

## Supplementary Information

# The disulfide bond as a key motif in the construction of multivalent ligands

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ORCID:

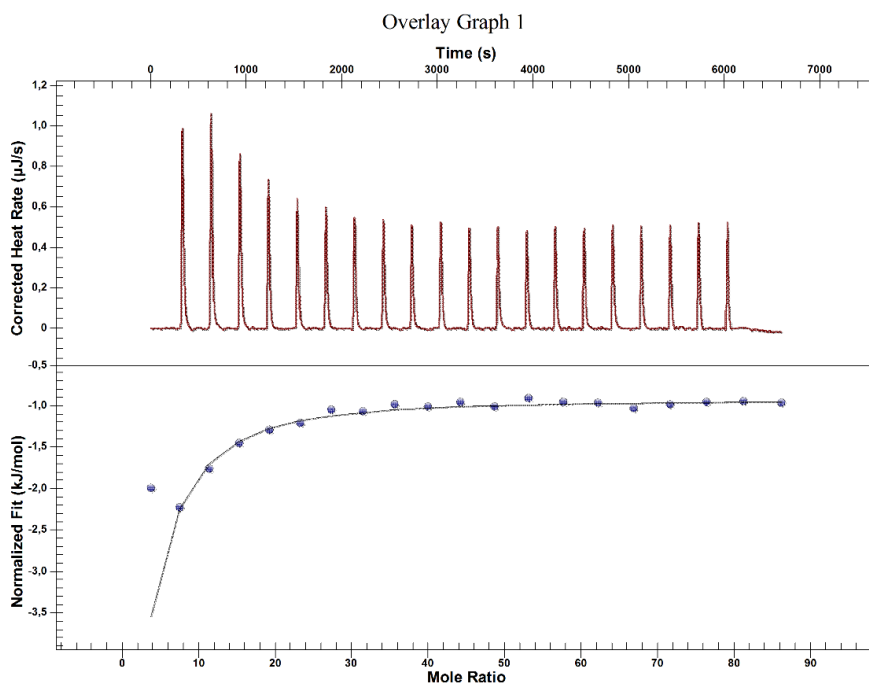
María Laura Uhrig: 0000-0002-6980-4141

Evangelina Repetto: 0000-0003-4806-1542

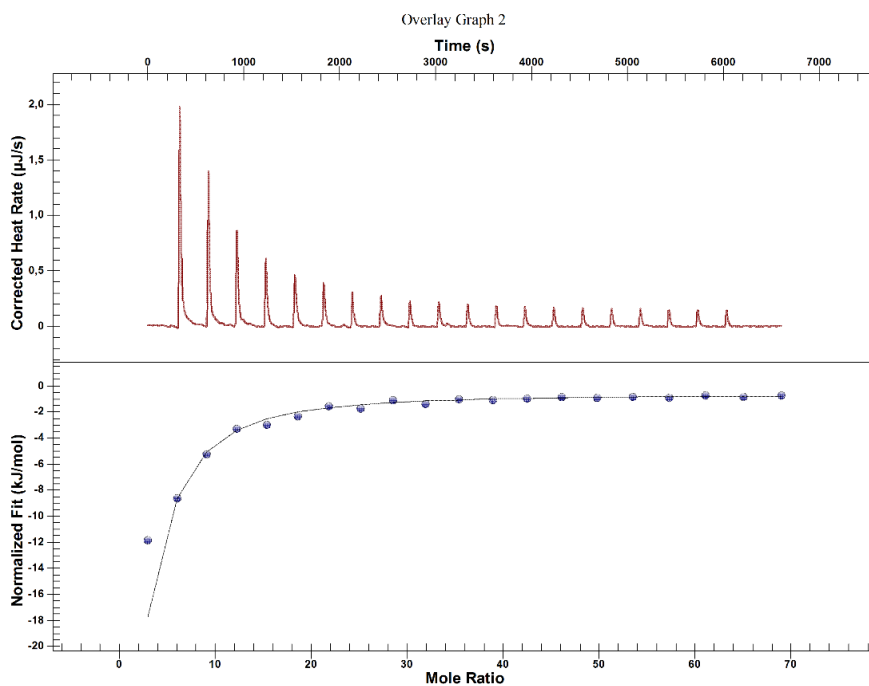
María Emilia Cano: 0000-0001-9063-4573

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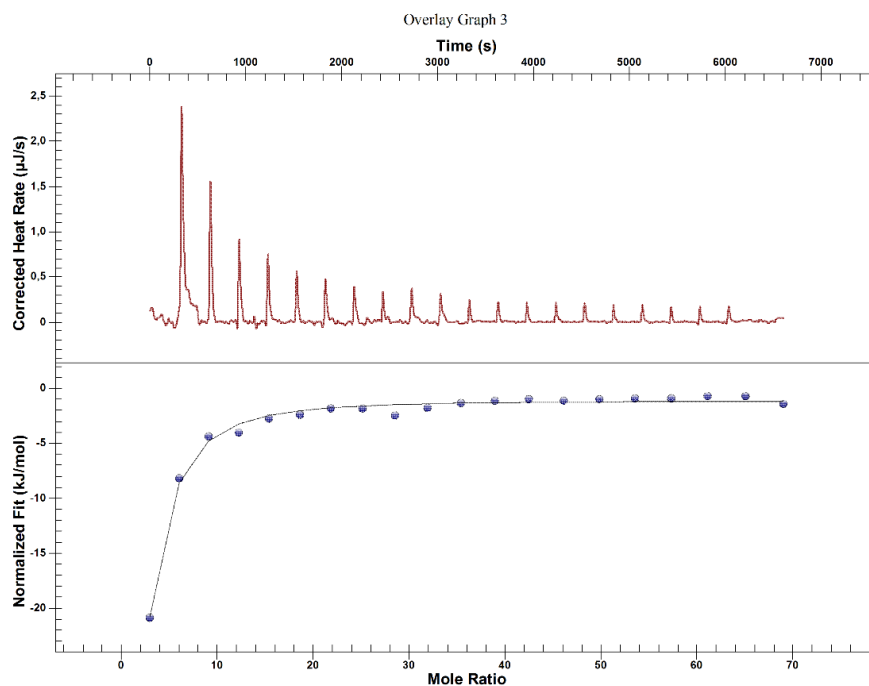
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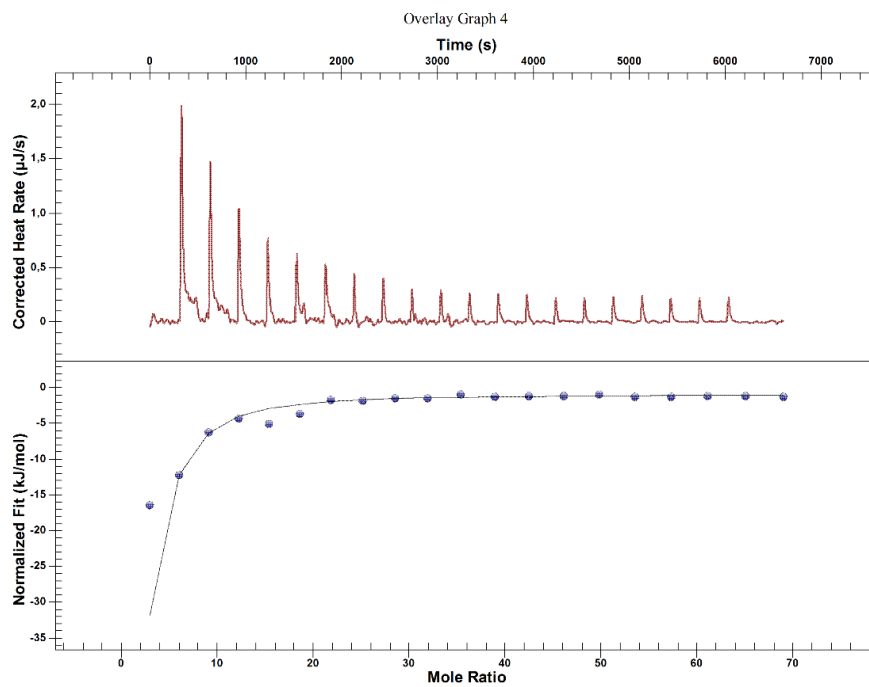
**Figure S1.** Experimental calorimetric data associated with the isothermal titration at 298 K of hGal-3 with lactose.



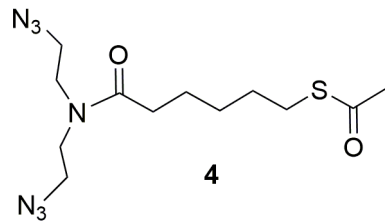
**Figure S2.** Experimental calorimetric data associated with the isothermal titration at 298 K of hGal-3 with compound **22**.



**Figure S3.** Experimental calorimetric data associated with the isothermal titration at 298 K of hGal-3 with compound **23**.



**Figure S4.** Experimental calorimetric data associated with the isothermal titration at 298 K of hGal-3 with compound **29**.



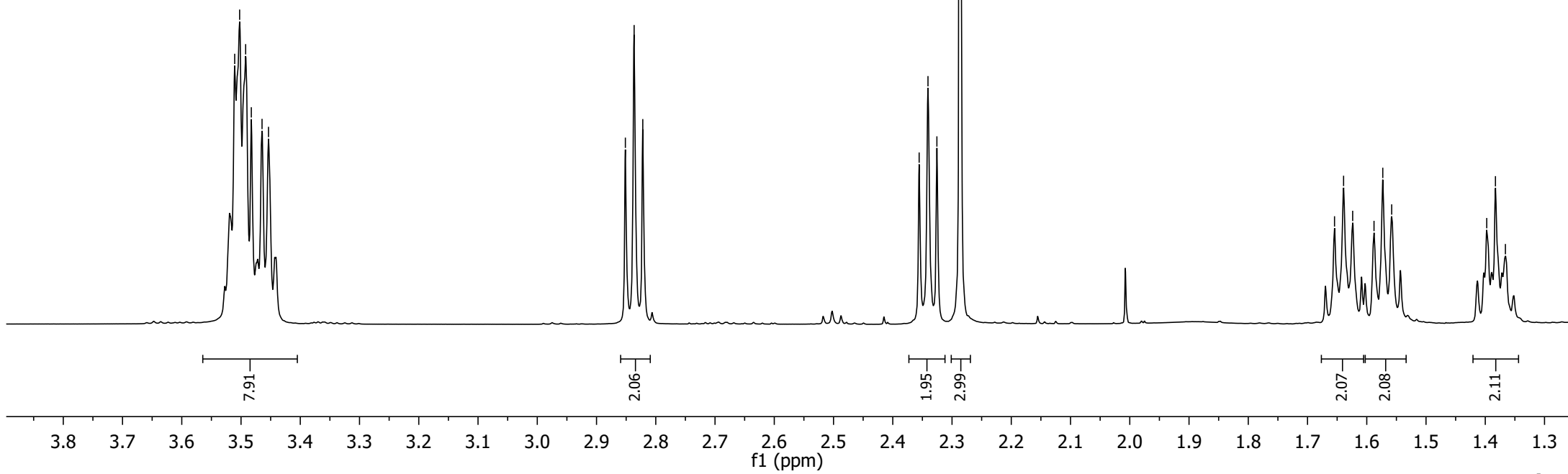
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3.50  
3.49  
3.48  
3.46  
3.45

2.85  
2.84  
2.82

2.36  
2.34  
2.33

1.65  
1.64  
1.62  
1.59  
1.57  
1.56

1.40  
1.38  
1.37

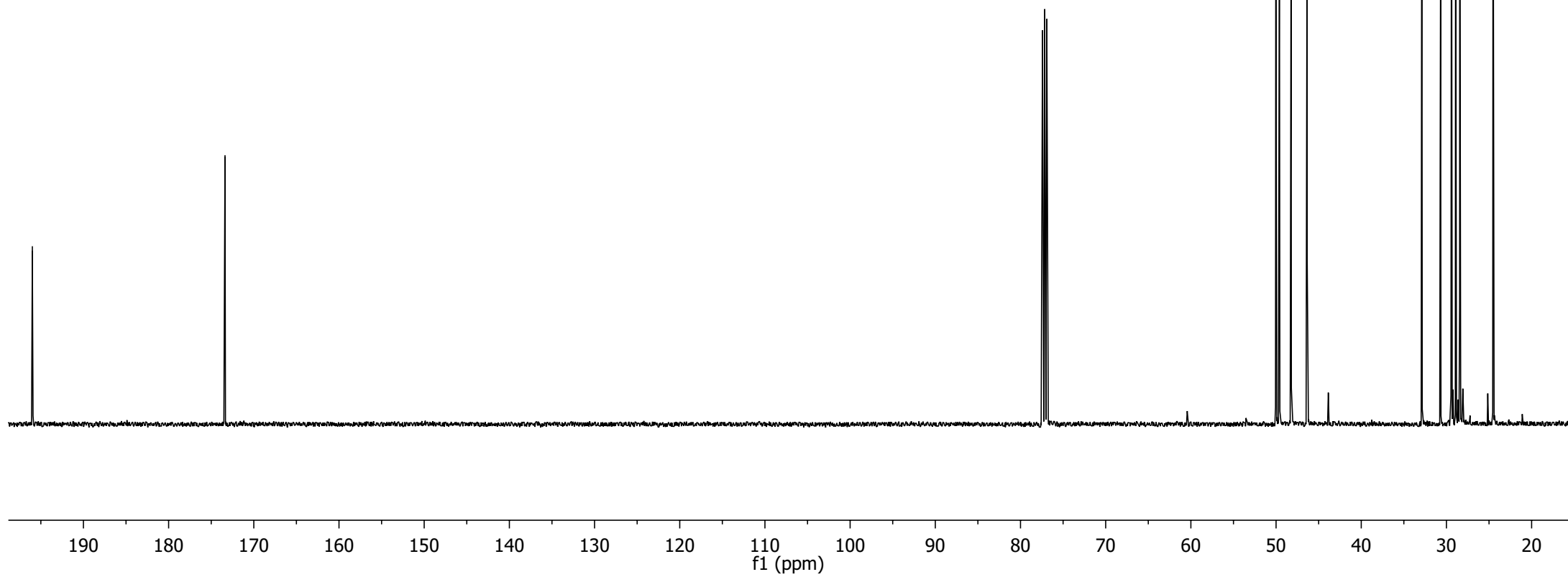
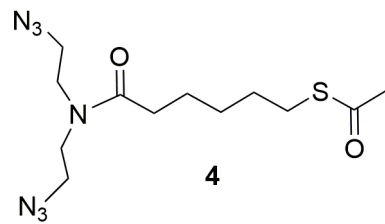


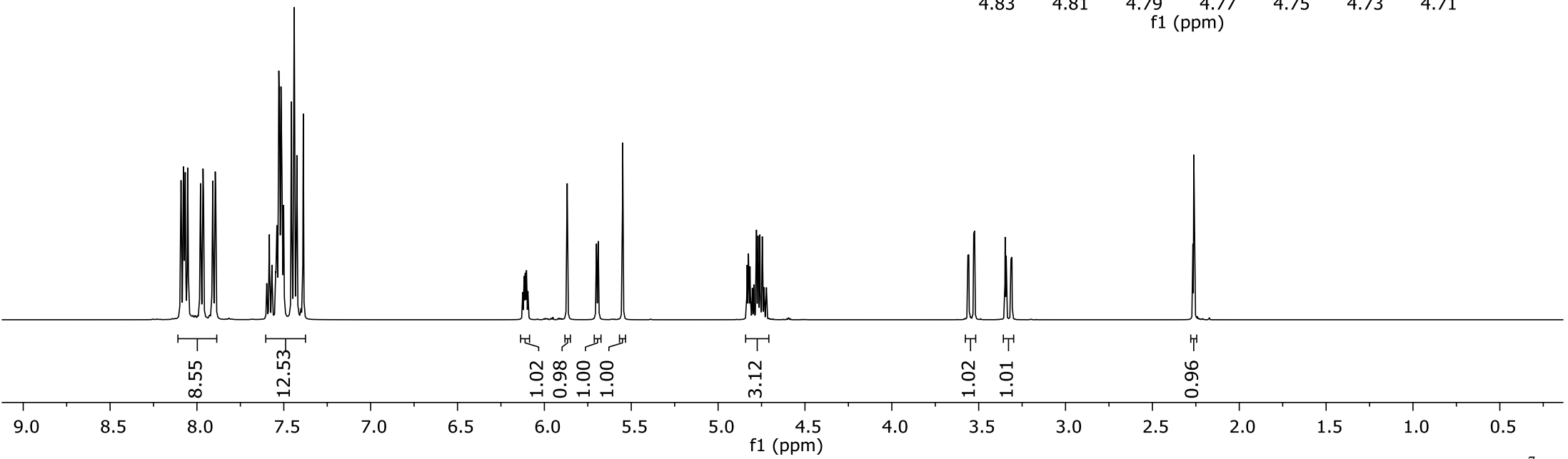
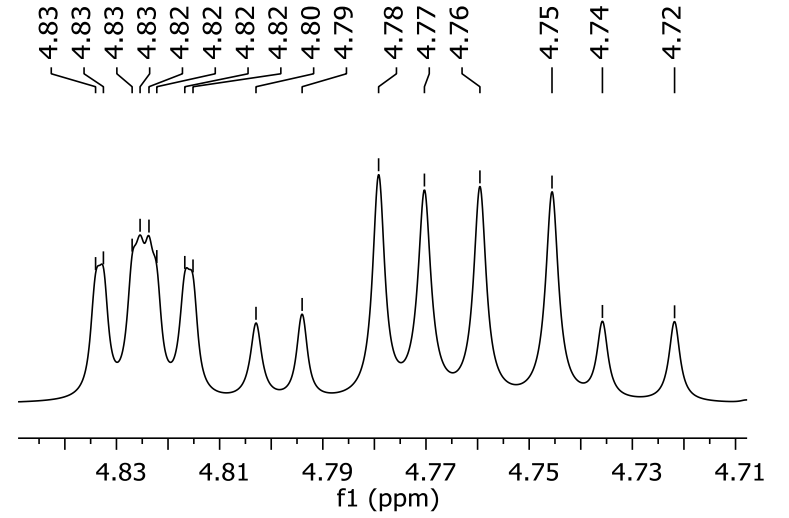
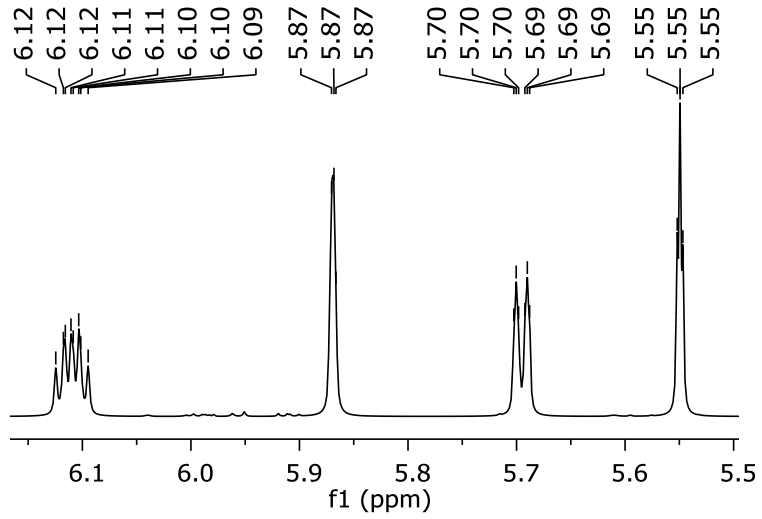
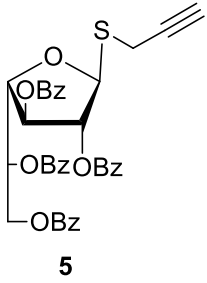
—196.00

