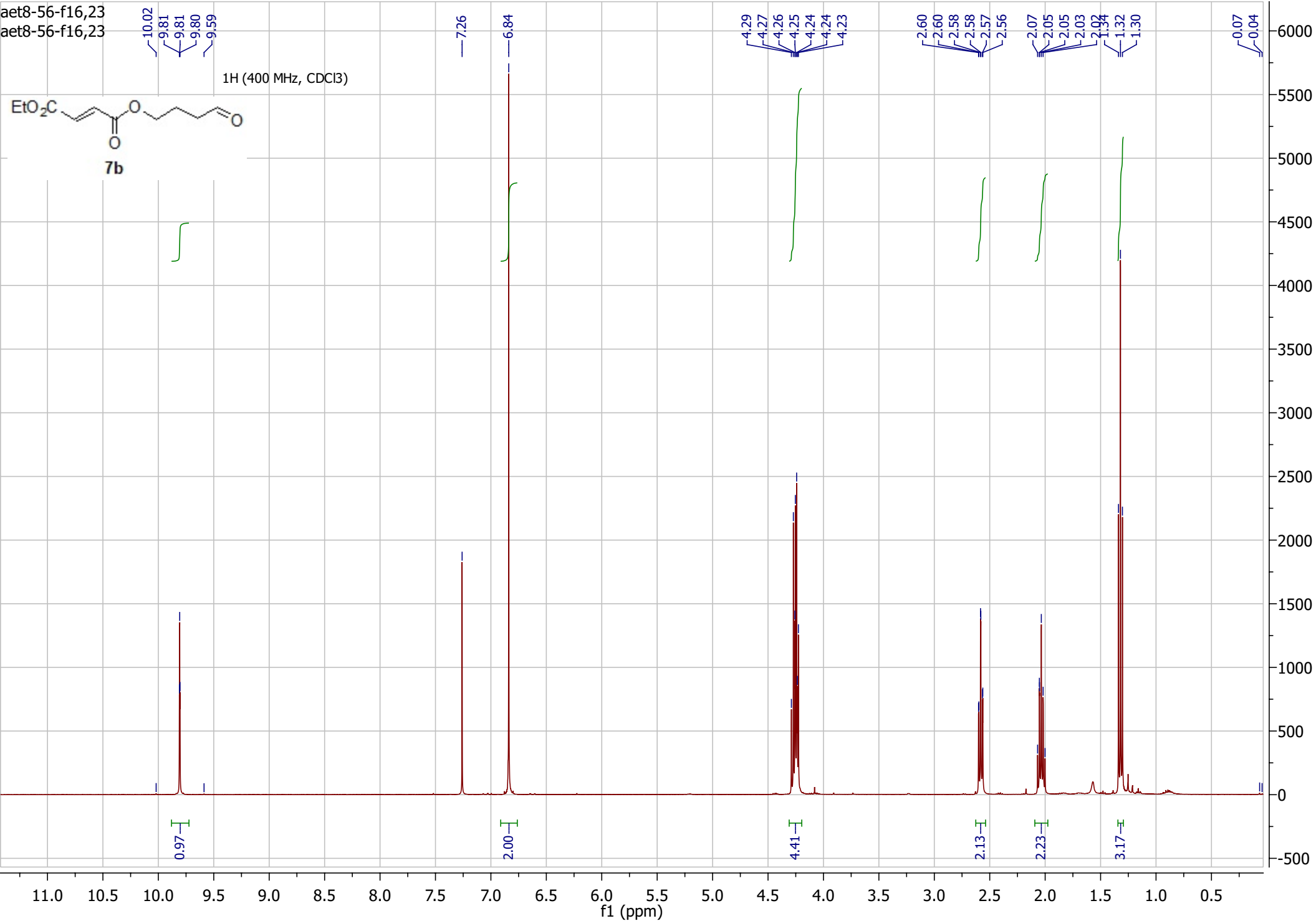
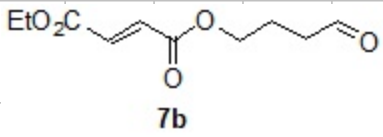
6.84

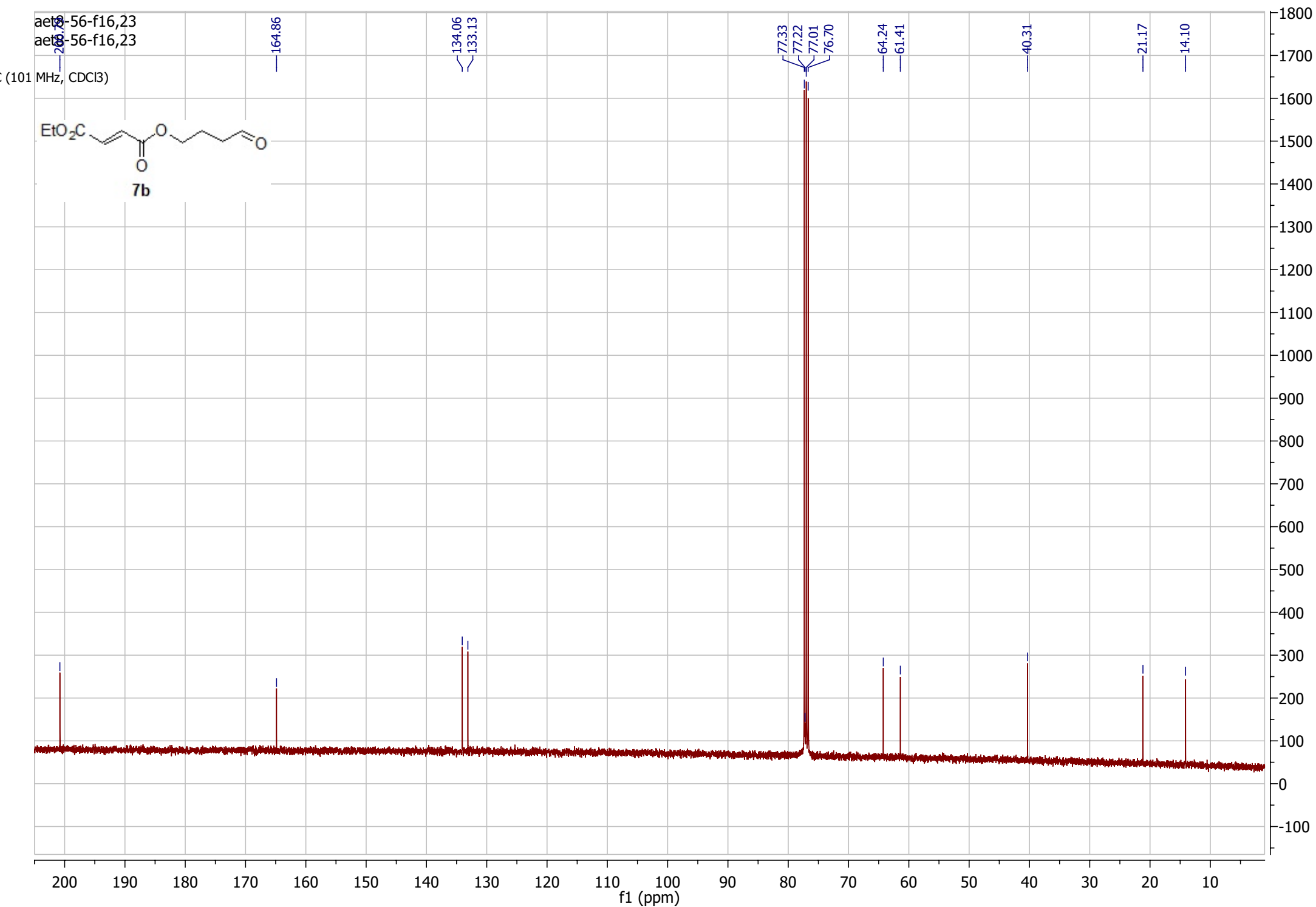
4.29
4.27
4.26
4.25
4.24
4.24
4.23

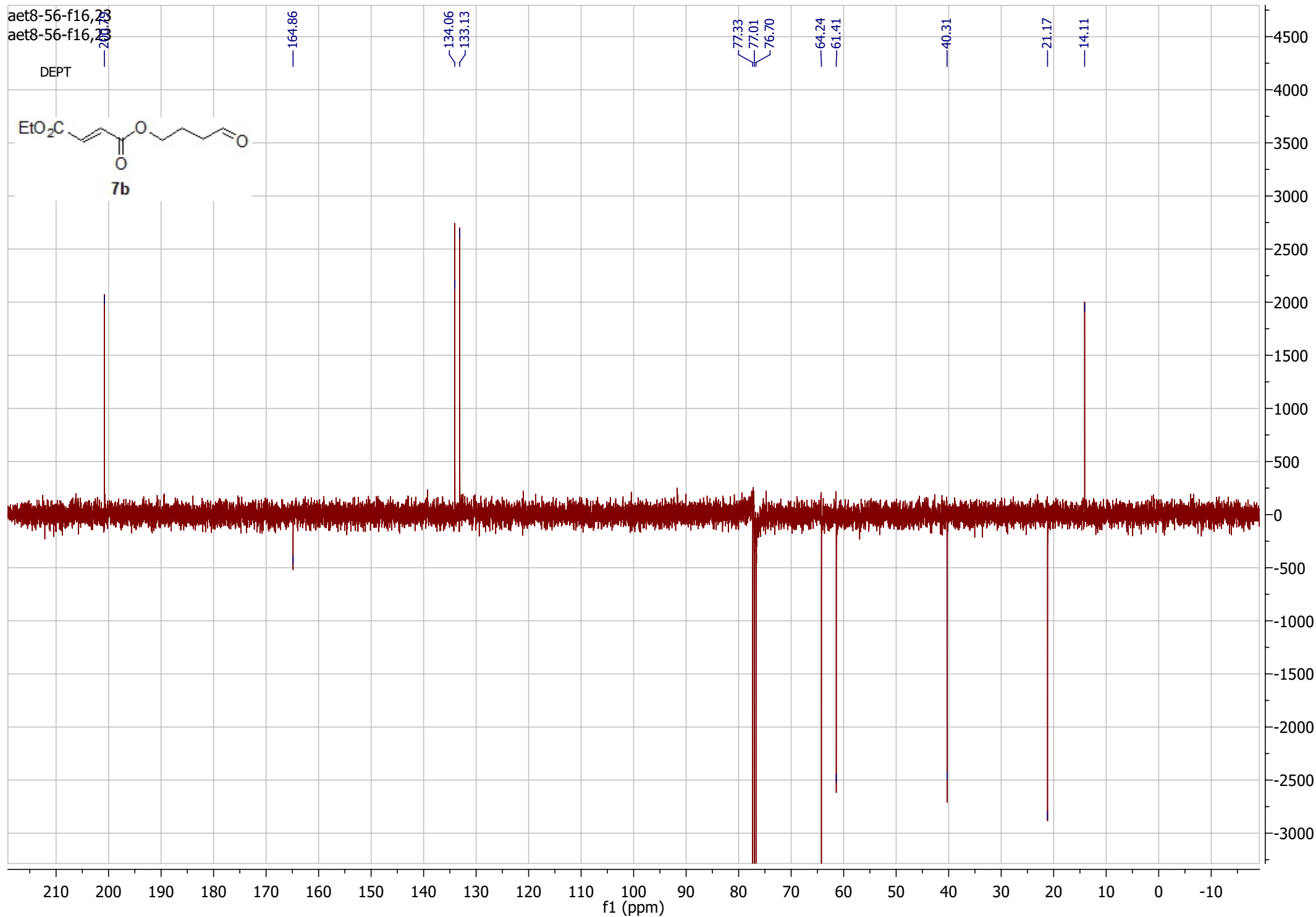
2.60
2.60
2.58
2.57
2.56

2.07
2.05
2.05
2.03
1.94
1.32
1.30

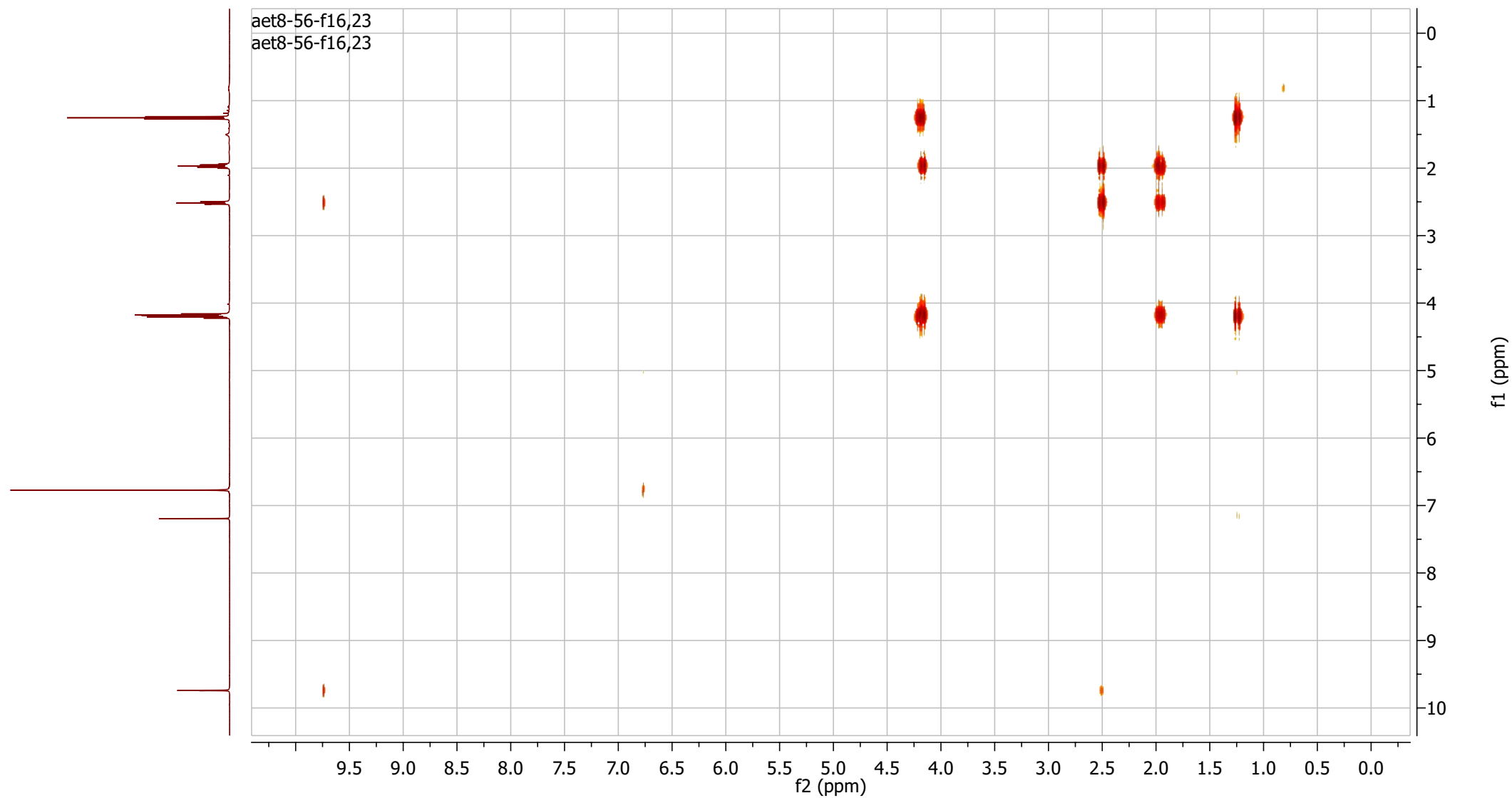
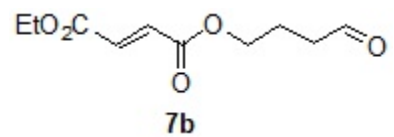
0.07
0.04



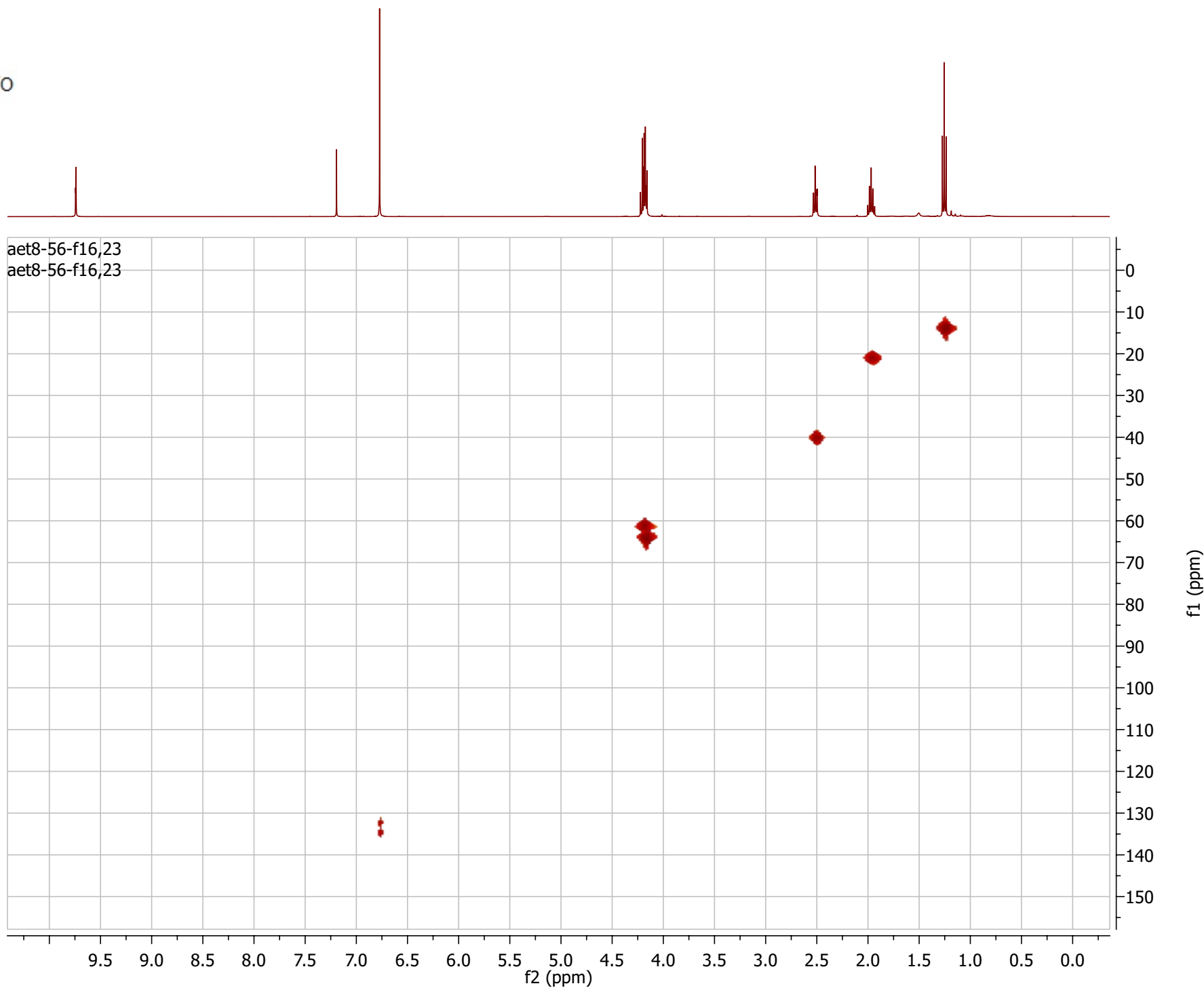
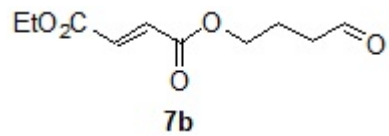




COSY

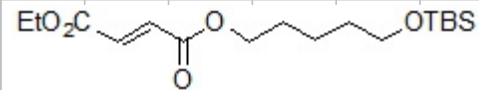


HMQC

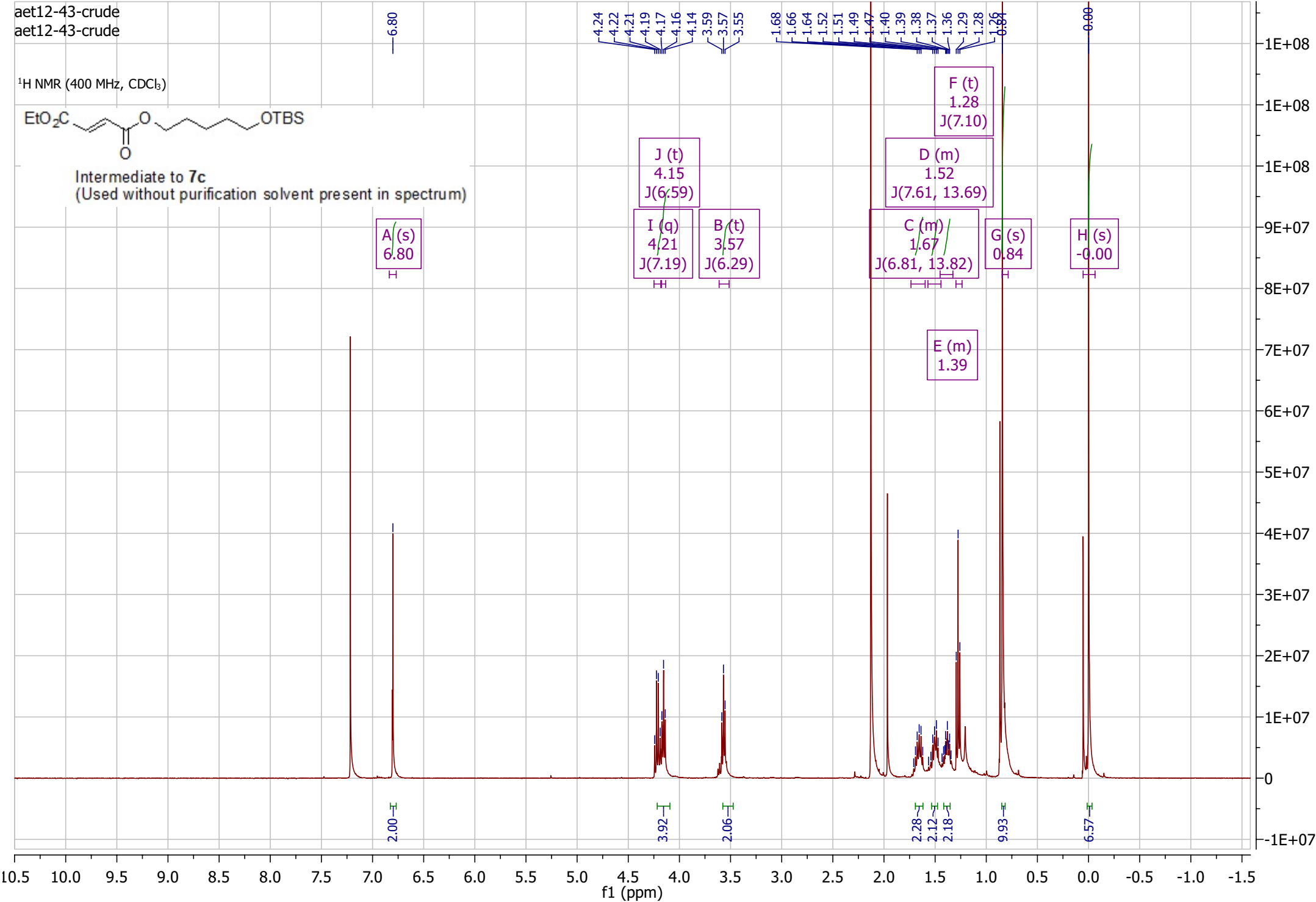


aet12-43-crude
aet12-43-crude

¹H NMR (400 MHz, CDCl₃)

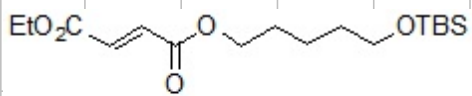


Intermediate to 7c
(Used without purification solvent present in spectrum)

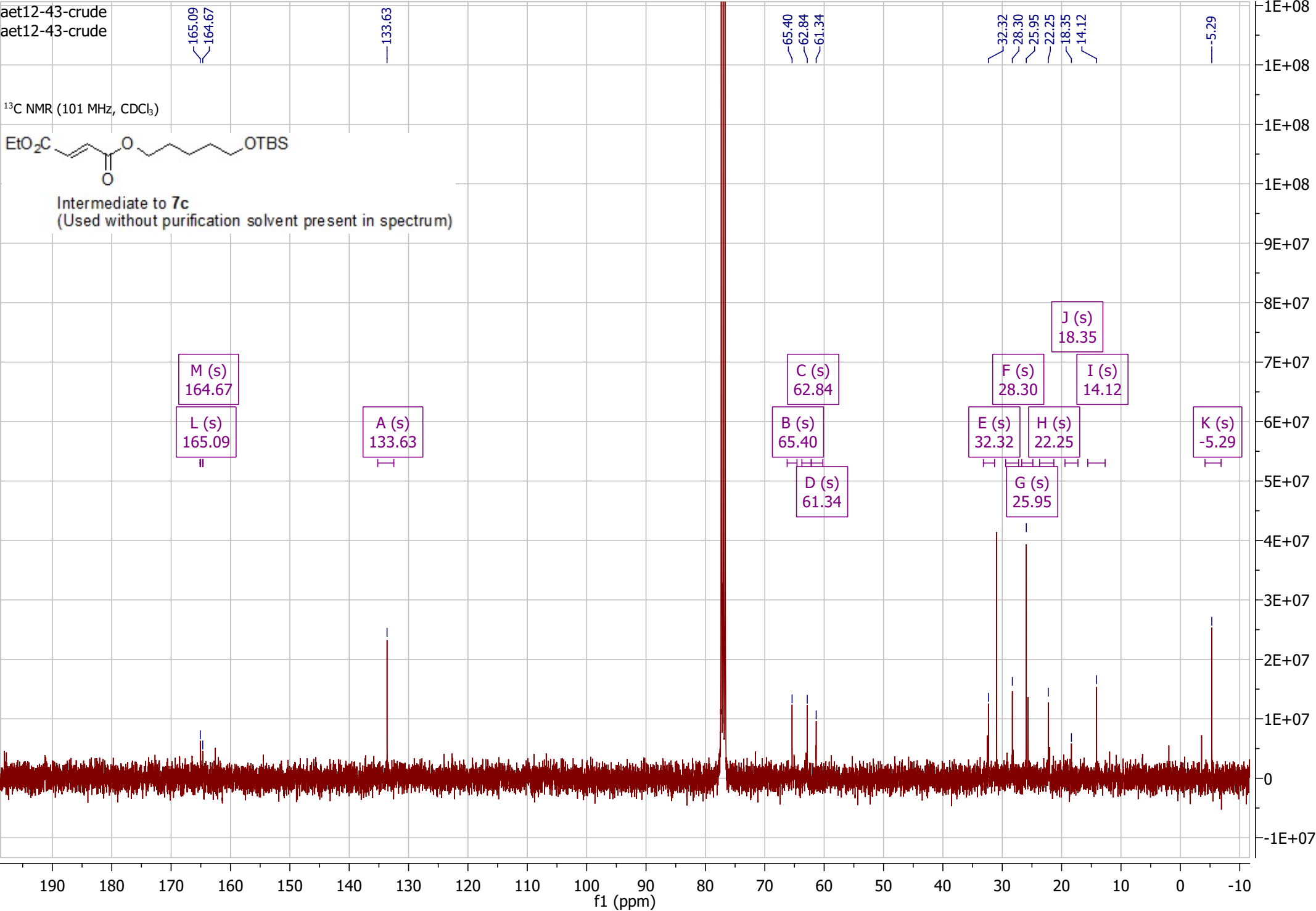


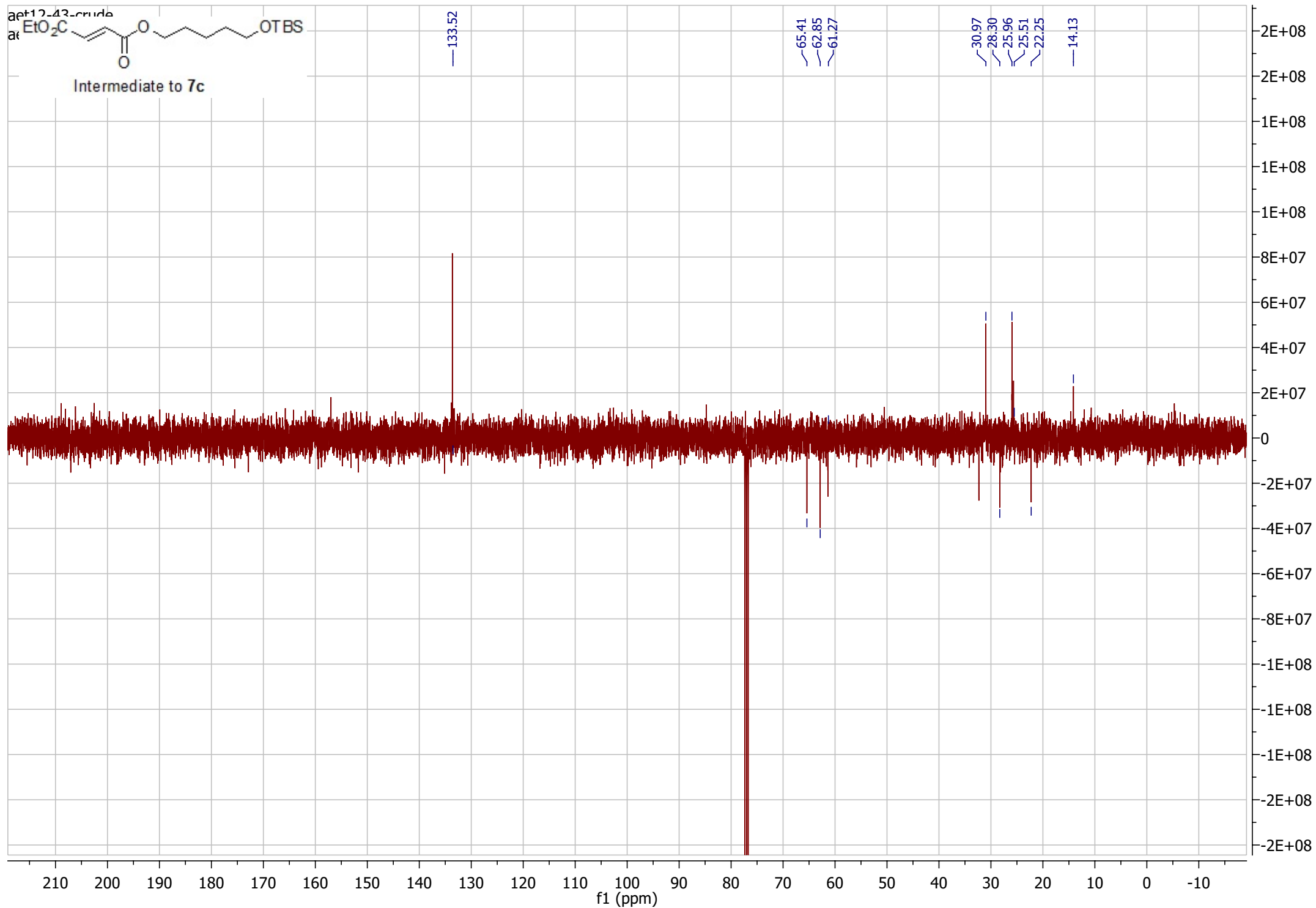
aet12-43-crude
aet12-43-crude

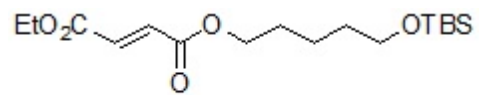
¹³C NMR (101 MHz, CDCl₃)



Intermediate to 7c
(Used without purification solvent present in spectrum)

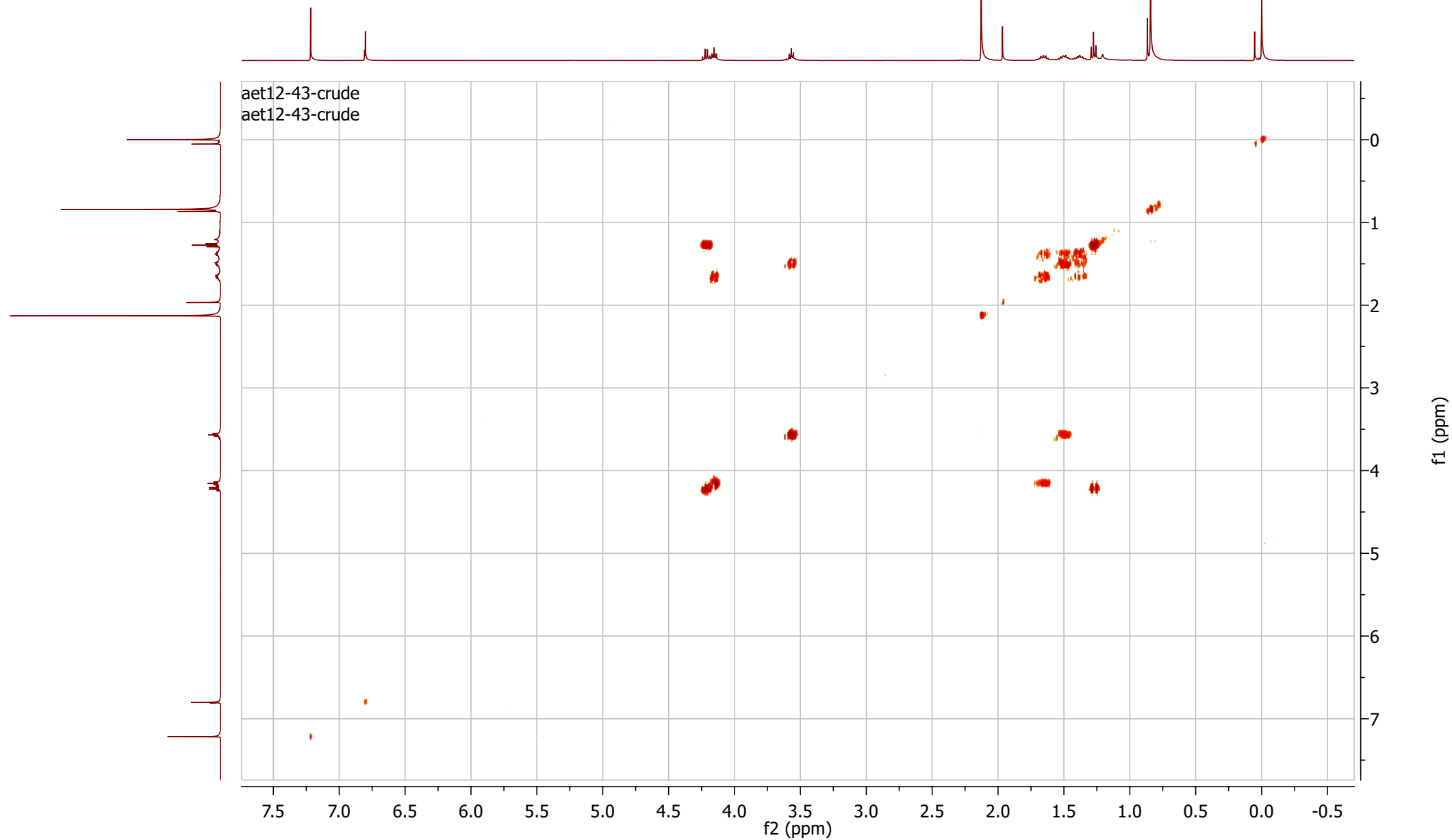


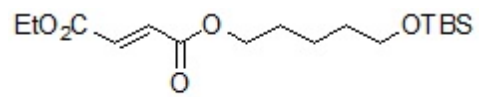




Intermediate to 7c

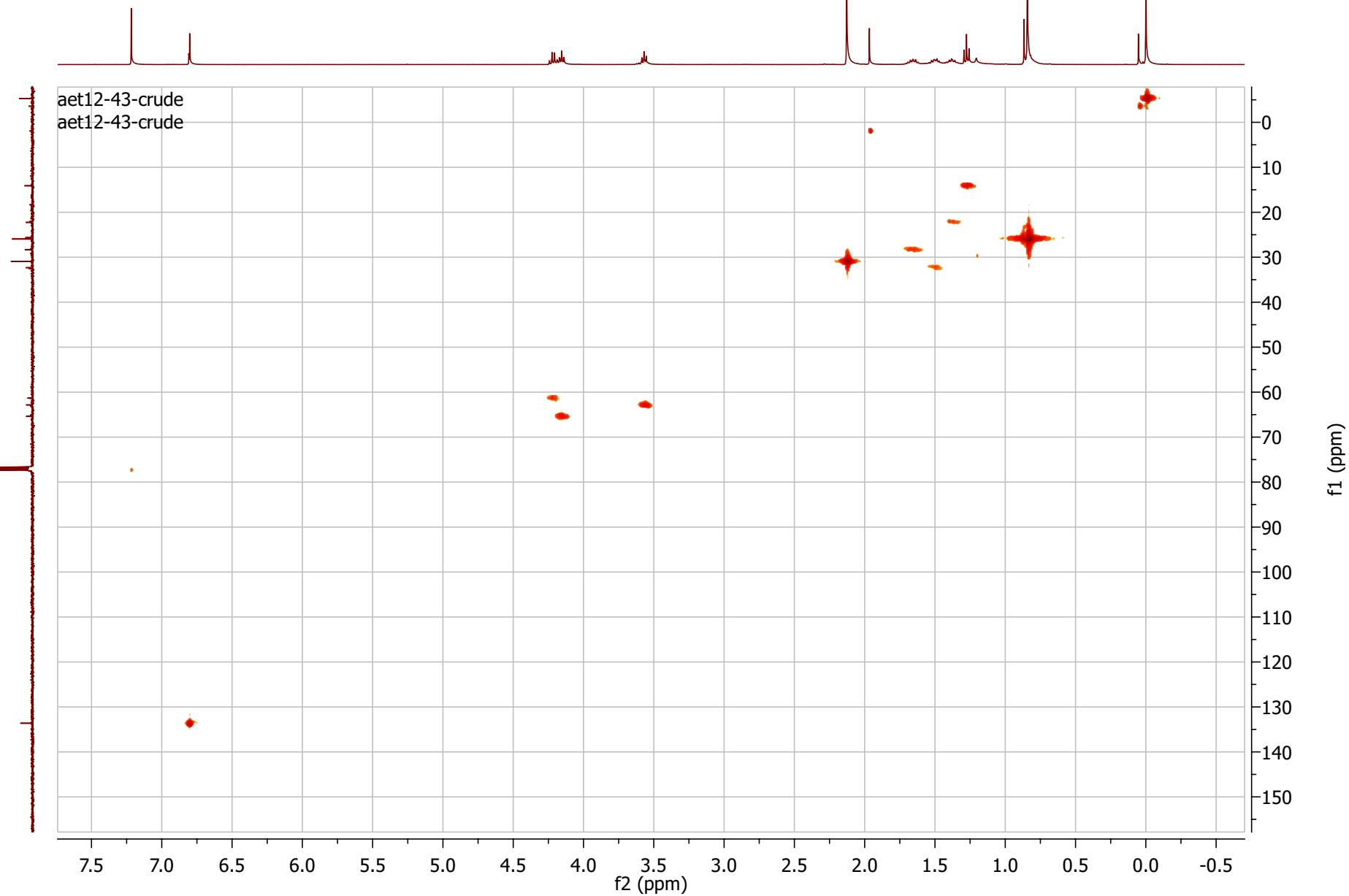
COSY (CDCl₃)





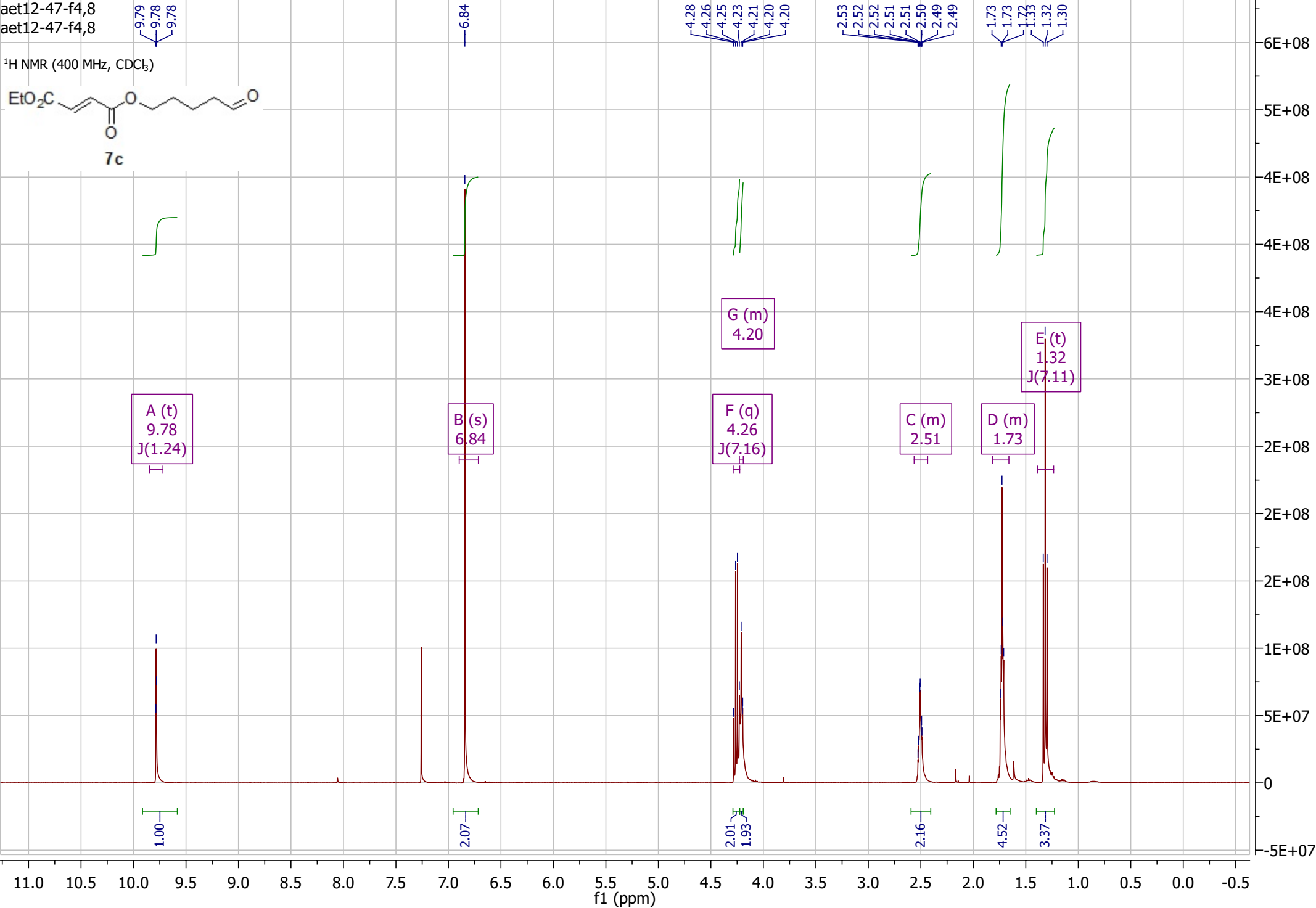
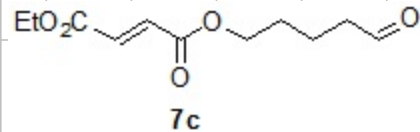
Intermediate to 7c

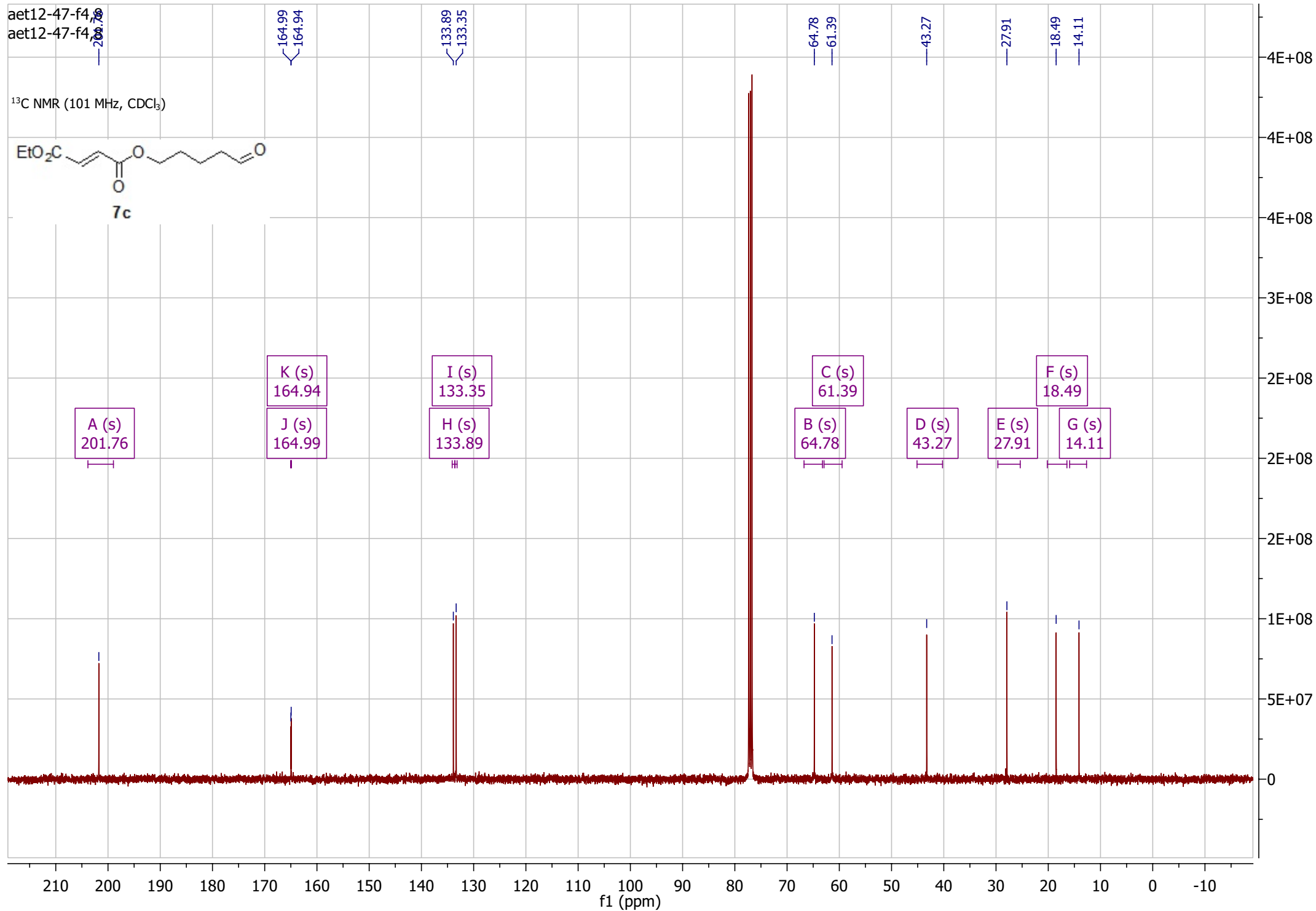
HMQC (CDCl₃)

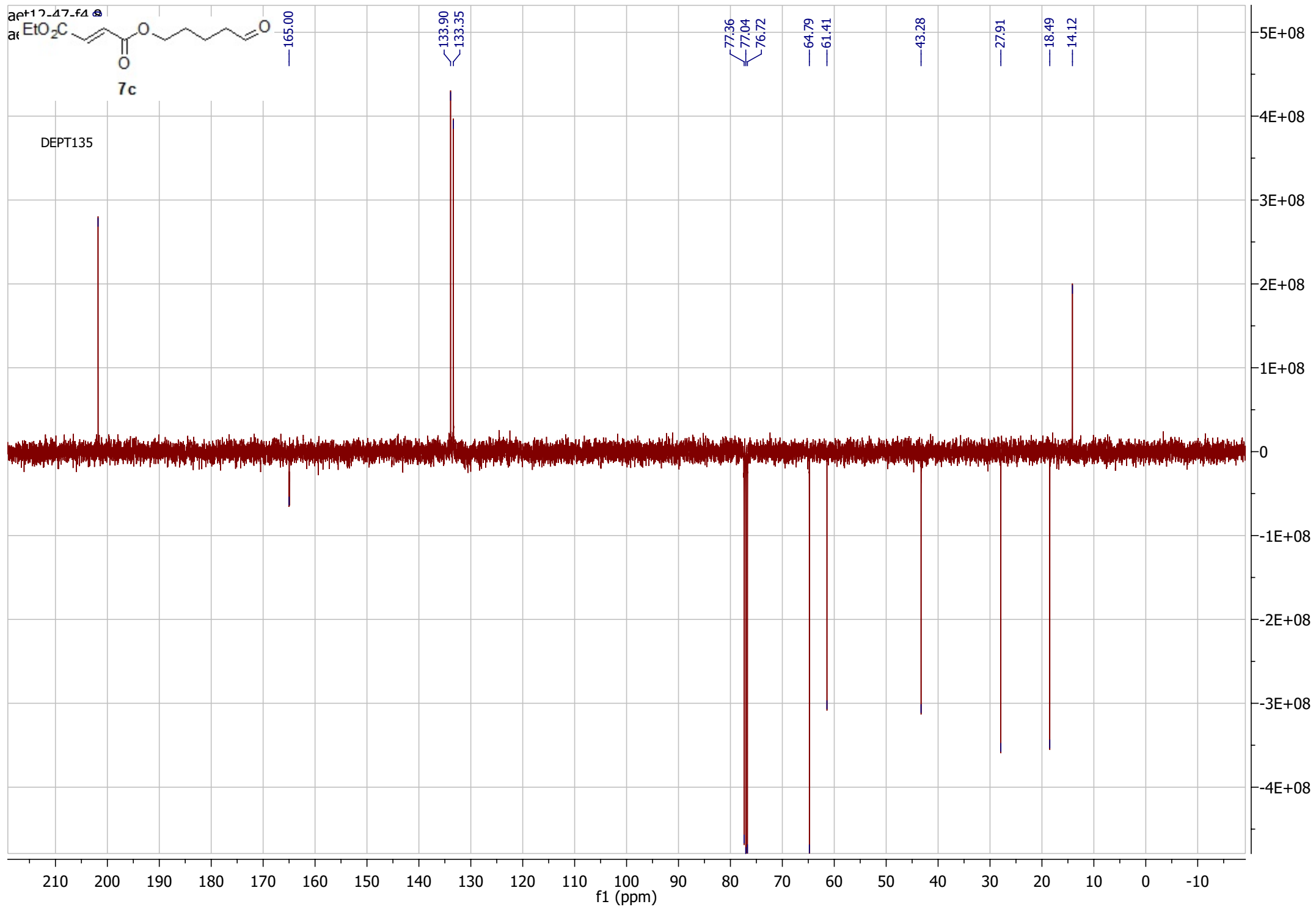


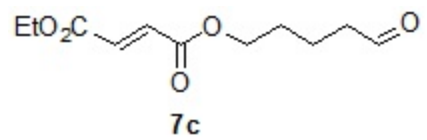
aet12-47-f4,8
aet12-47-f4,8

¹H NMR (400 MHz, CDCl₃)

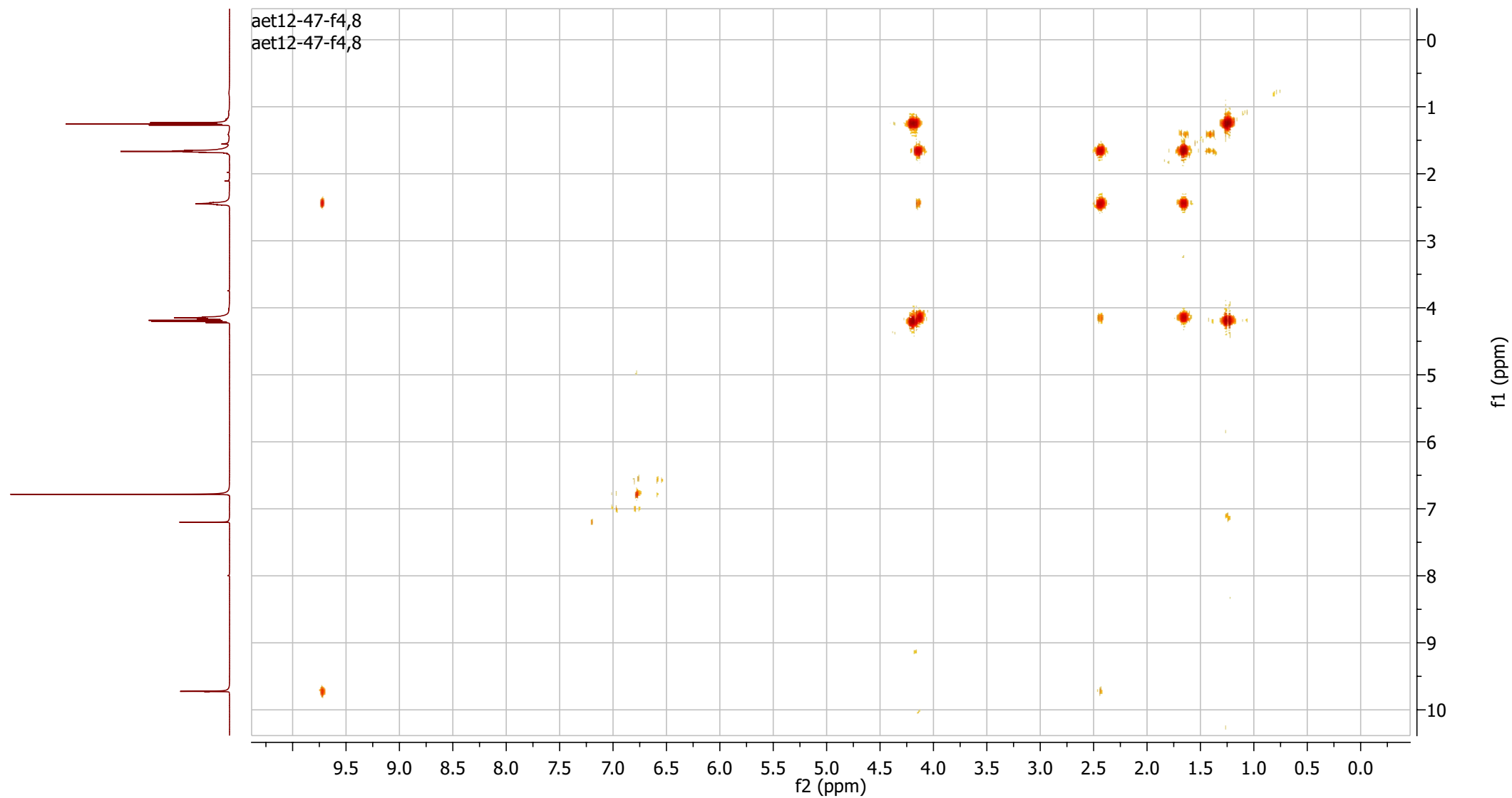


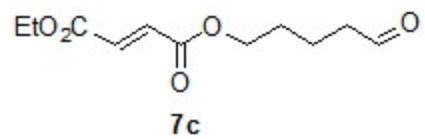




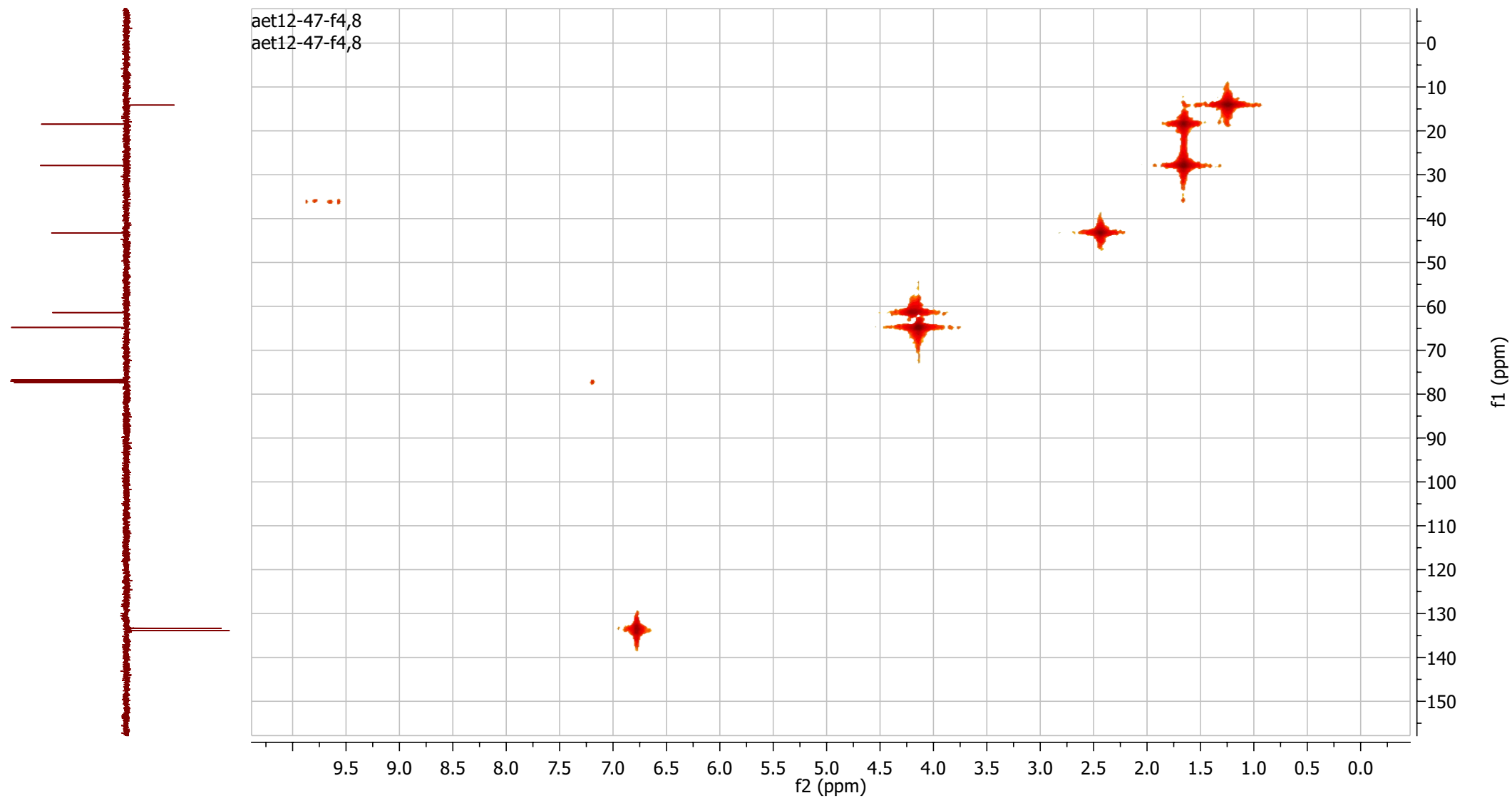


COSY



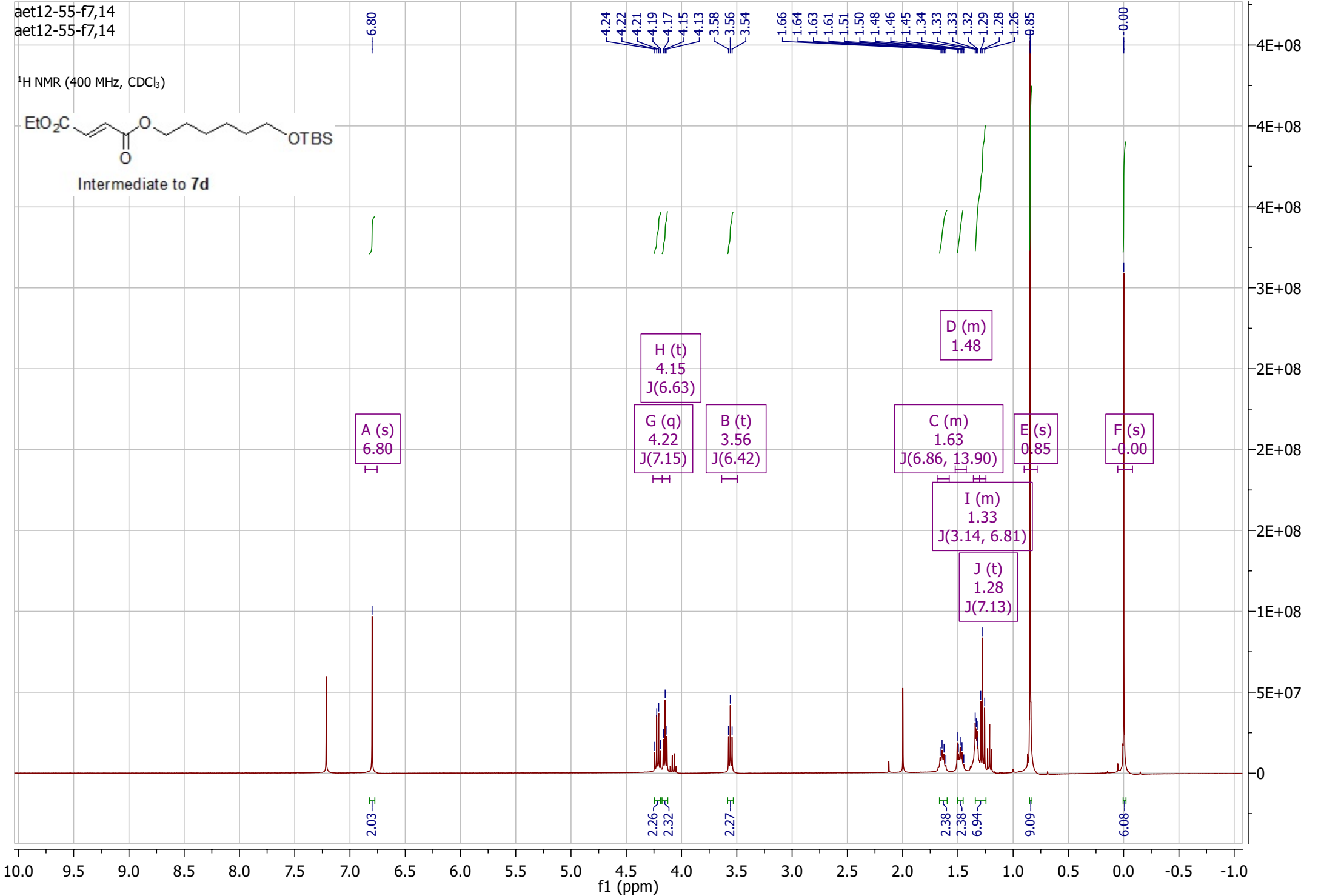
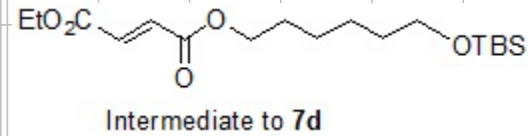


HMQC



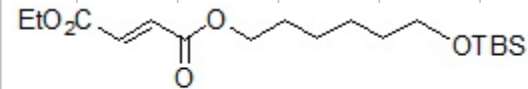
aet12-55-f7,14
aet12-55-f7,14

¹H NMR (400 MHz, CDCl₃)

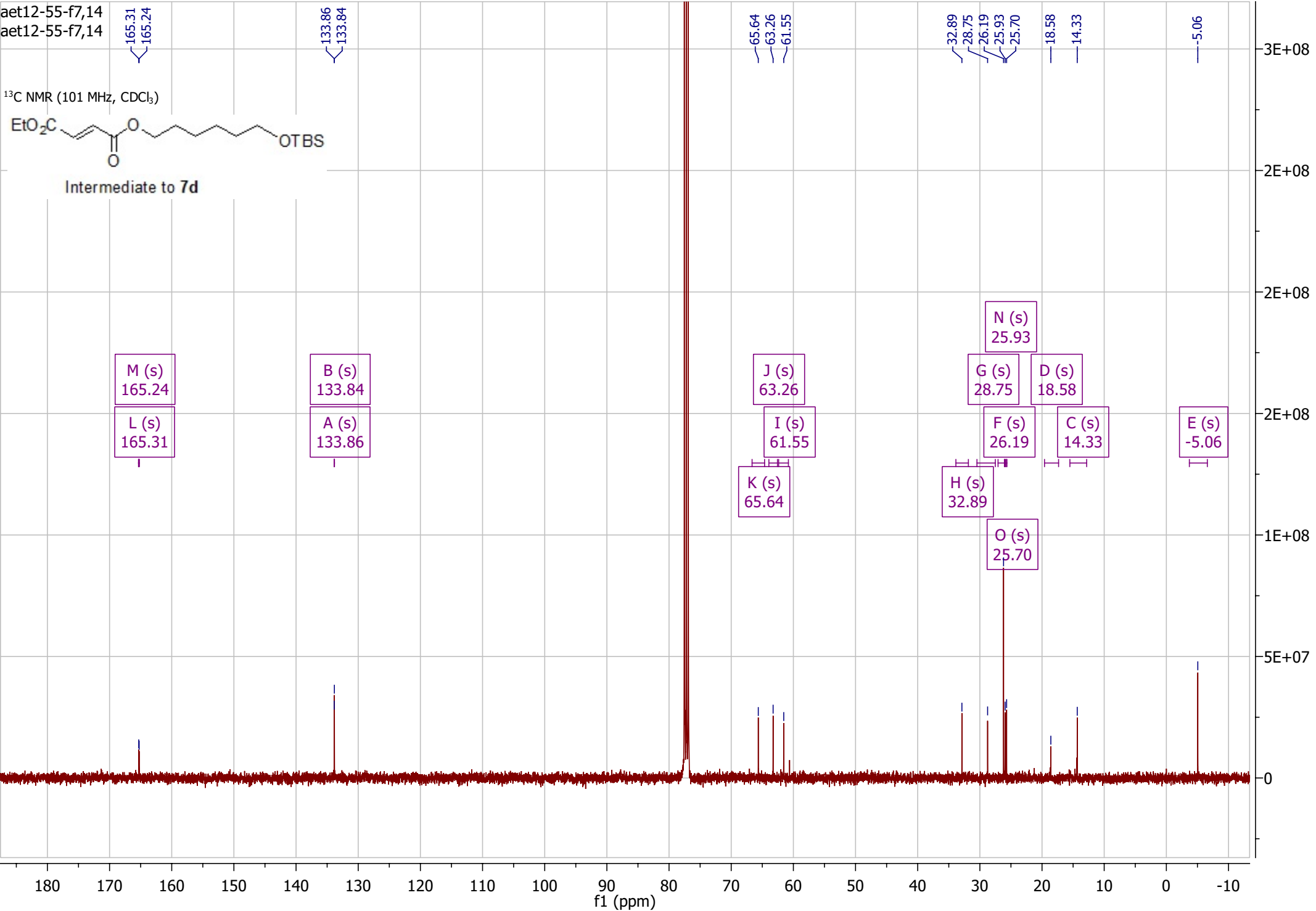


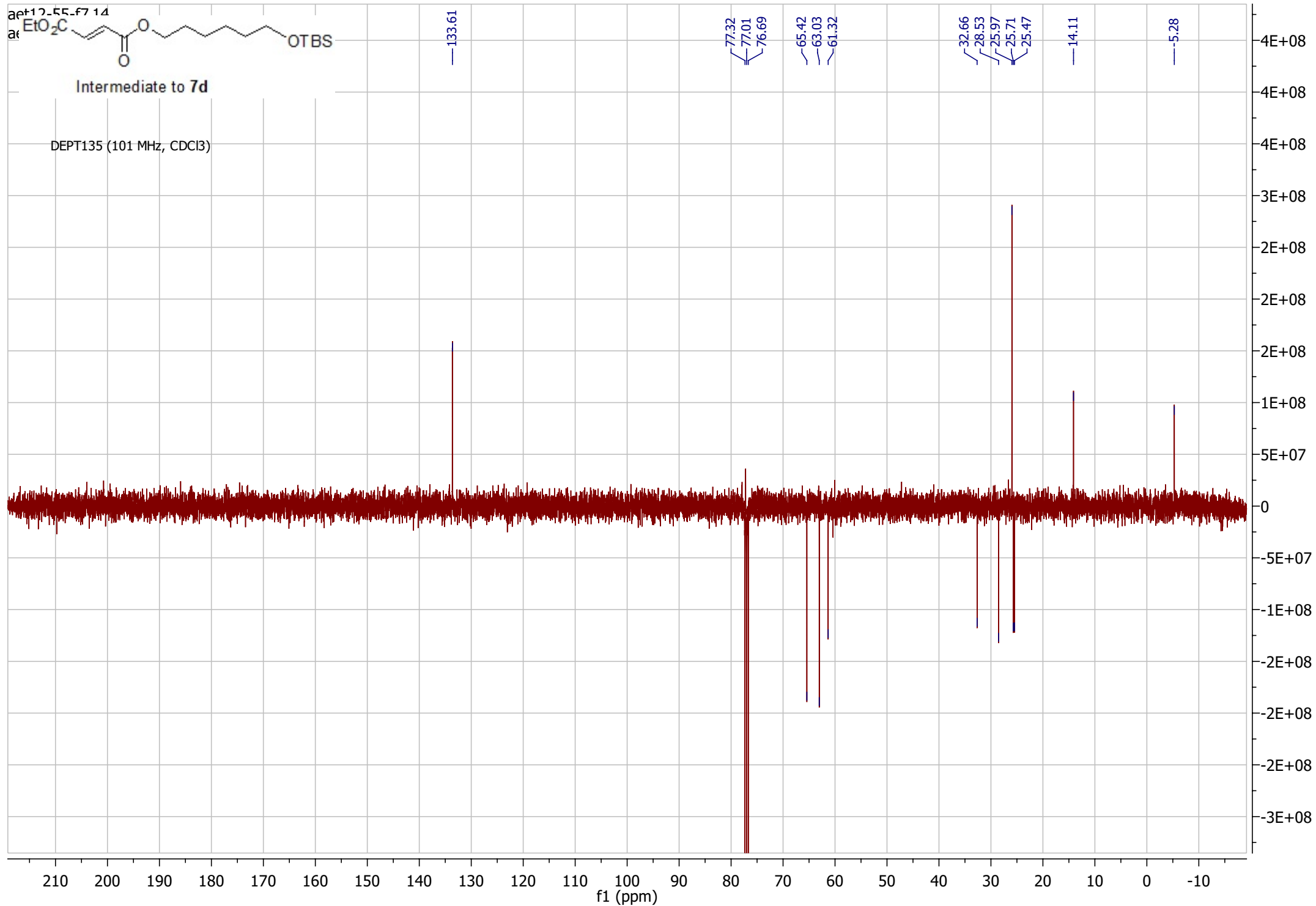
aet12-55-f7,14
aet12-55-f7,14

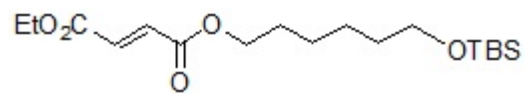
¹³C NMR (101 MHz, CDCl₃)



Intermediate to 7d

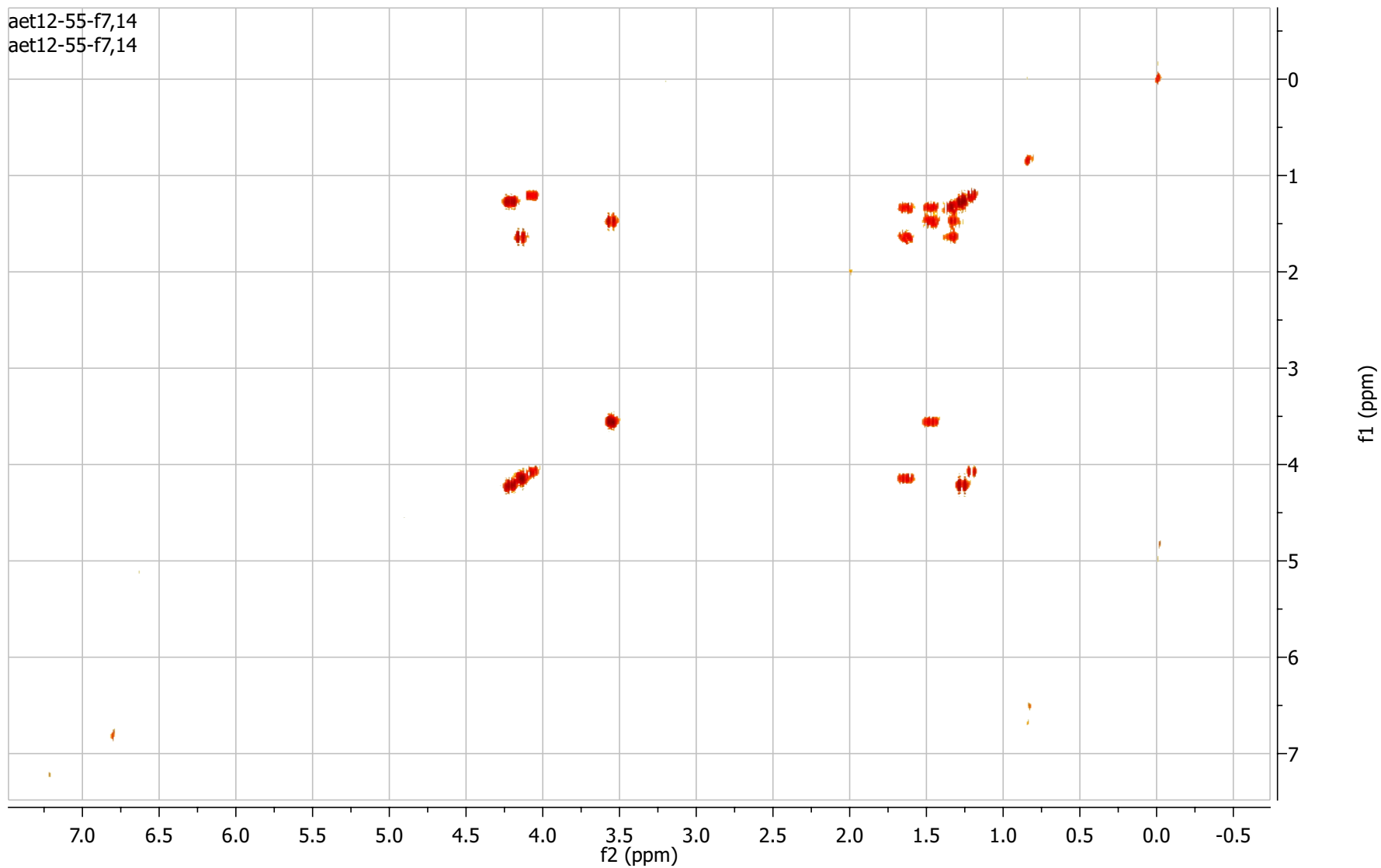


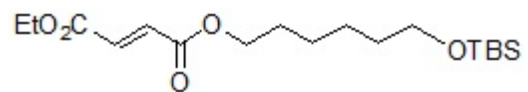




Intermediate to **7d**

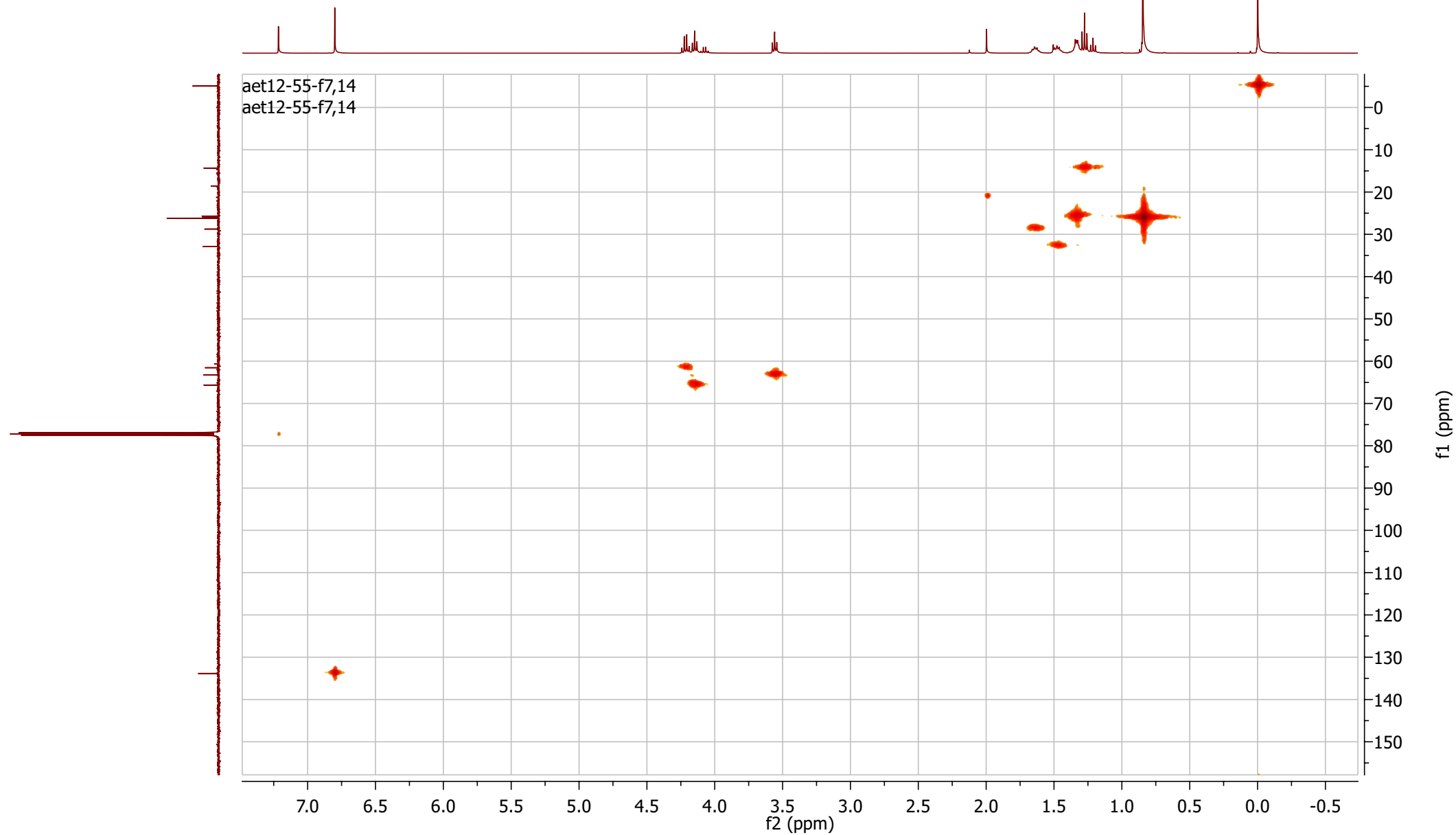
COSY (CDCl₃)

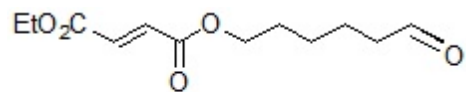




Intermediate to **7d**

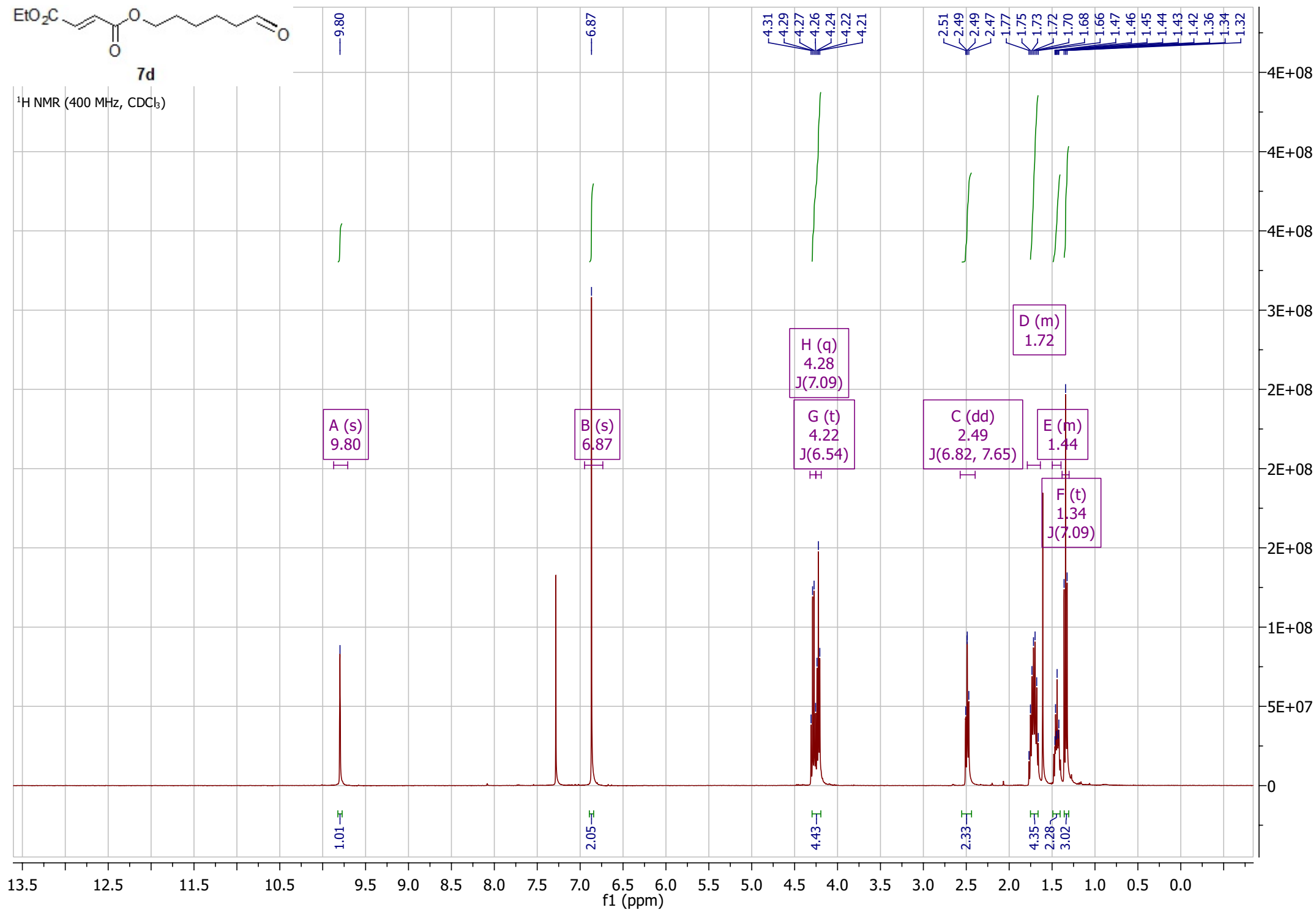
HMQC (CDCl₃)

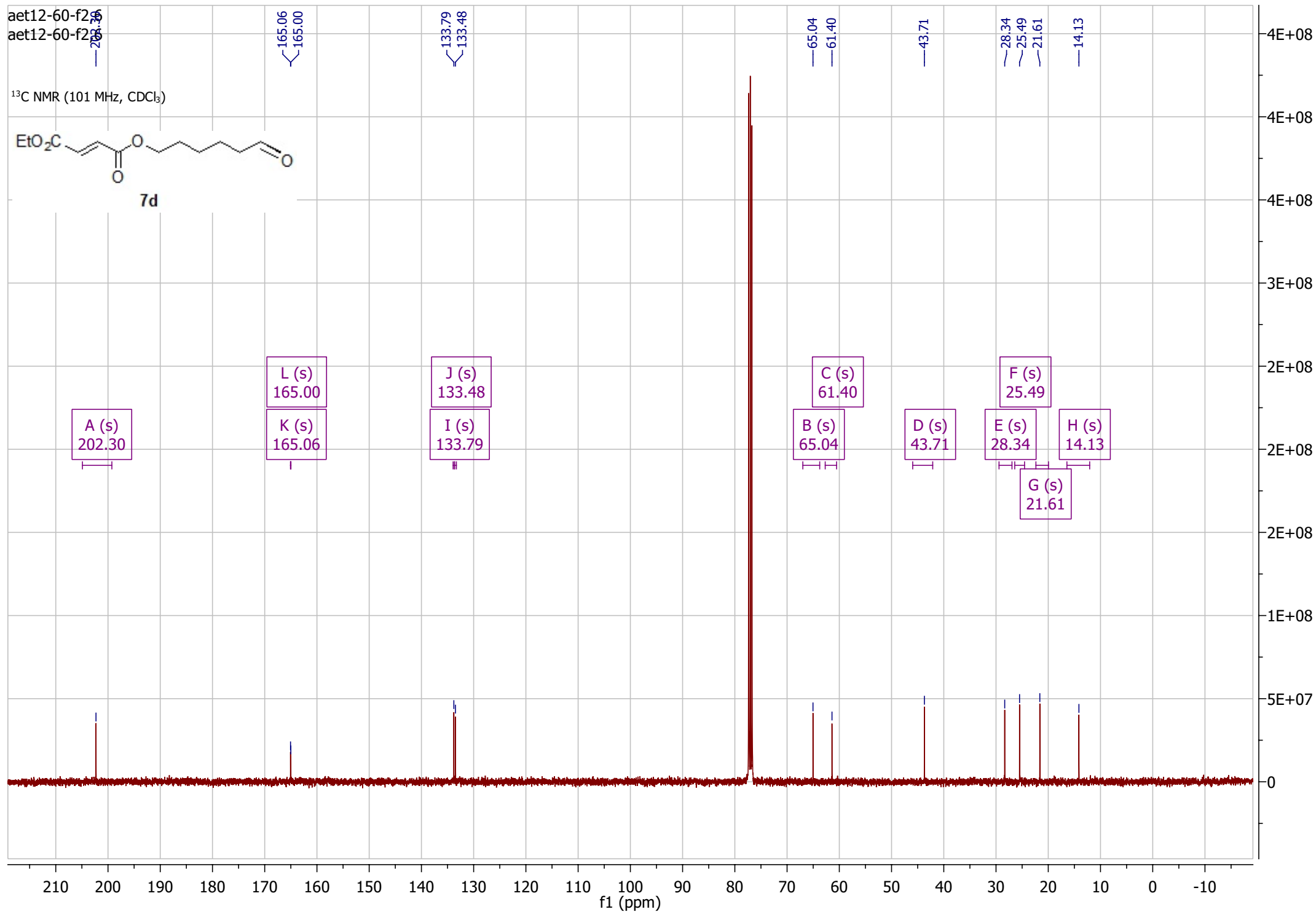




7d

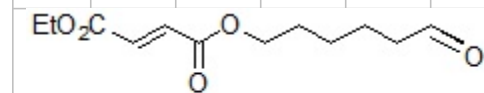
¹H NMR (400 MHz, CDCl₃)



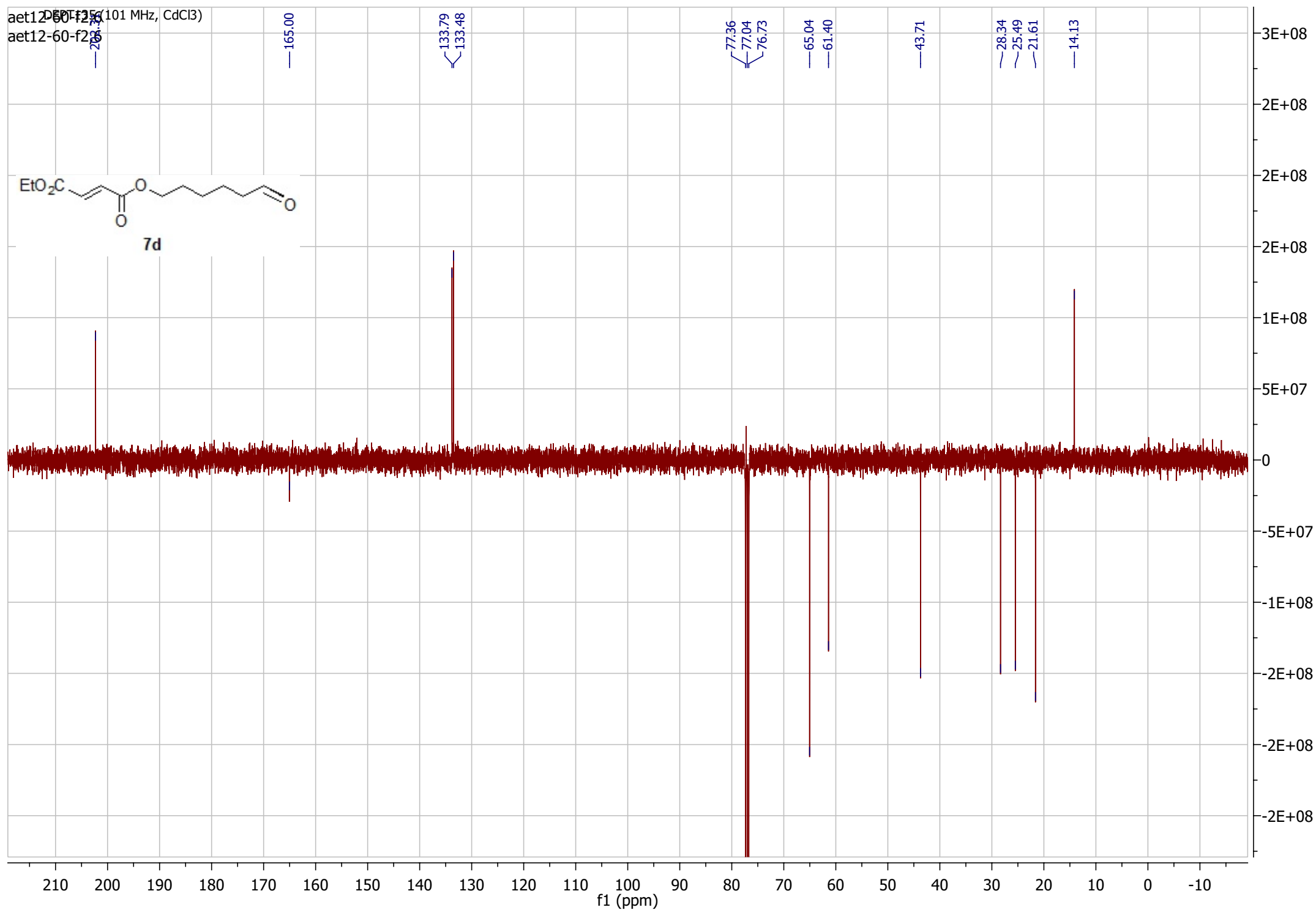


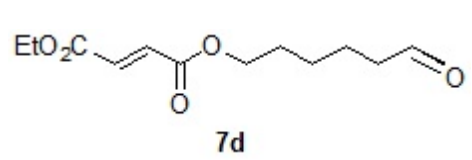
aet12-60-f25 (101 MHz, CdCl3)

aet12-60-f25

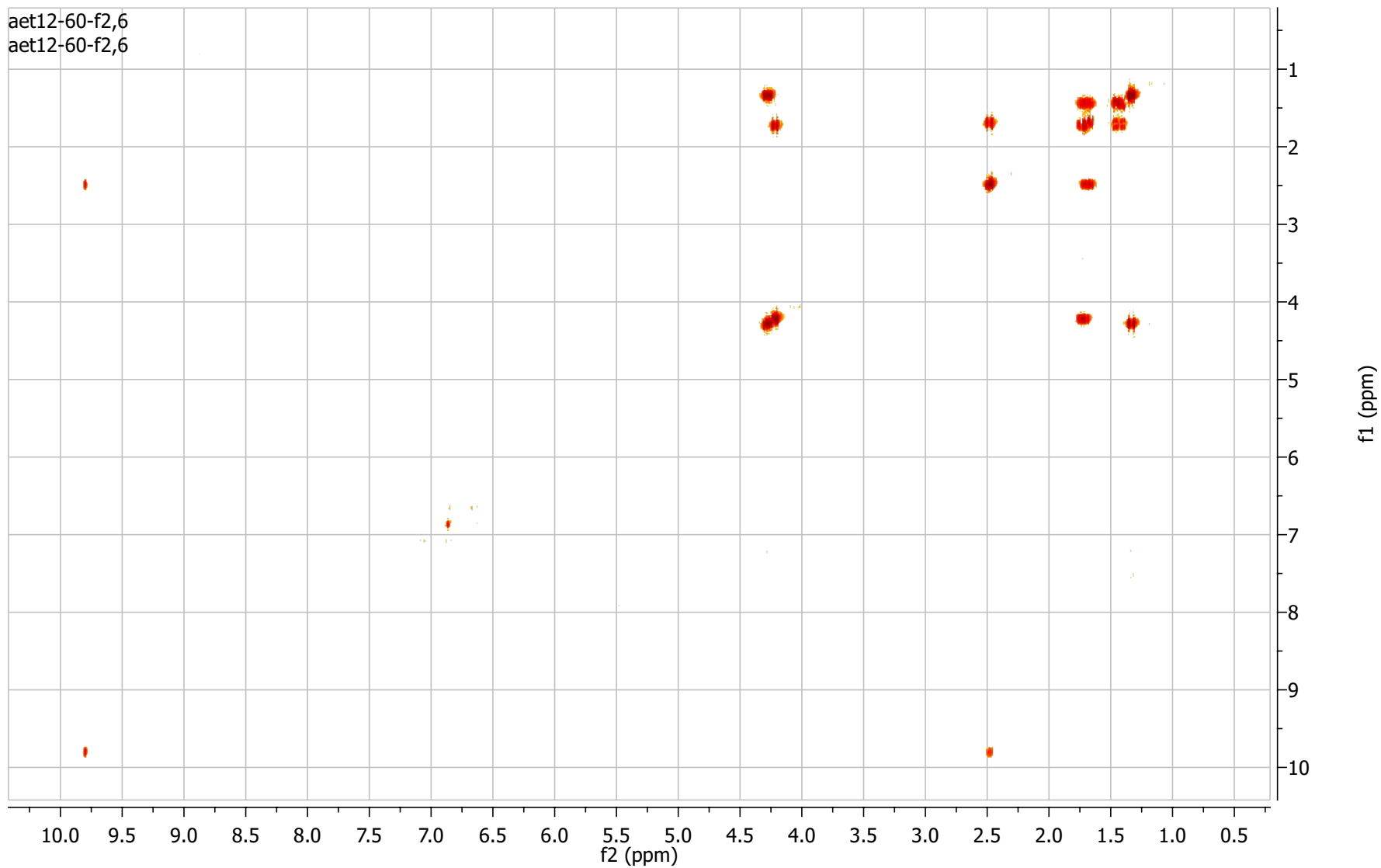


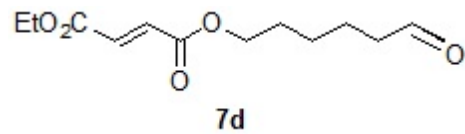
7d



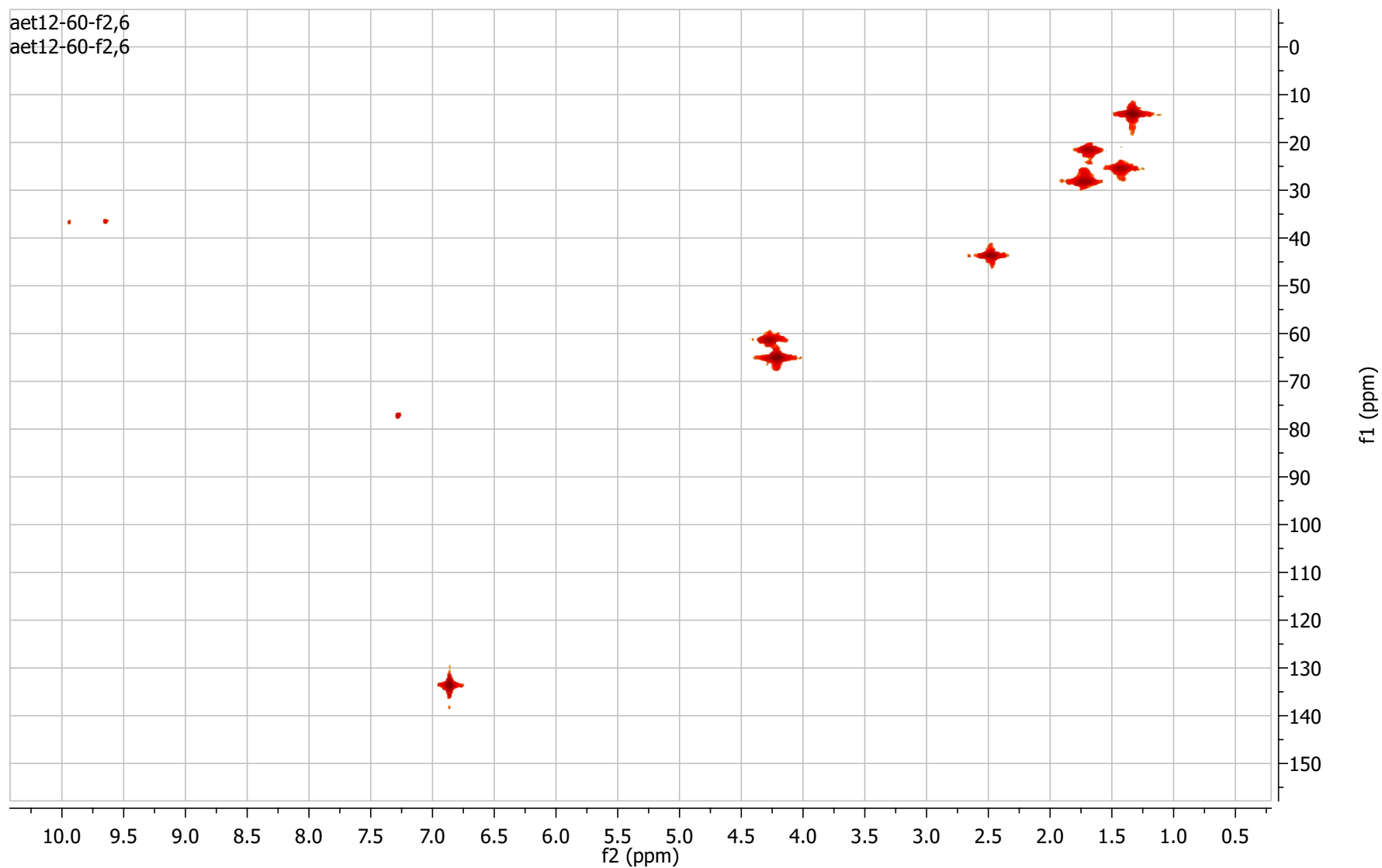


COSY (CDCl₃)