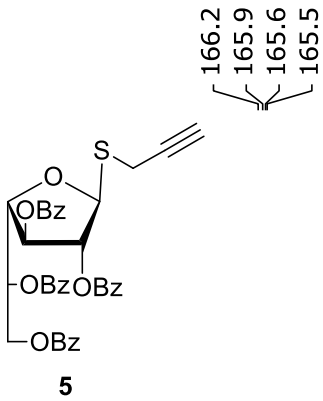
—173.38

50.03  
49.61  
48.23  
46.36

32.88  
30.69  
29.40  
28.92  
28.44  
24.53







166.2  
165.9  
165.6  
165.5

— 133.8

— 128.4

87.7

82.5

81.8

79.3

78.1

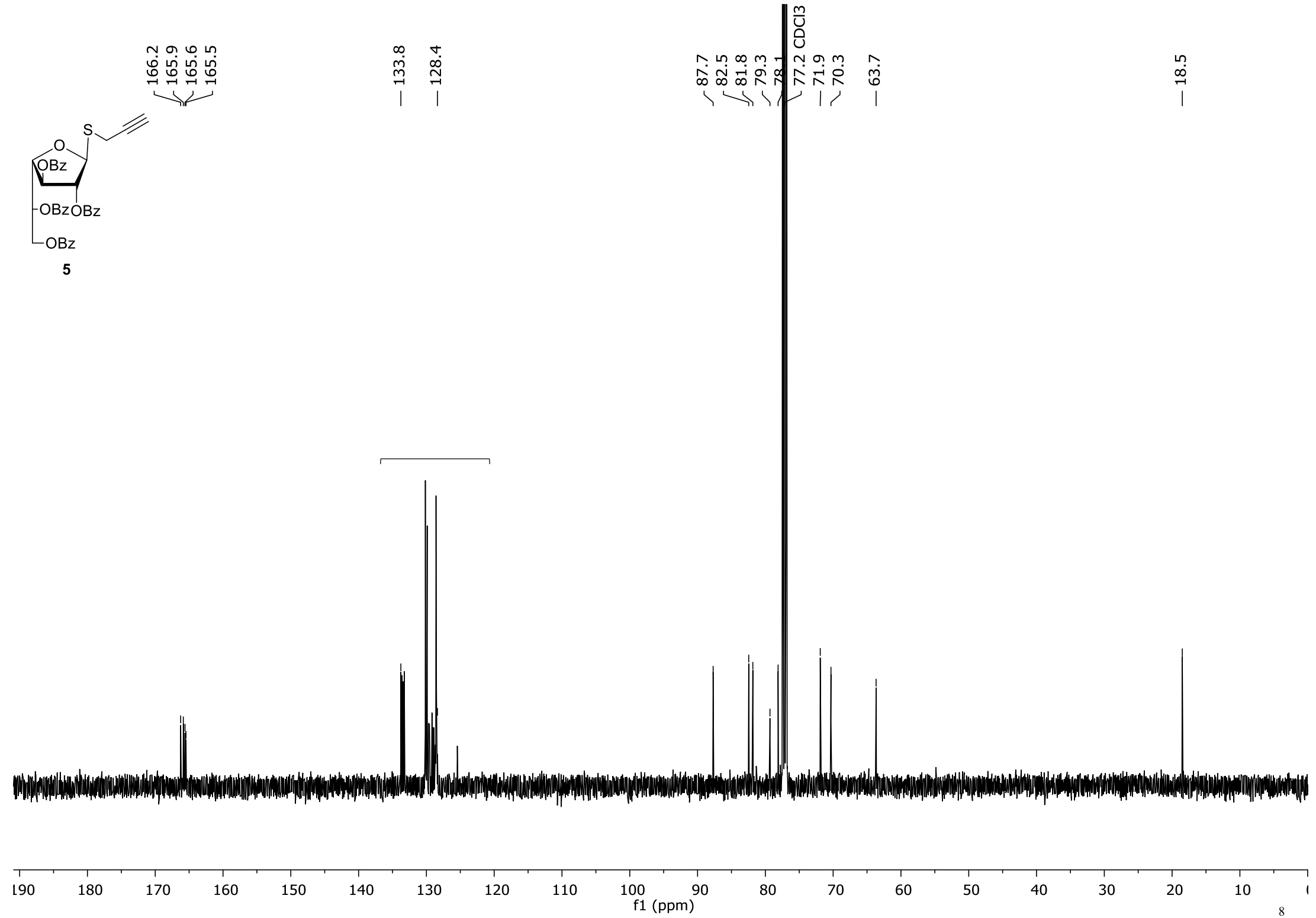
77.2 CDCl<sub>3</sub>

71.9

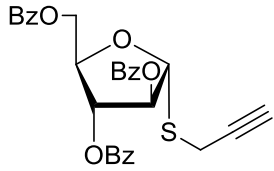
70.3

— 63.7

— 18.5

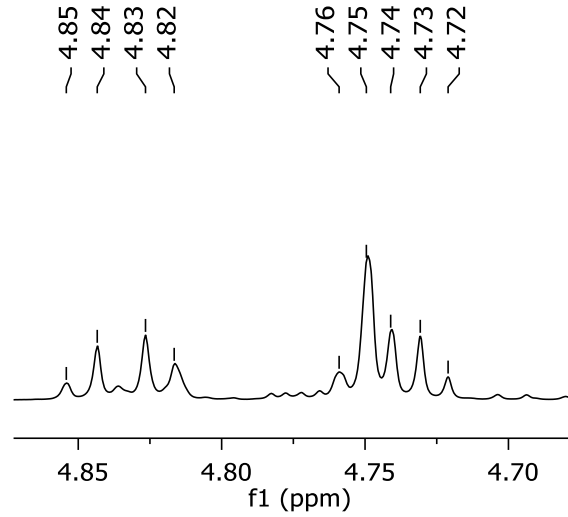
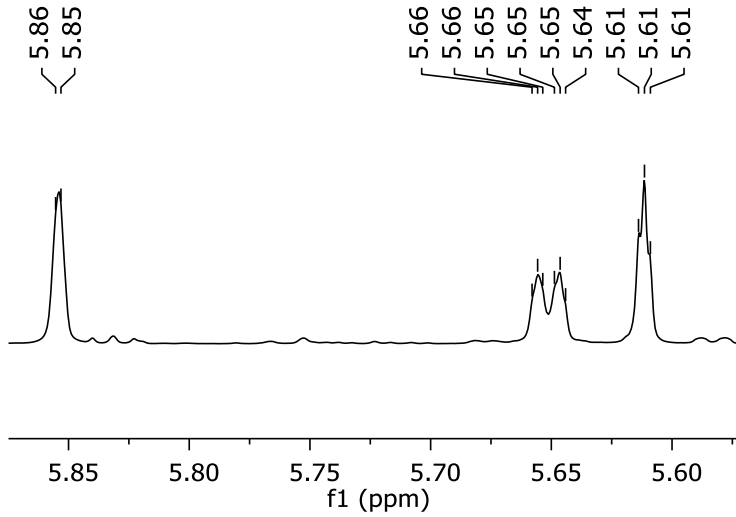






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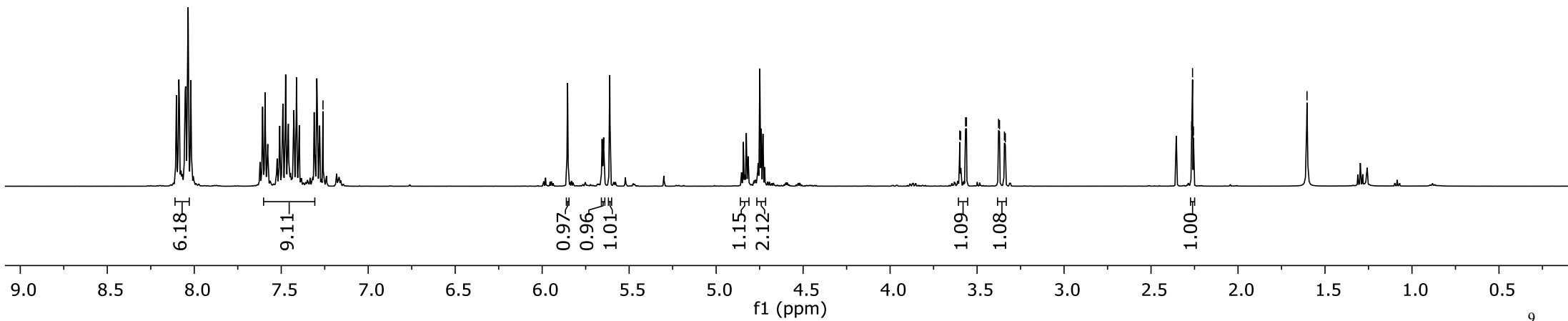
— 7.26 CDCl<sub>3</sub>

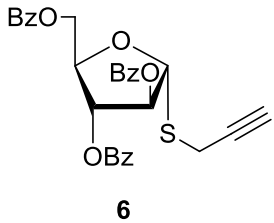


3.60  
3.59  
3.57  
3.56  
3.38  
3.37  
3.34  
3.34

2.27  
2.26  
2.26

— 1.60





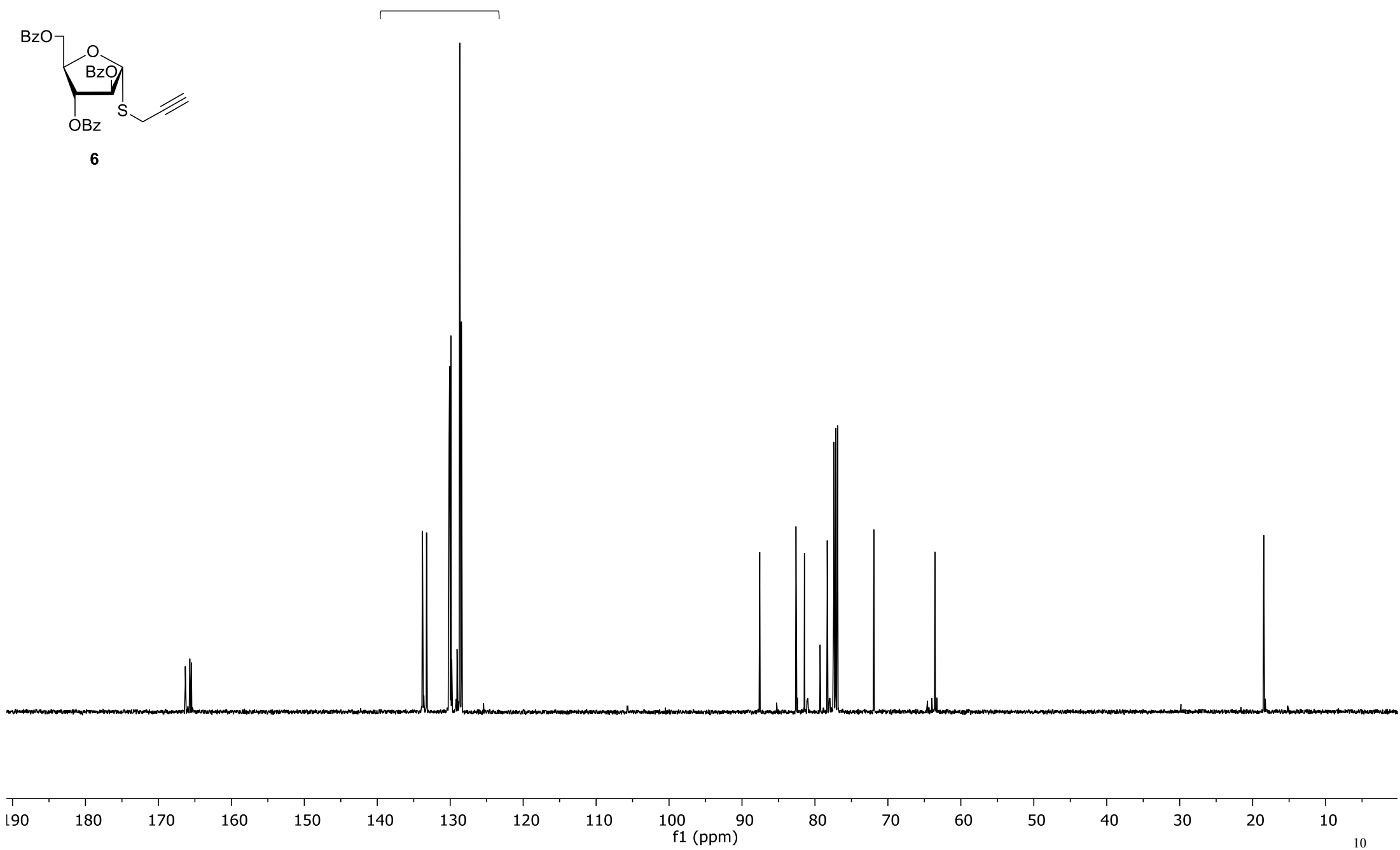
166.3  
165.7  
165.5

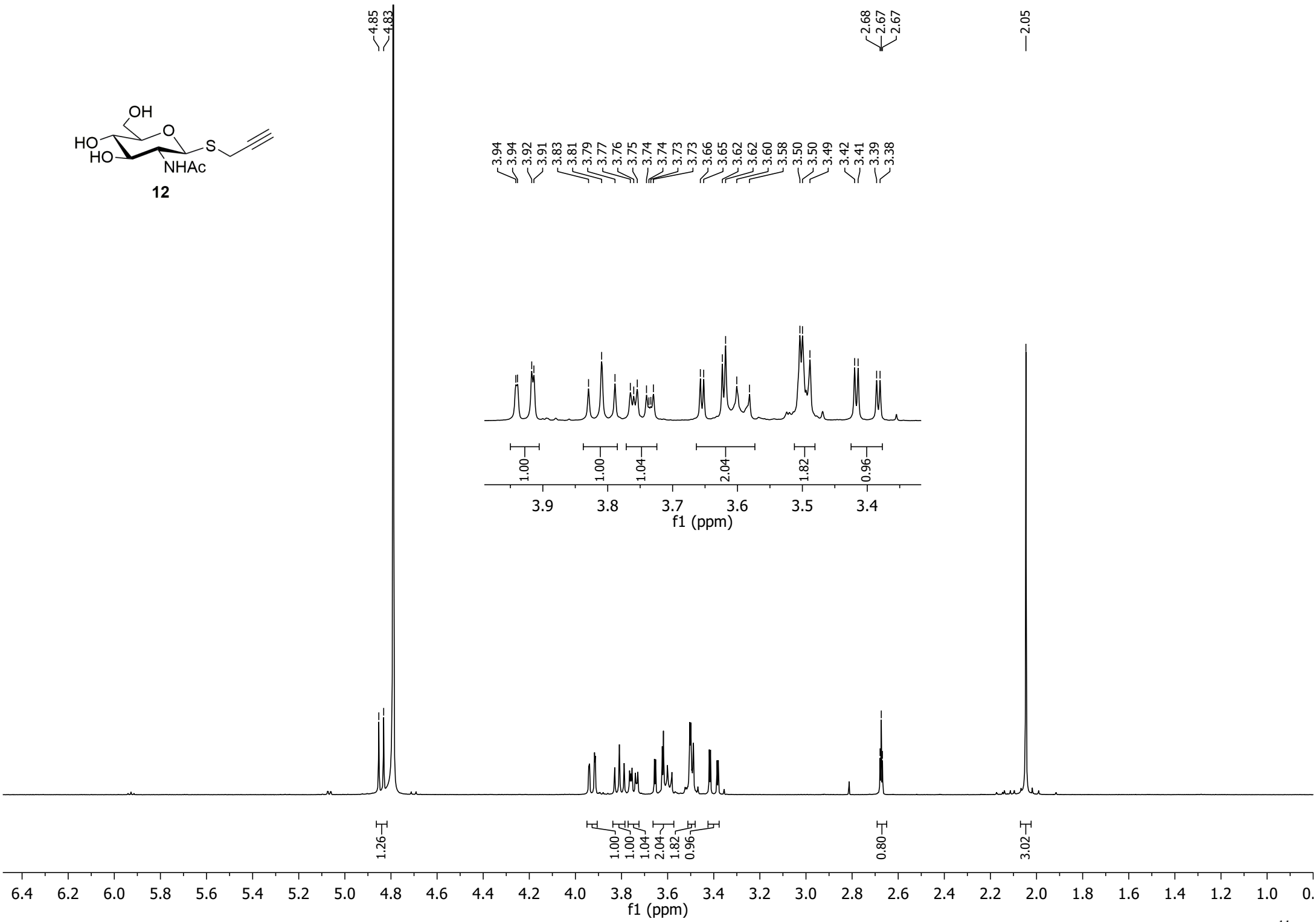
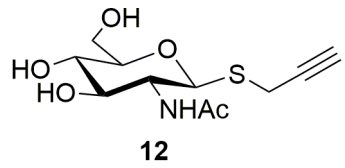
133.8  
128.5

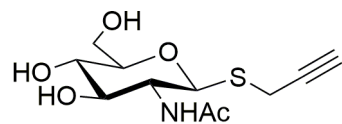
87.6  
82.6  
81.4  
79.3  
78.3  
77.2 CDCl<sub>3</sub>  
71.9

63.6

18.5







12

—174.5

~83.2

~80.1

~79.9

~75.0

~72.3

~69.7

—60.8

—54.3

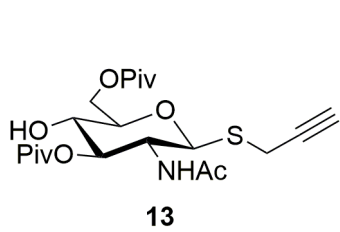
—22.1

—17.5



190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0

f1 (ppm)



5.03  
5.02  
5.01  
5.00

4.72  
4.70

4.40  
4.39  
4.39

4.20  
4.18  
4.16  
4.16  
4.14

3.60  
3.59  
3.57  
3.56  
3.56  
3.56  
3.54

3.28  
3.27  
3.24  
3.24

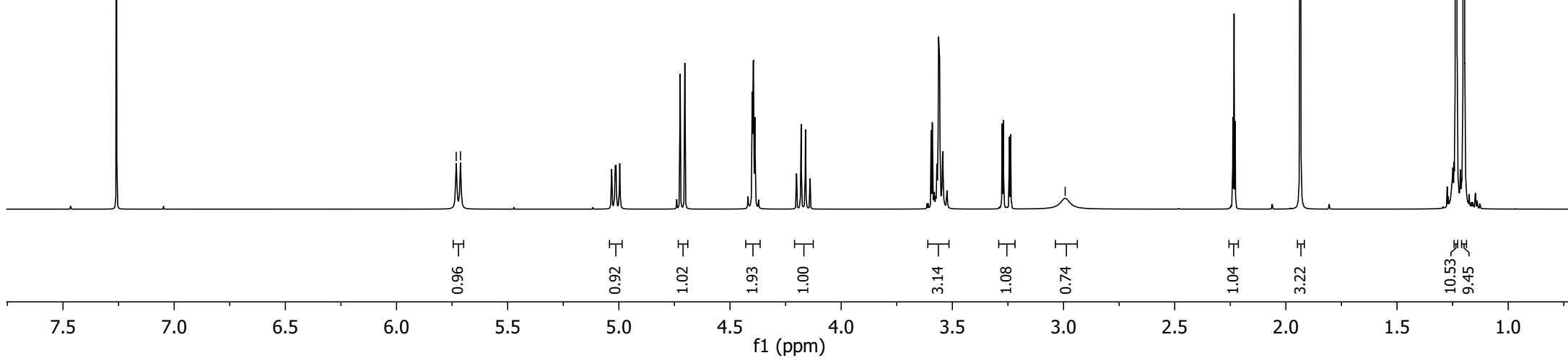
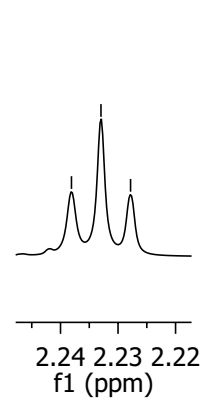
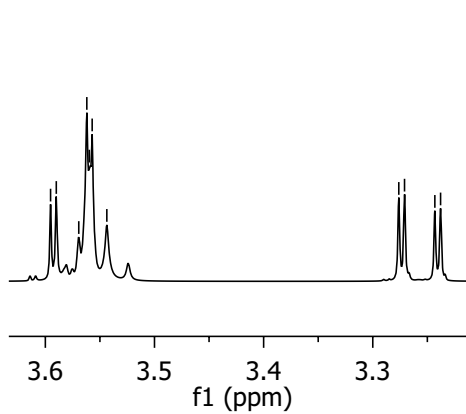
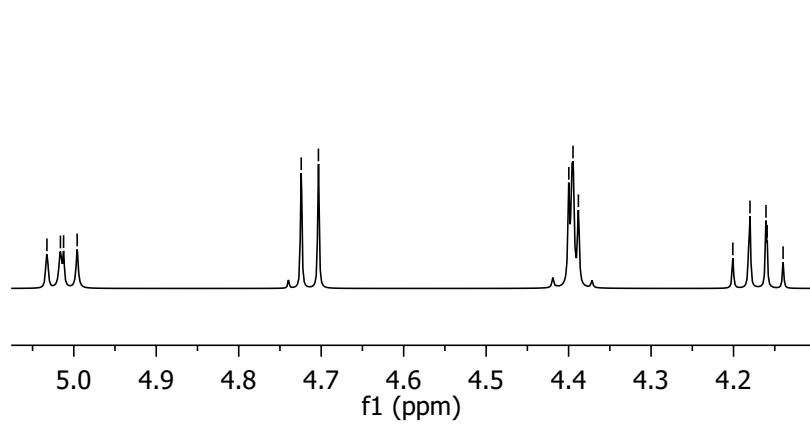
2.24  
2.23  
2.23

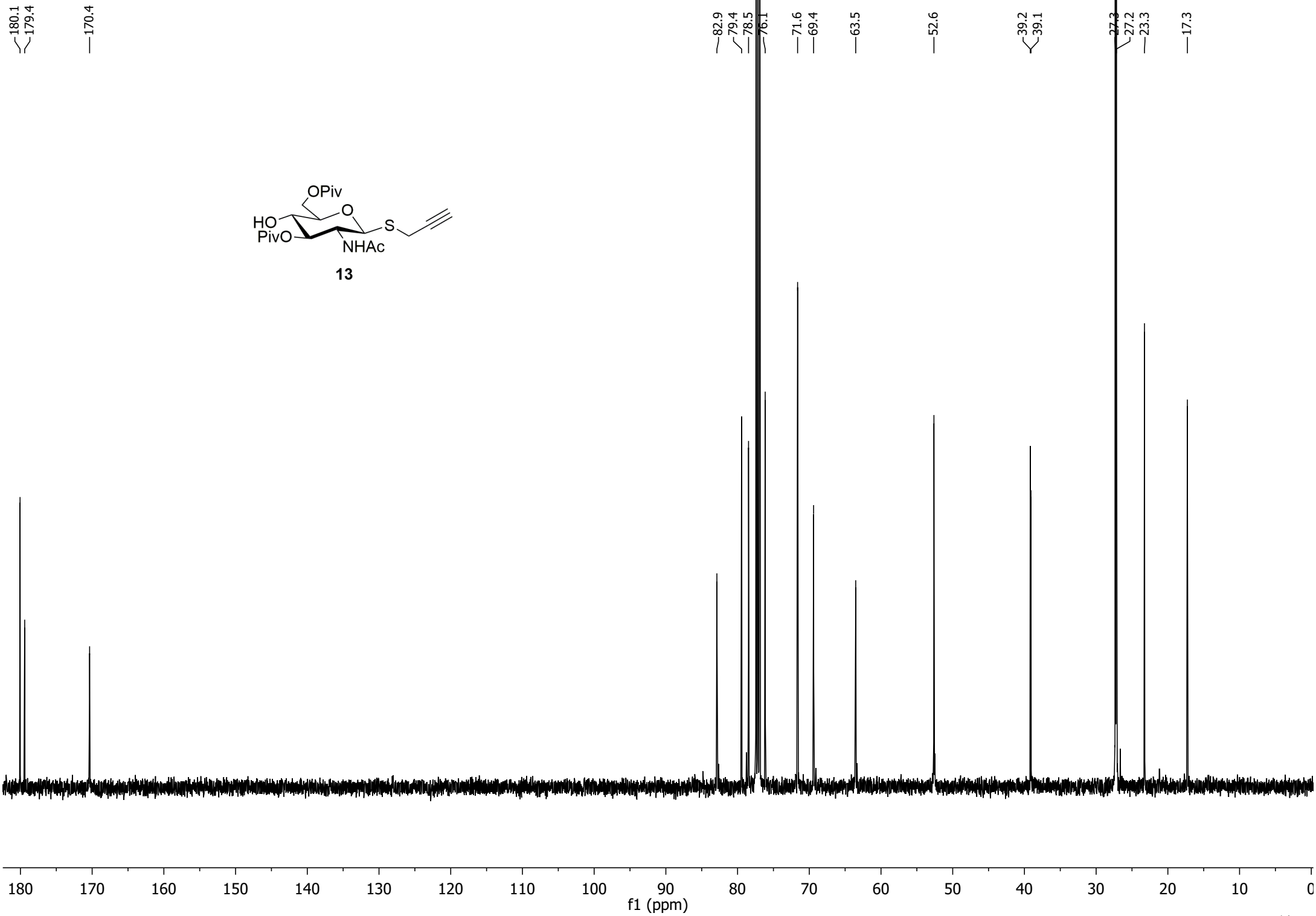
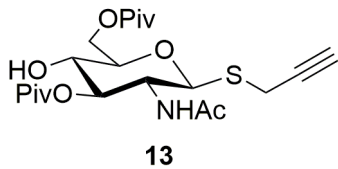
5.73  
5.71