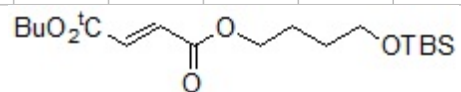


HMQC (CDCl₃)

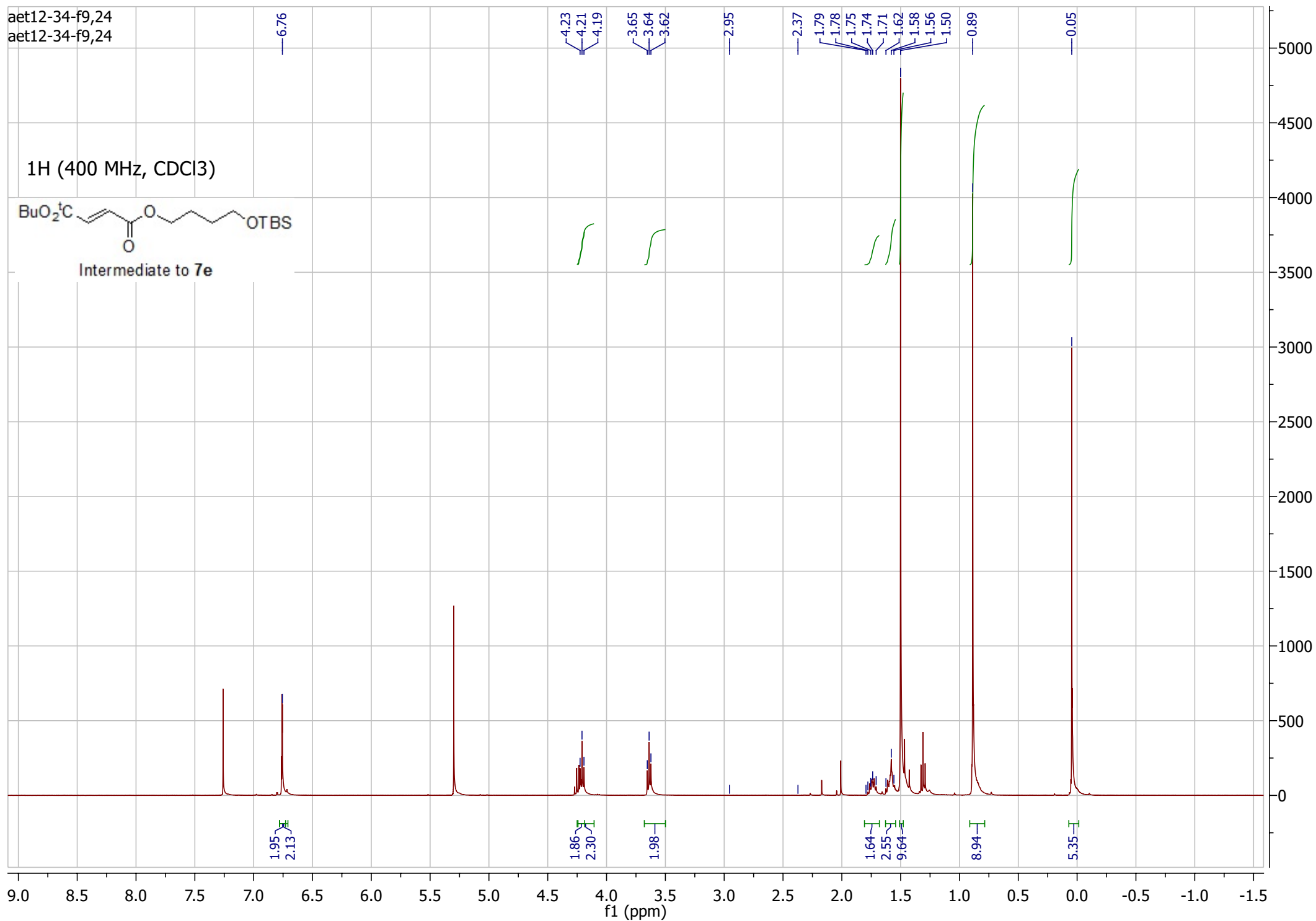


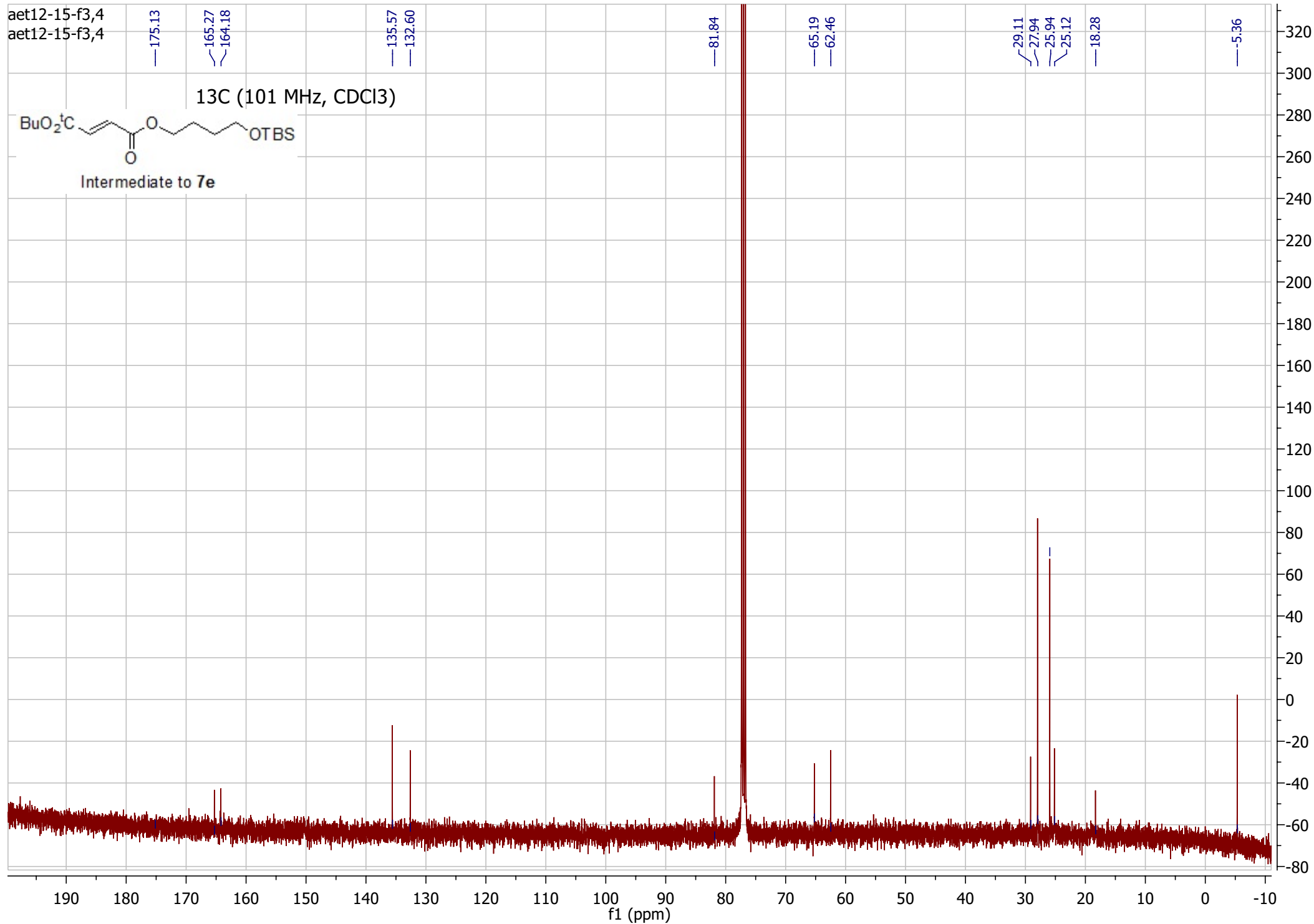
aet12-34-f9,24
aet12-34-f9,24

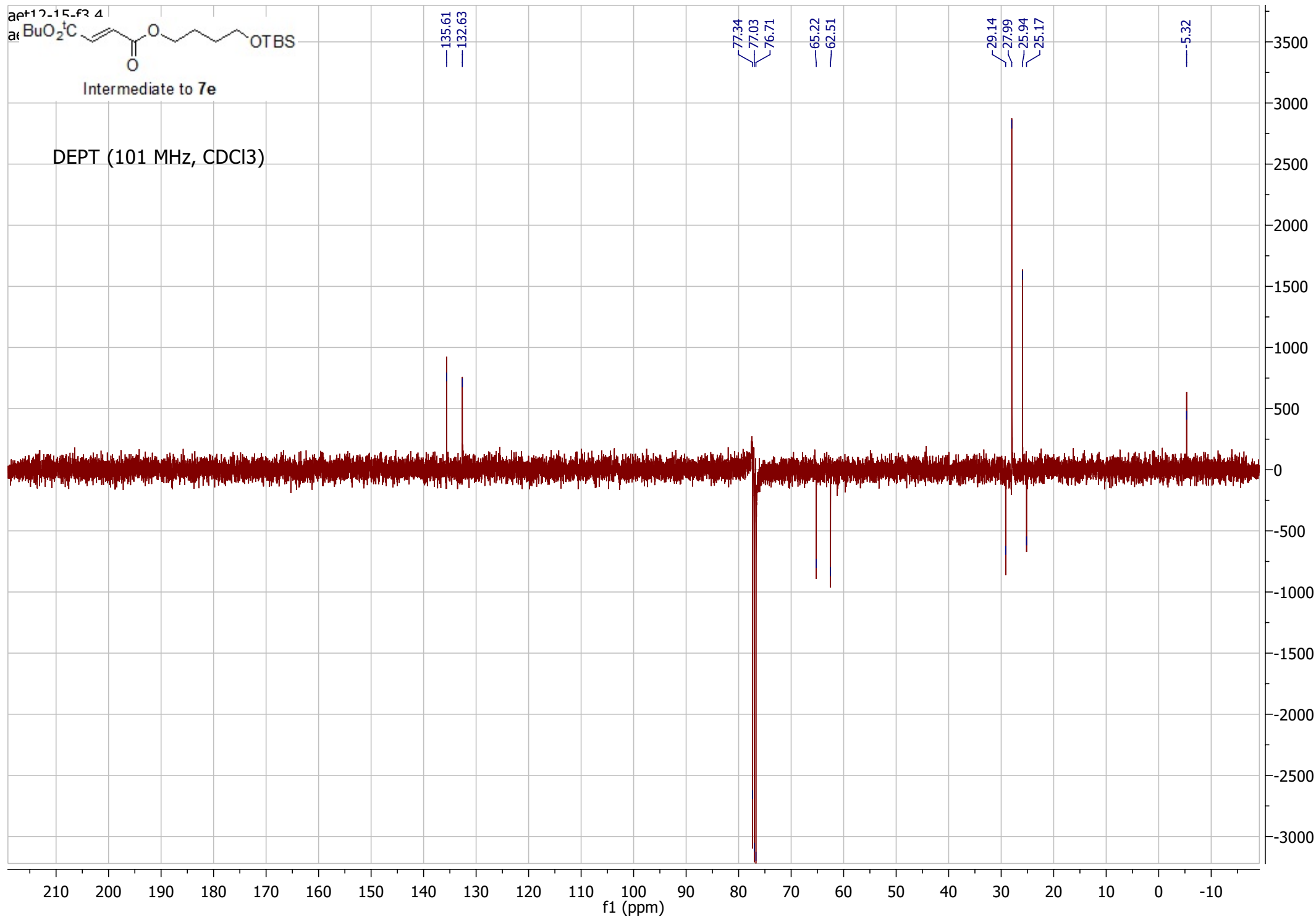
1H (400 MHz, CDCl₃)

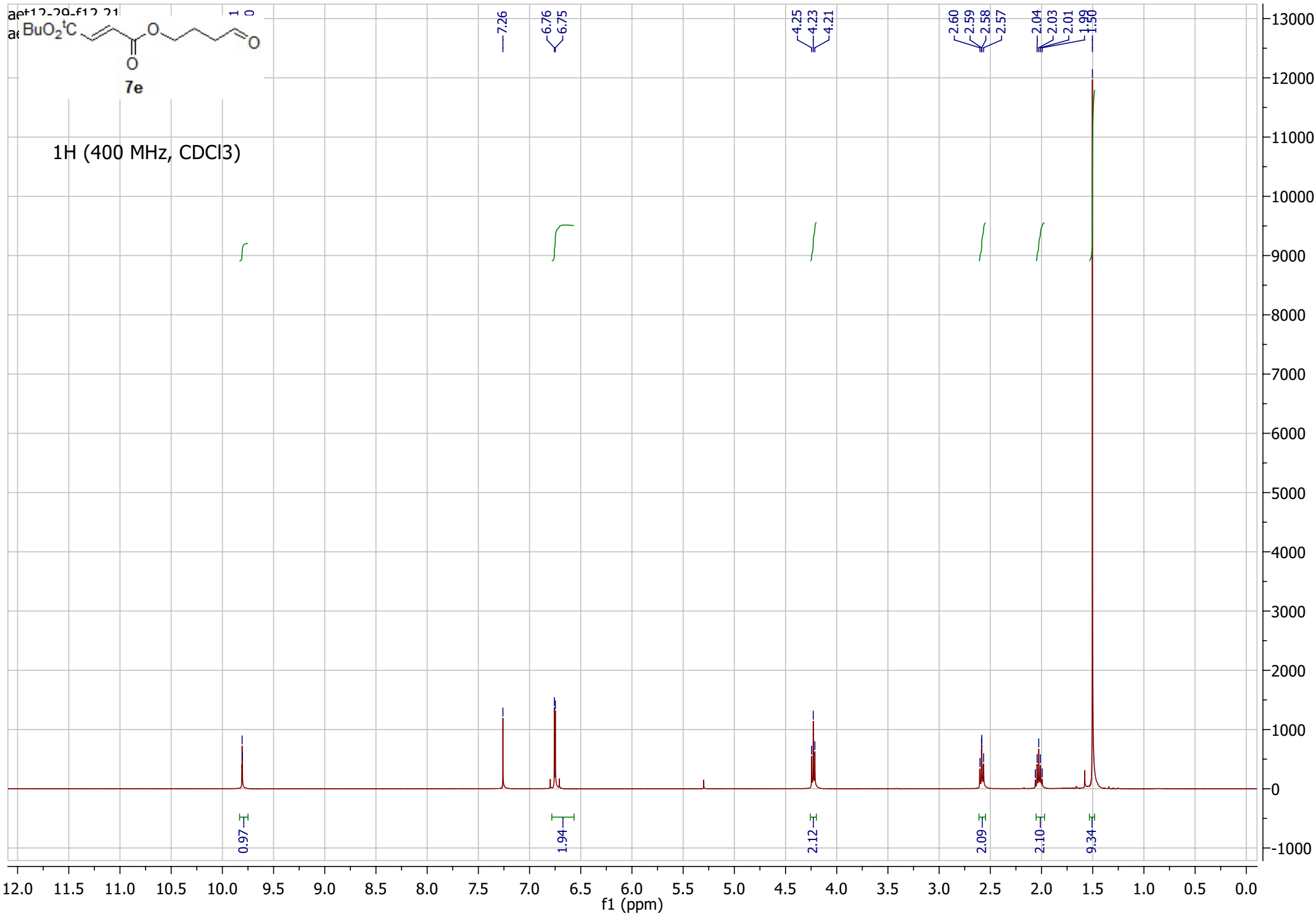


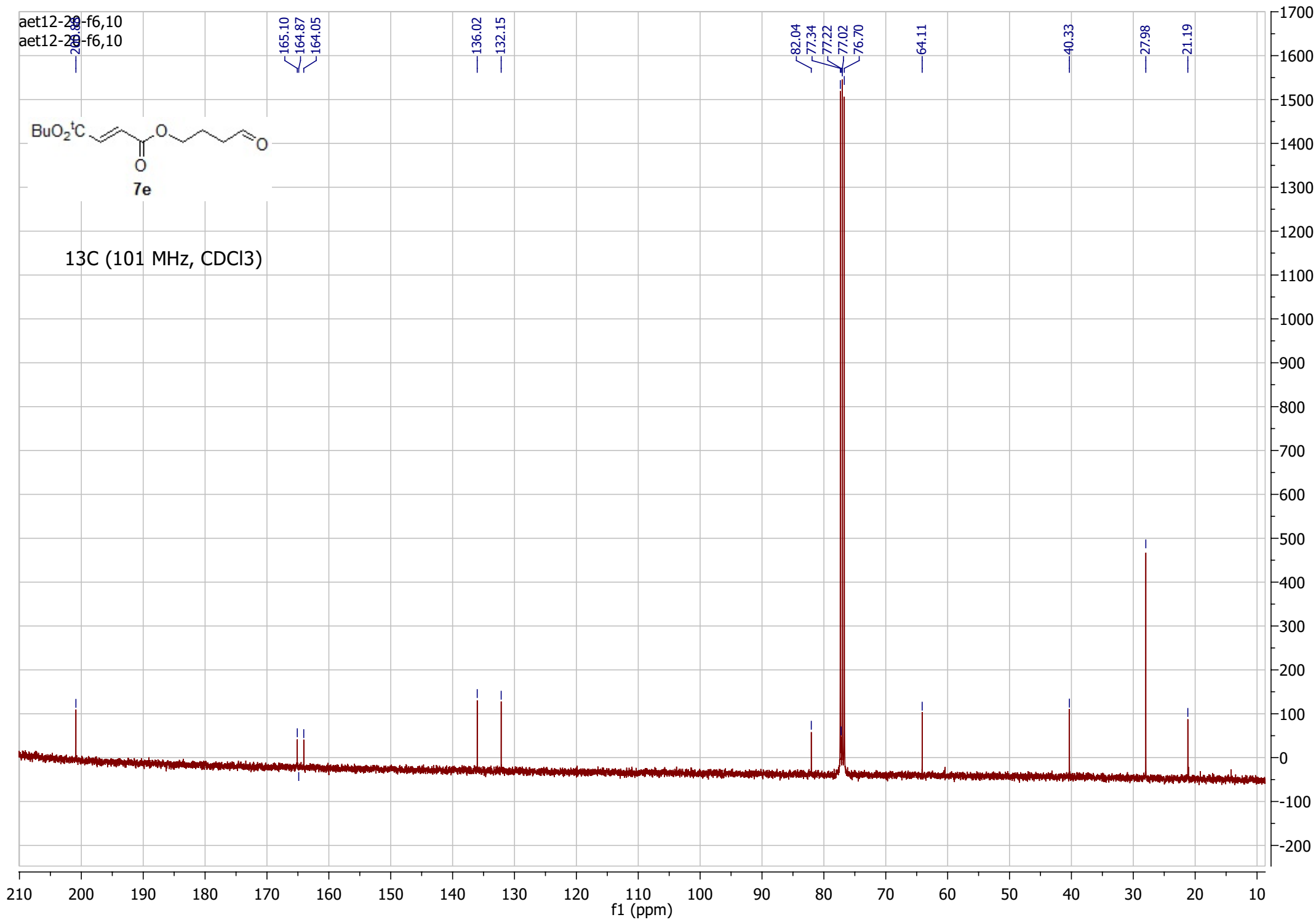
Intermediate to **7e**

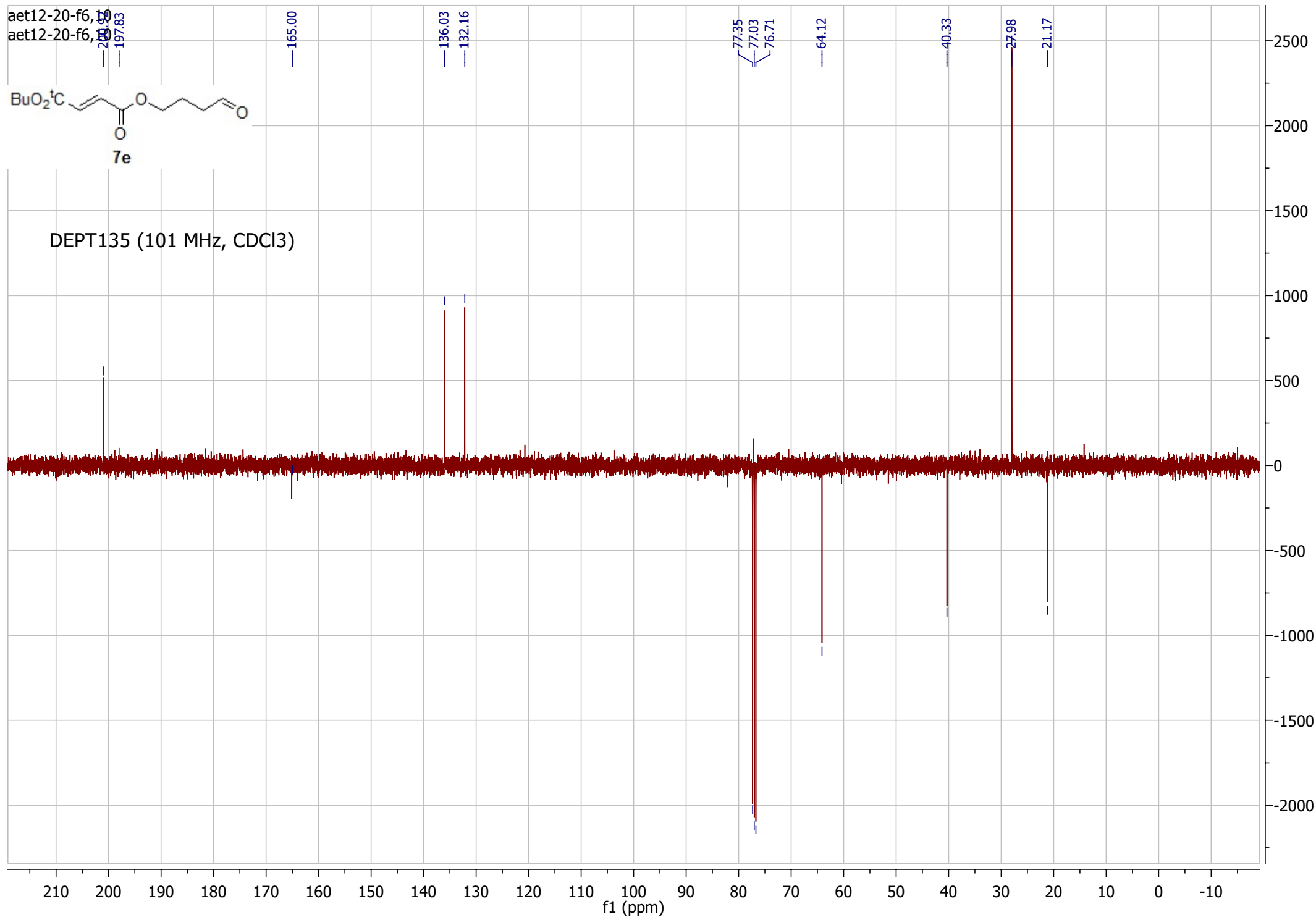


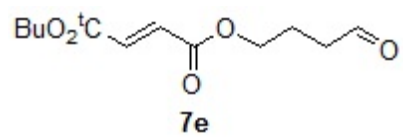




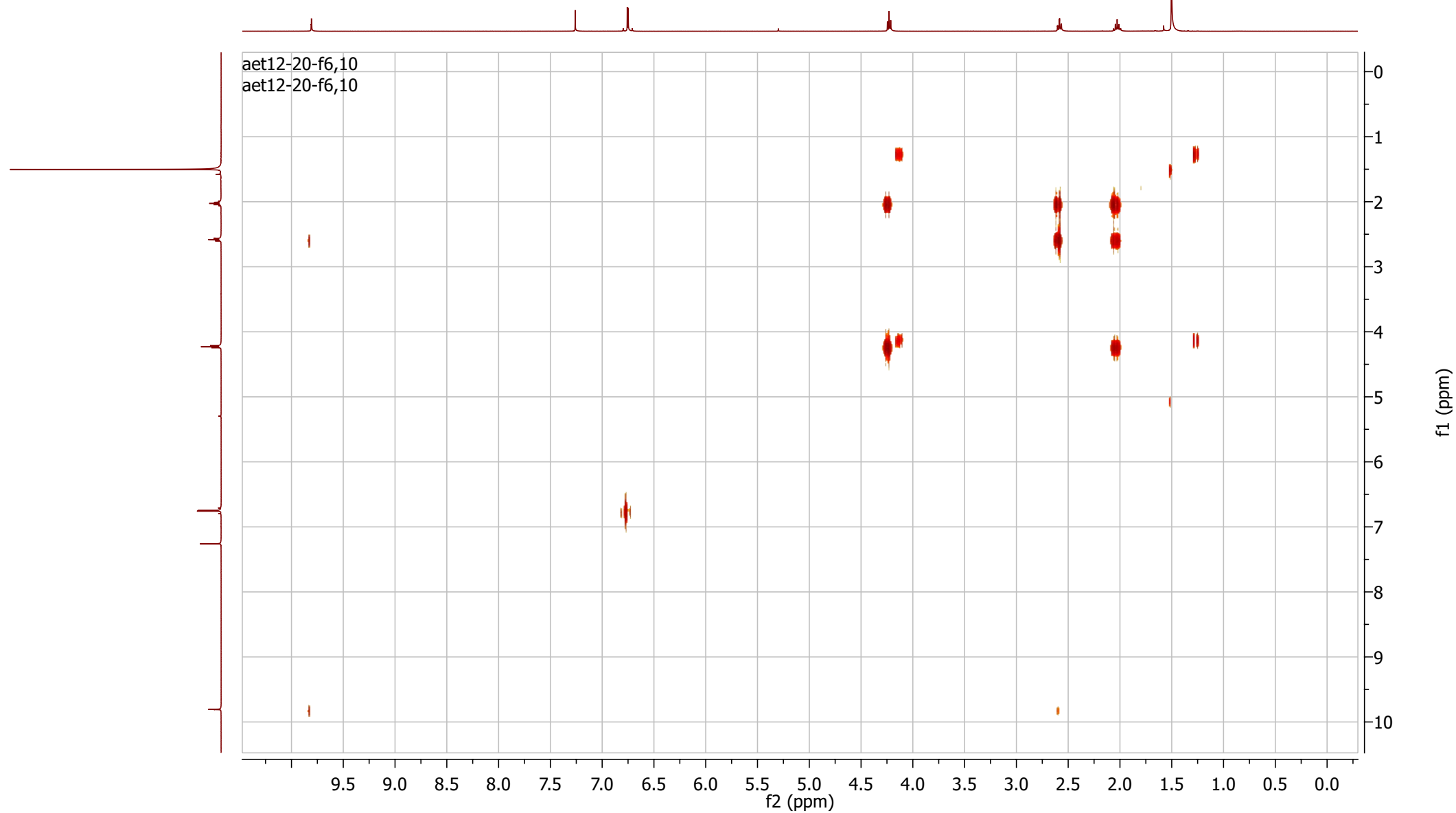


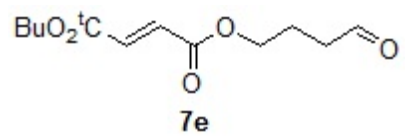




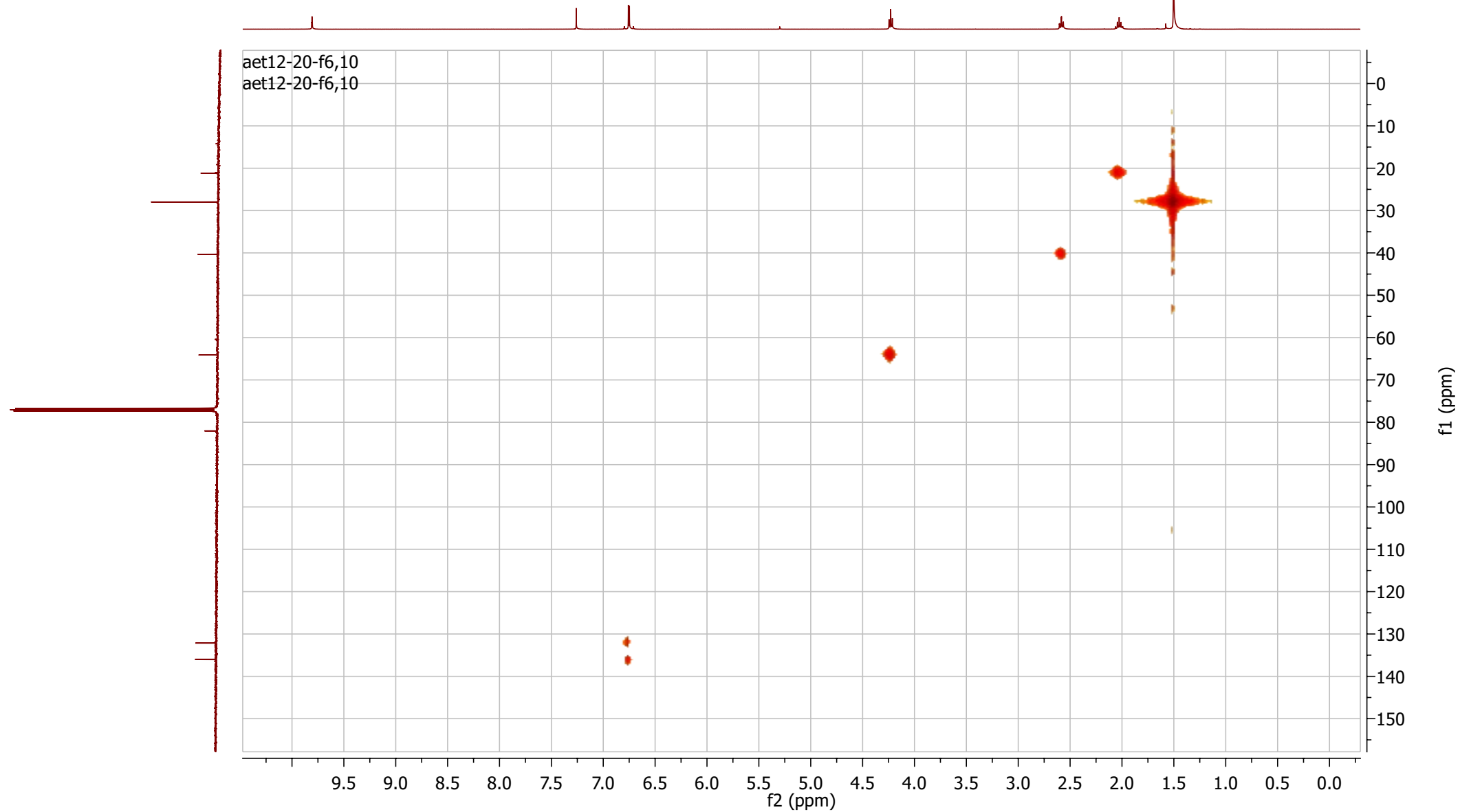


COSY (400 MHz, CDCl₃)



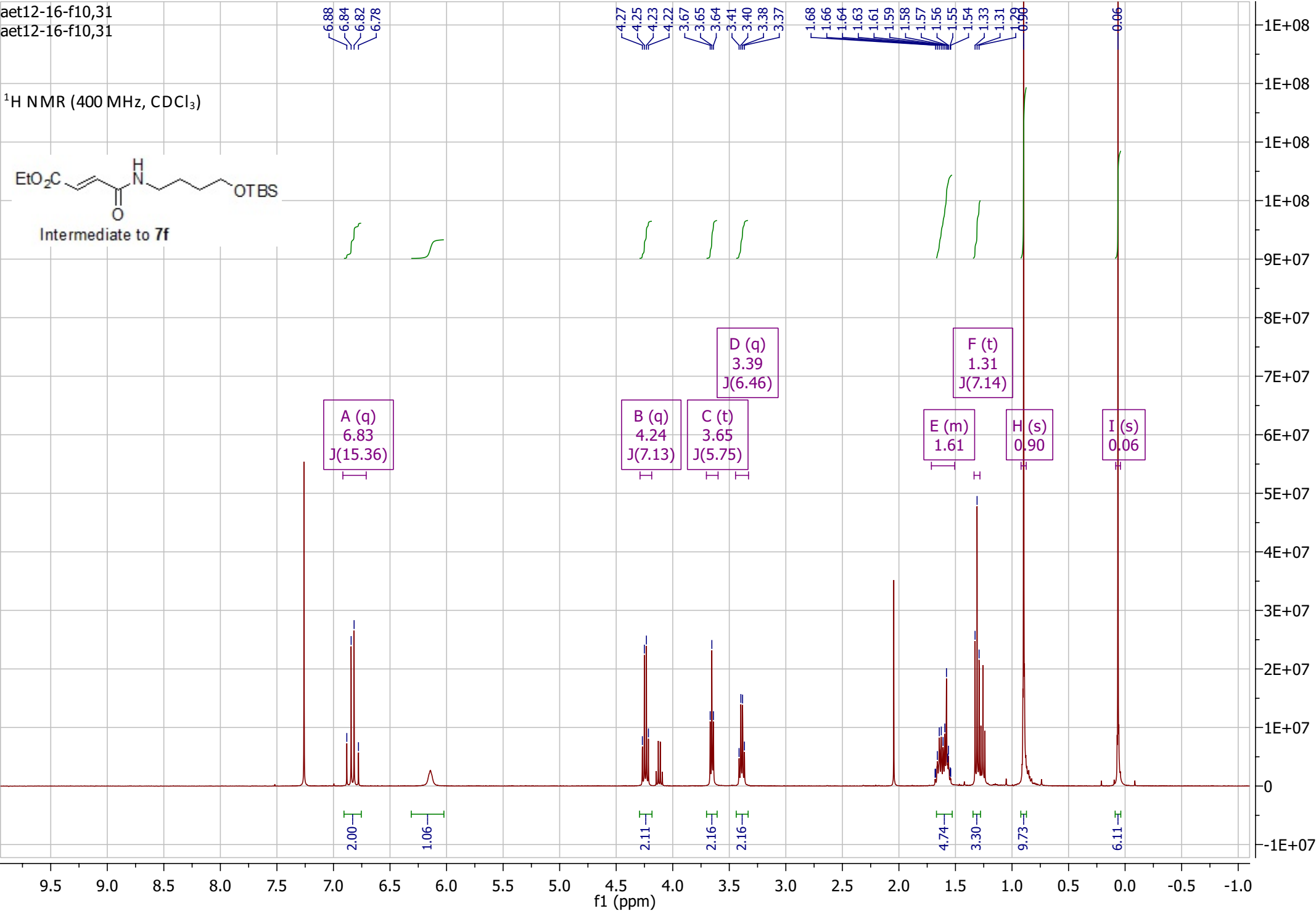
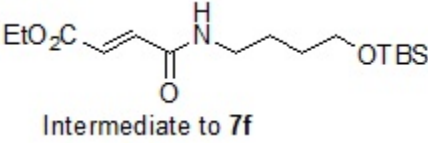


HMQC (CDCl₃)



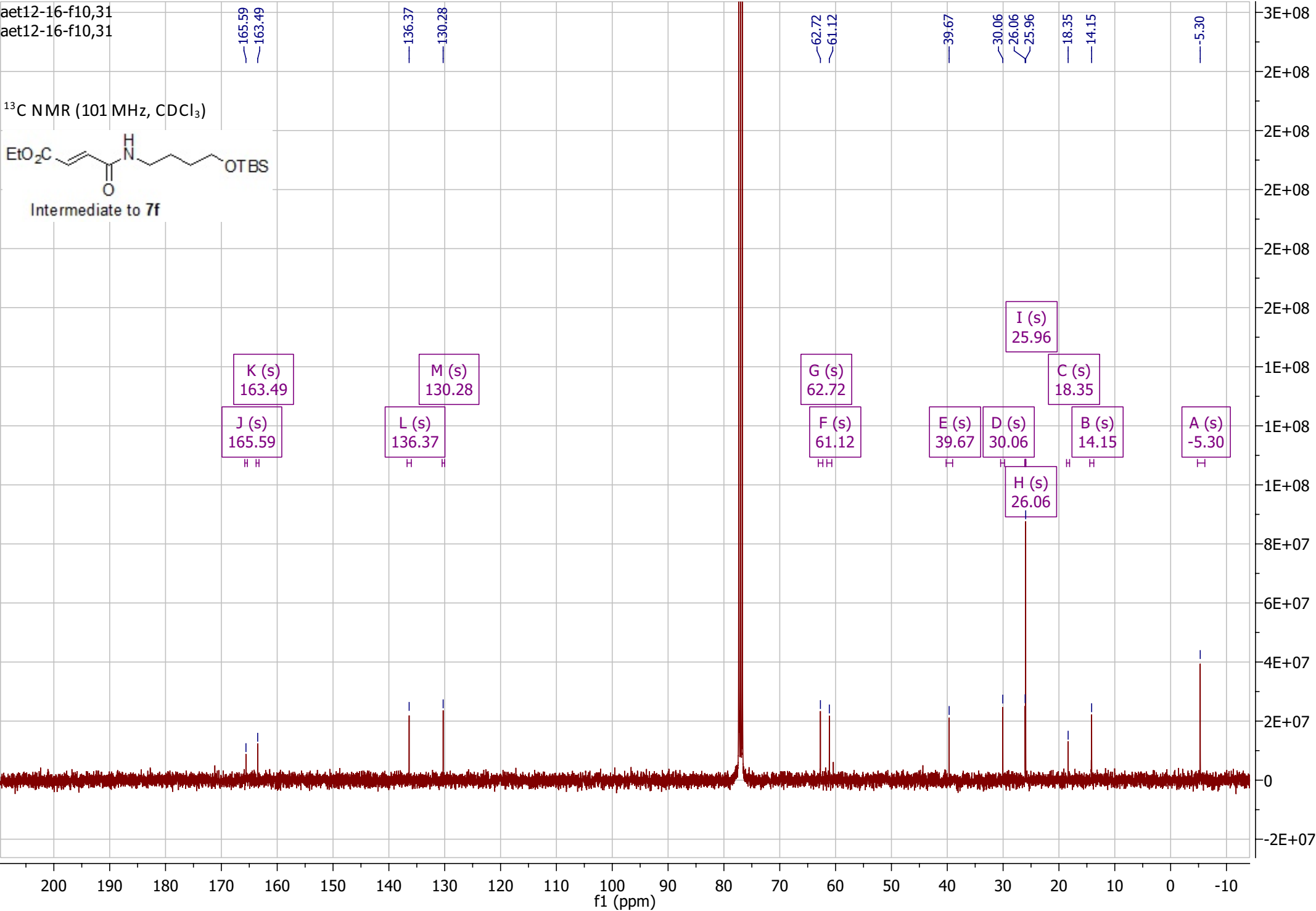
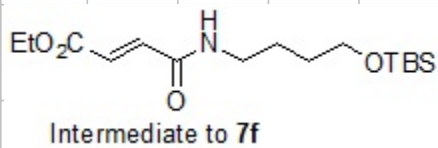
aet12-16-f10,31
aet12-16-f10,31

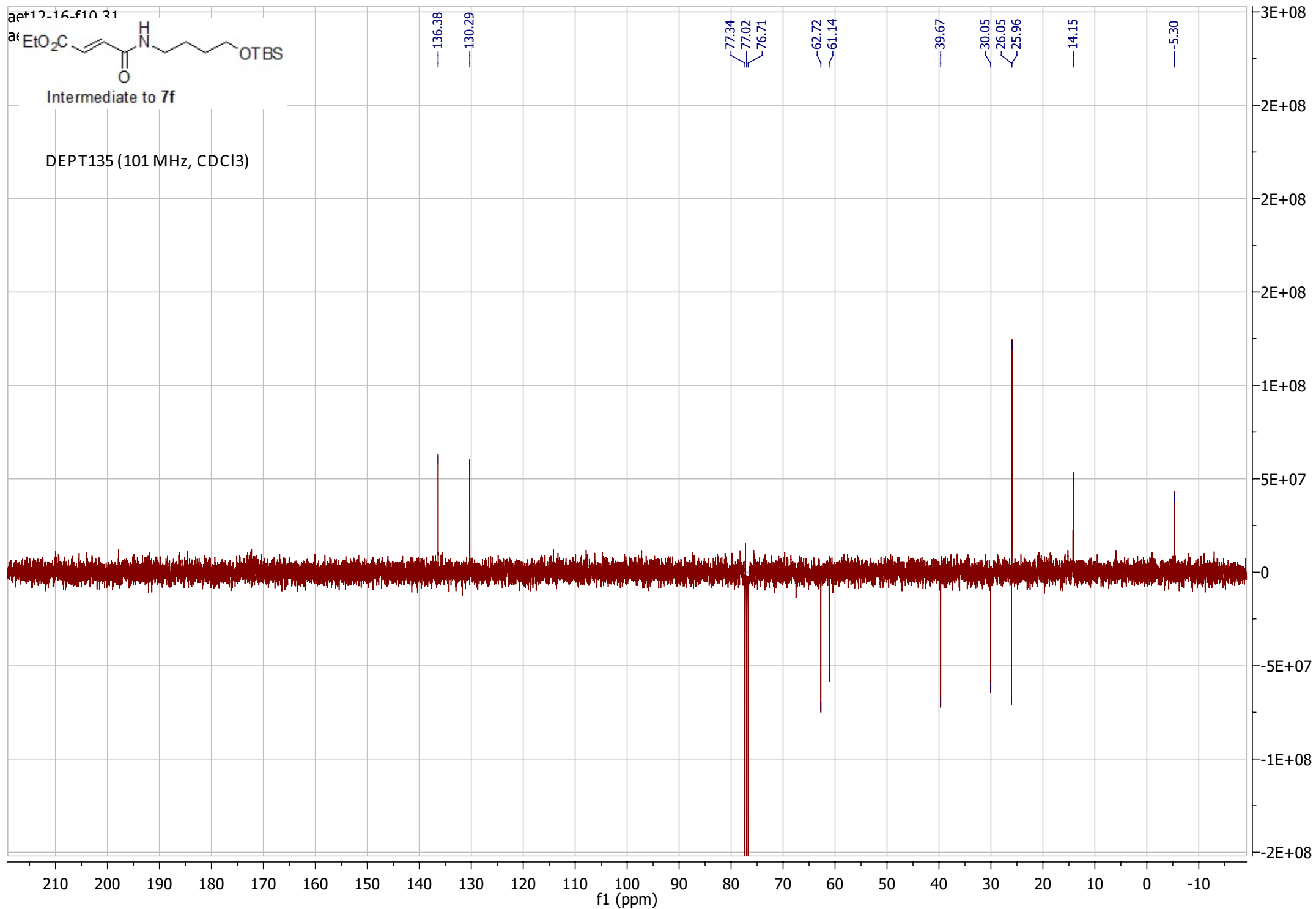
¹H NMR (400 MHz, CDCl₃)

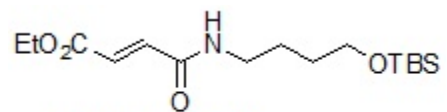


aet12-16-f10,31
aet12-16-f10,31

¹³C NMR (101 MHz, CDCl₃)

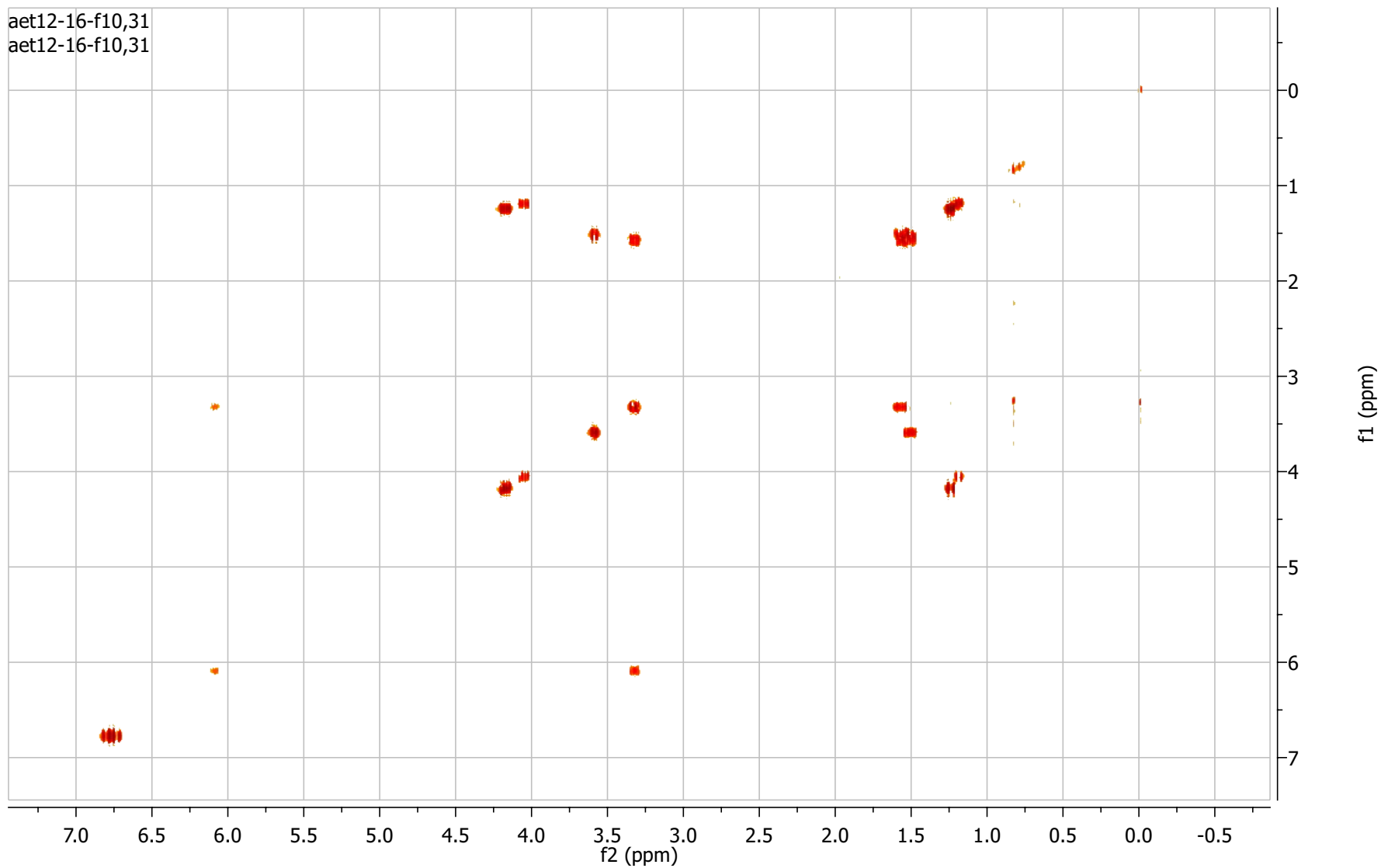






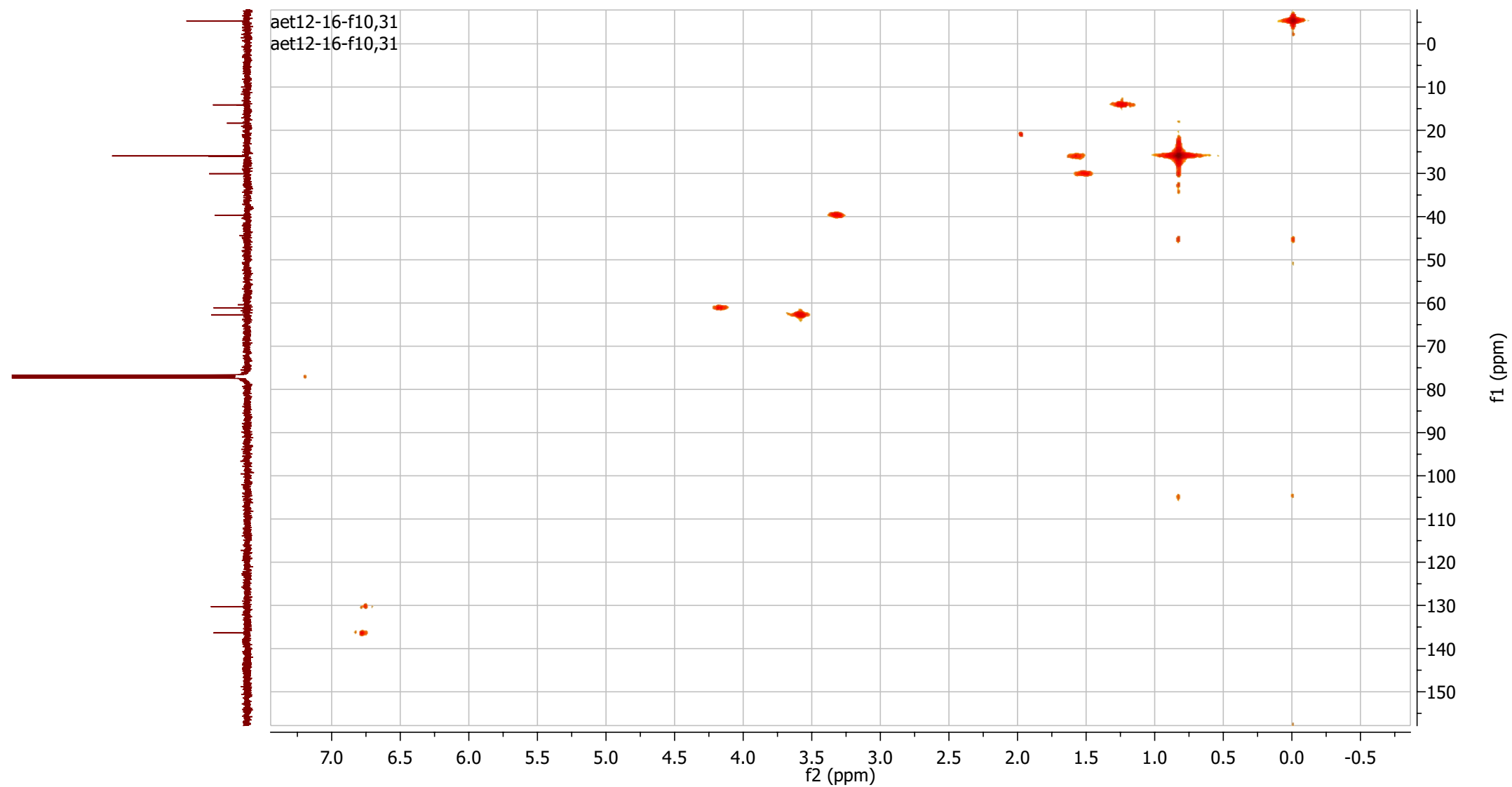
Intermediate to **7f**

COSY (400 MHz, CDCl₃)



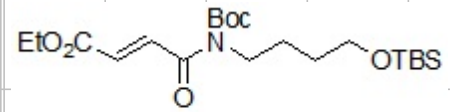


HMQC (CDCl₃)

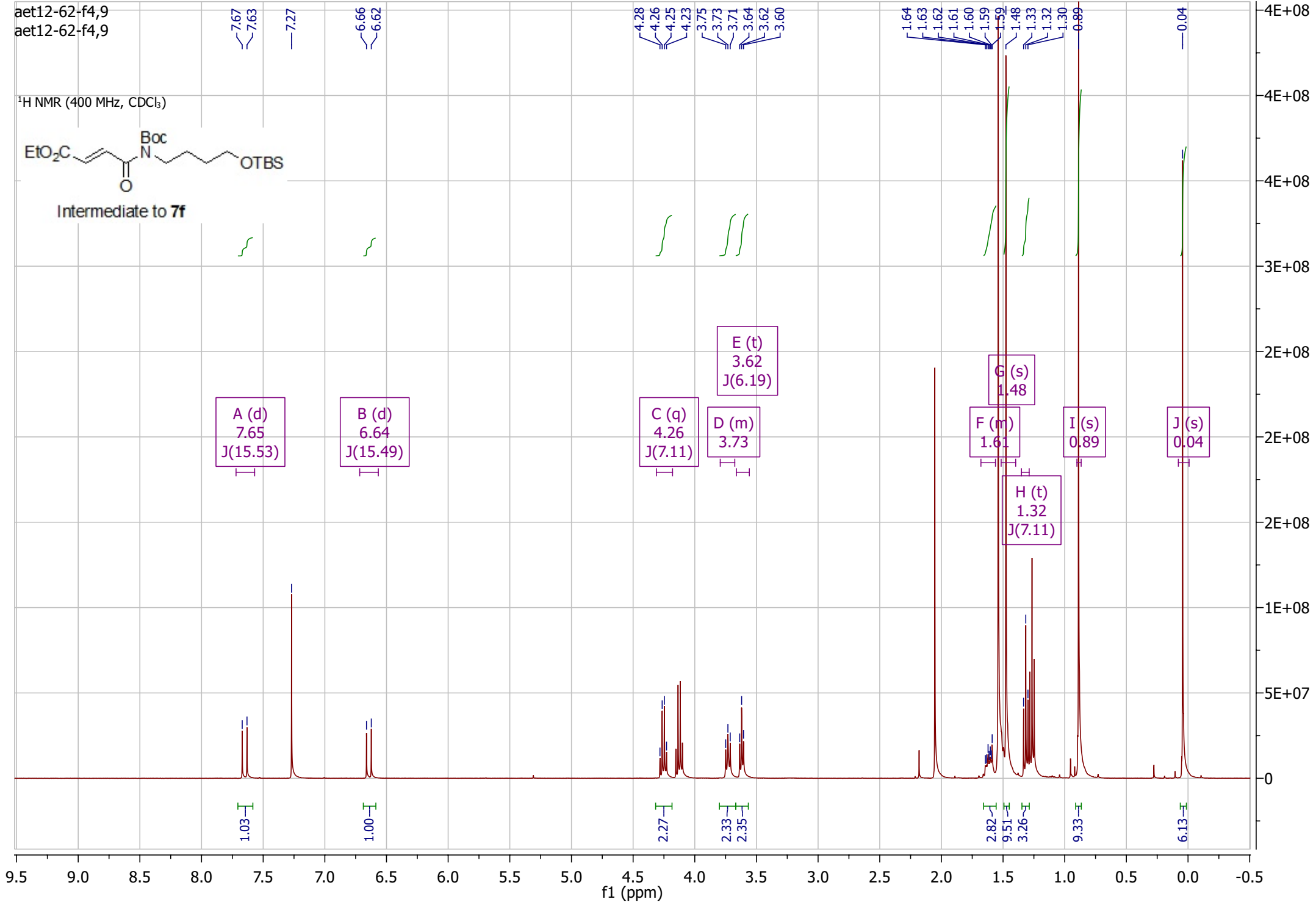


aet12-62-f4,9
aet12-62-f4,9

¹H NMR (400 MHz, CDCl₃)

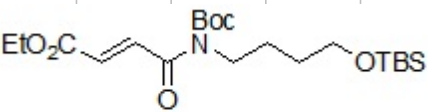


Intermediate to **7f**

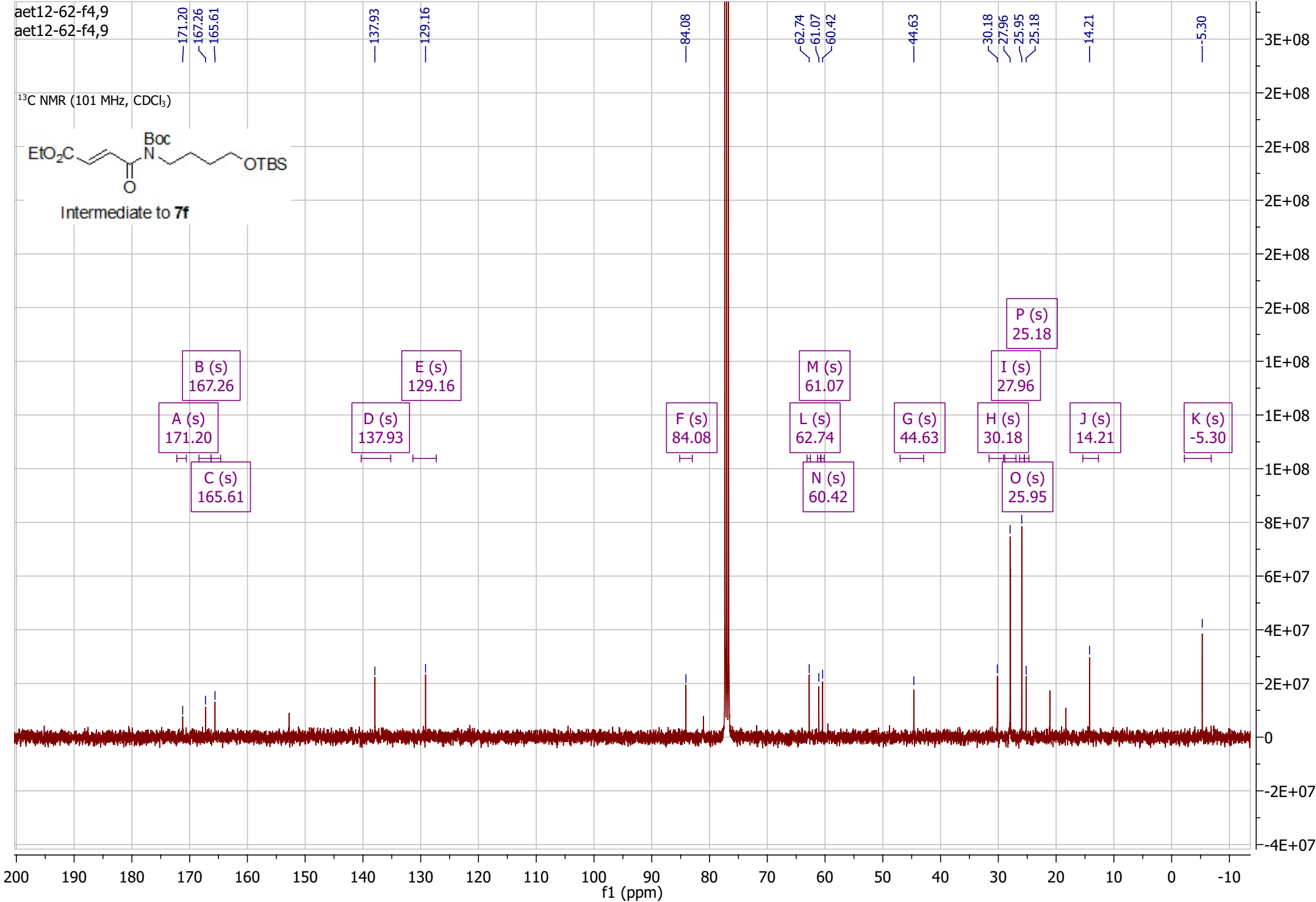


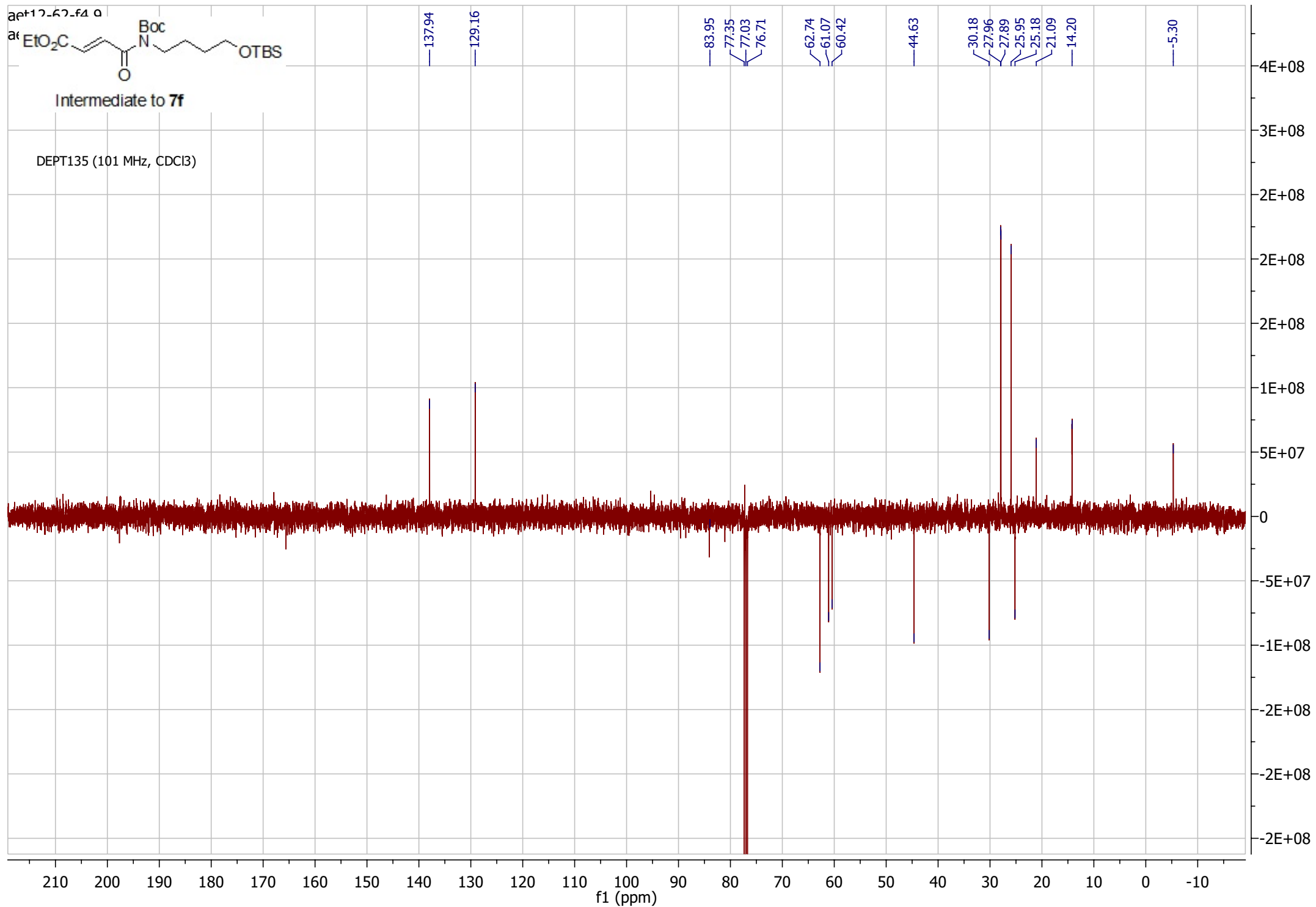
aet12-62-f4,9
aet12-62-f4,9

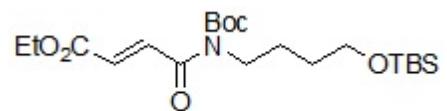
¹³C NMR (101 MHz, CDCl₃)



Intermediate to 7f

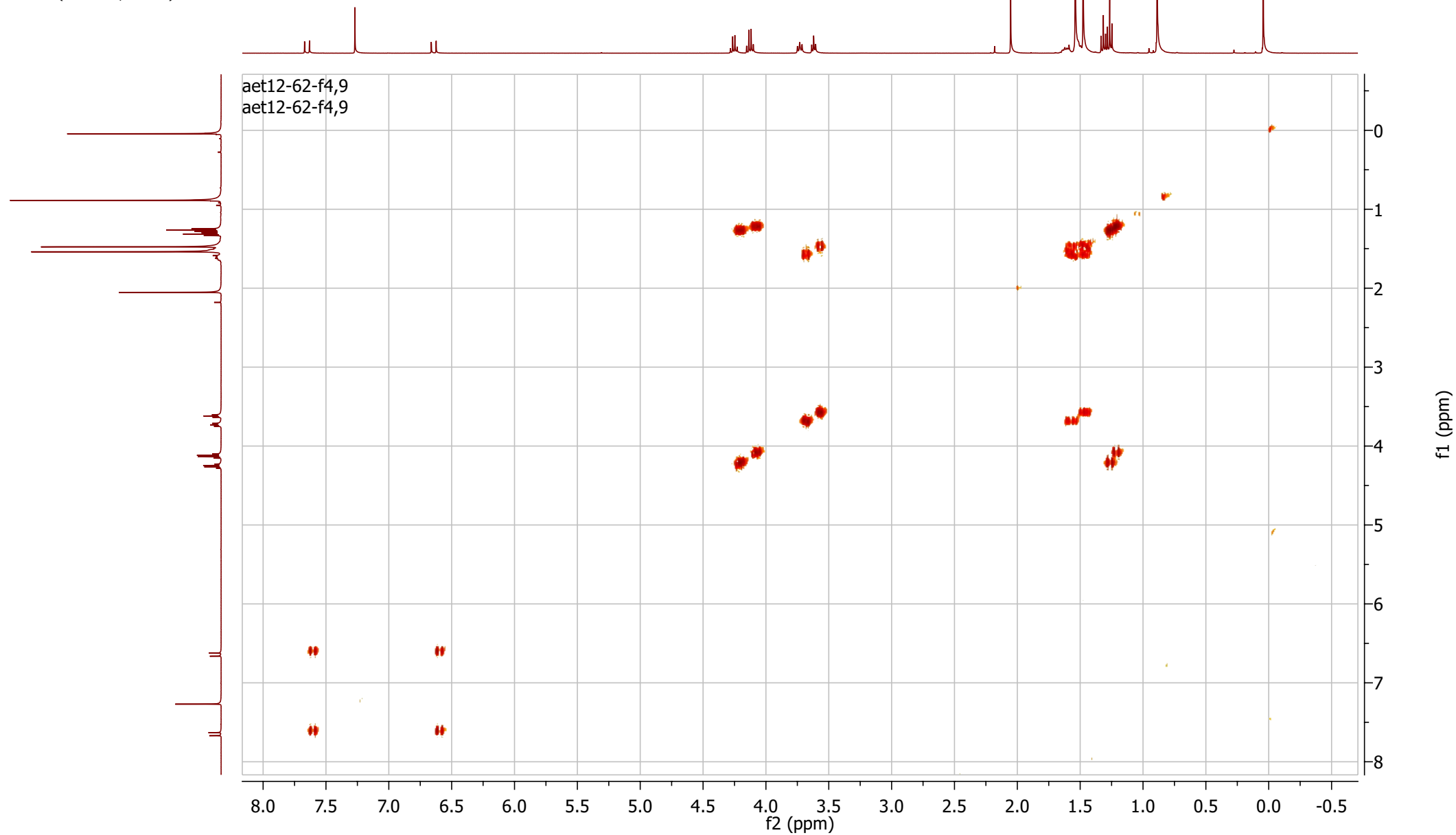


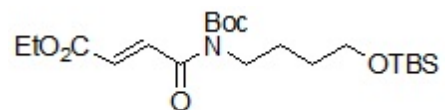




Intermediate to 7f

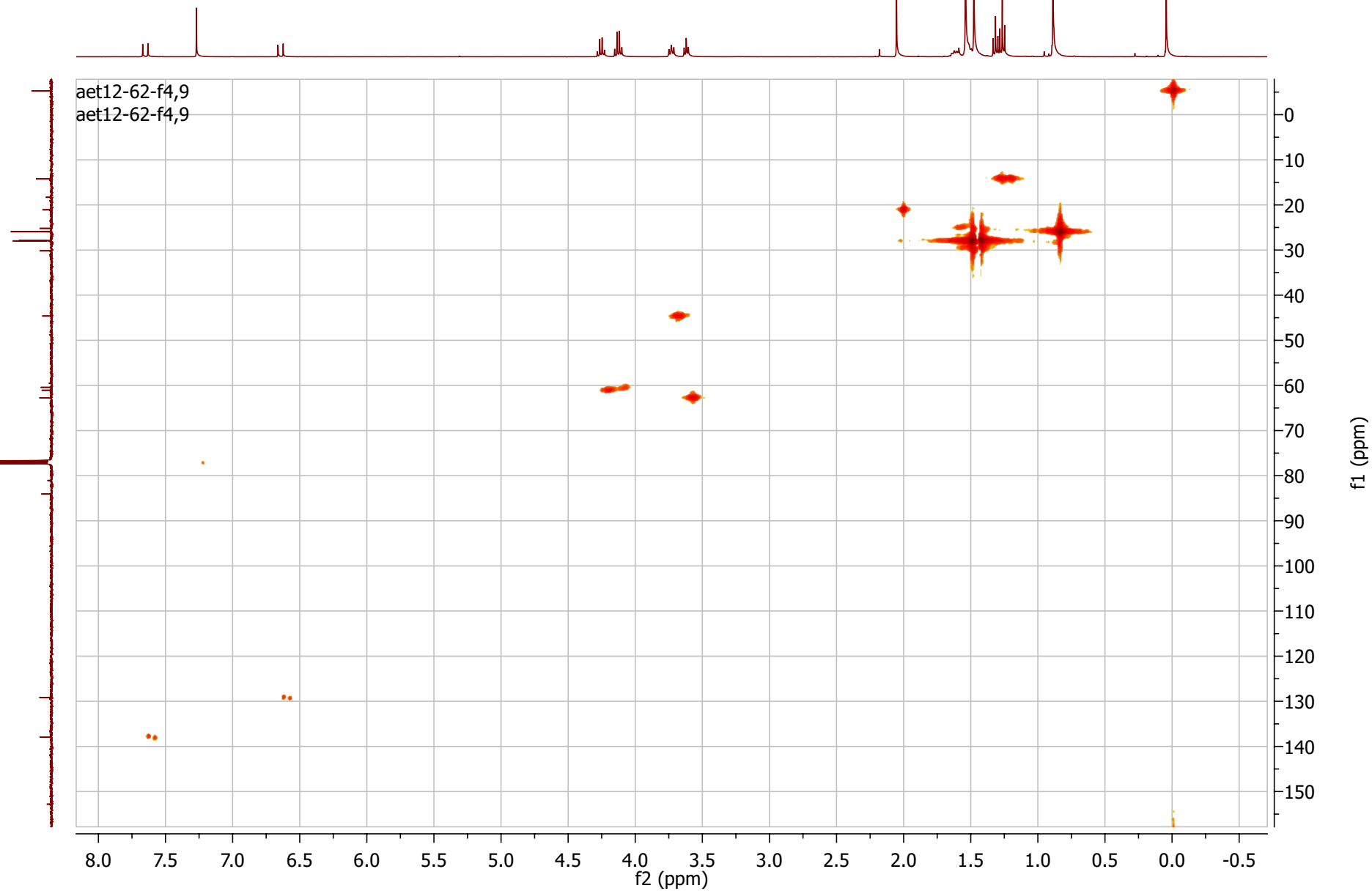
COSY (400 MHz, CDCl₃)





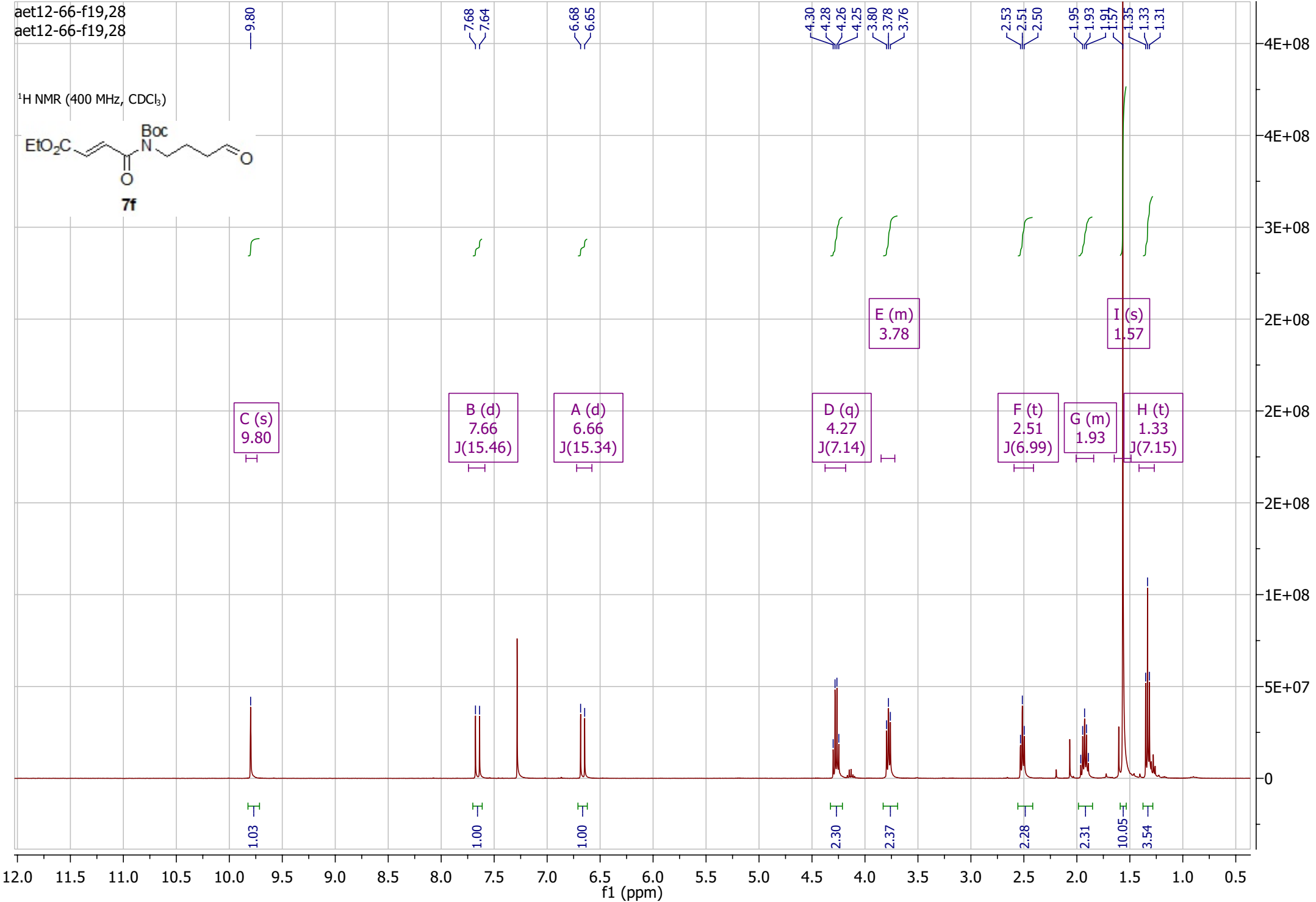
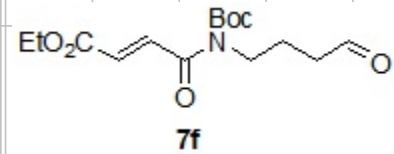
Intermediate to 7f

HMQC (CDCl₃)



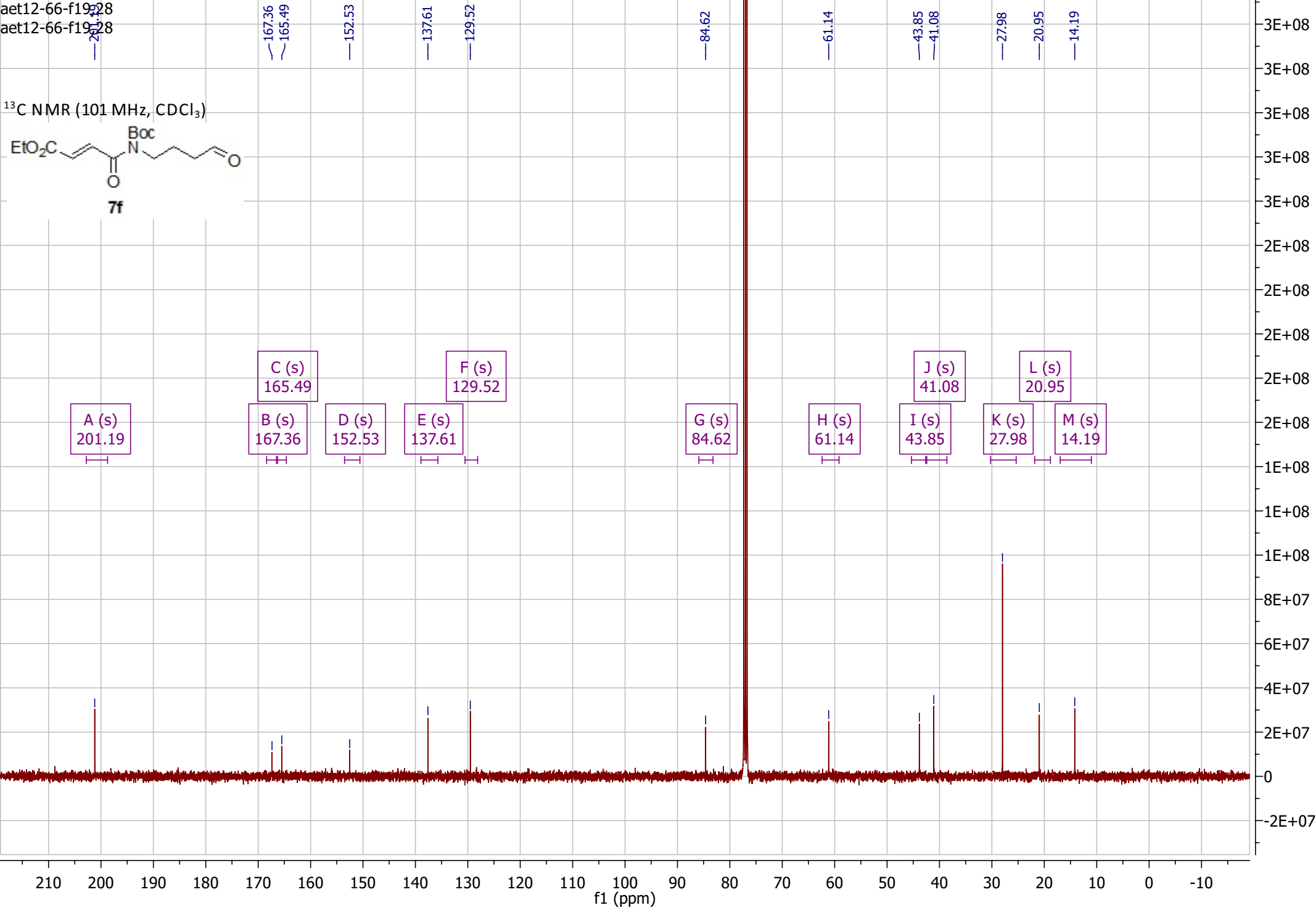
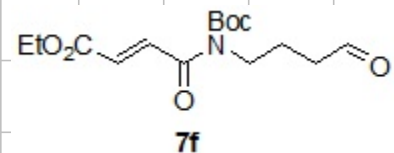
aet12-66-f19,28
aet12-66-f19,28

¹H NMR (400 MHz, CDCl₃)

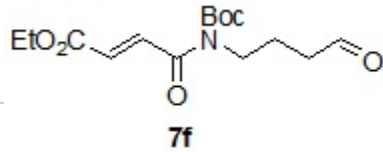


aet12-66-f19-28
aet12-66-f19-28

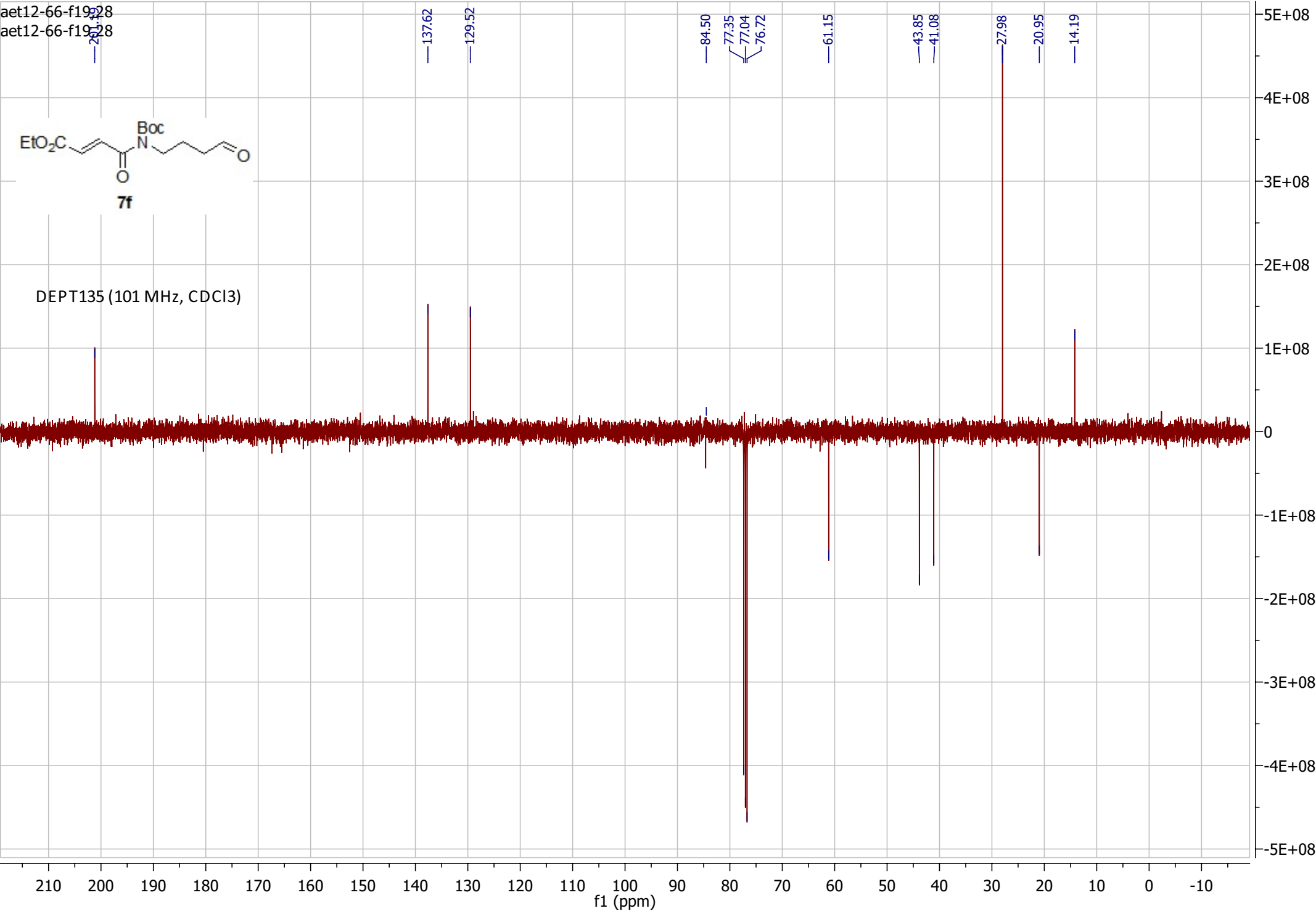
¹³C NMR (101 MHz, CDCl₃)

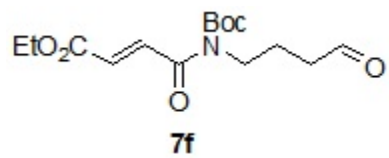


aet12-66-f19-28
aet12-66-f19-28

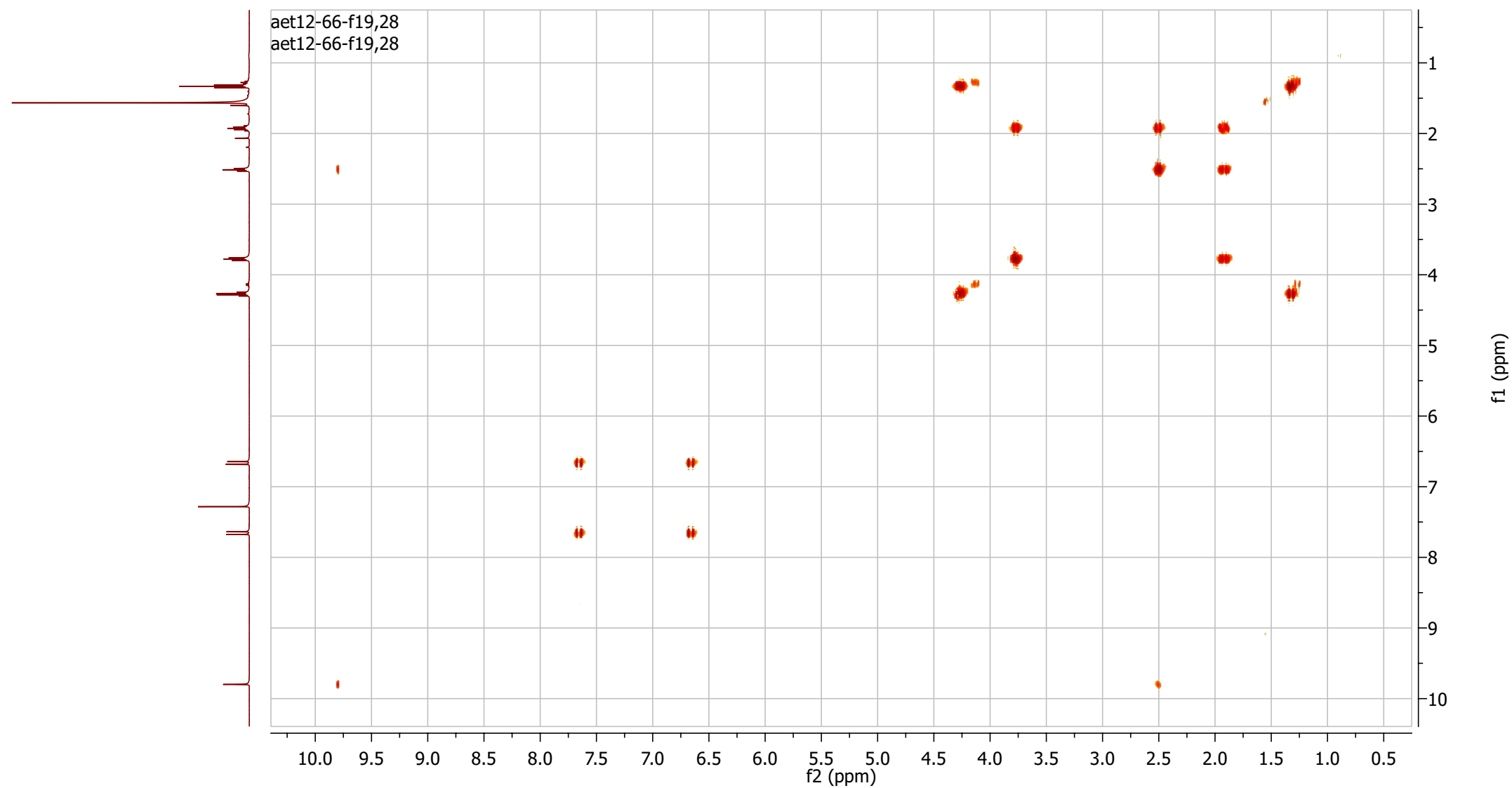


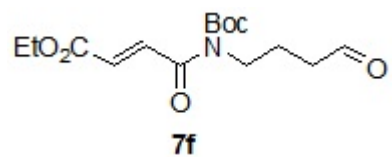
DEPT135 (101 MHz, CDCl3)