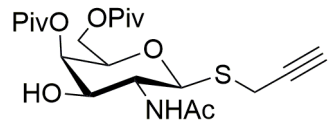
2.99

1.94

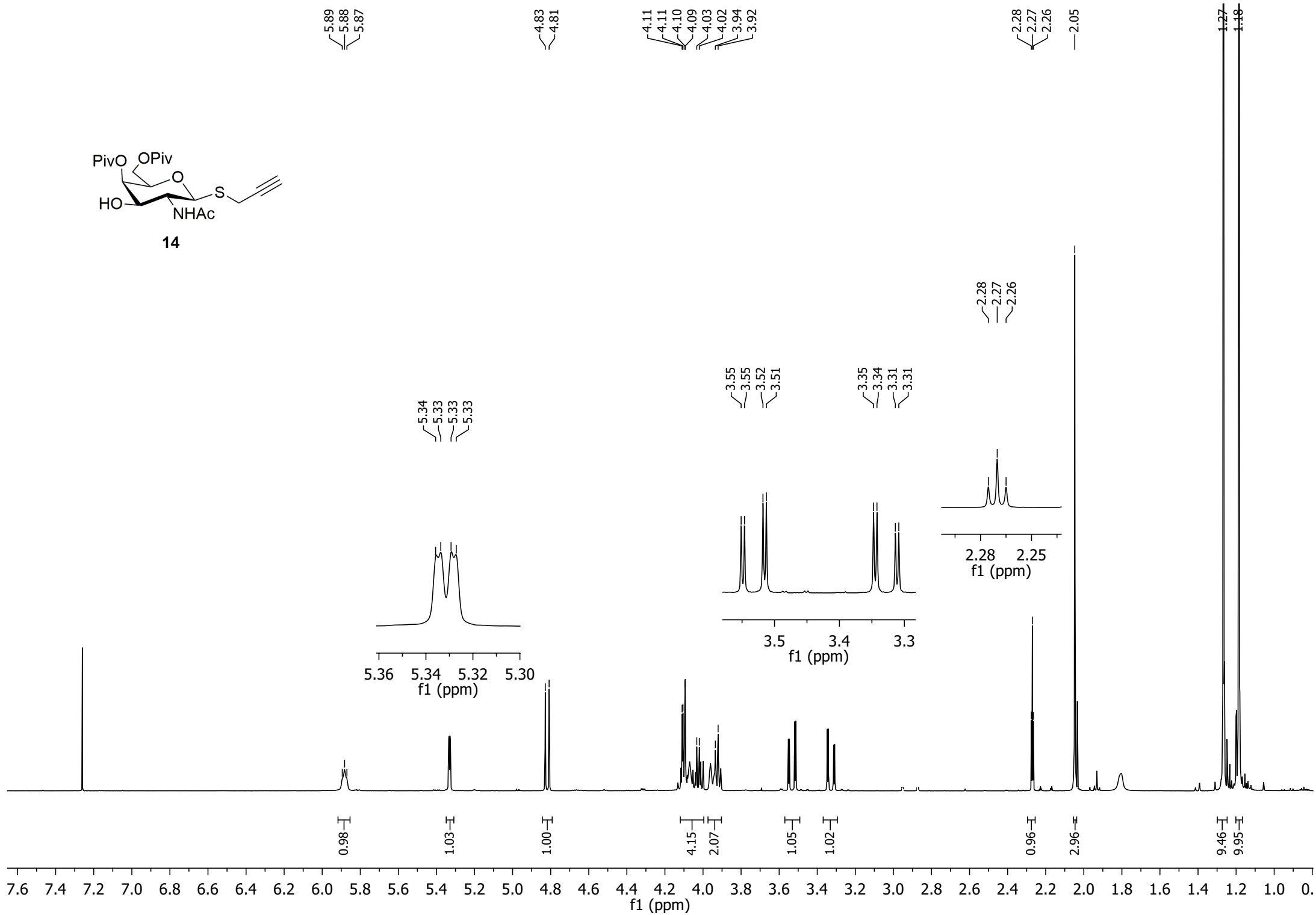
1.23  
1.20

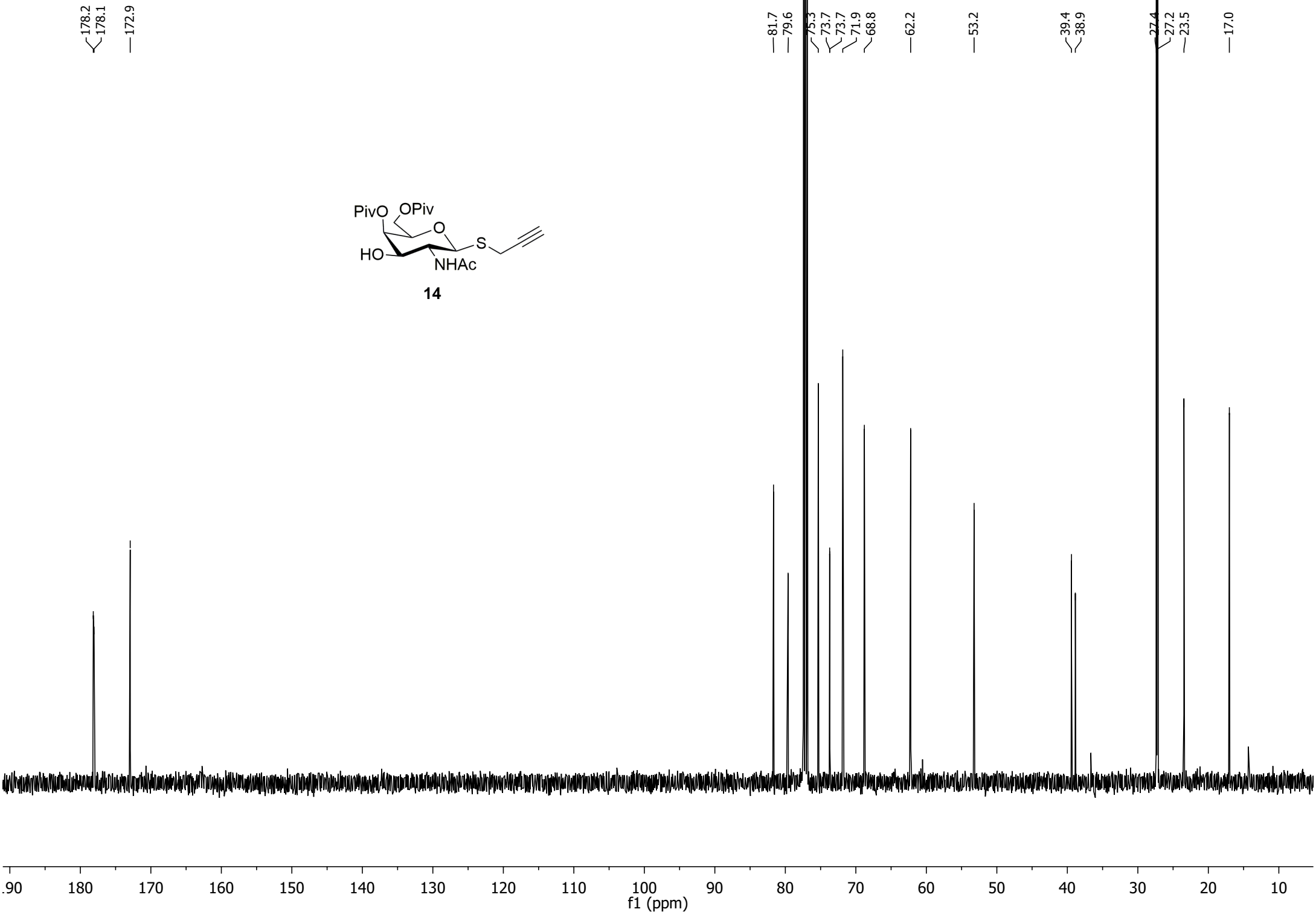




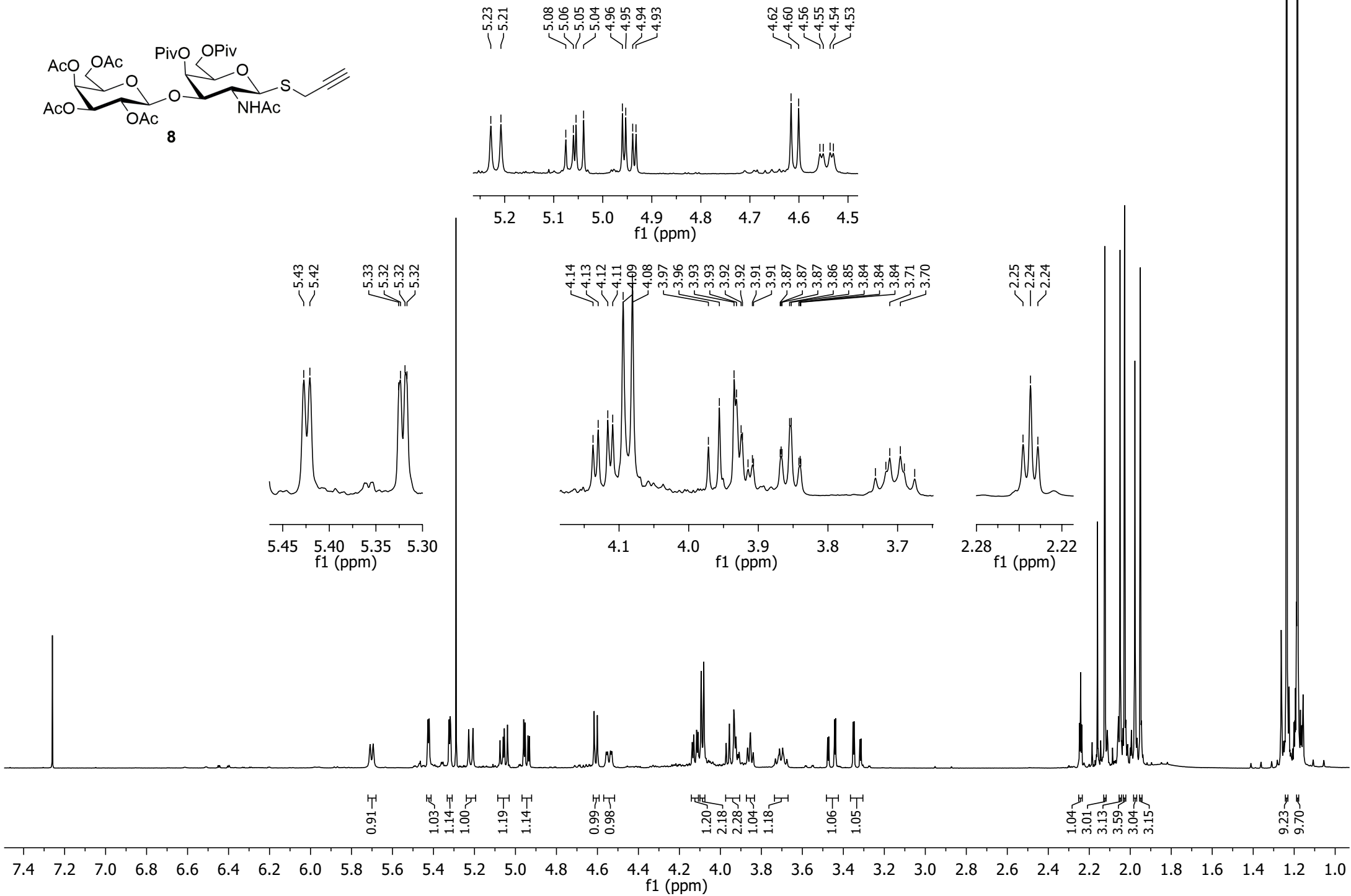
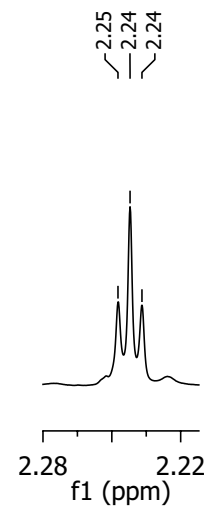
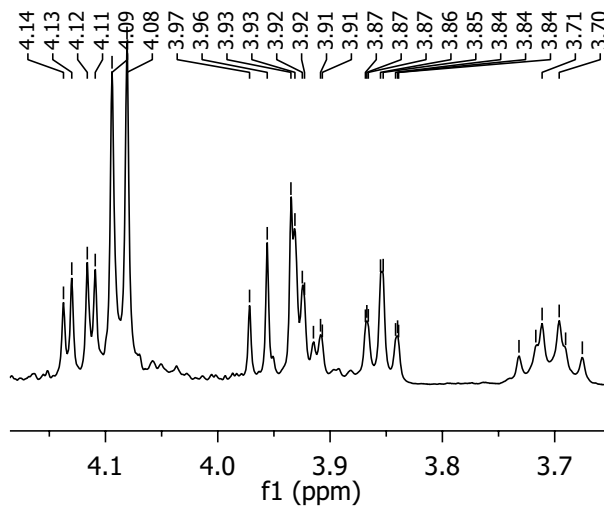
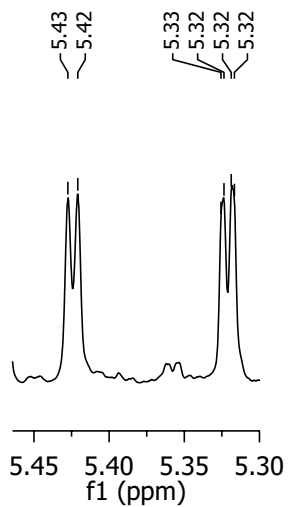
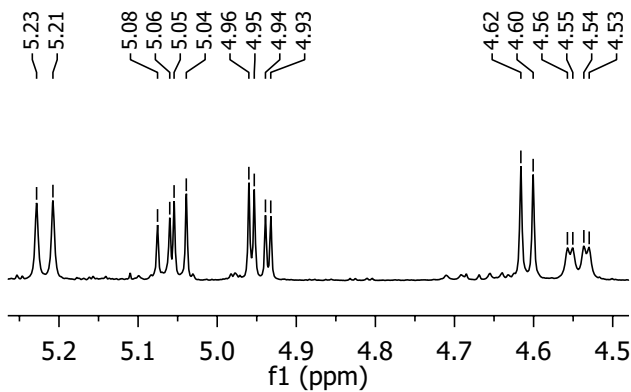
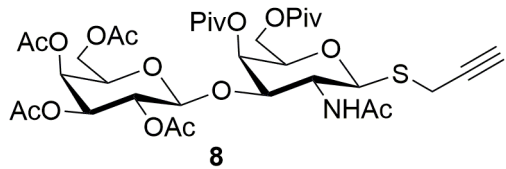


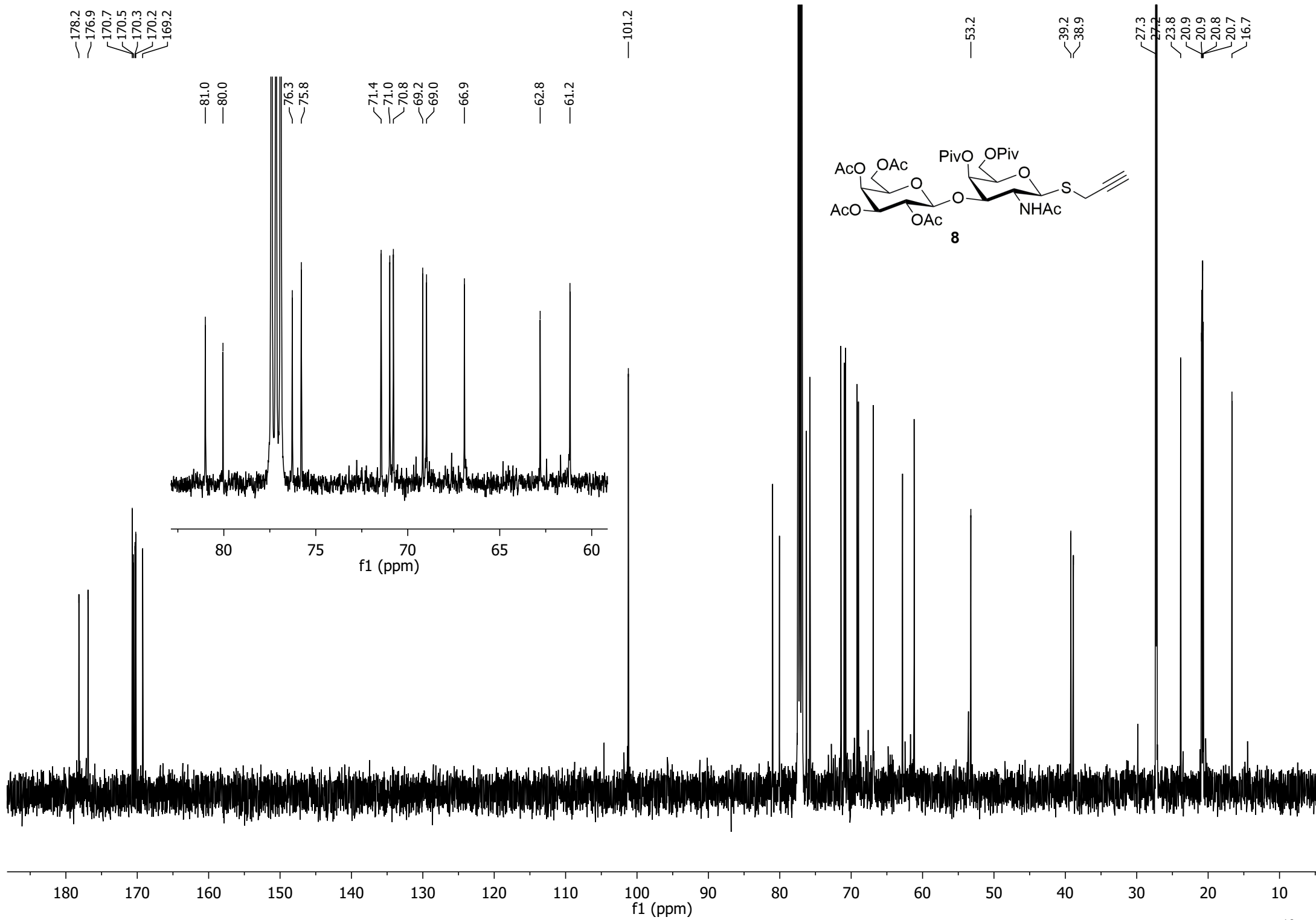
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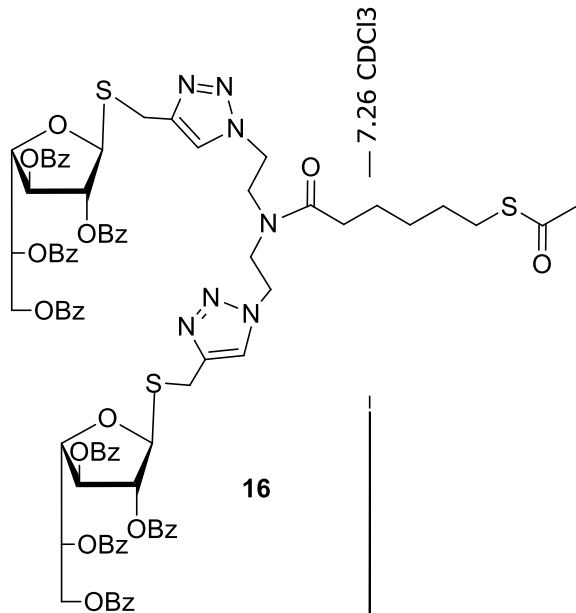








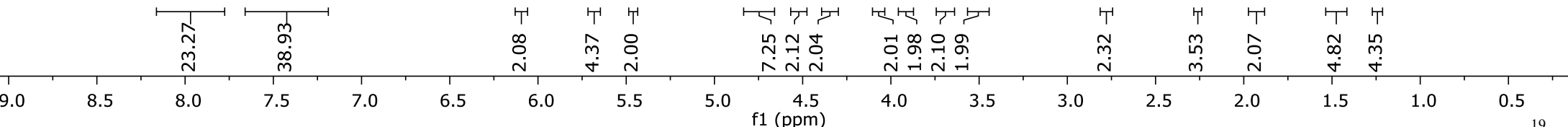
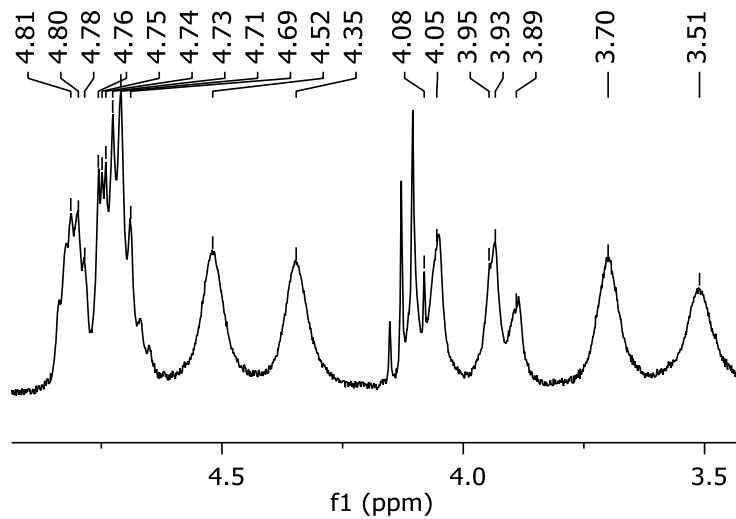


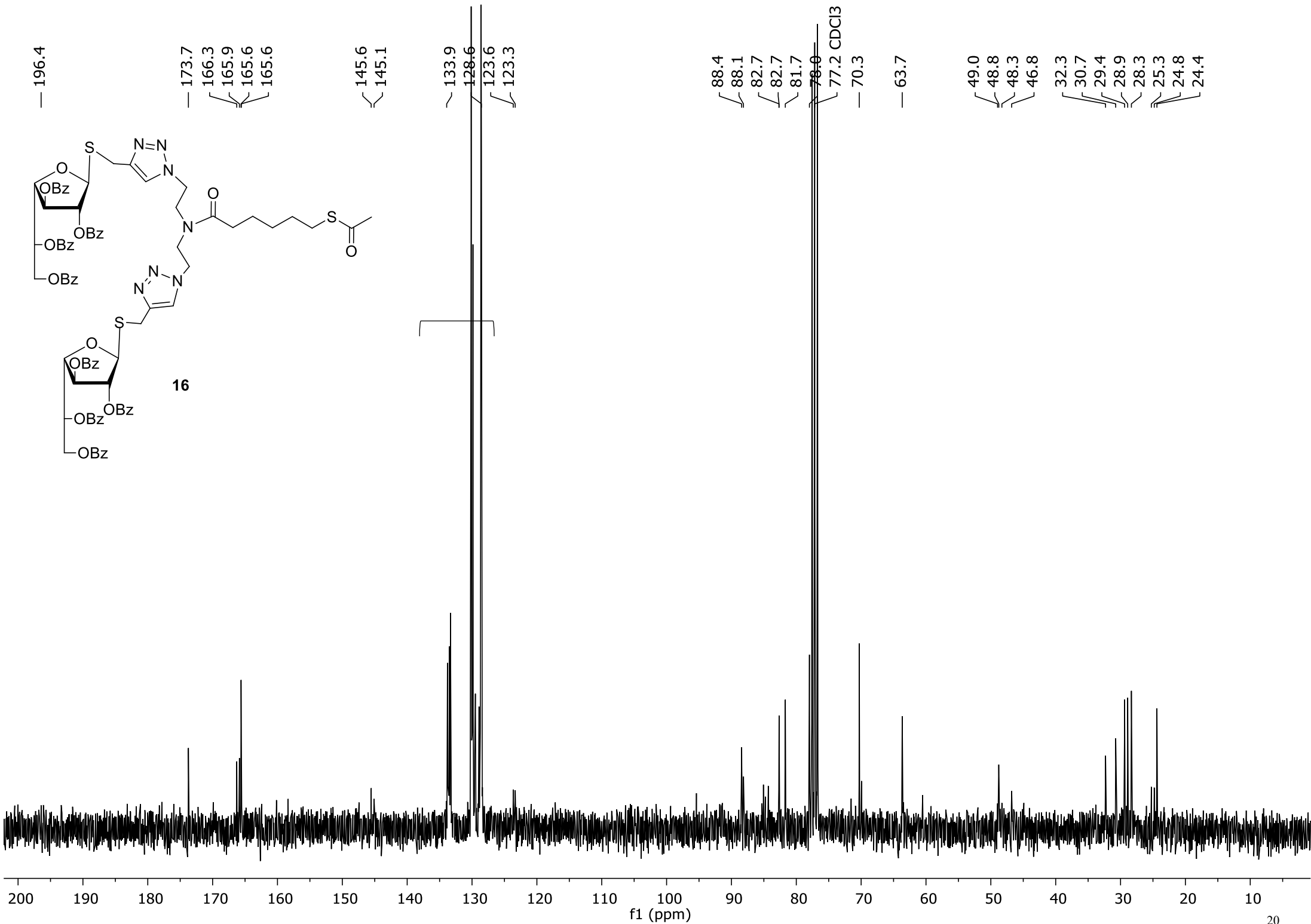
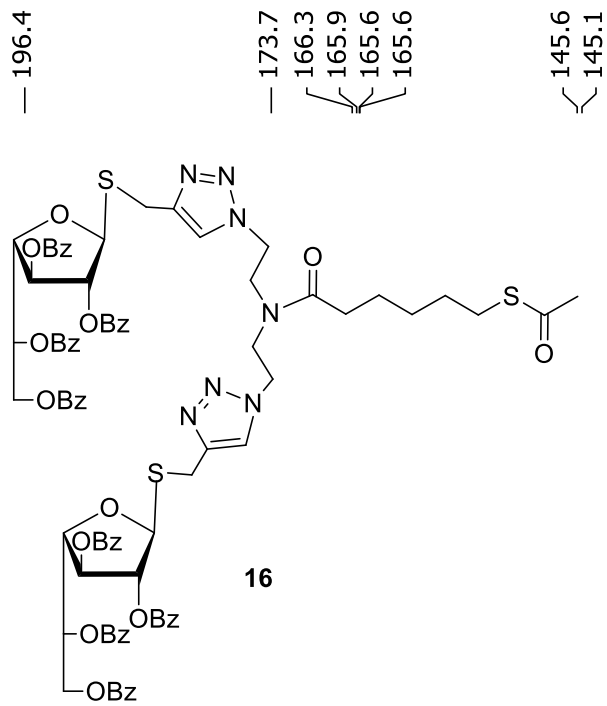


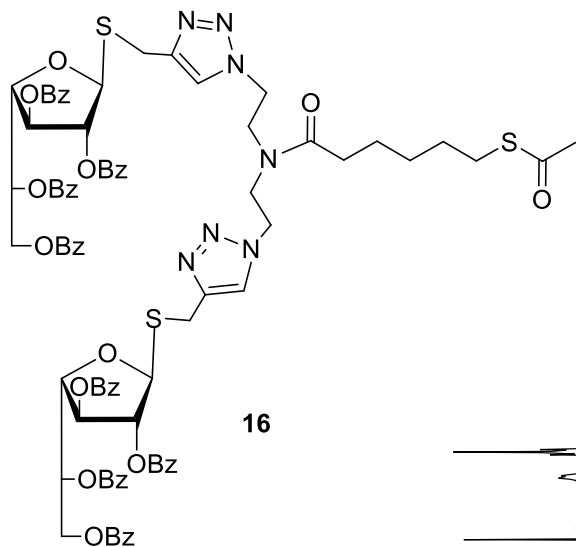
**16**

6.10  
 5.71  
 5.70  
 5.68  
 5.66  
 5.47  
 5.45

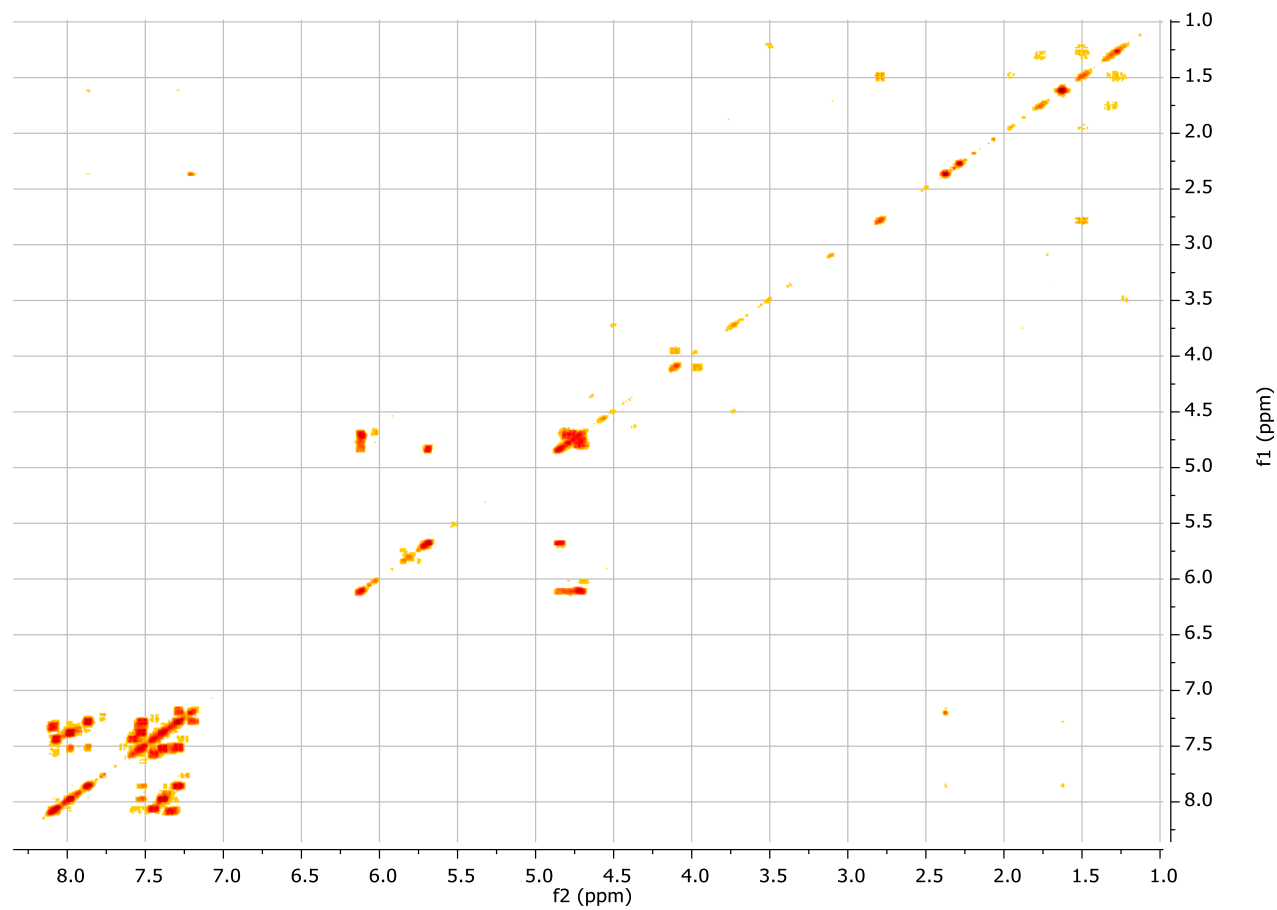
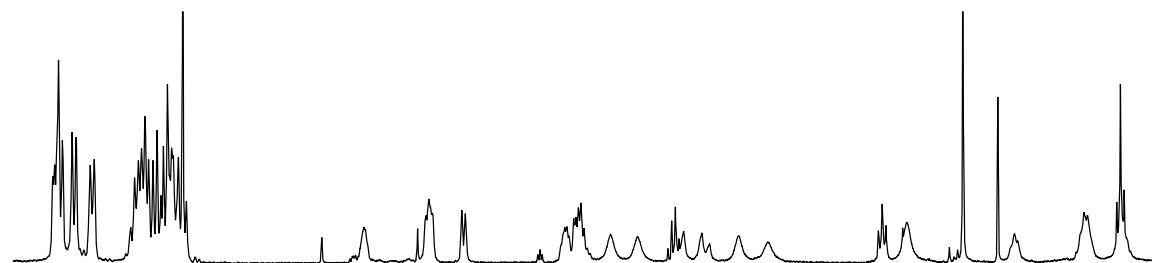
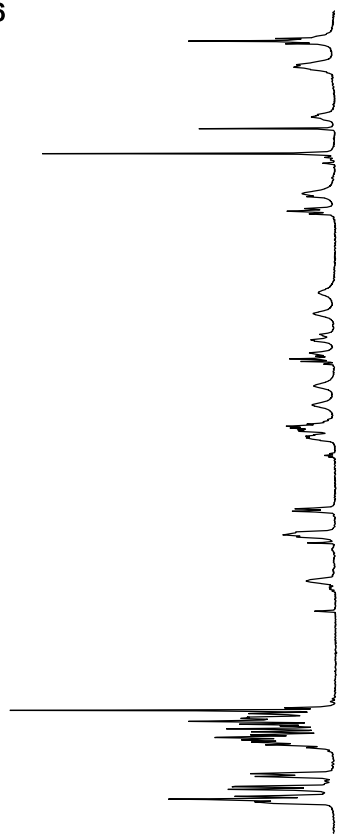
2.80  
 2.78  
 2.76  
 2.26

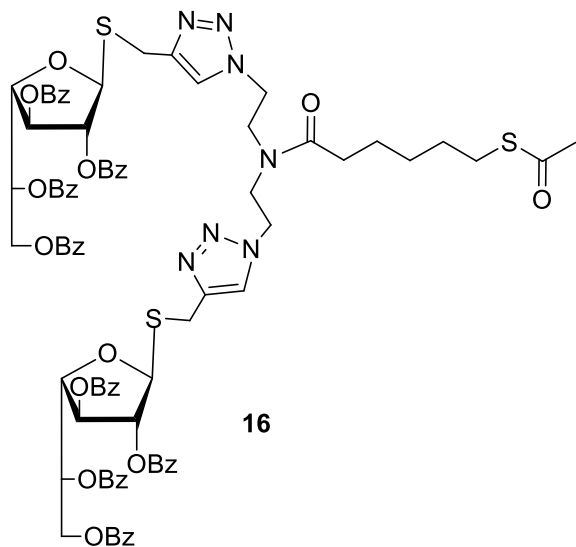




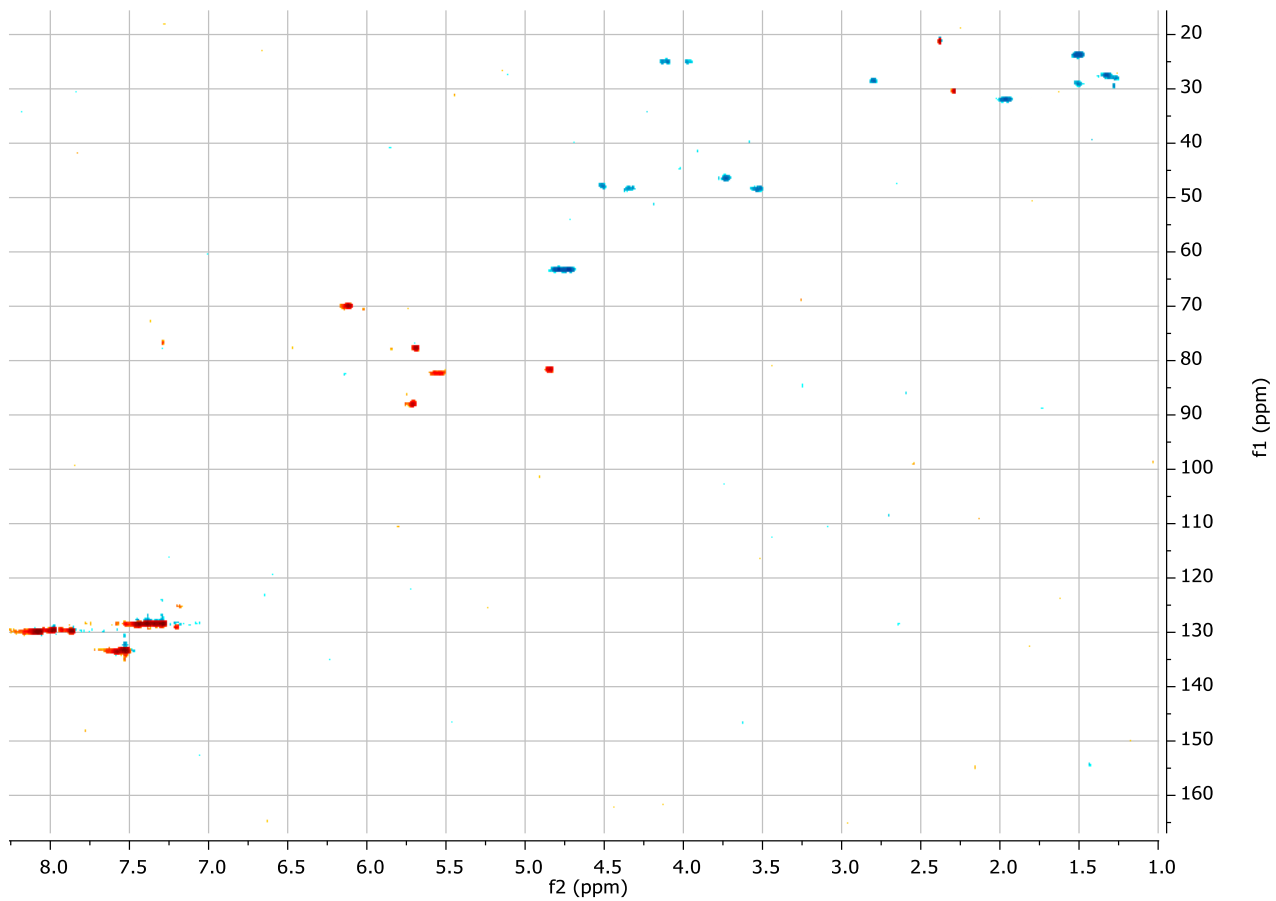
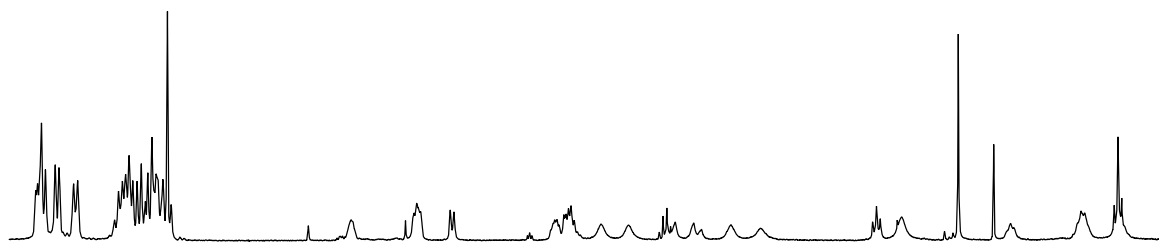
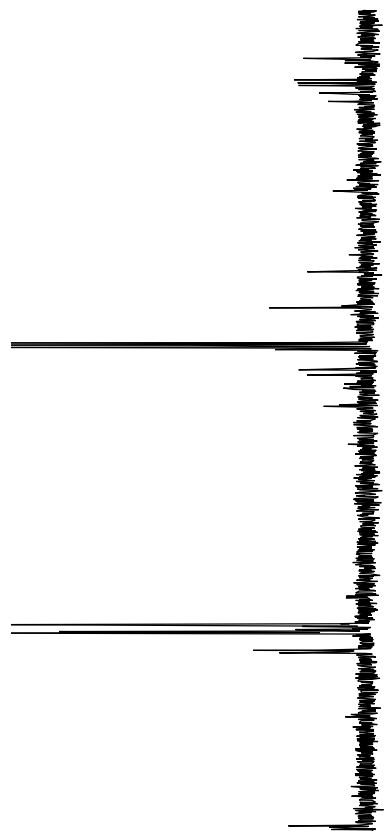