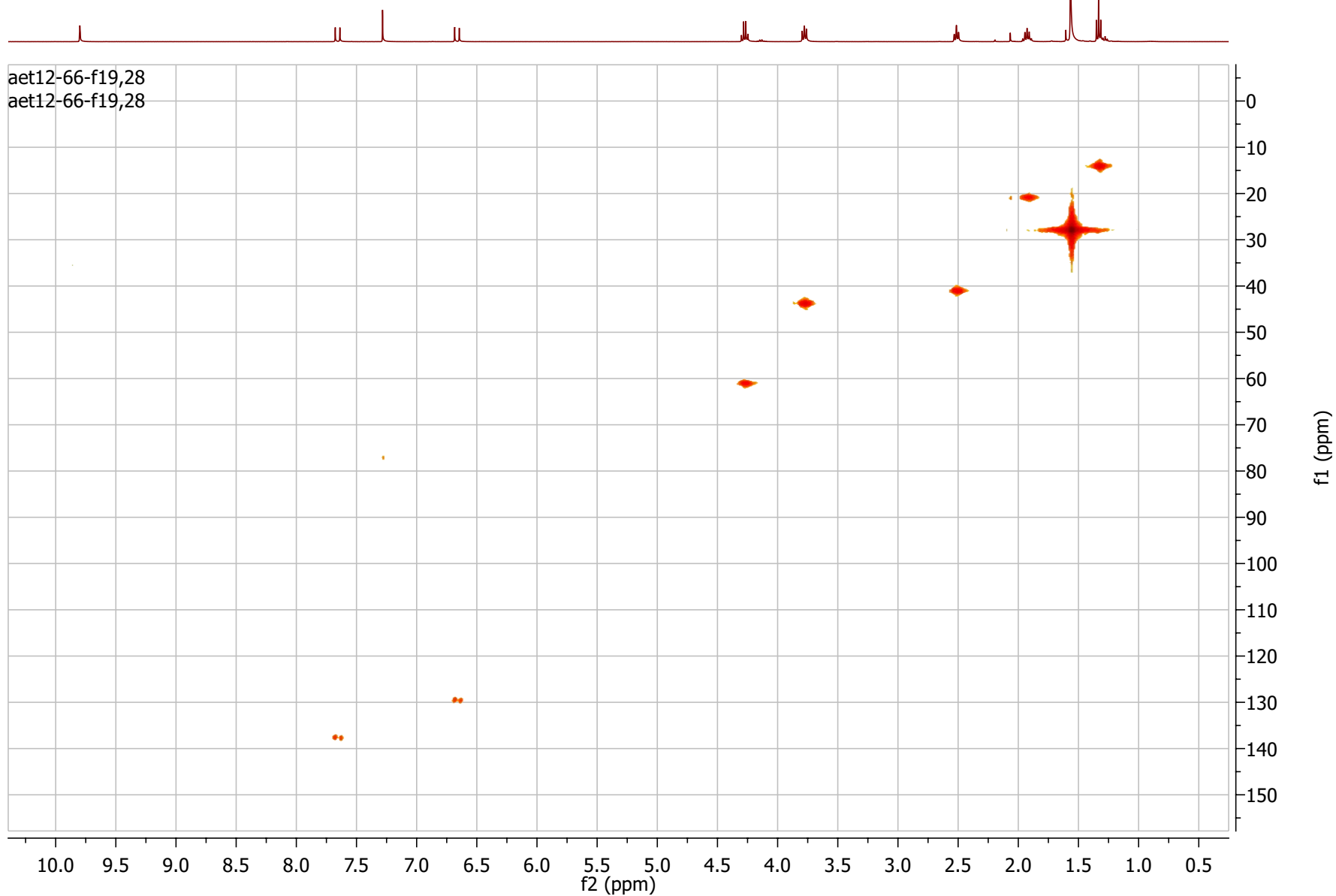


COSY (400 MHz, CDCl₃)



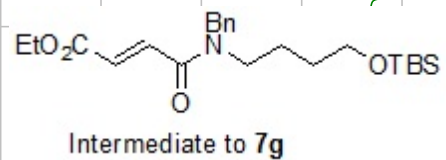


HMQC (CDCl₃)



aet13-21-f7,14
aet13-21-f7,14

¹H NMR (400 MHz, CDCl₃)



7.43
7.40
7.37
7.36
7.34
7.32
7.30
7.26
7.24
7.17
7.15
6.91
6.87
6.86

4.68
4.62

4.27
4.25
4.22
4.20

3.60
3.58
3.57

3.43
3.35

1.64
1.62
1.58

1.49
1.48
1.34
1.32

1.30
1.30
1.28
1.26

0.87
0.87

0.03
0.02

9.0 8.5 8.0 7.5 7.0 6.5 6.0 5.5 5.0 4.5 4.0 3.5 3.0 2.5 2.0 1.5 1.0 0.5 0.0 -0.5 -1.0
f1 (ppm)

7.79

1.00

2.26

2.22

2.33

1.04

1.23

6.38

4.91

10.26

6.33

3500

3000

2500

2000

1500

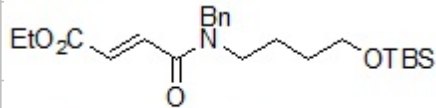
1000

500

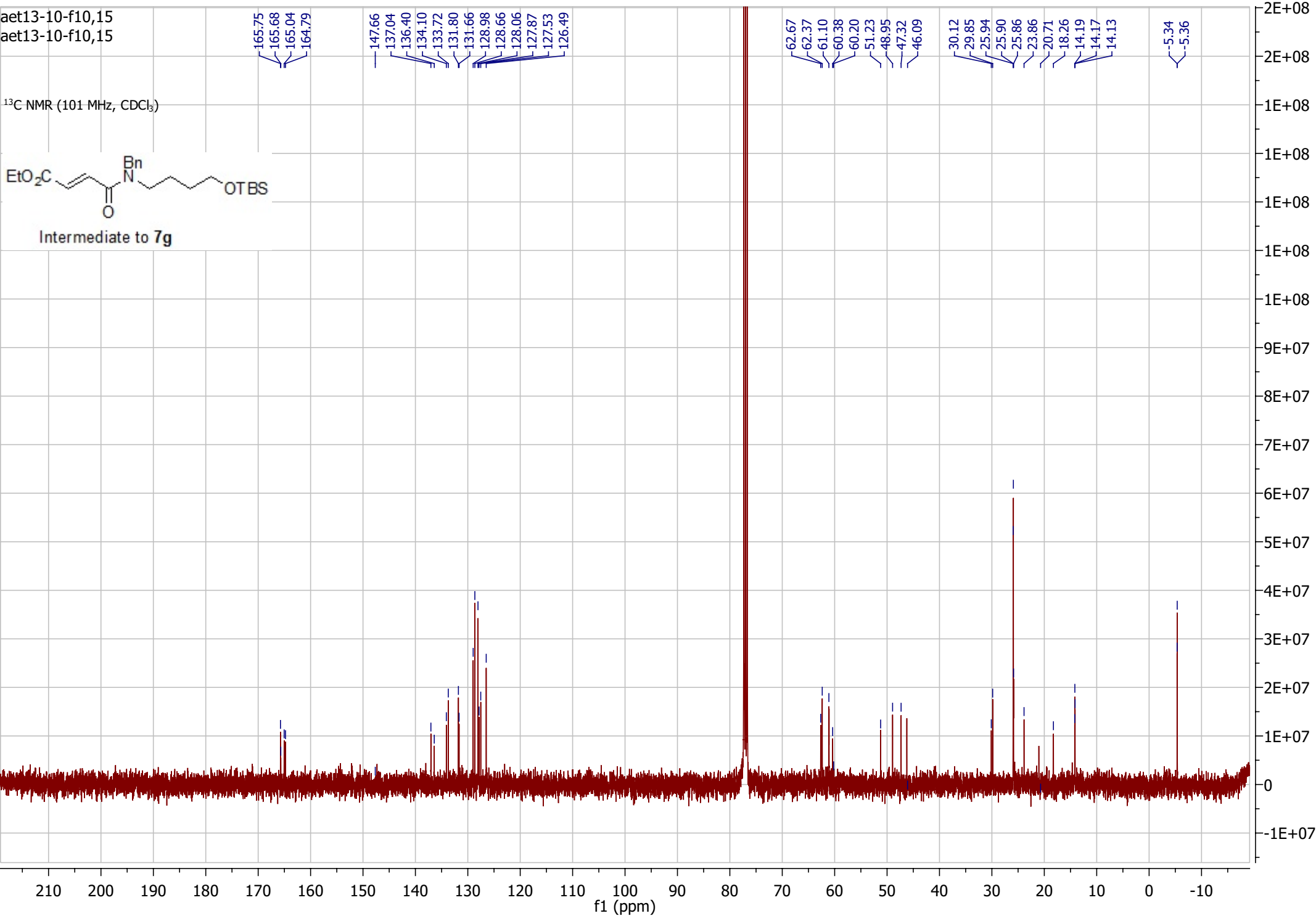
0

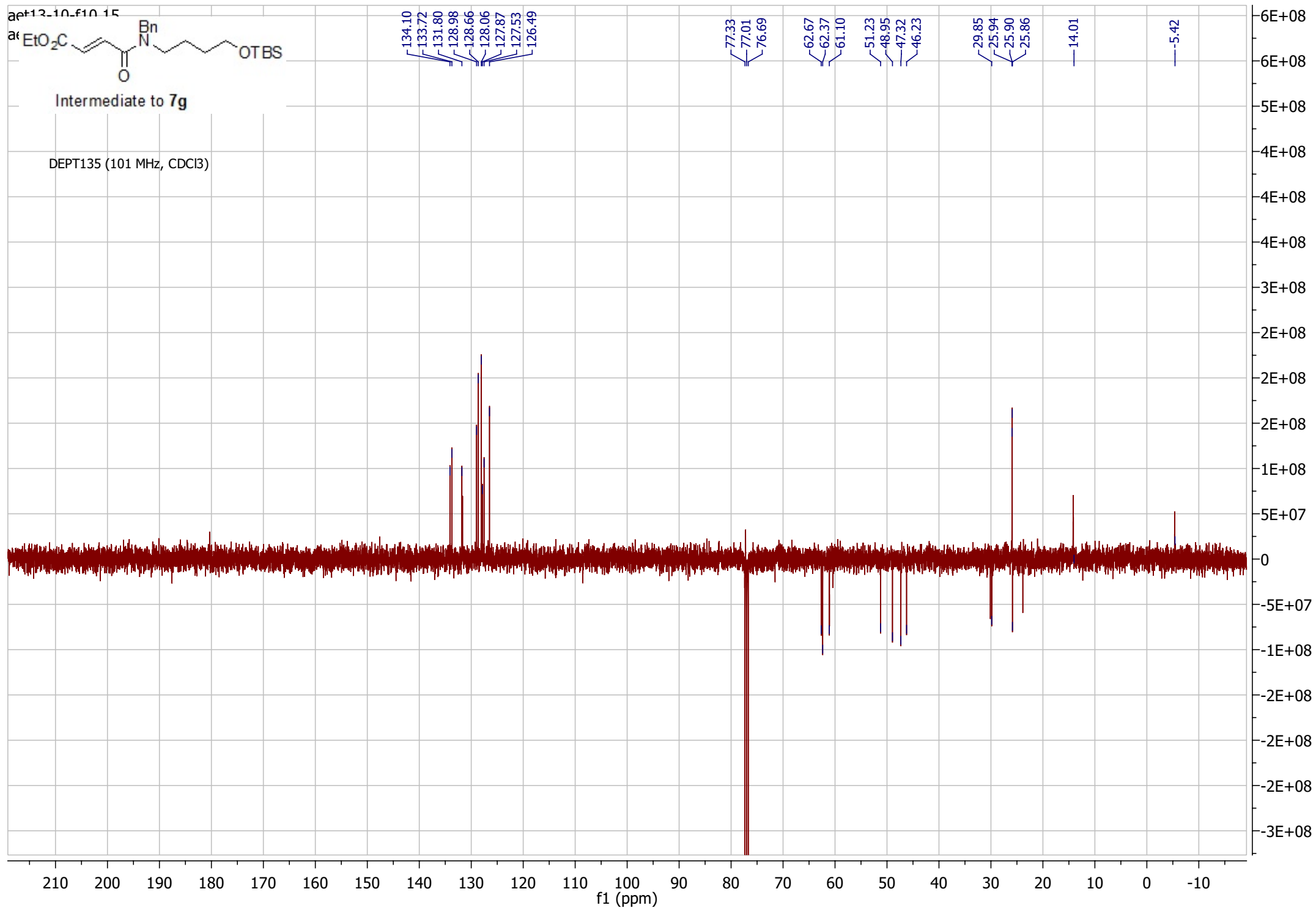
aet13-10-f10,15
aet13-10-f10,15

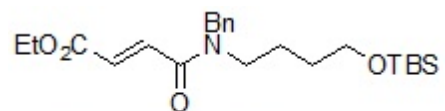
¹³C NMR (101 MHz, CDCl₃)



Intermediate to **7g**

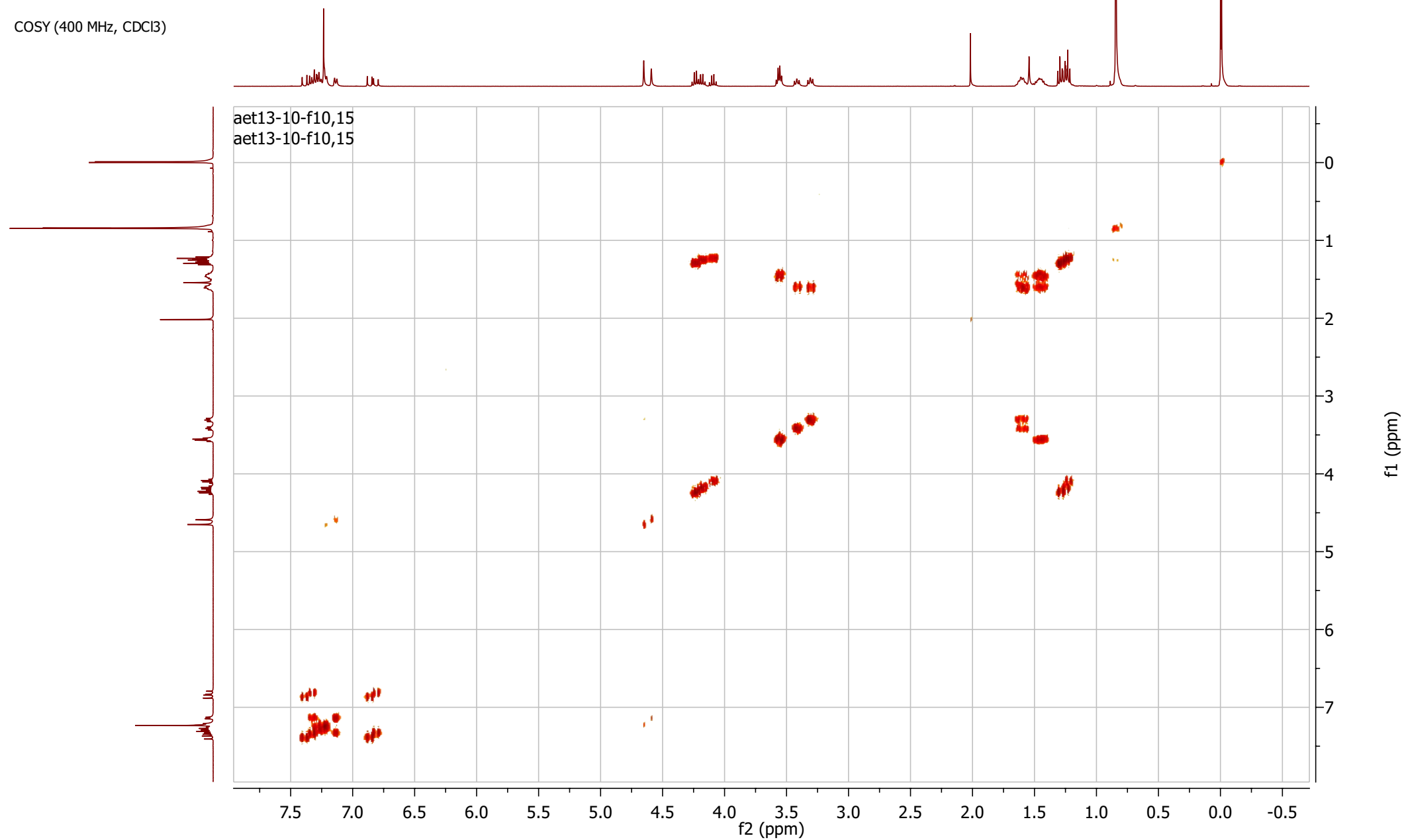


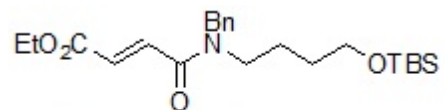




Intermediate to **7g**

COSY (400 MHz, CDCl₃)





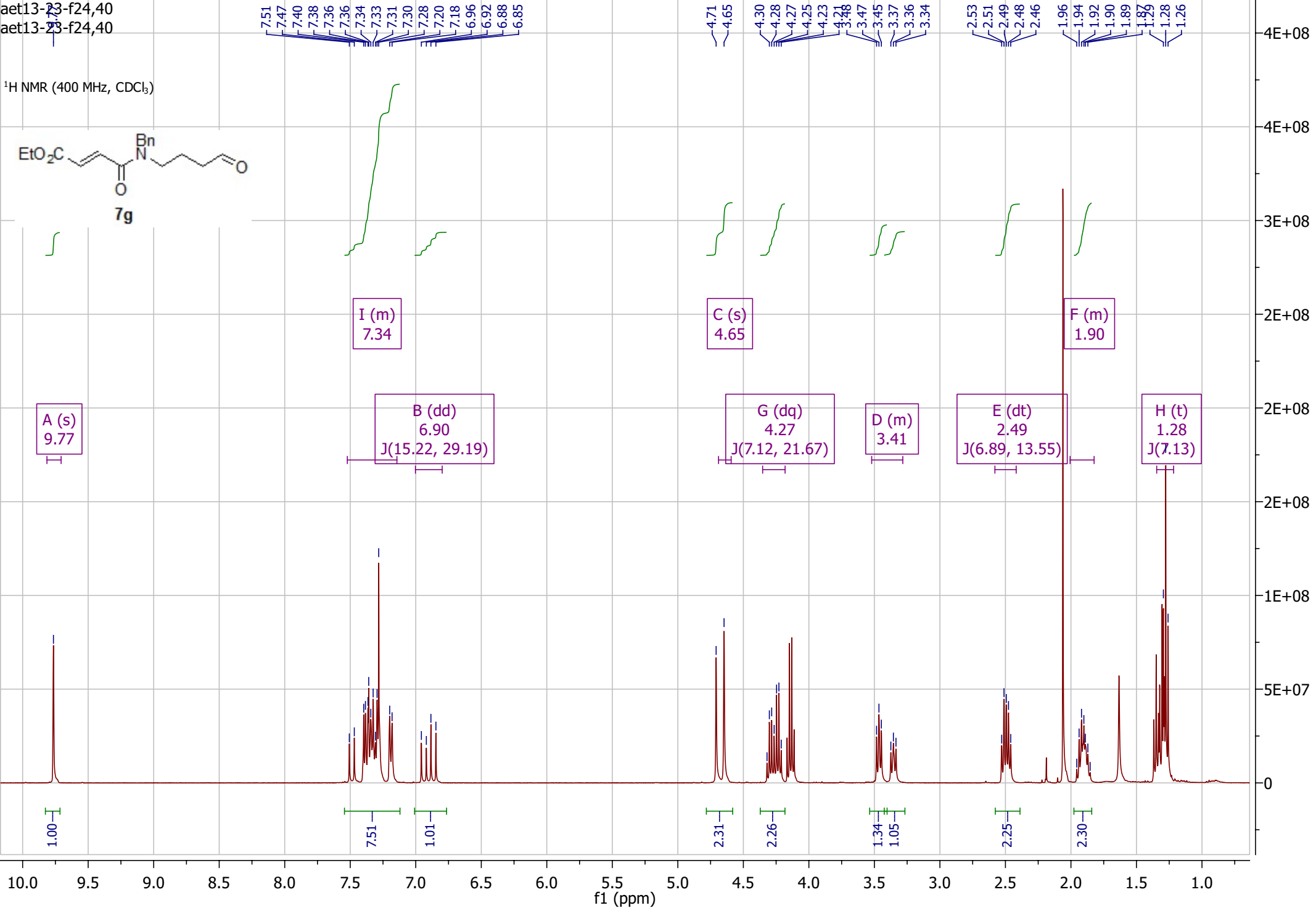
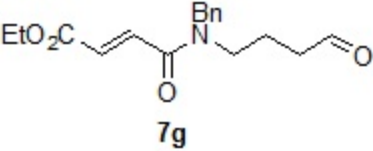
Intermediate to **7g**

DEPT (CDCl₃)



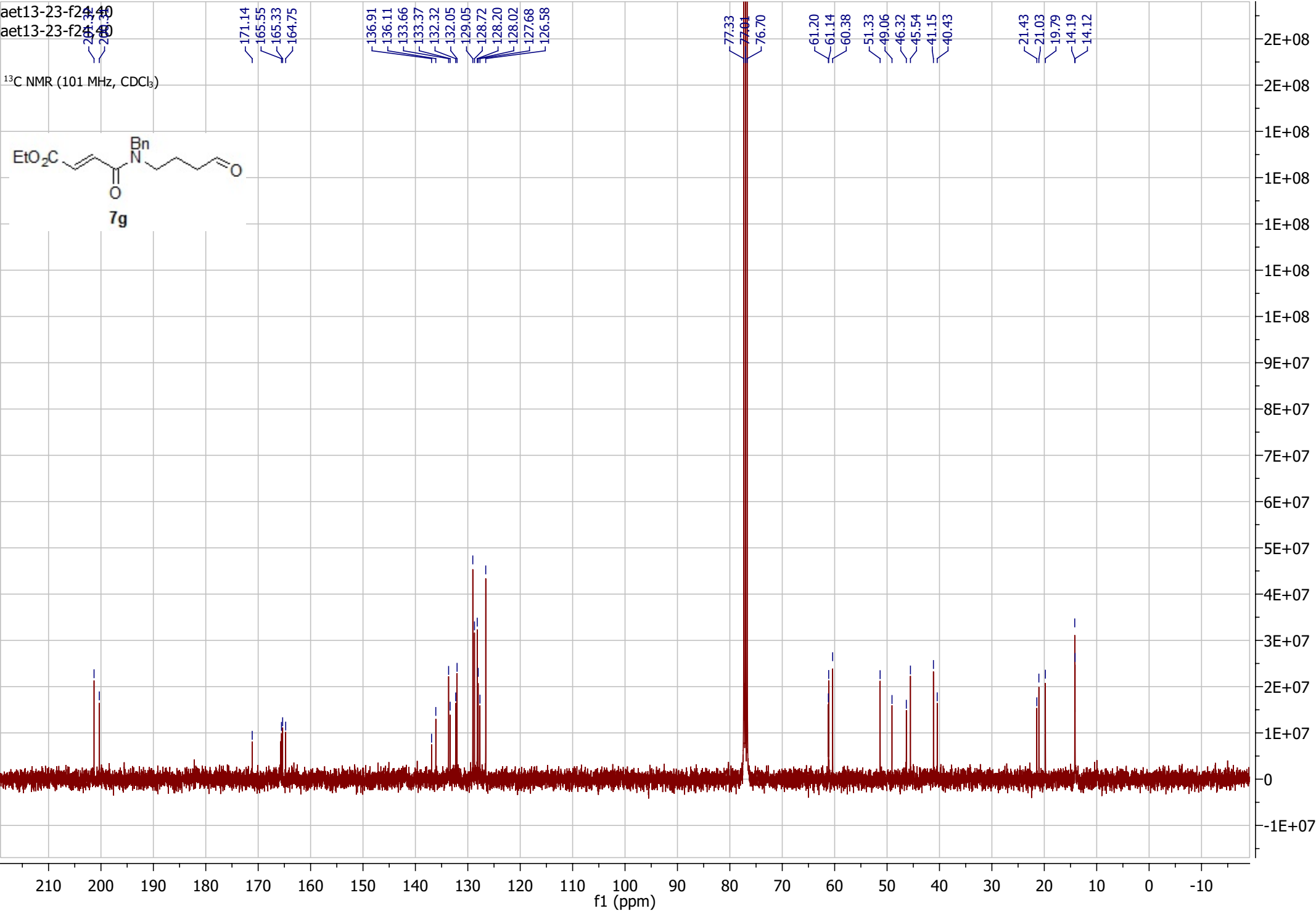
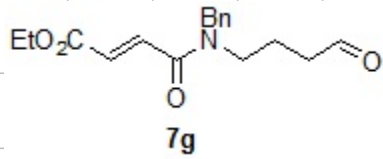
aet13-23-f24,40
aet13-23-f24,40

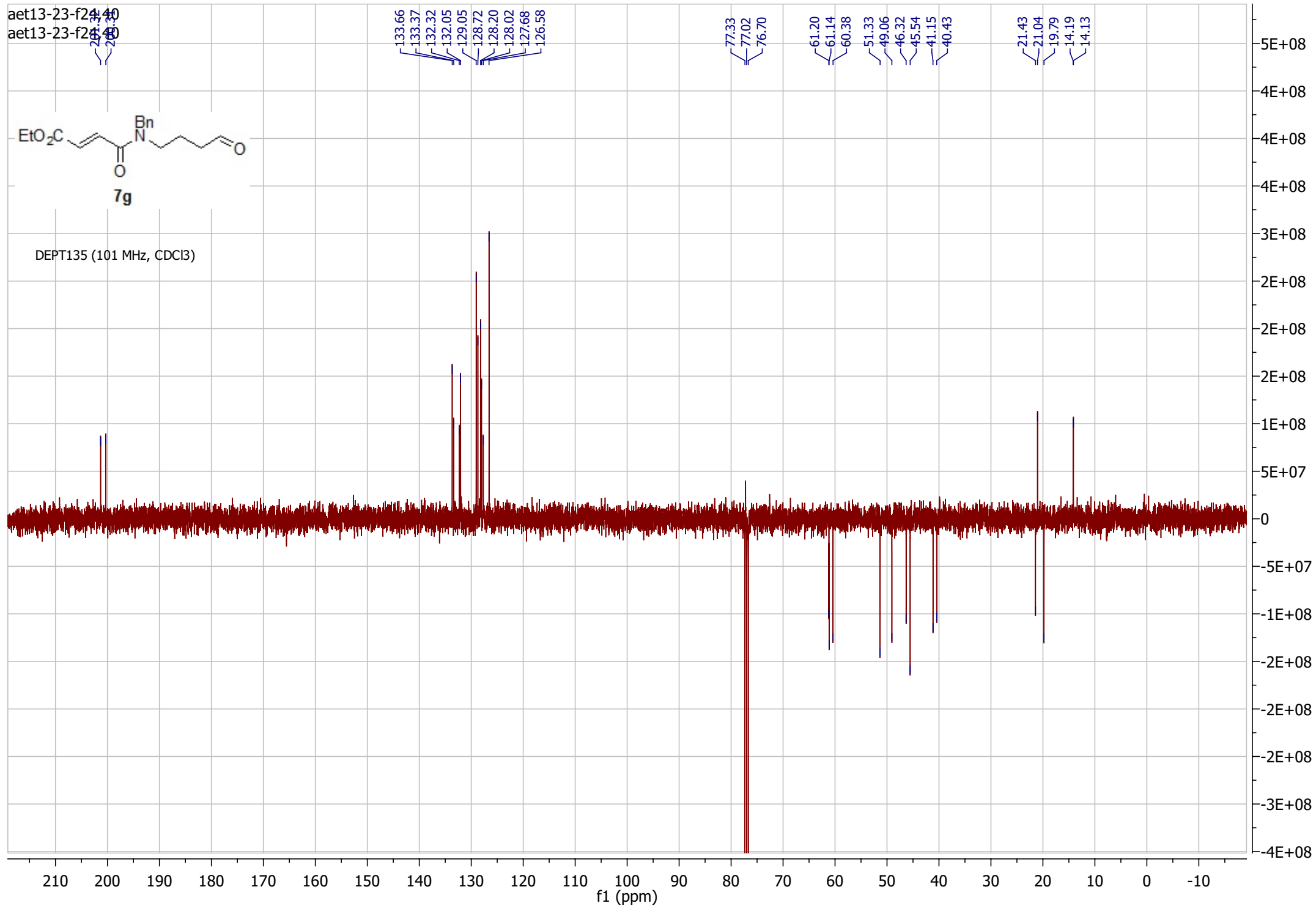
¹H NMR (400 MHz, CDCl₃)

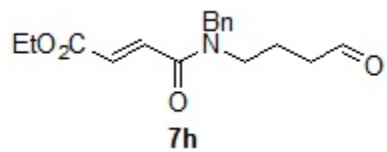


aet13-23-f24-40
aet13-23-f24-40

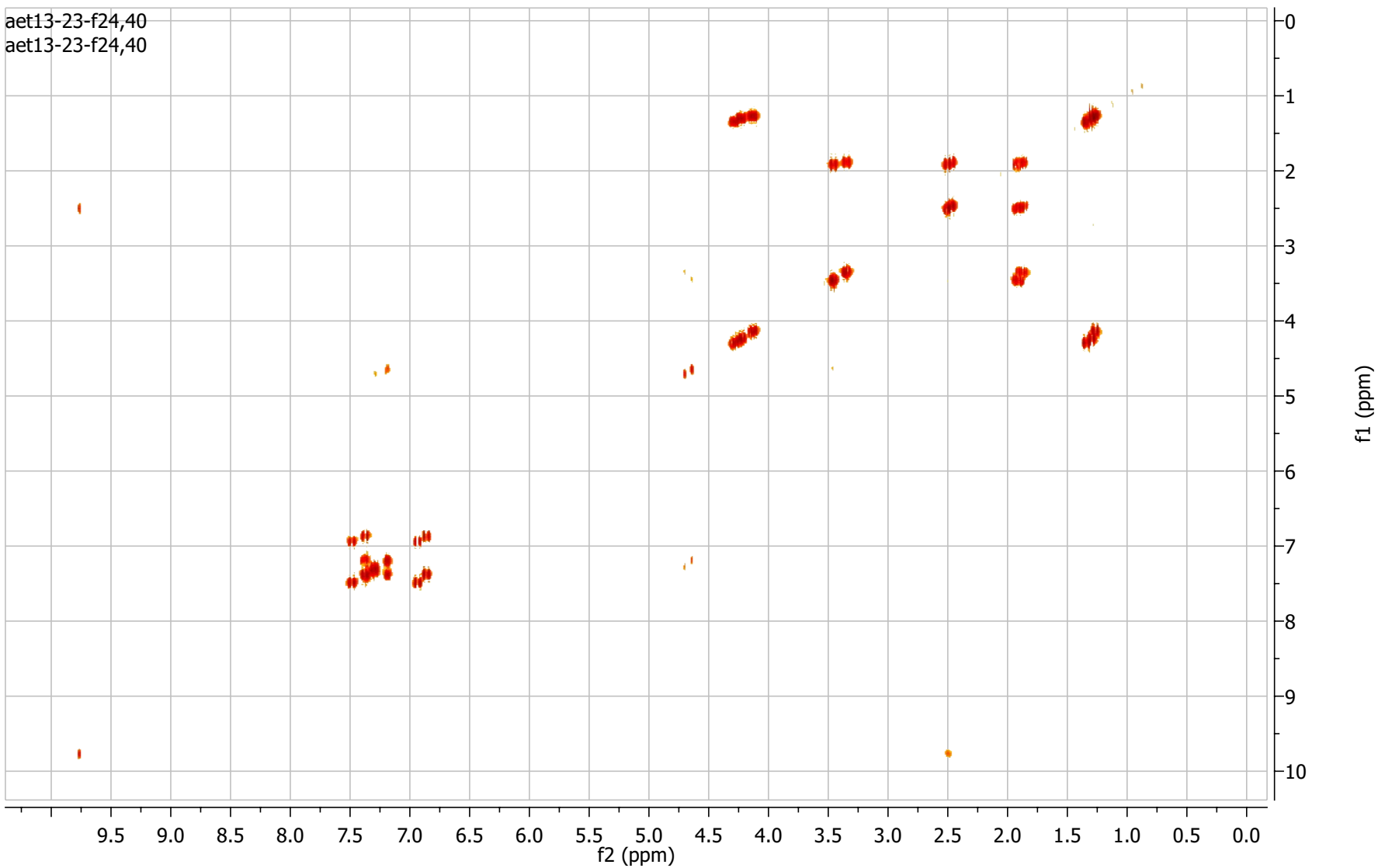
¹³C NMR (101 MHz, CDCl₃)

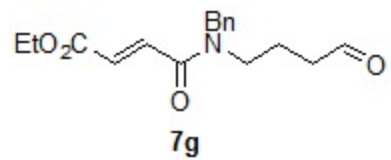




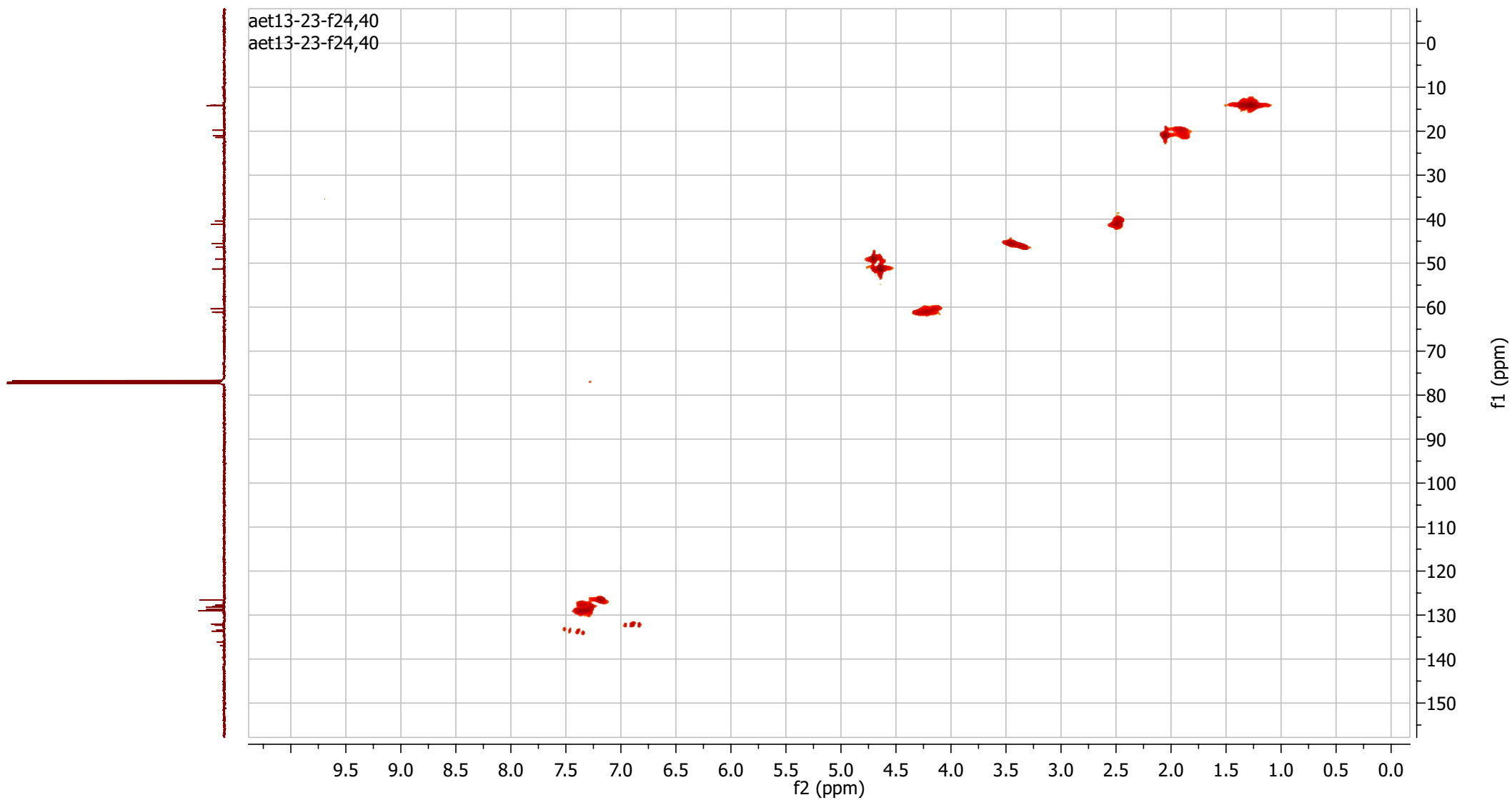


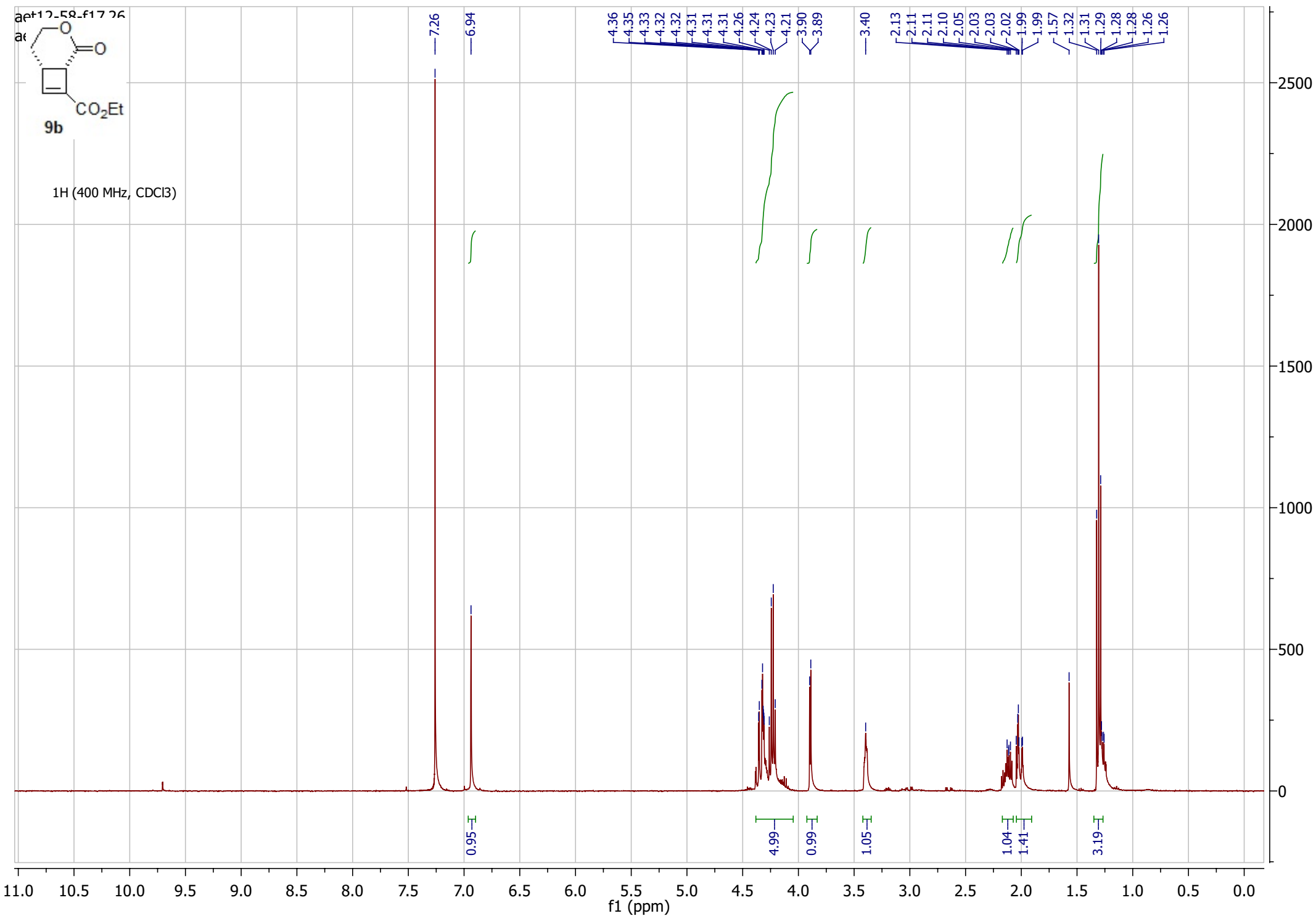
COSY (400 MHz, CDCl₃)

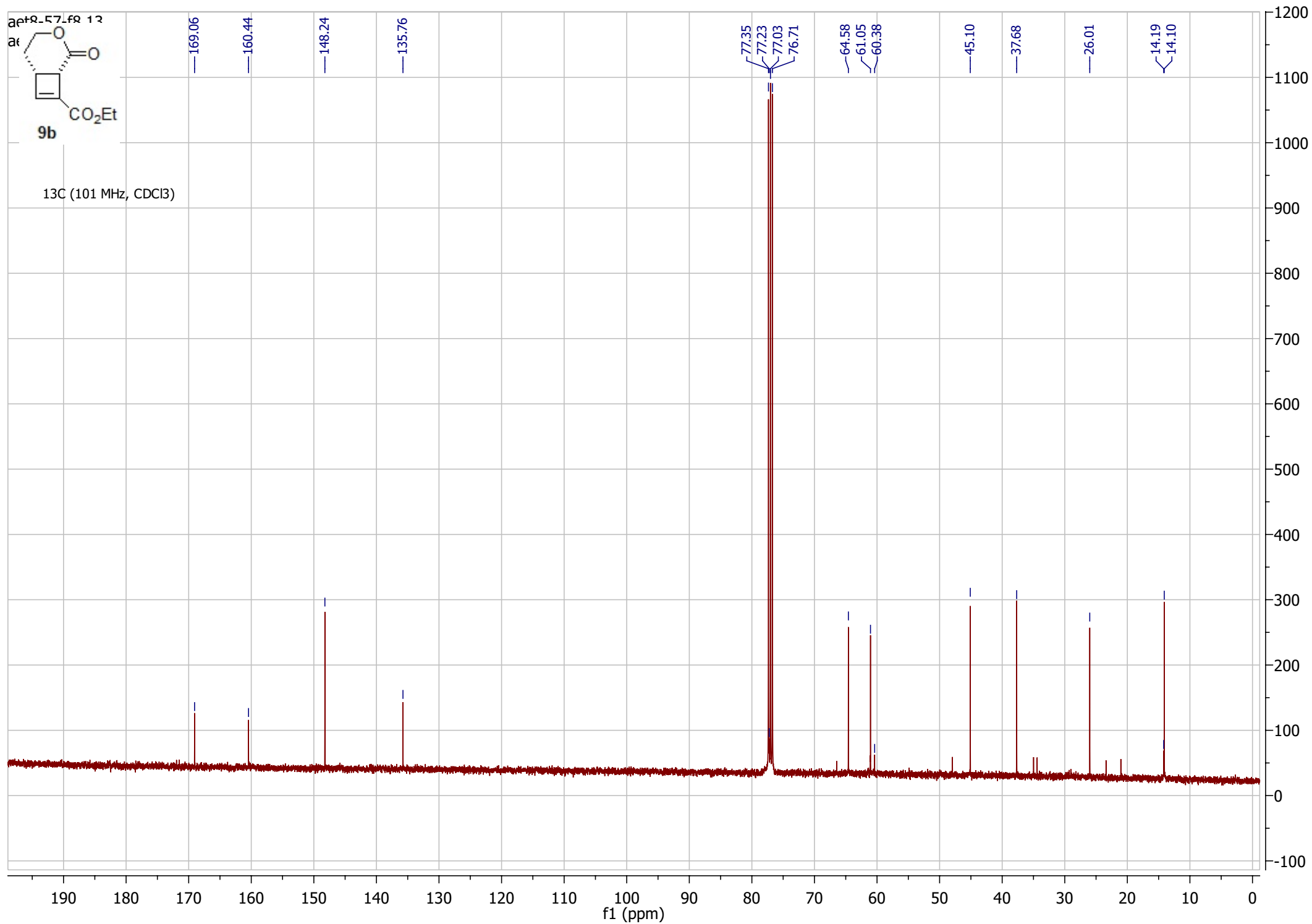


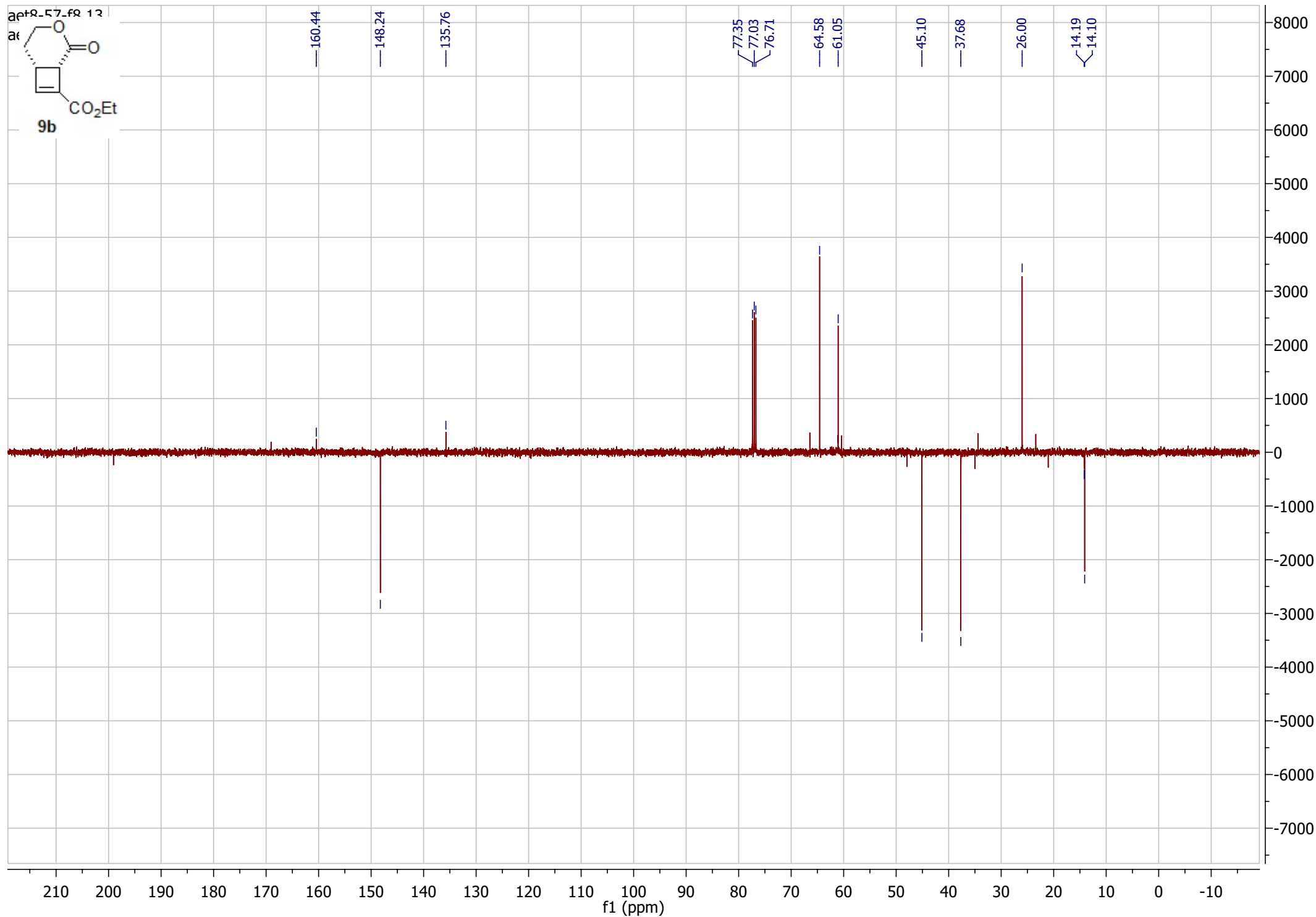


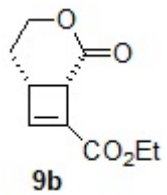
HMQC (CDCl₃)



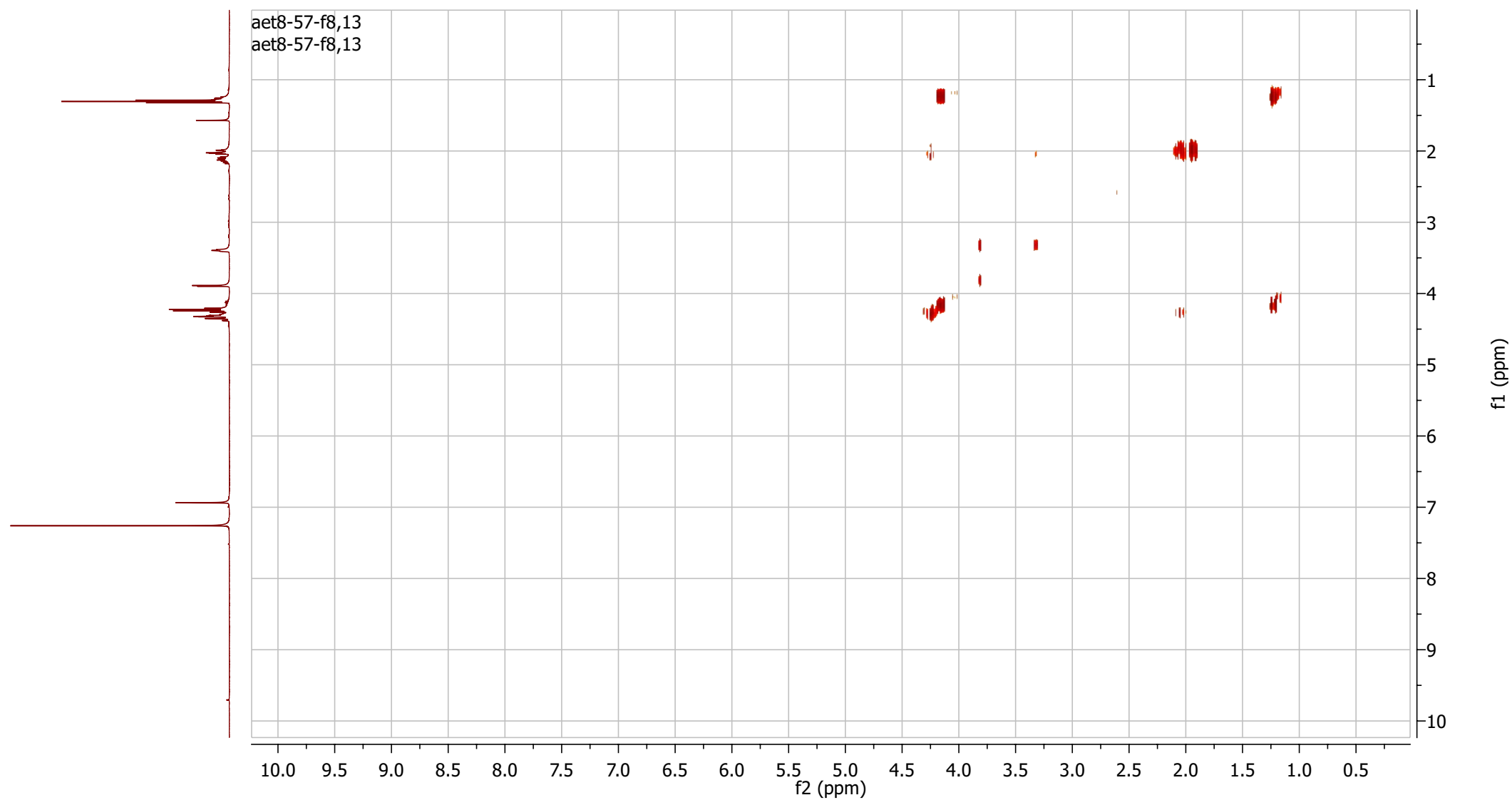


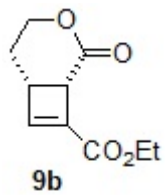




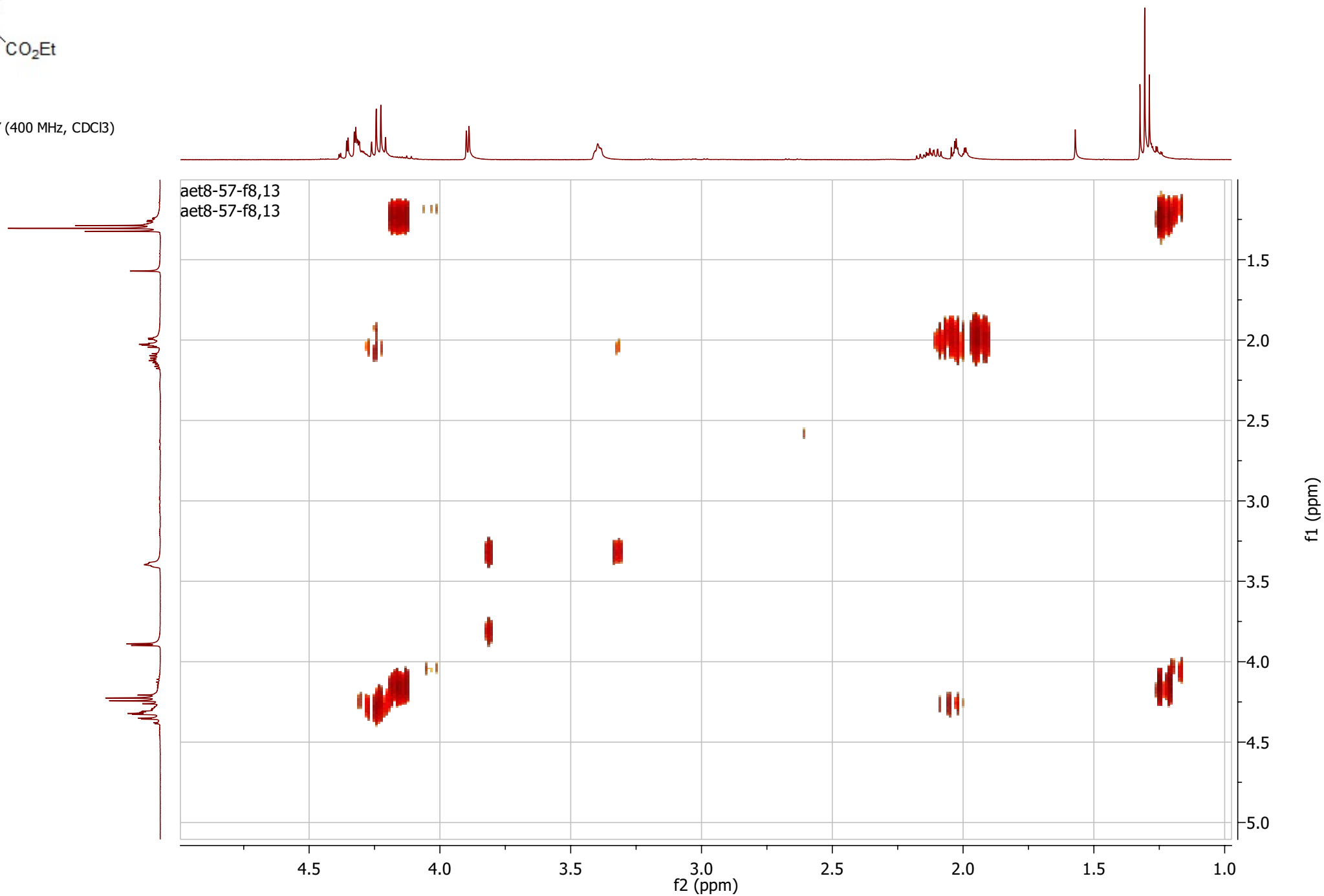


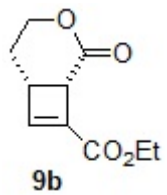
COSY (400 MHz, CDCl₃)



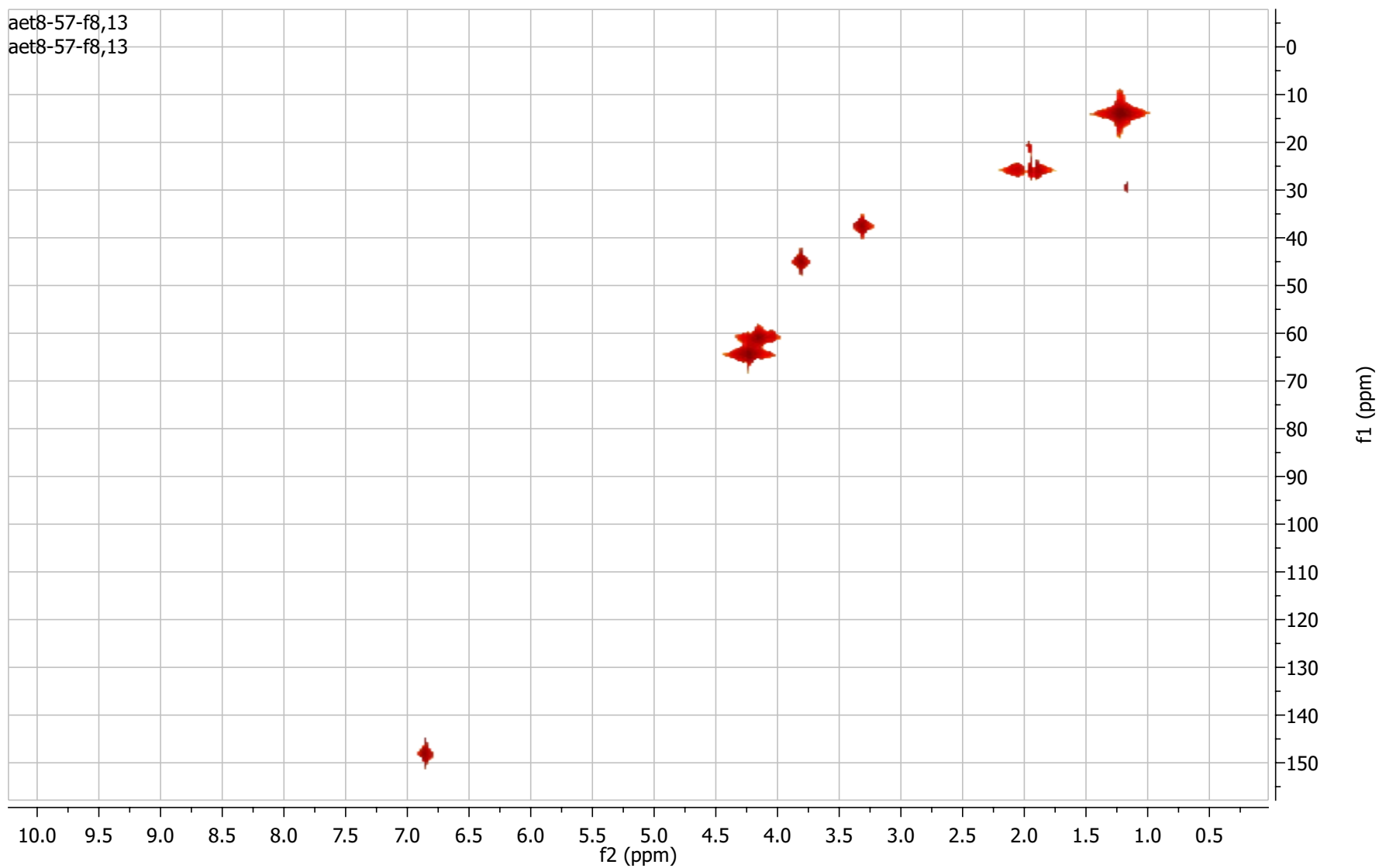


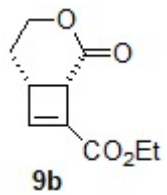
COSY (400 MHz, CDCl₃)



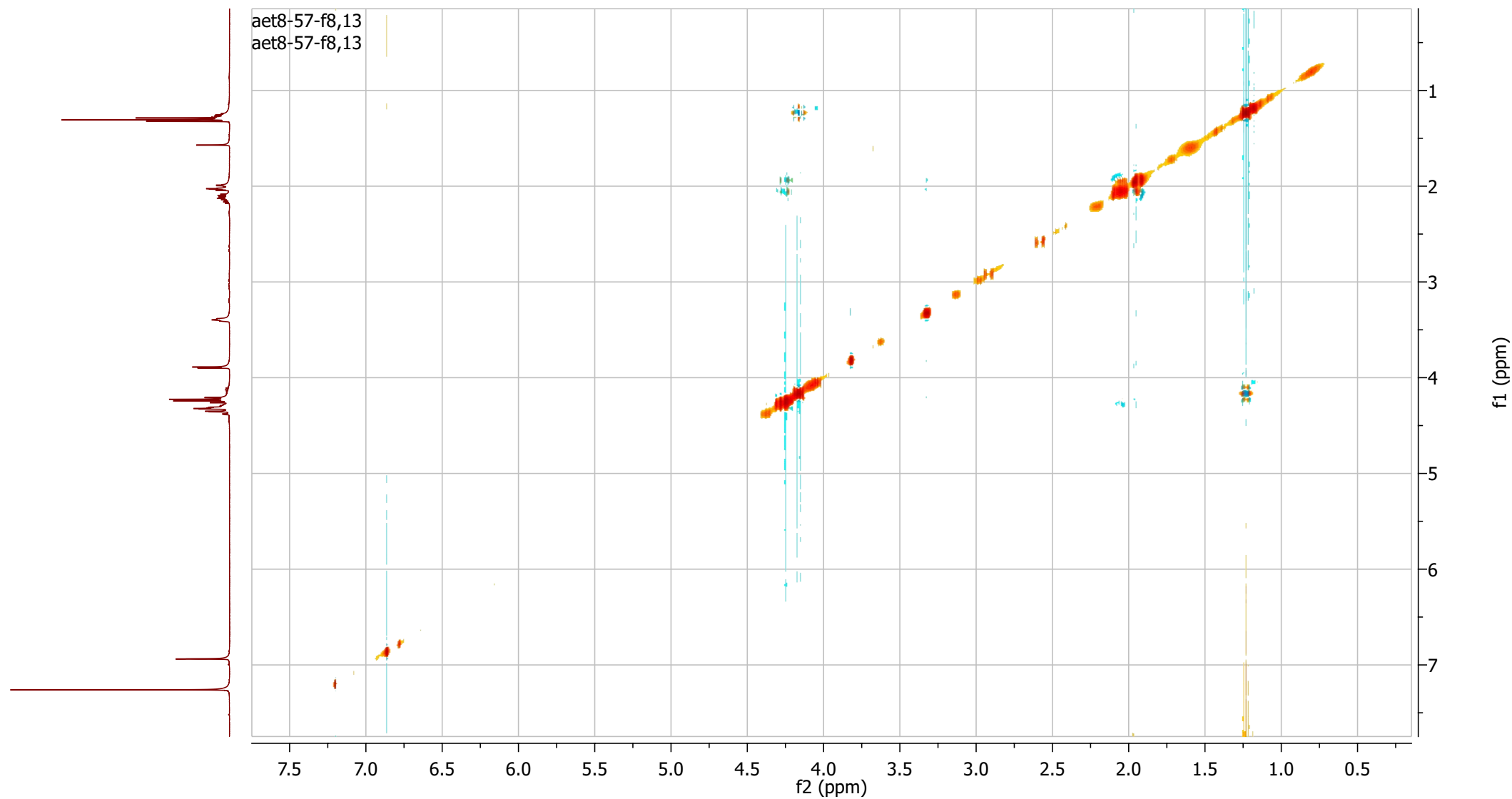


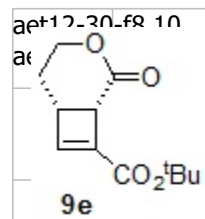
HMQC (CDCl₃)



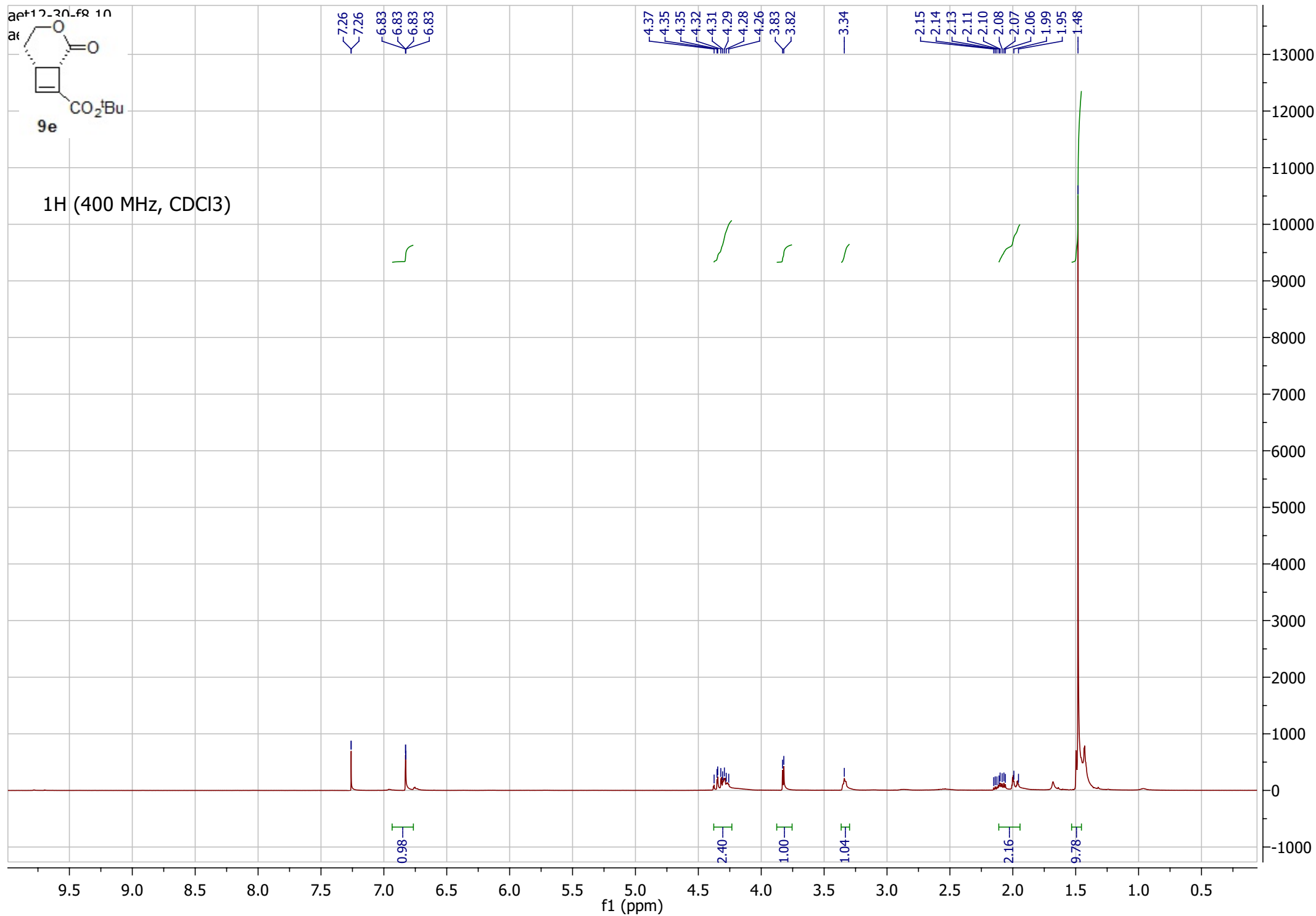


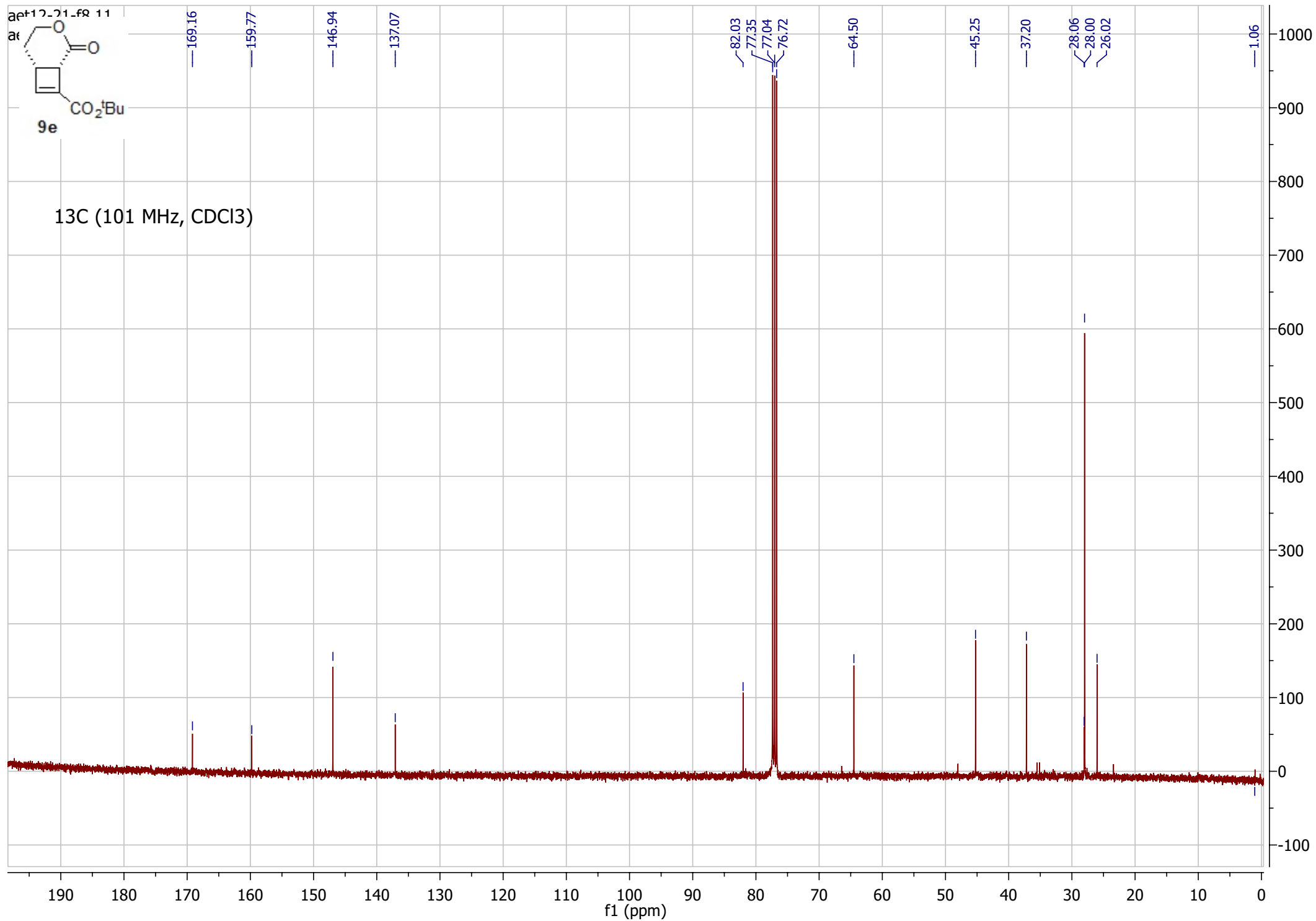
NOESY (CDCl₃)

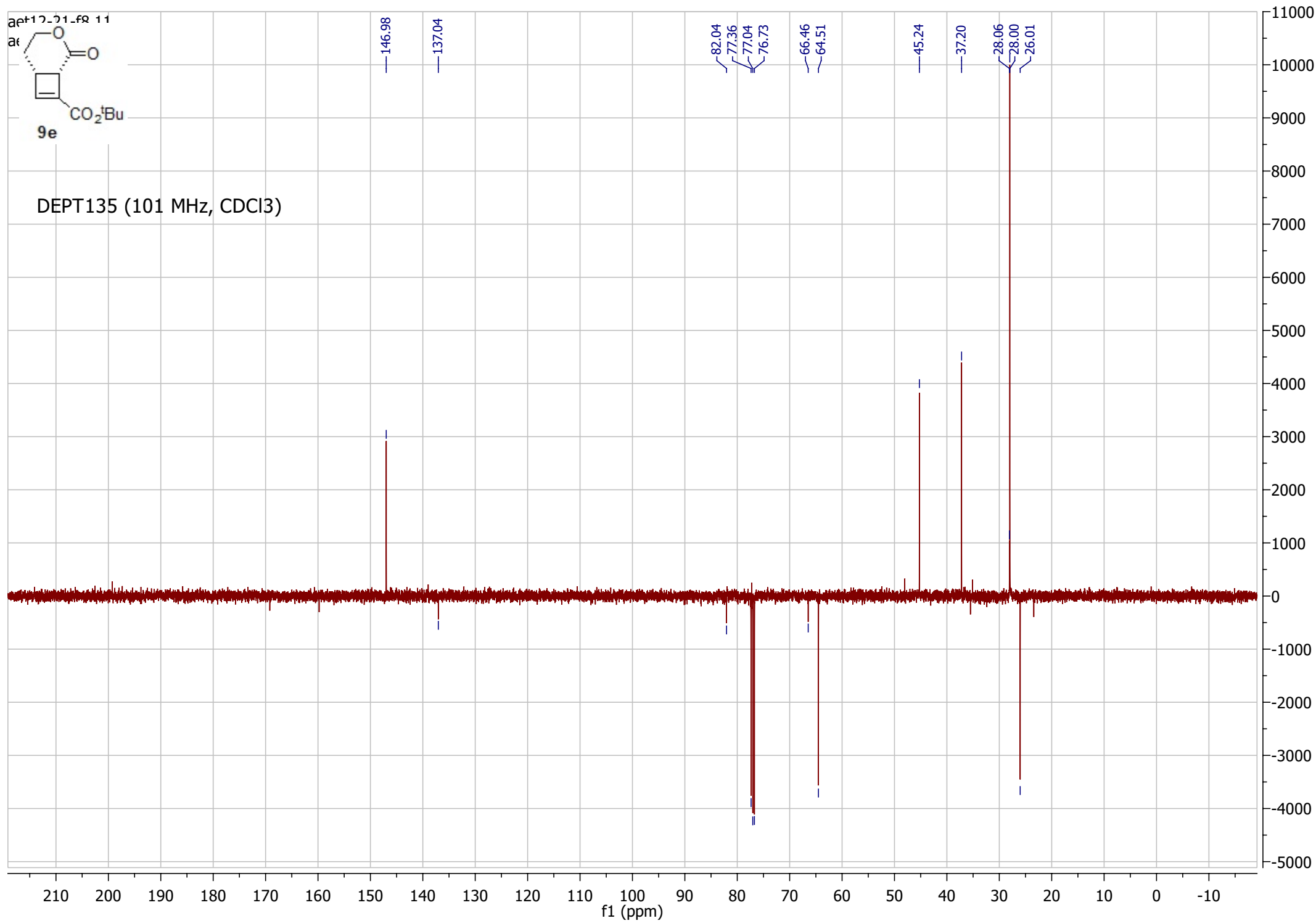


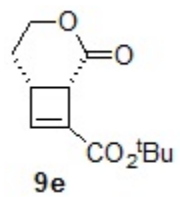


1H (400 MHz, CDCl3)

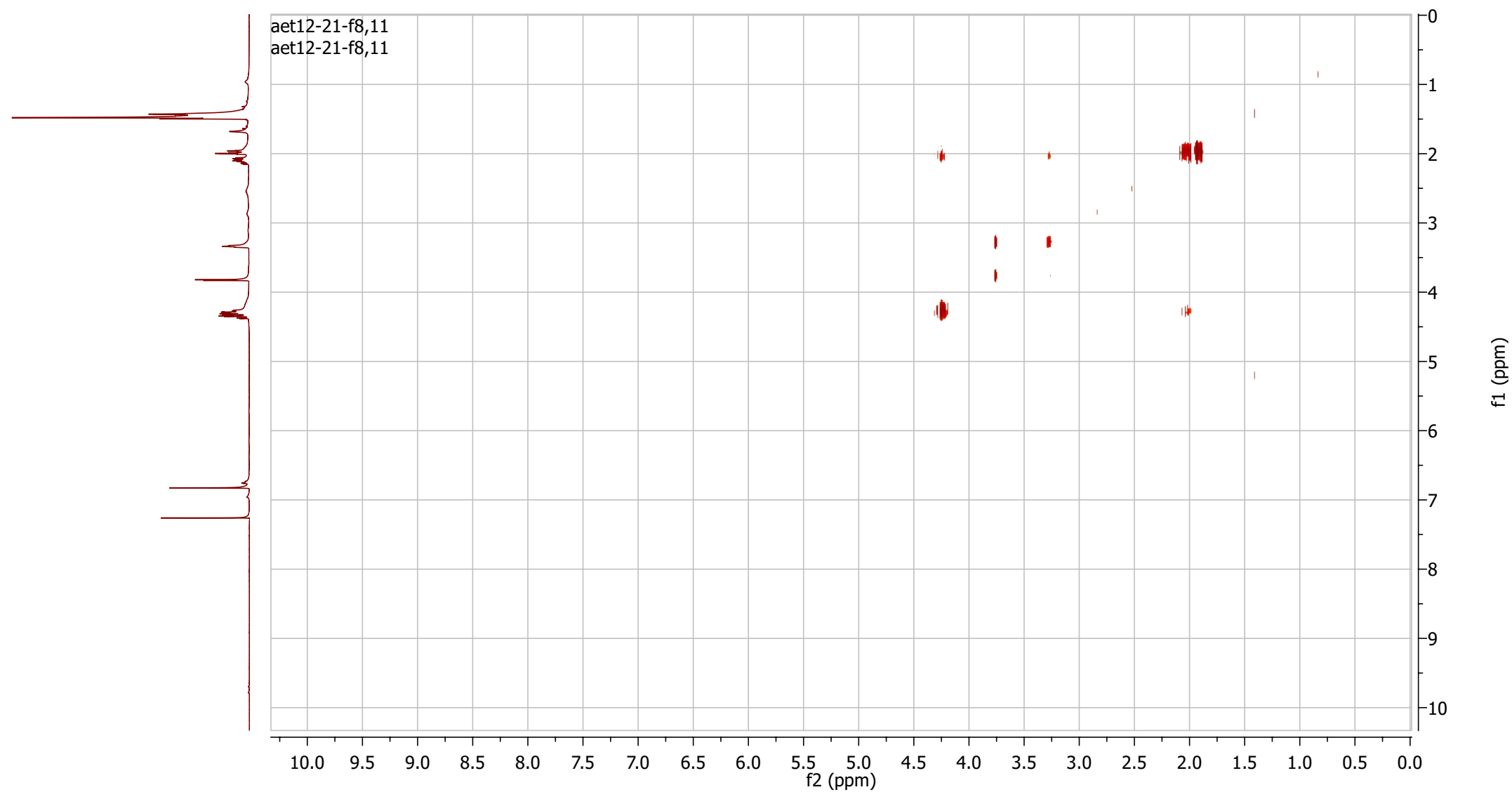


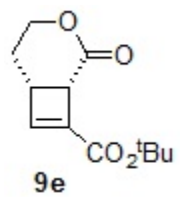




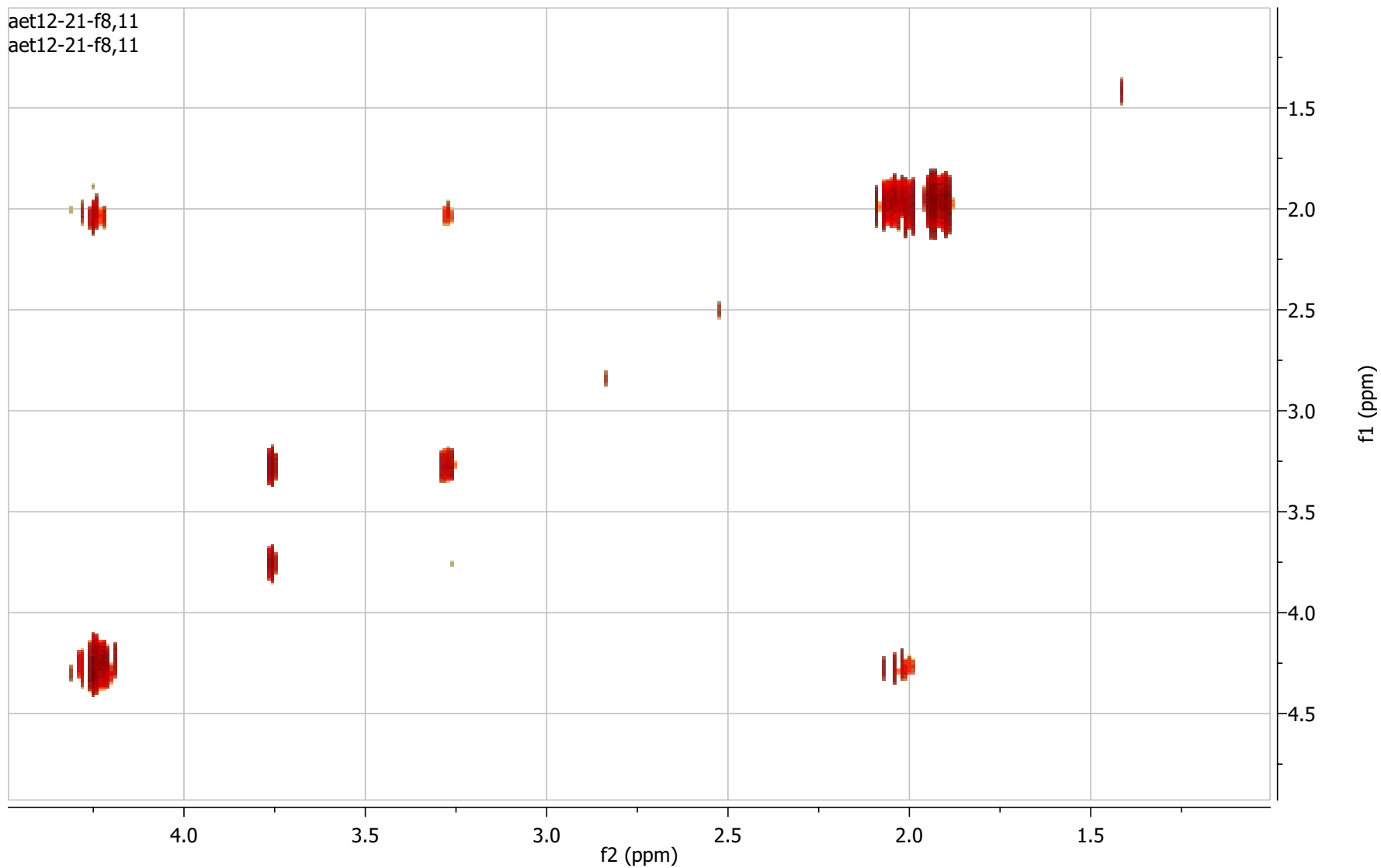


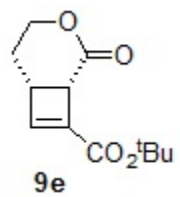
COSY (400 MHz, CDCl₃)



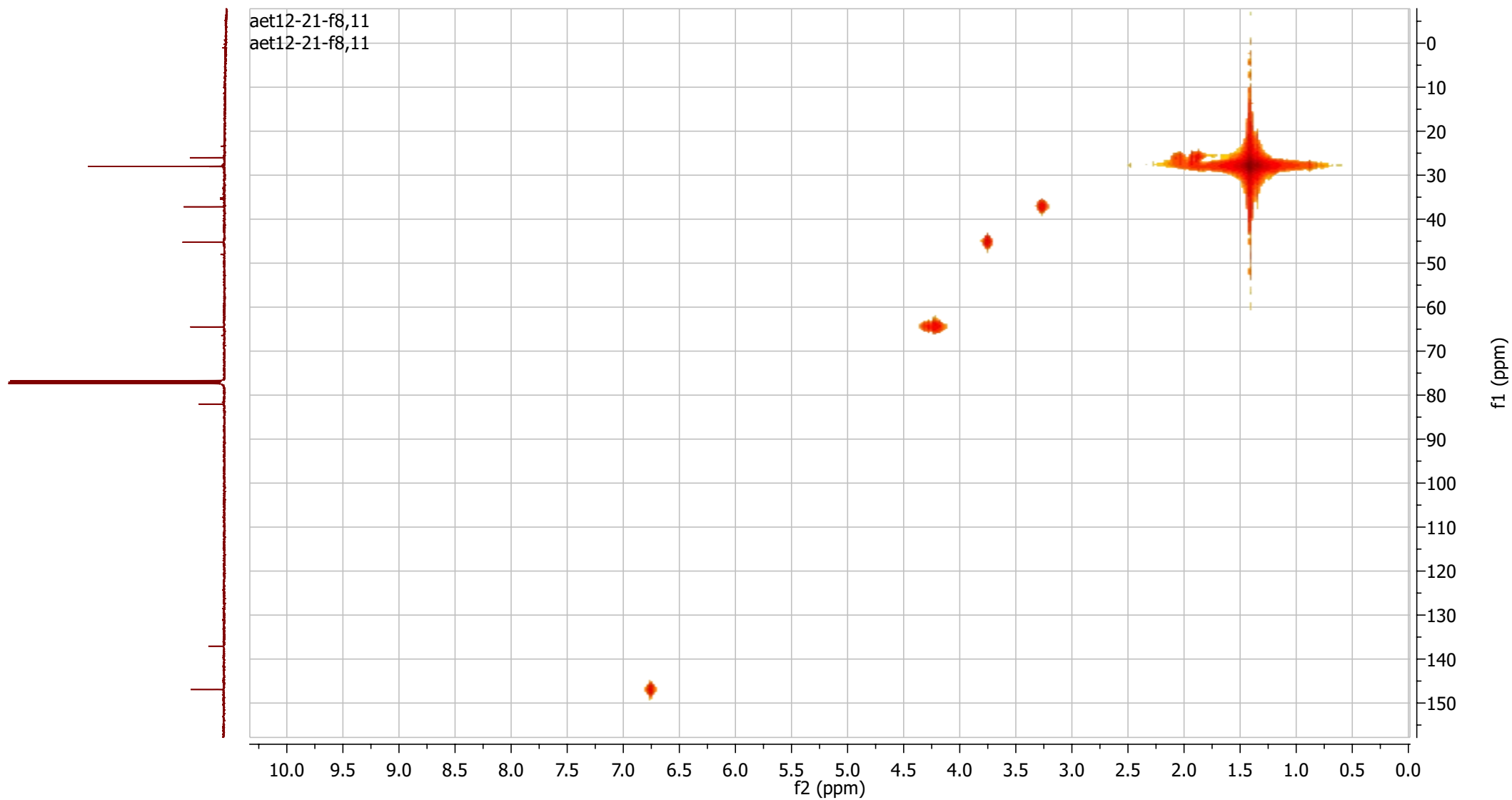


COSY (400 MHz, CDCl₃)



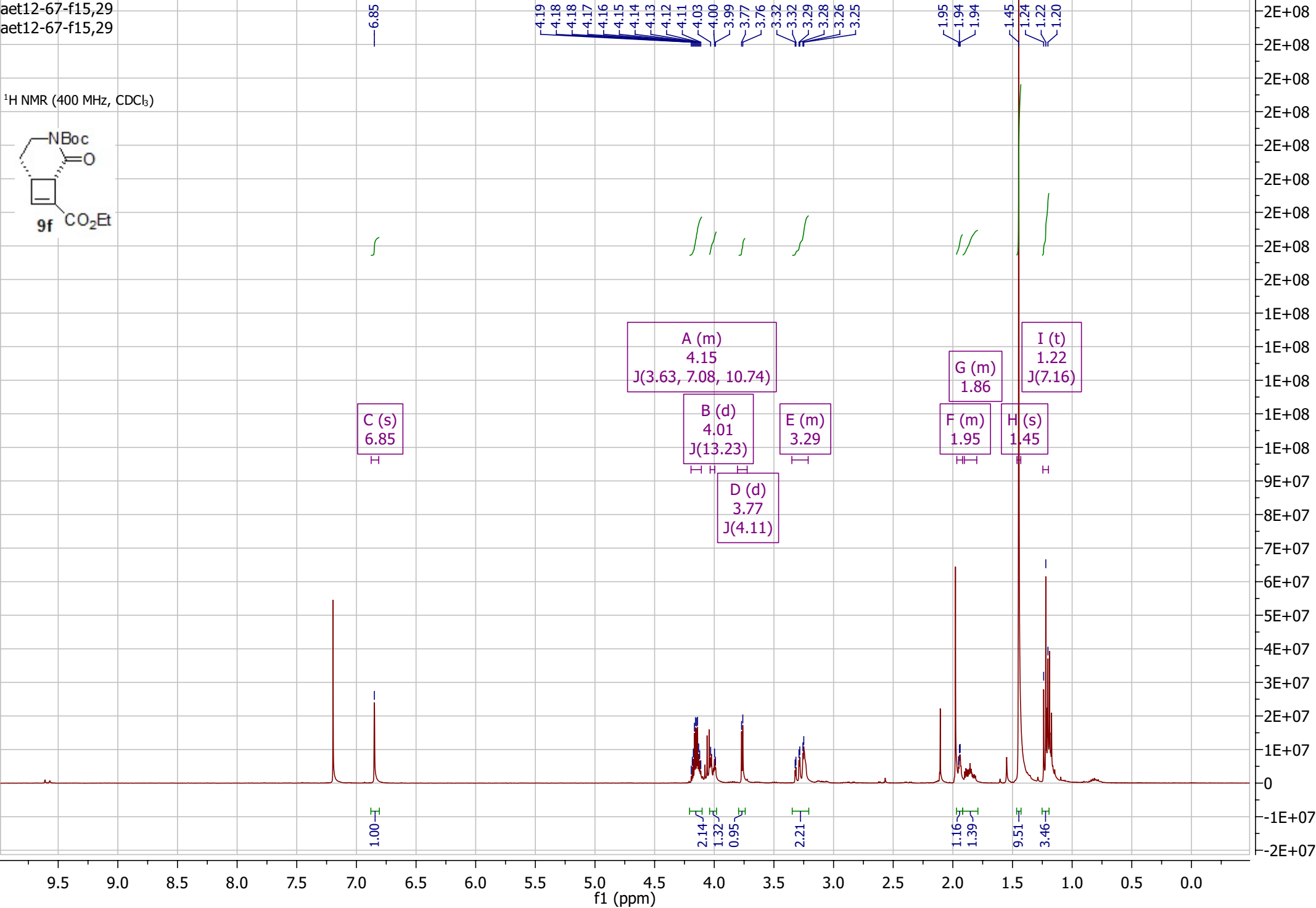
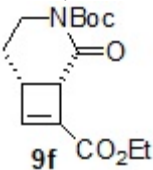


HMQC (CDCl₃)



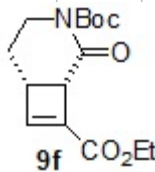
aet12-67-f15,29
aet12-67-f15,29

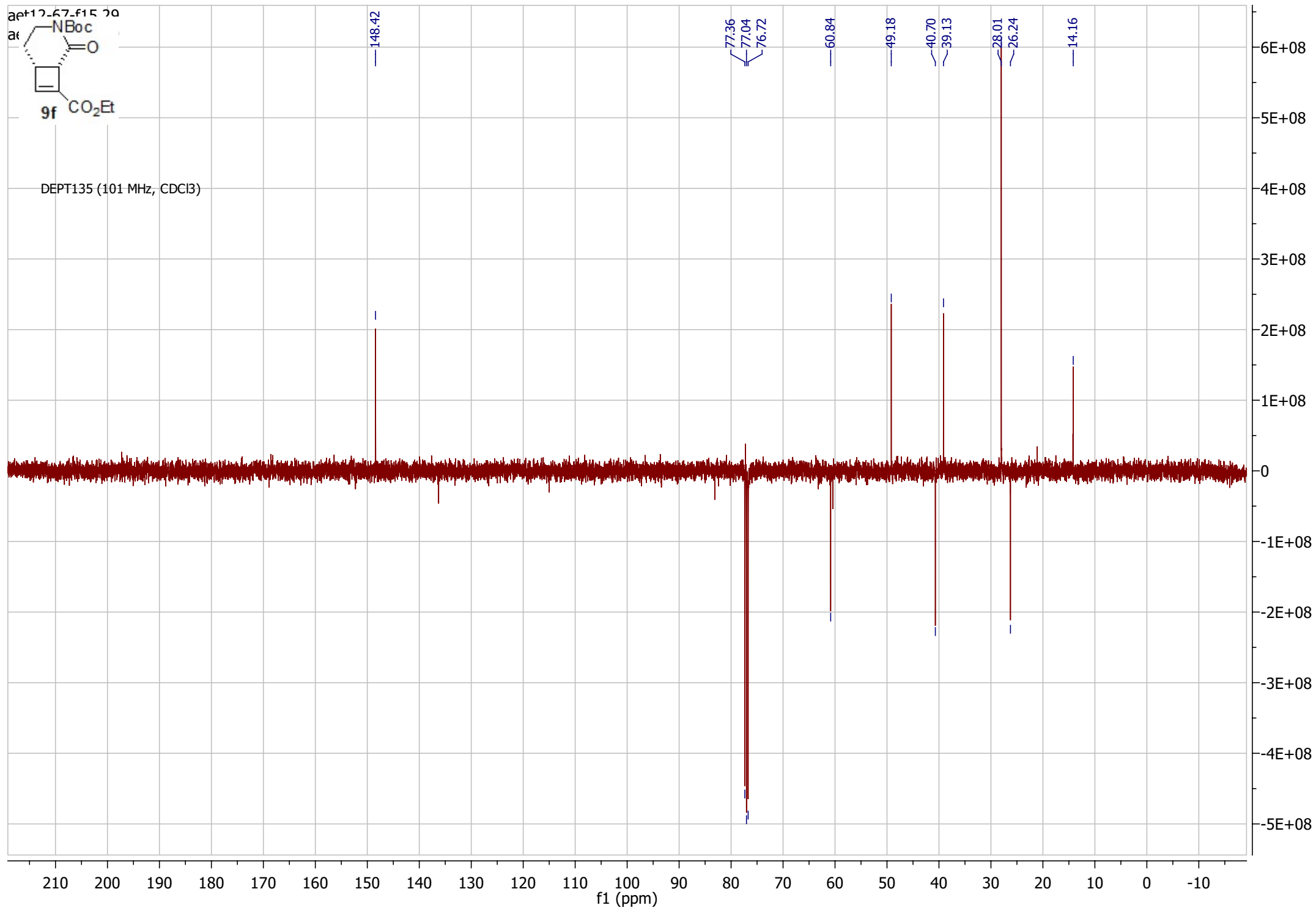
¹H NMR (400 MHz, CDCl₃)