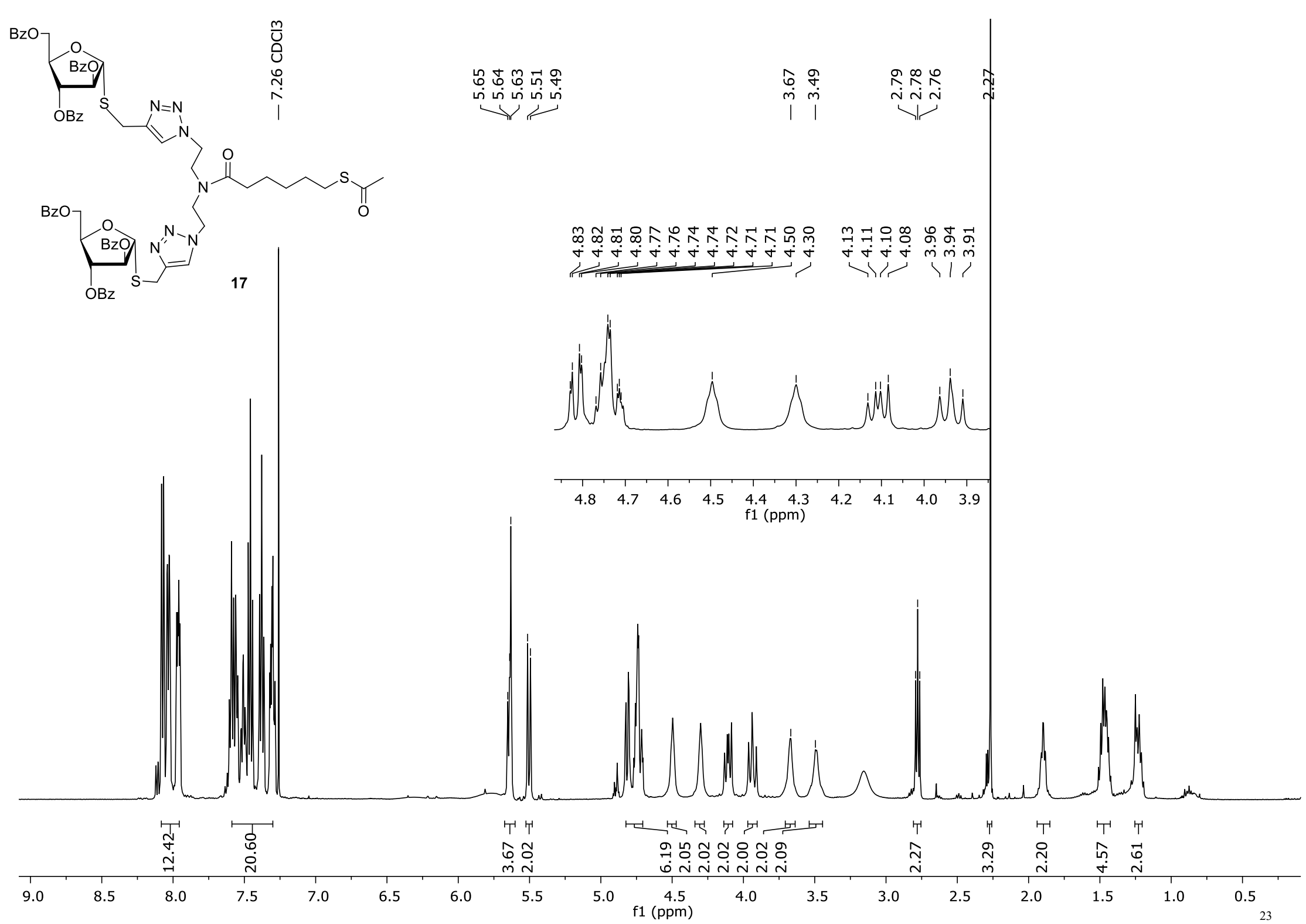
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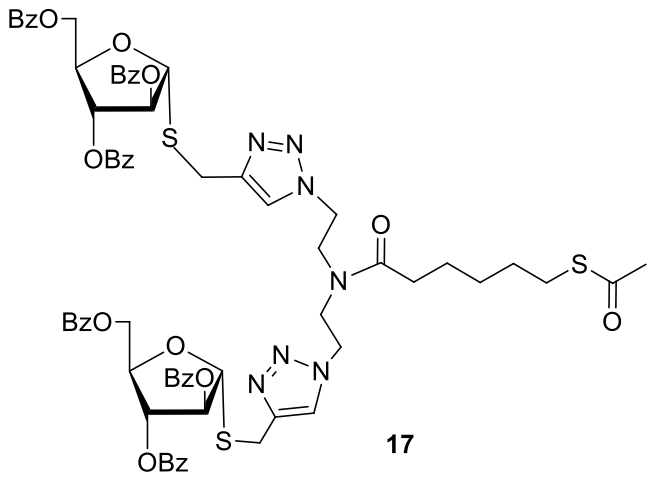




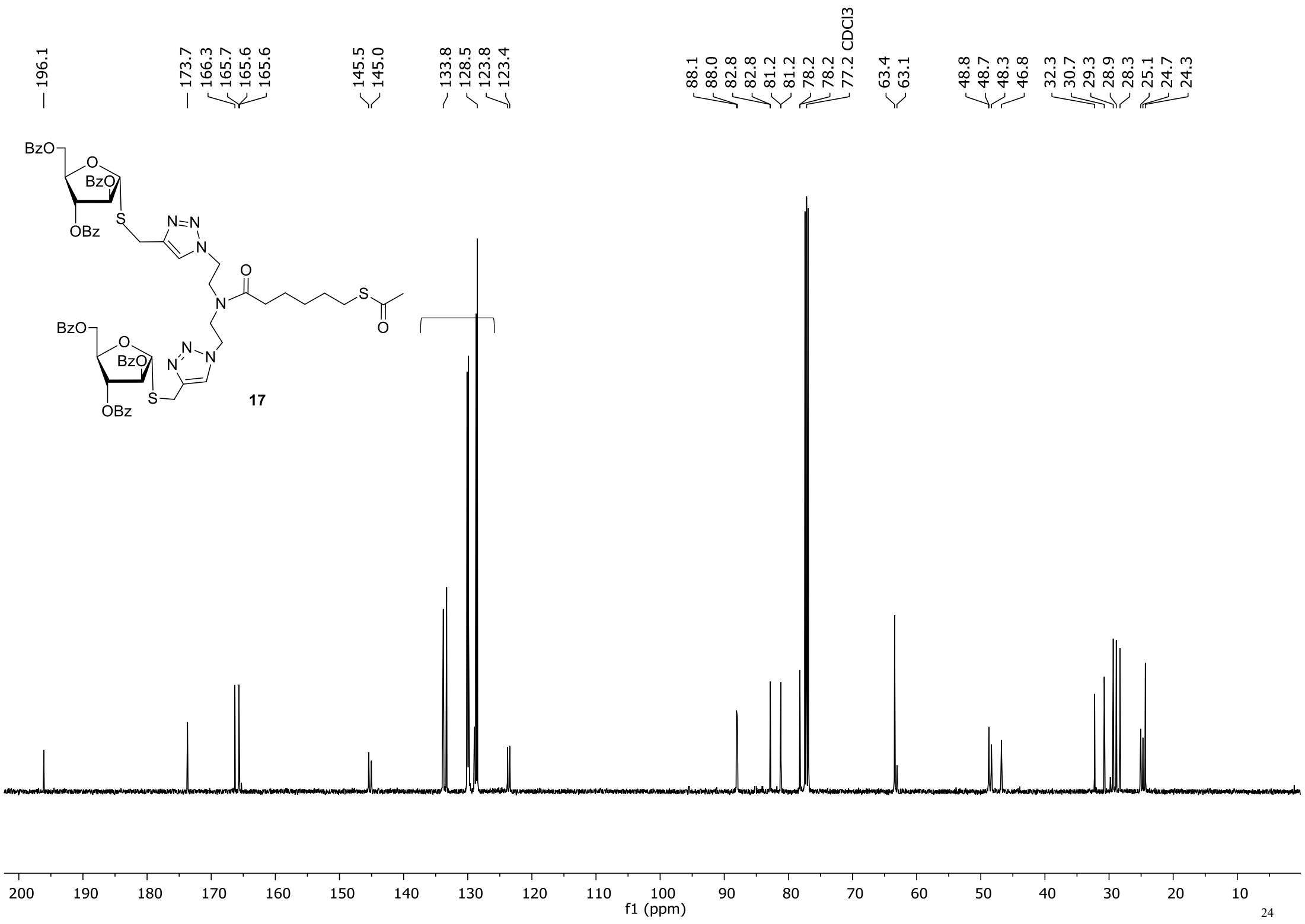
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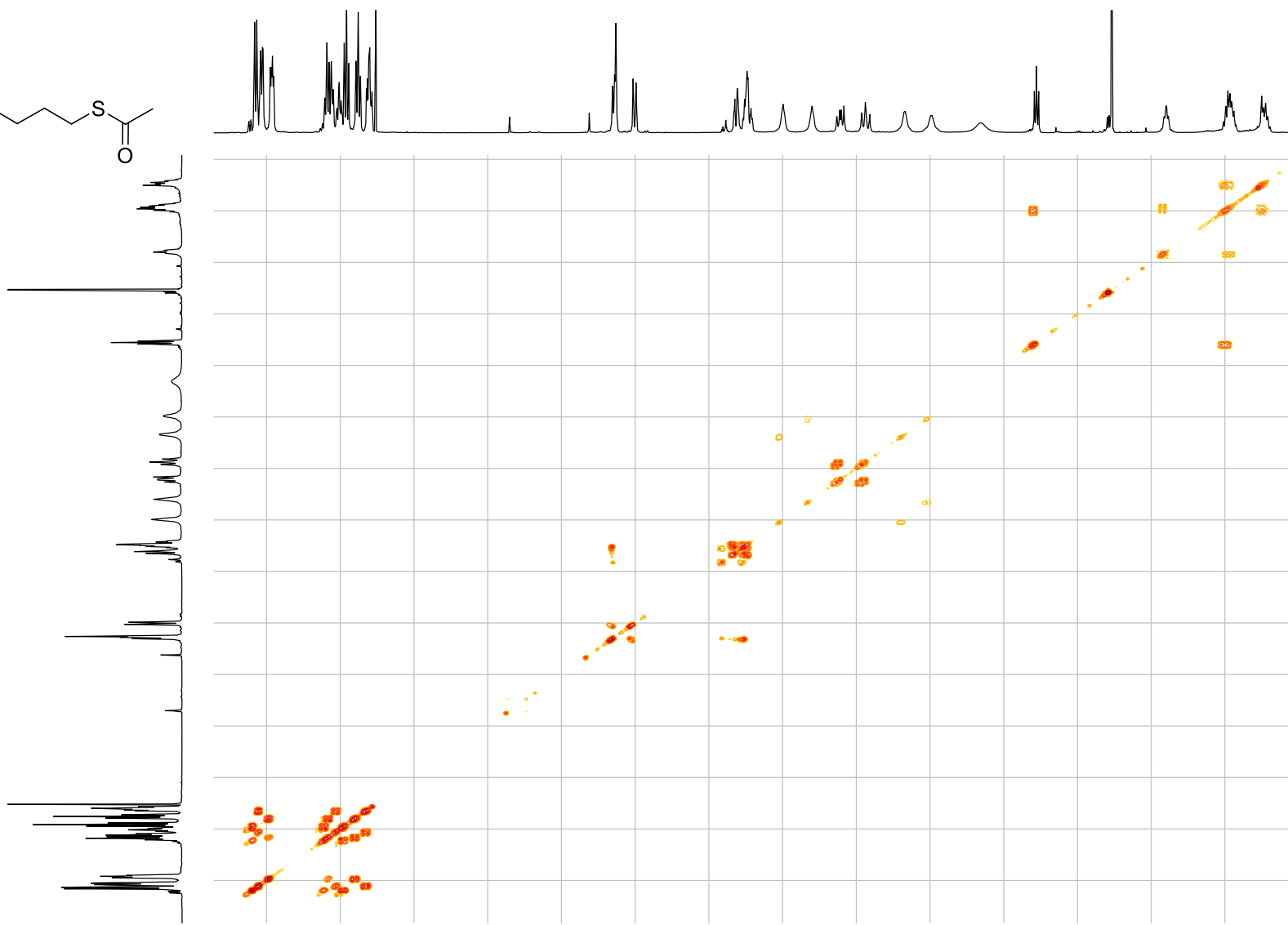
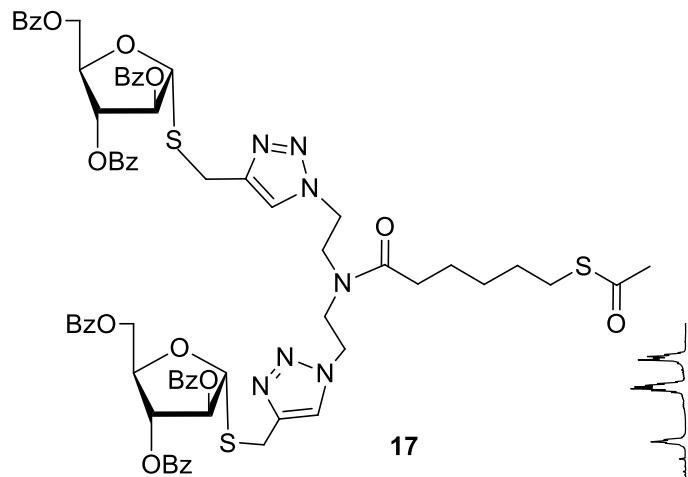


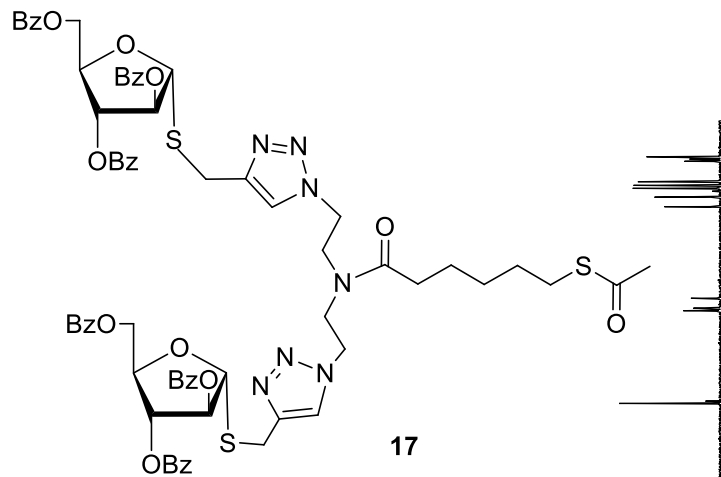


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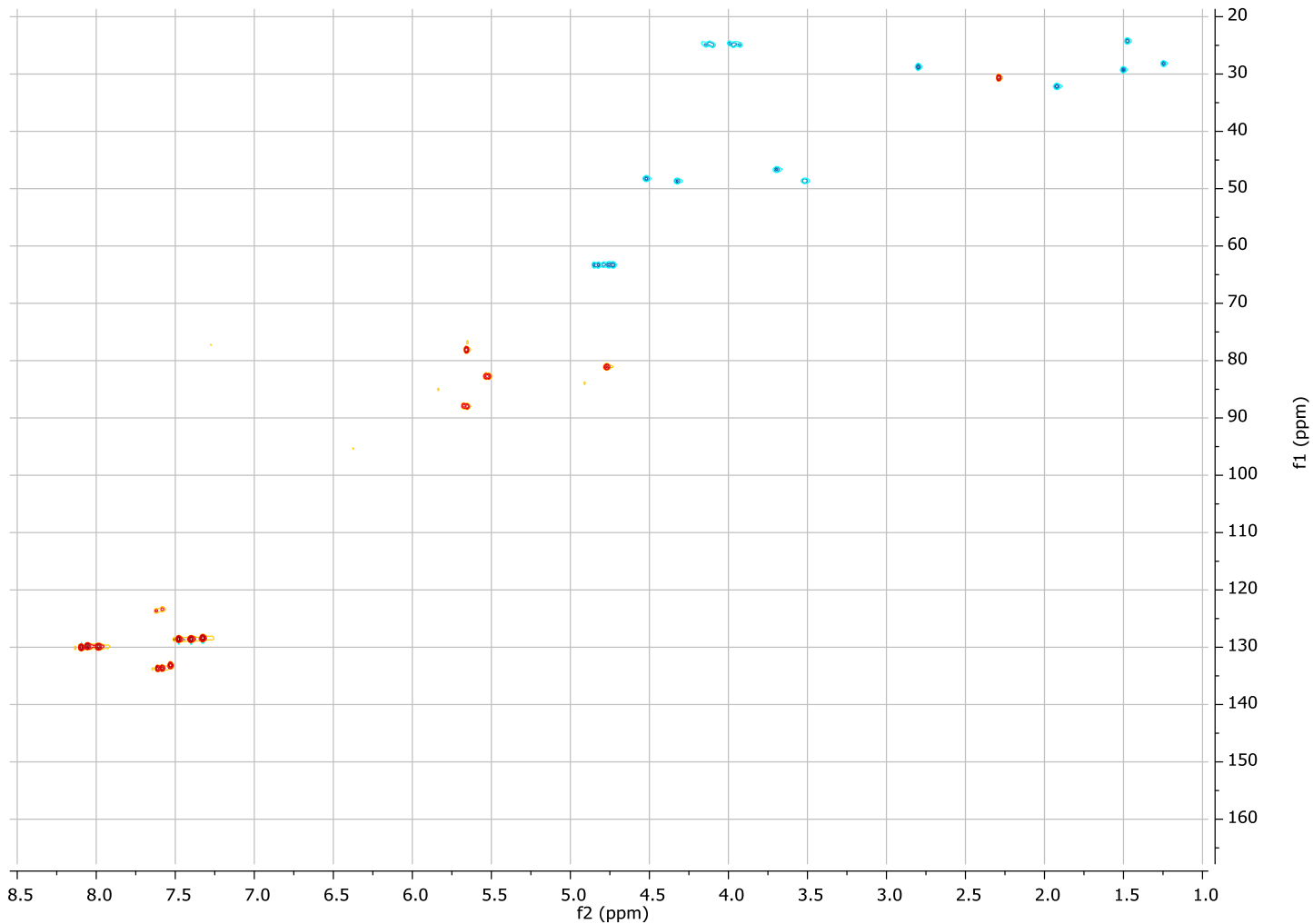
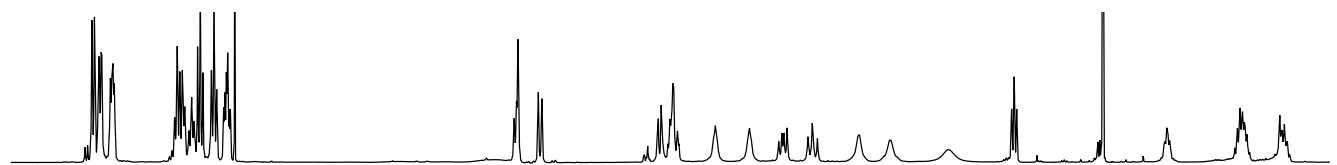