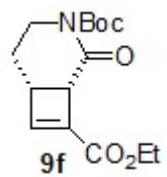


aet12-67-f15,29
aet12-67-f15,29

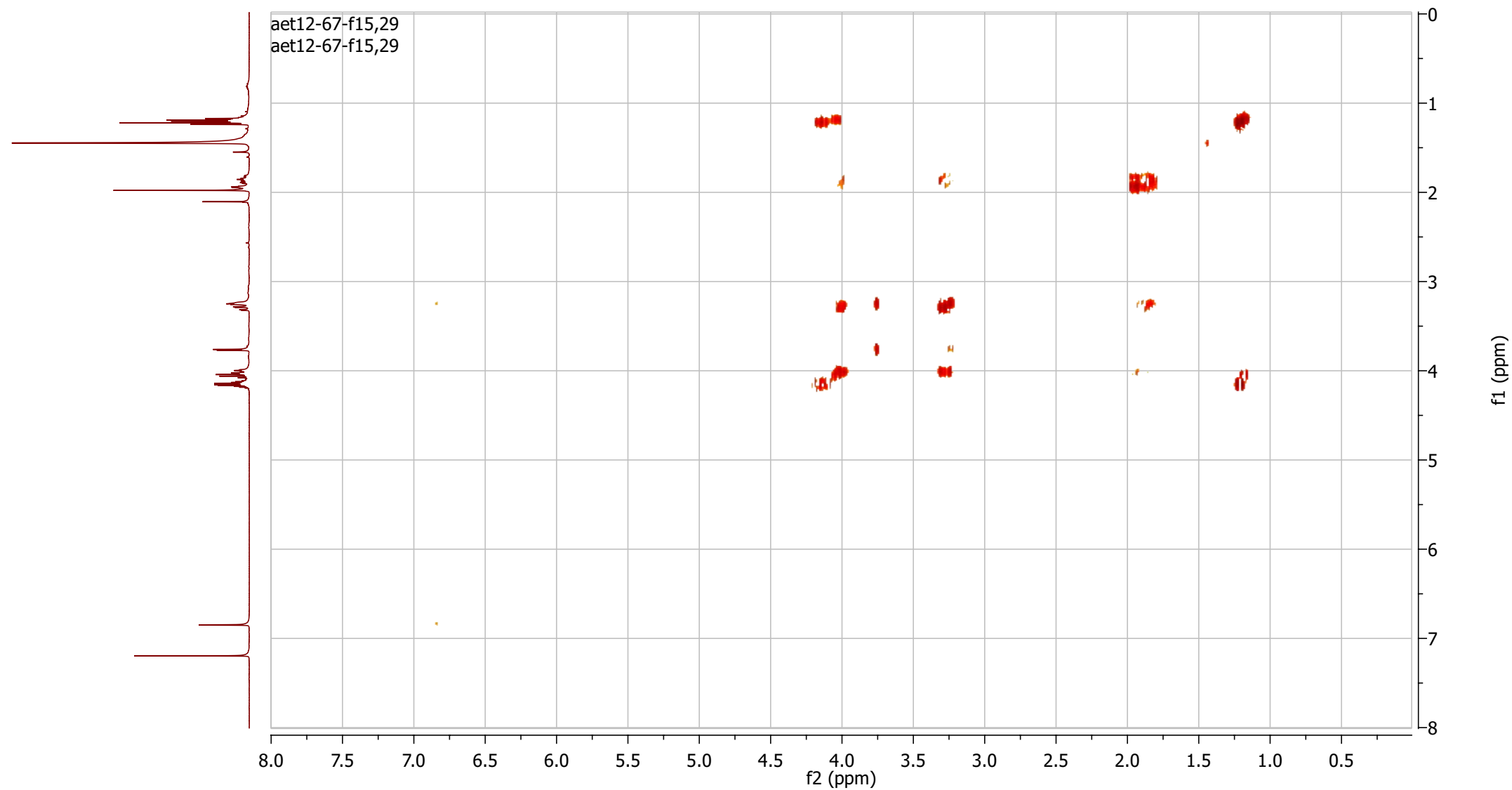
¹³C NMR (101 MHz, CDCl₃)

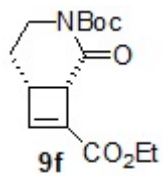




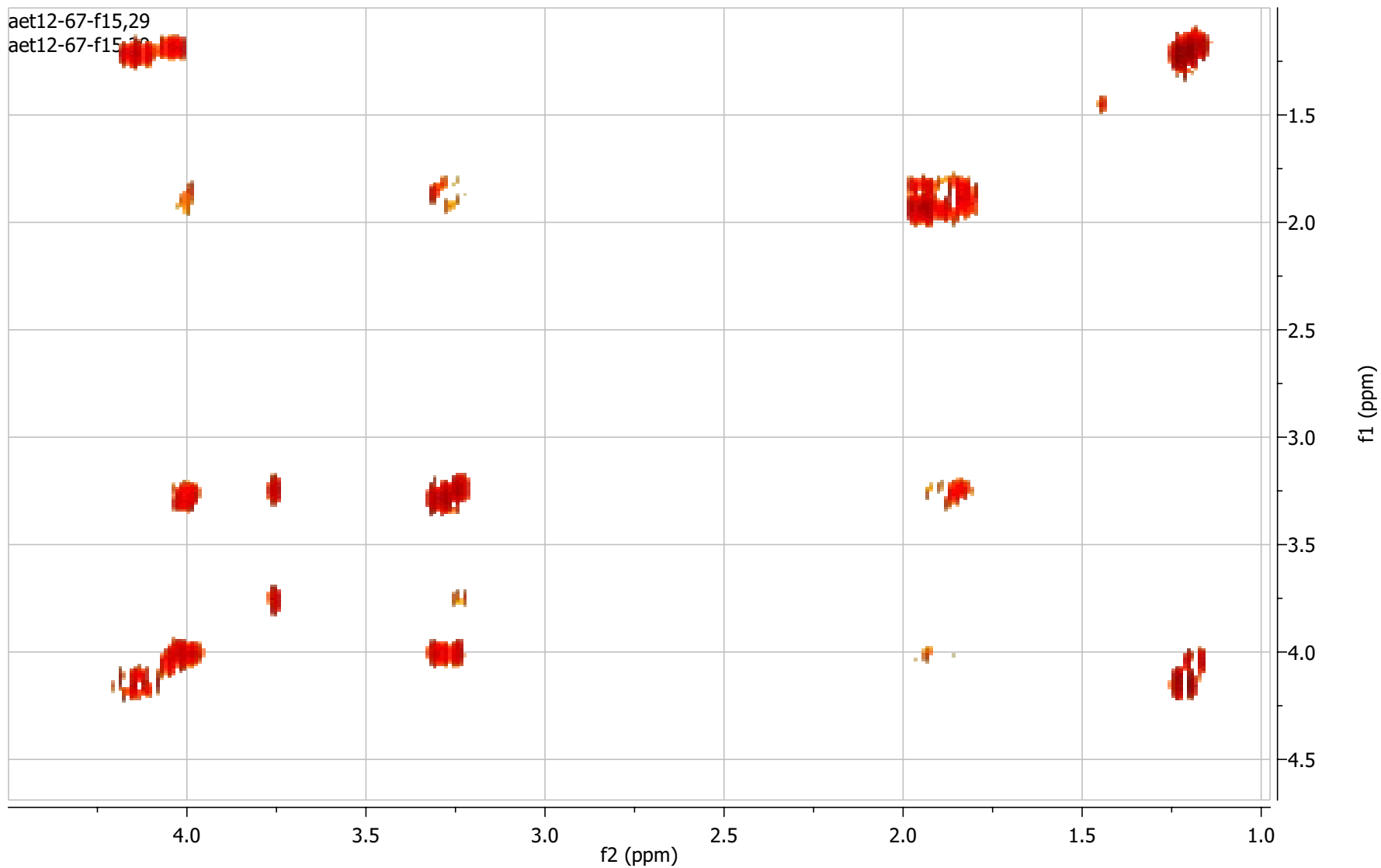


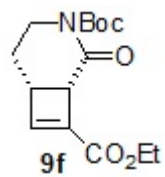
COSY (400 MHz, CDCl₃)



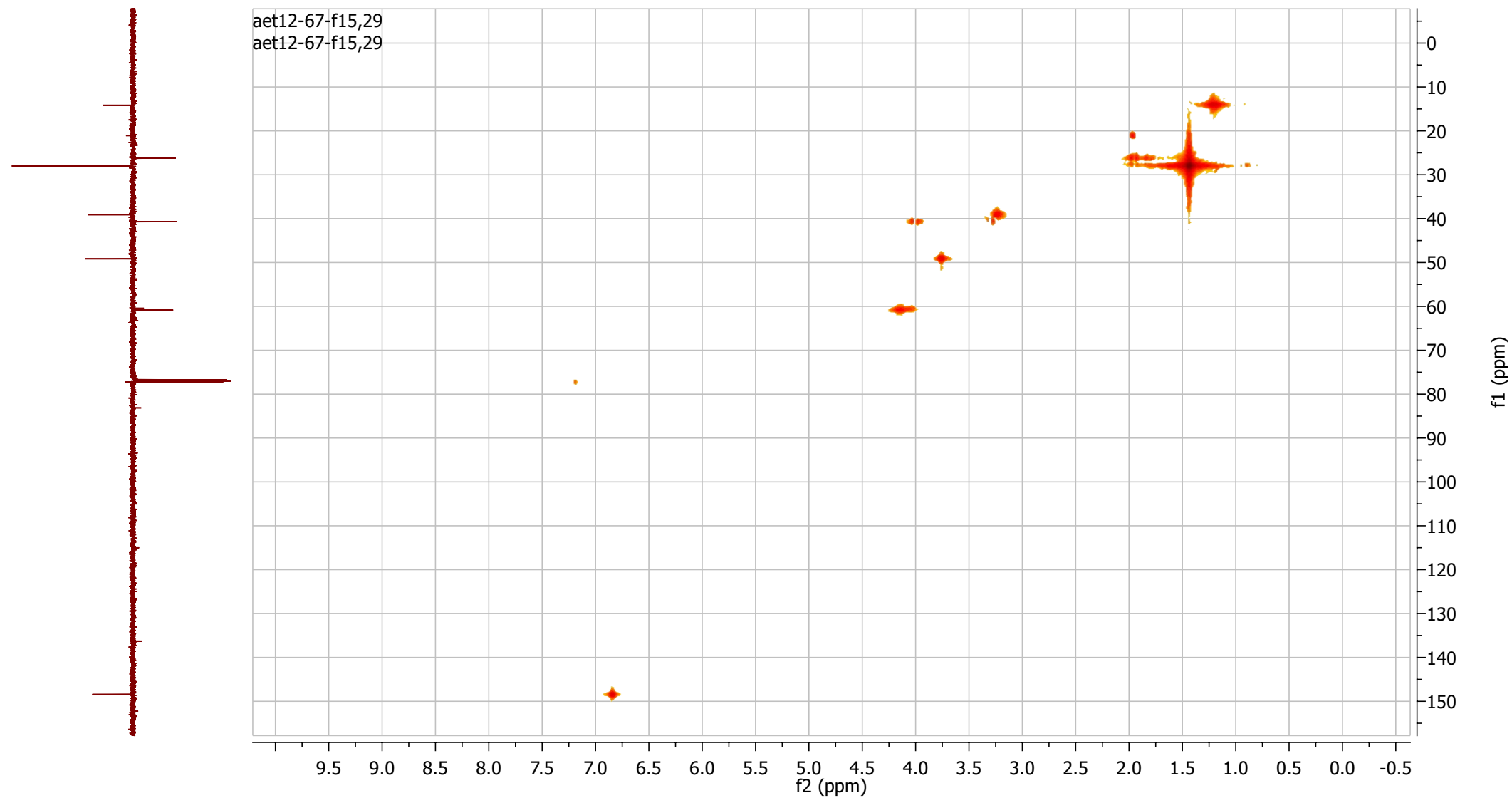


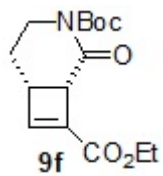
COSY (400 MHz, CDCl₃)



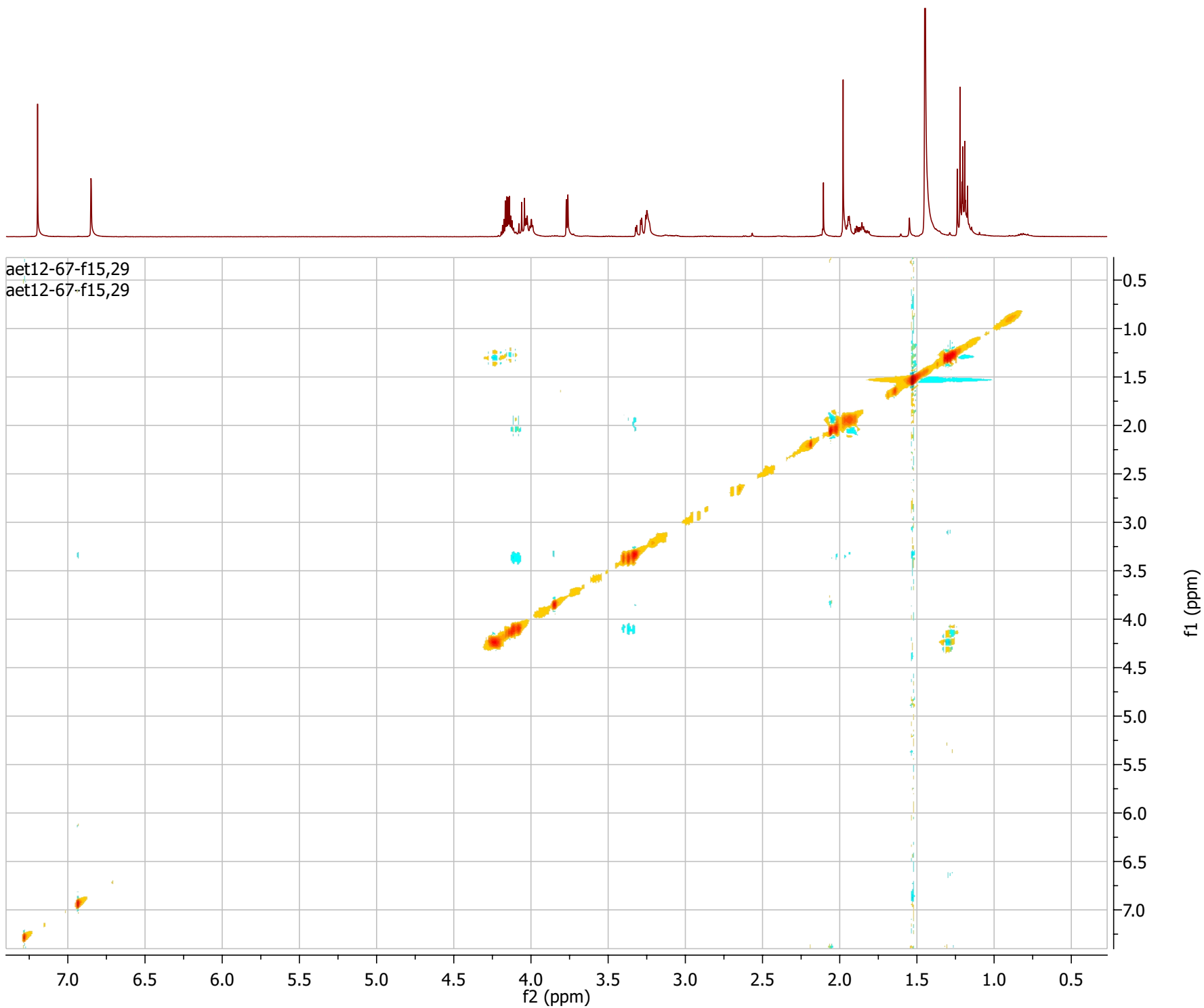


HMQC (CDCl₃)



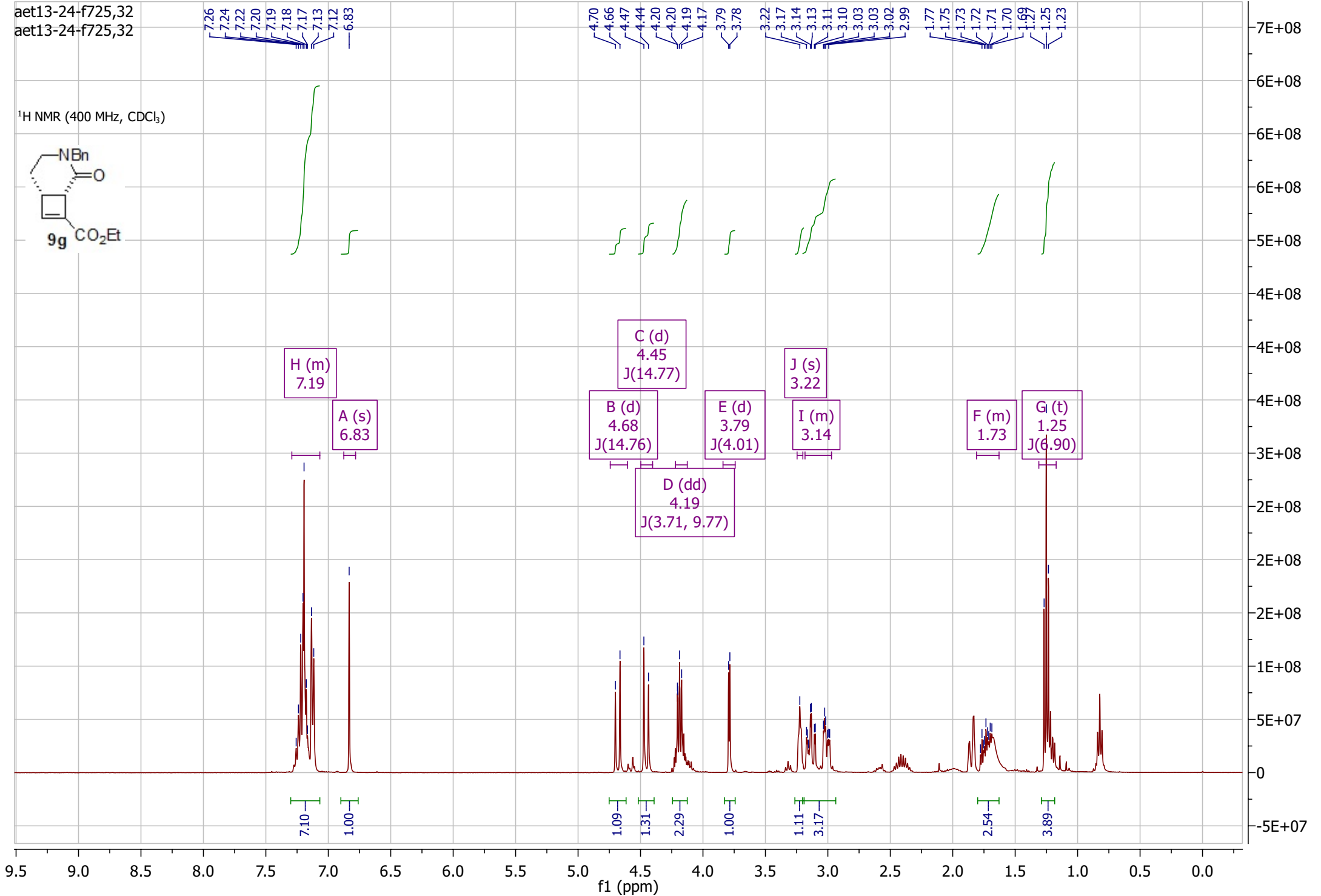
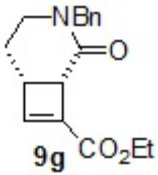


NOESY (CDCl₃)



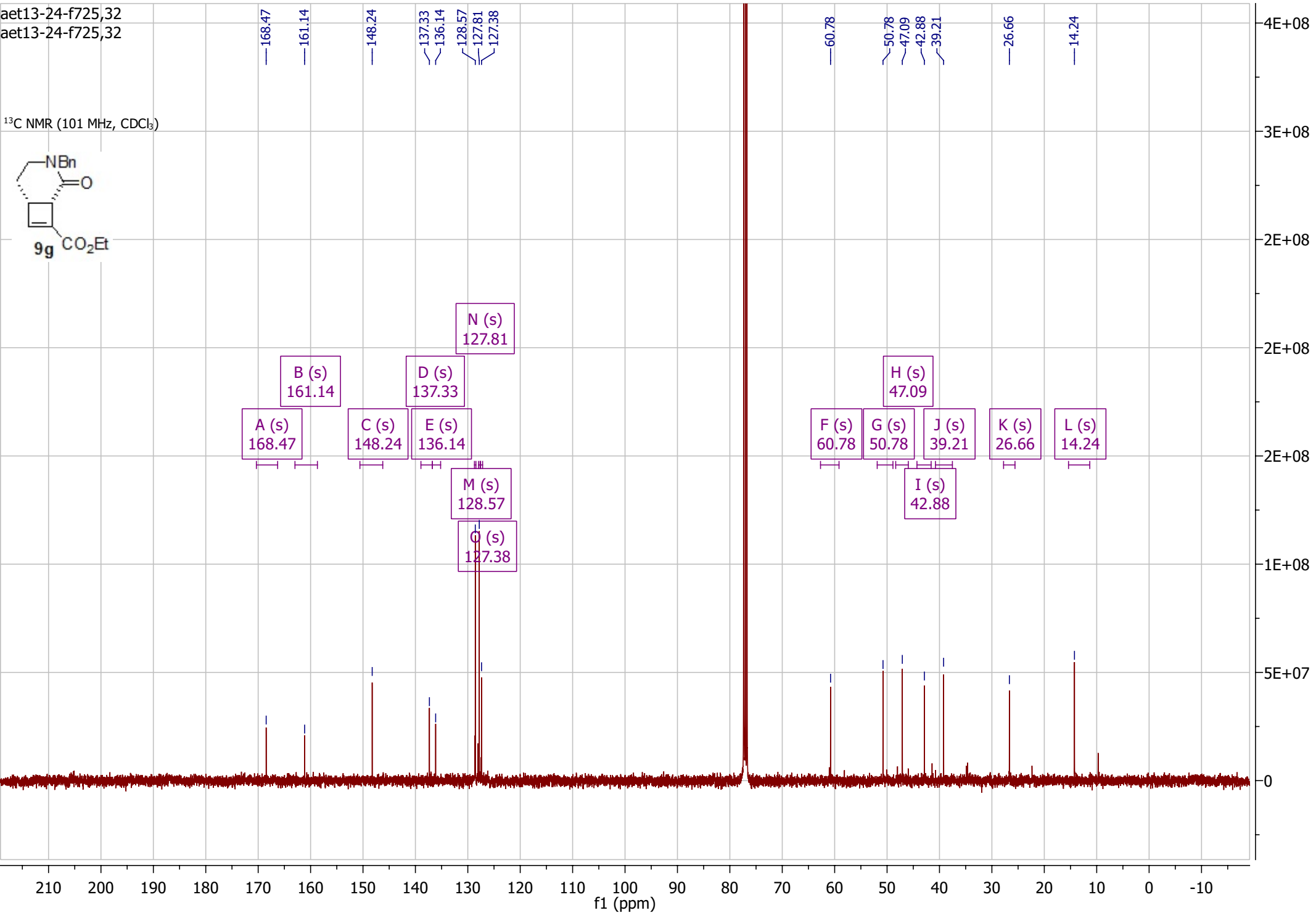
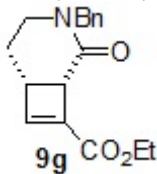
aet13-24-f725,32
aet13-24-f725,32

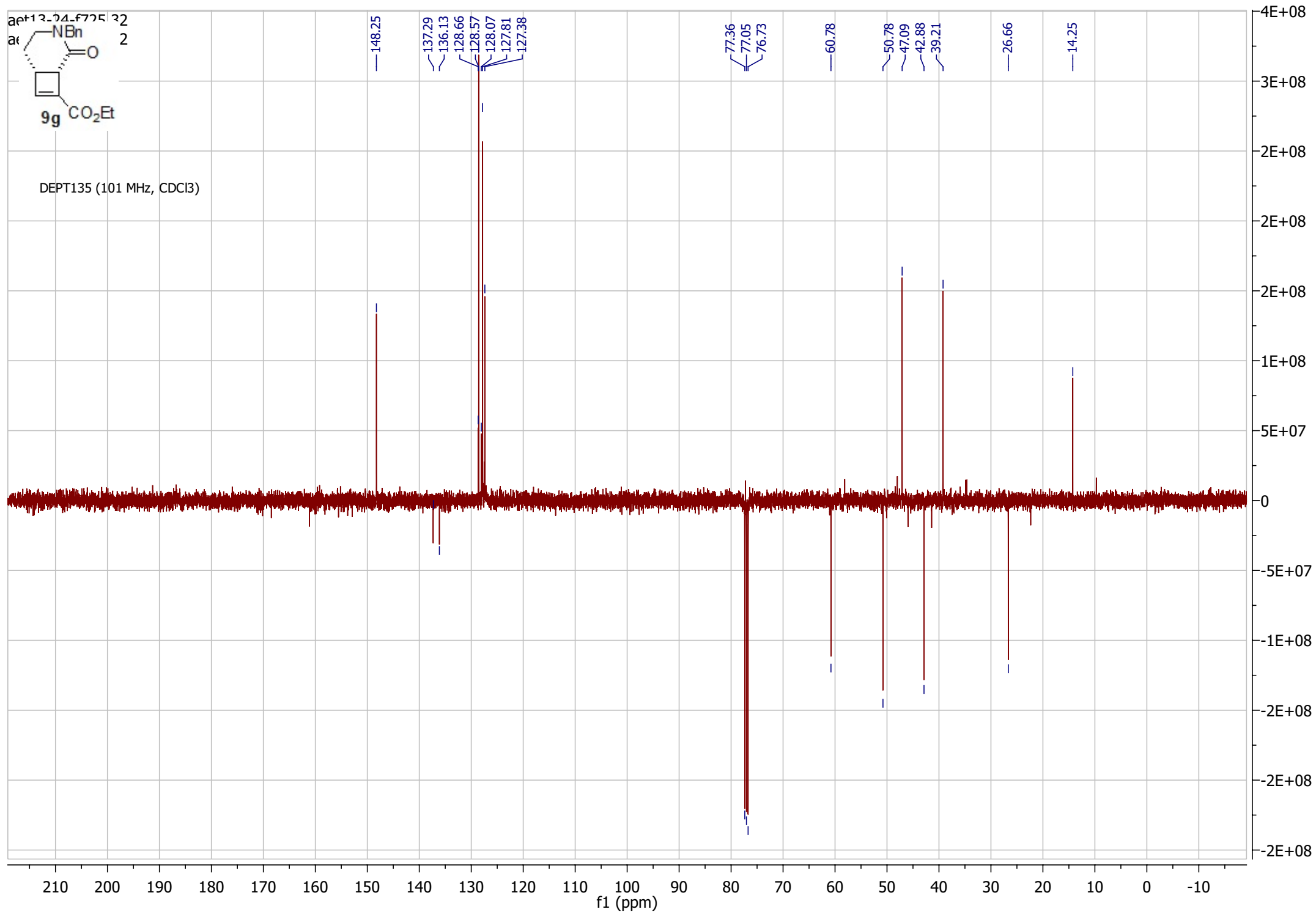
¹H NMR (400 MHz, CDCl₃)

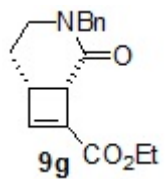


aet13-24-f725,32
aet13-24-f725,32

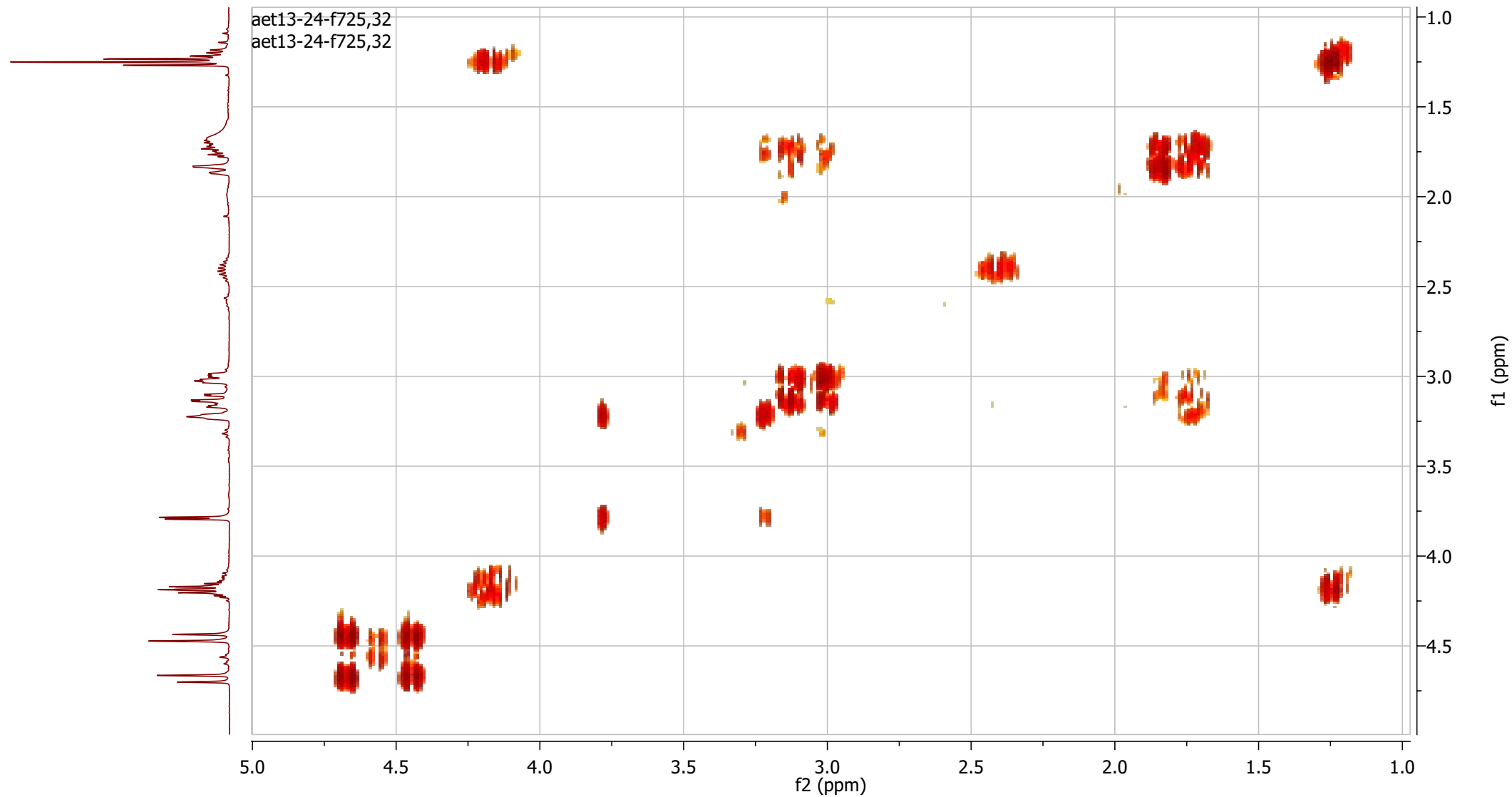
¹³C NMR (101 MHz, CDCl₃)

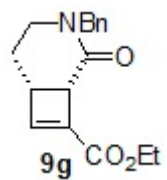




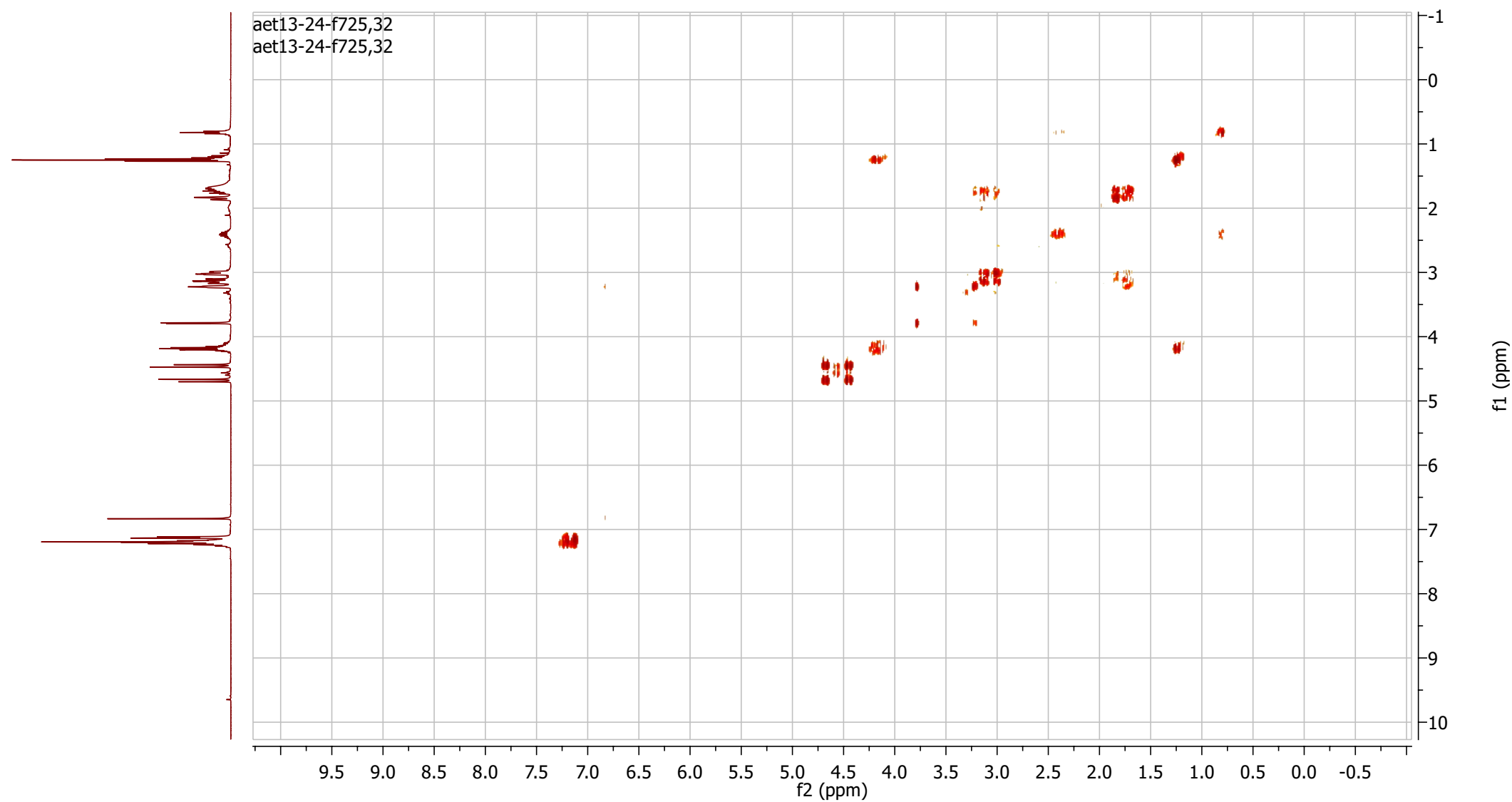


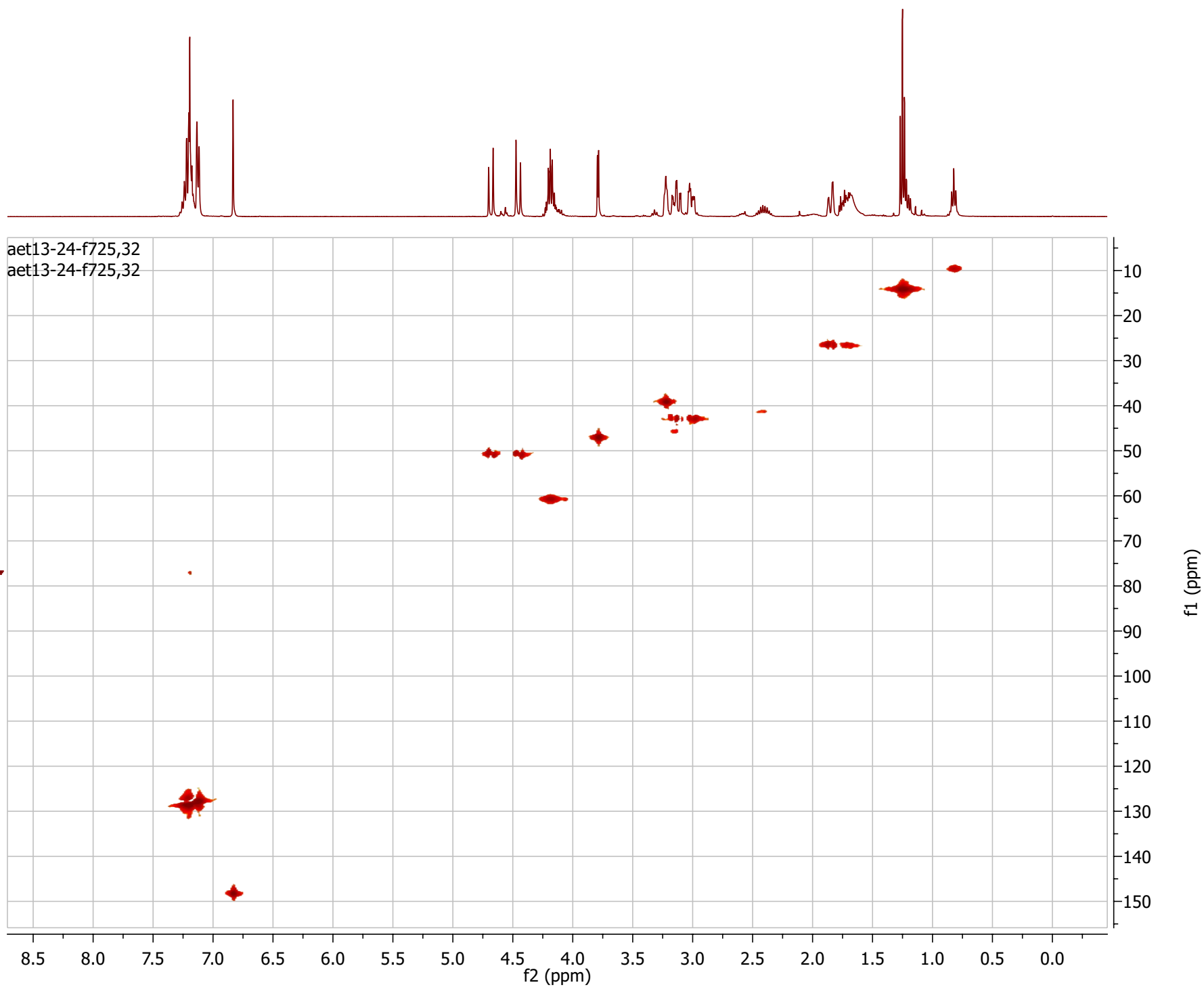
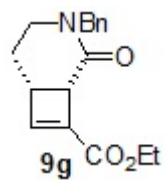
COSY (400 MHz, CDCl₃)





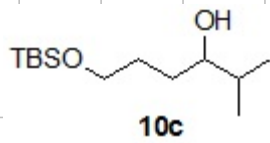
COSY (400 MHz, CDCl₃)





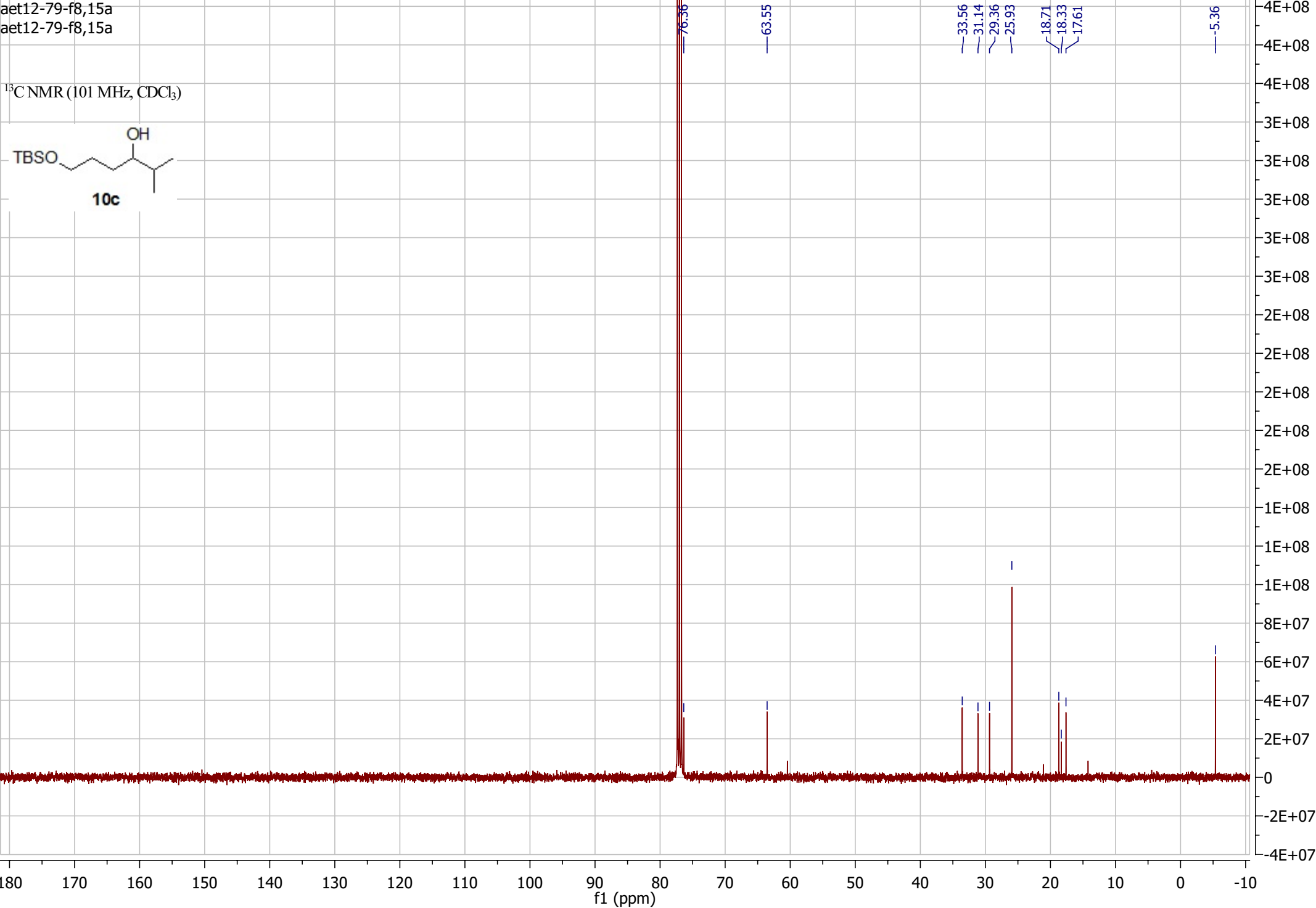
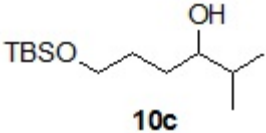
aet12-79-f8,15a
aet12-79-f8,15a

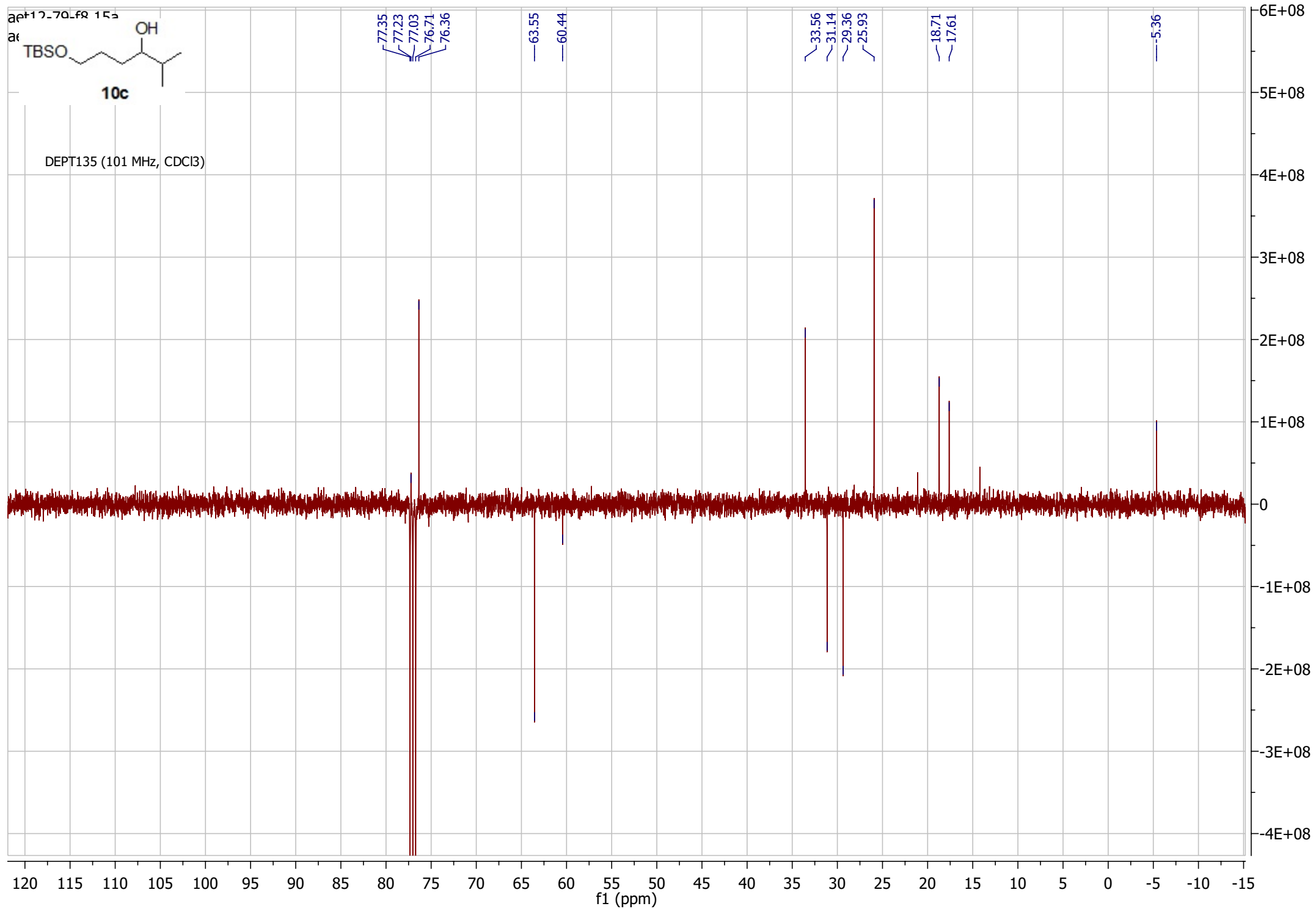
¹H NMR (400 MHz, CDCl₃)

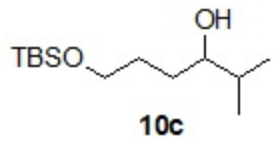


aet12-79-f8,15a
aet12-79-f8,15a

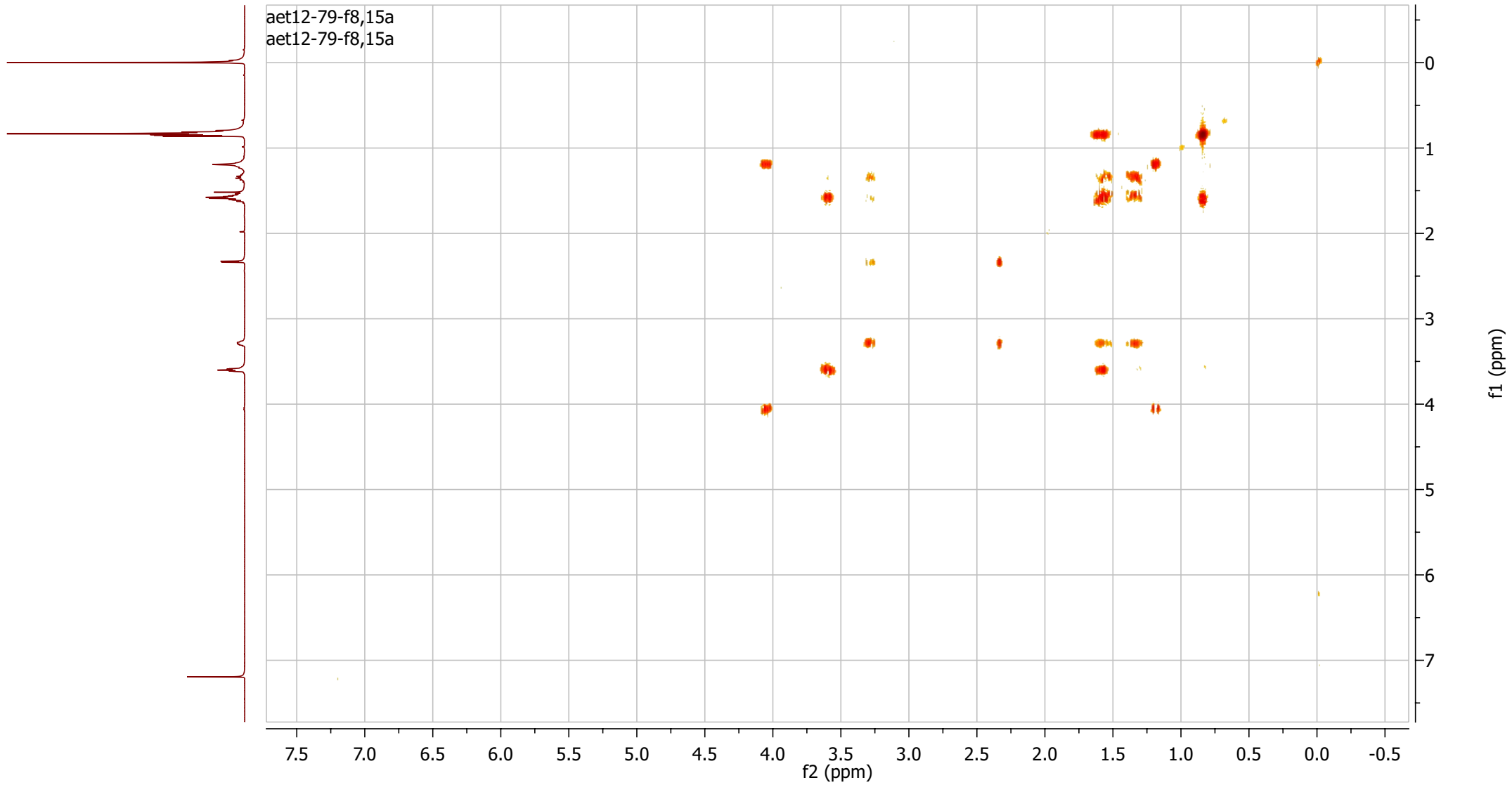
¹³C NMR (101 MHz, CDCl₃)

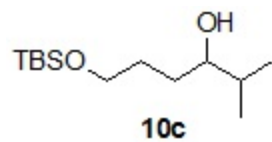




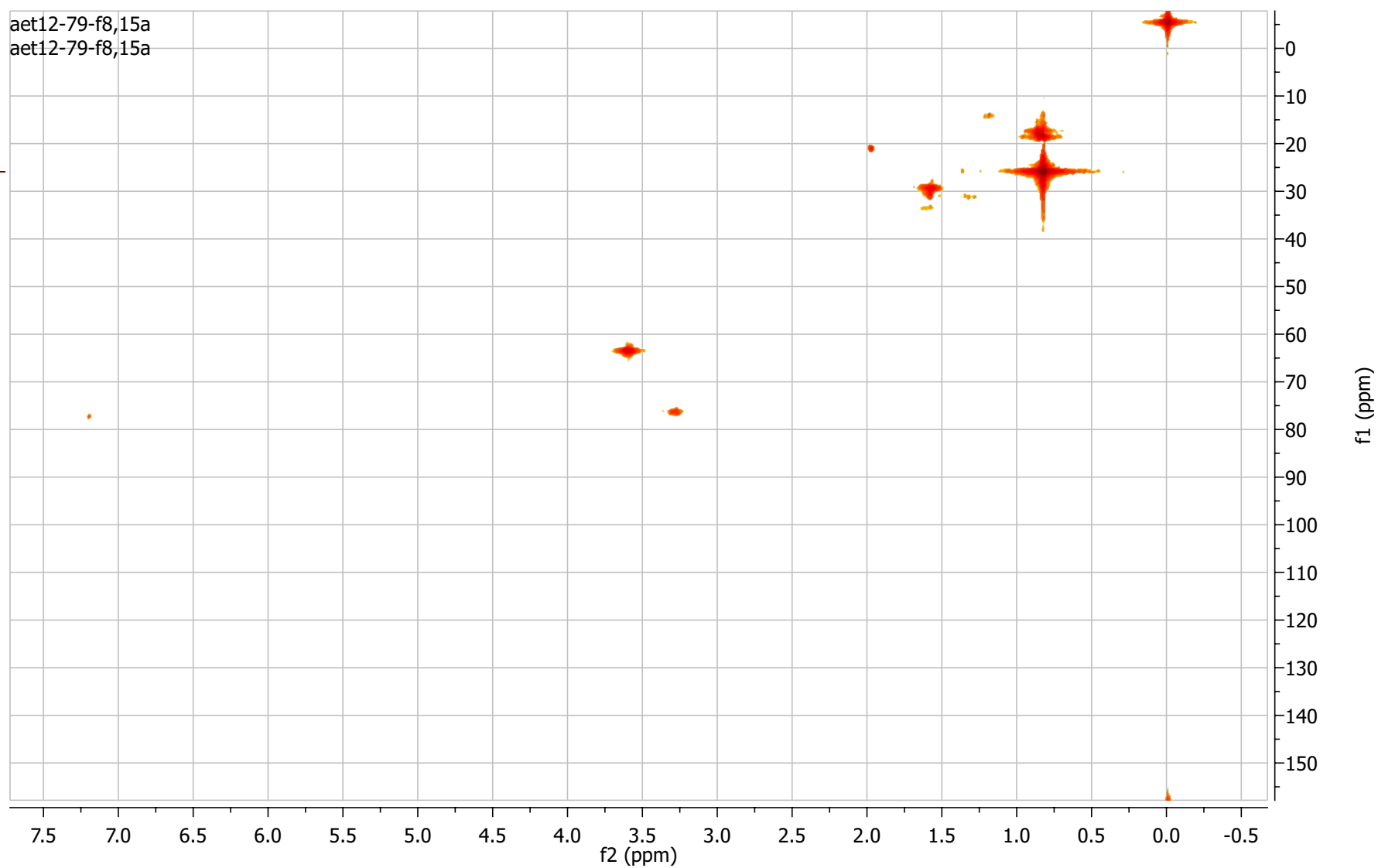


COSY (400 MHz, CDCl₃)

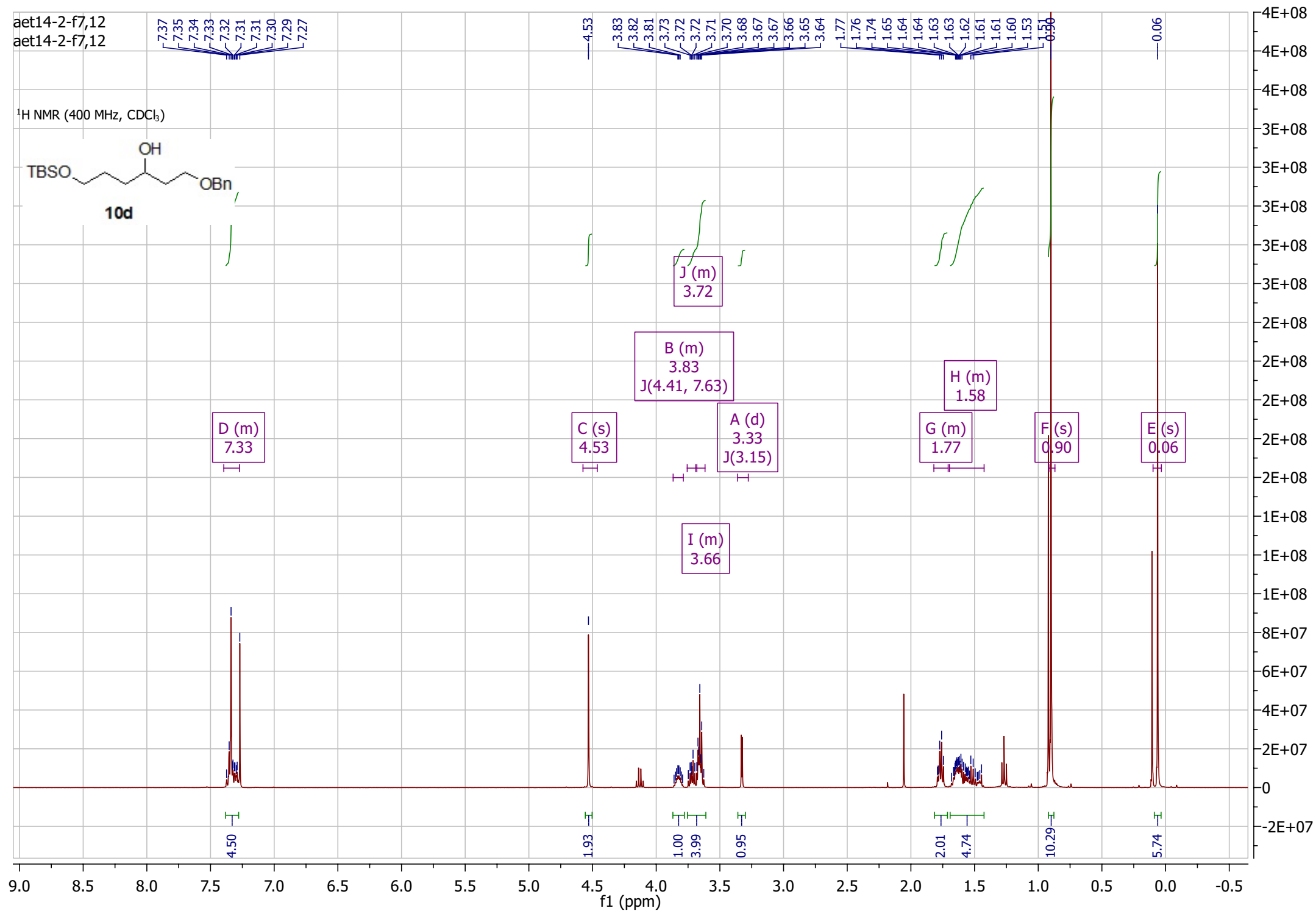
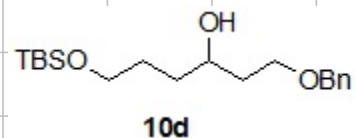


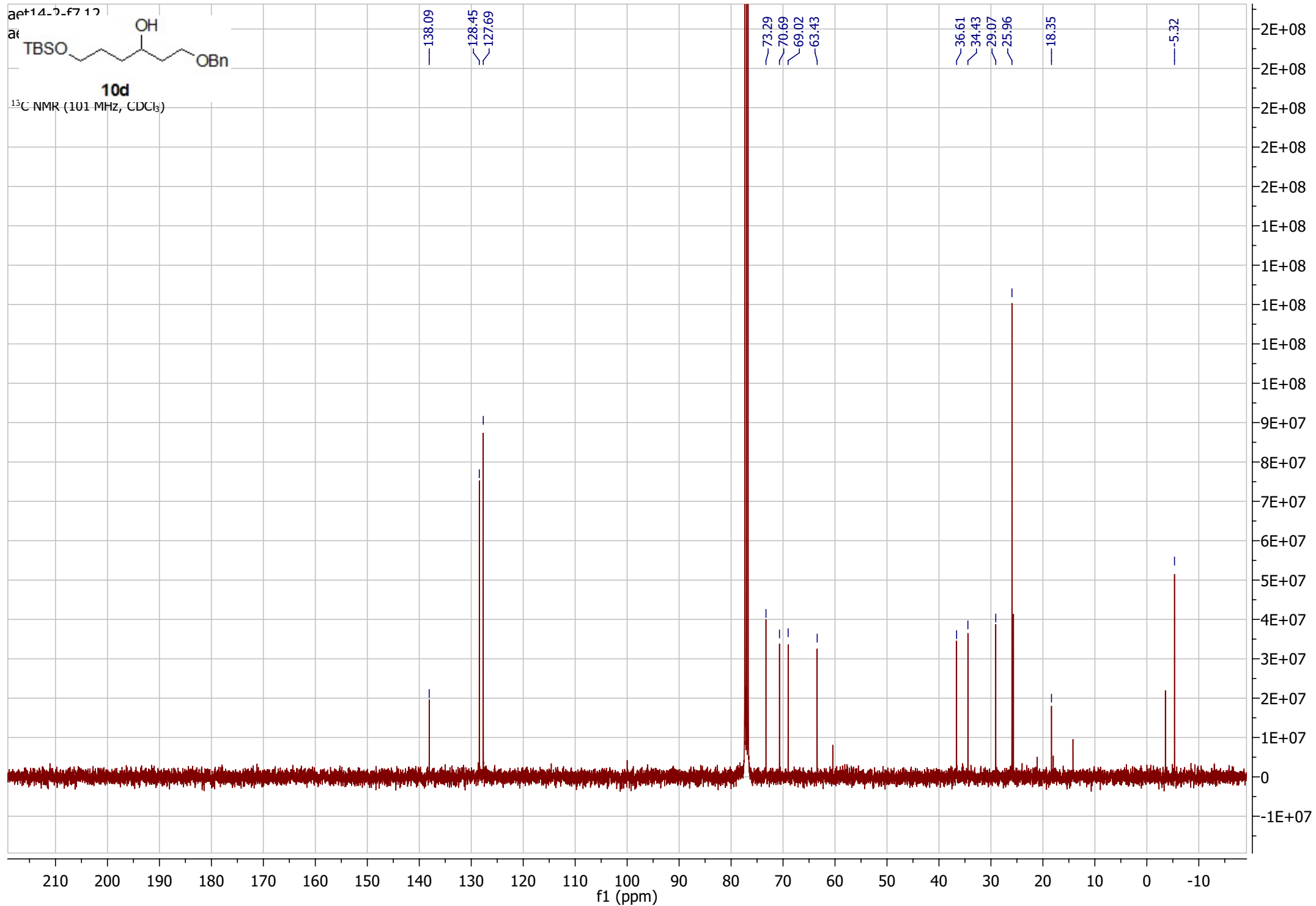


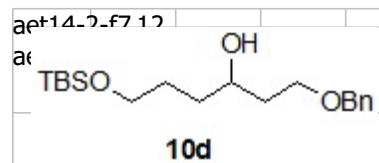
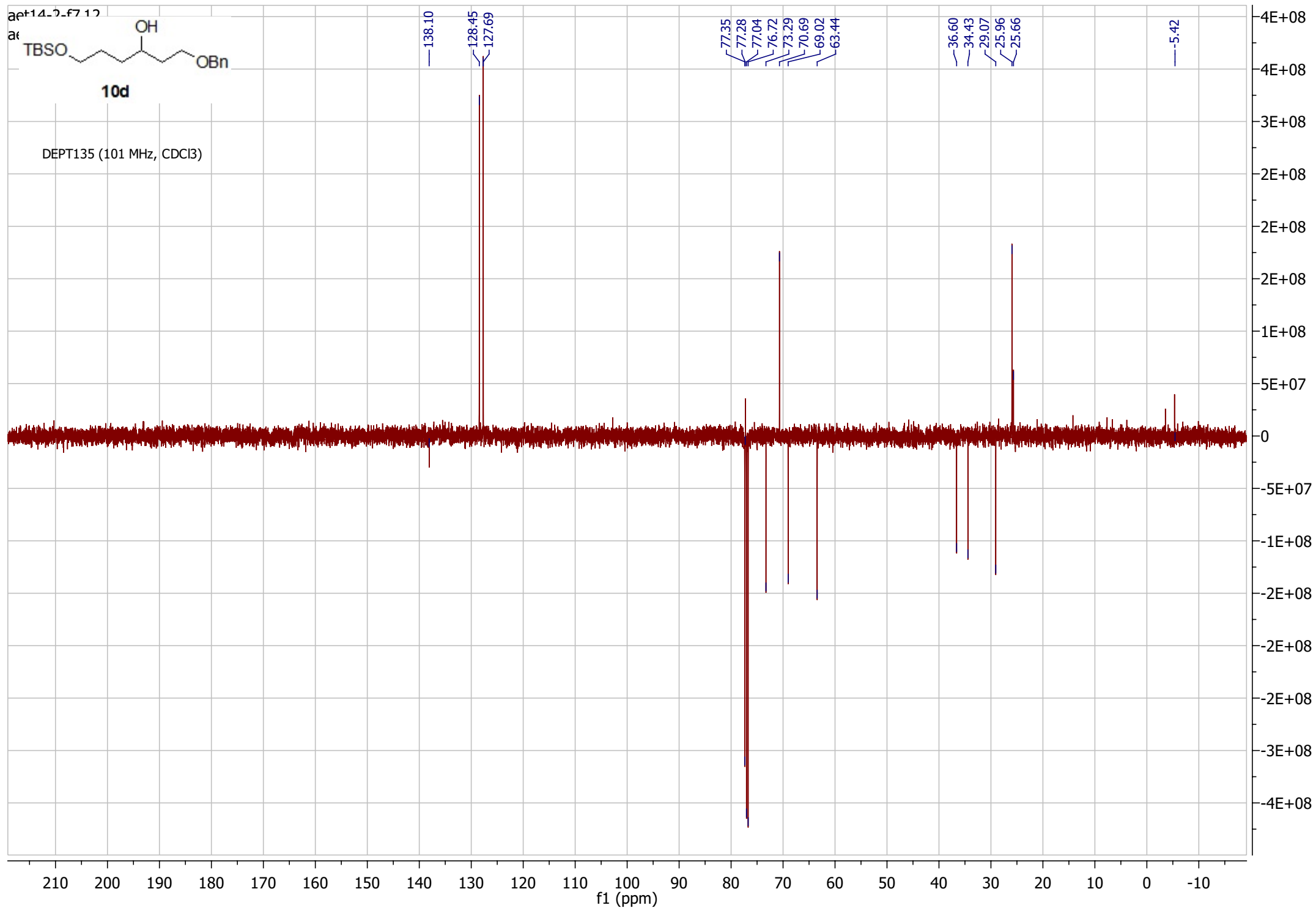
HMQC (CDCl₃)

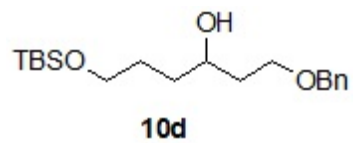


aet14-2-f7,12
aet14-2-f7,12

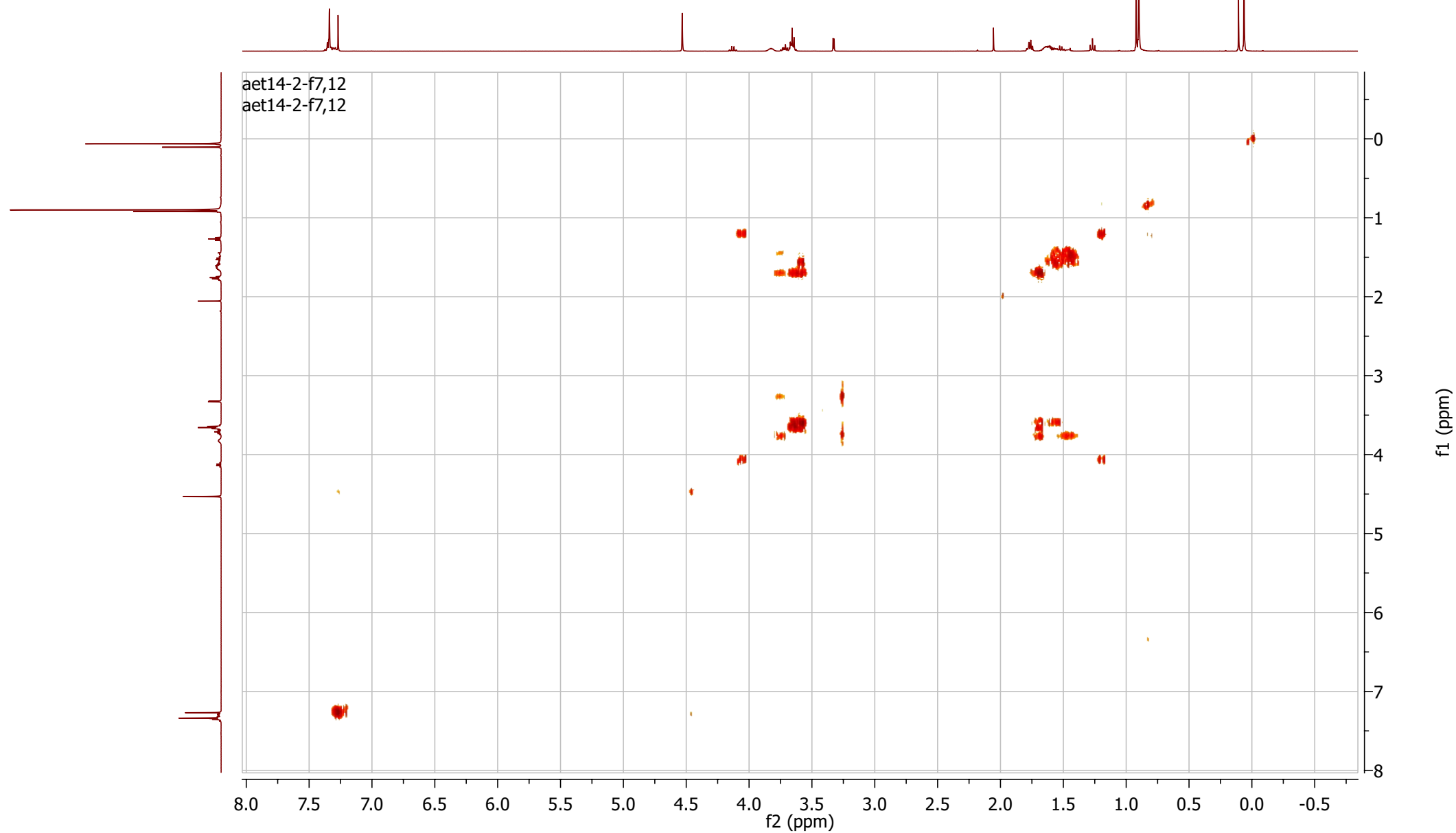
¹H NMR (400 MHz, CDCl₃)

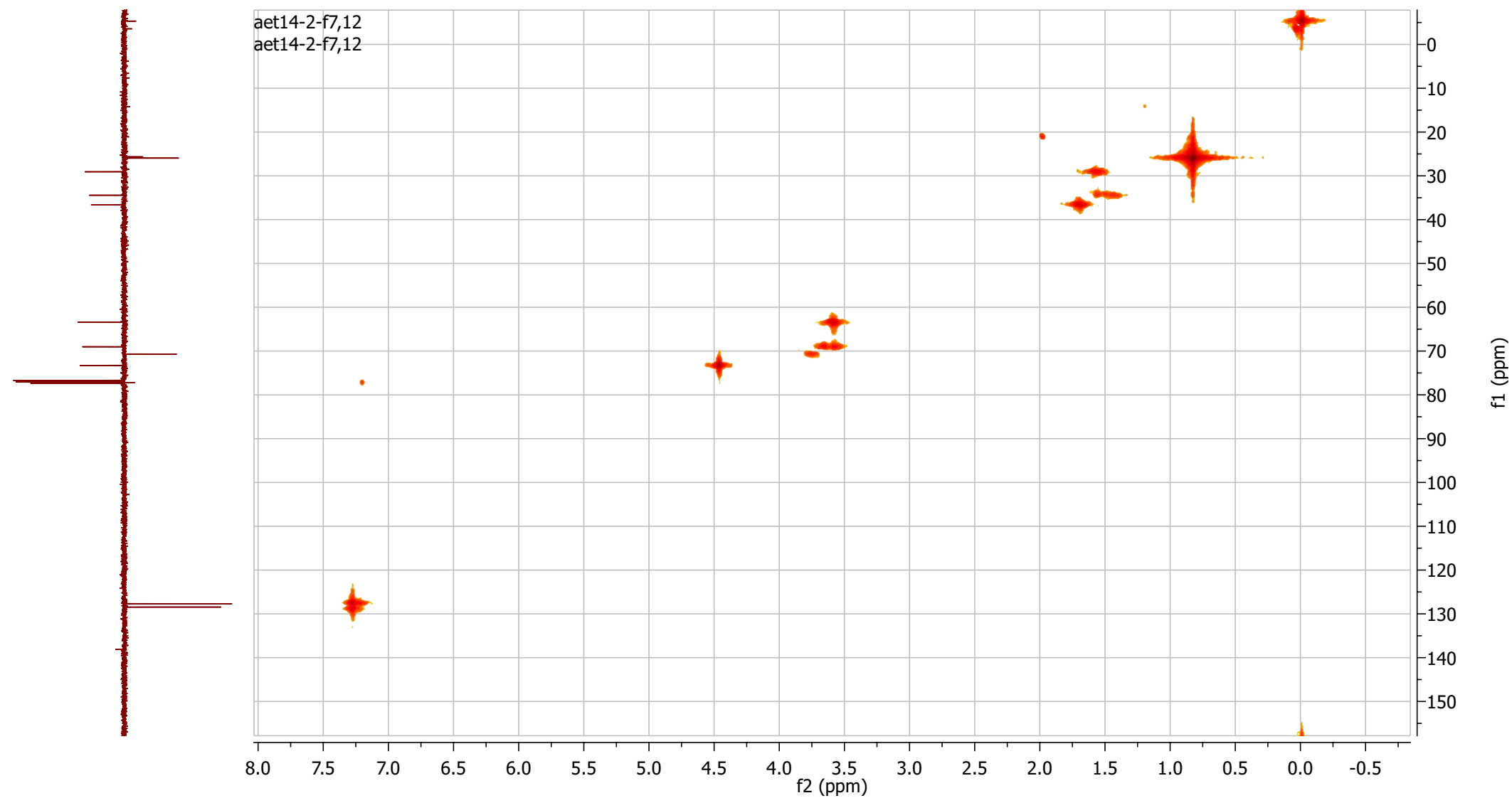
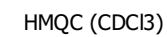


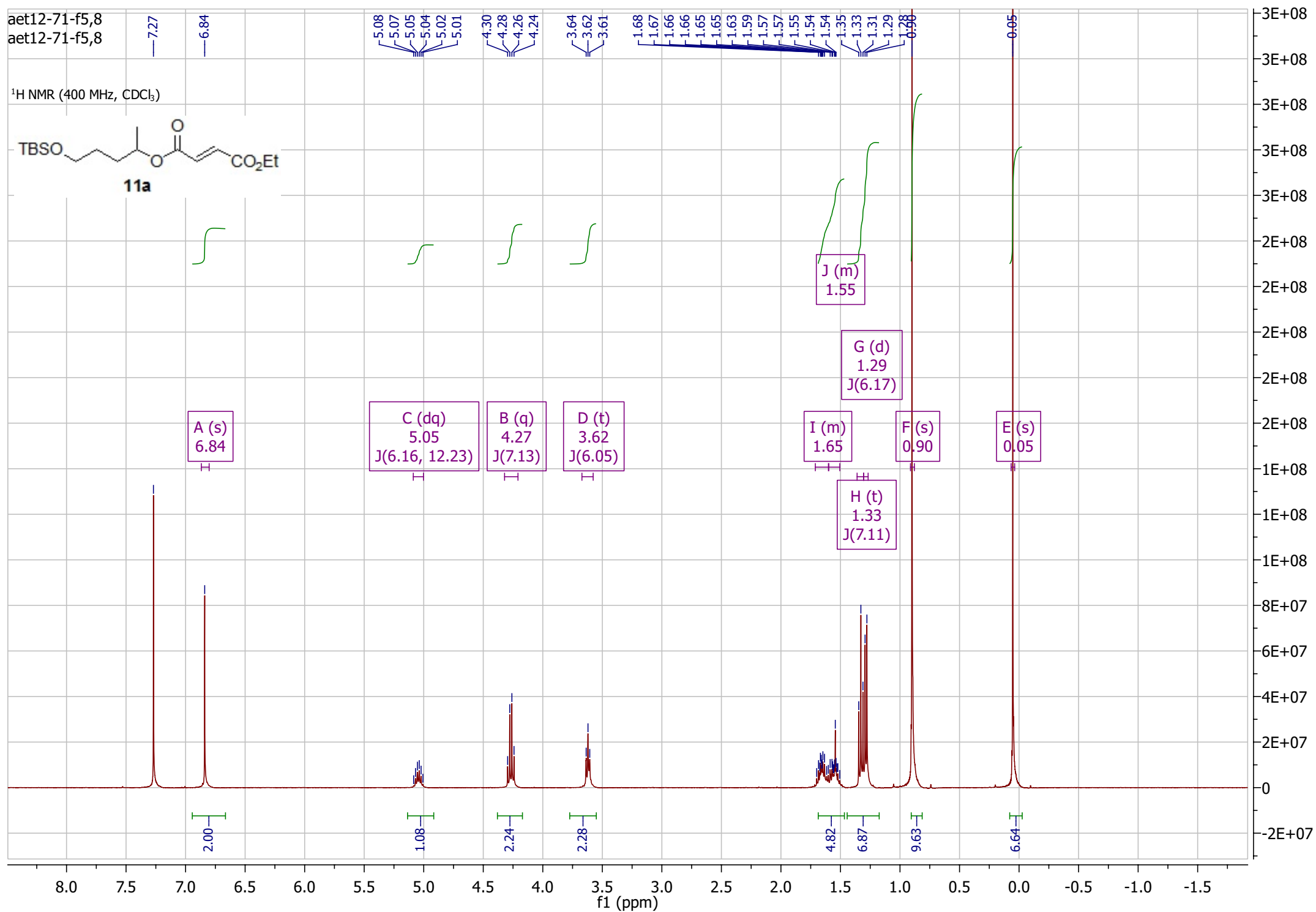
DEPT135 (101 MHz, CDCl₃)

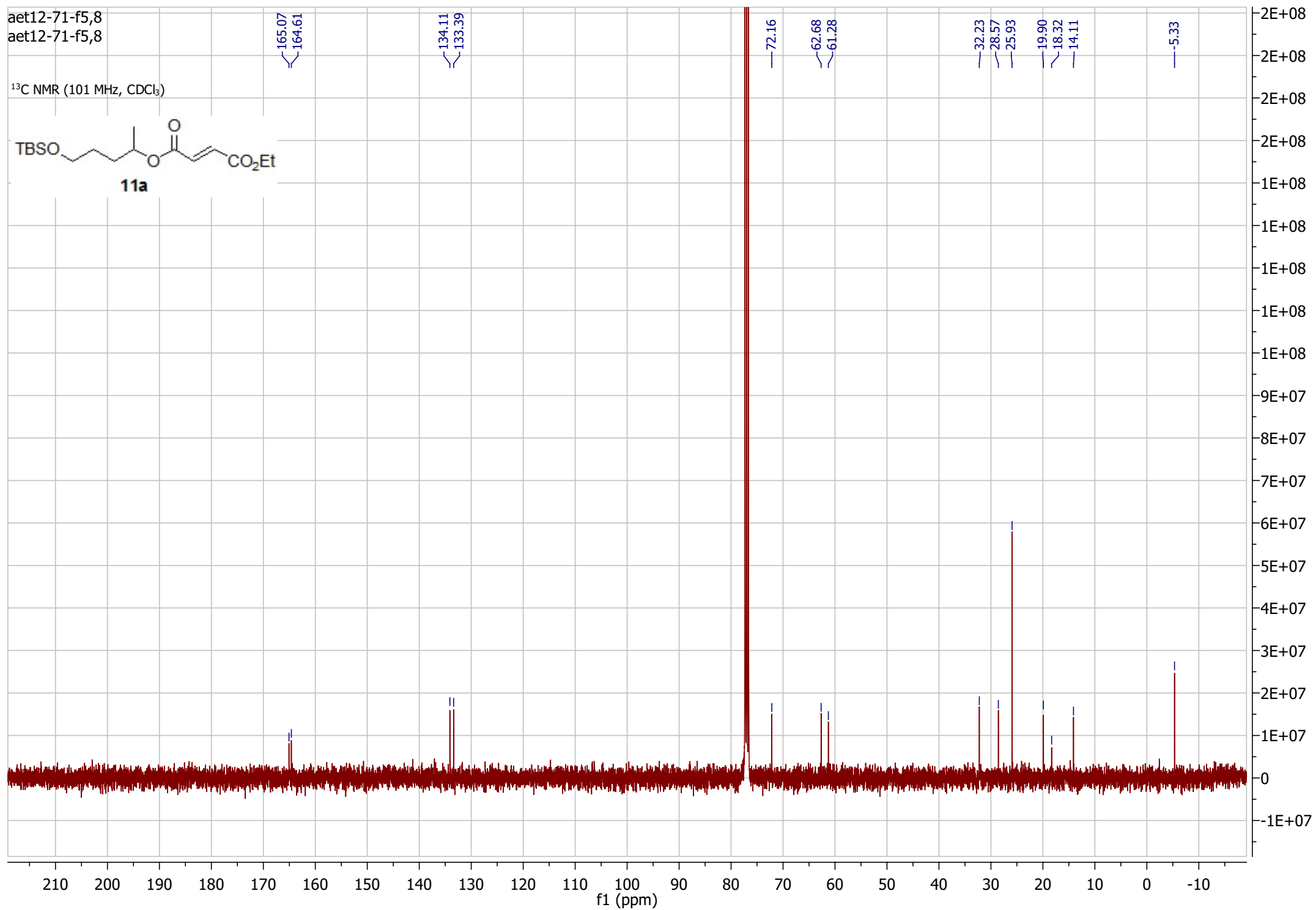
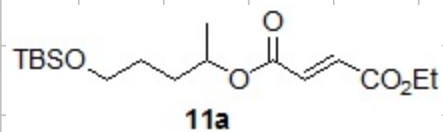


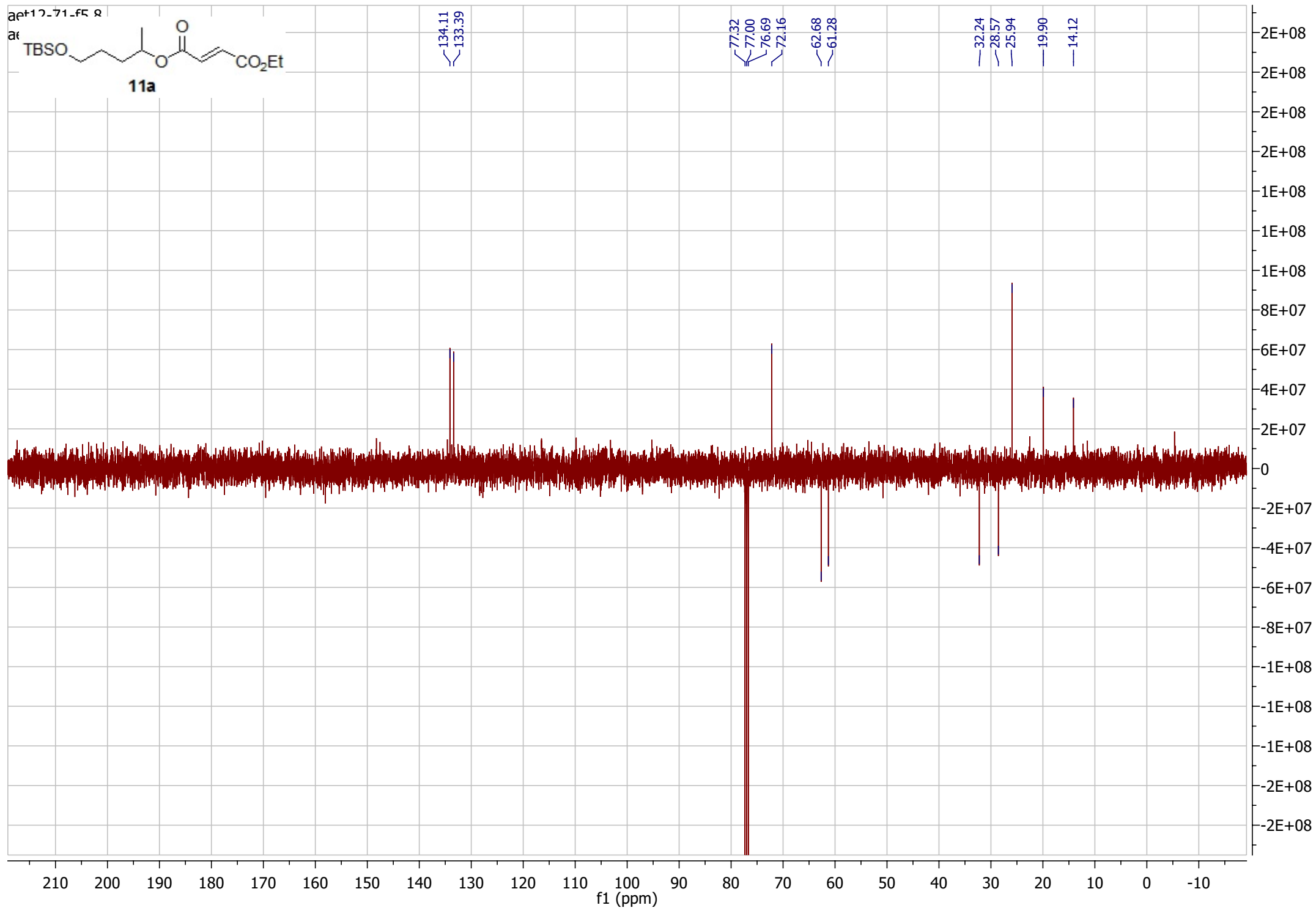
COSY (400 MHz, CDCl₃)

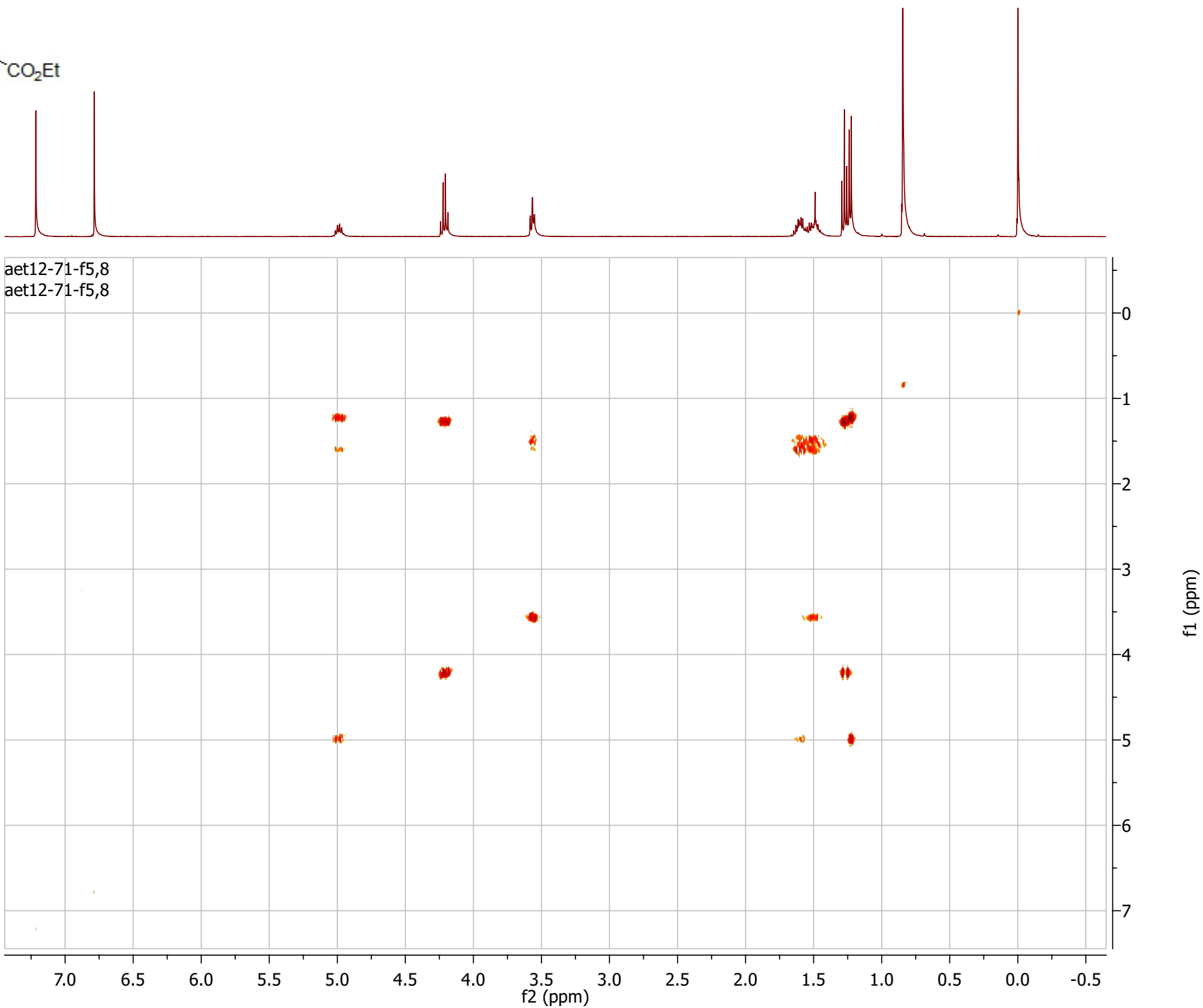
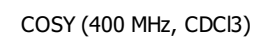


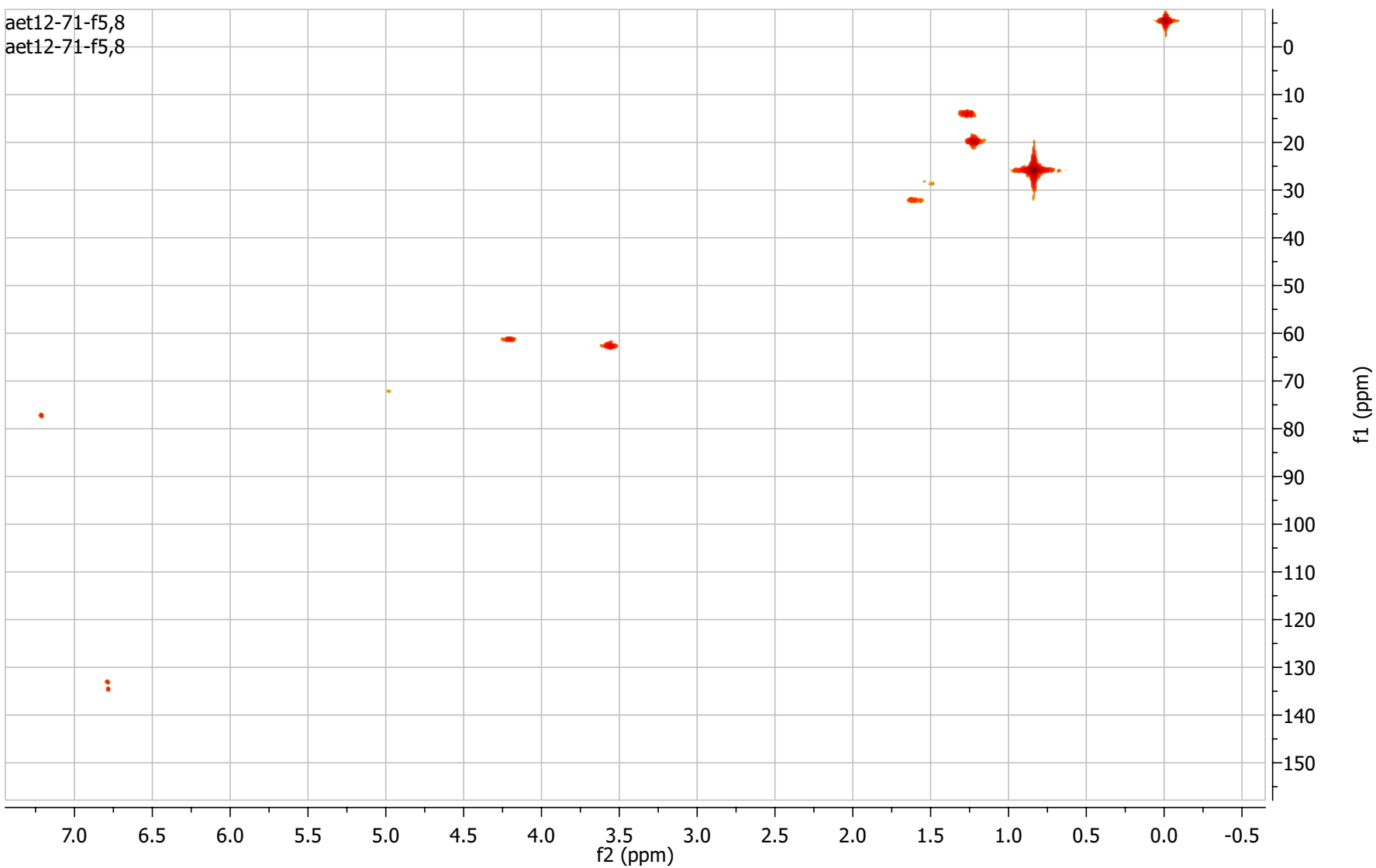
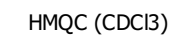


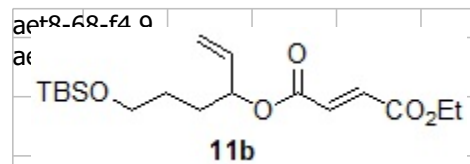
CCOC(=O)/C=C/C(=O)OC(C)CCCCOSi(C)(C)C(C)(C)C
11a

¹³C NMR (101 MHz, CDCl₃)

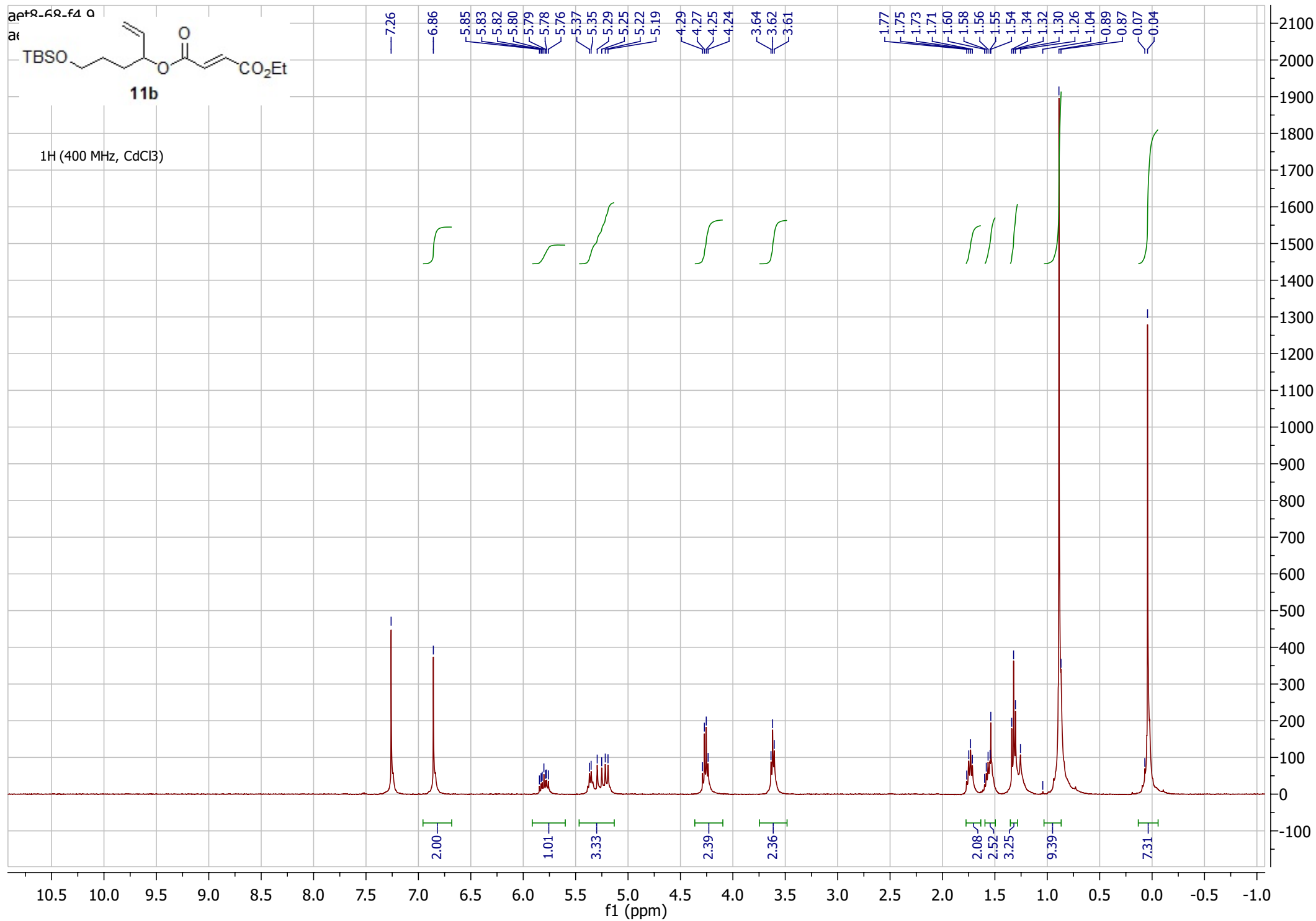


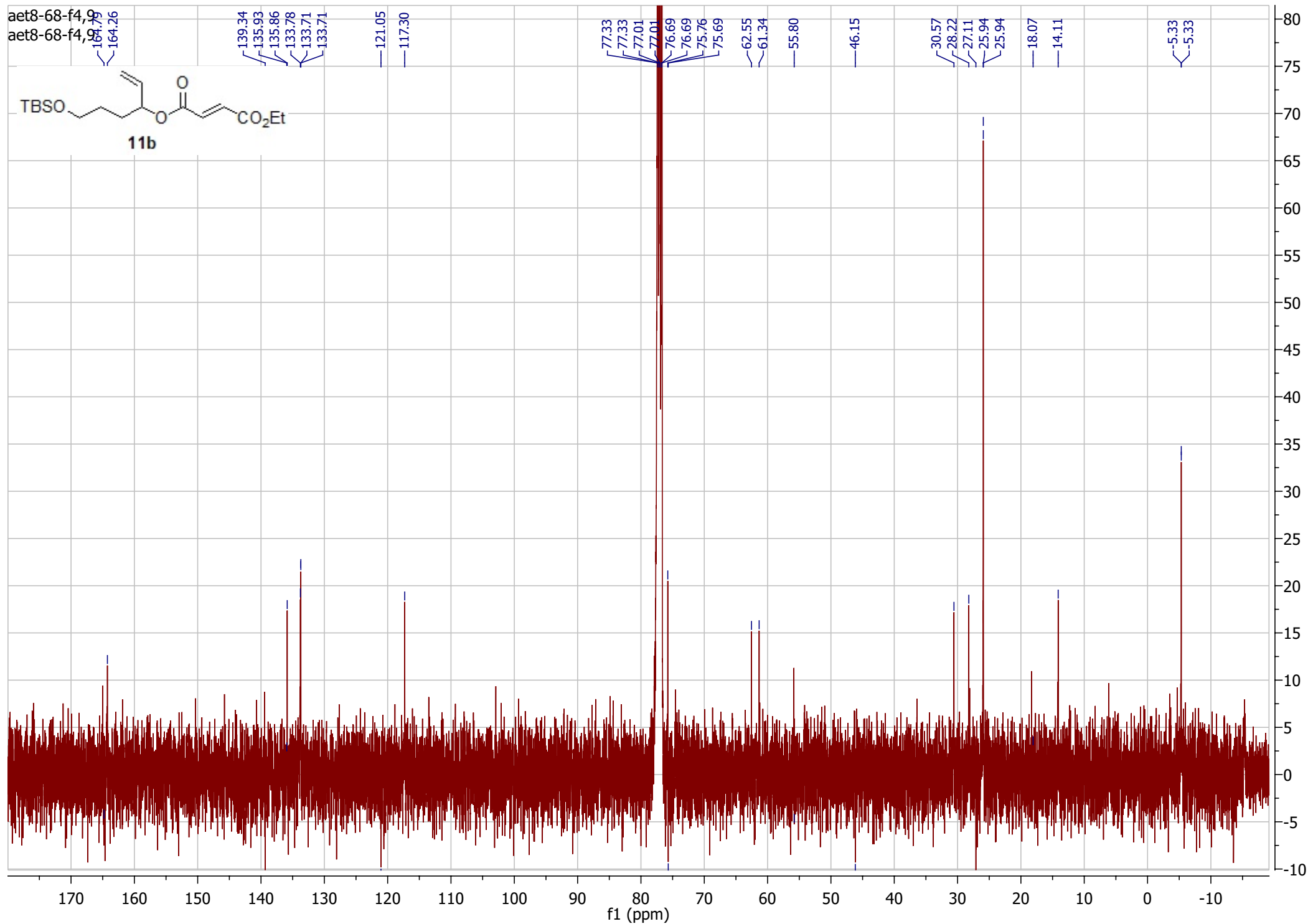






1H (400 MHz, CdCl3)





aet8-68-f4,9
aet8-68-f4,9

135.71
133.78
133.71

117.31

77.33
77.01
76.69
75.77

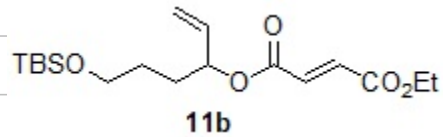
62.54
61.33

54.58

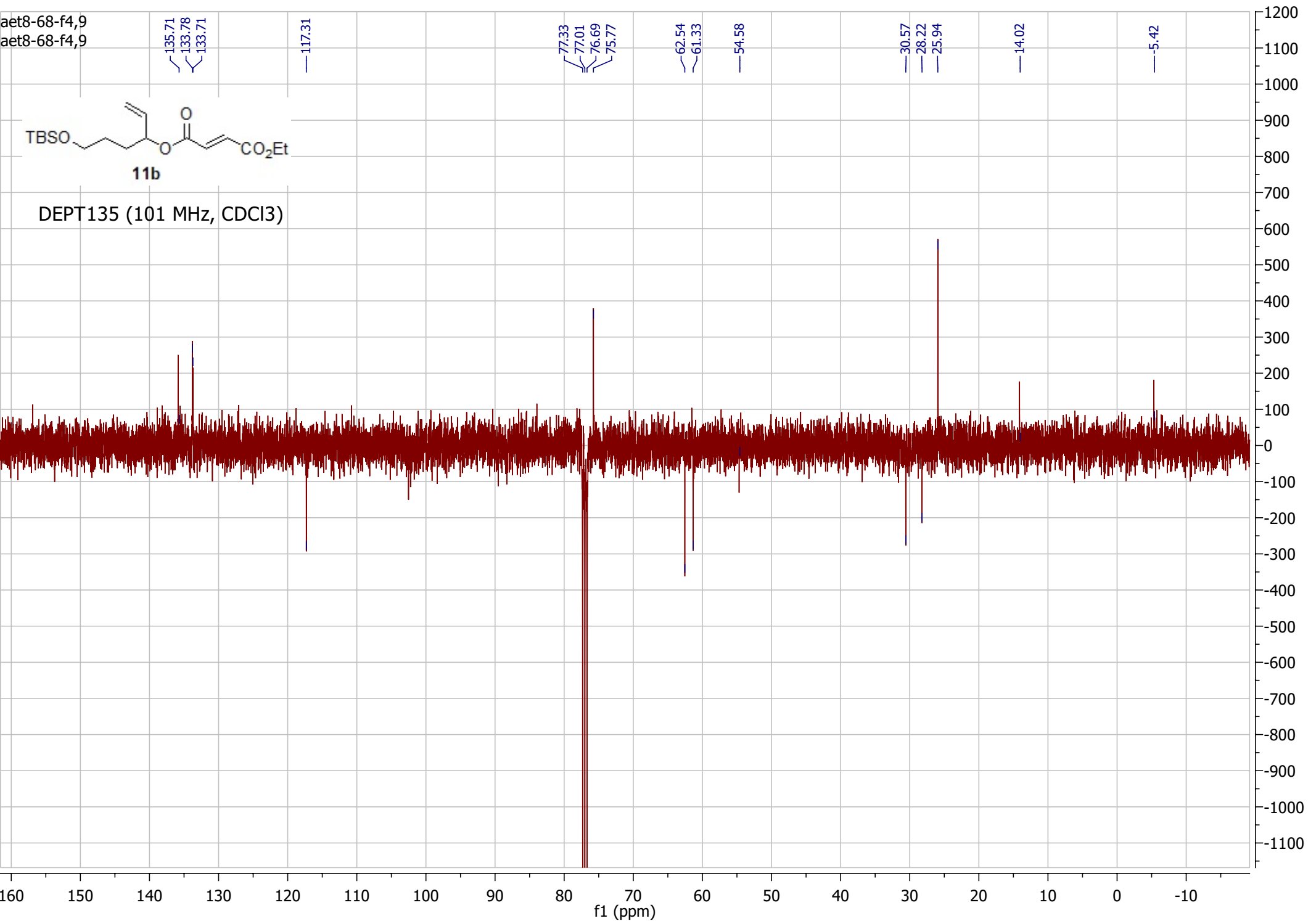
30.57
28.22
25.94

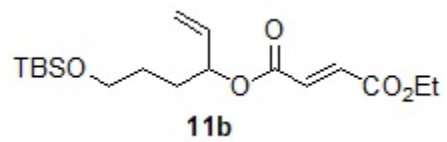
14.02

-5.42

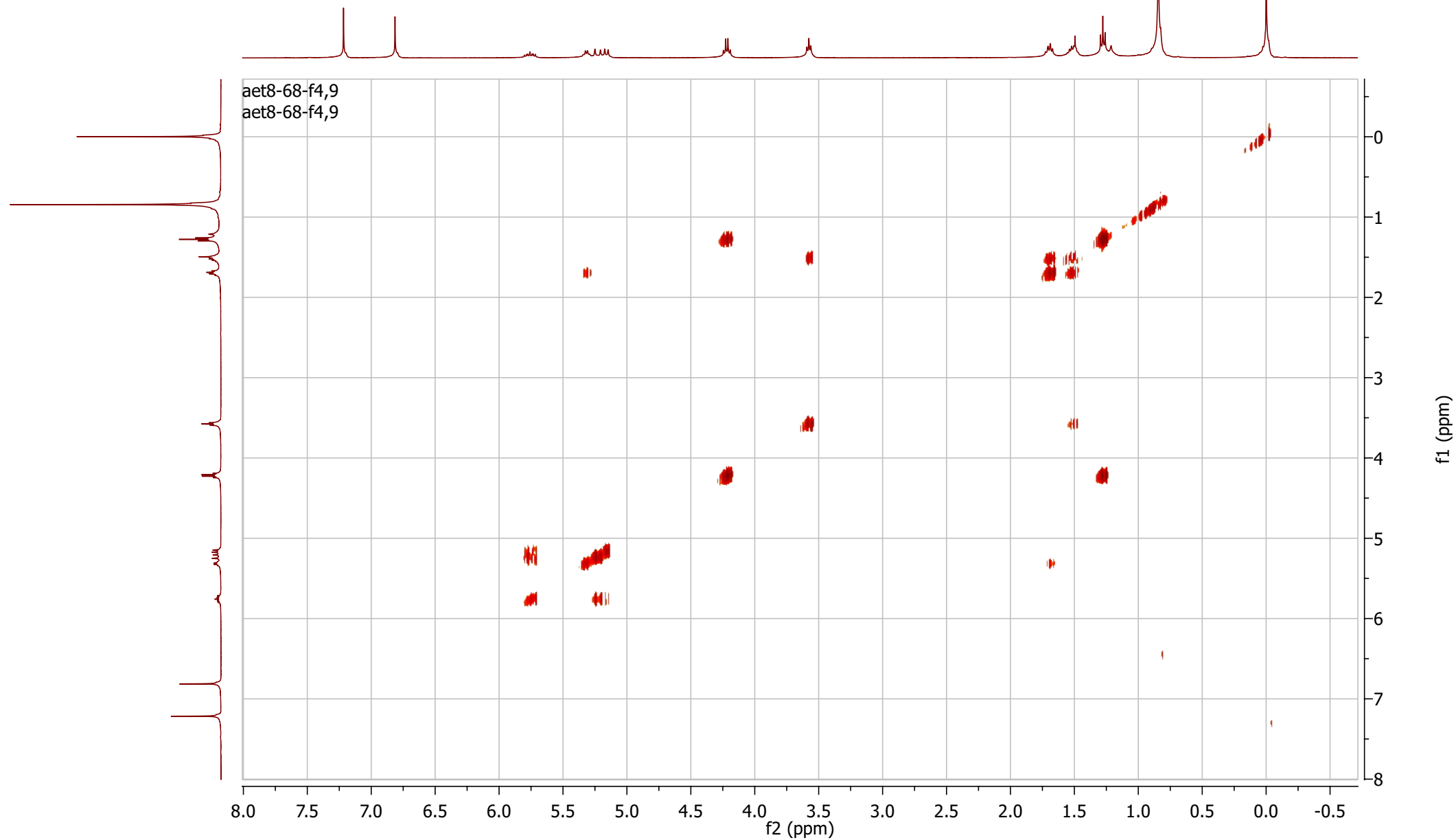


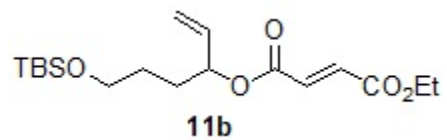
DEPT135 (101 MHz, CDCl3)



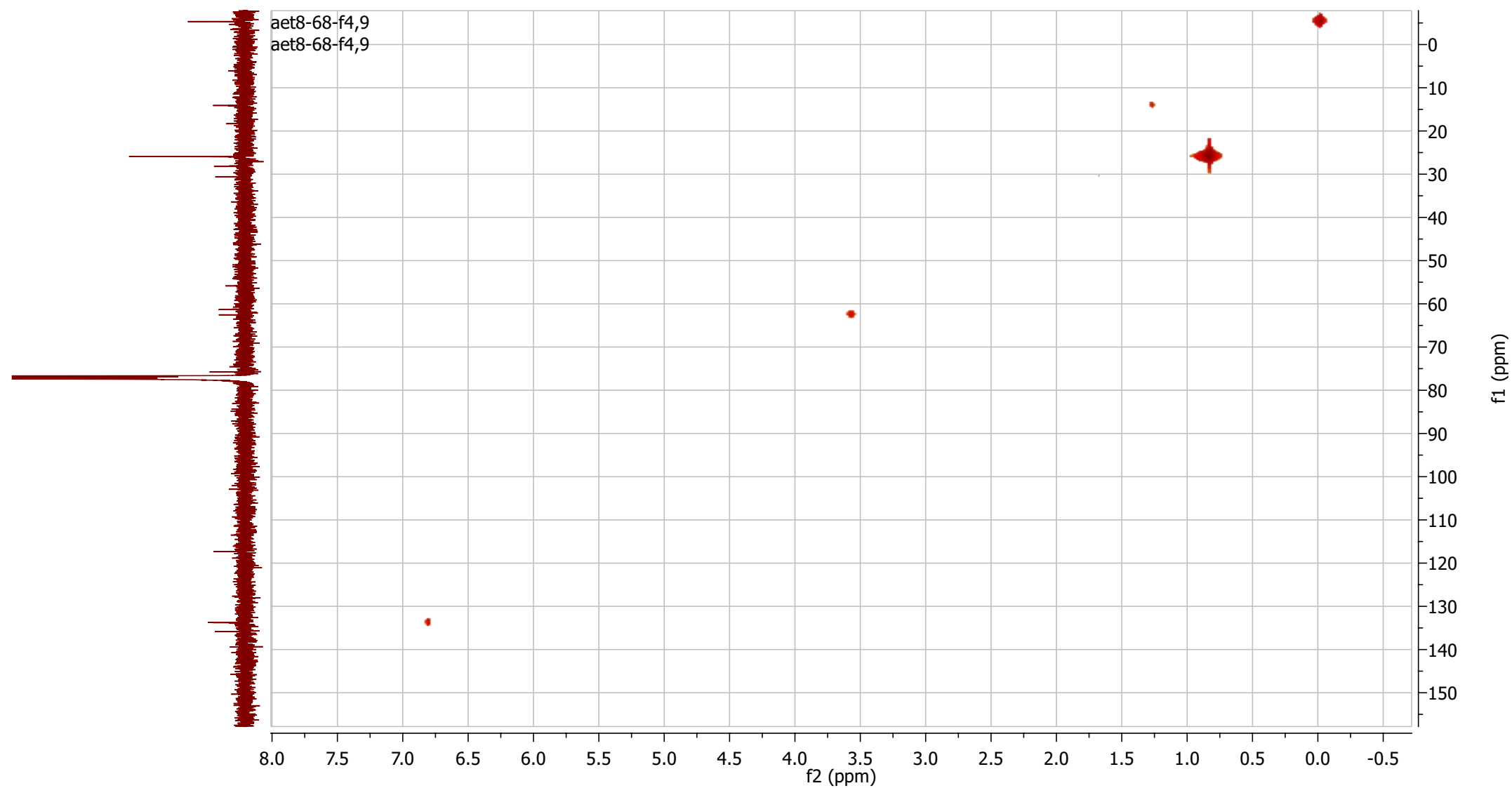


COSY (400 MHz, CDCl₃)



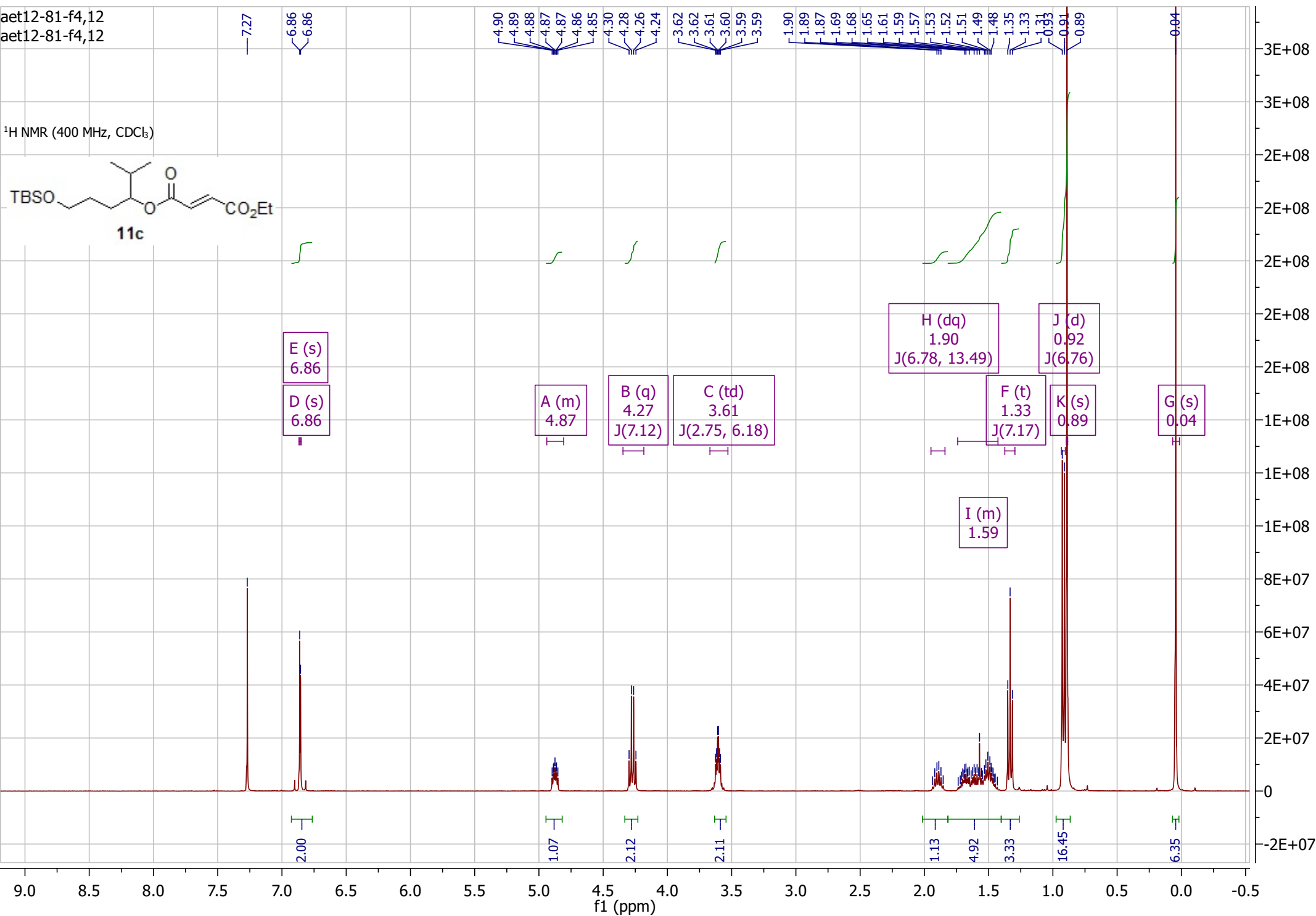
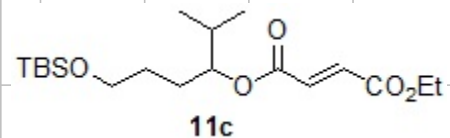


HMQC (CDCl₃)

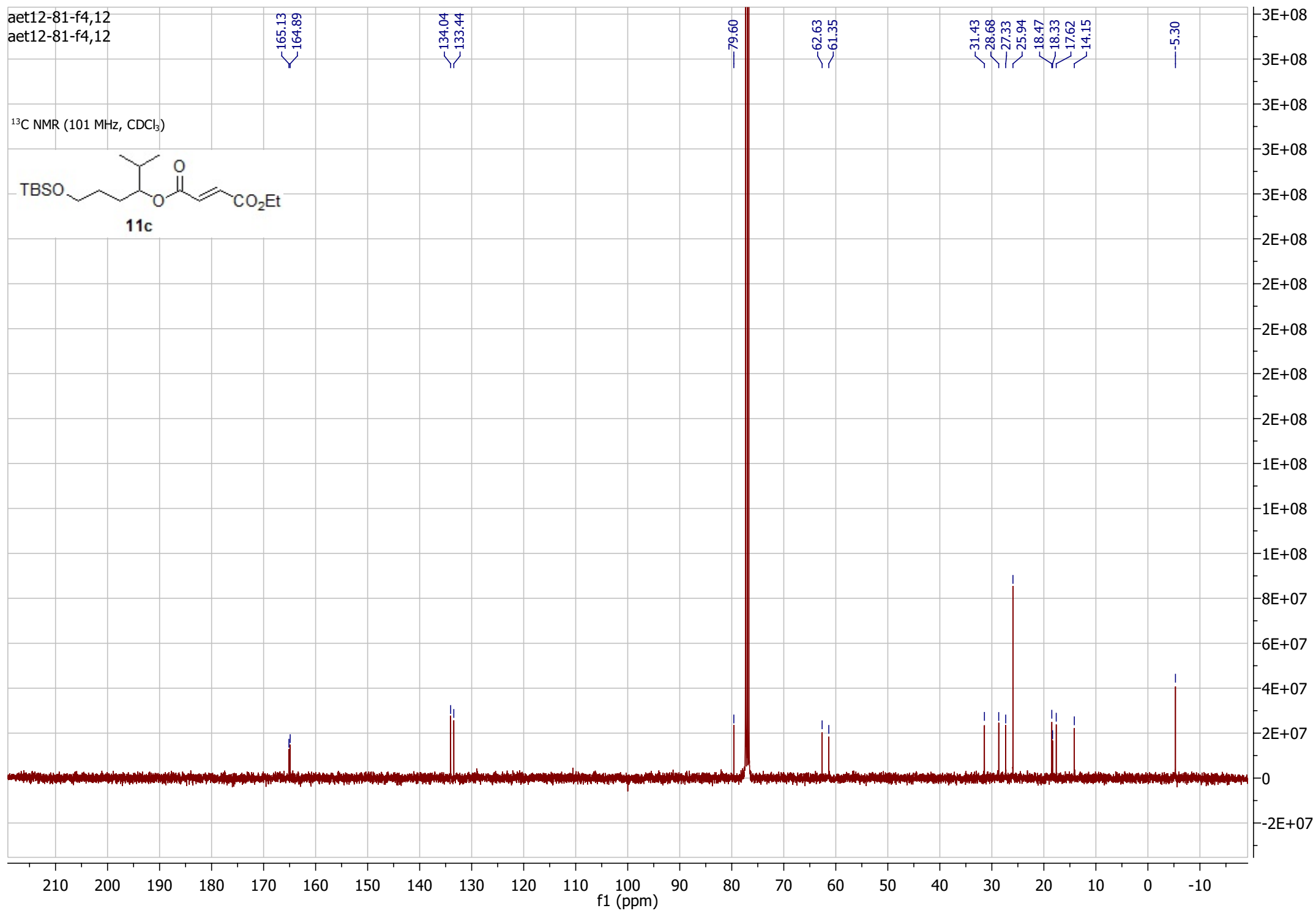
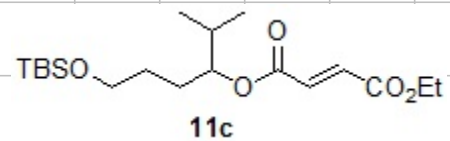


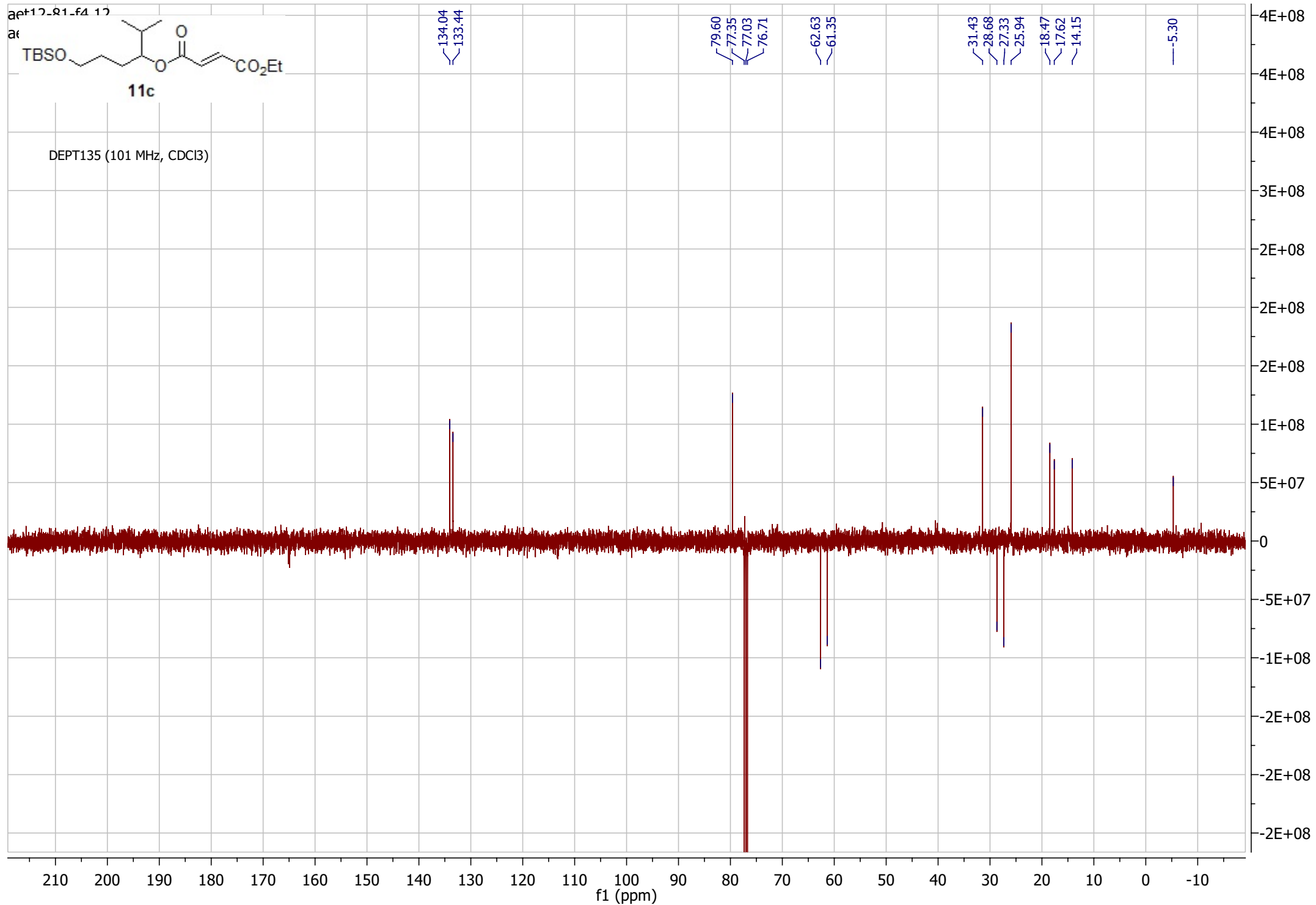
aet12-81-f4,12
aet12-81-f4,12

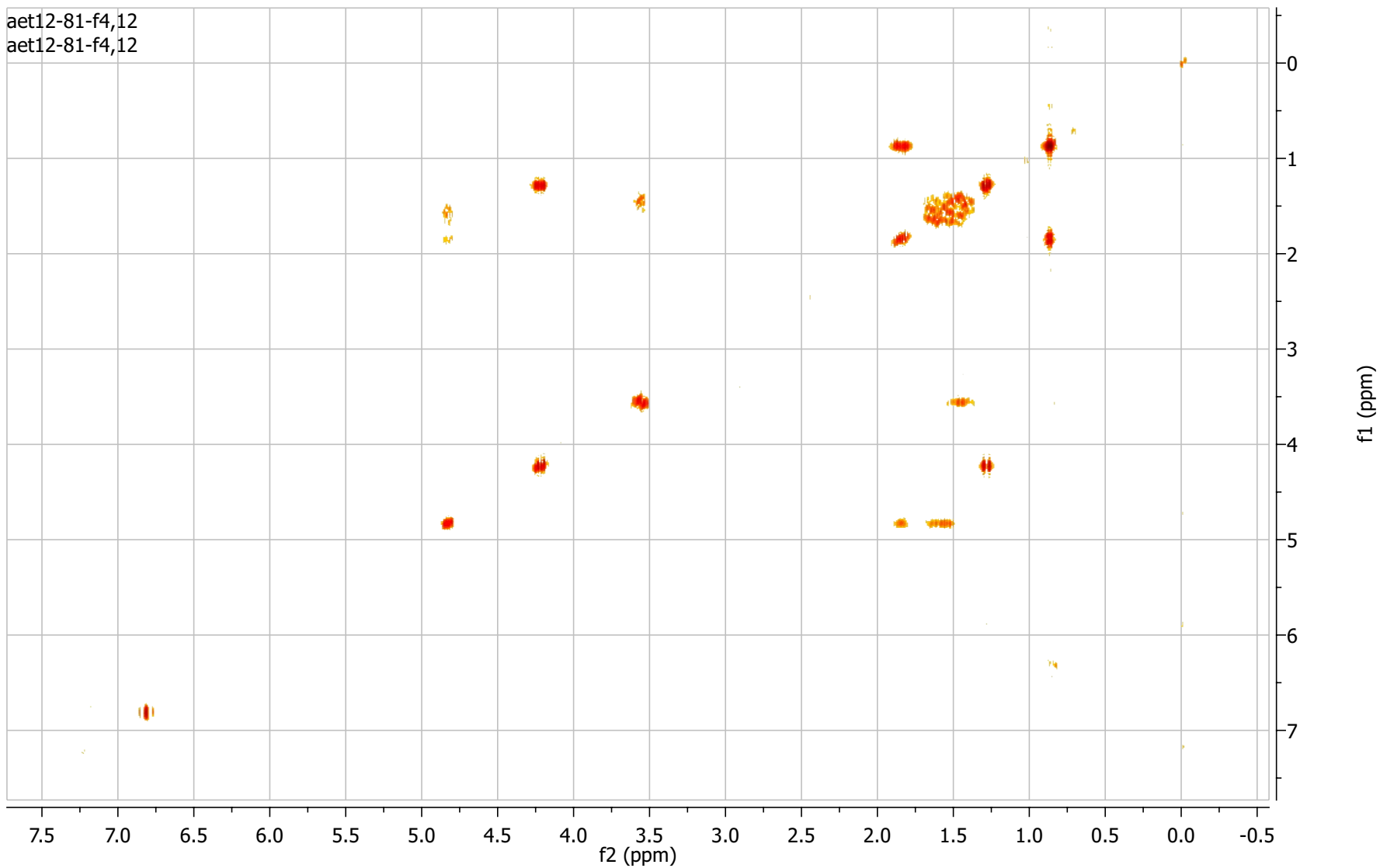
¹H NMR (400 MHz, CDCl₃)

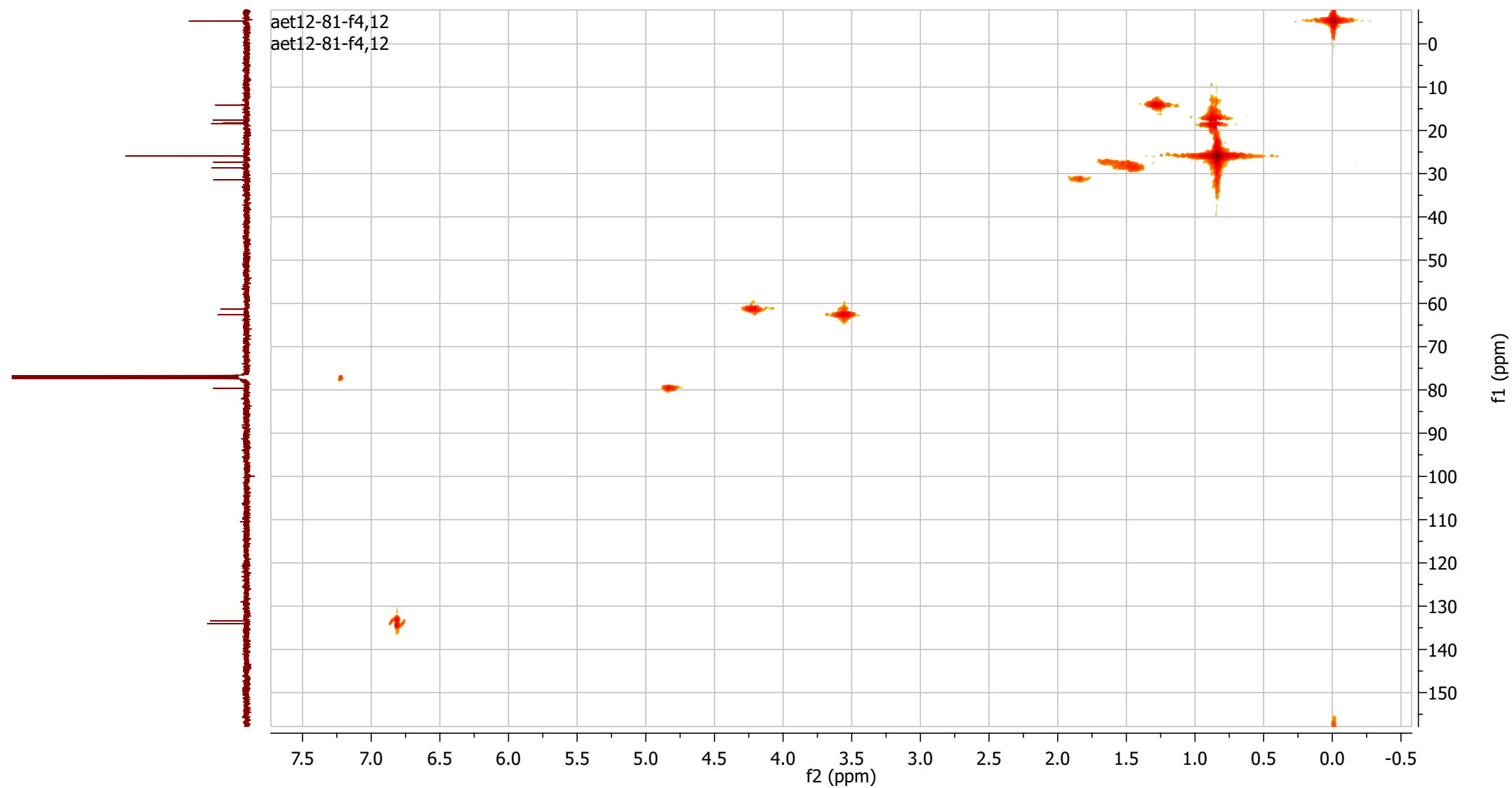
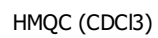


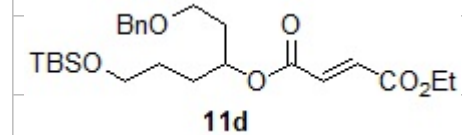
aet12-81-f4,12
aet12-81-f4,12

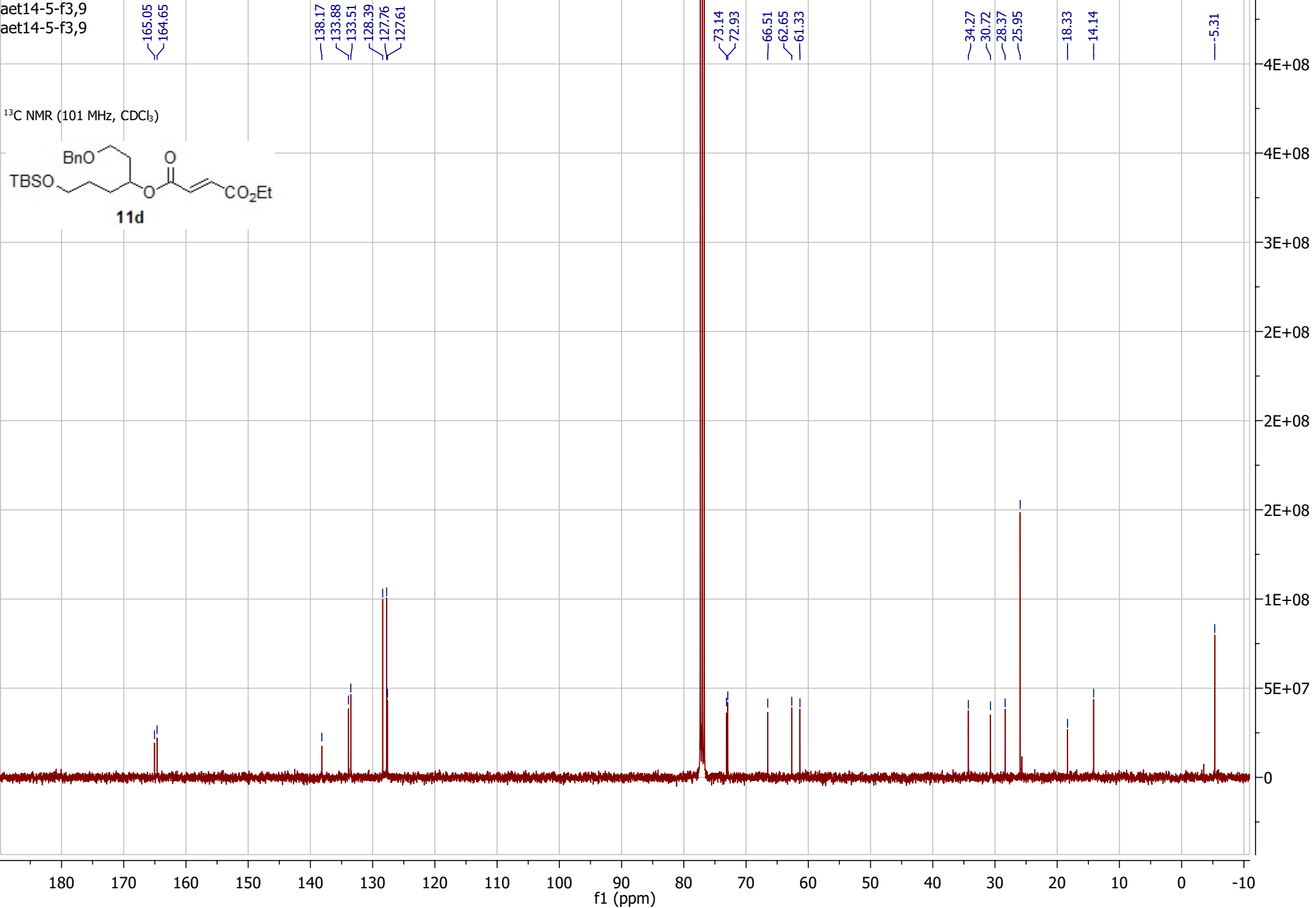
¹³C NMR (101 MHz, CDCl₃)



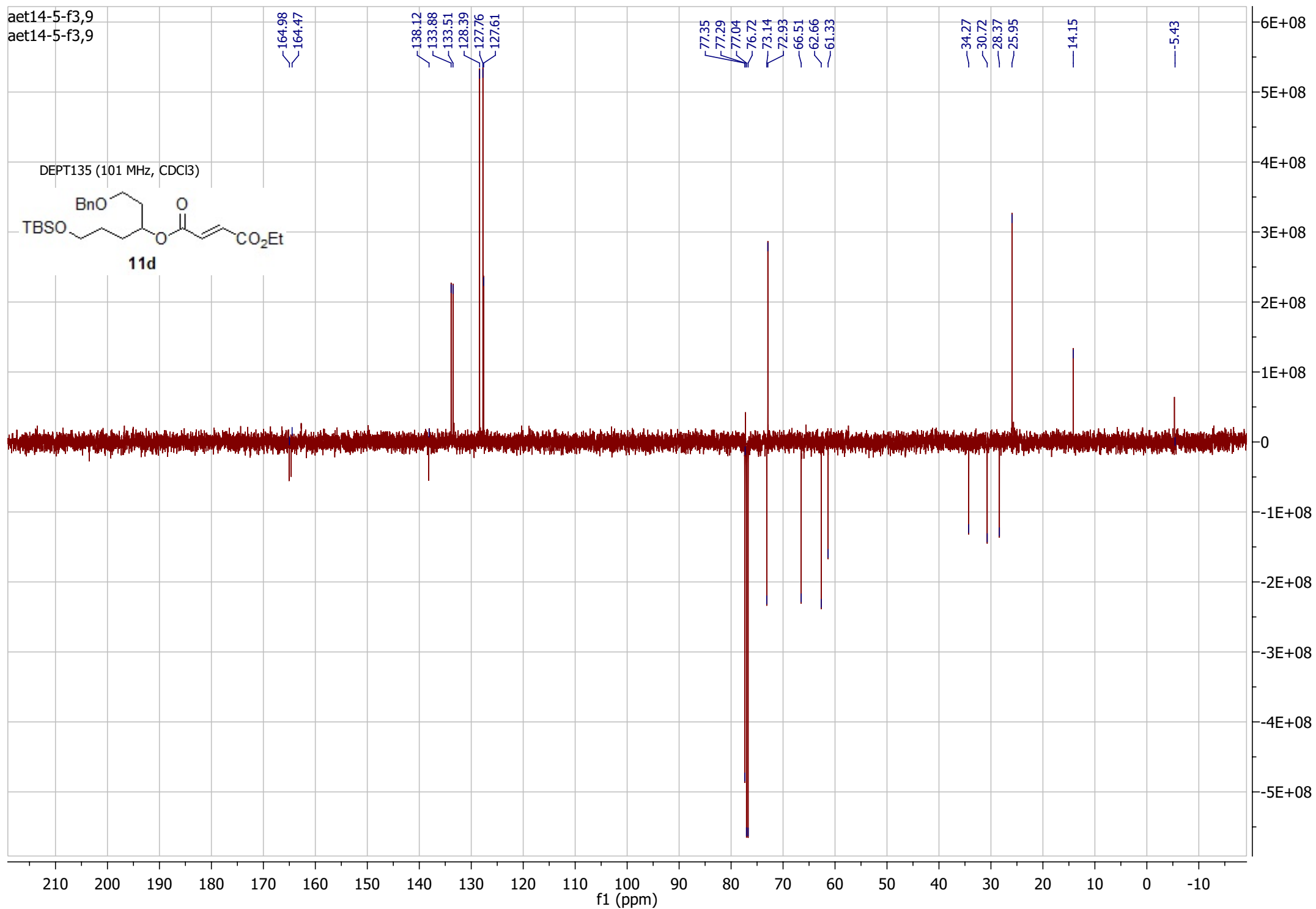
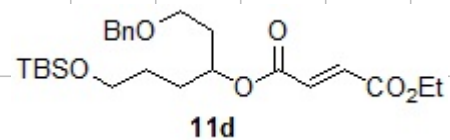


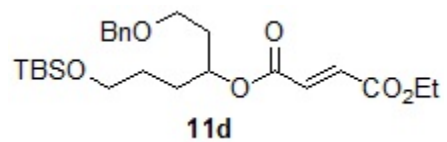




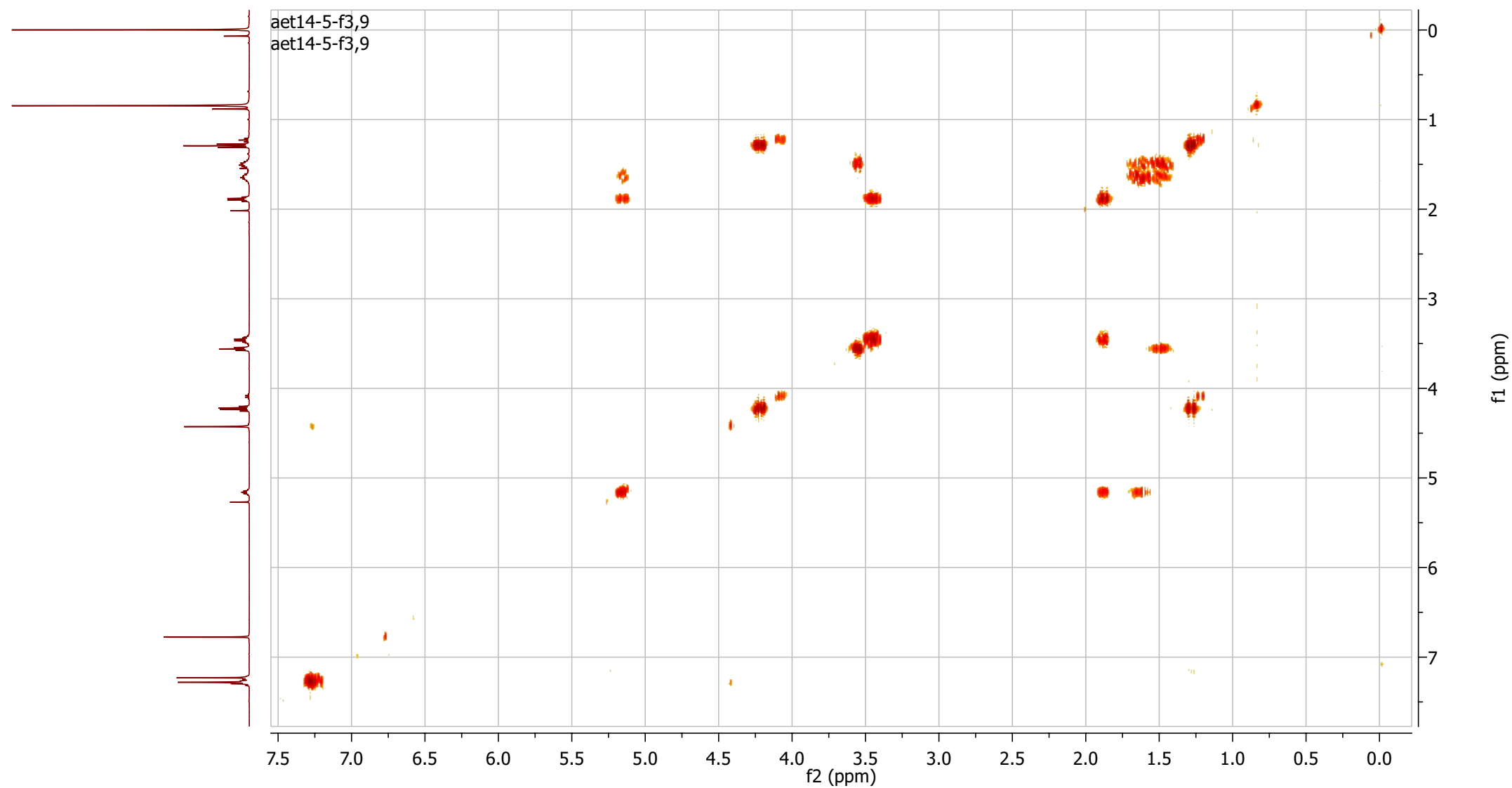


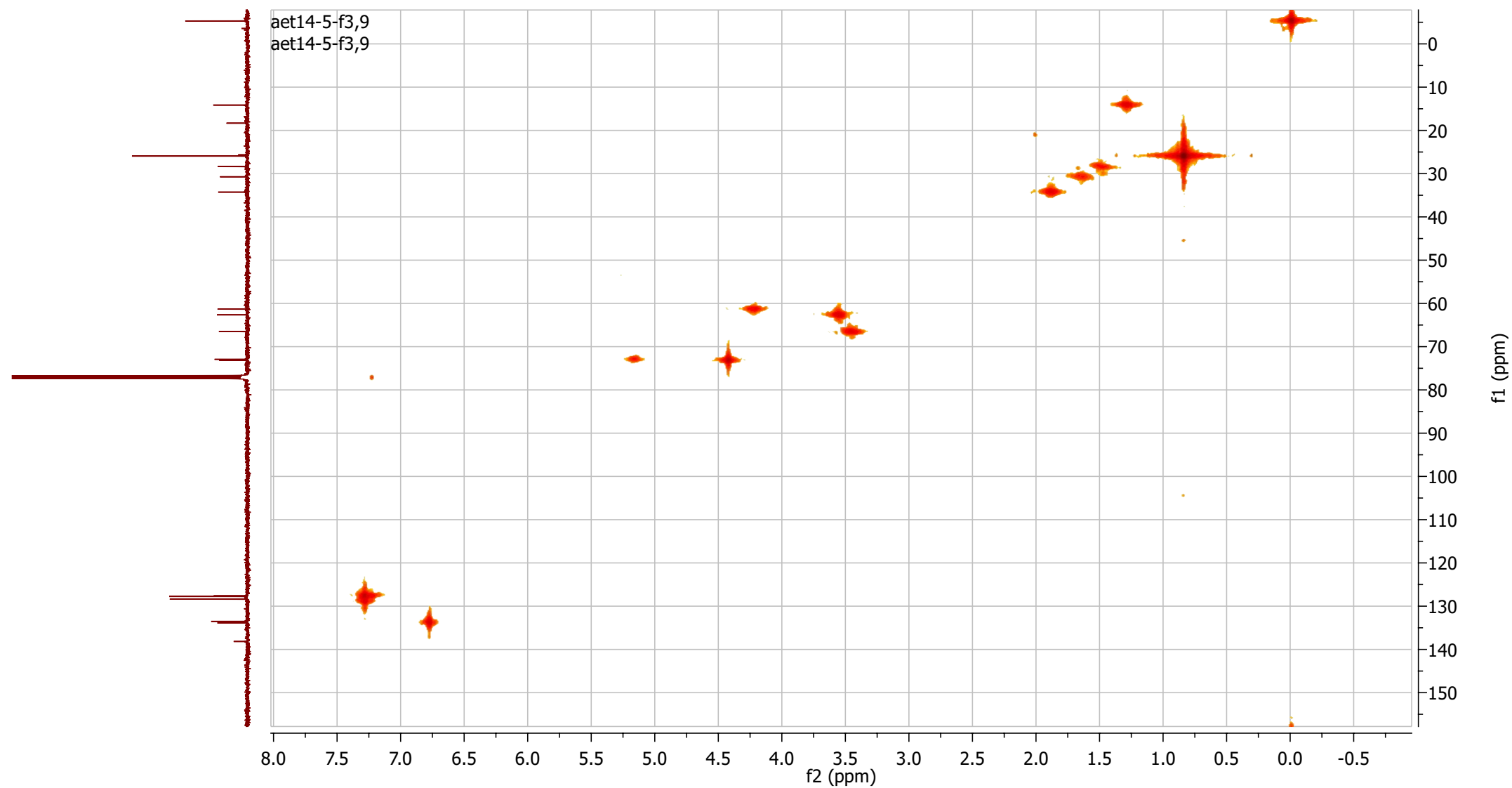
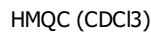
aet14-5-f3,9	
aet14-5-f3,9	

DEPT135 (101 MHz, CDCl₃)

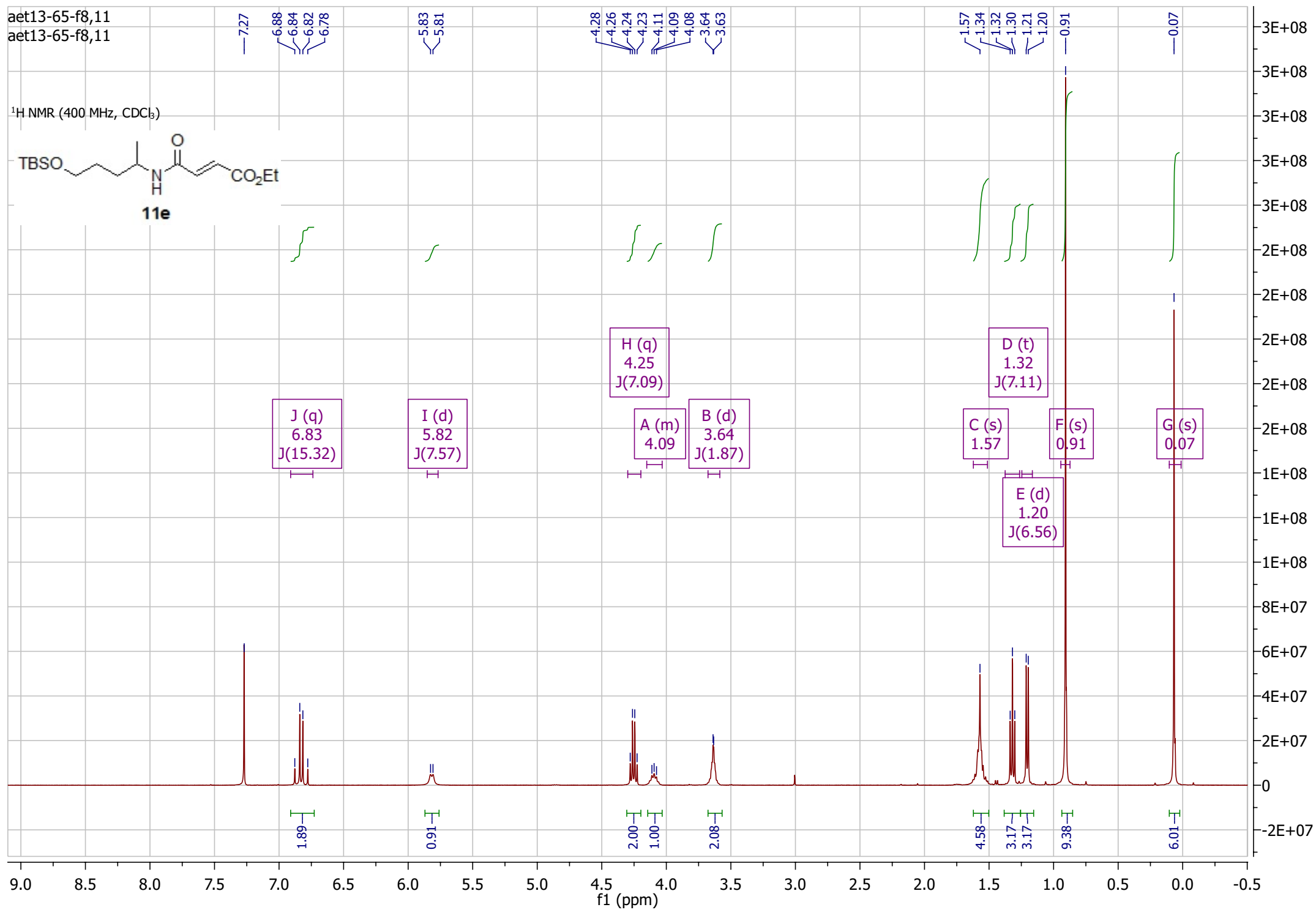
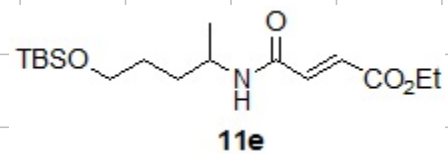


COSY (400 MHz, CDCl₃)

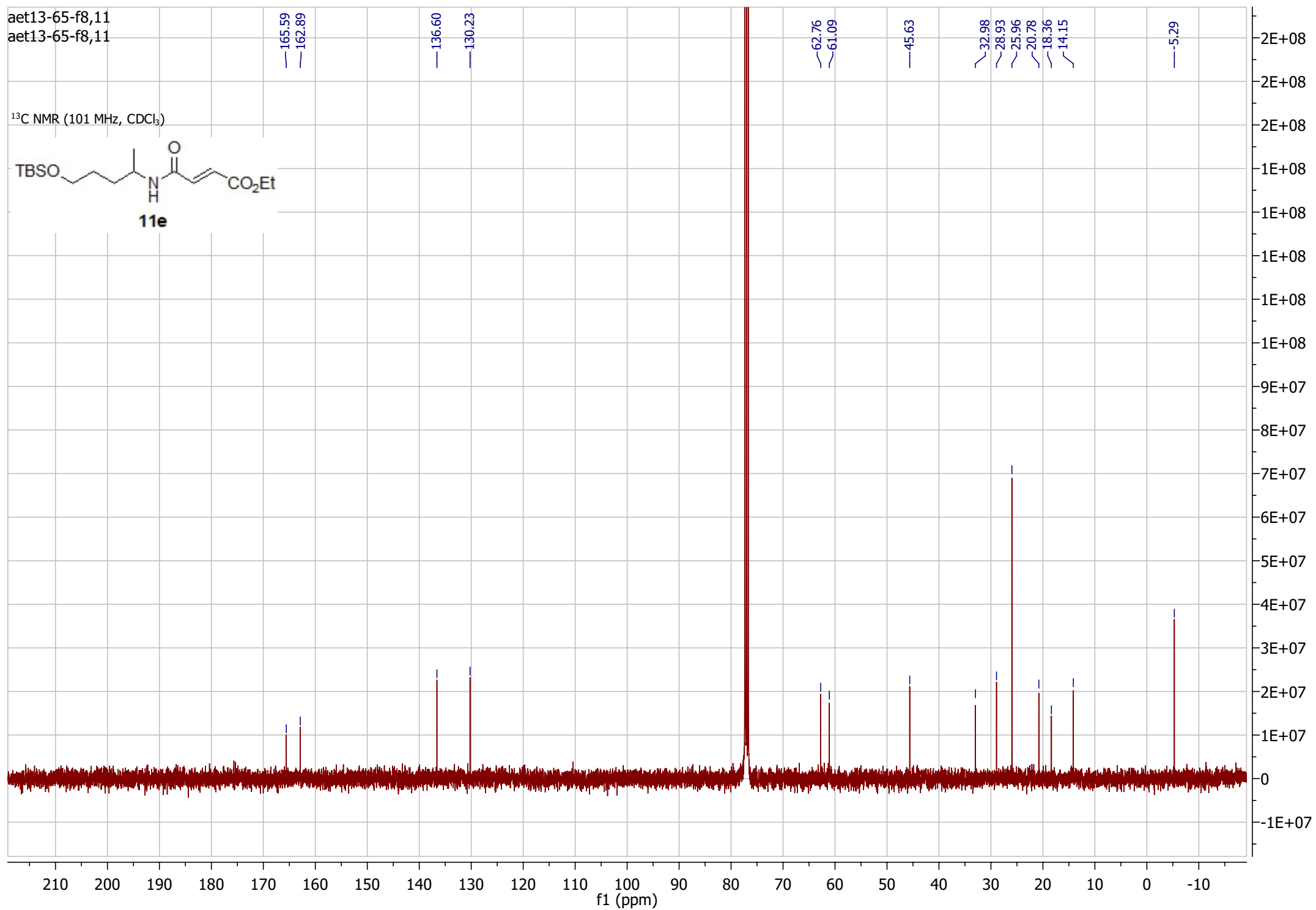
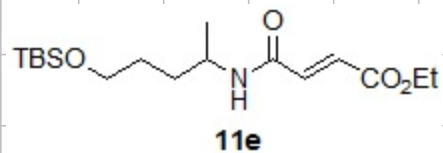


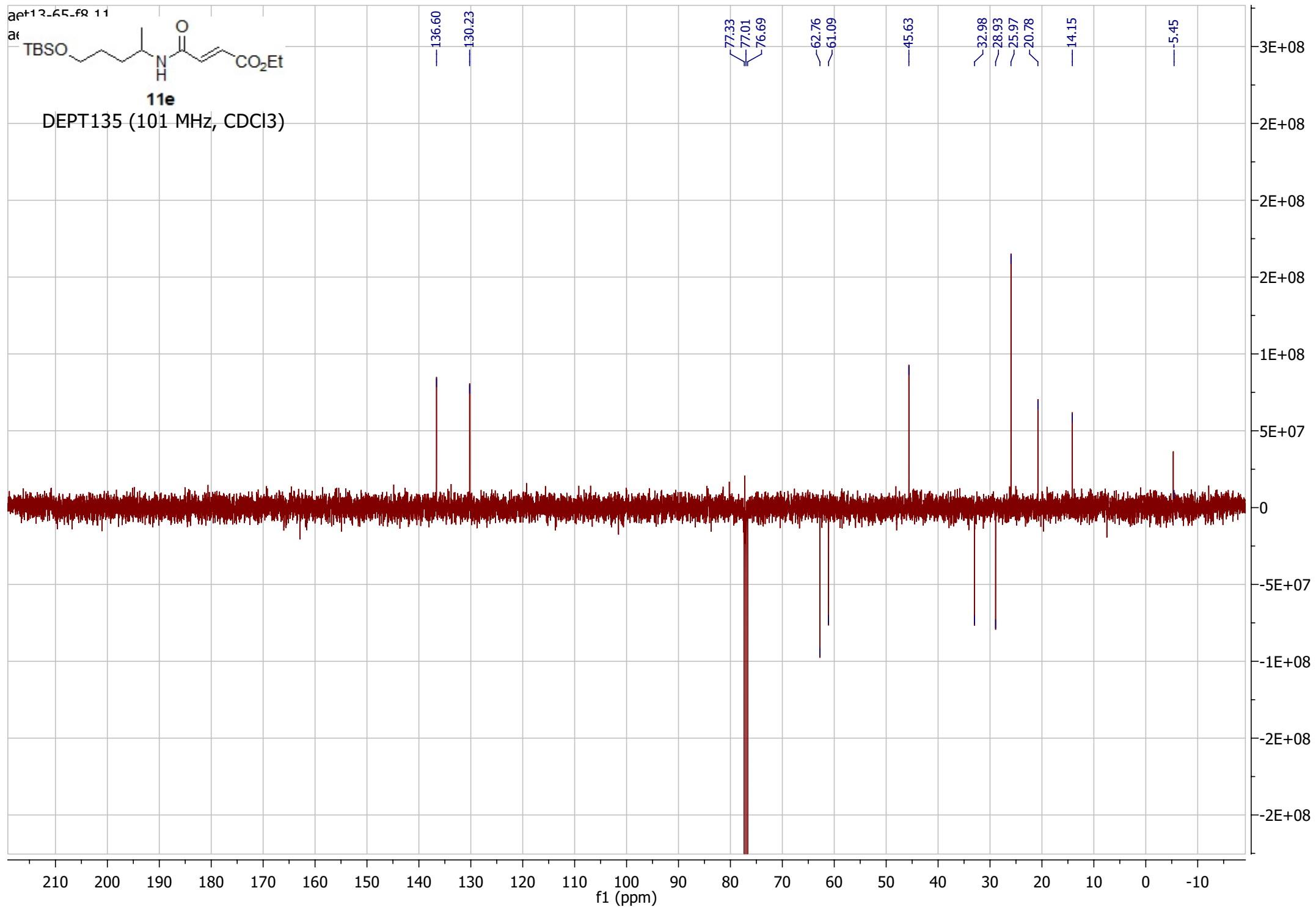


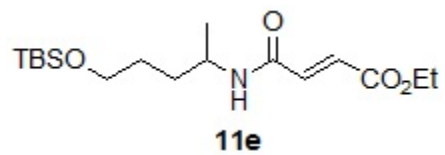
aet13-65-f8,11

¹H NMR (400 MHz, CDCl₃)

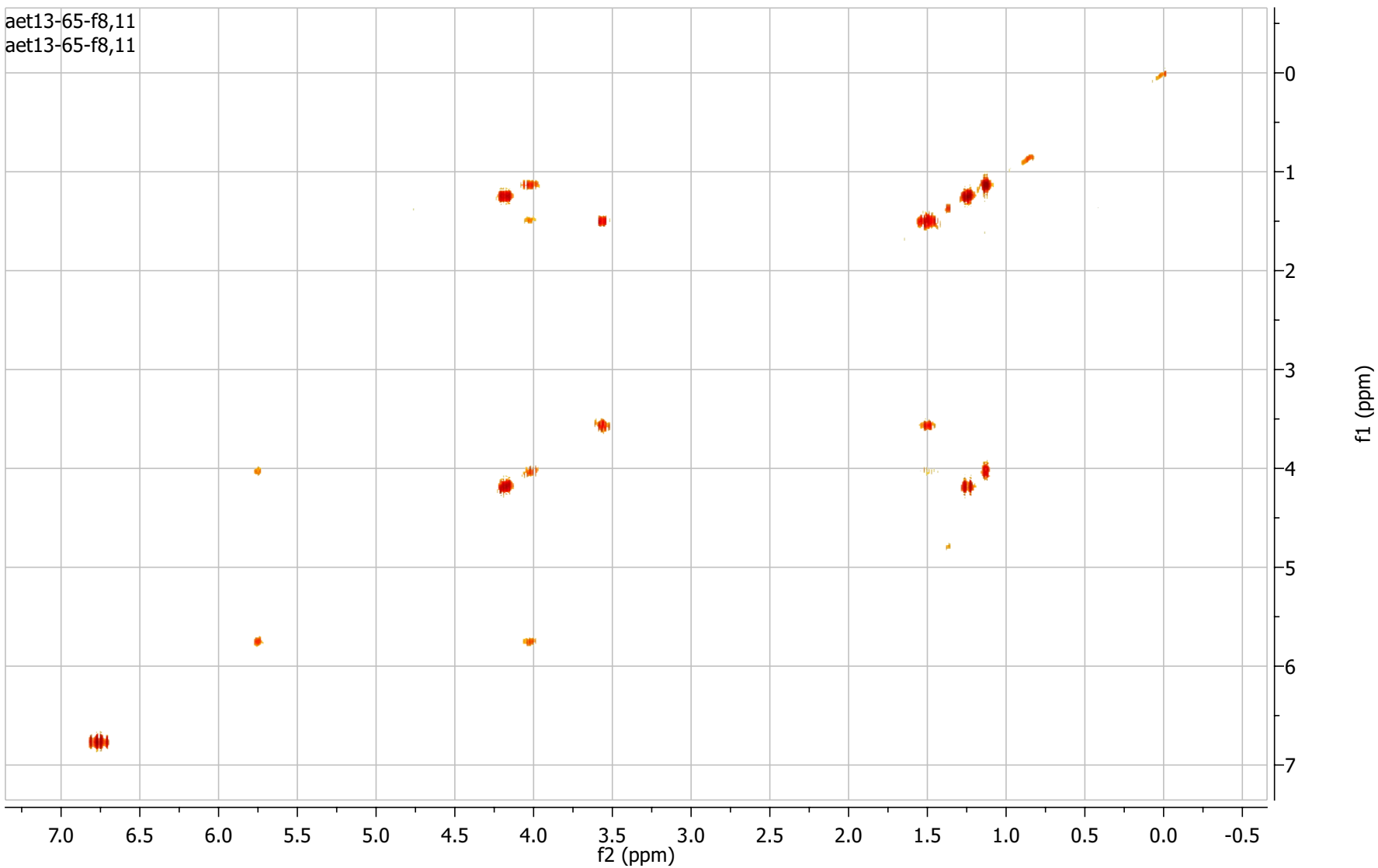
aet13-65-f8,11

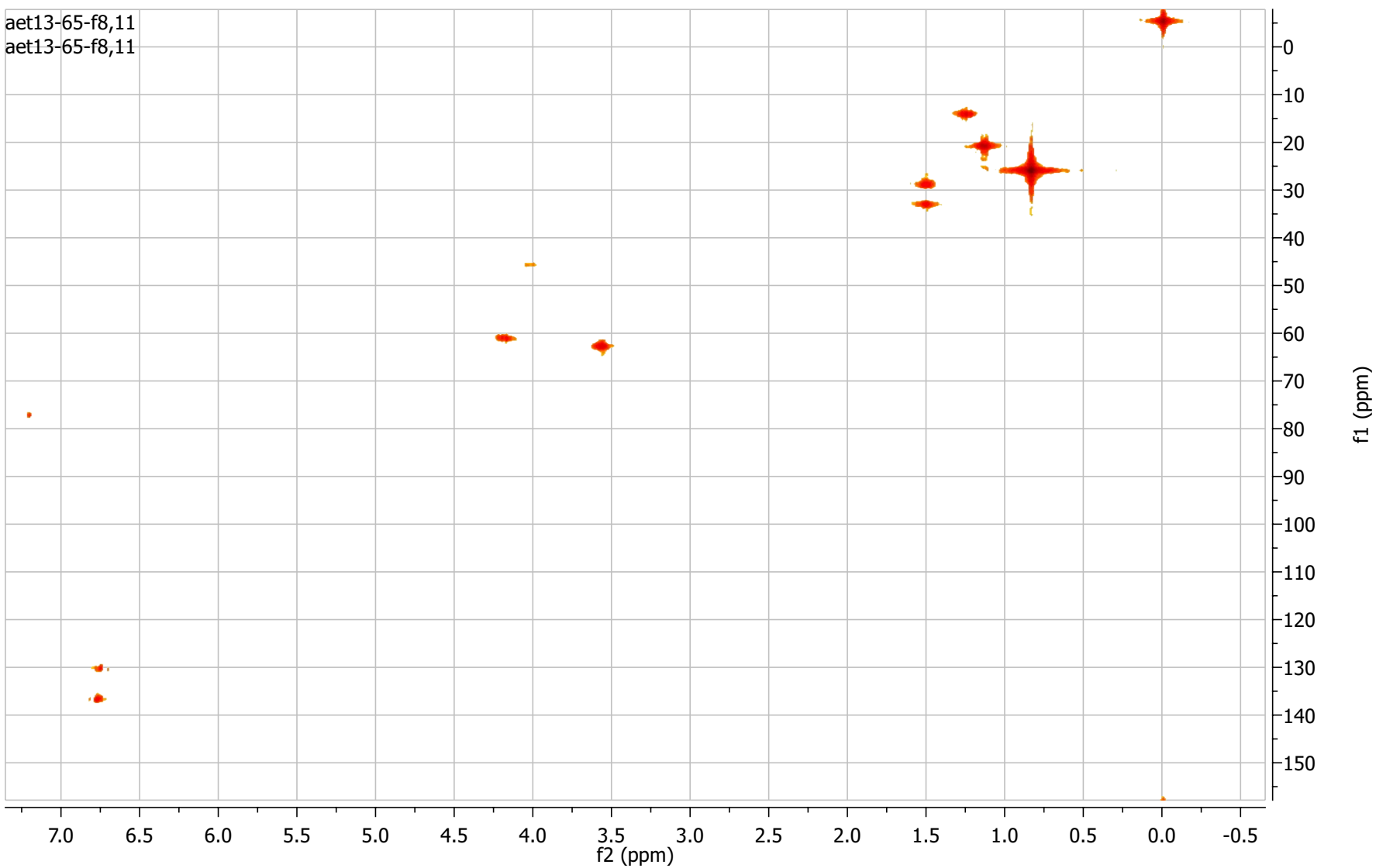
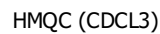
¹³C NMR (101 MHz, CDCl₃)



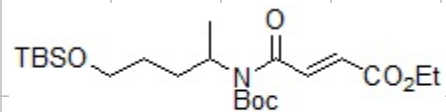


COSY (400 MHz, CDCl₃)

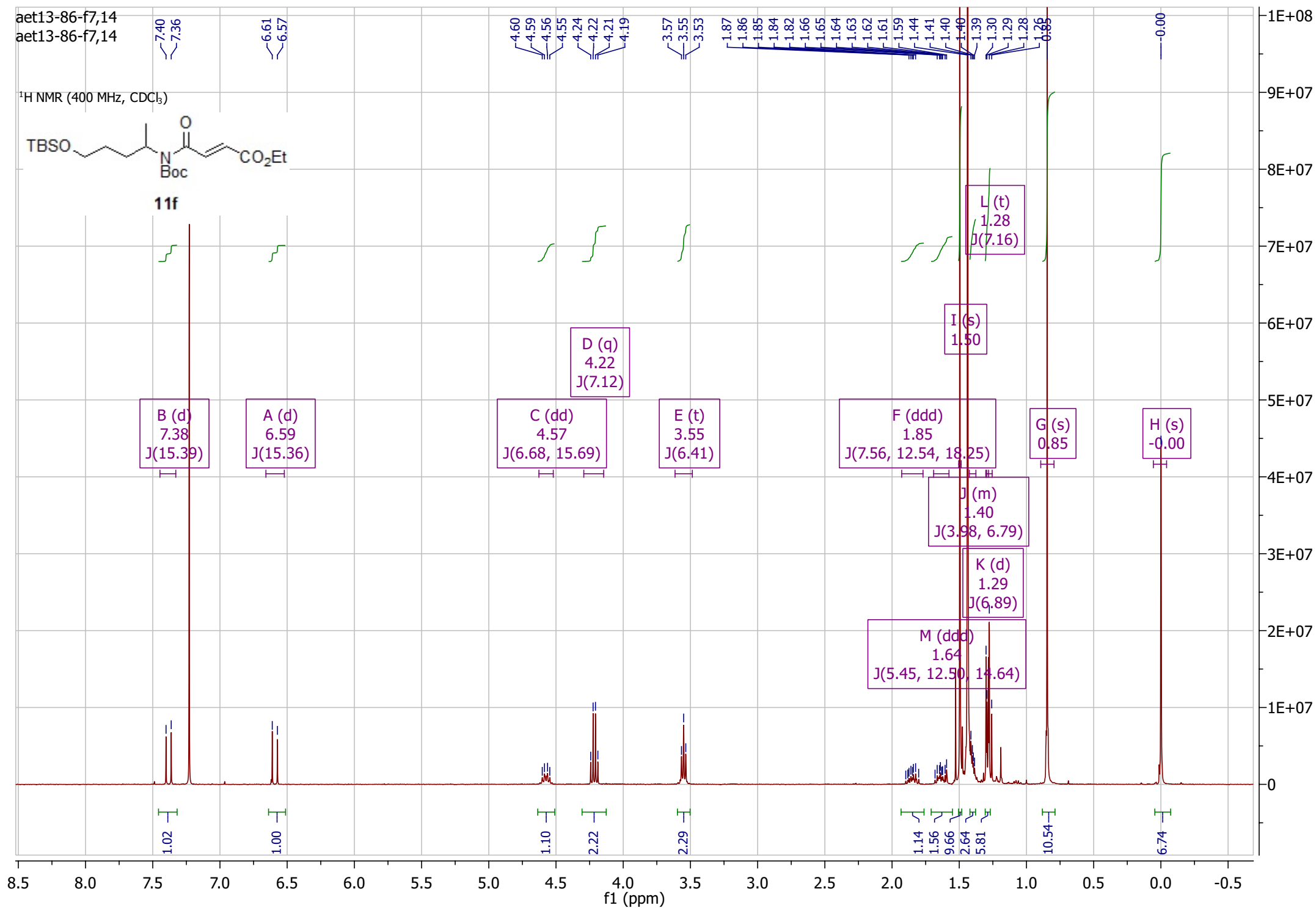




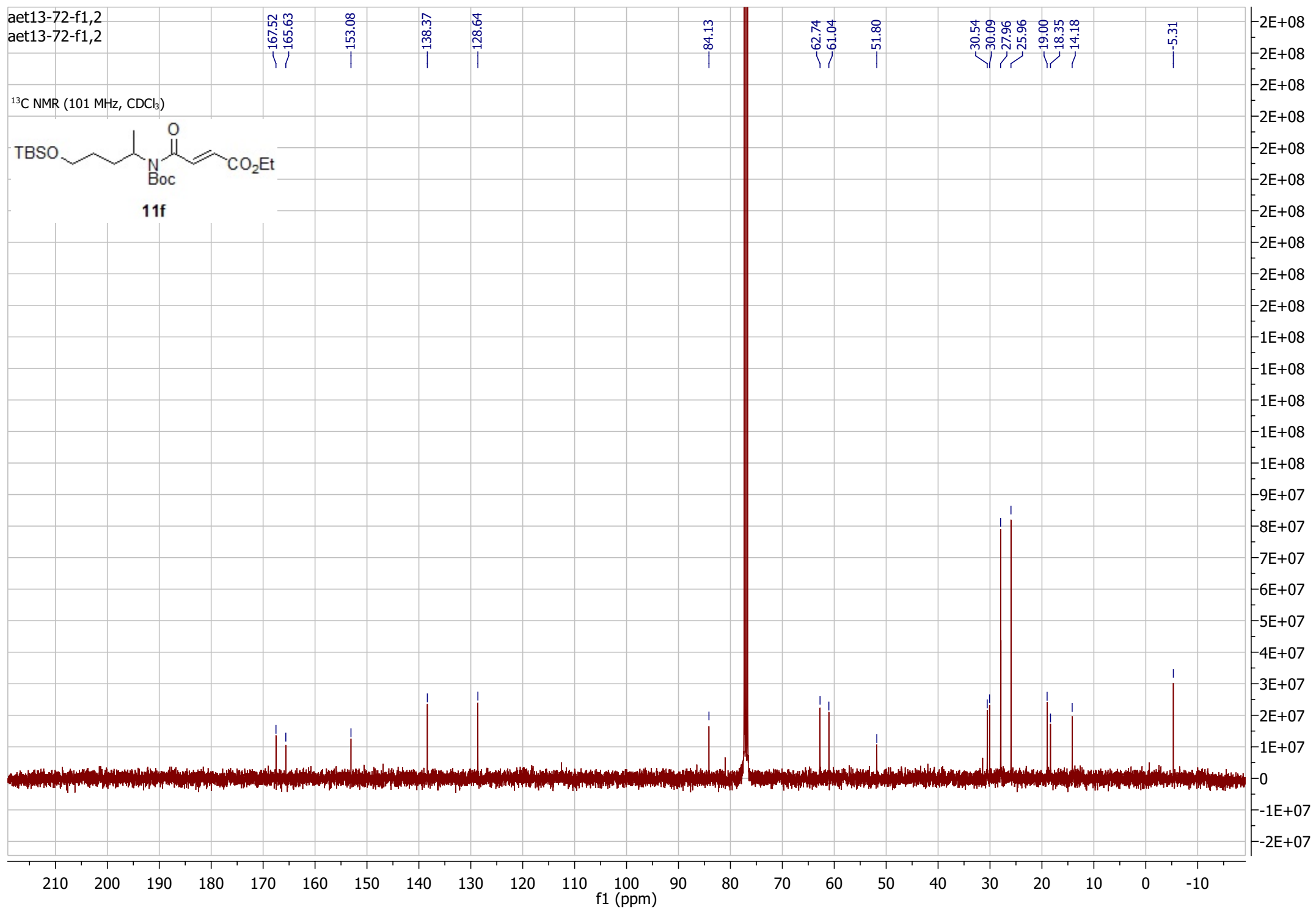
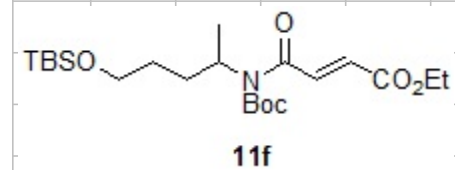
aet13-86-f7,14

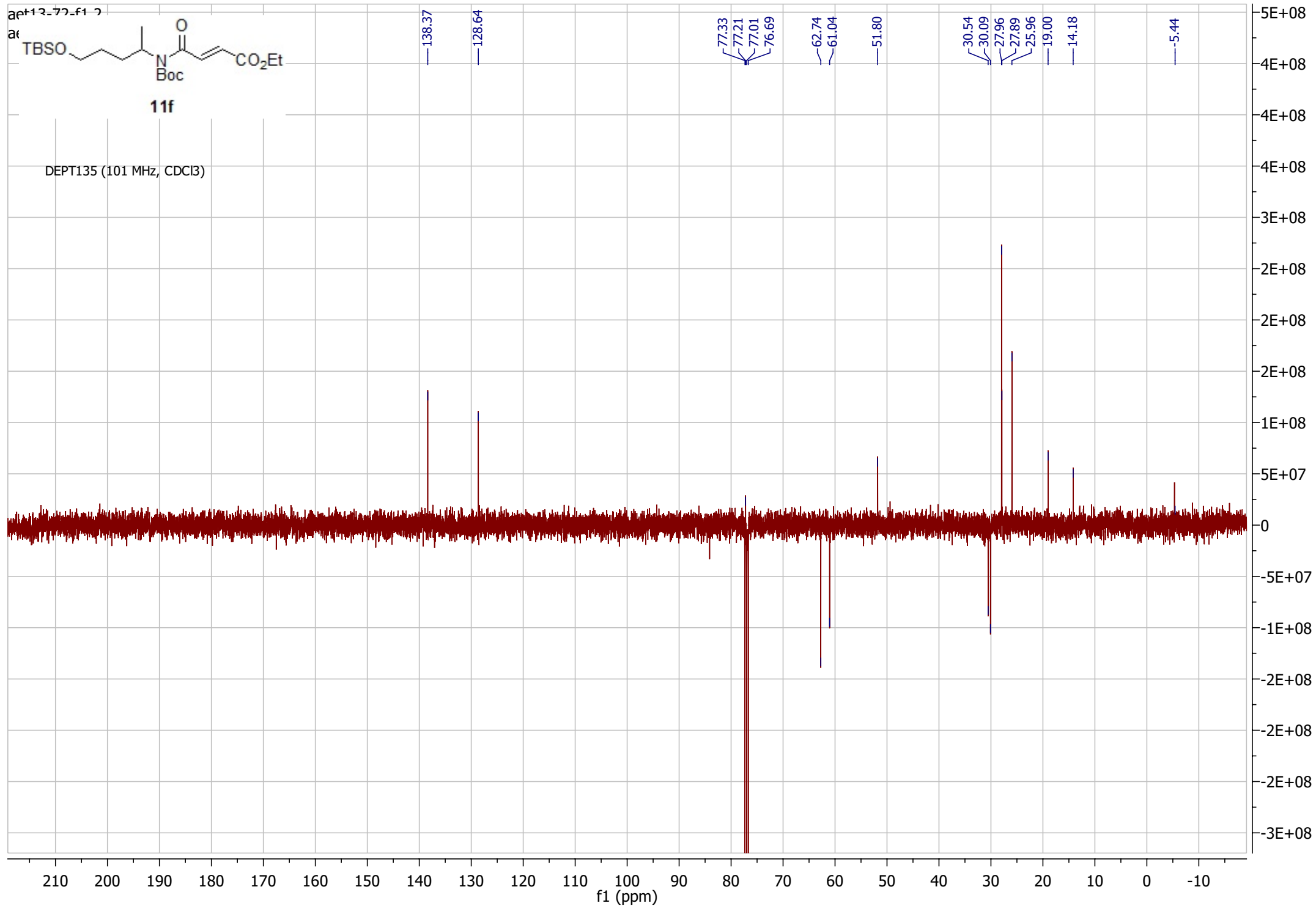
¹H NMR (400 MHz, CDCl₃)

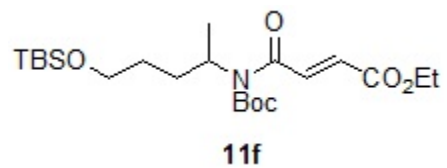
11f



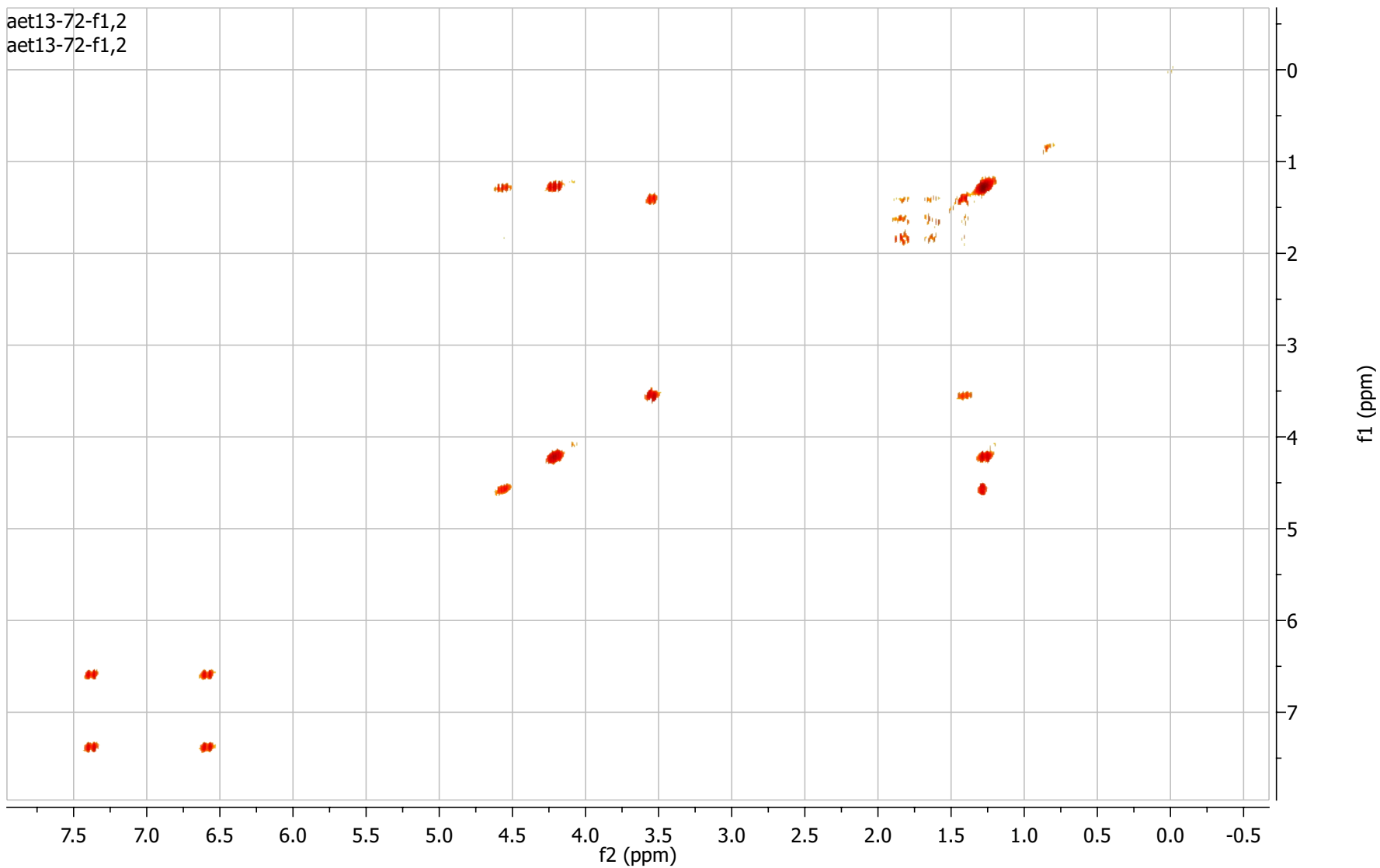
aet13-72-f1,2

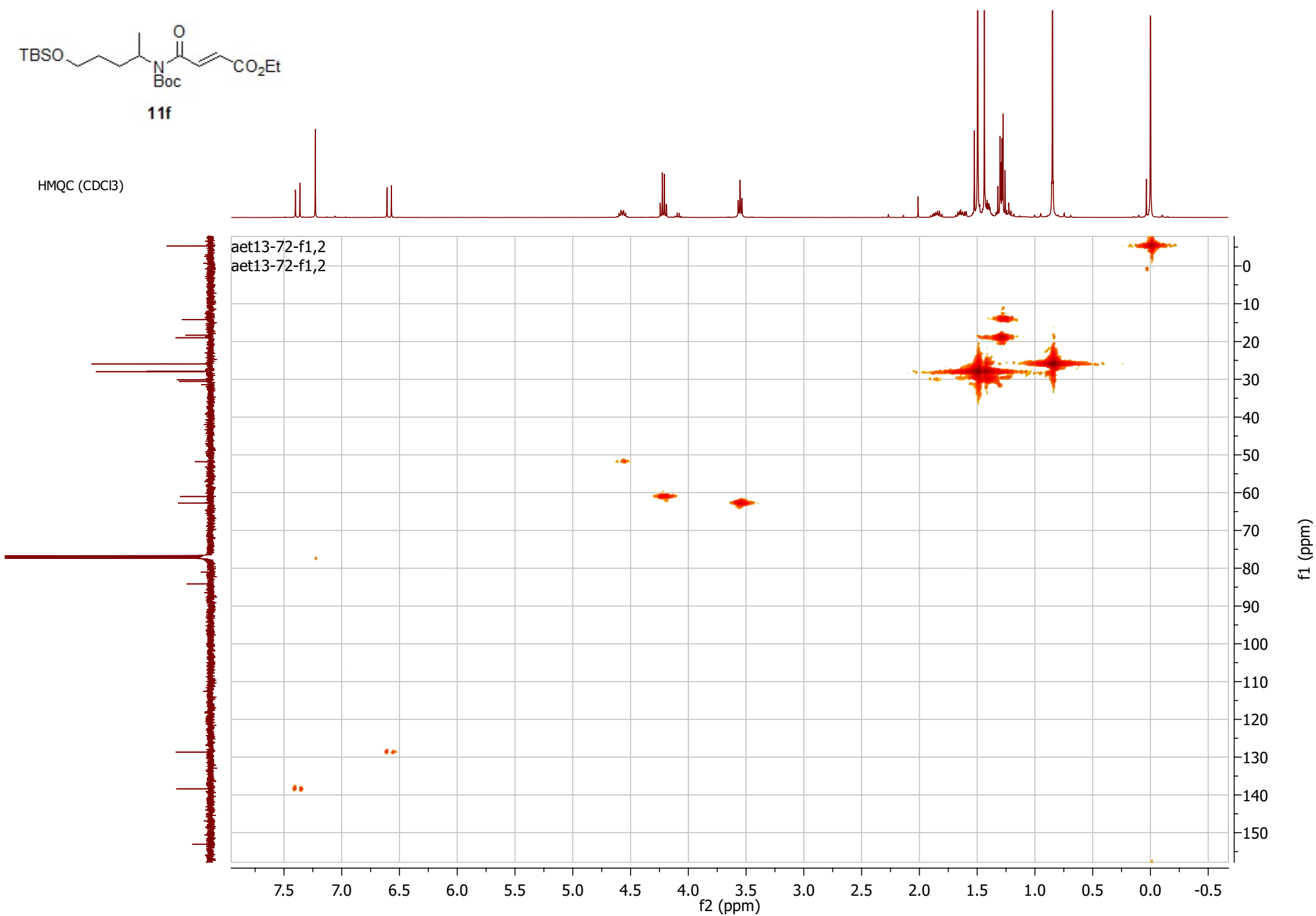
¹³C NMR (101 MHz, CDCl₃)