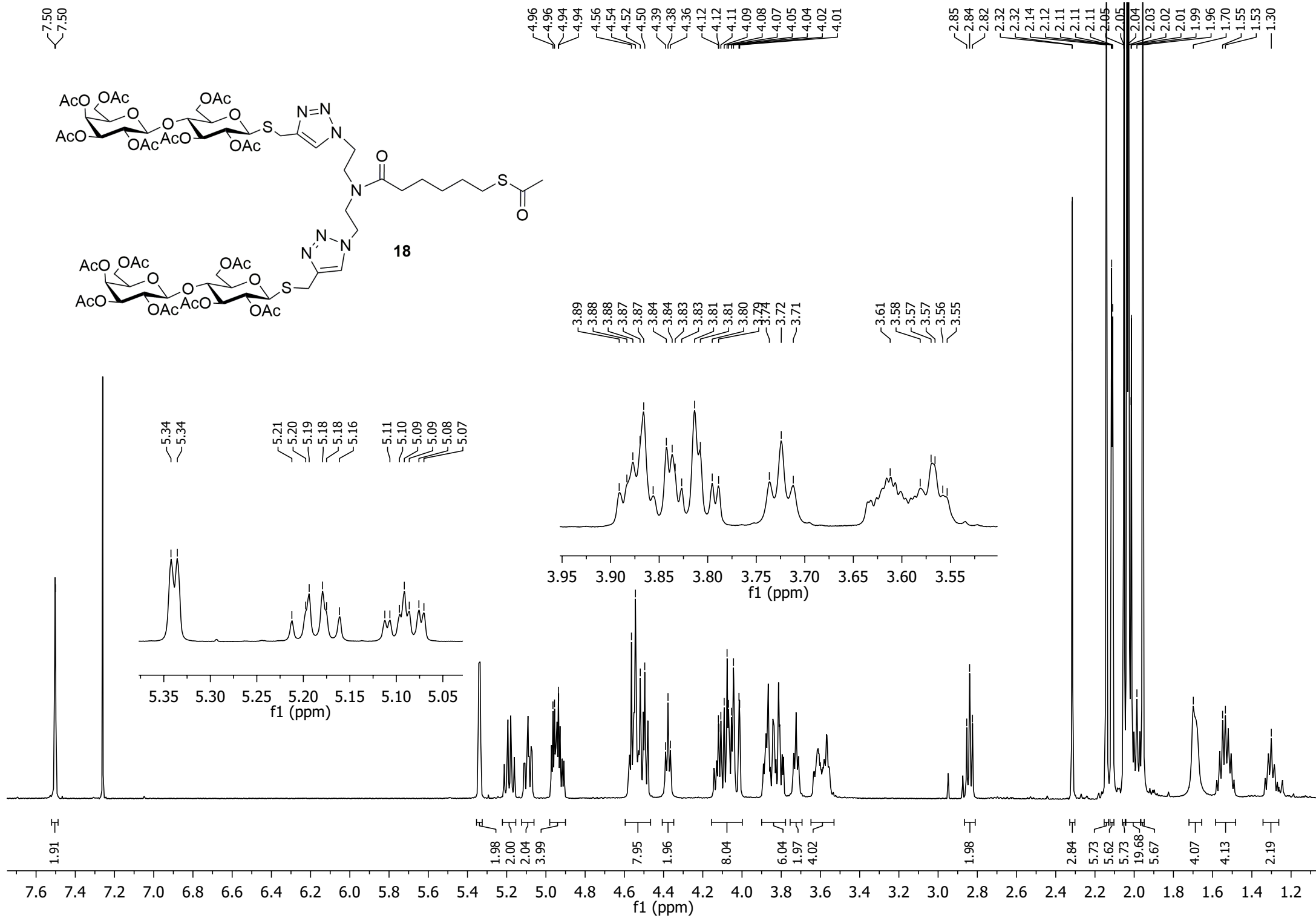


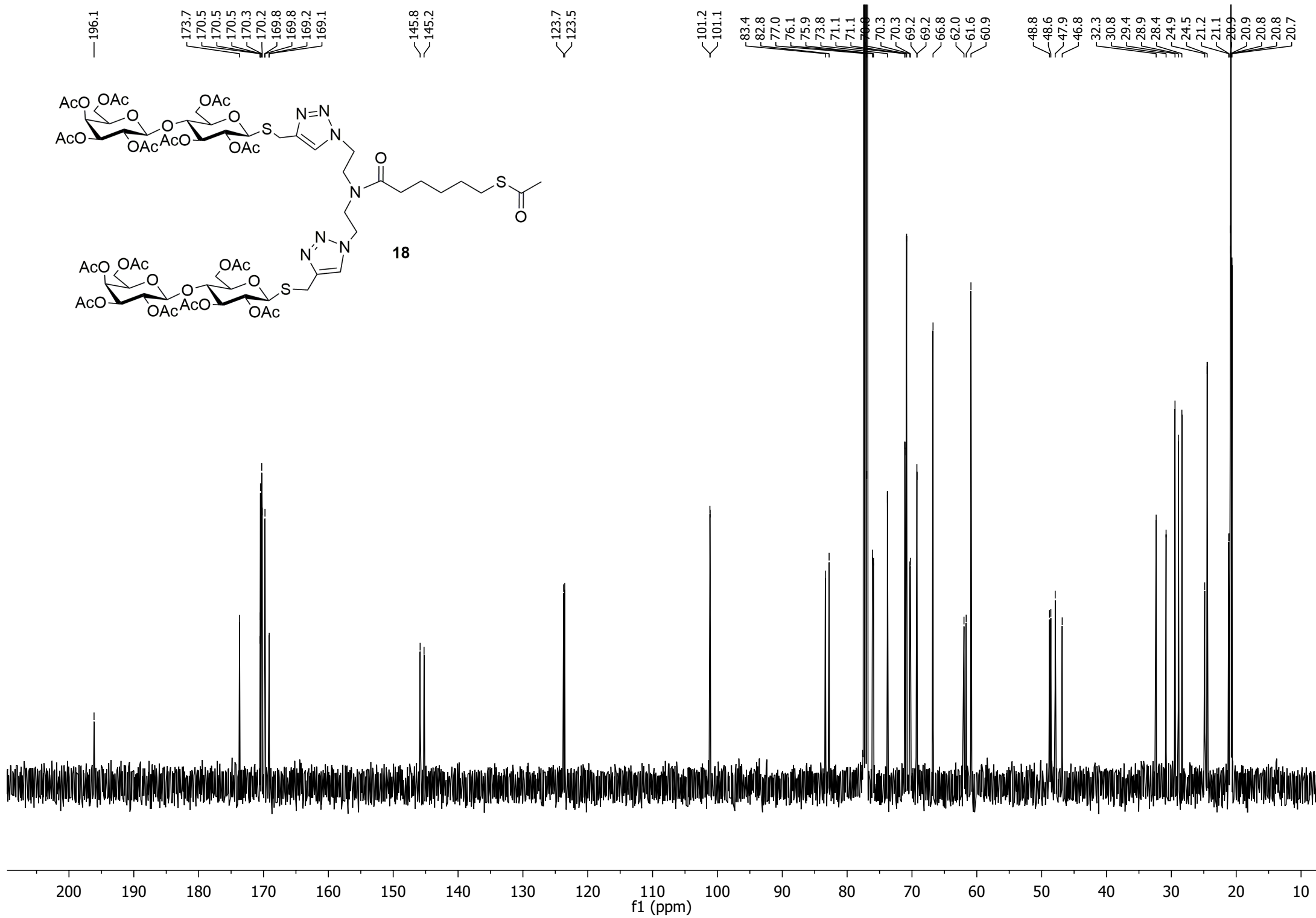


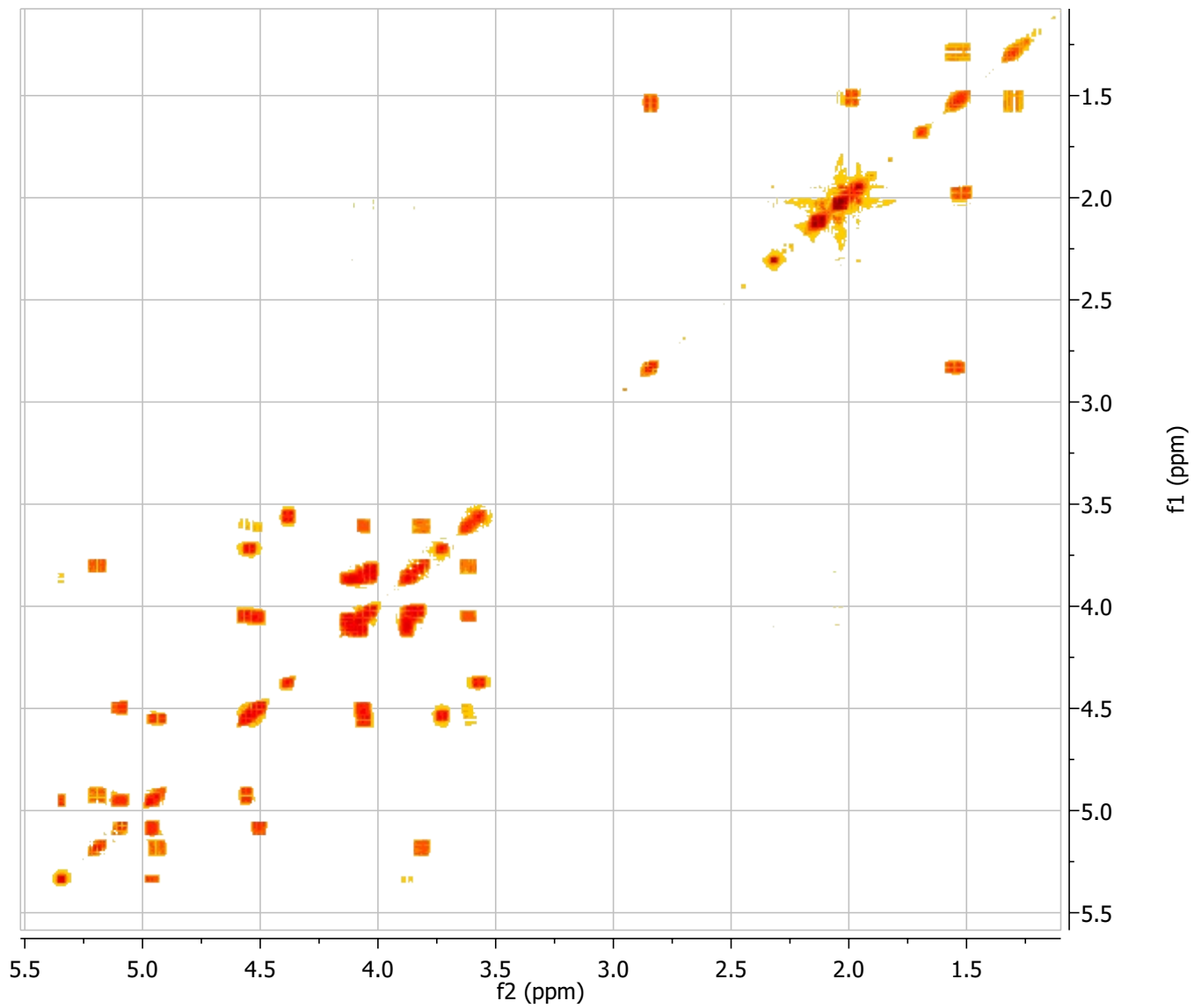
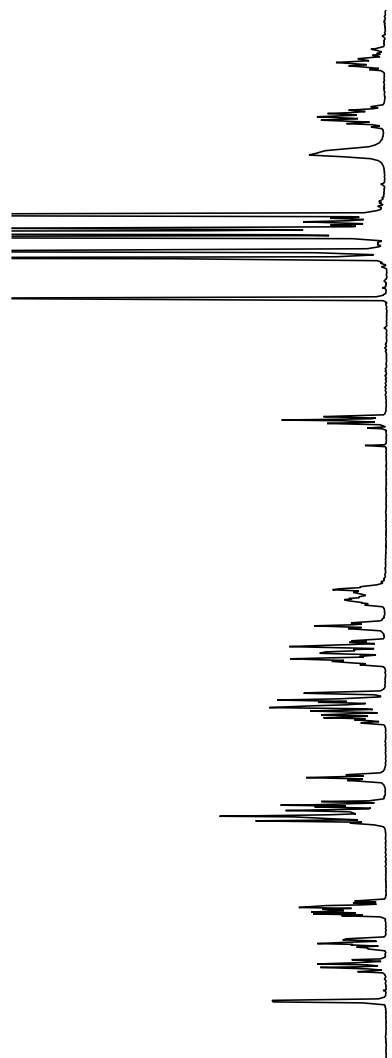
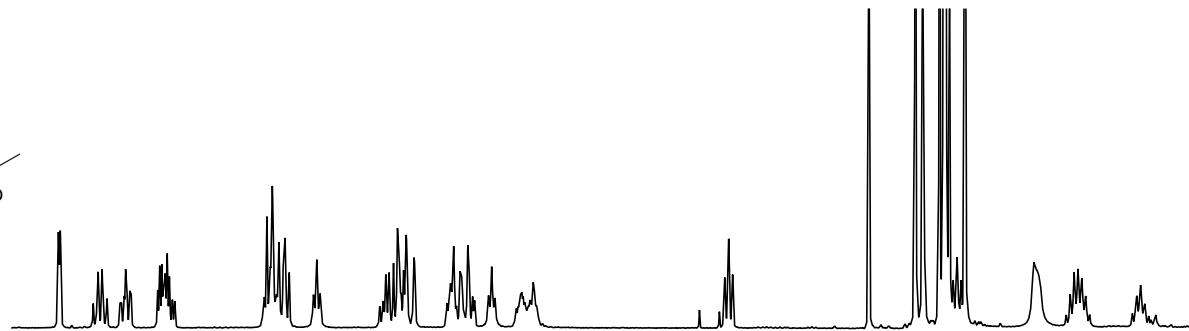
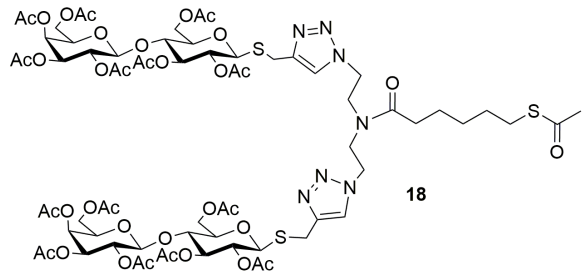