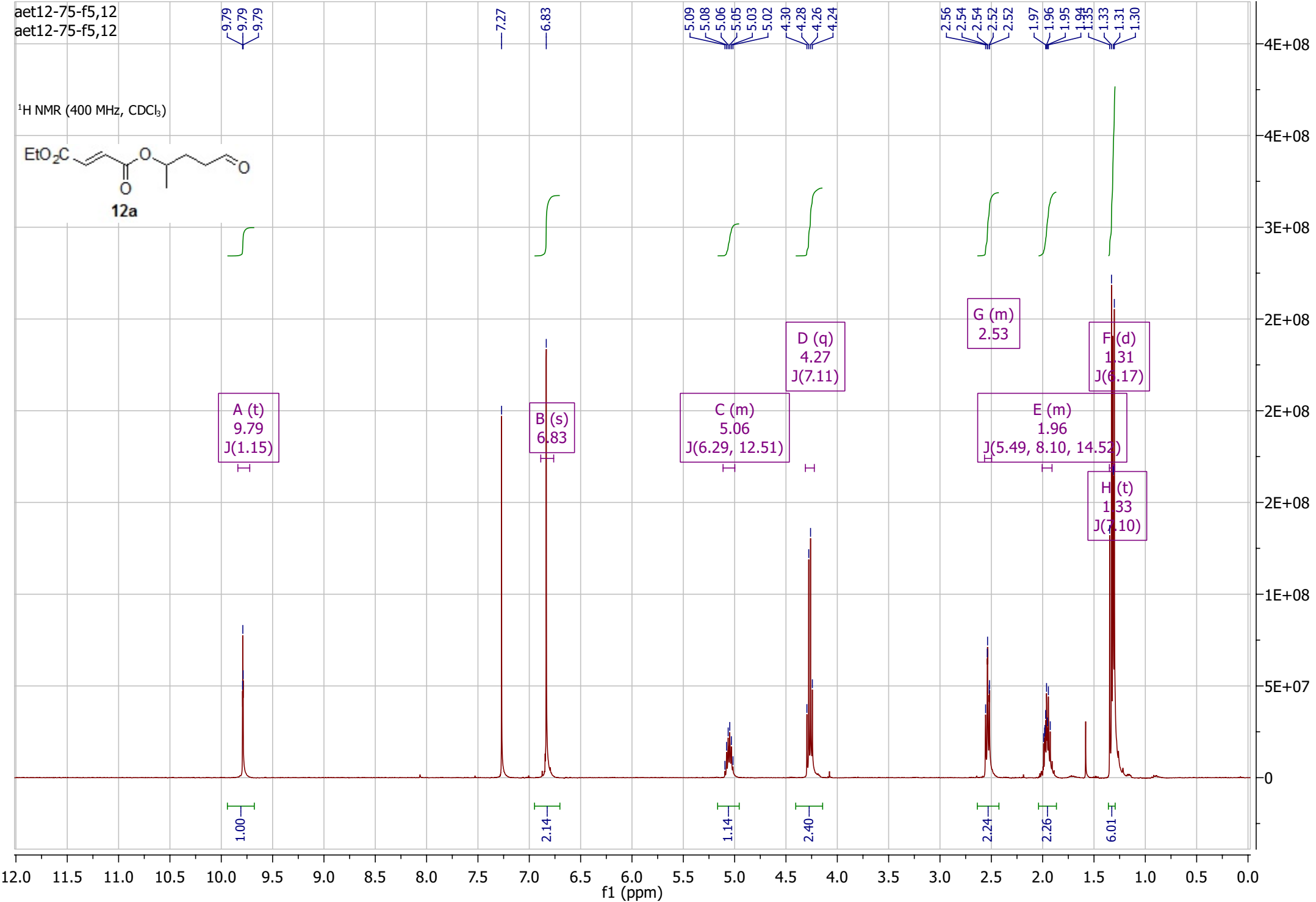
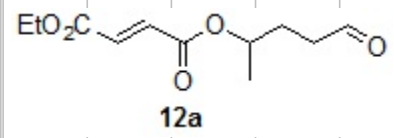
COSY (400 MHz, CDCl₃)

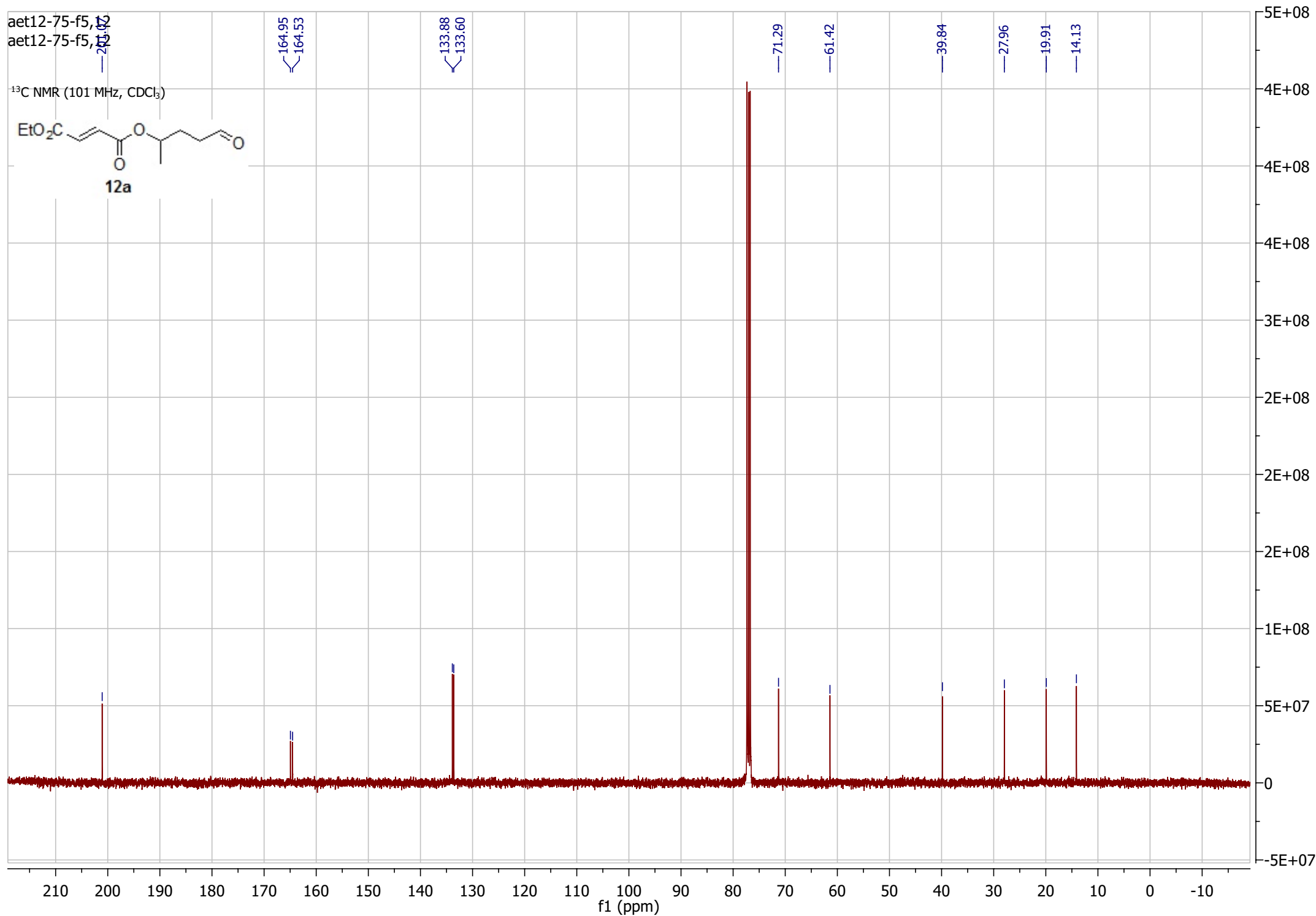


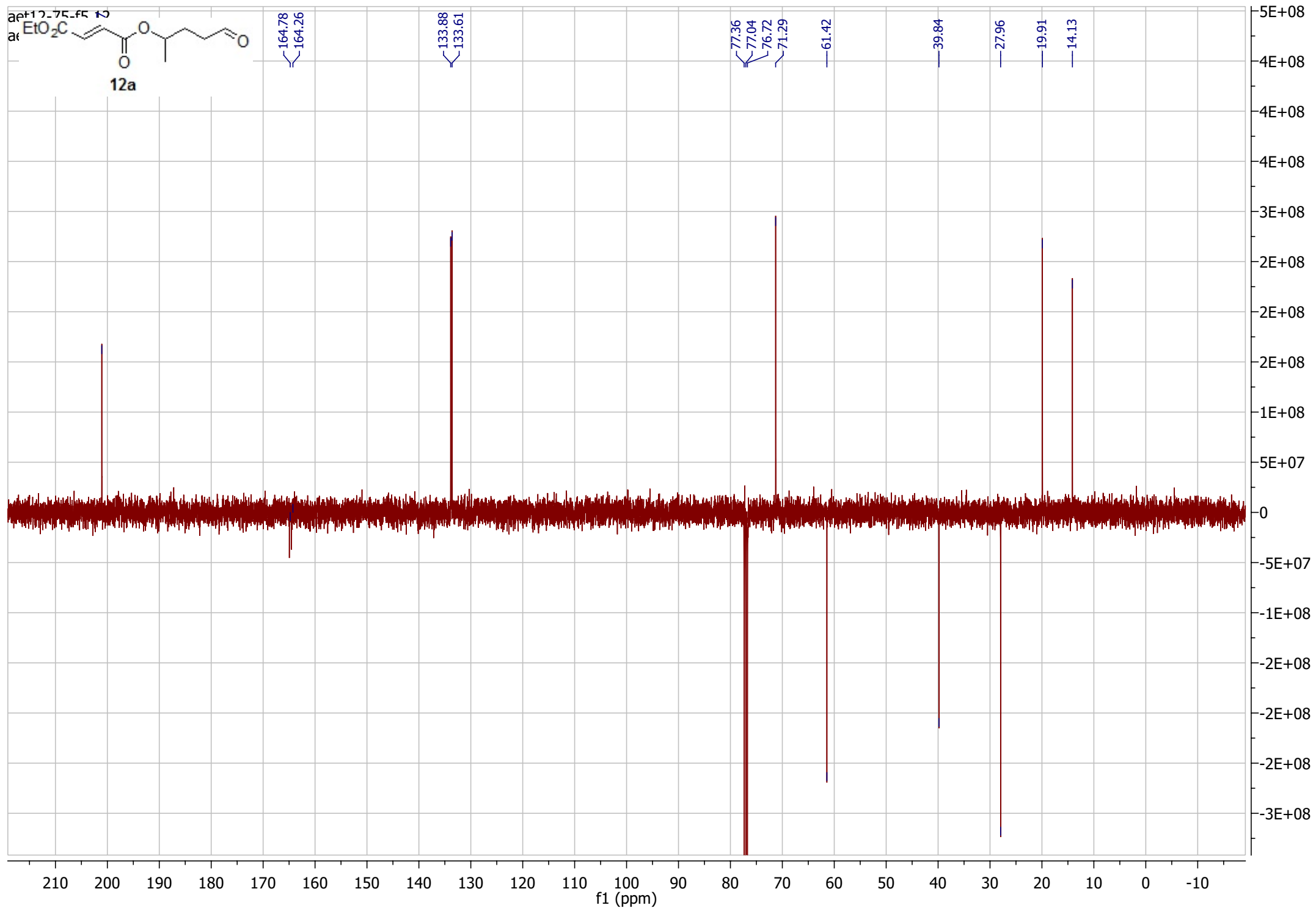


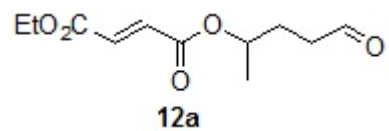
aet12-75-f5,12
aet12-75-f5,12

¹H NMR (400 MHz, CDCl₃)

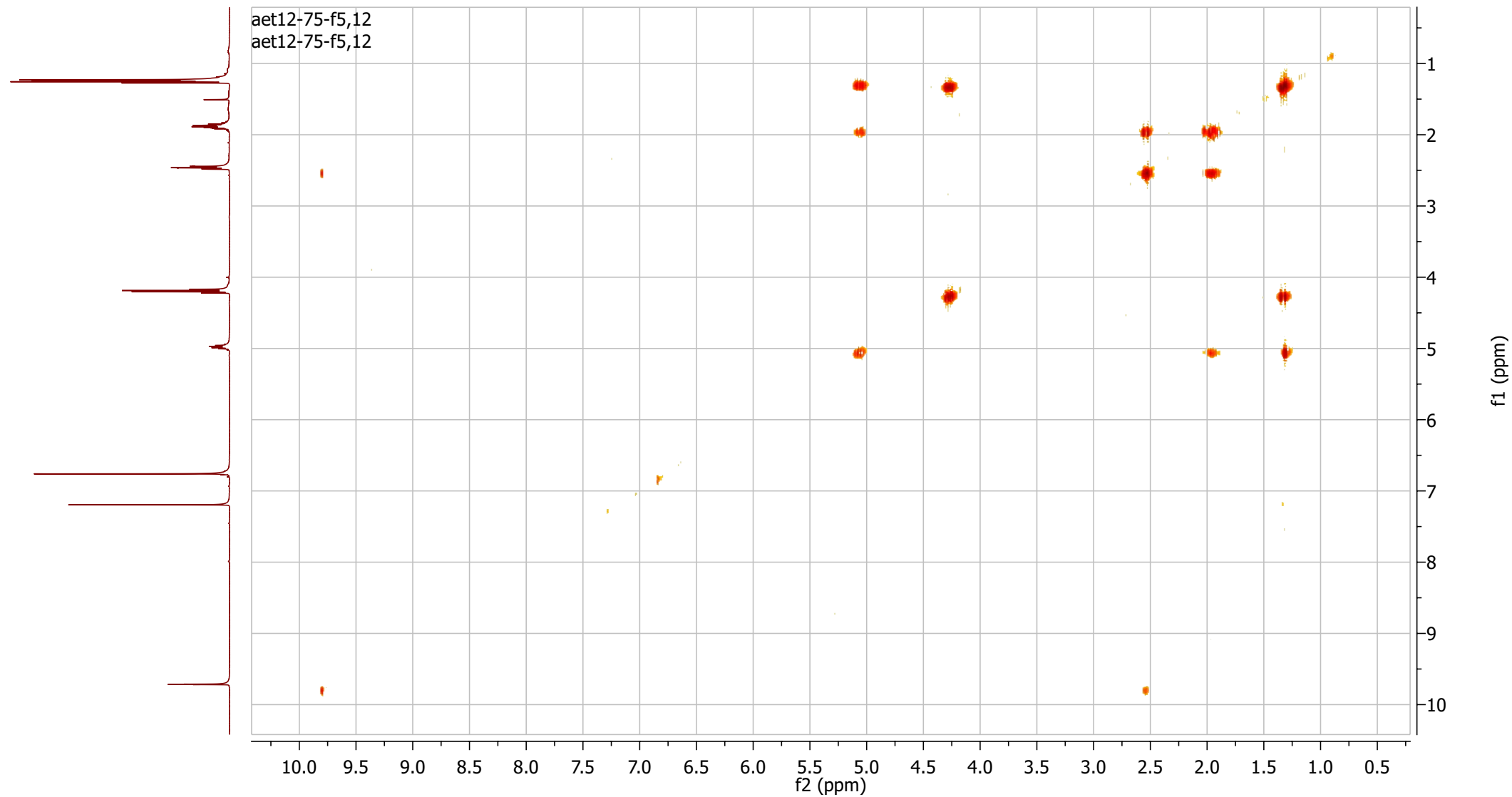


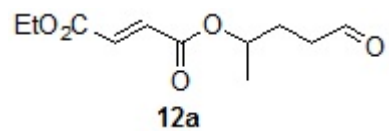




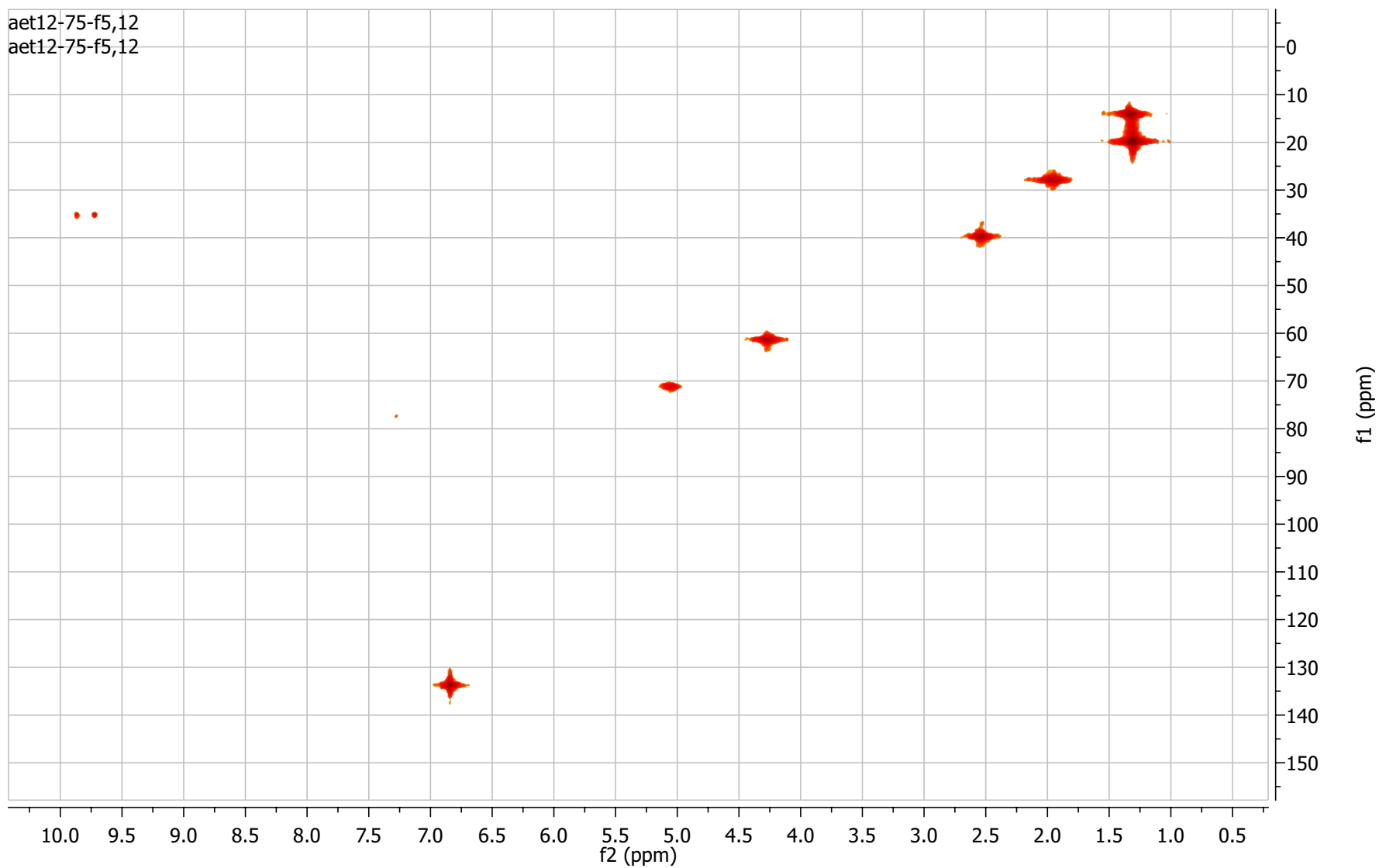


COSY (400 MHz, CDCl₃)

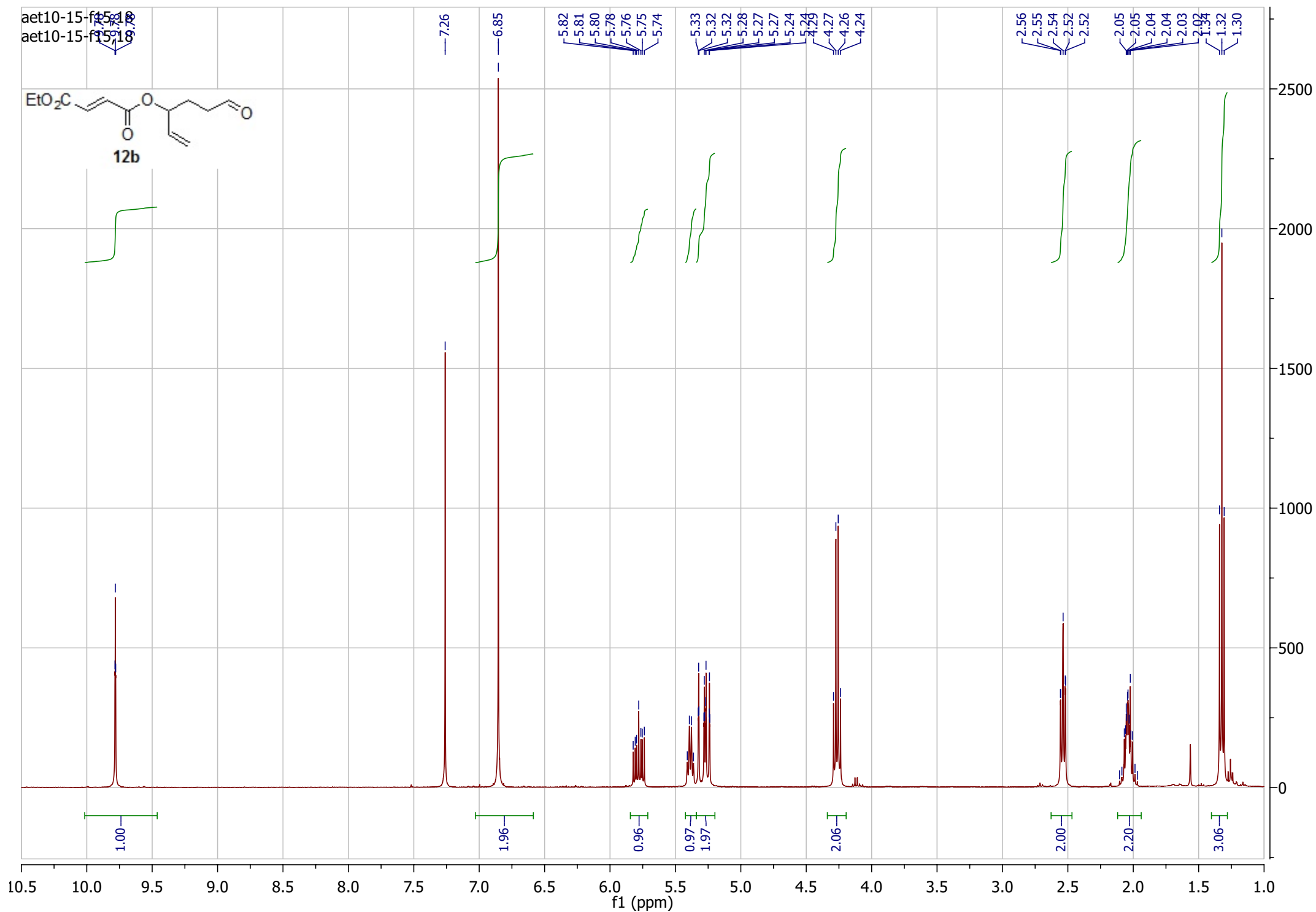
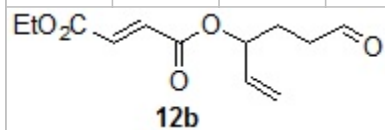


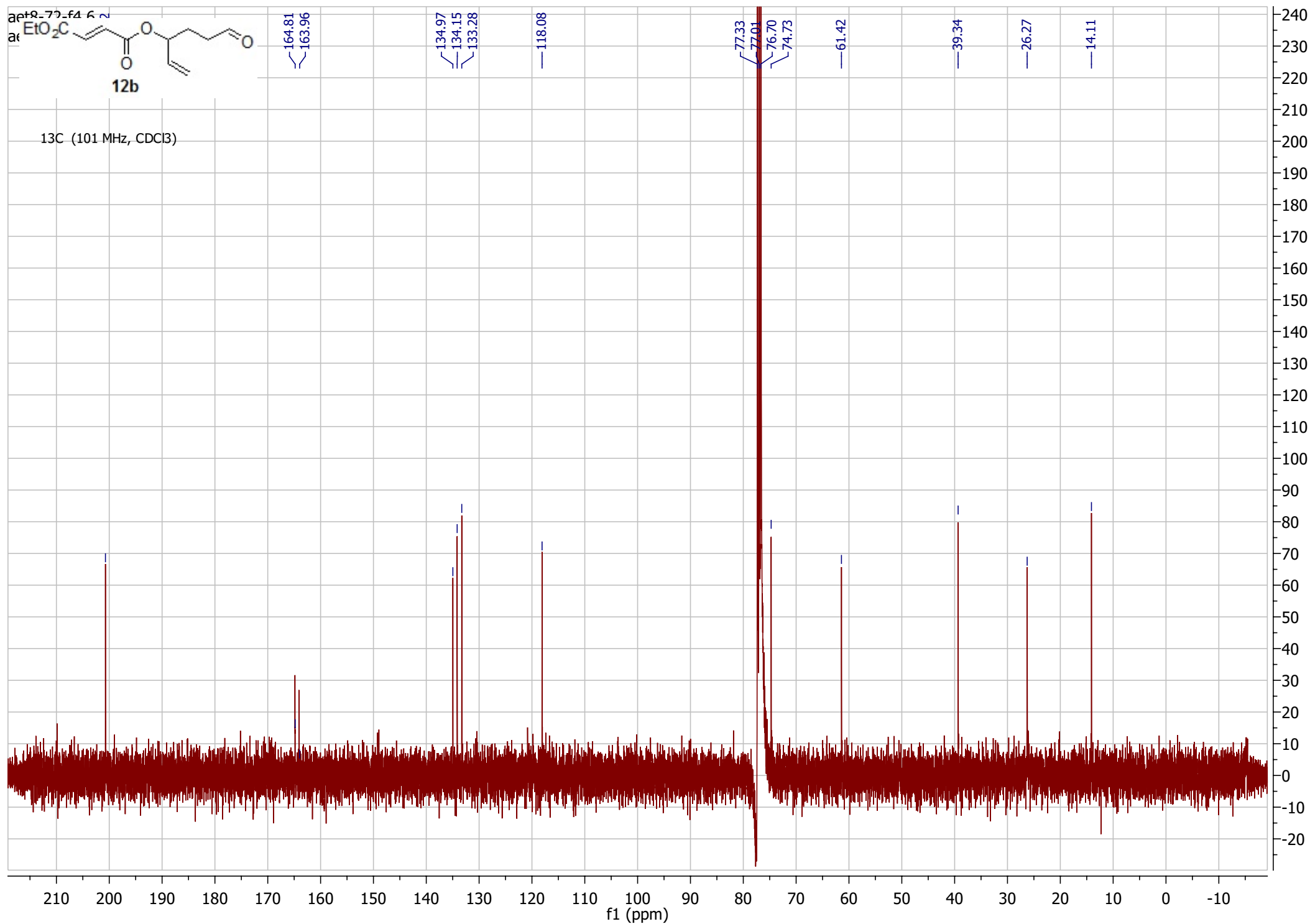


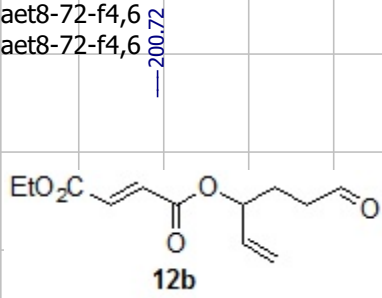
HMQC (CDCl₃)



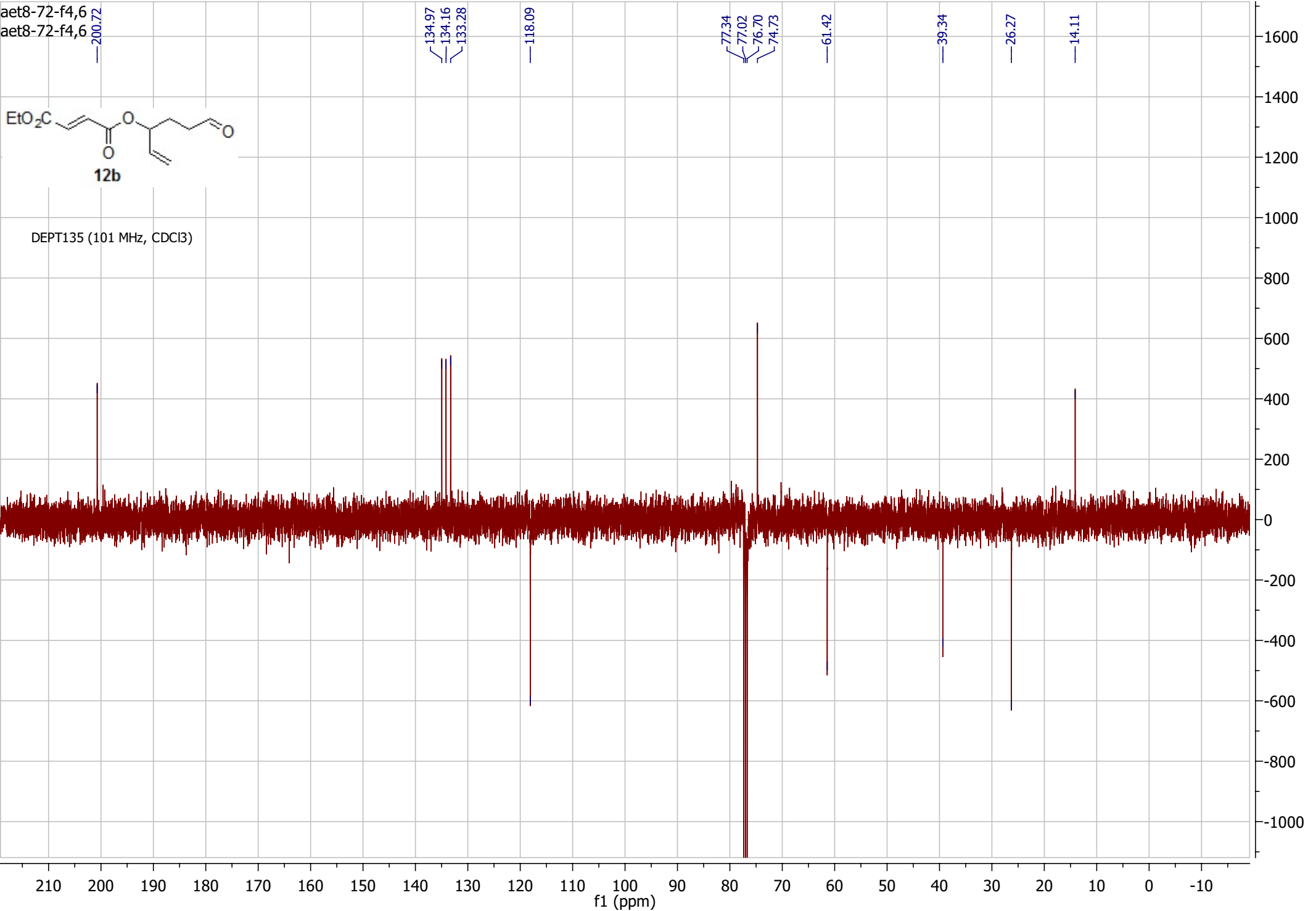
aet10-15-f15-18
aet10-15-f15-18

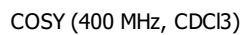


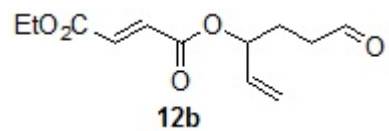




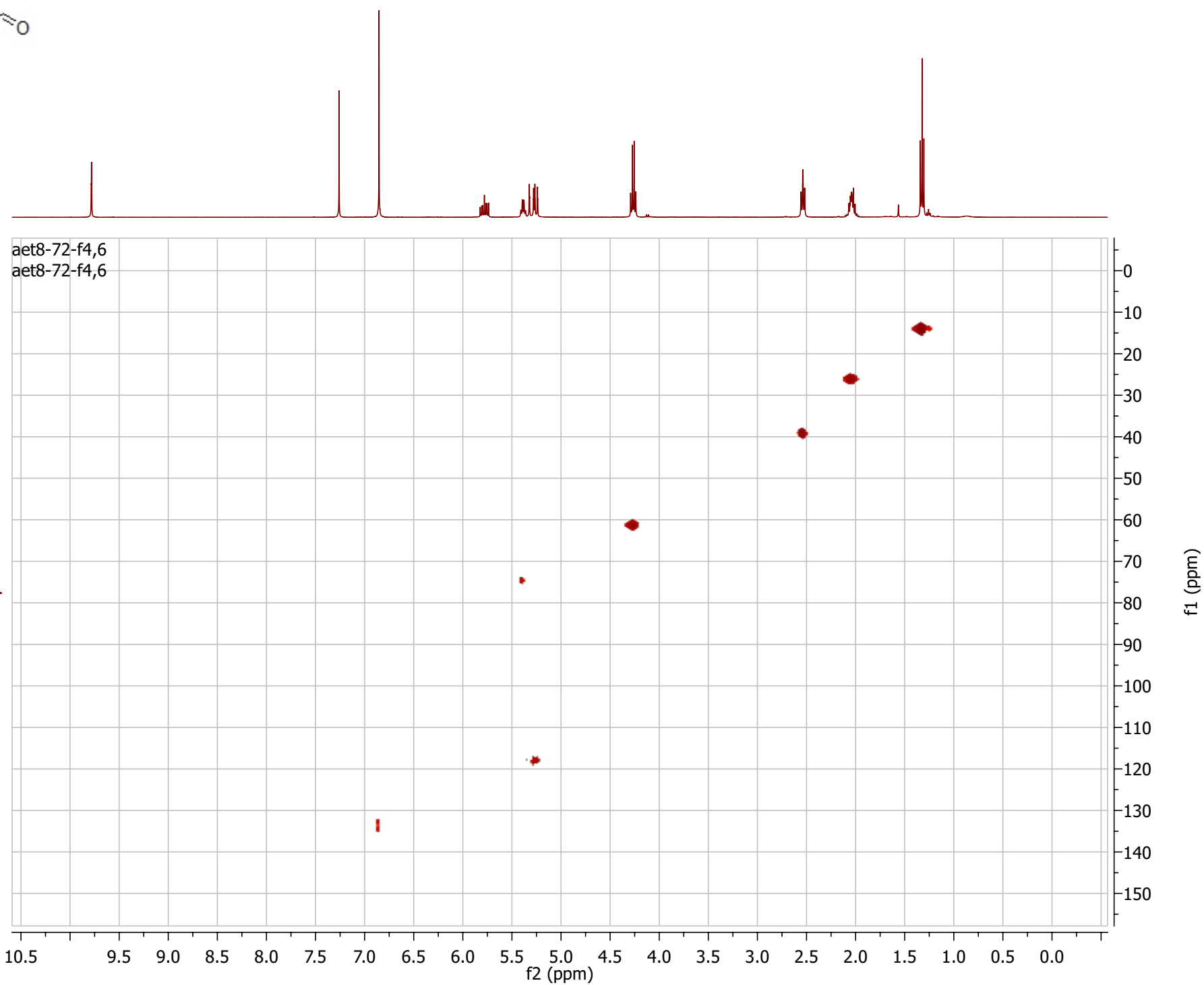
DEPT135 (101 MHz, CDCl3)





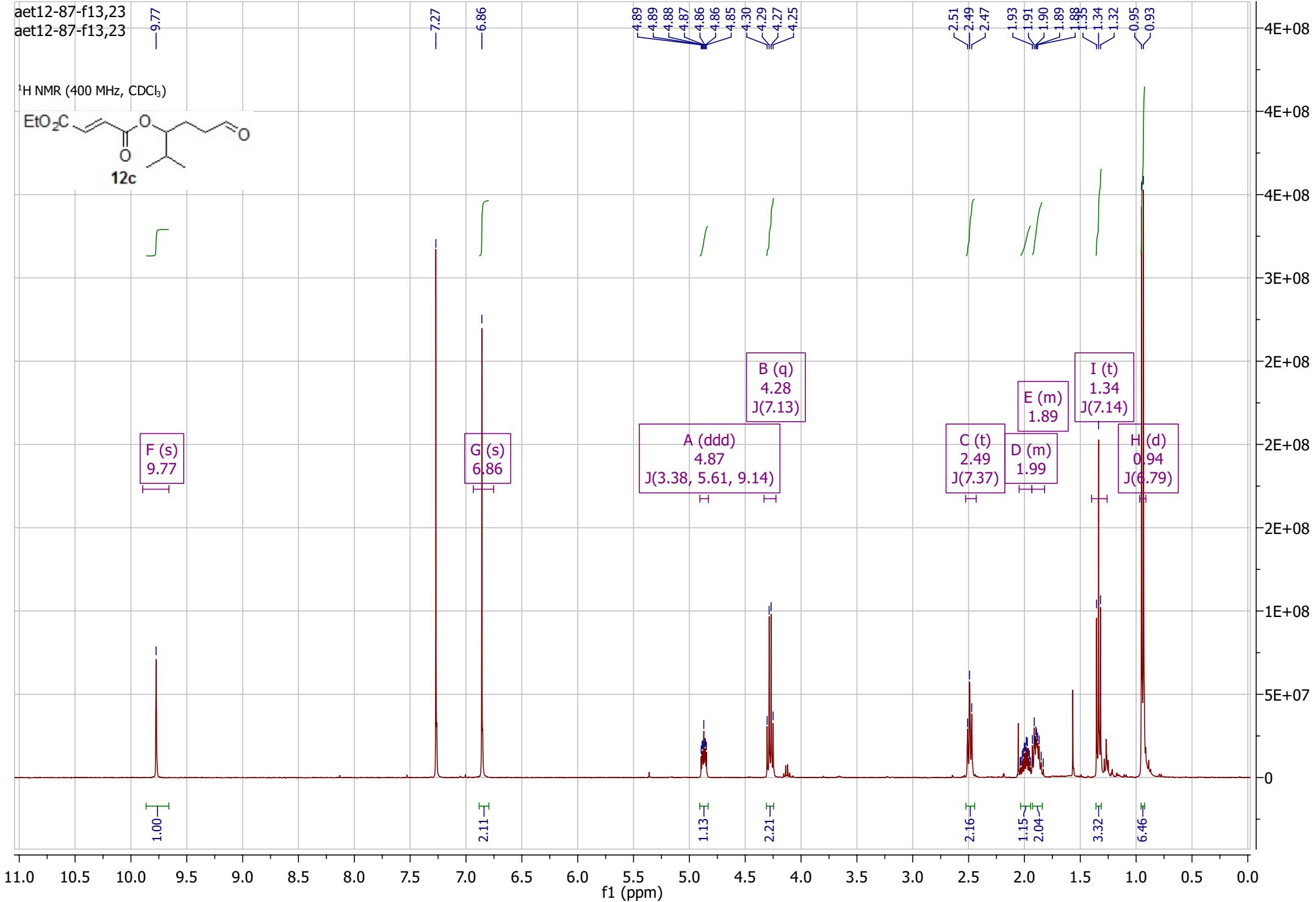
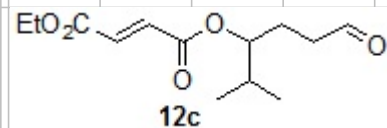


HMQC (CDCl₃)



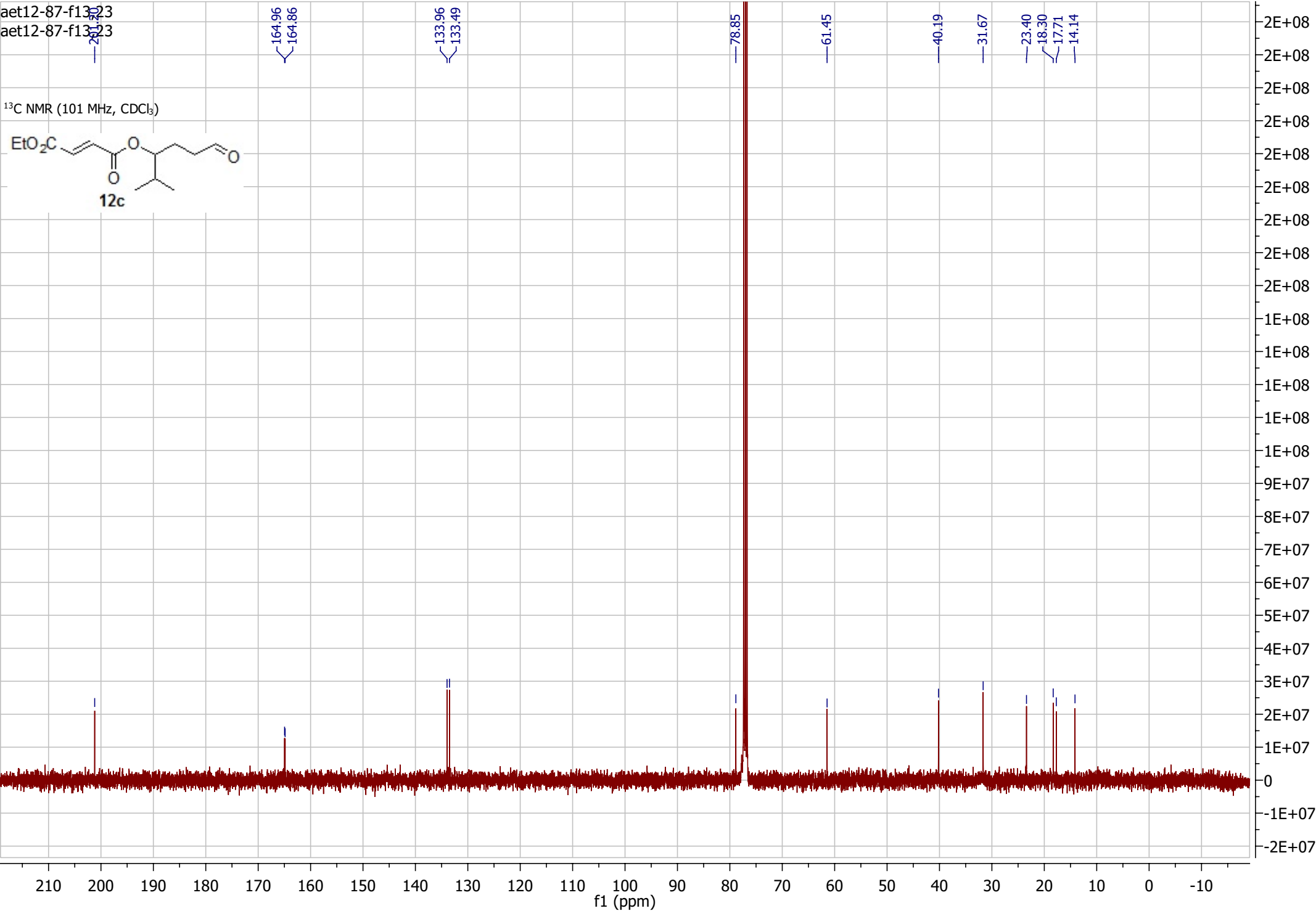
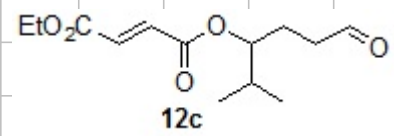
aet12-87-f13,23
aet12-87-f13,23

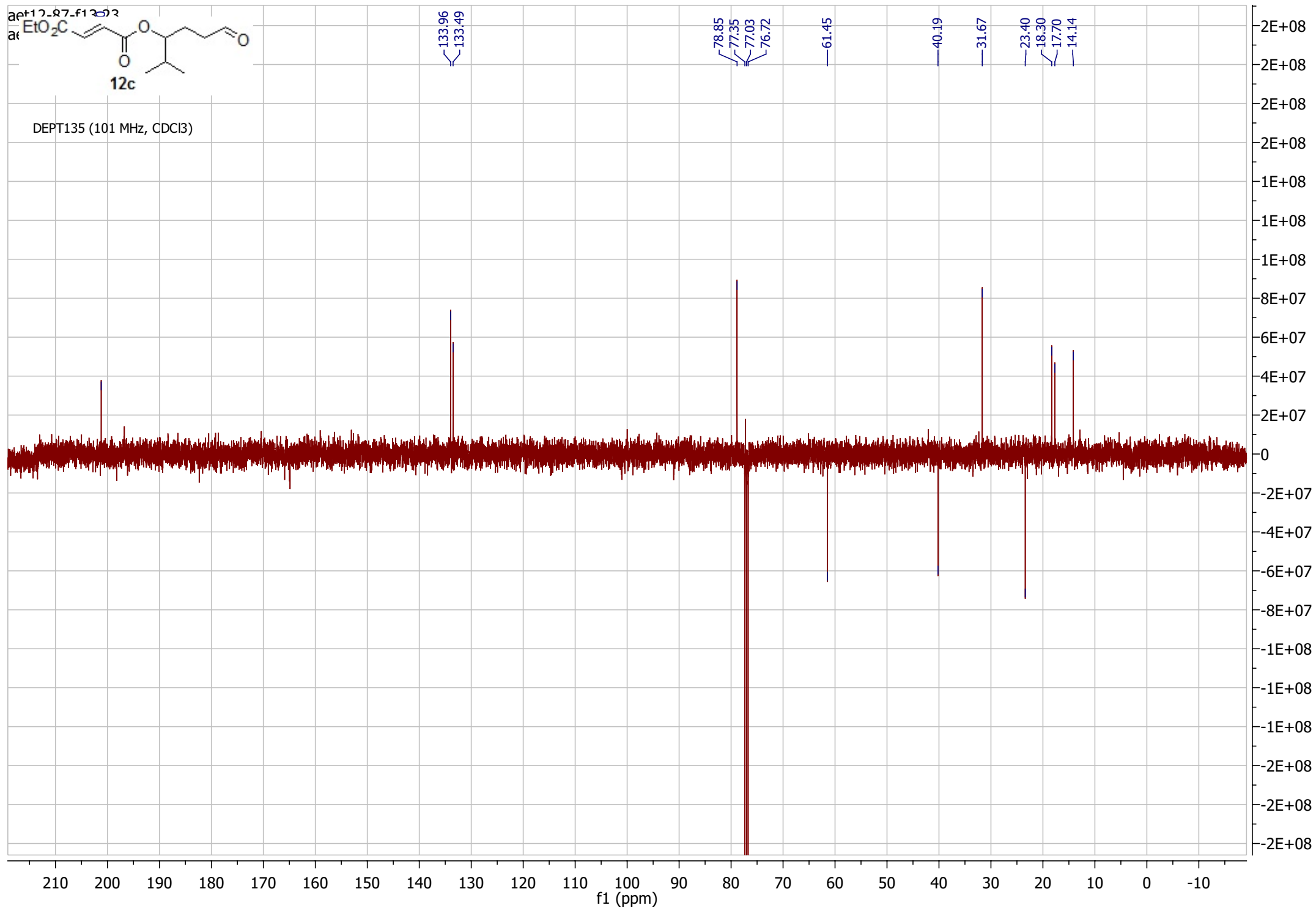
¹H NMR (400 MHz, CDCl₃)

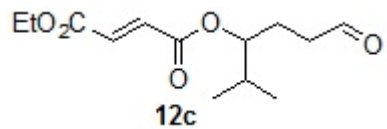


aet12-87-f13-23
aet12-87-f13-23

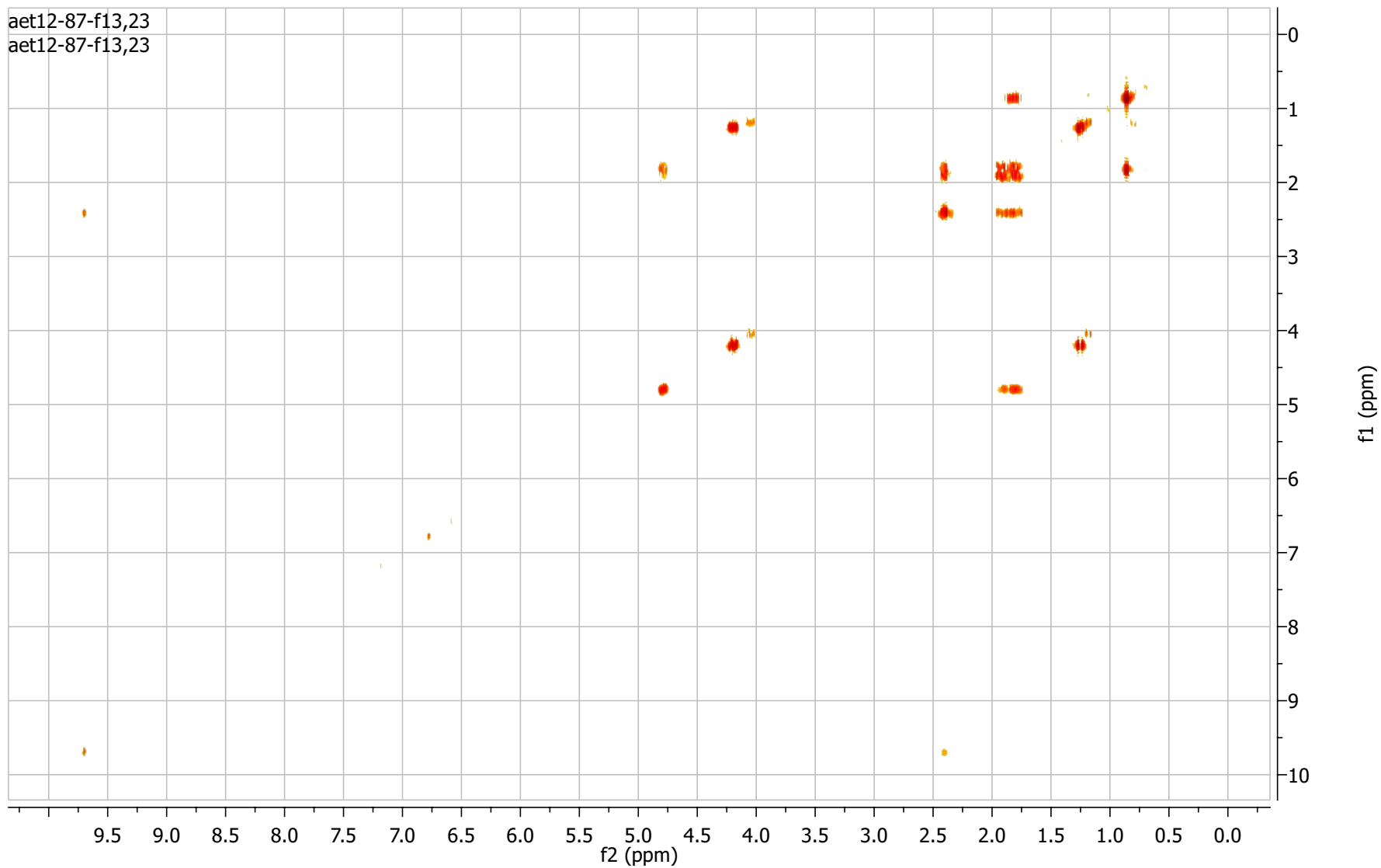
¹³C NMR (101 MHz, CDCl₃)

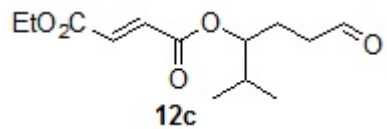




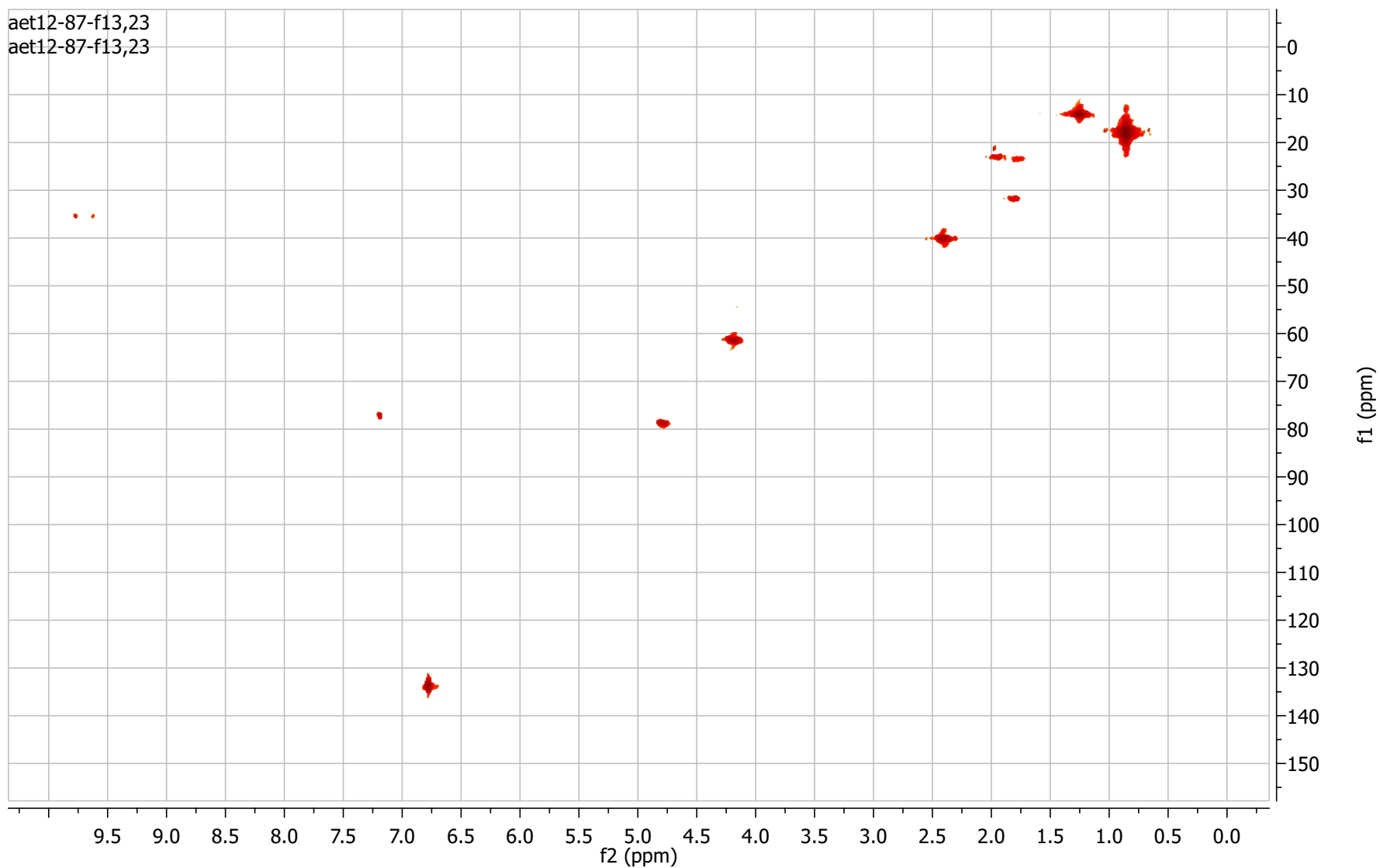


COSY (400 MHz, CDCl₃)



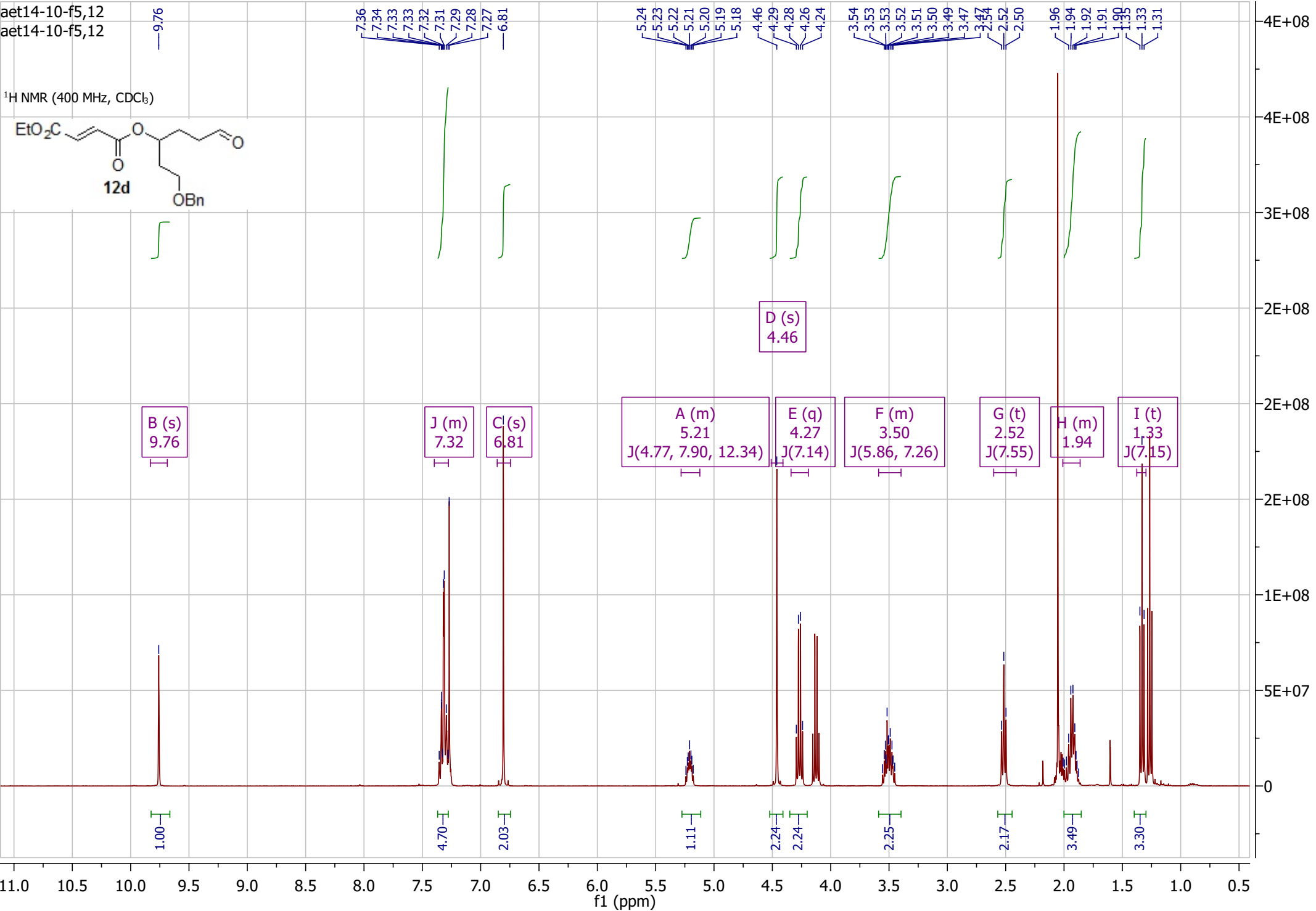
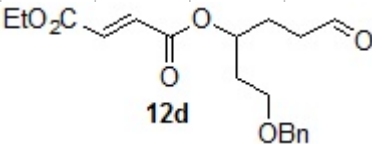


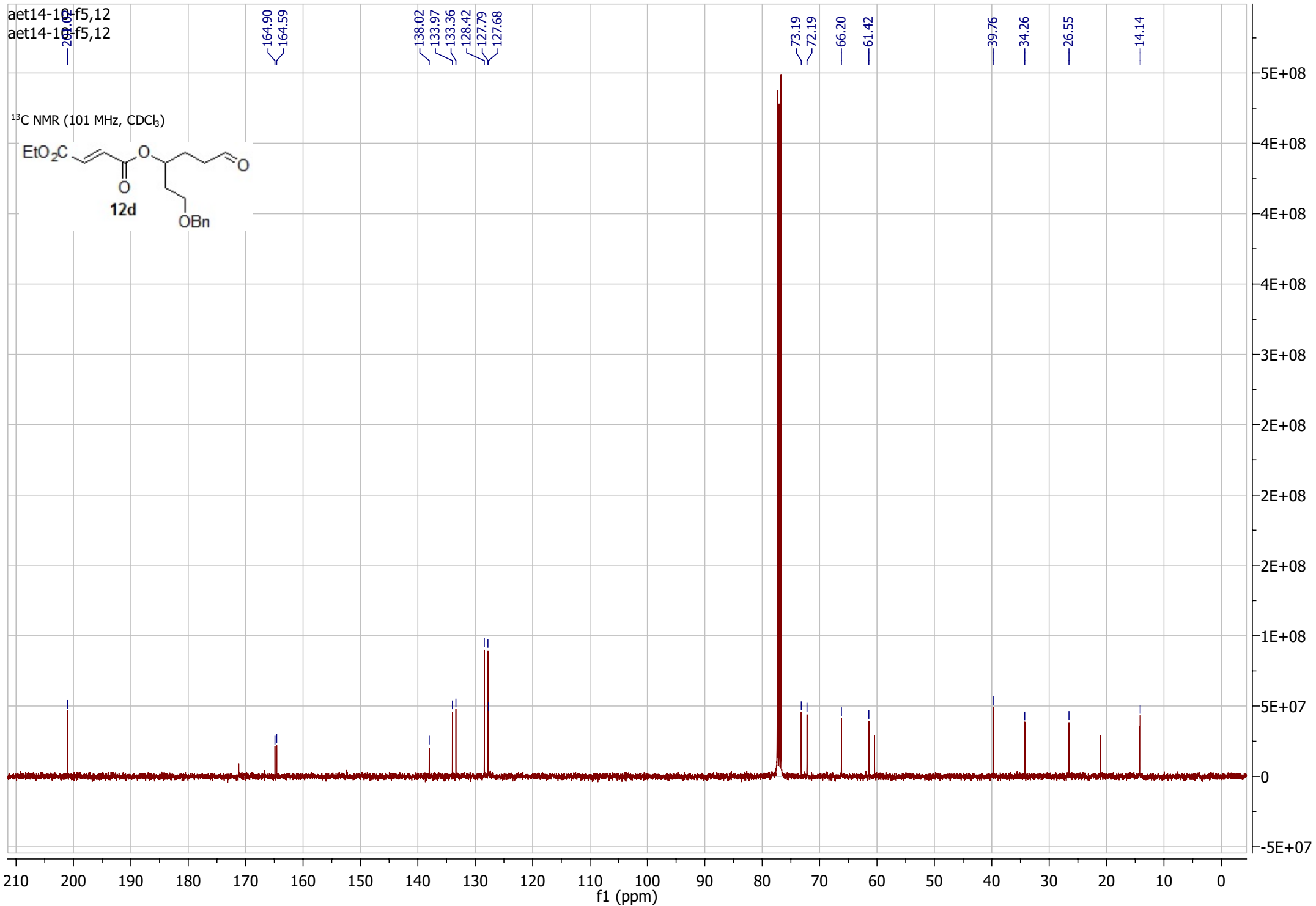
HMQC (CDCl₃)

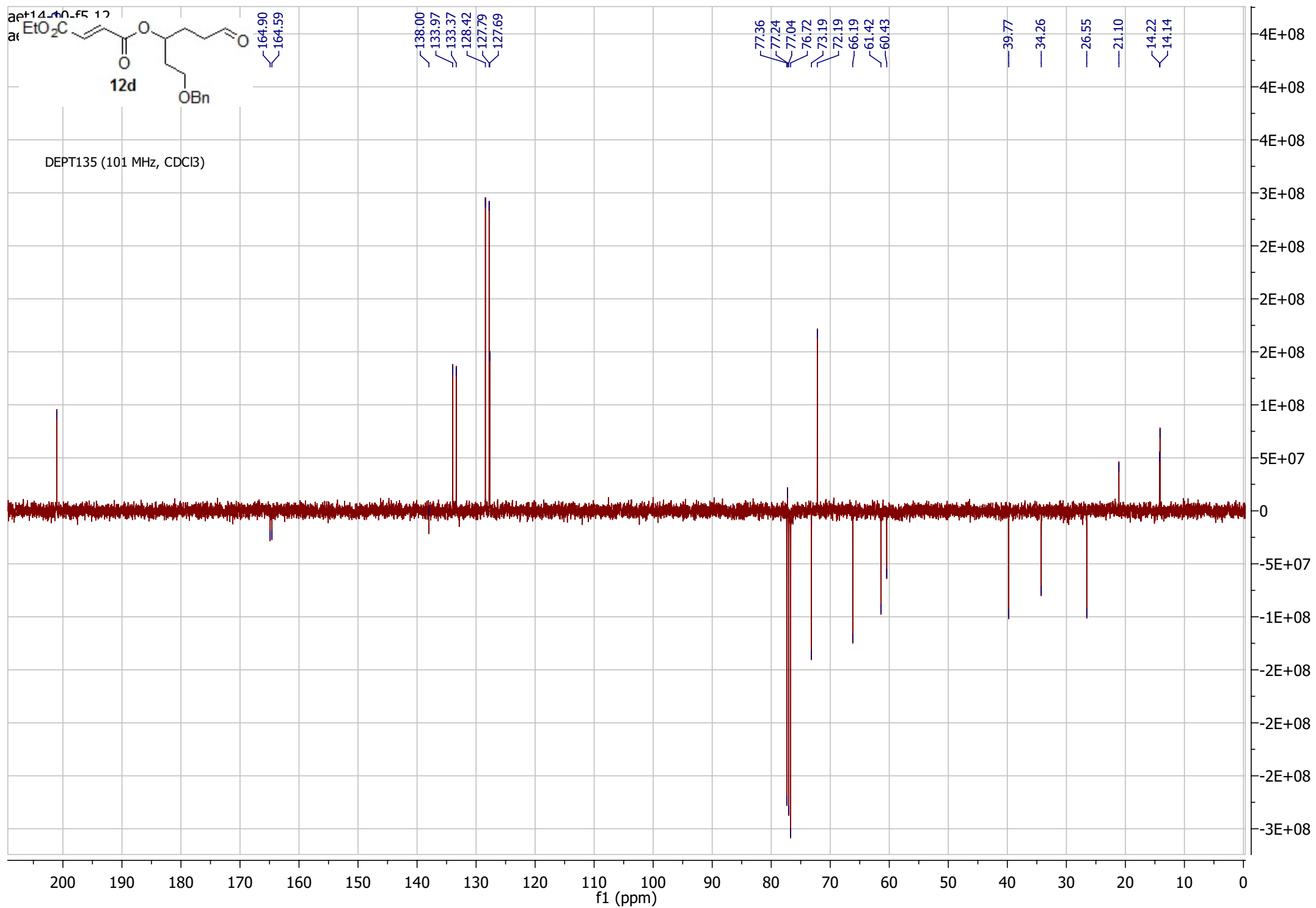


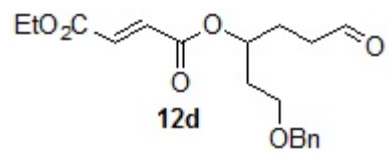
aet14-10-f5,12
aet14-10-f5,12

¹H NMR (400 MHz, CDCl₃)

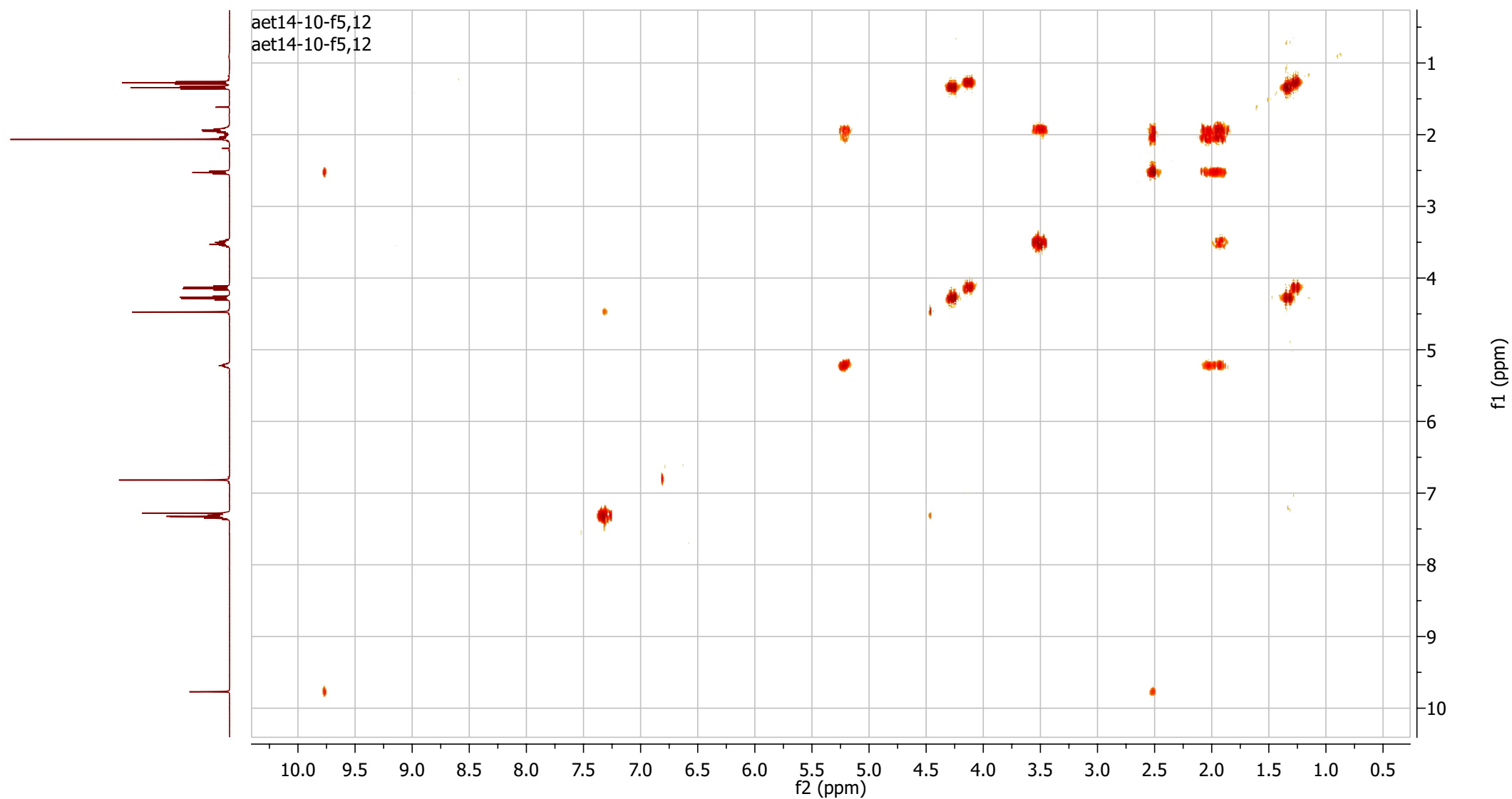


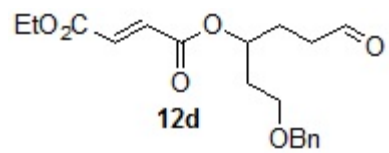




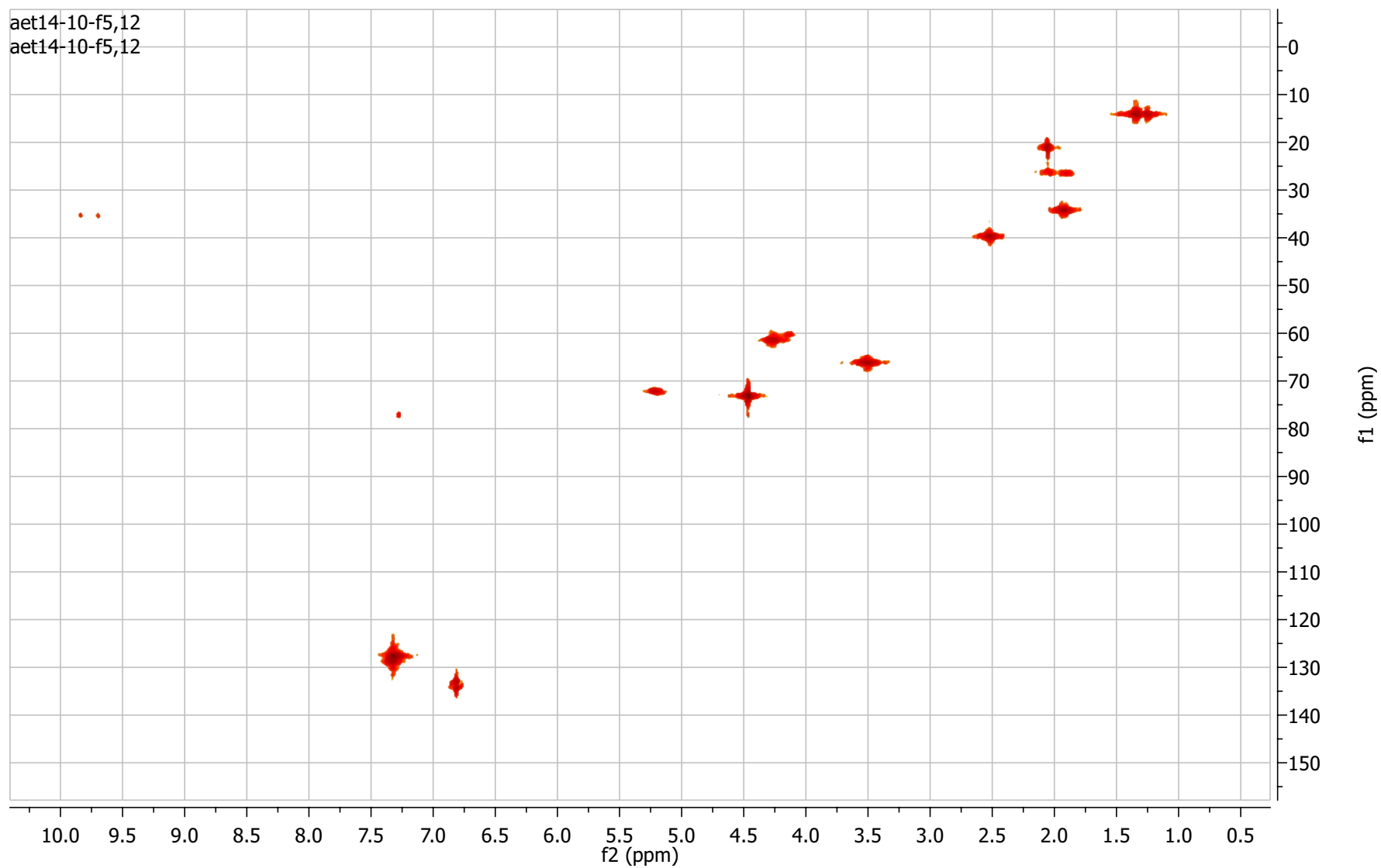


COSY (400 MHz, CDCl₃)



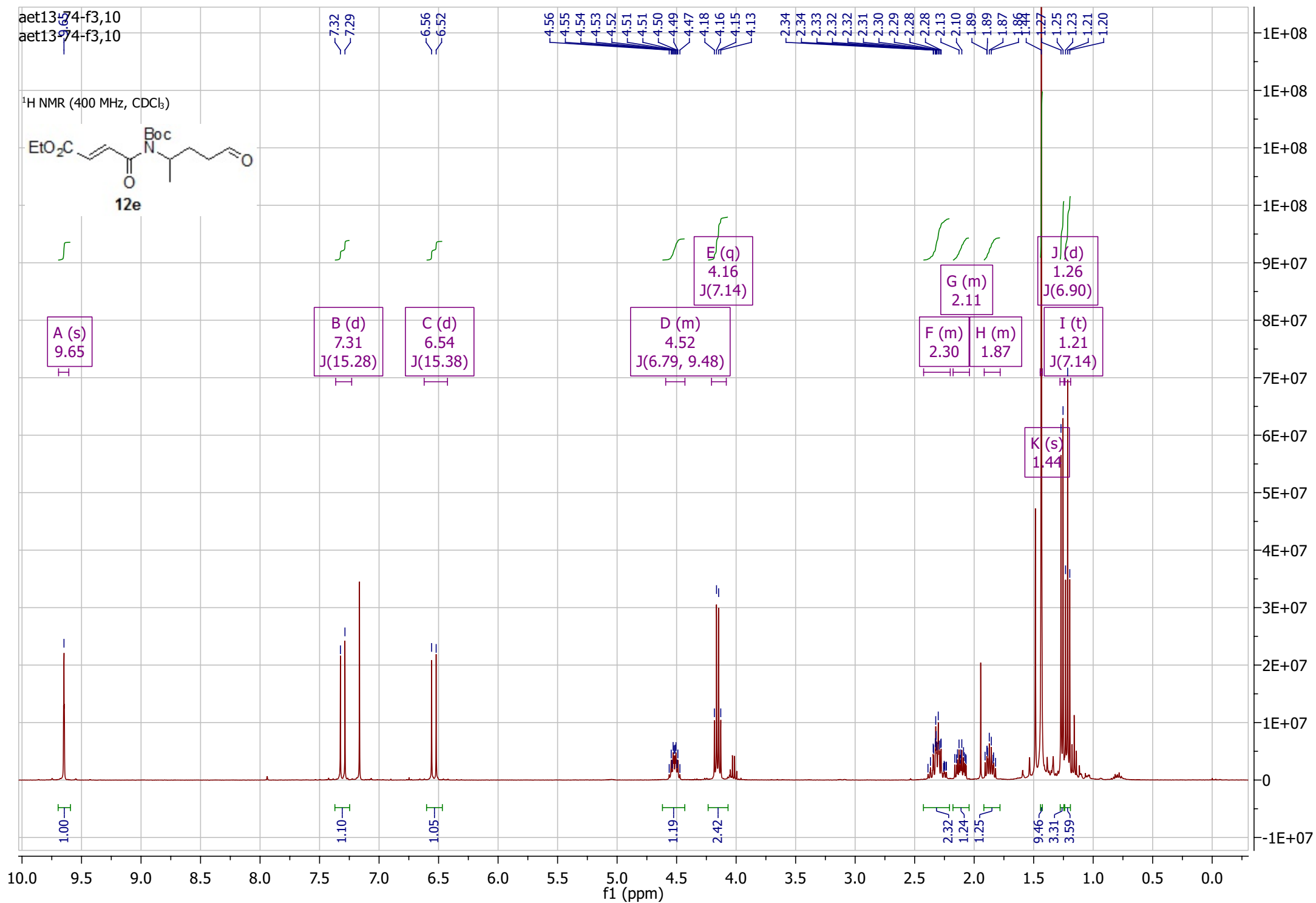
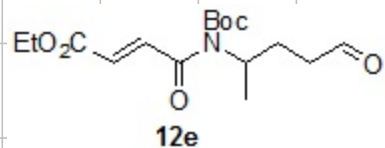


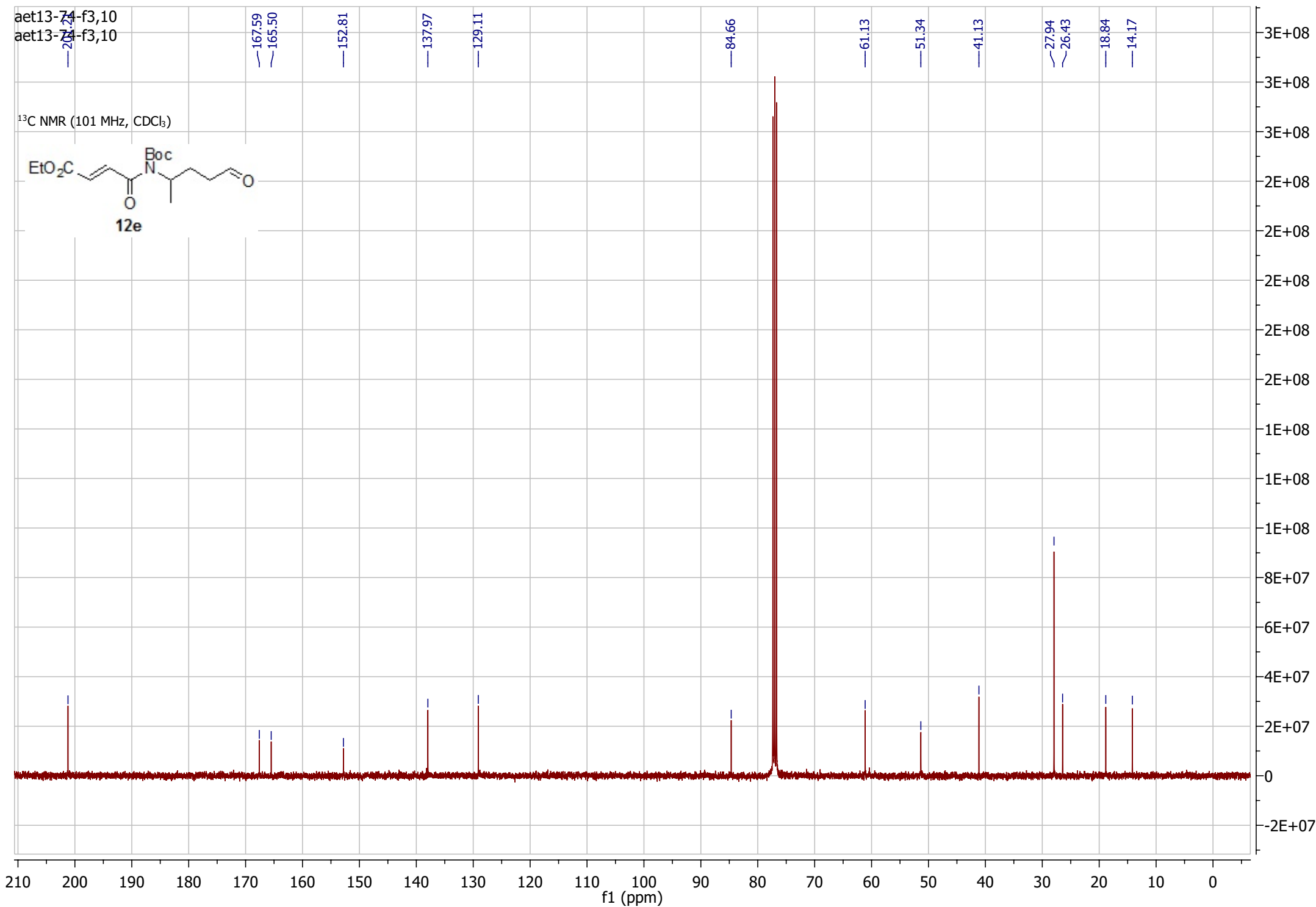
HMQC (CDCl₃)

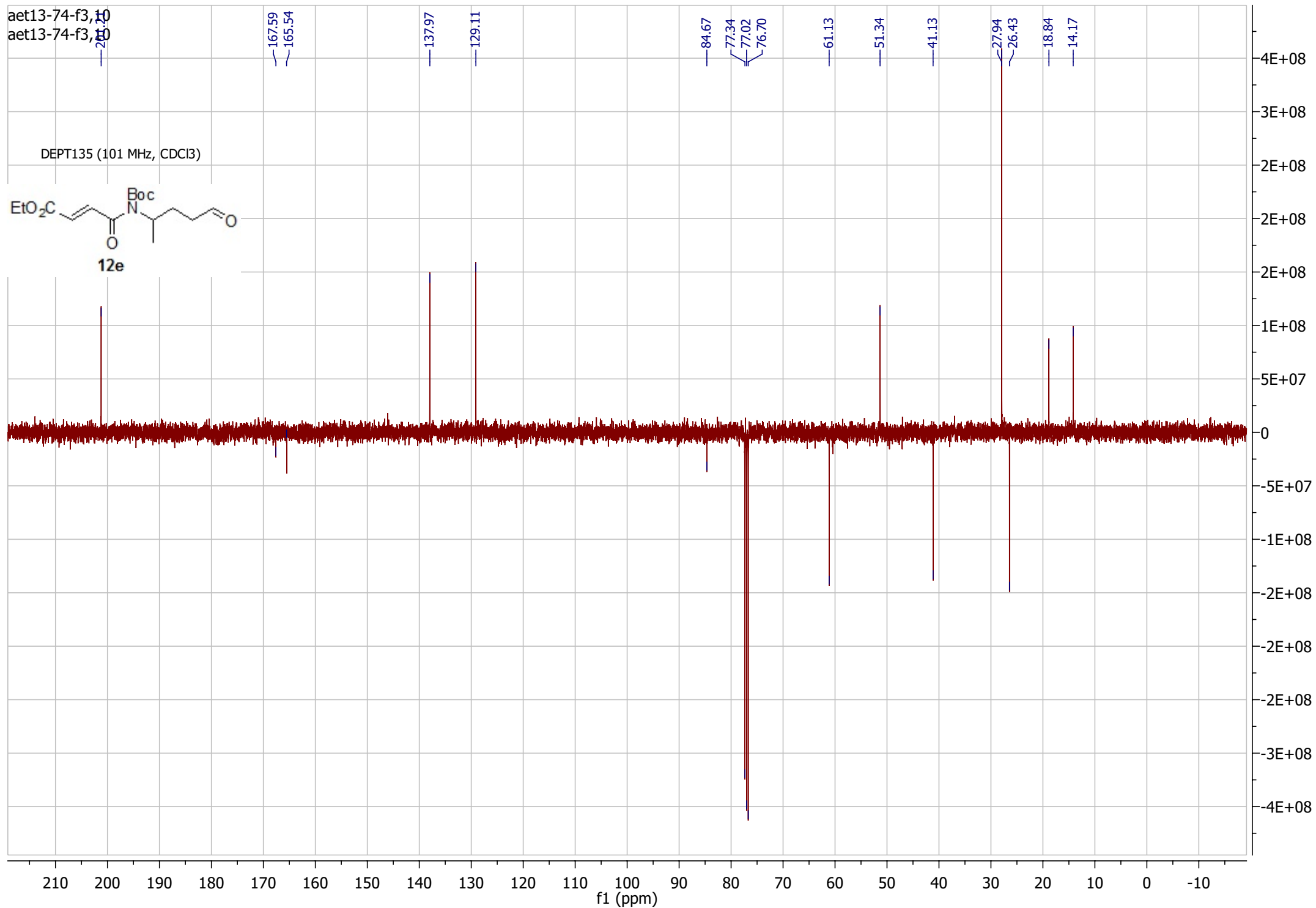


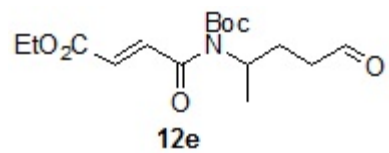
aet1374-f3,10
aet1374-f3,10

¹H NMR (400 MHz, CDCl₃)

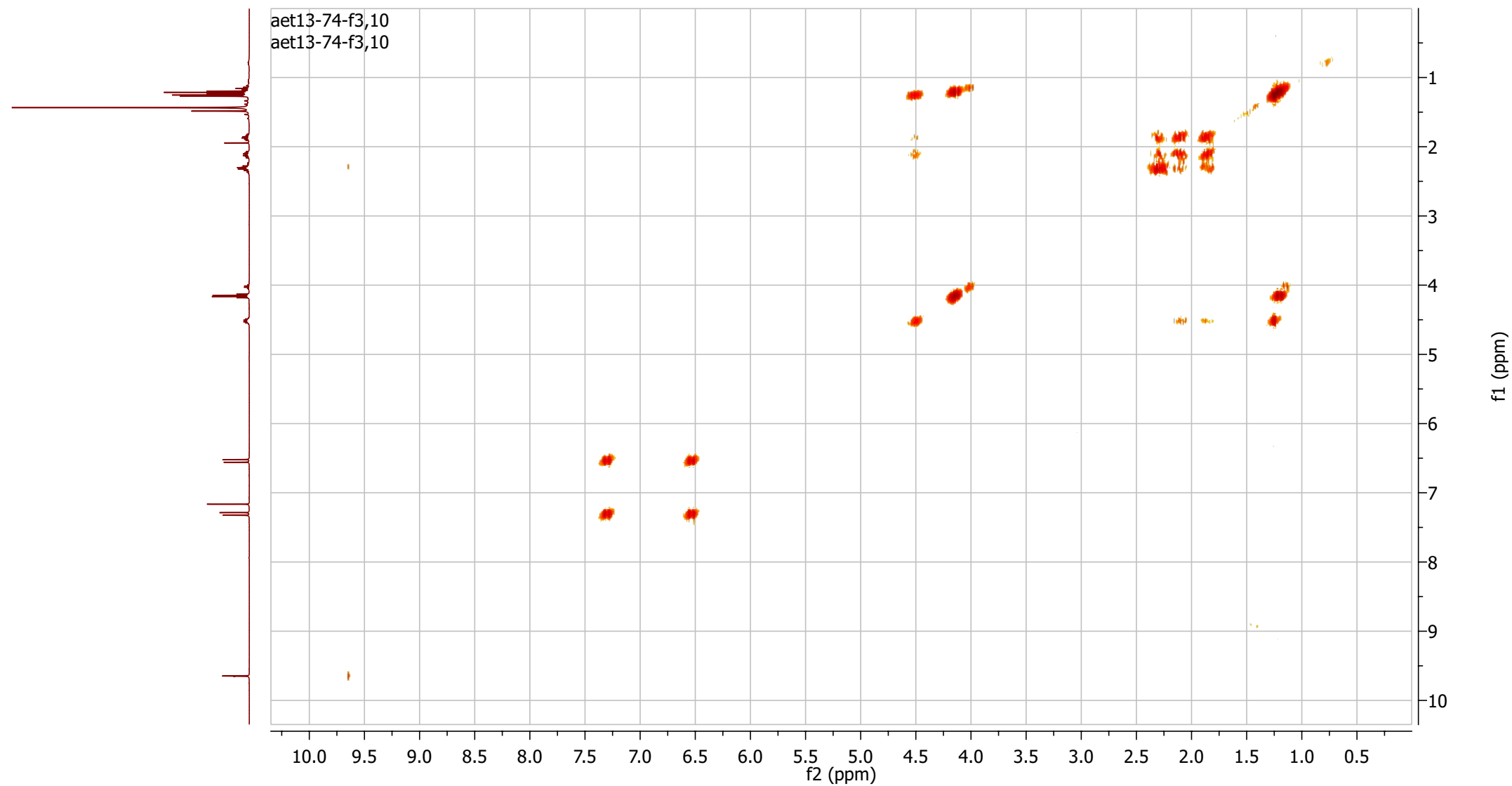


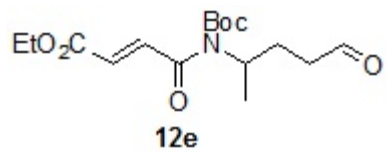




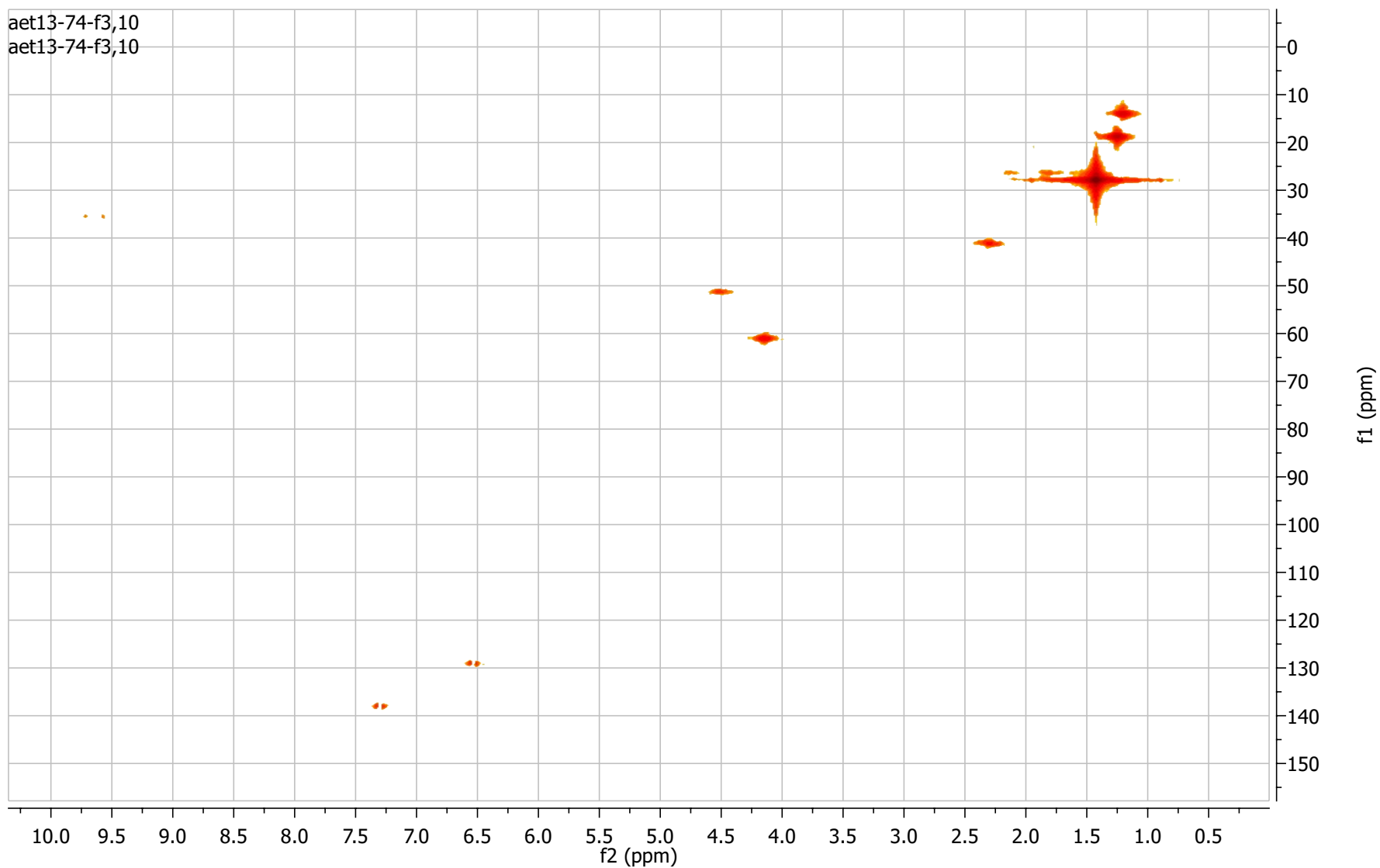


COSY (400 MHz, CDCl₃)



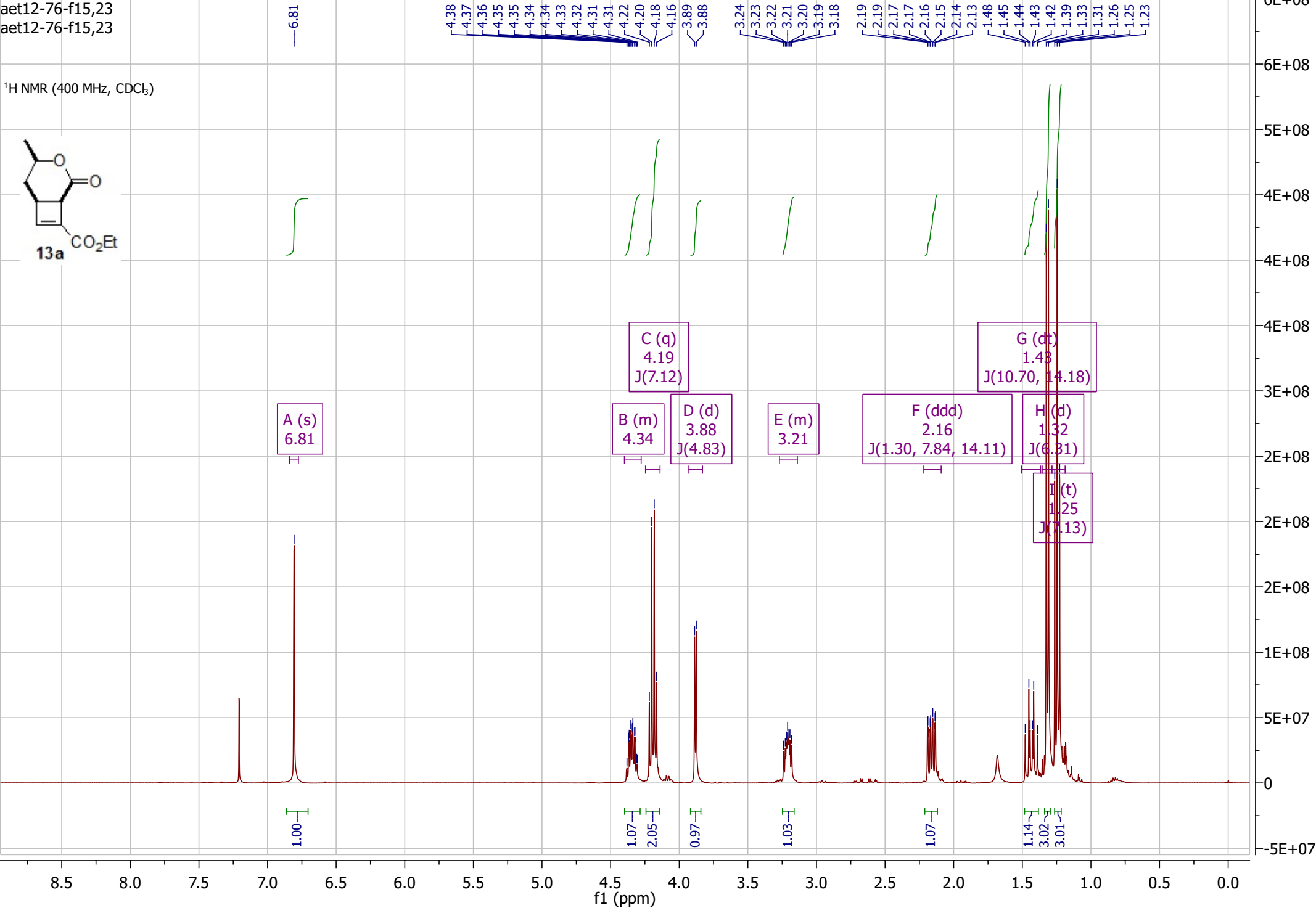
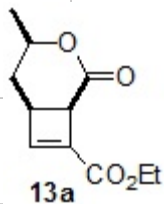


HMQC (CDCl₃)



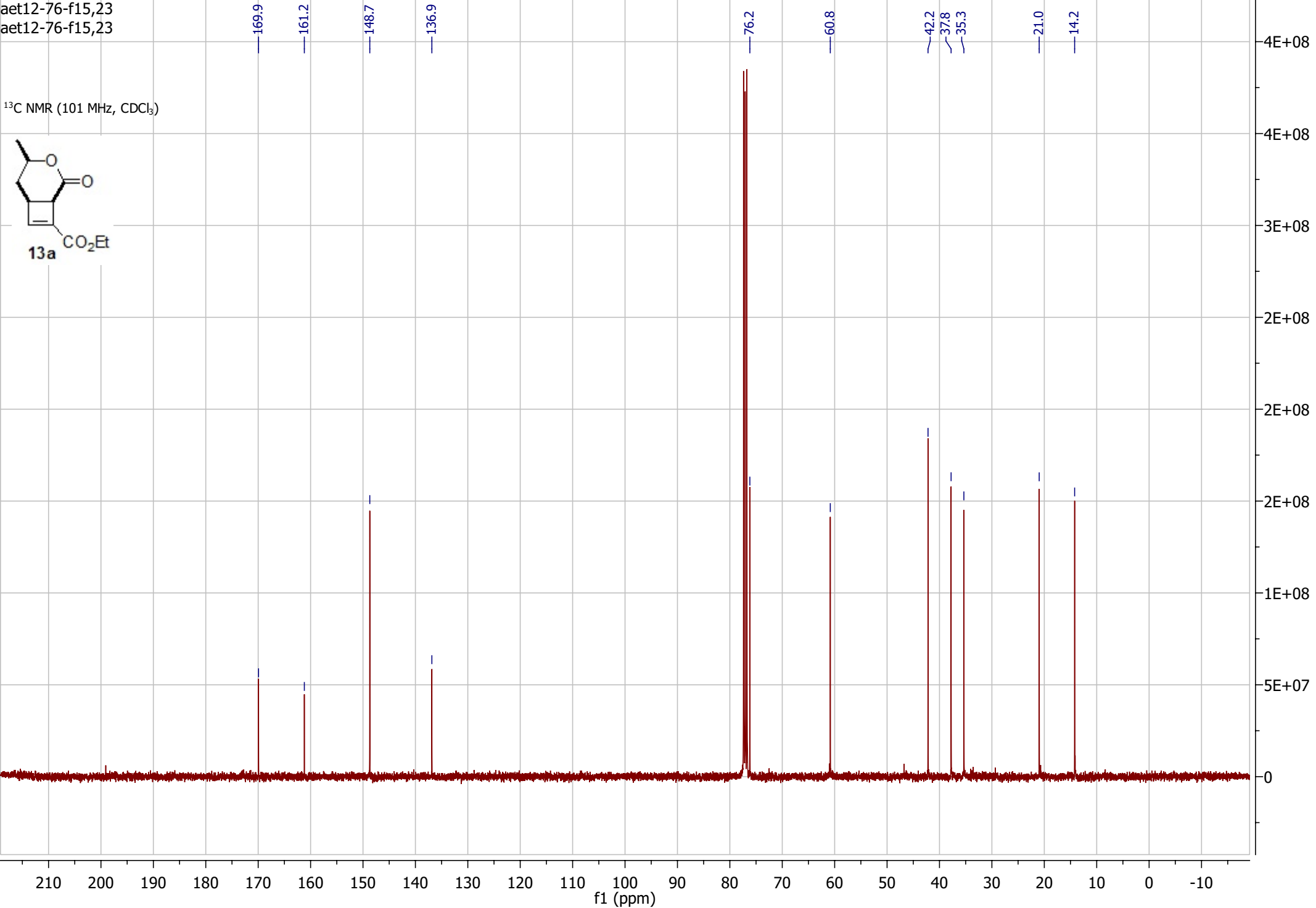
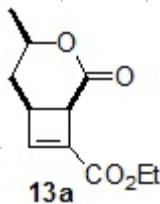
aet12-76-f15,23
aet12-76-f15,23

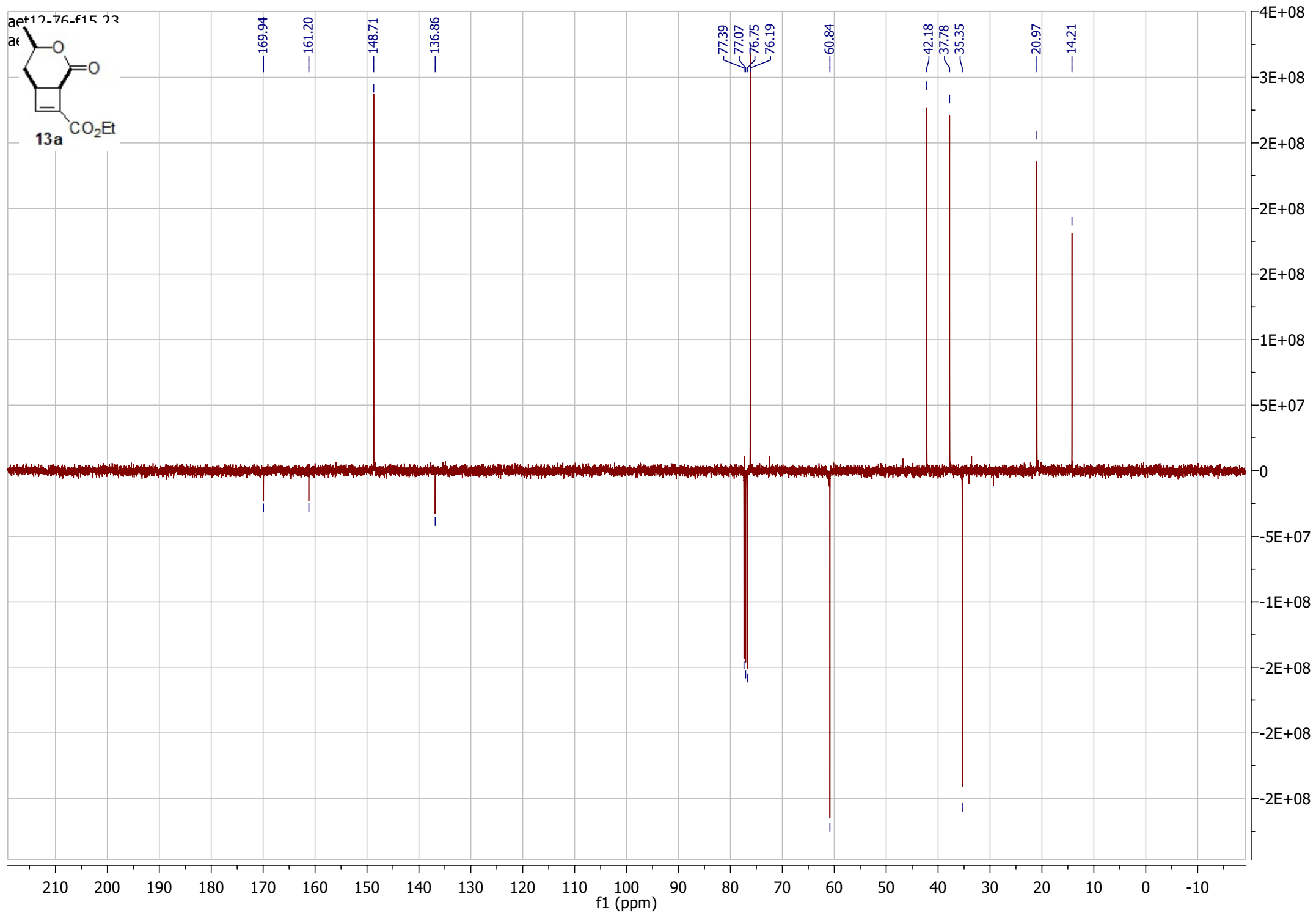
¹H NMR (400 MHz, CDCl₃)

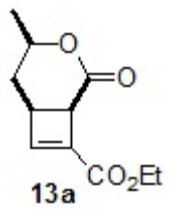


aet12-76-f15,23
aet12-76-f15,23

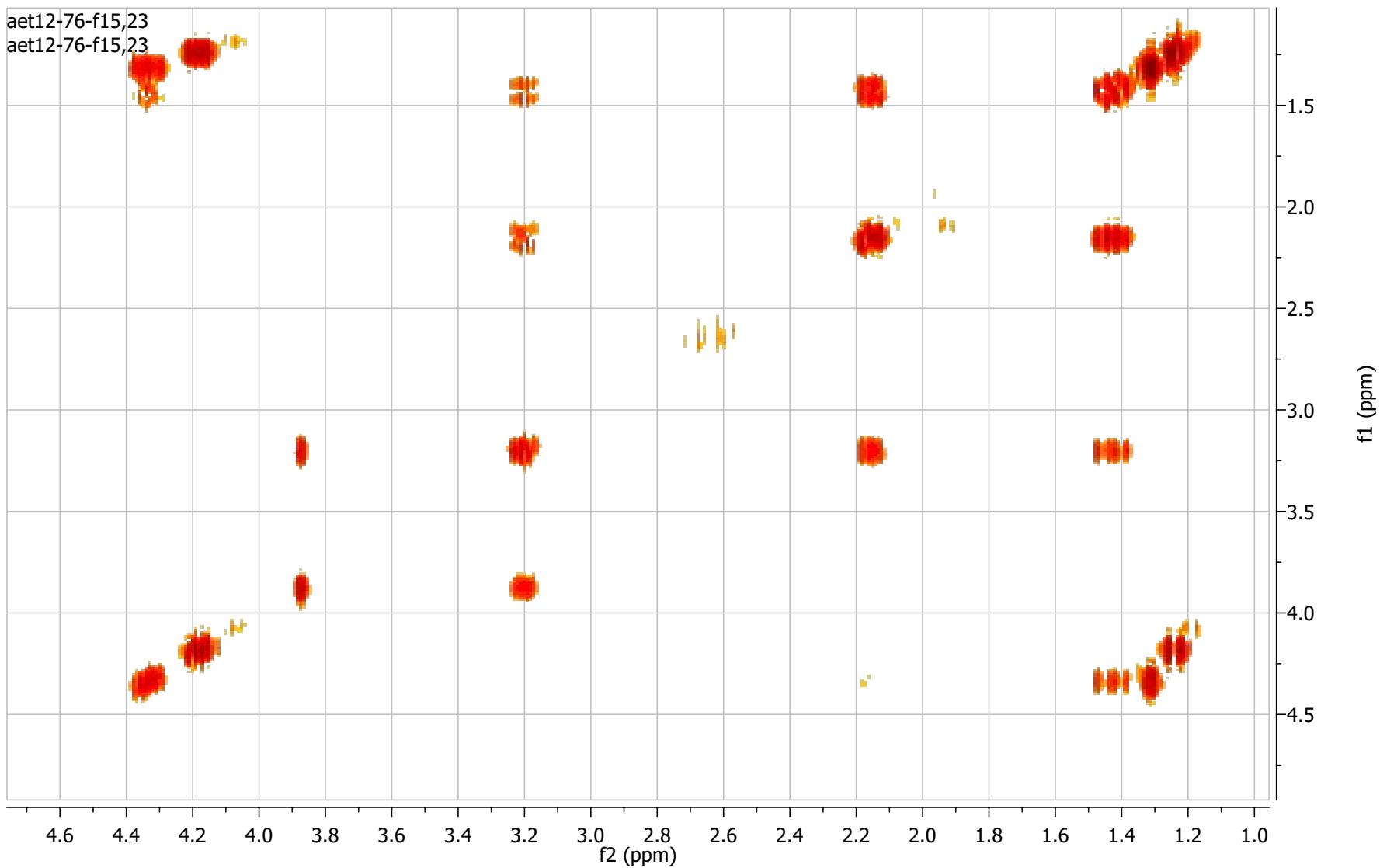
¹³C NMR (101 MHz, CDCl₃)

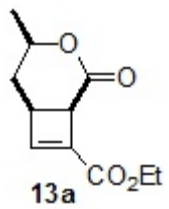




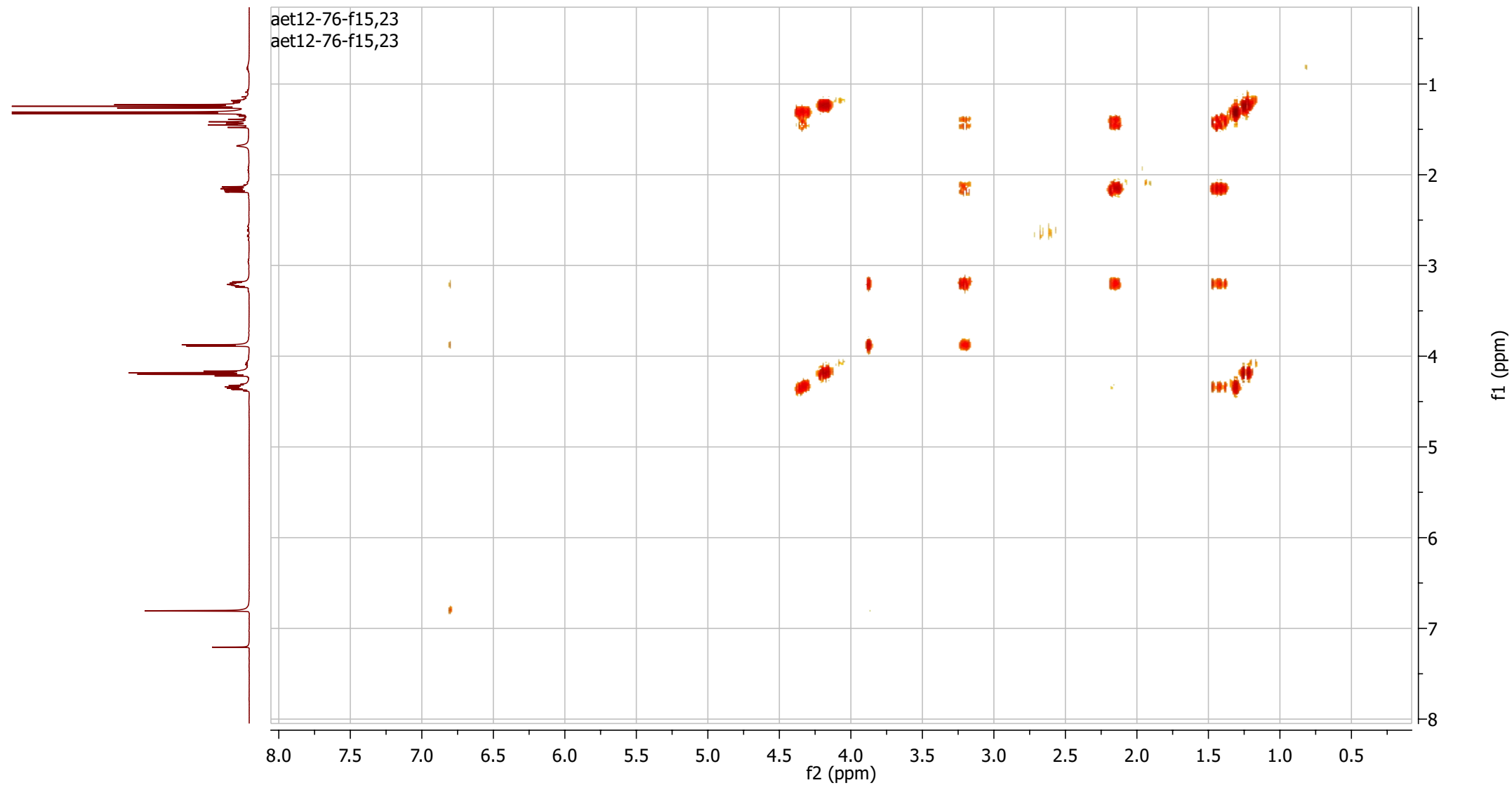


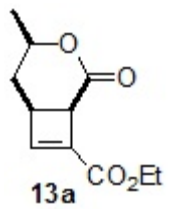
COSY (400 MHz, CDCl₃)



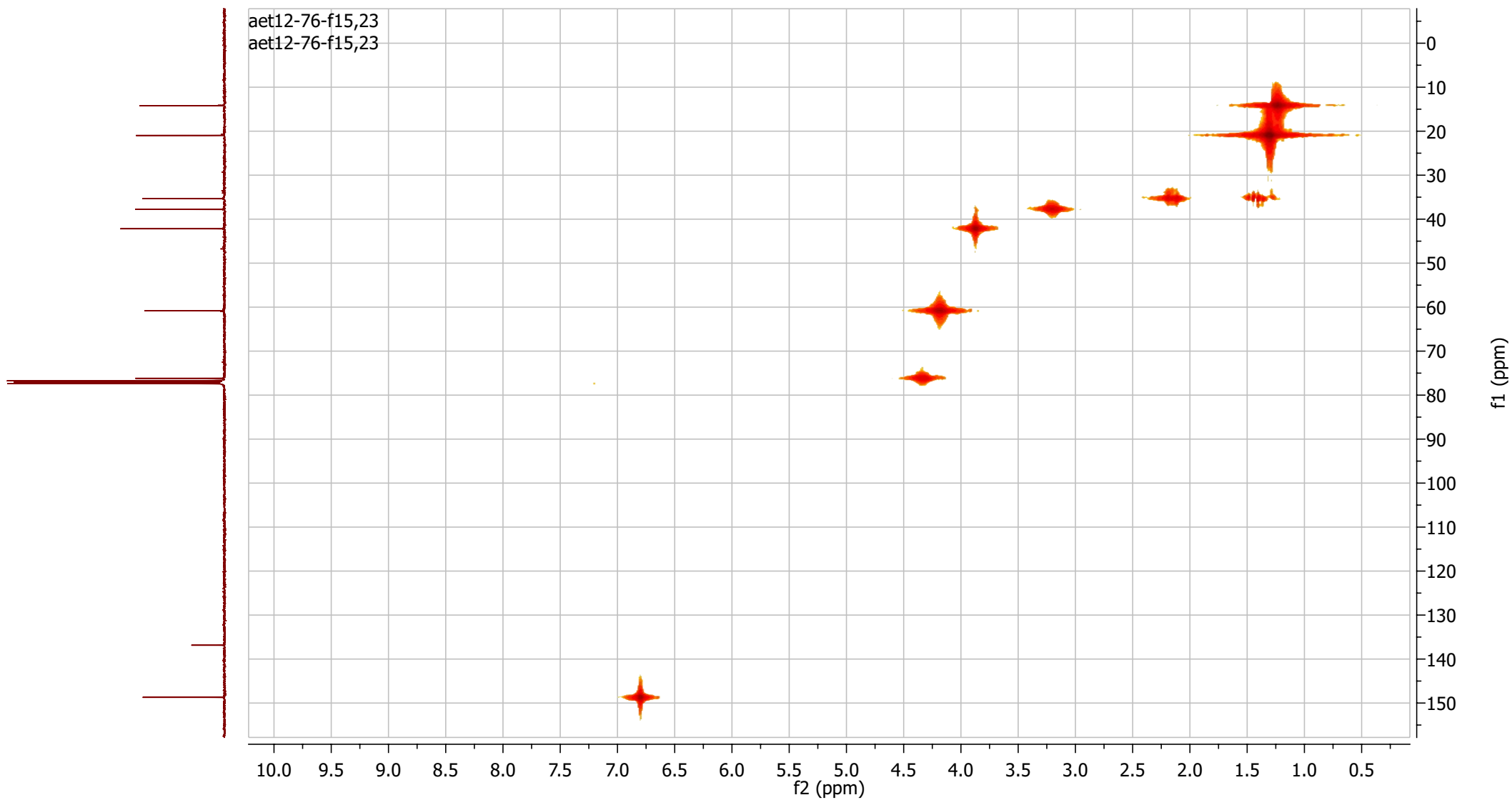


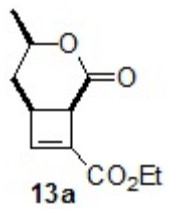
COSY (400 MHz, CDCl₃)



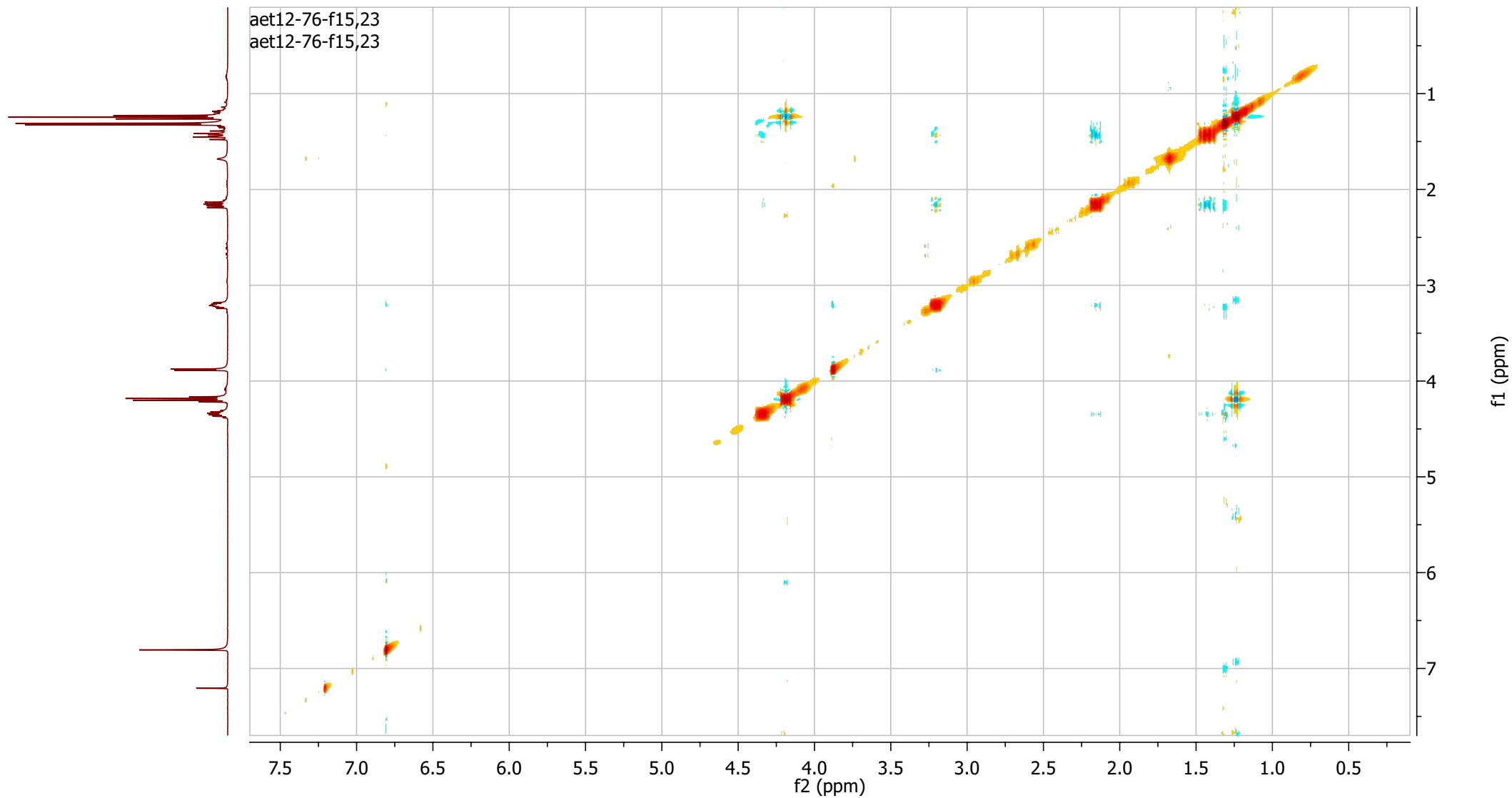


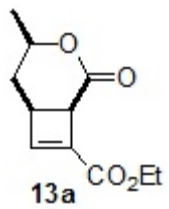
HMQC (CDCl₃)



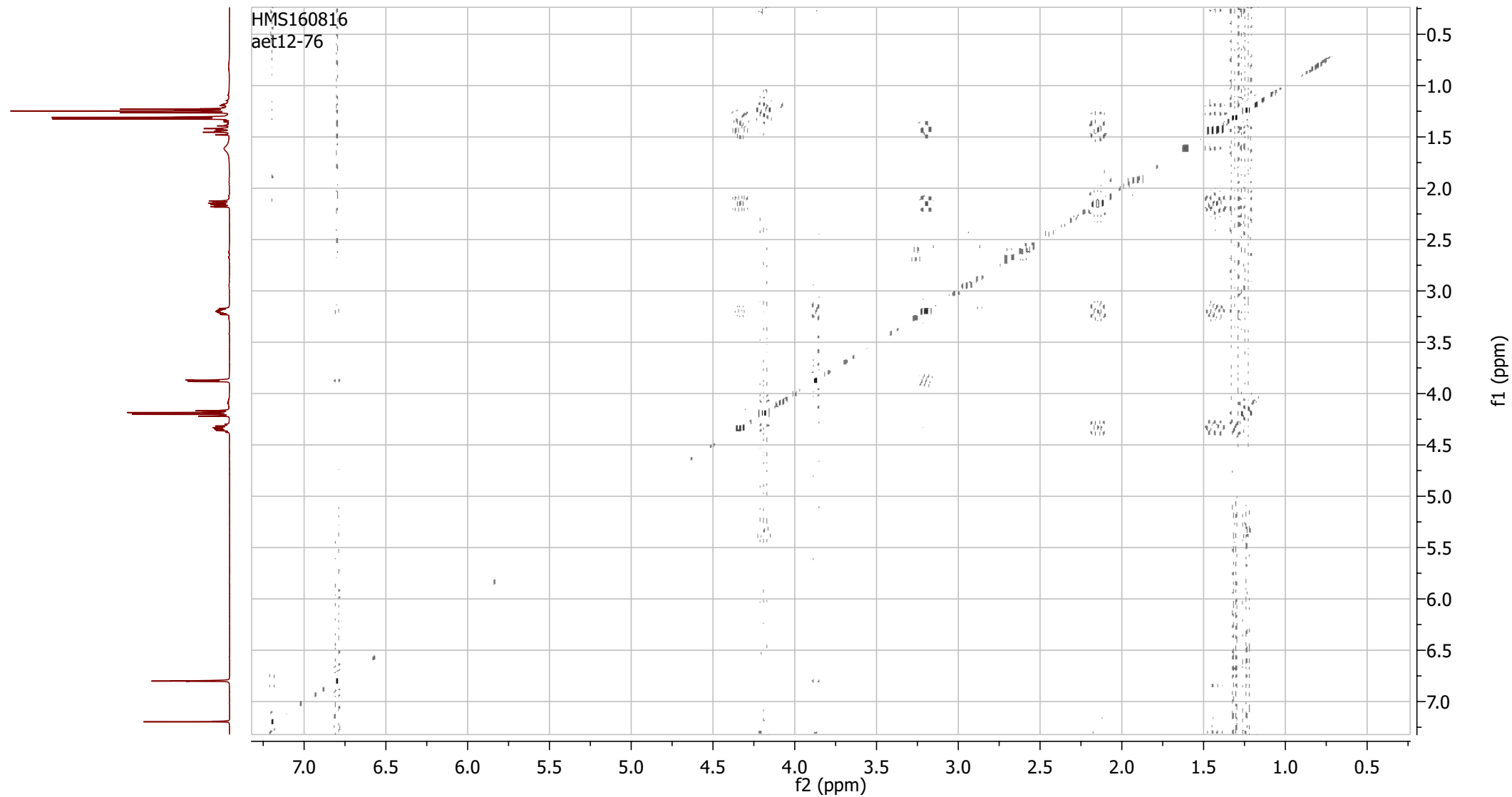


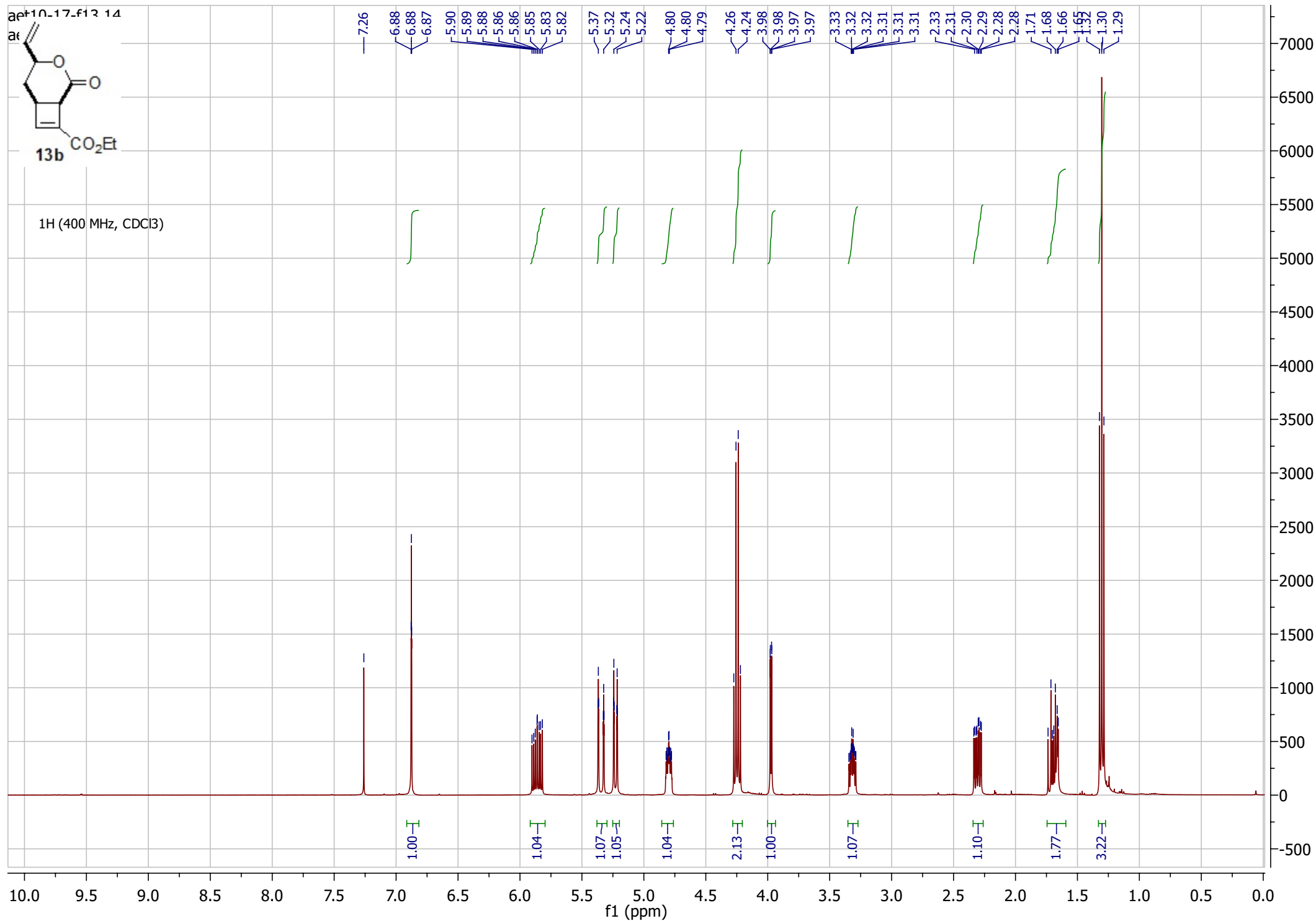
NOESY (400 MHz, CDCl₃)

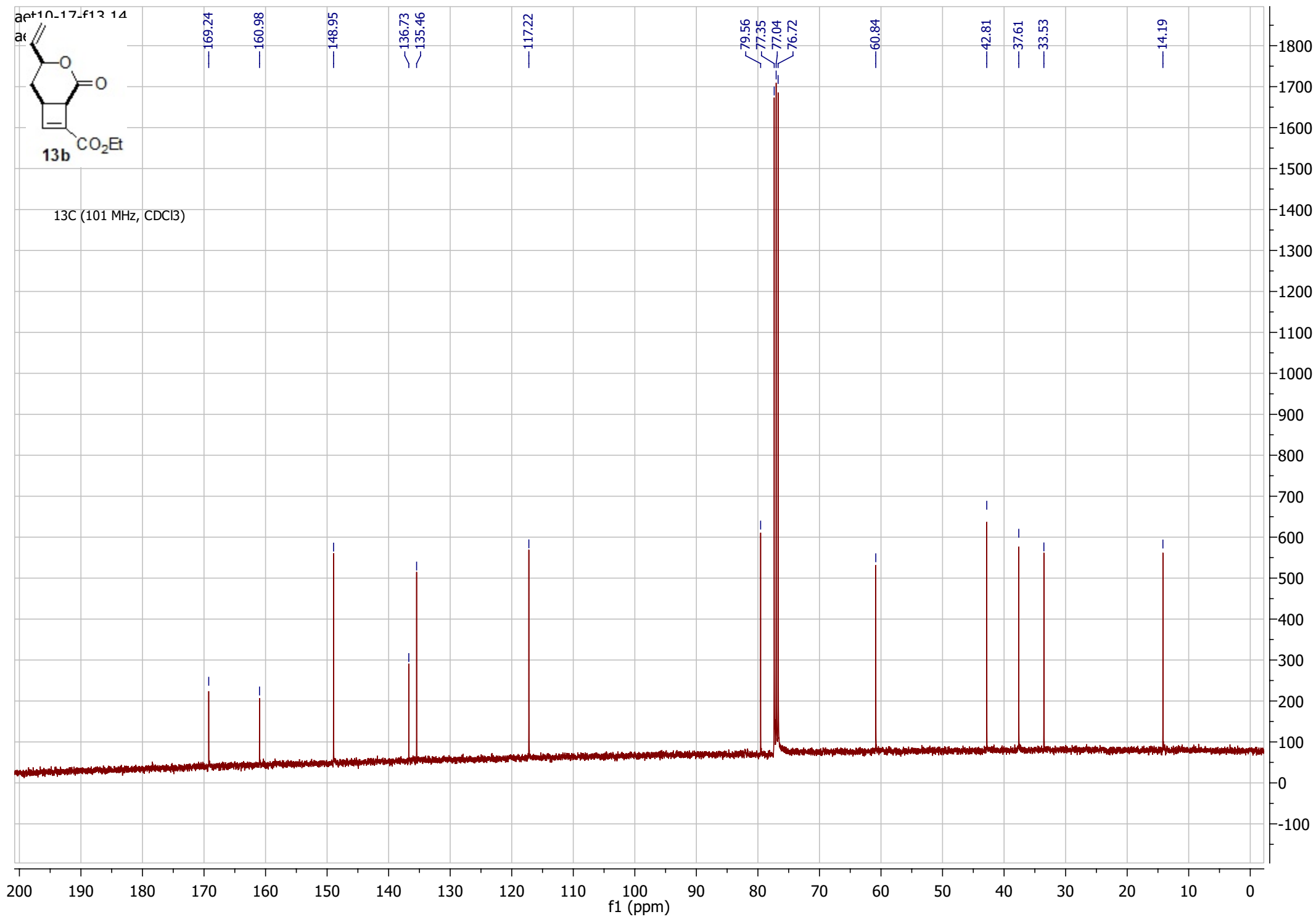


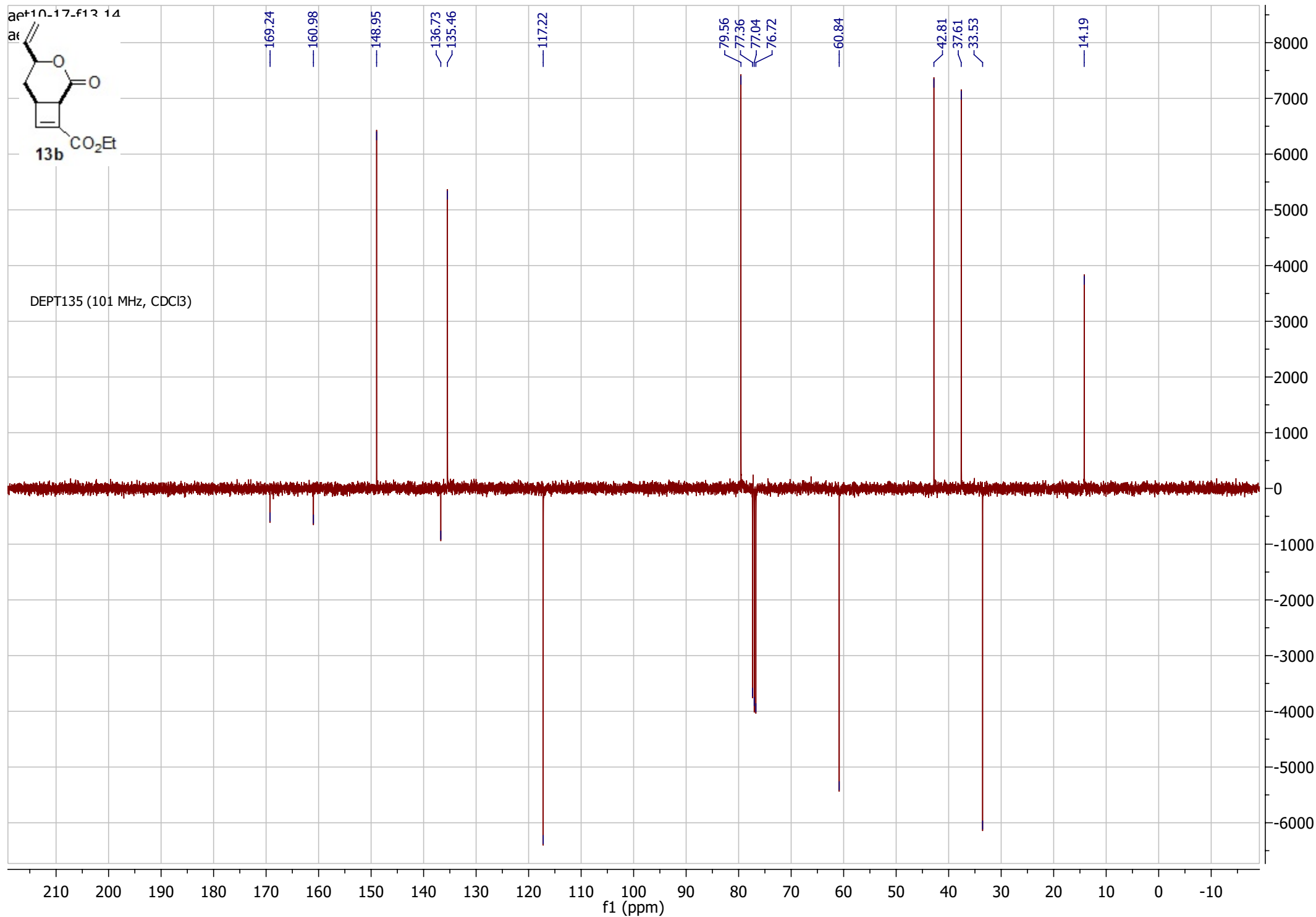


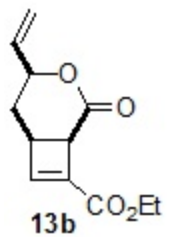
NOESY (400 MHz, CDCl₃)



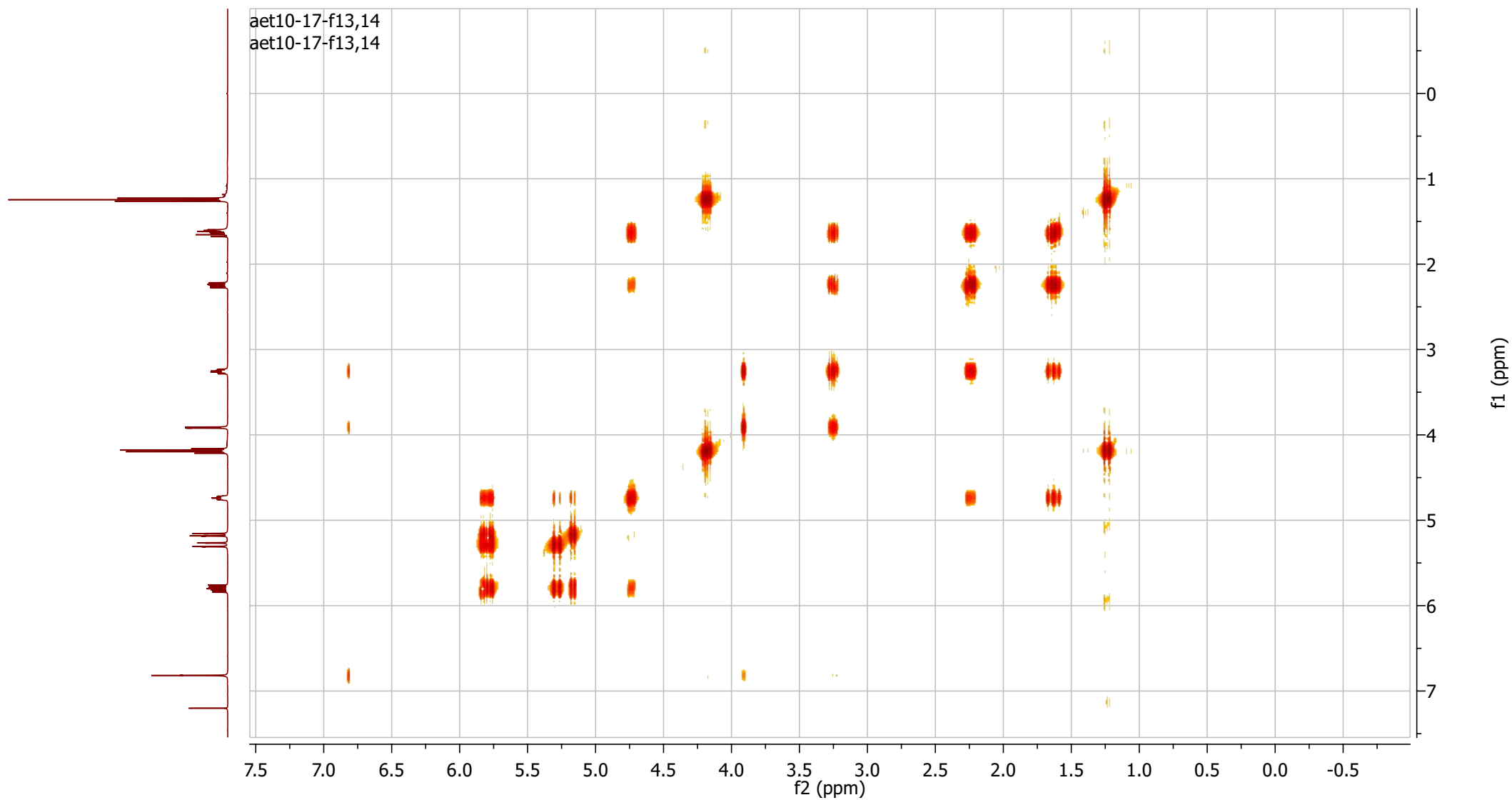


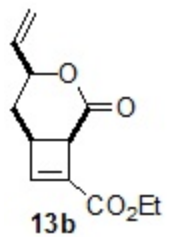




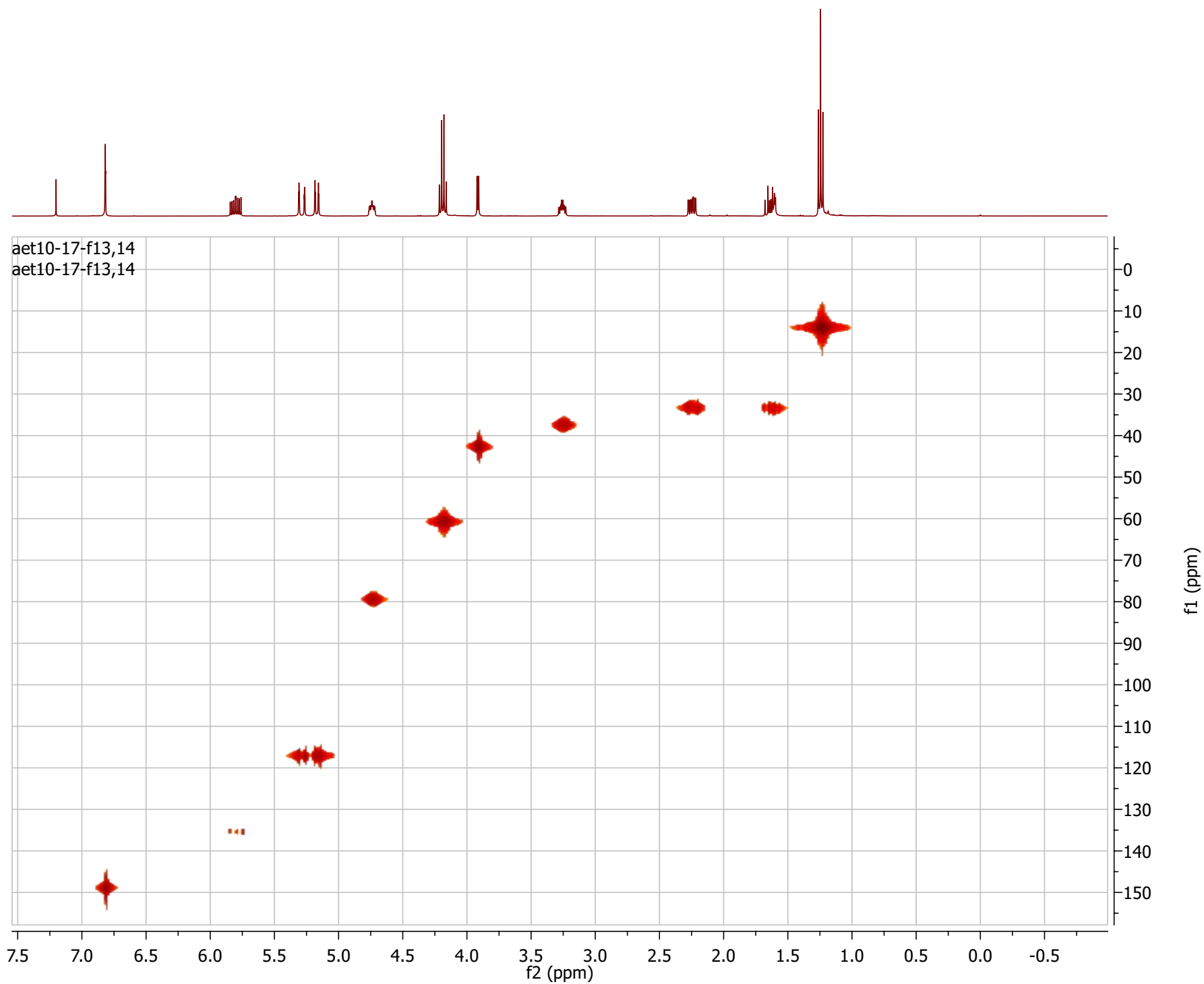


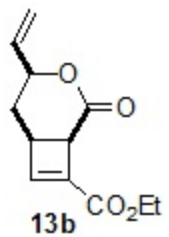
COSY (400 MHz, CDCl₃)



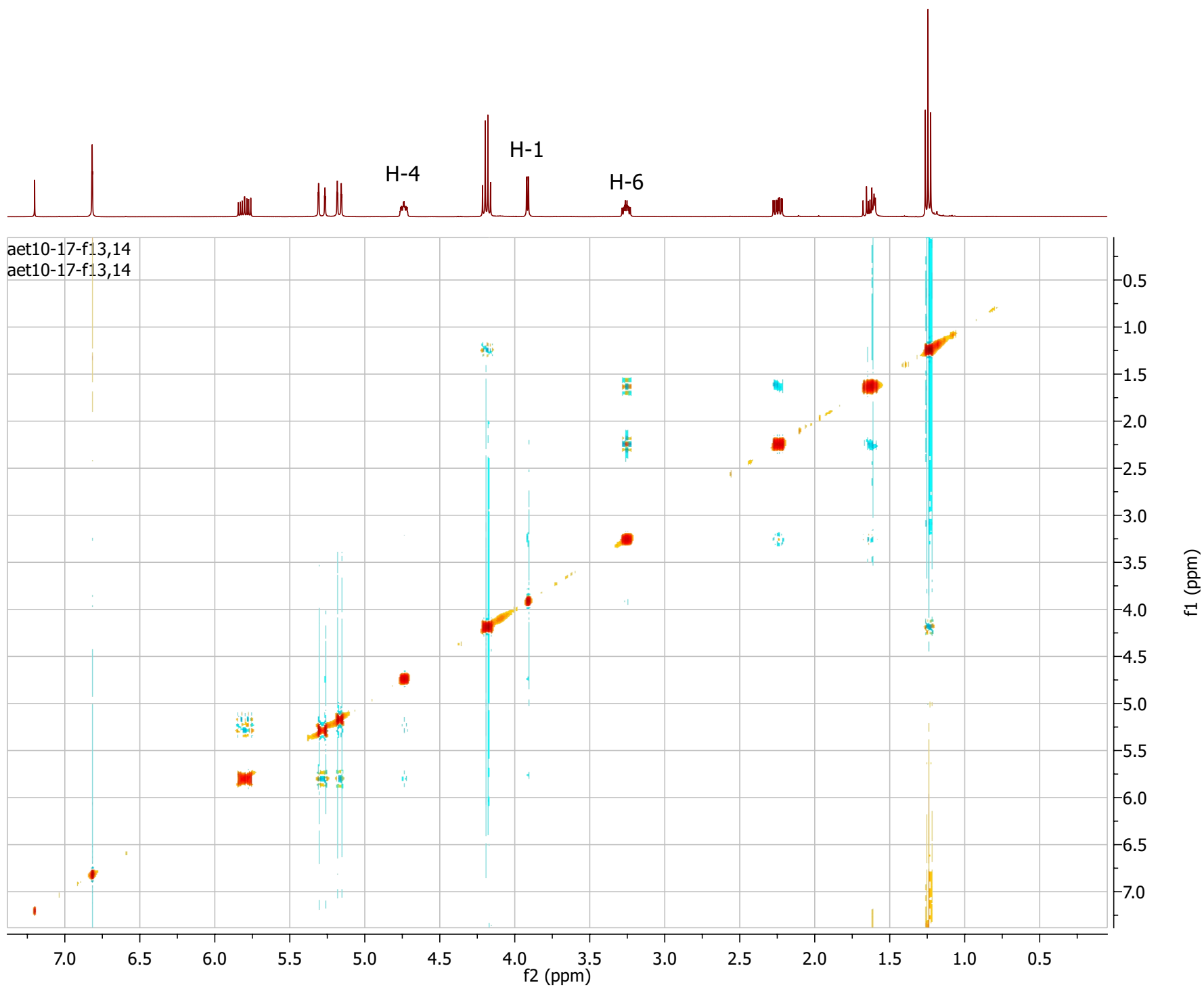


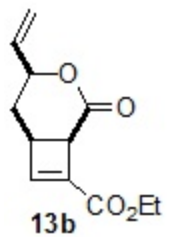
HMQC (CDCl₃)



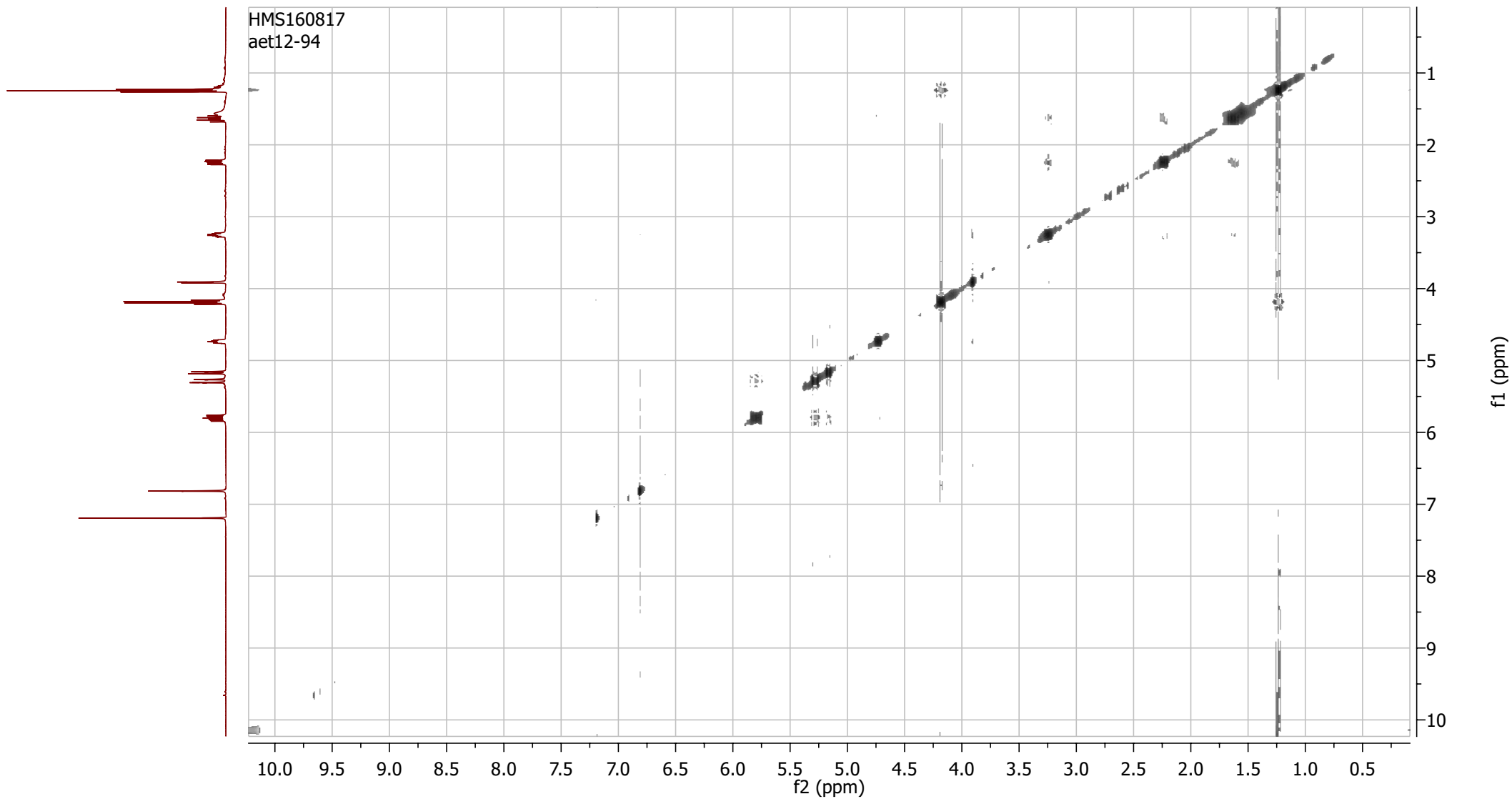


NOESY (400 MHz, CDCl₃)



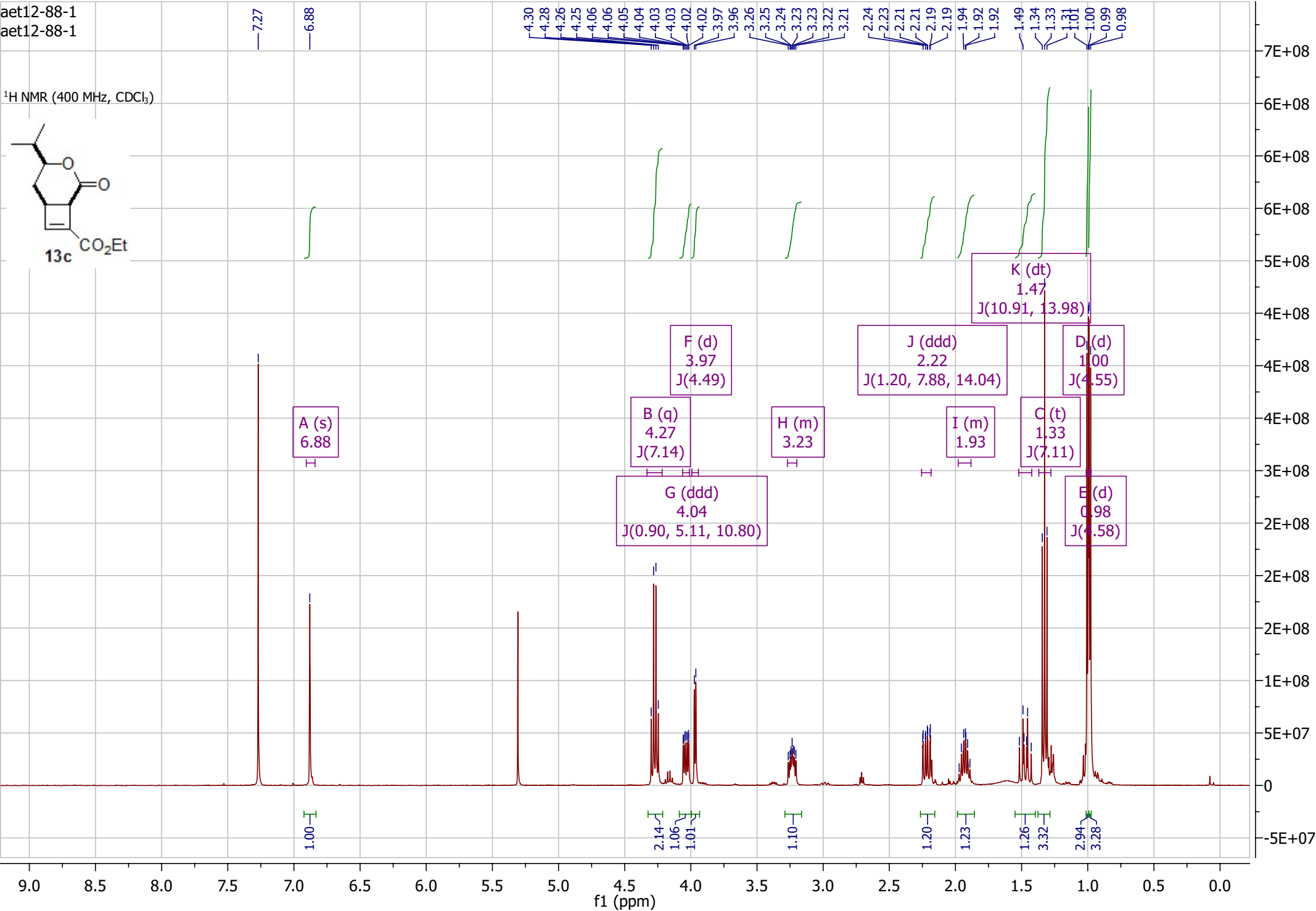
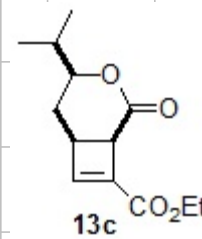


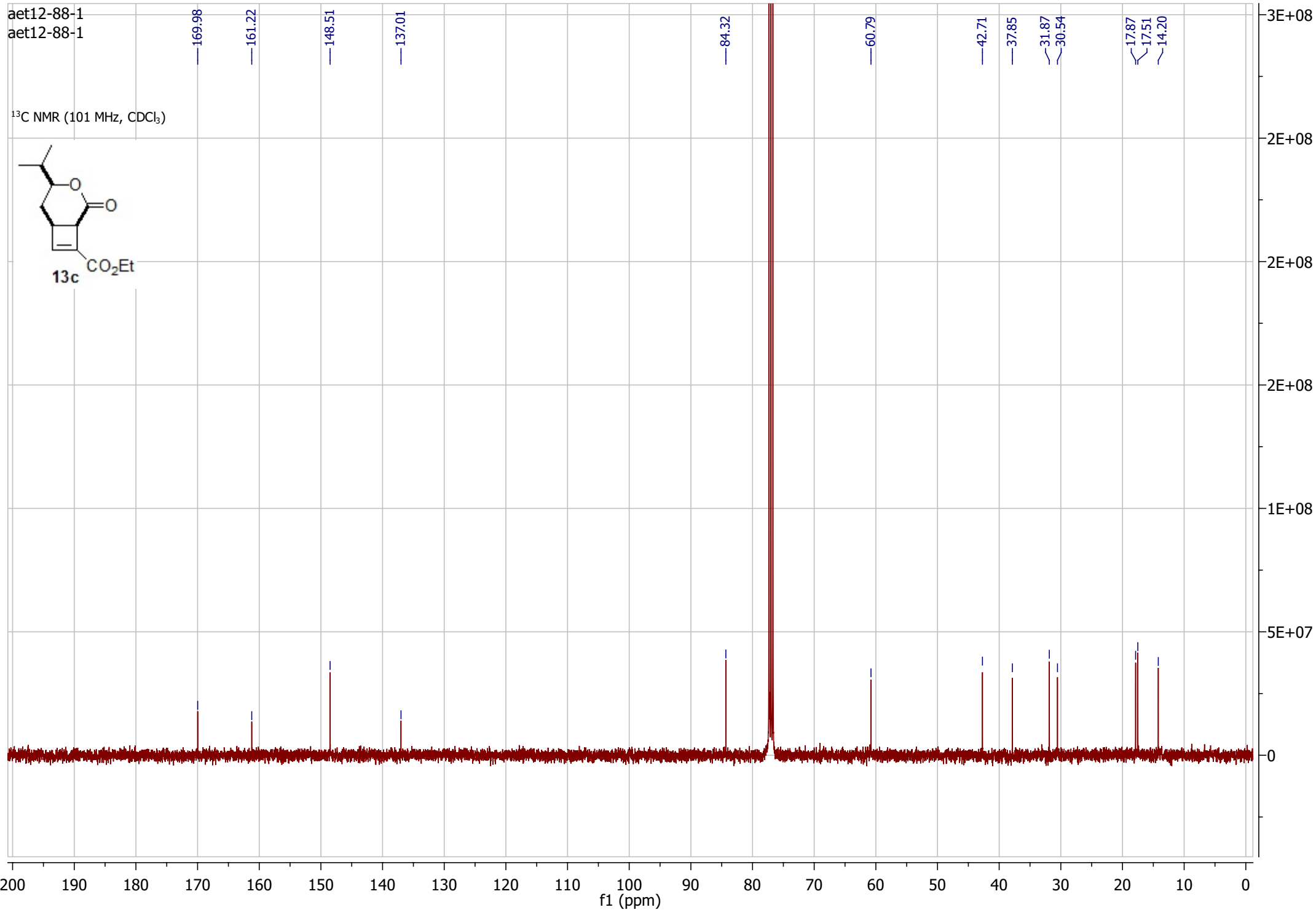
NOESY (400 MHz, CDCl₃)

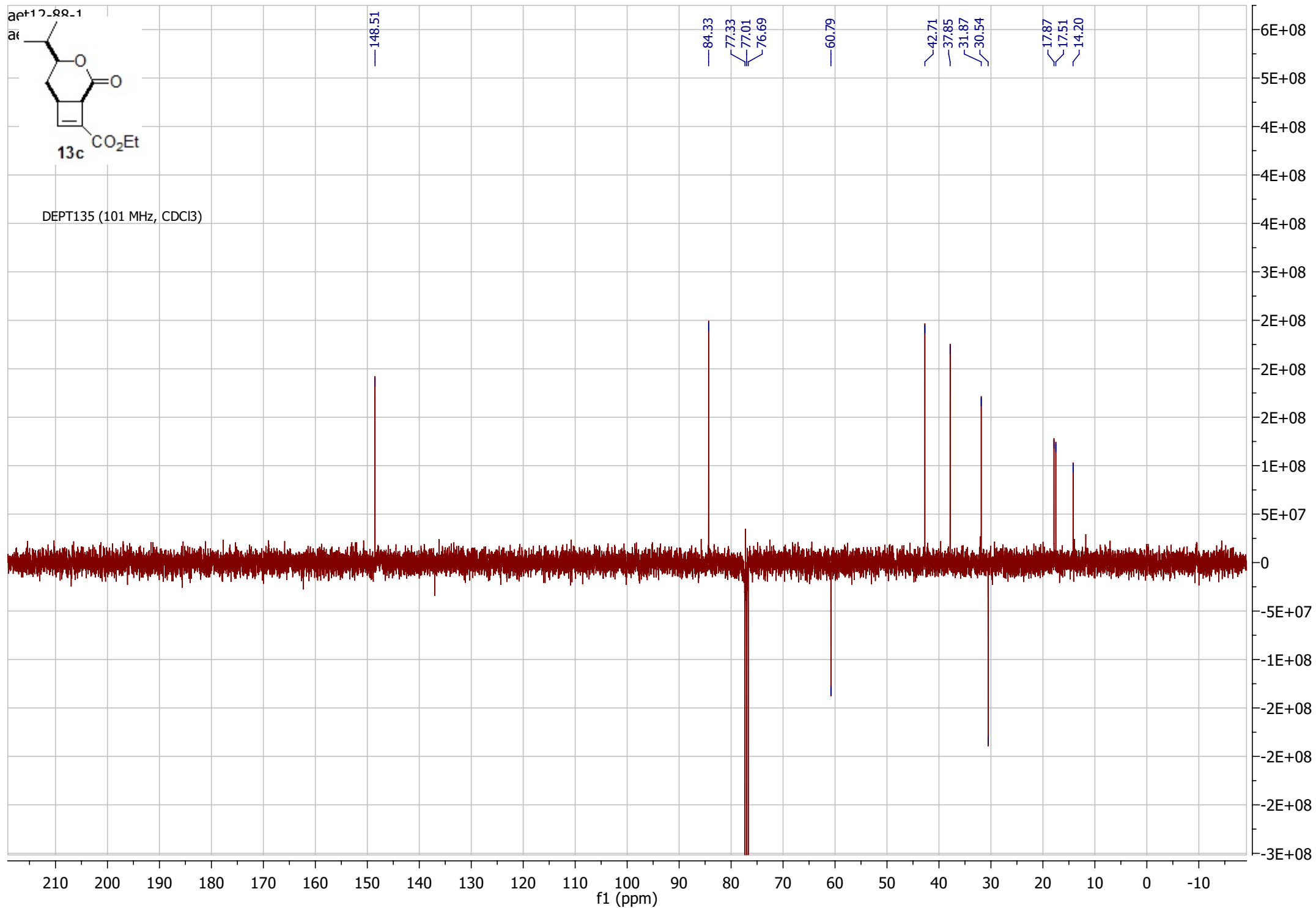


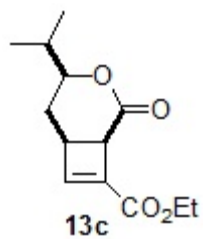
aet12-88-1
aet12-88-1

¹H NMR (400 MHz, CDCl₃)

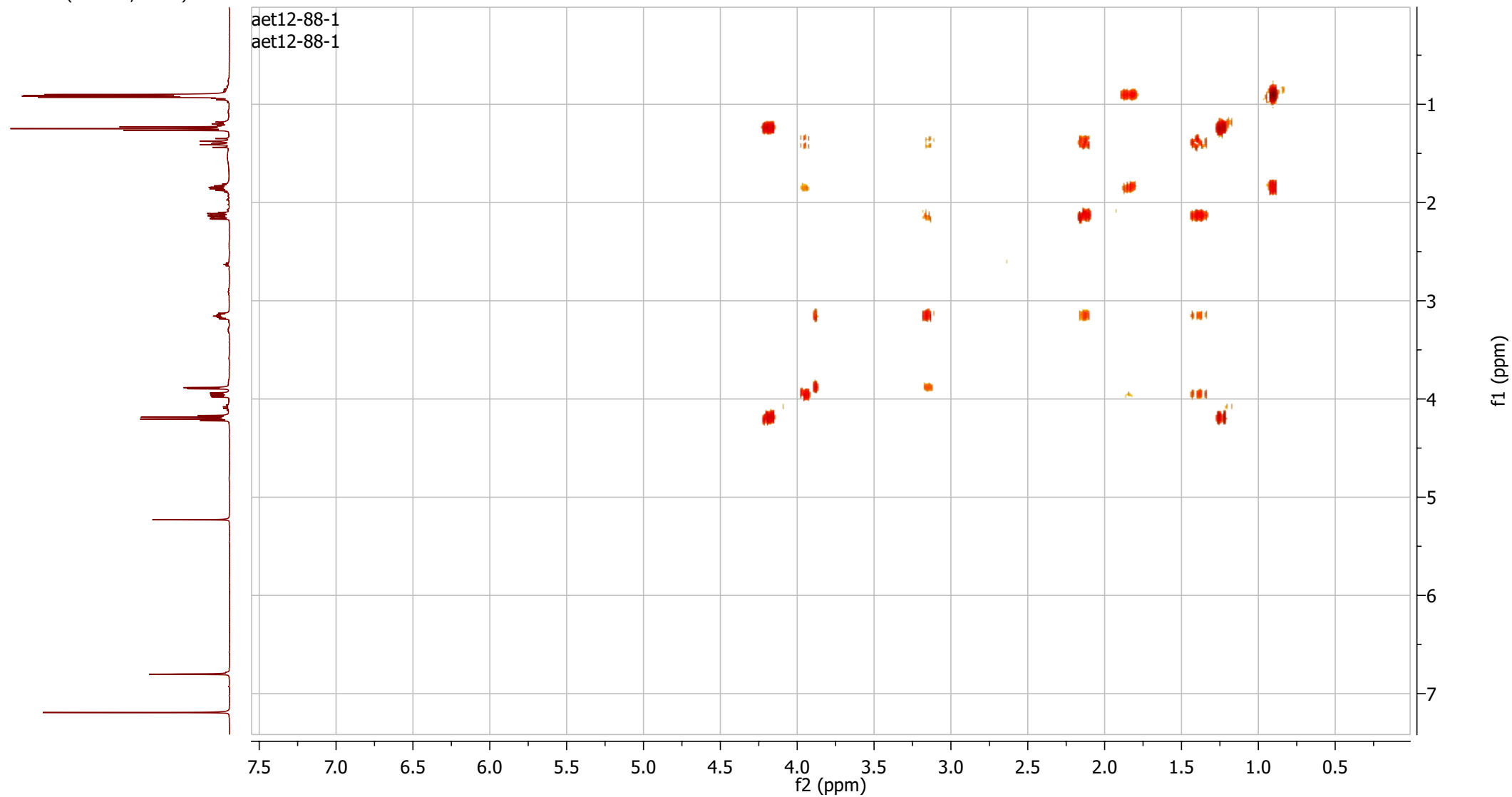


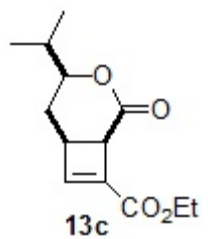




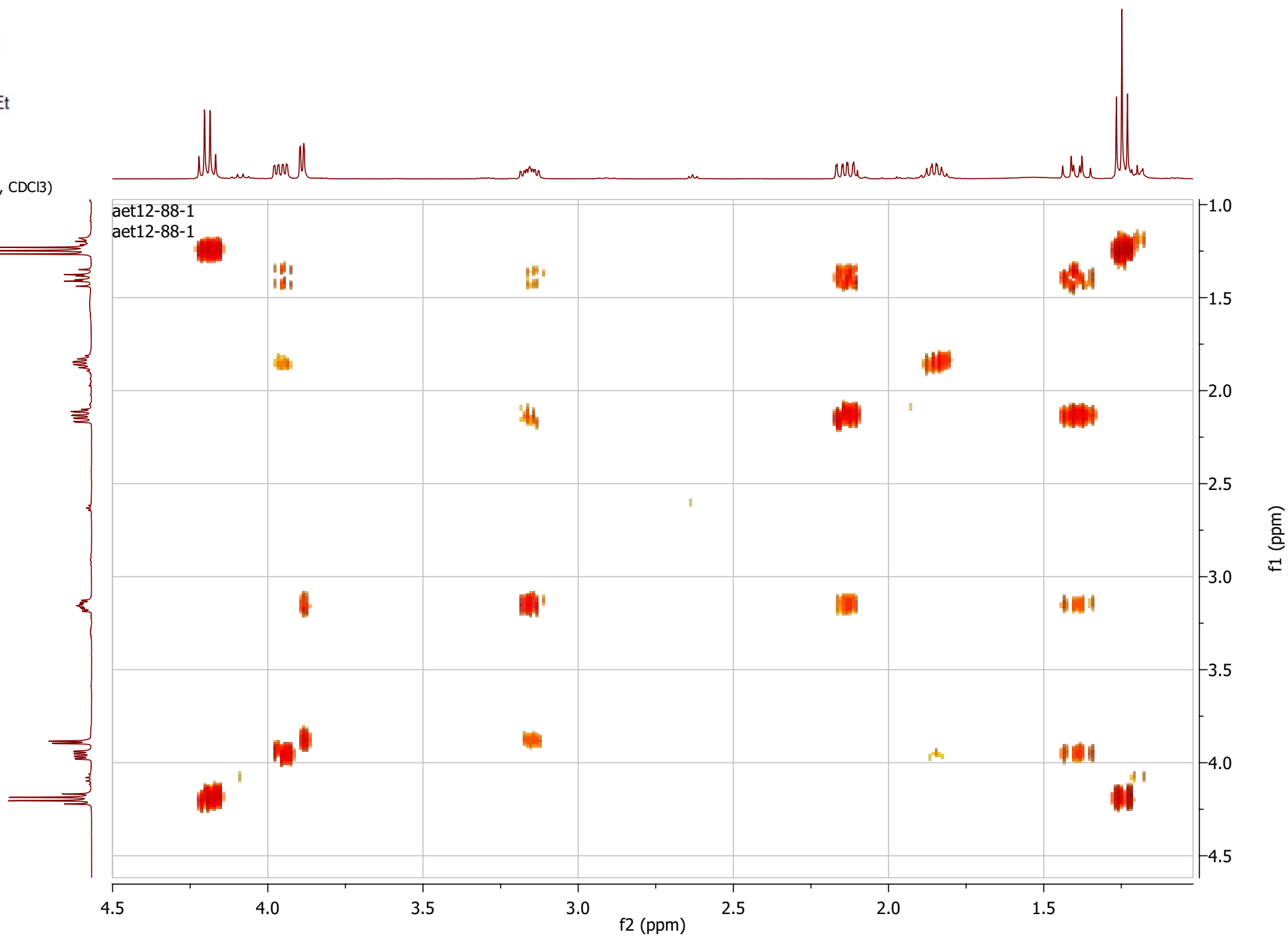


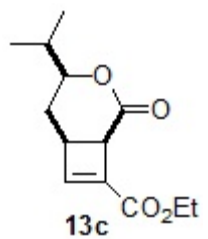
COSY (400 MHz, CDCl₃)



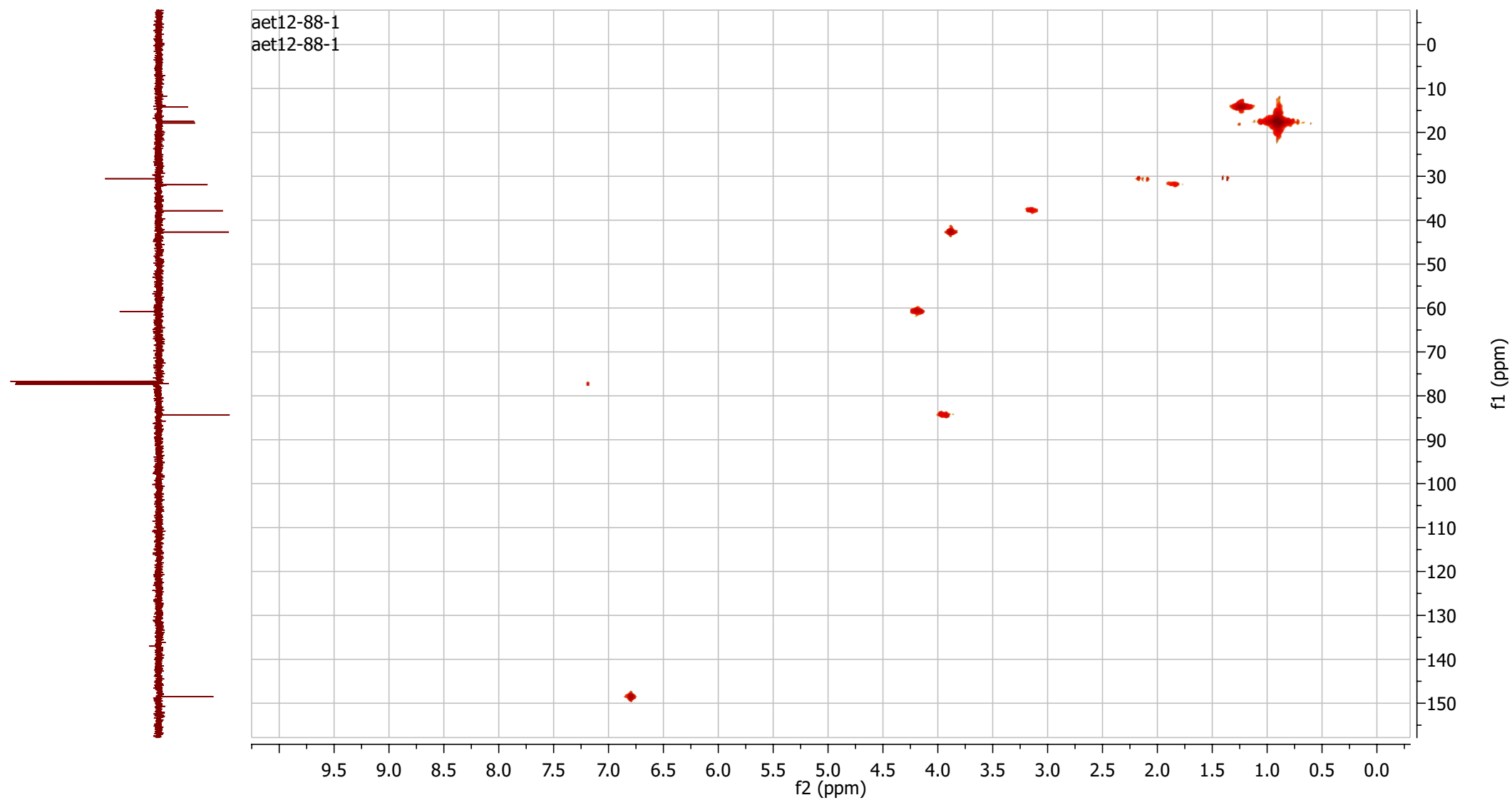


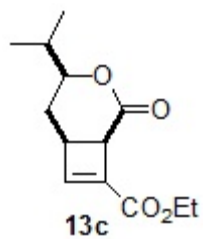
COSY (400 MHz, CDCl₃)



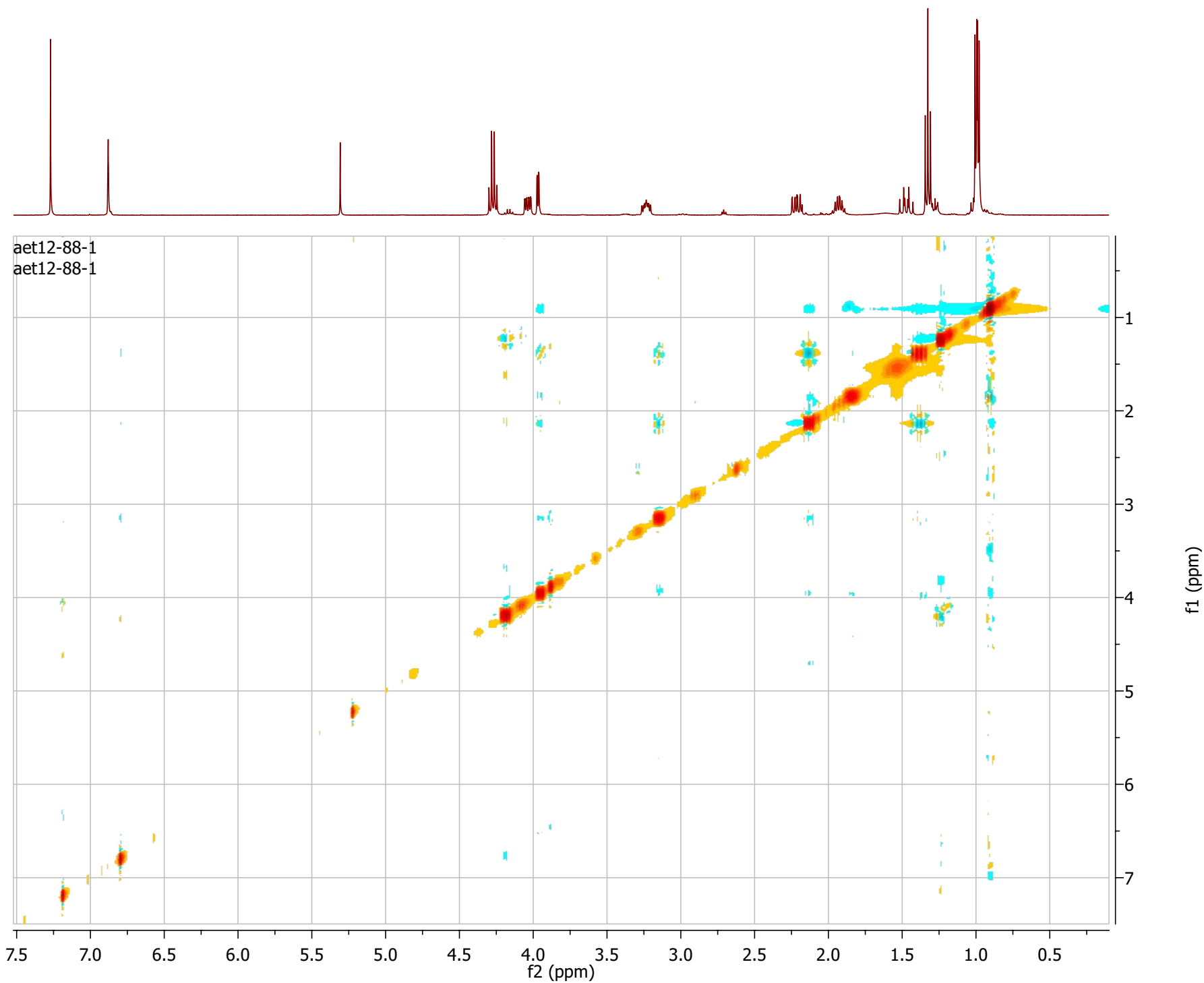


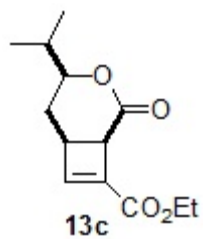
HMQC (CDCl₃)



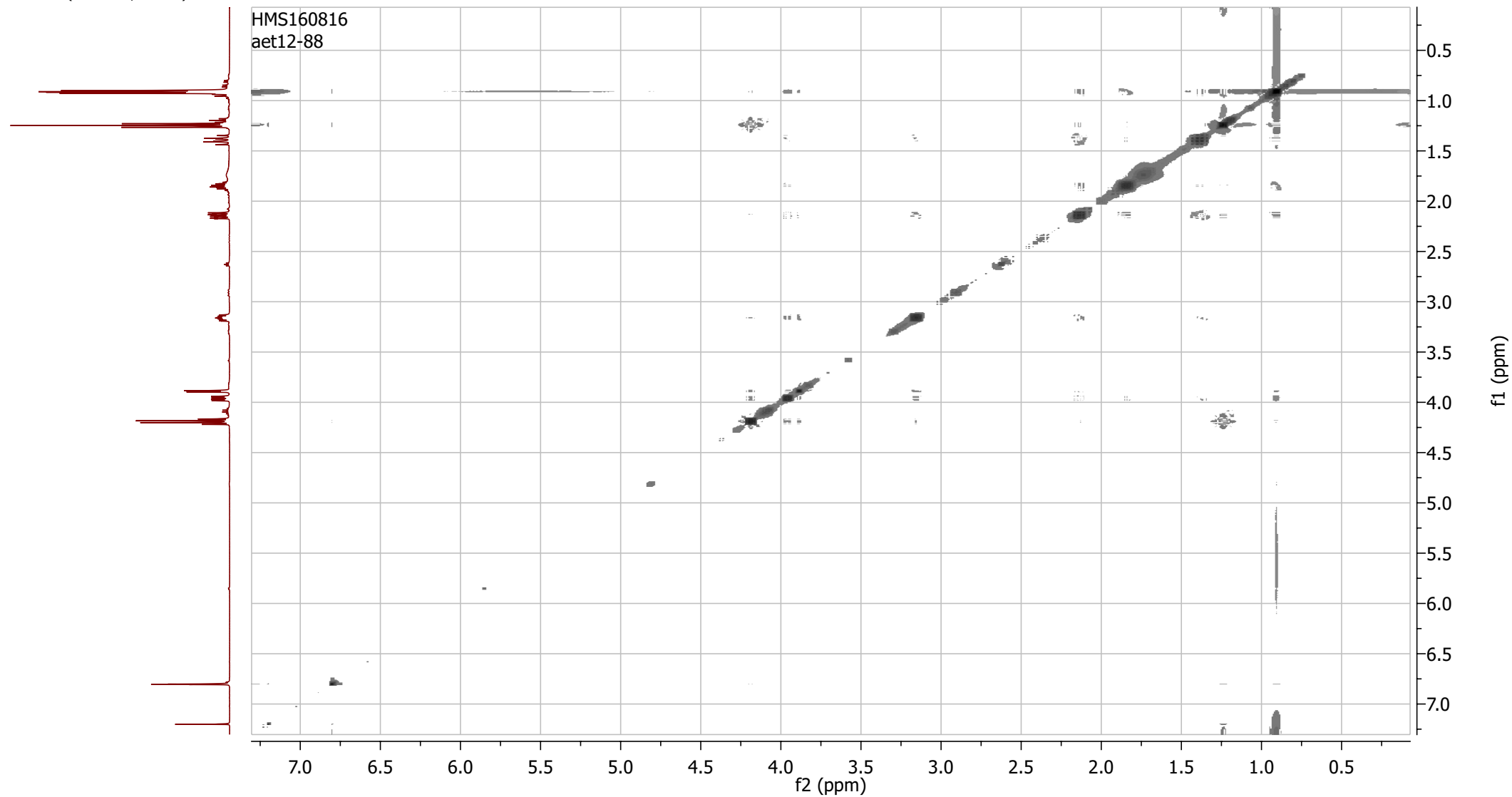


NOESY (400 MHz, CDCl₃)



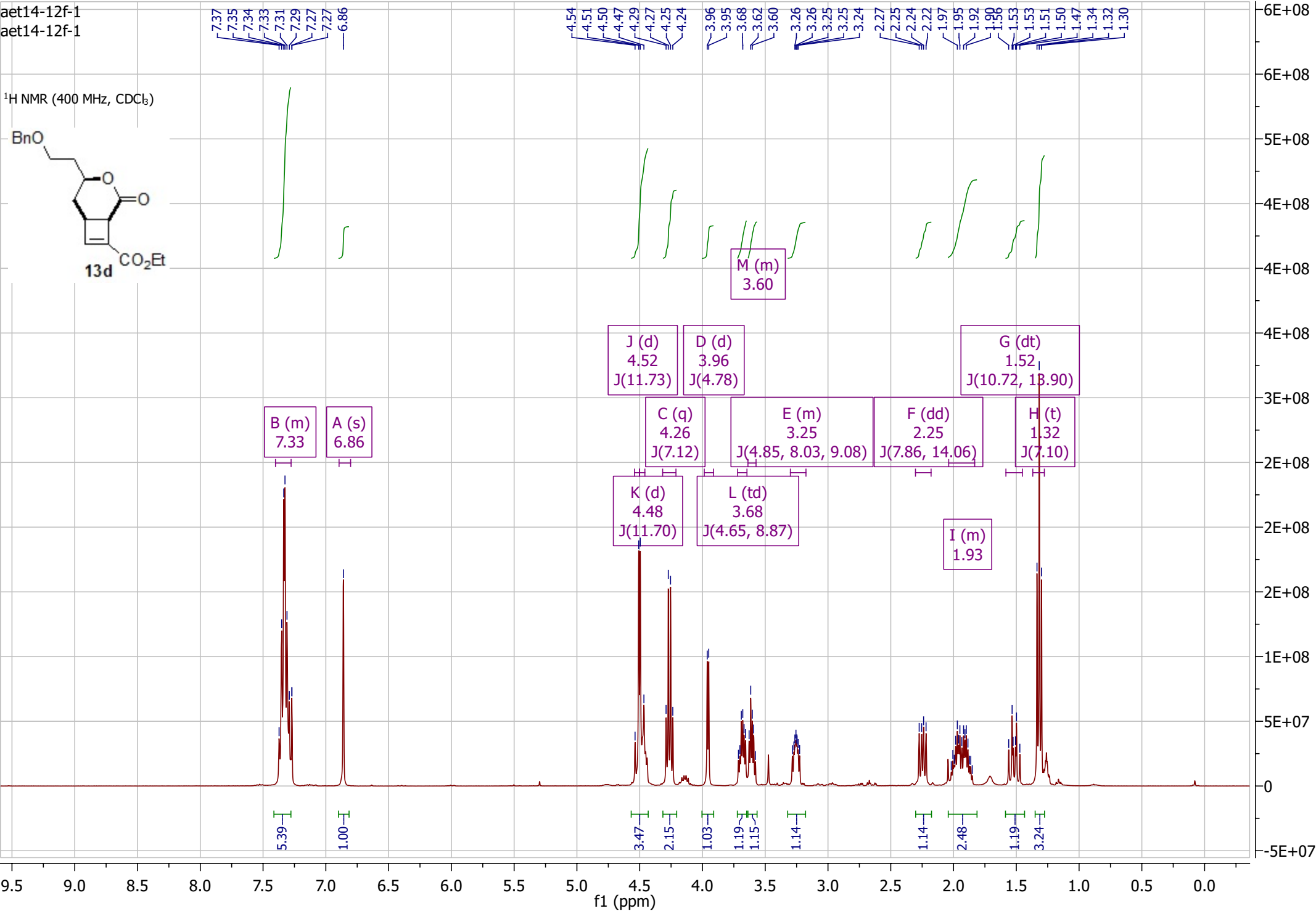
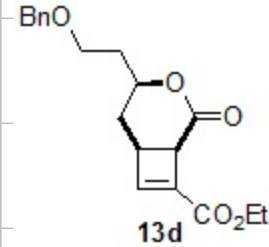


NOESY (400 MHz, CDCl₃)



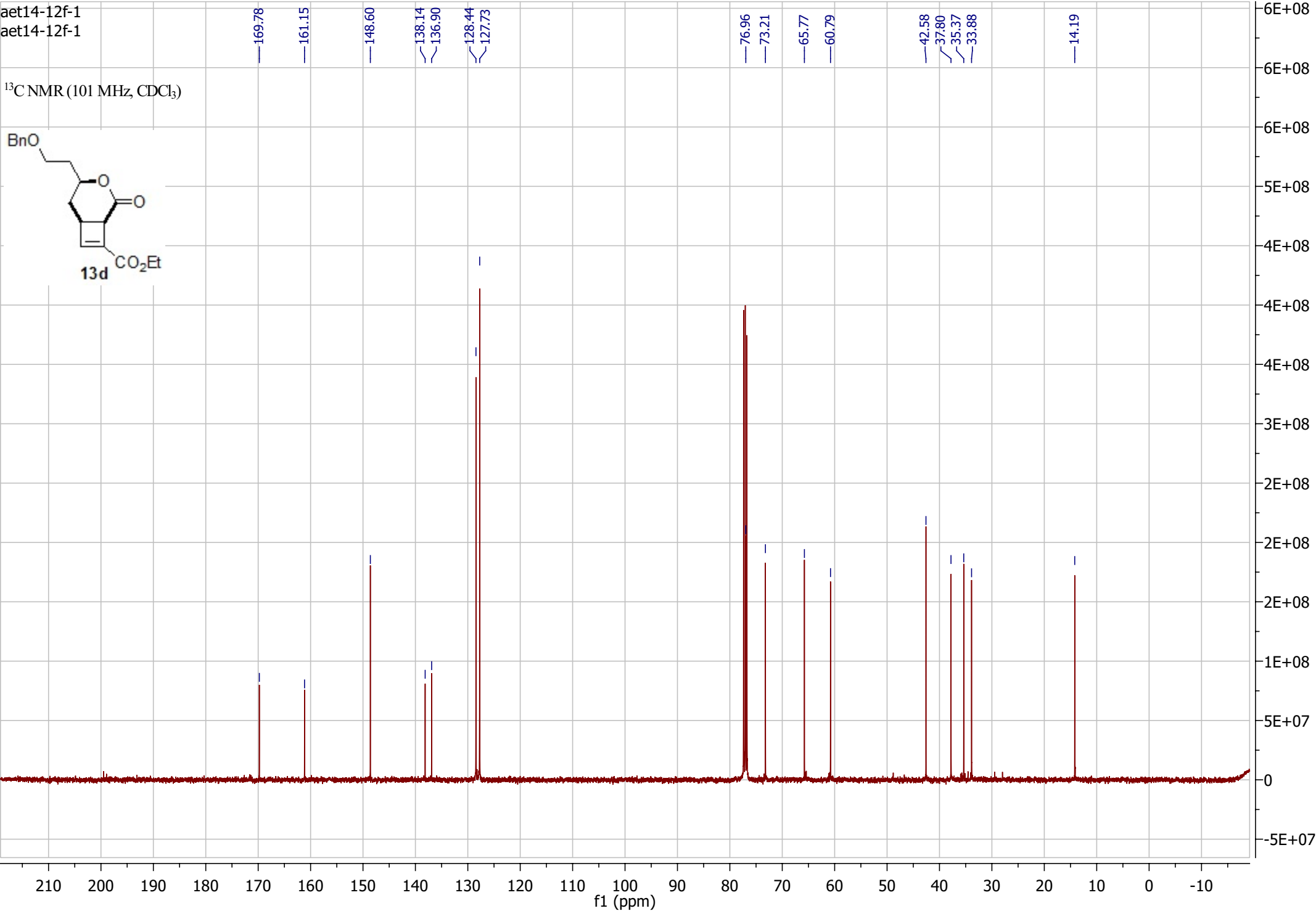
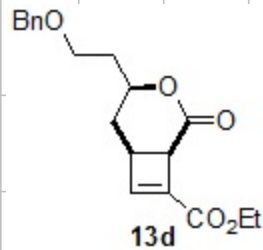
aet14-12f-1
aet14-12f-1

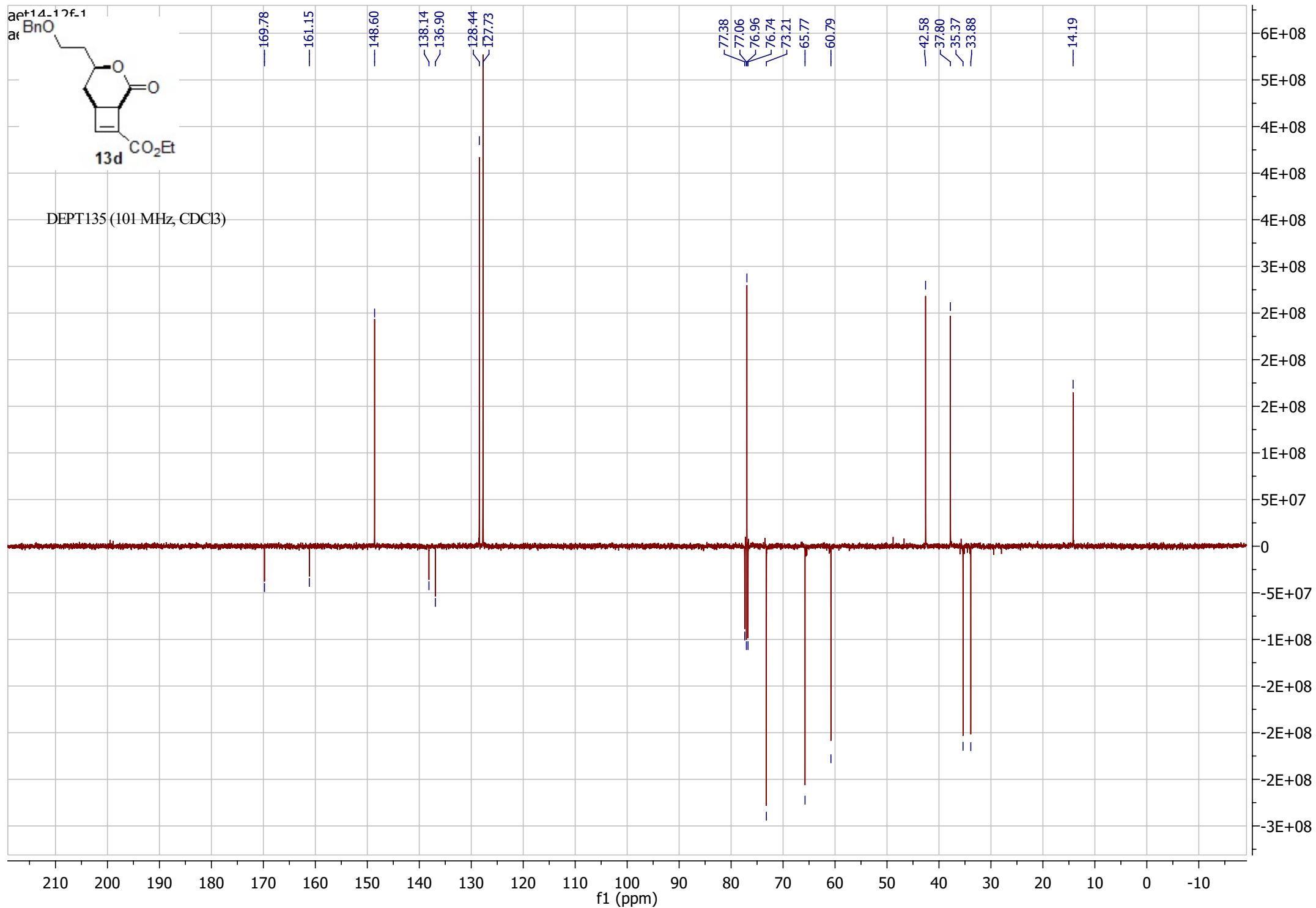
¹H NMR (400 MHz, CDCl₃)

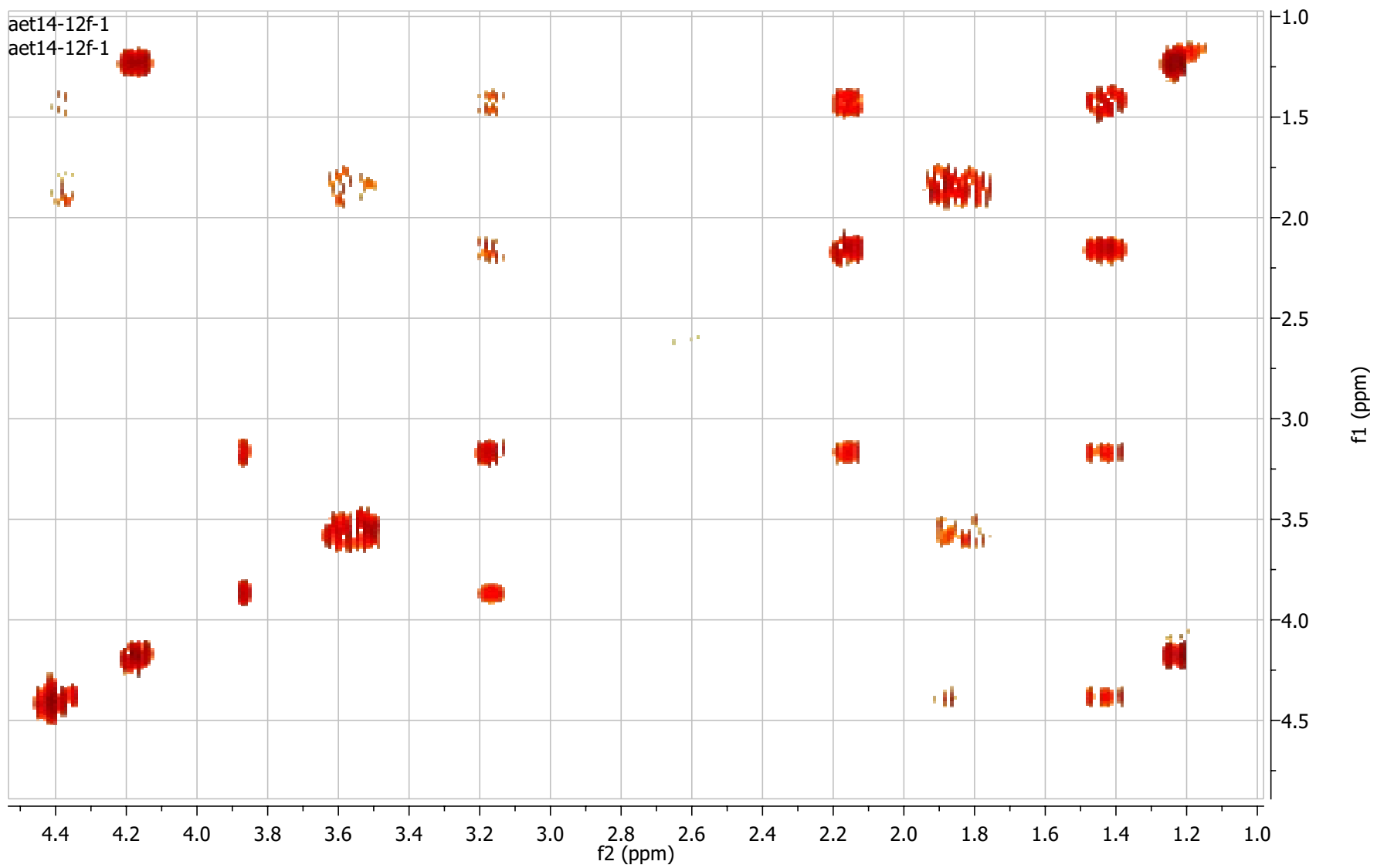
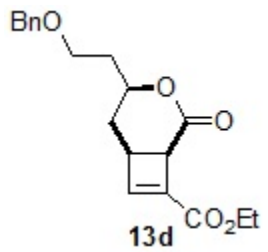


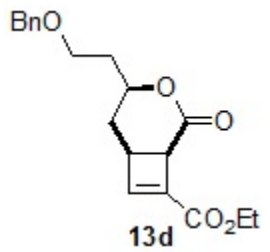
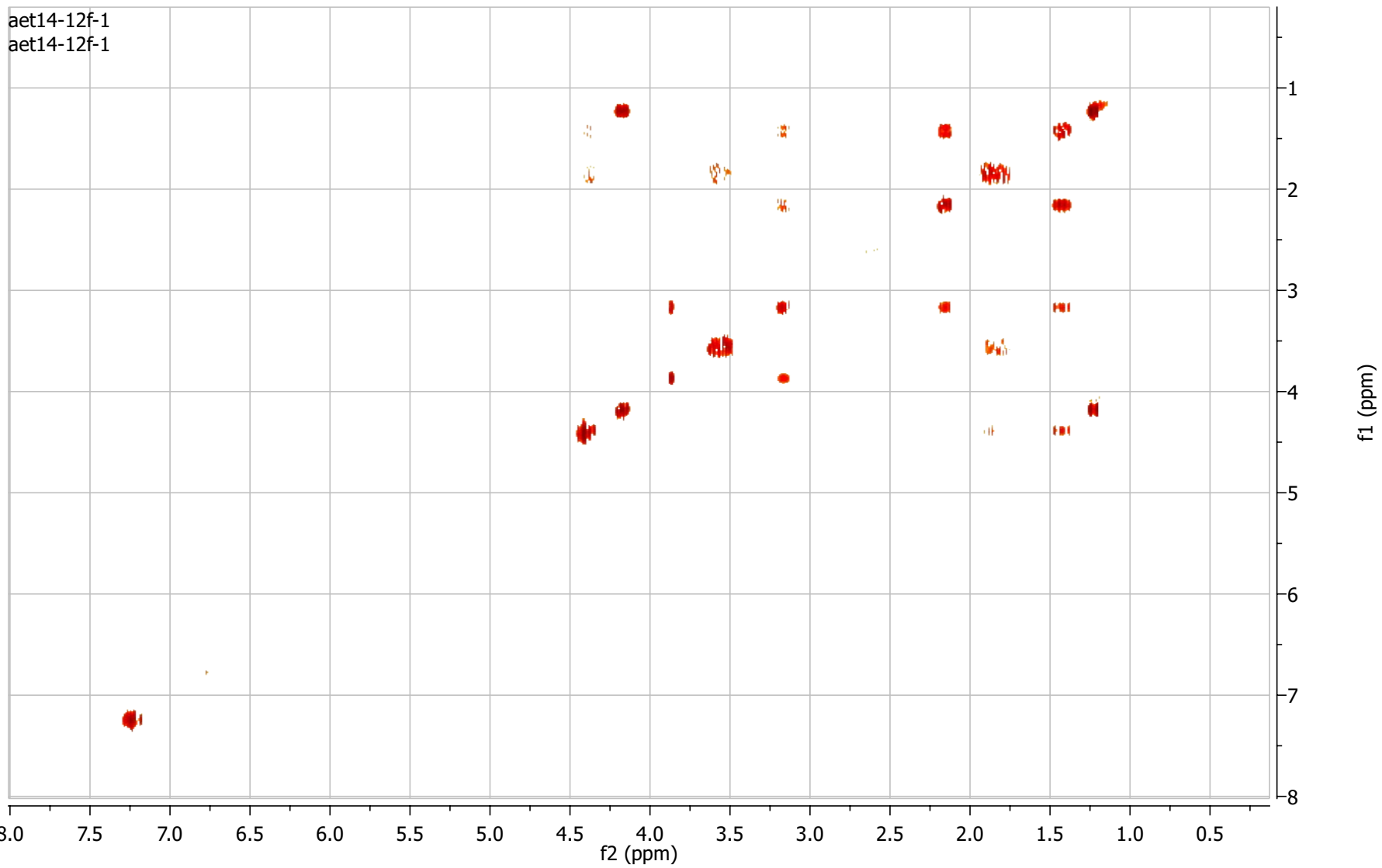
aet14-12f-1
aet14-12f-1

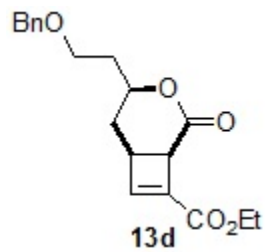
¹³C NMR (101 MHz, CDCl₃)



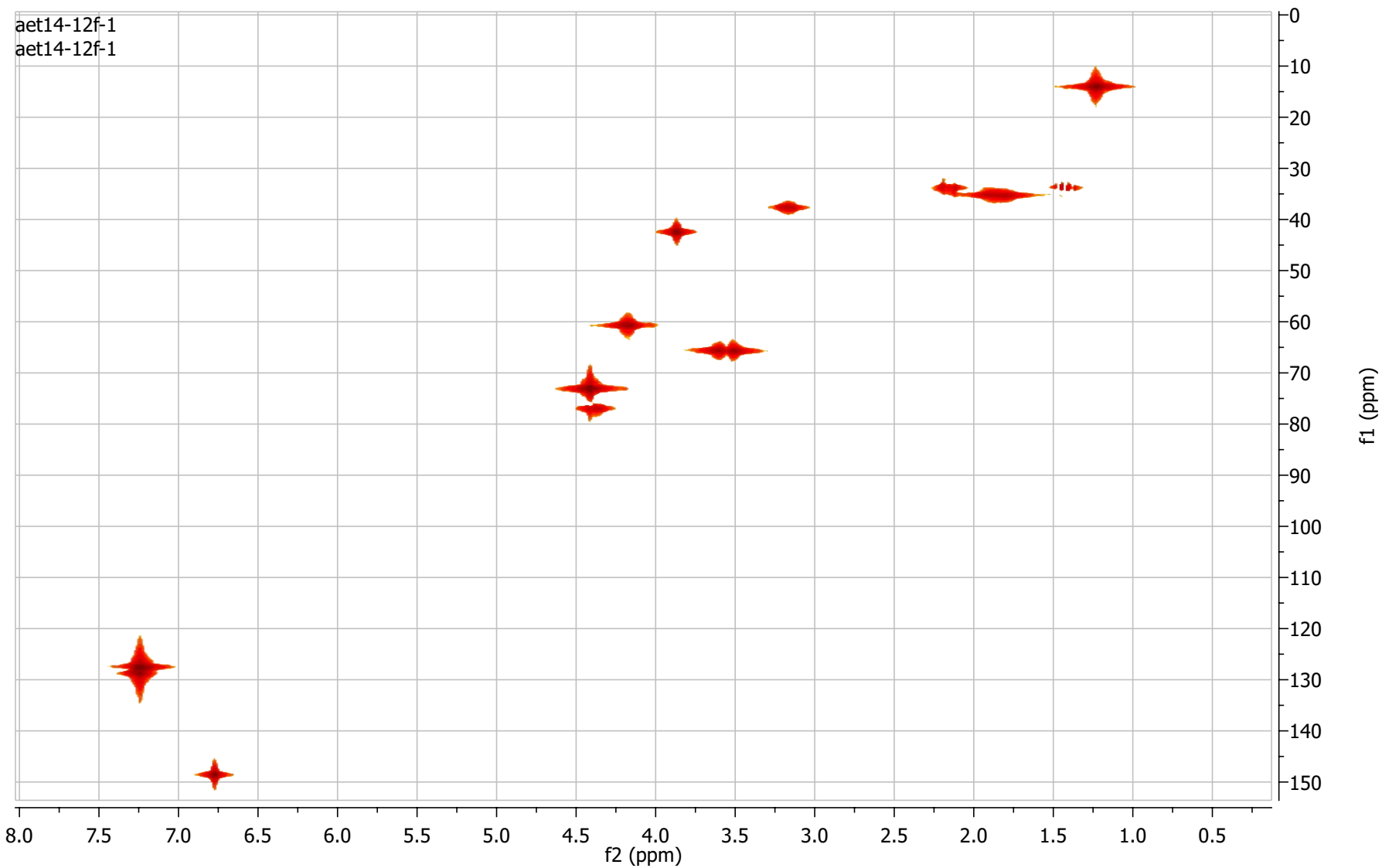


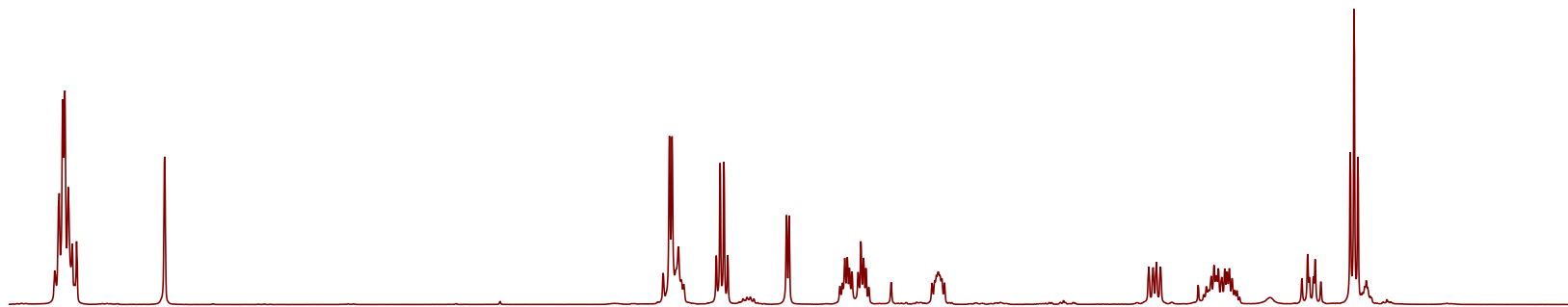
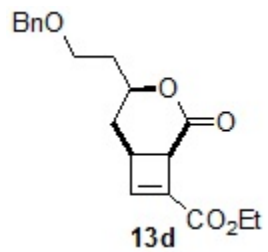


COSY (400 MHz, CDCl₃)

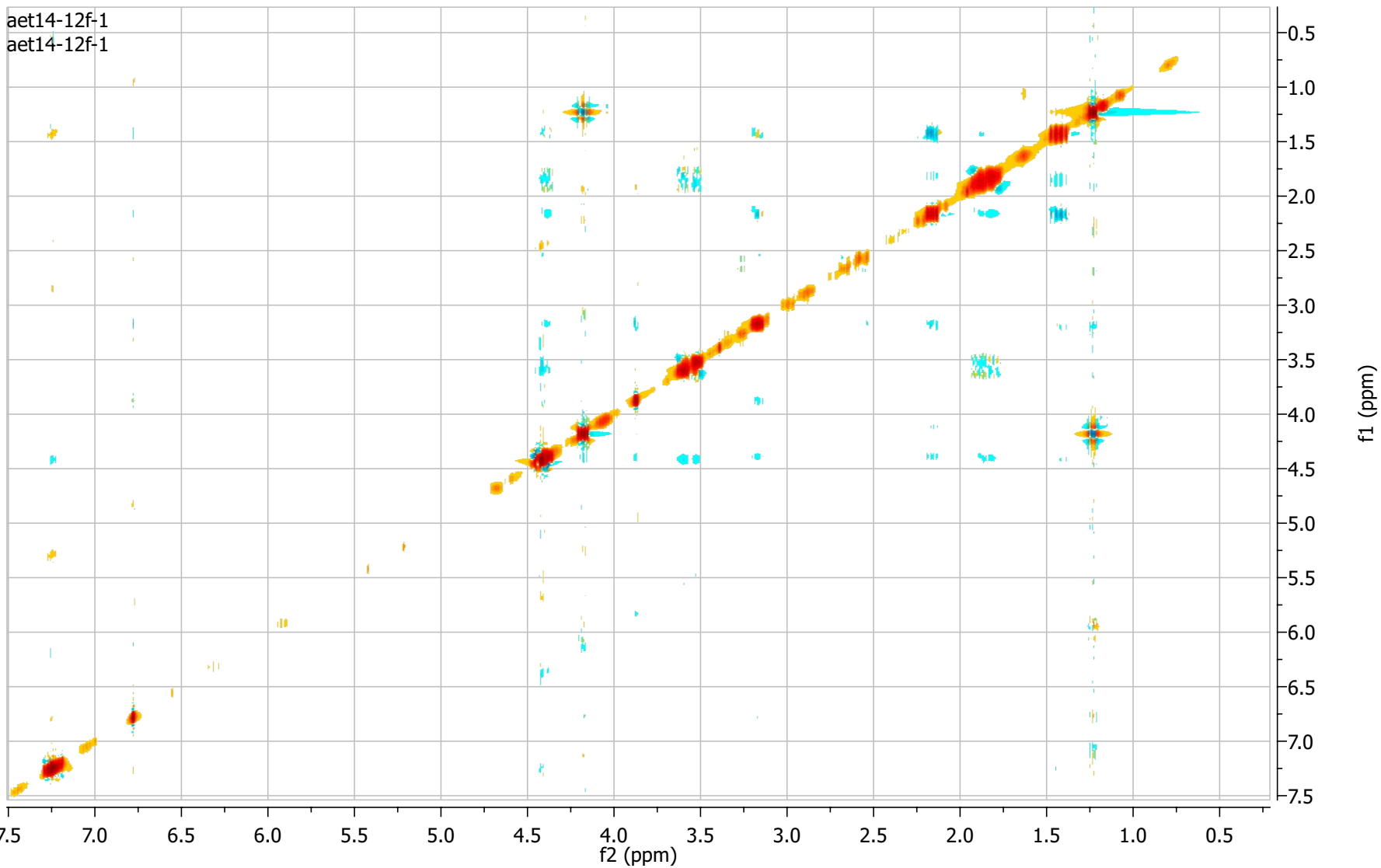


HMQC (CDCl₃)



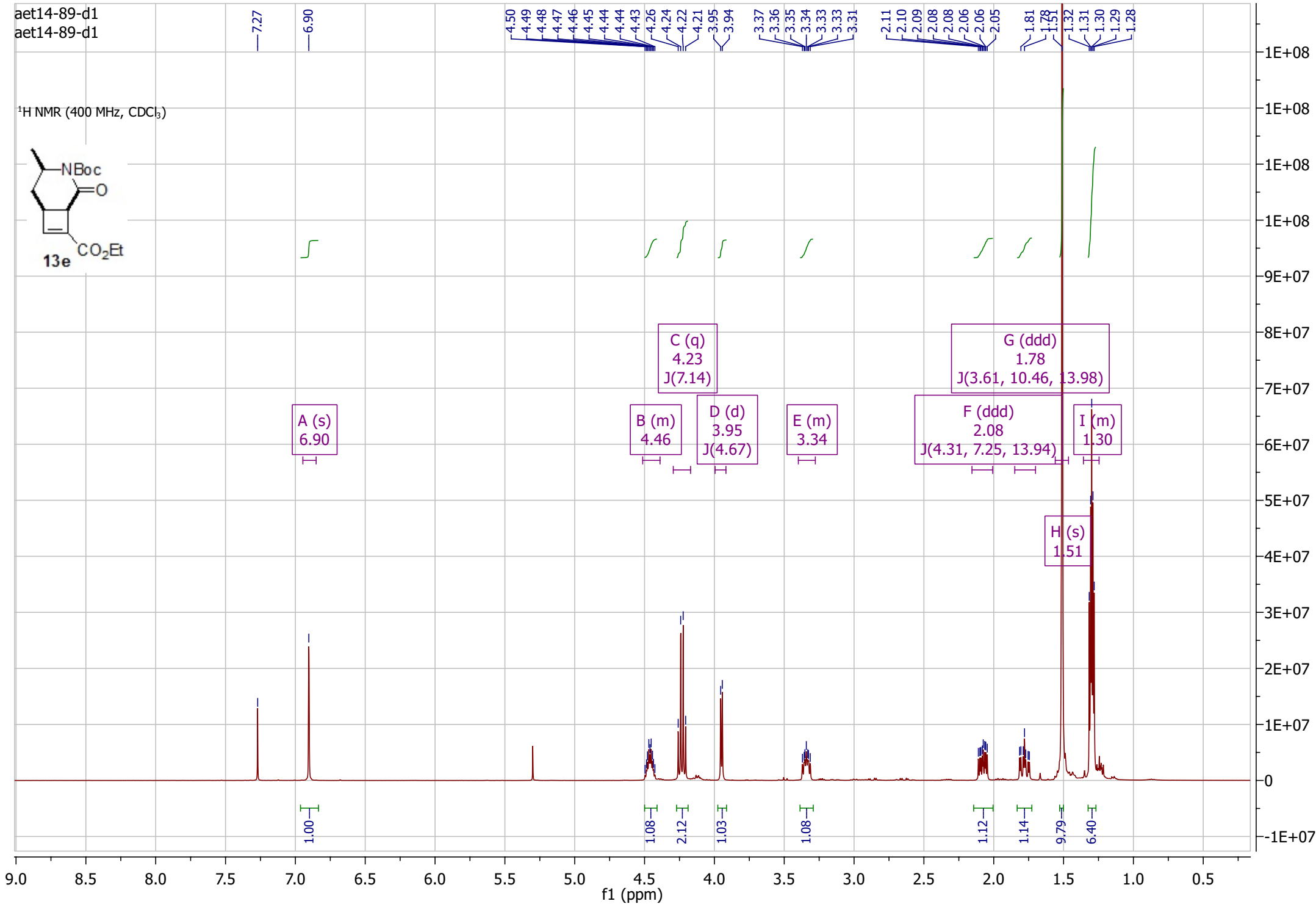
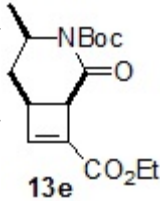


NOESY (400 MHz, CDCl₃)



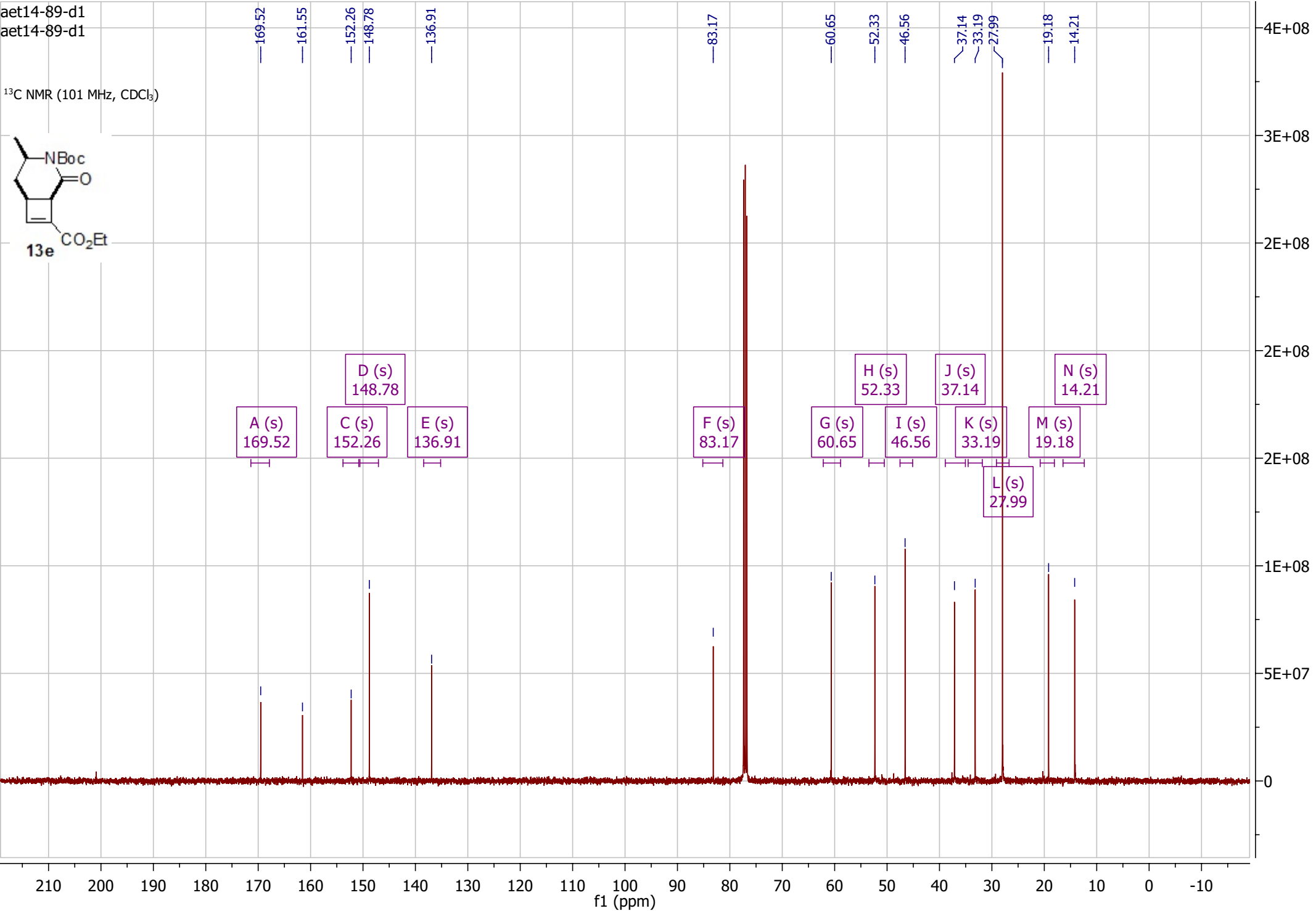
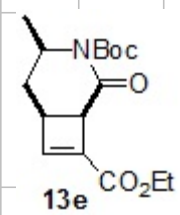
aet14-89-d1
aet14-89-d1

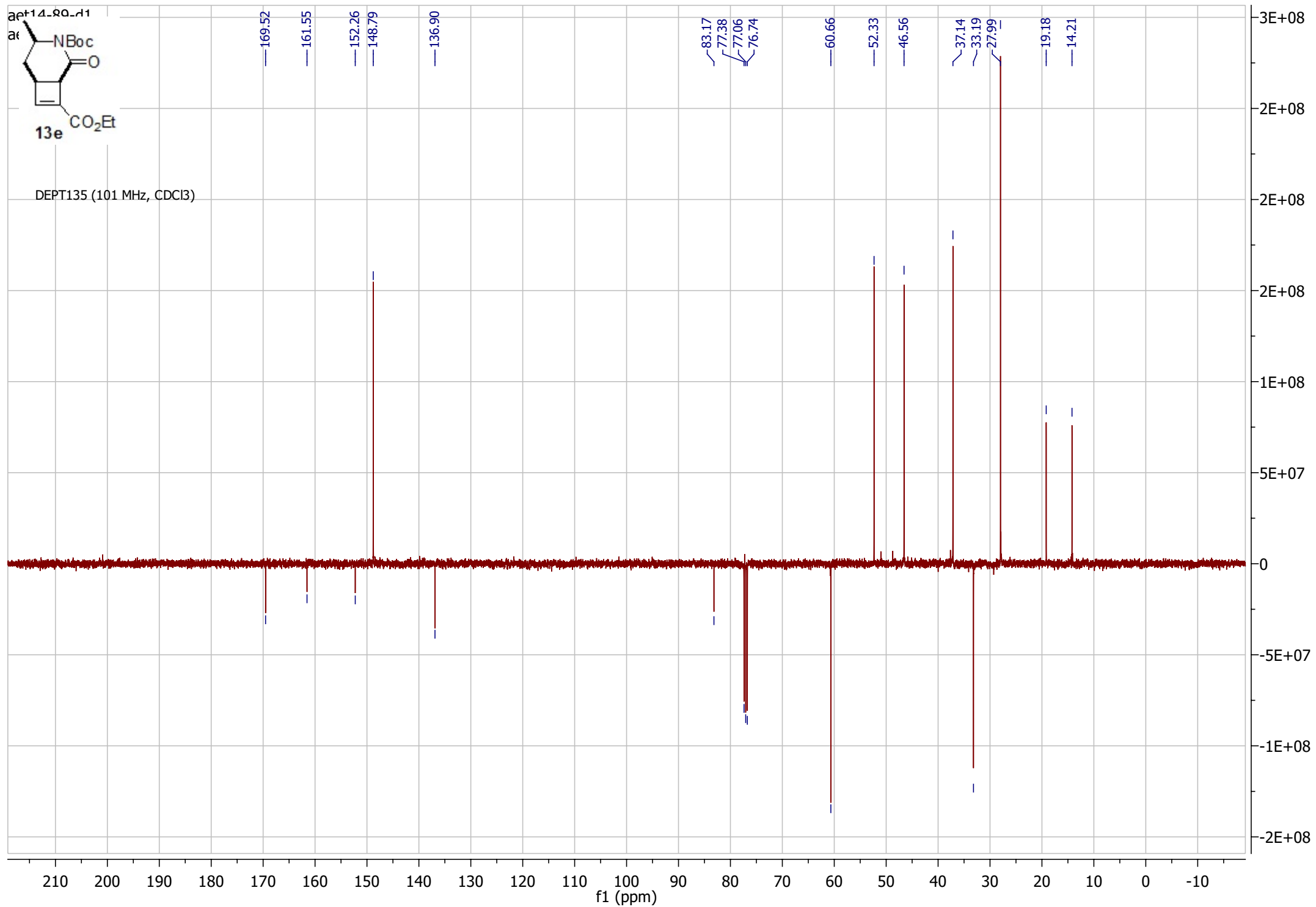
¹H NMR (400 MHz, CDCl₃)

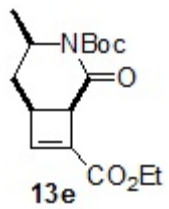


aet14-89-d1
aet14-89-d1

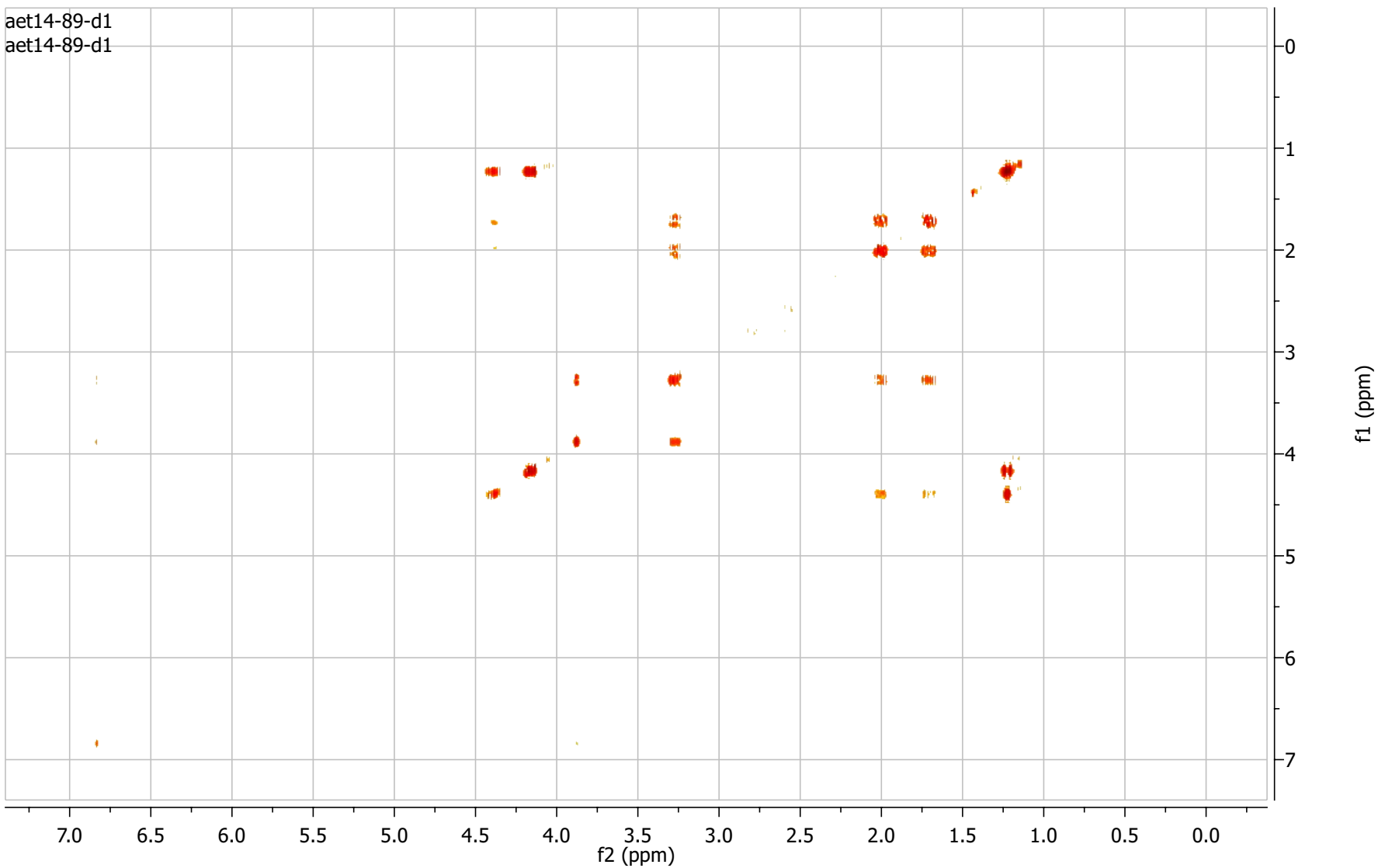
¹³C NMR (101 MHz, CDCl₃)

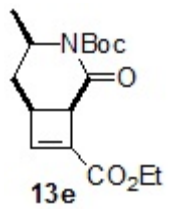




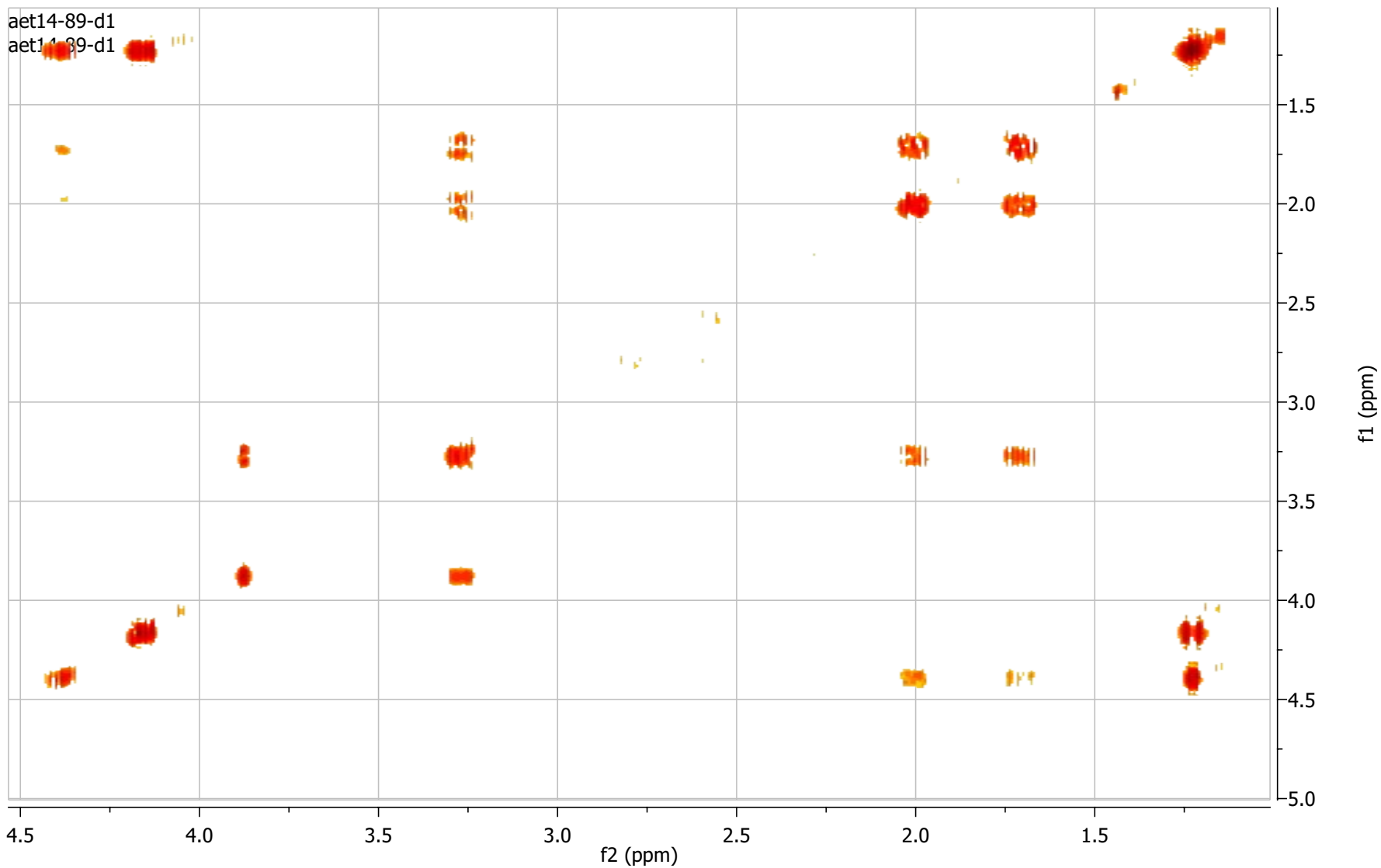


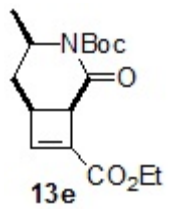
COSY (400 MHz, CDCl₃)



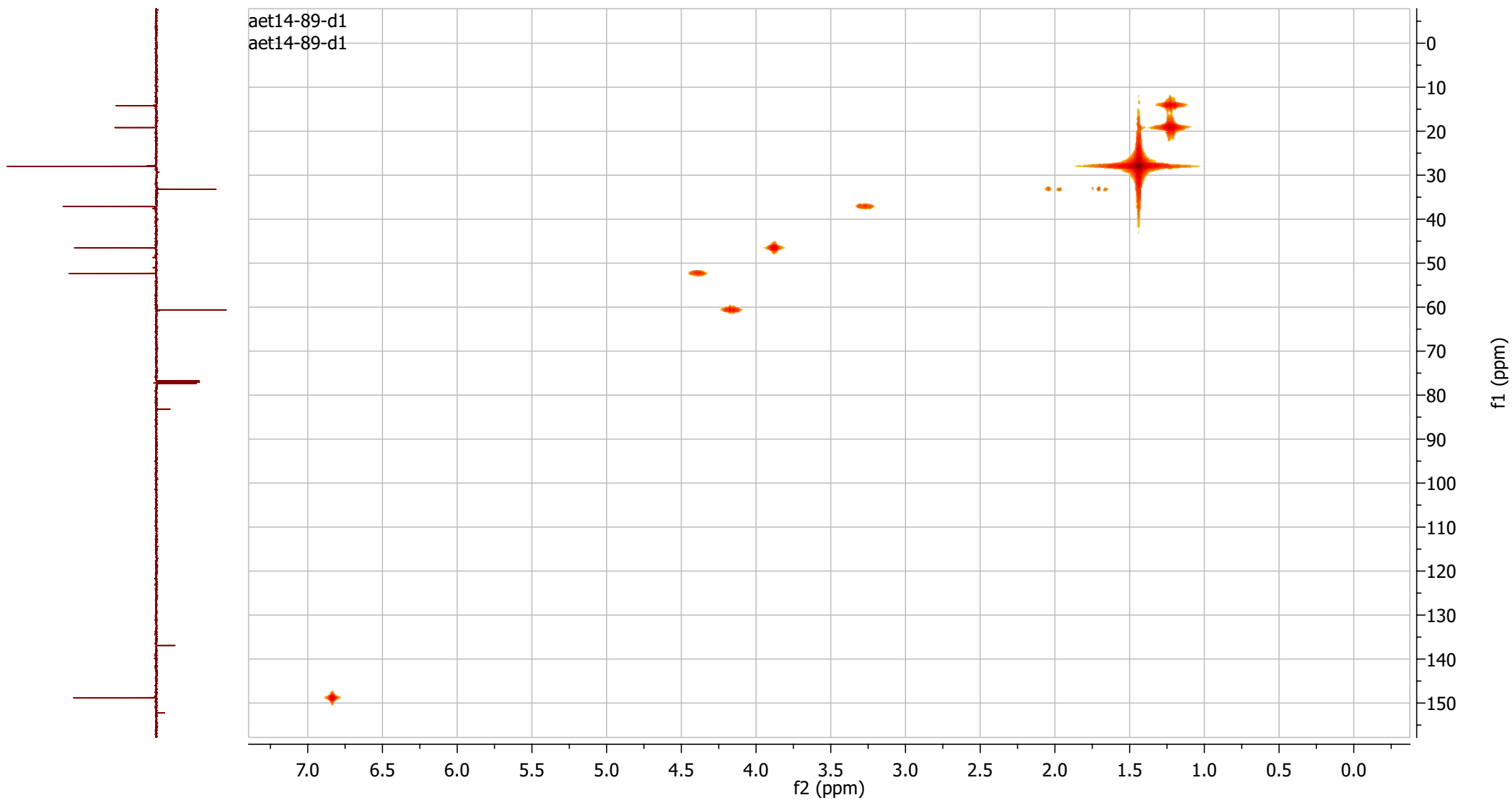


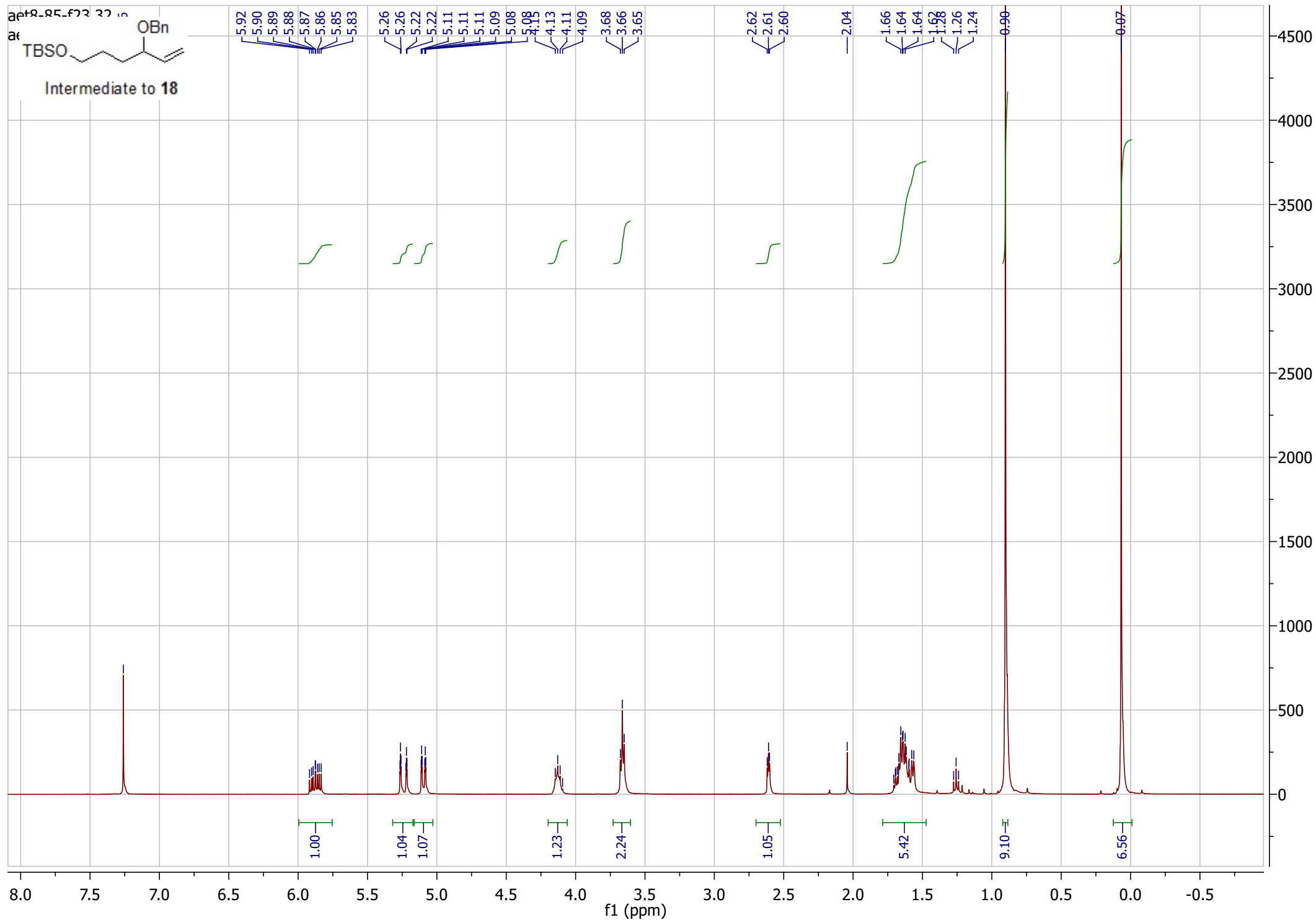
COSY (400 MHz, CDCl₃)





HMQC (CDCL₃)

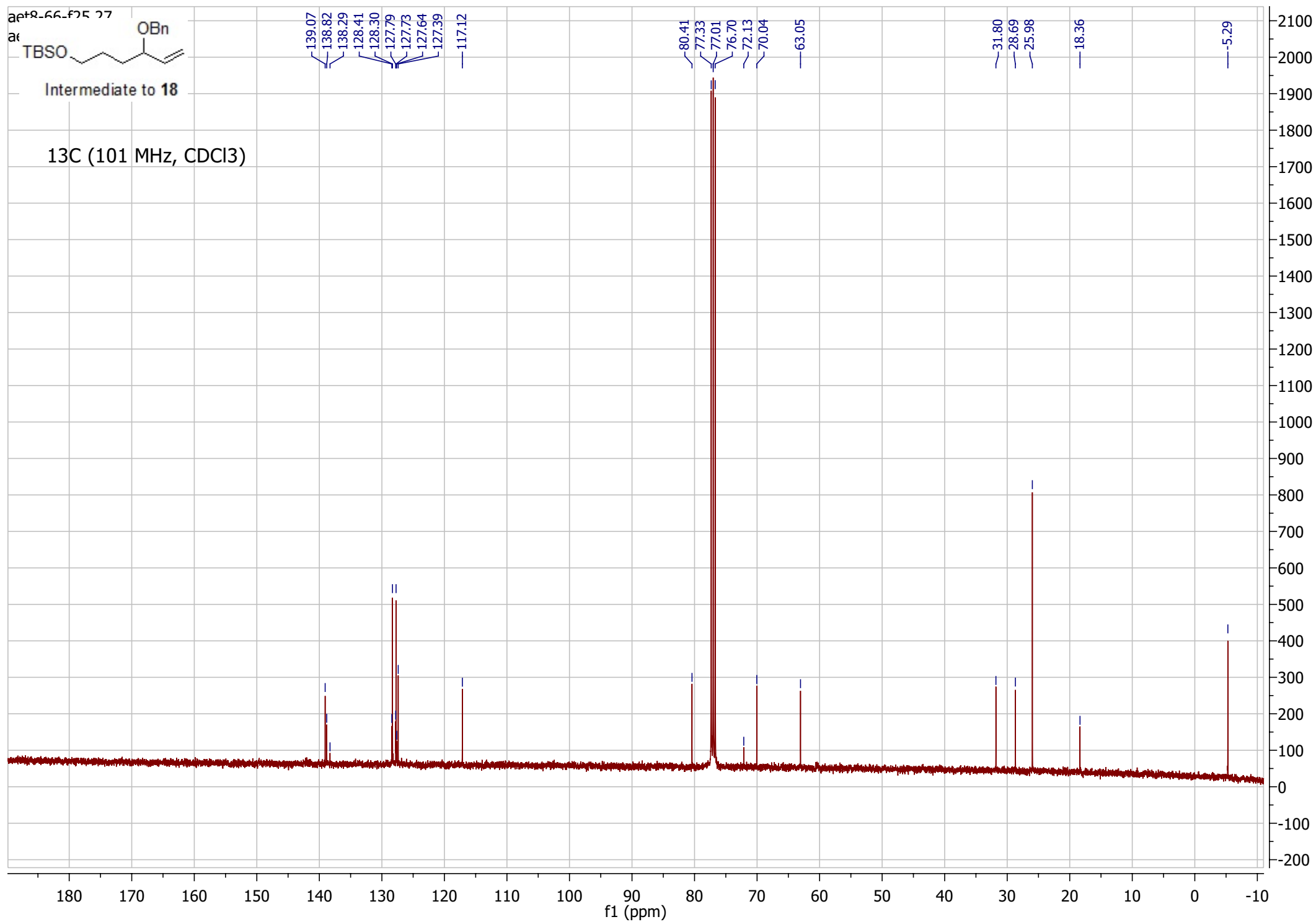


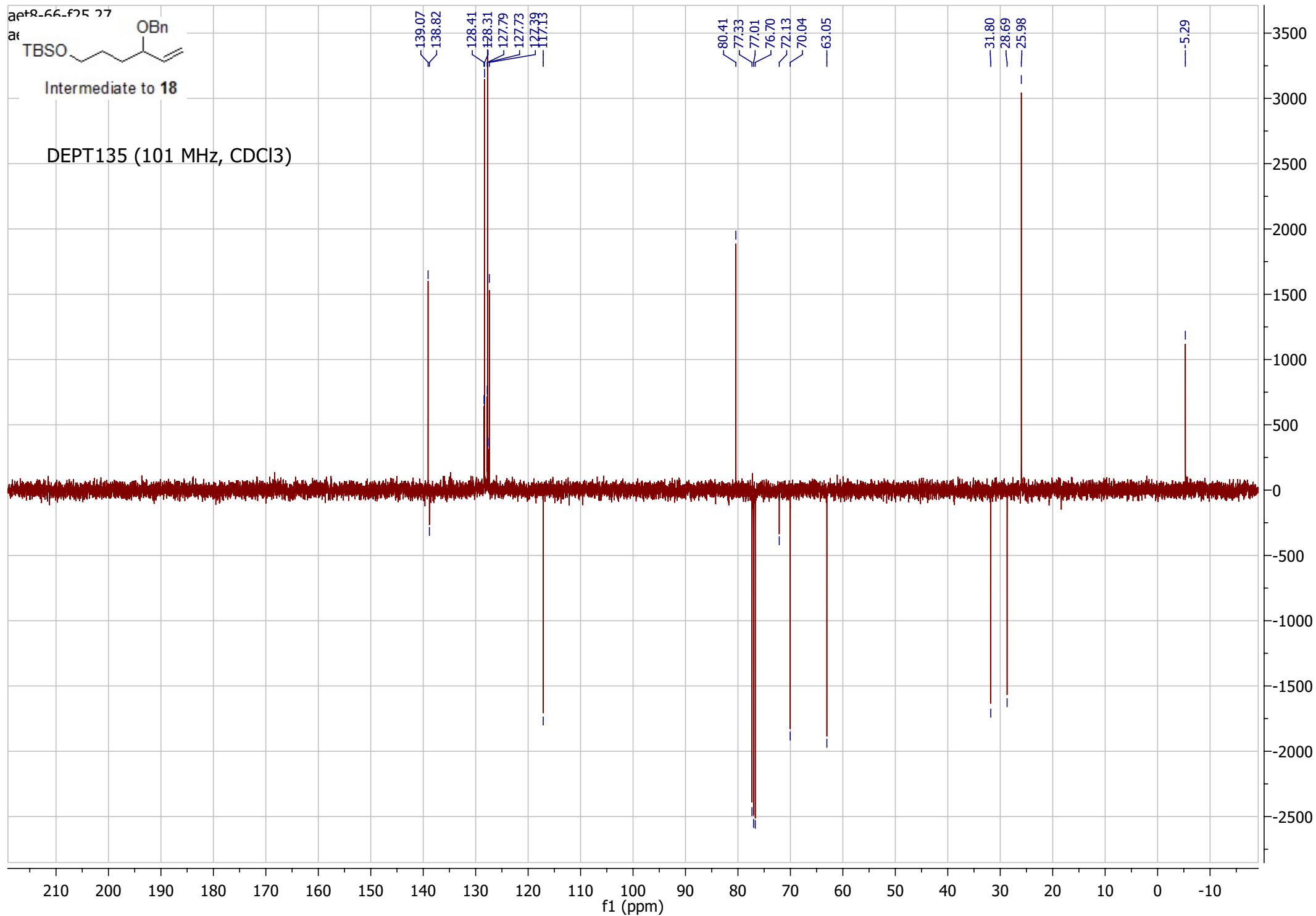


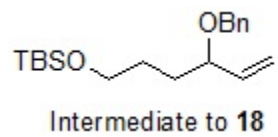
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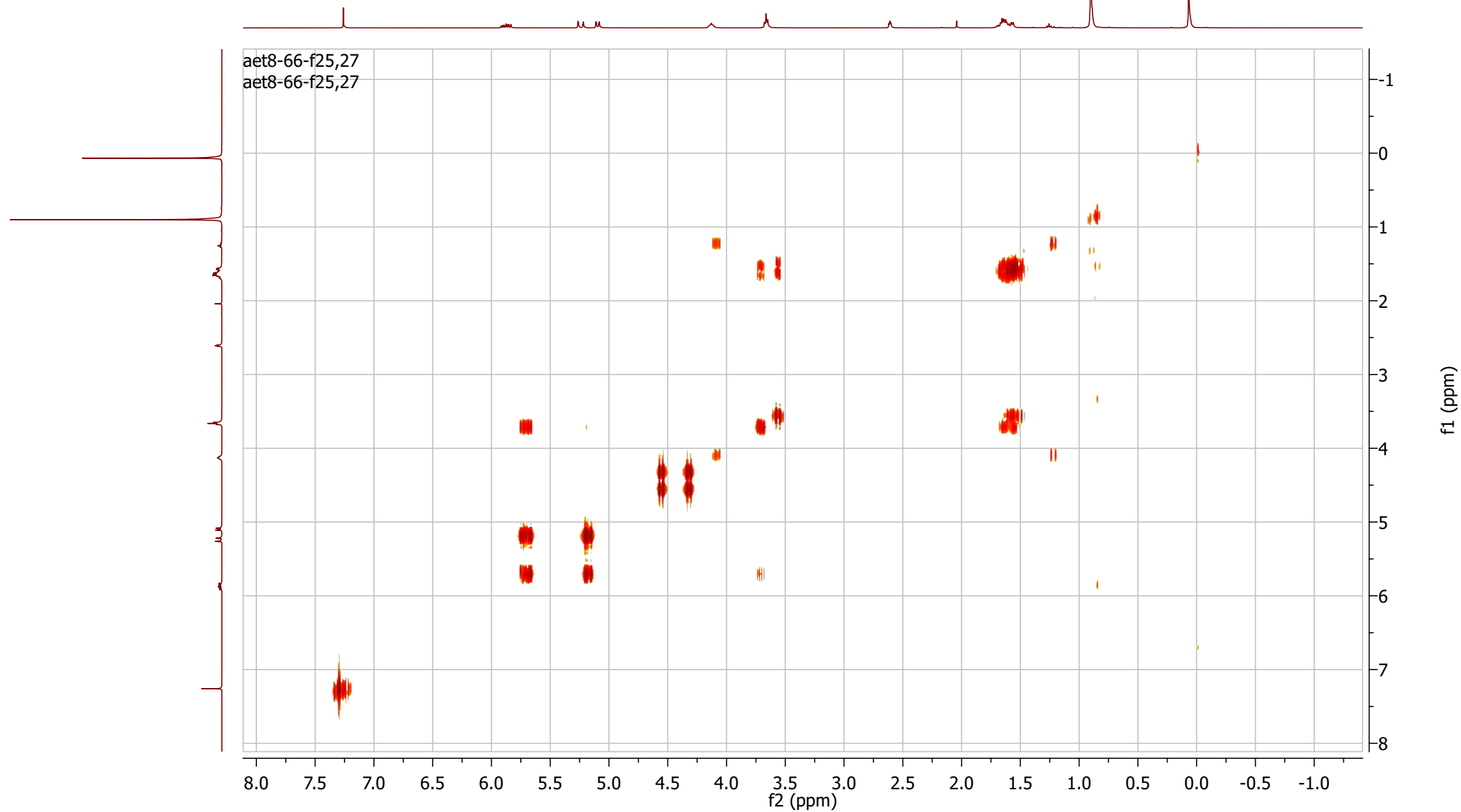
¹³C (101 MHz, CDCl₃)

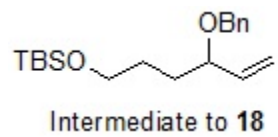




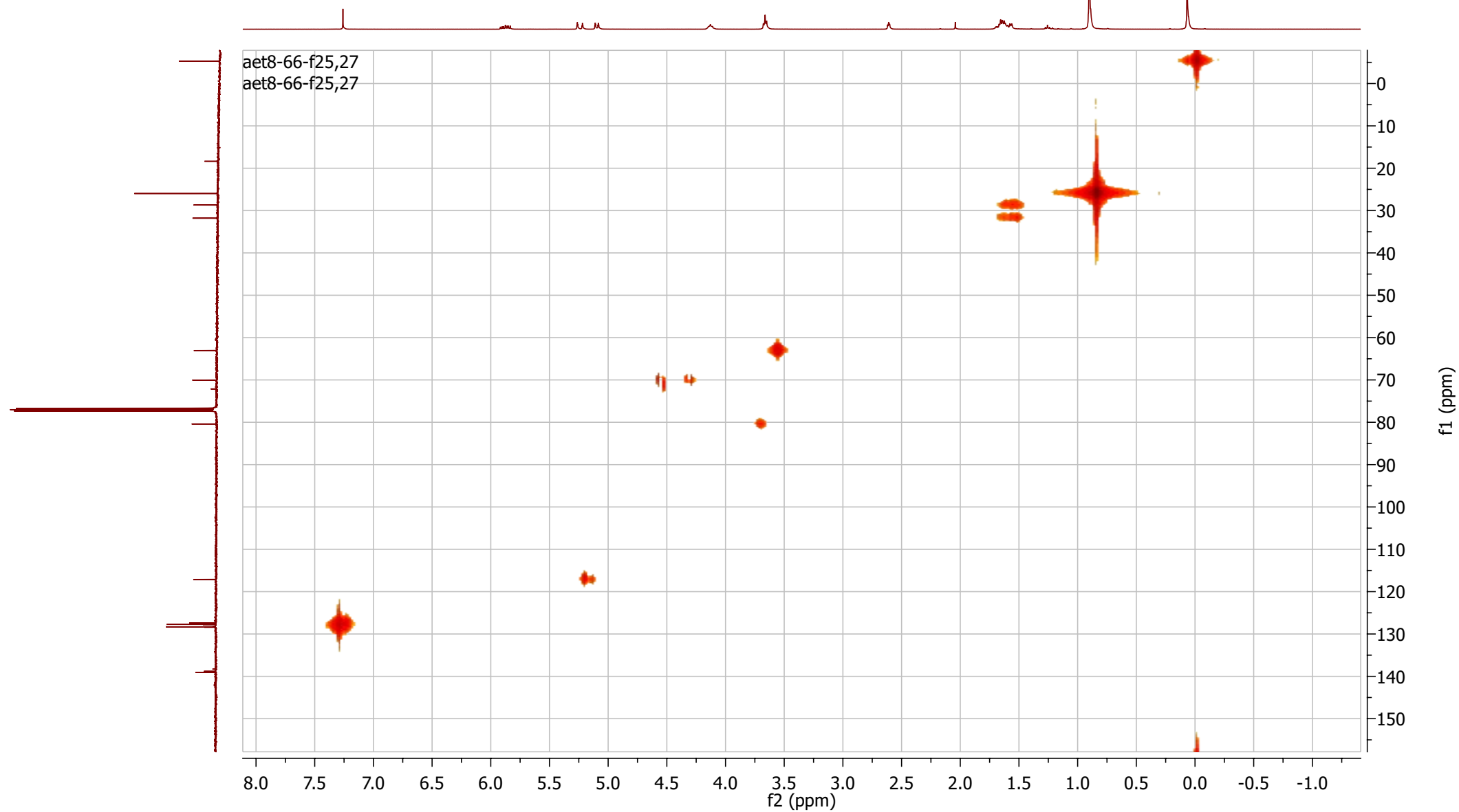


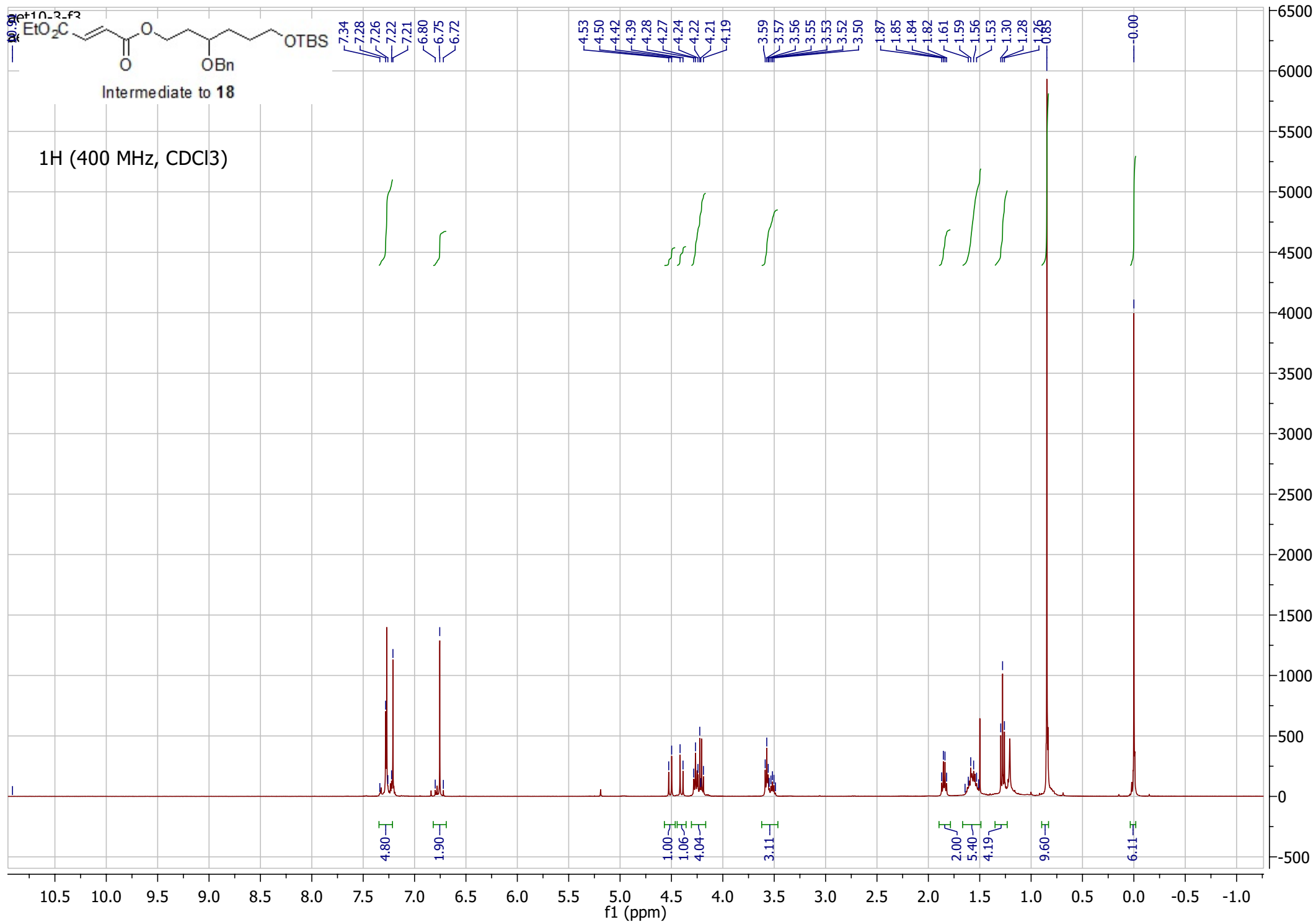
COSY (400 MHz, CDCl₃)



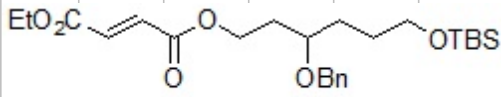


HMQC (CDCl₃)



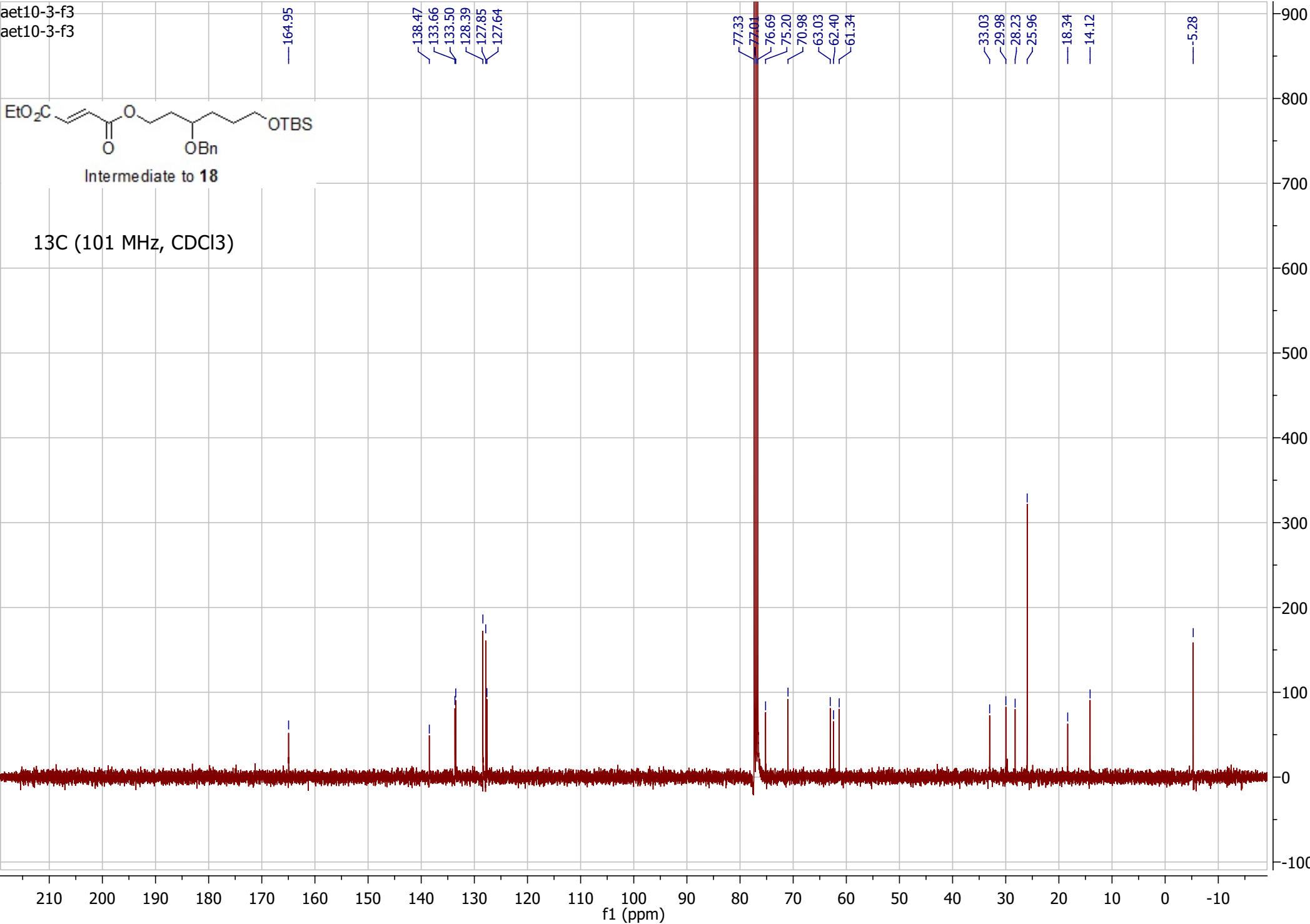


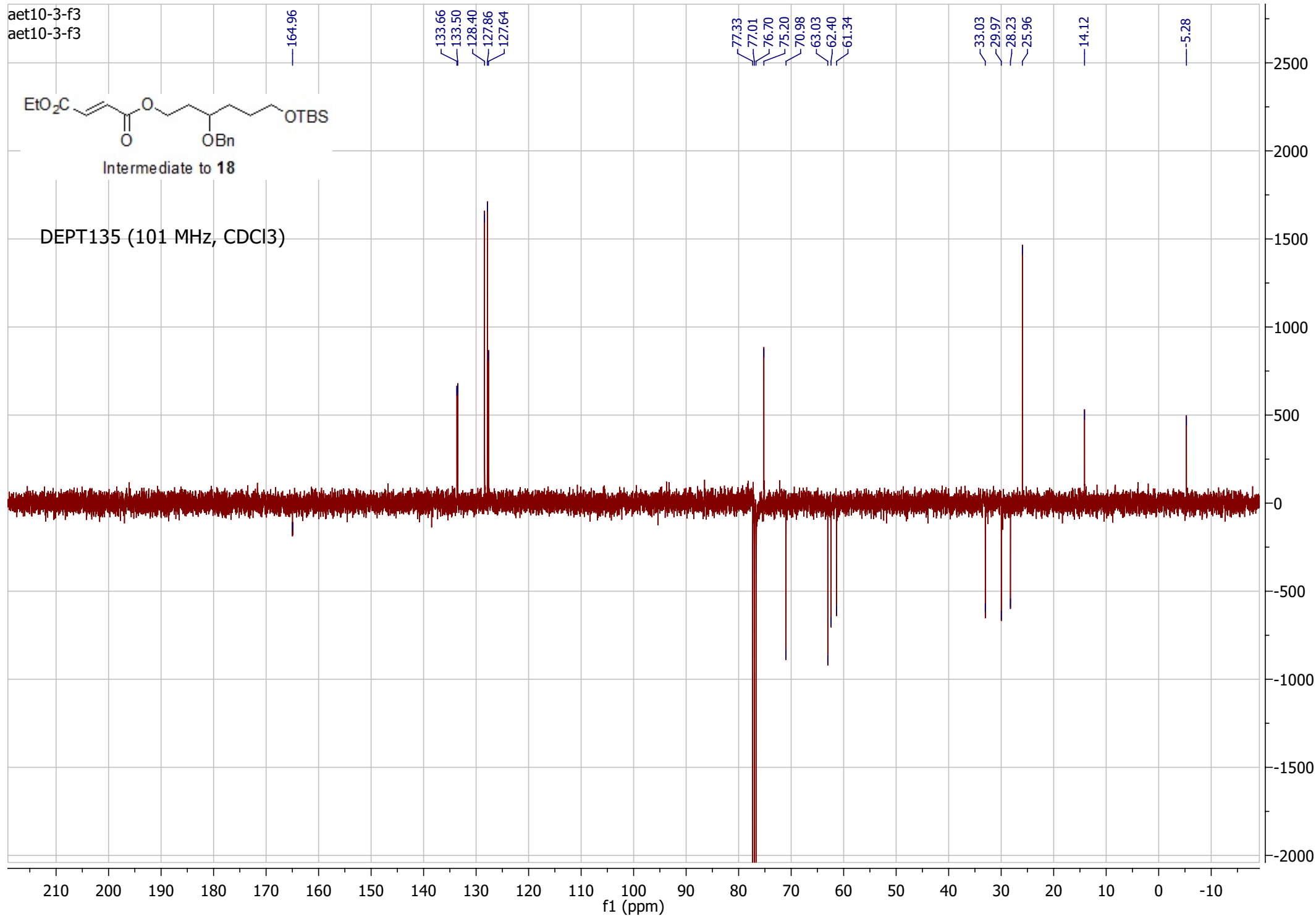
aet10-3-f3
aet10-3-f3

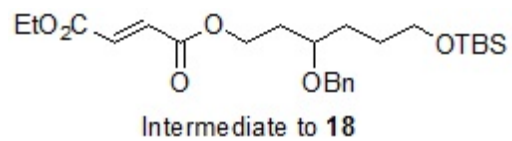


Intermediate to 18

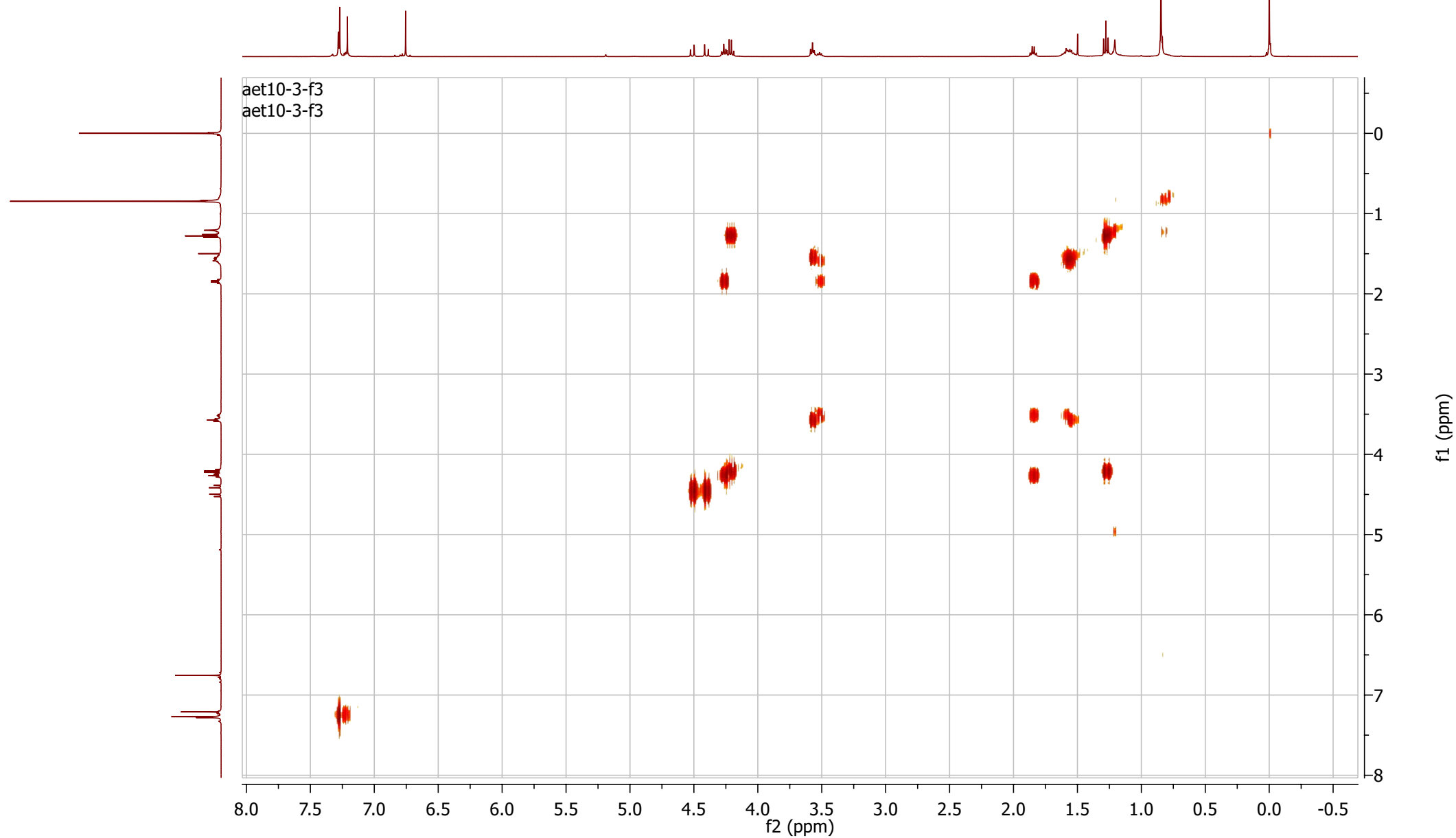
¹³C (101 MHz, CDCl₃)

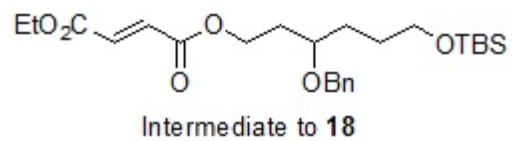




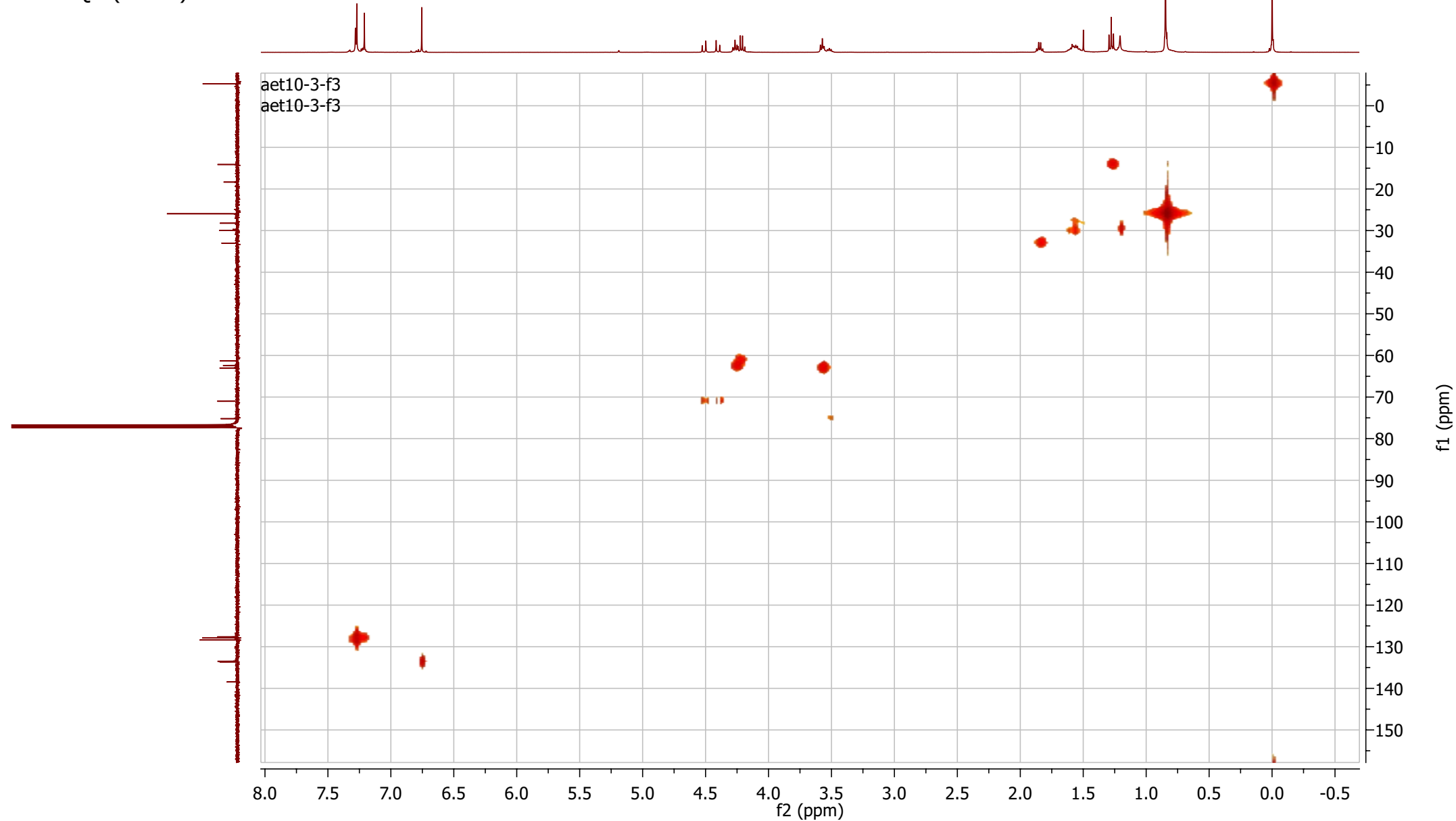


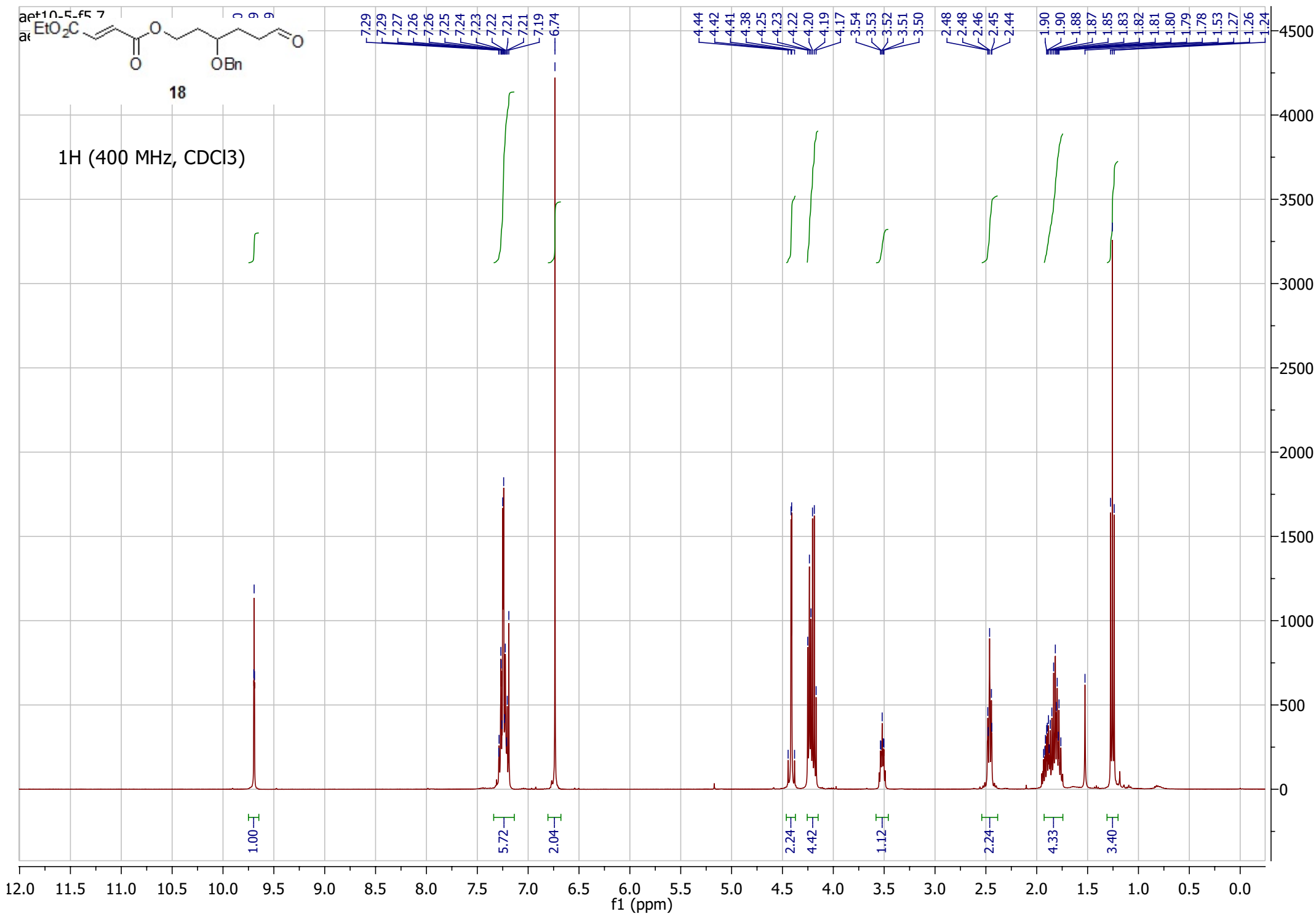
COSY (400 MHz, CDCl₃)





HMQC (CDCl₃)





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