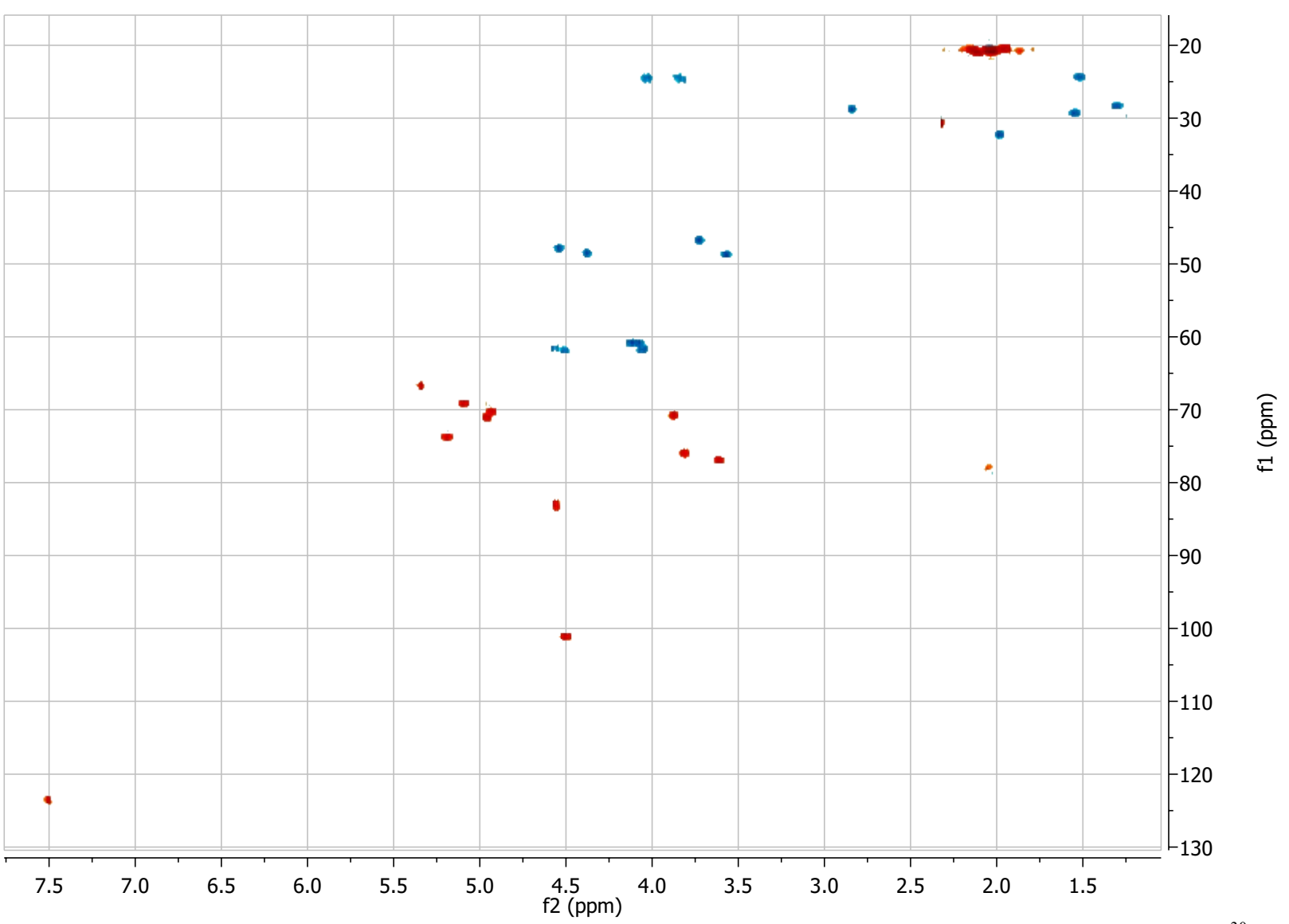
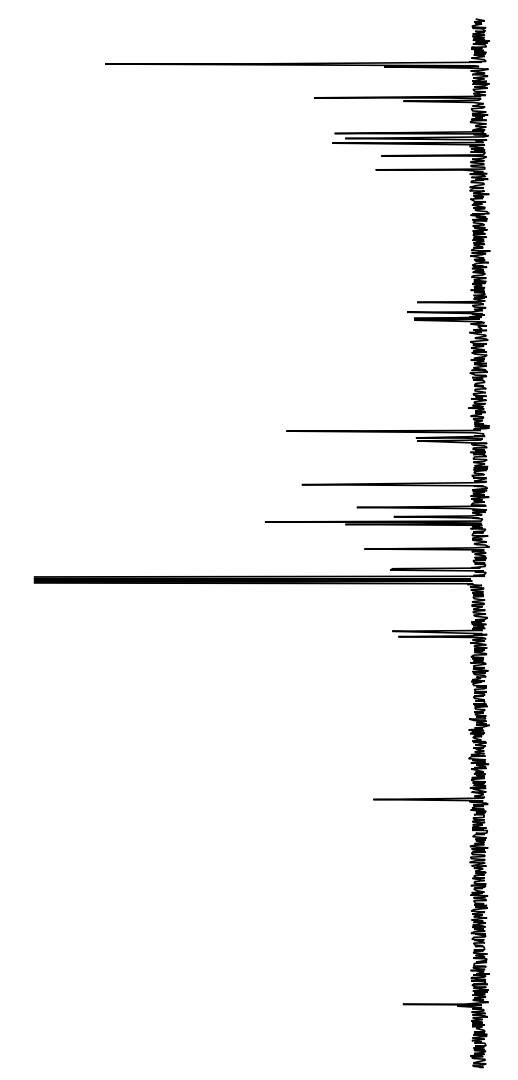
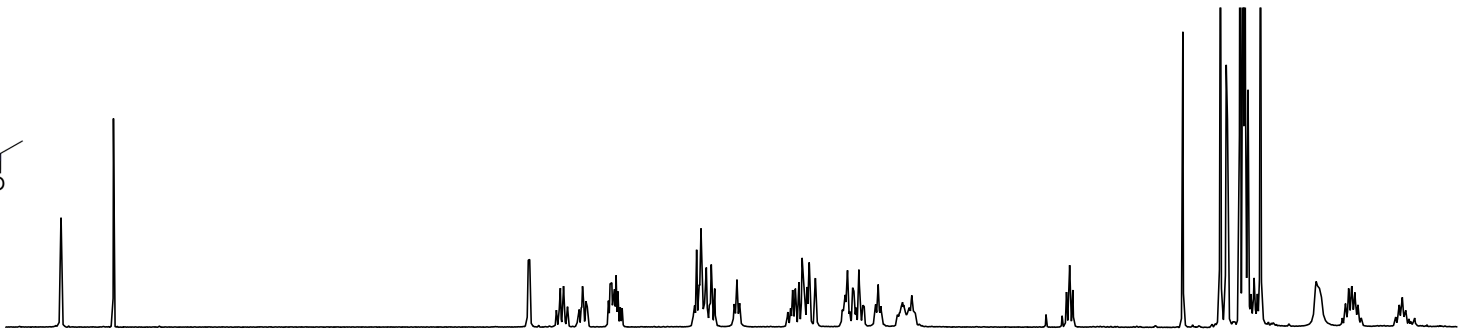
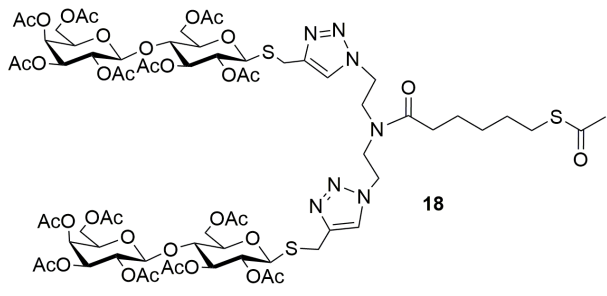
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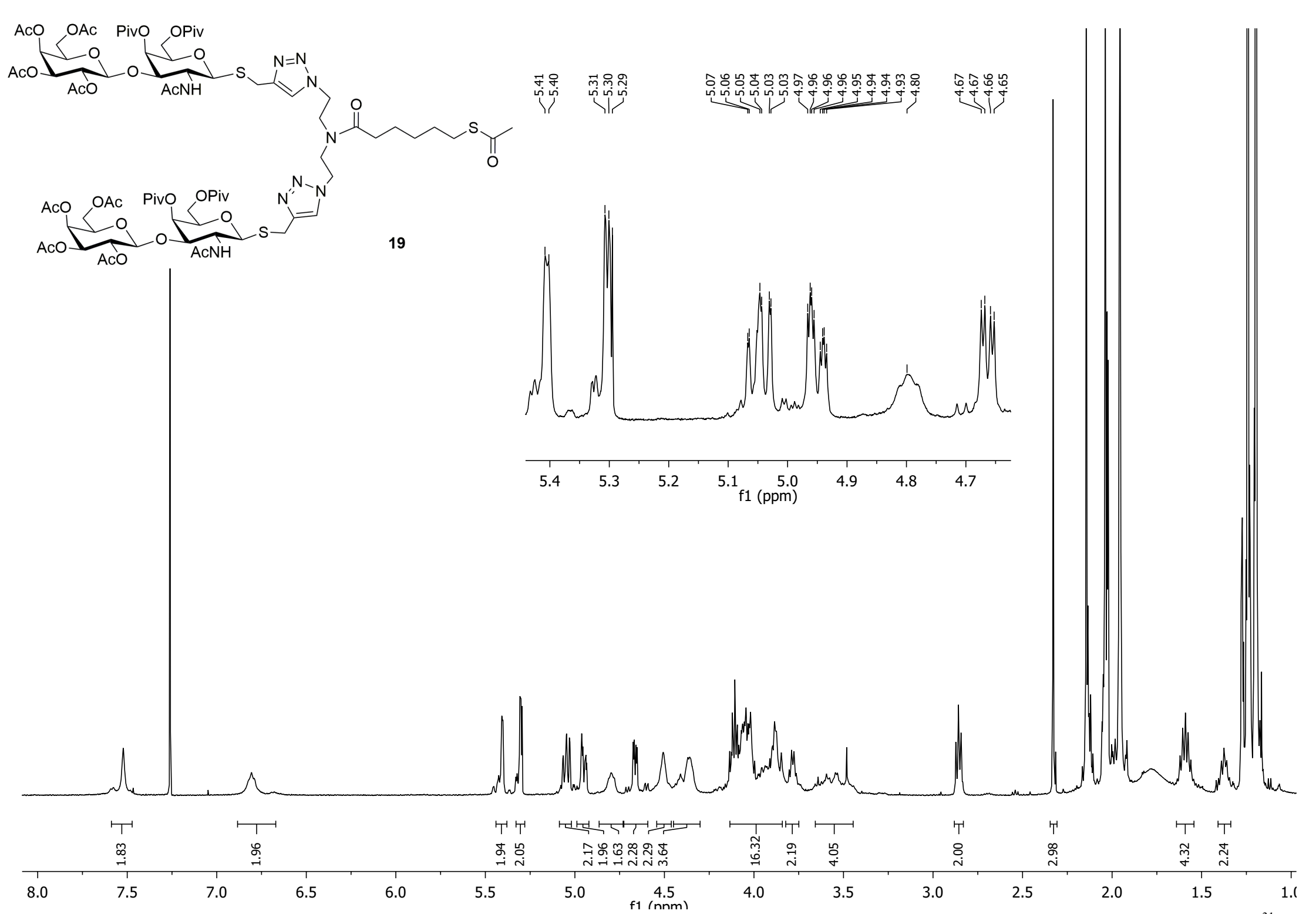


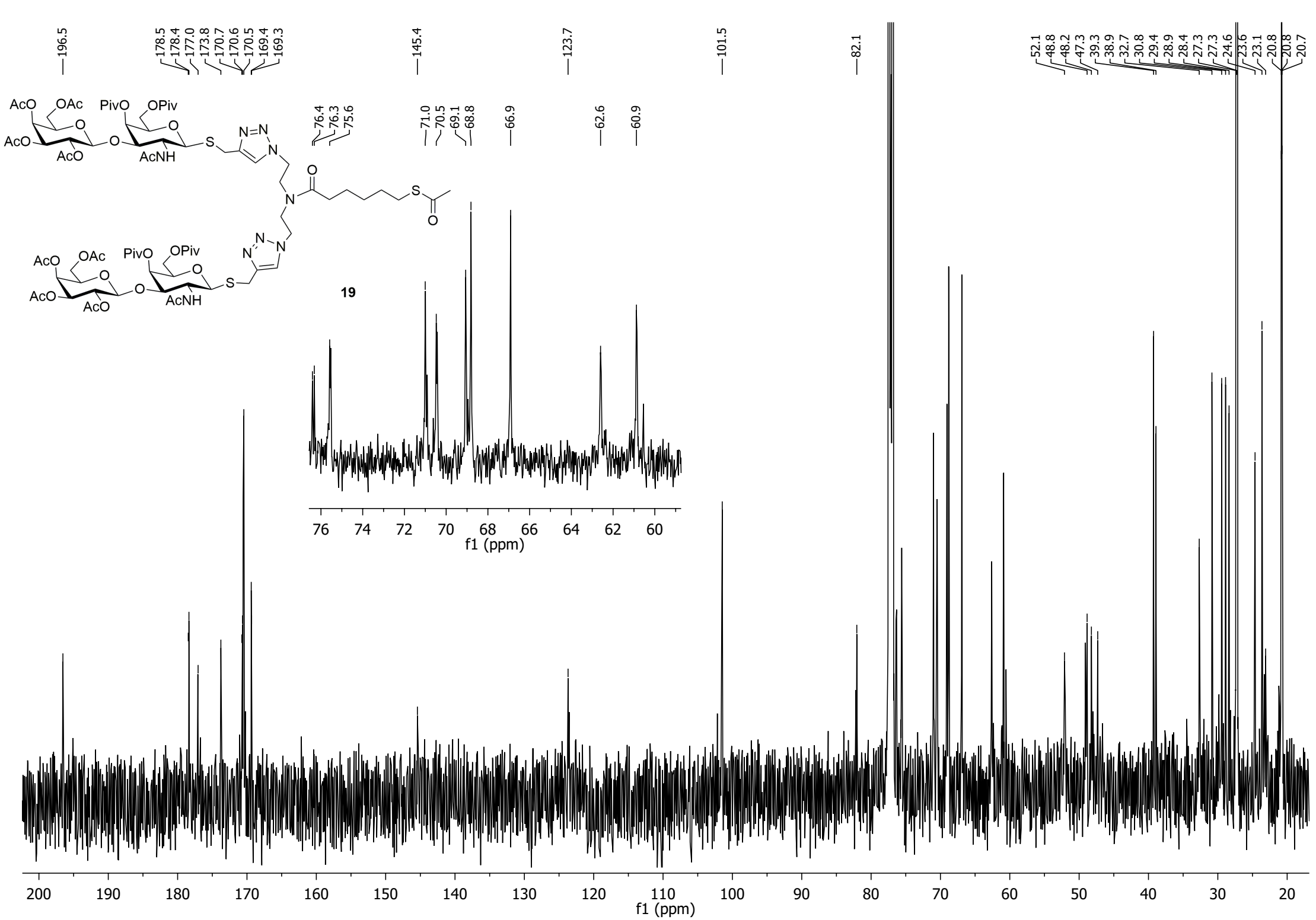




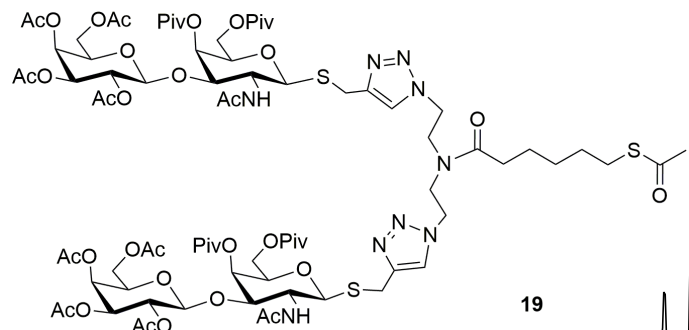




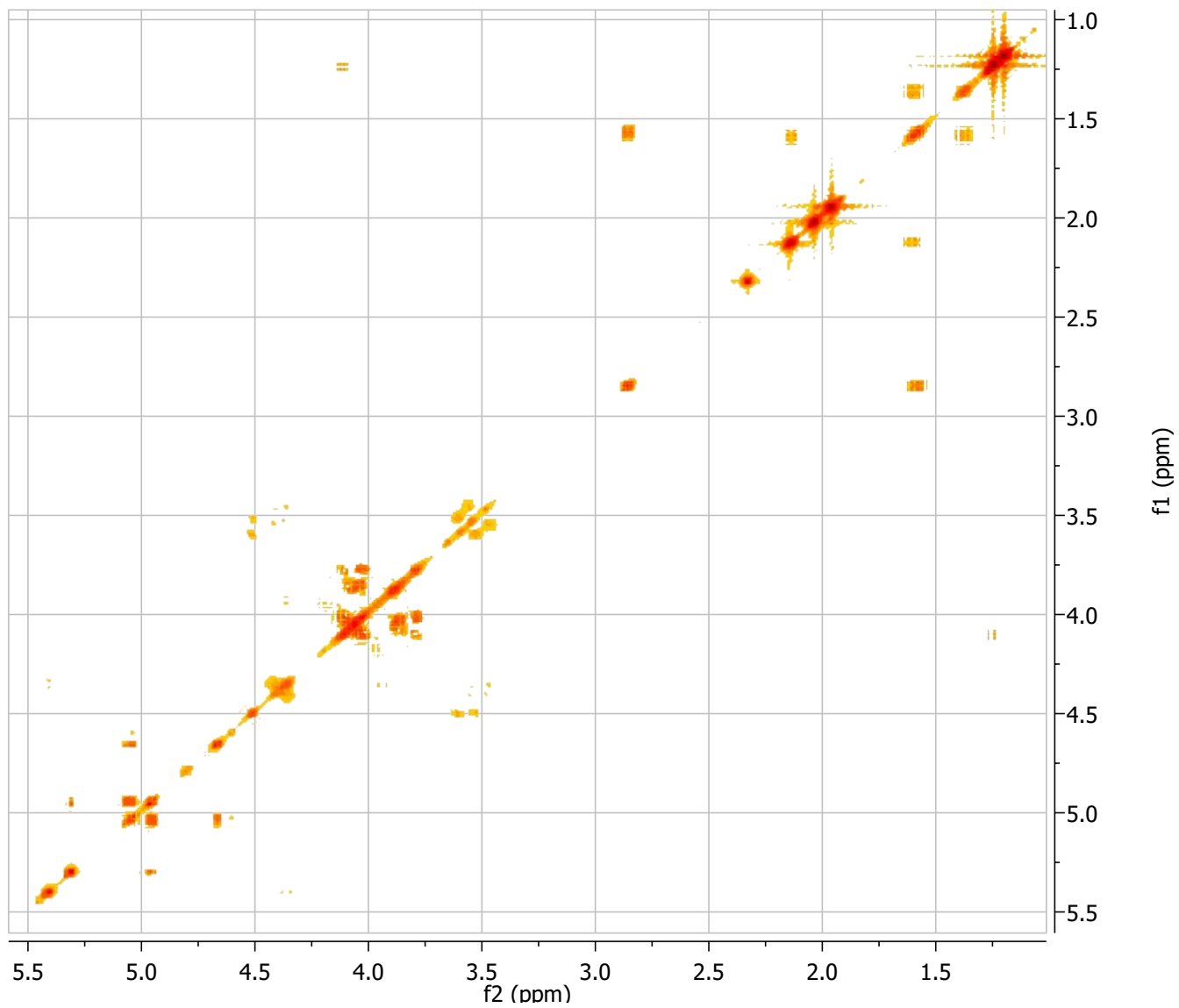
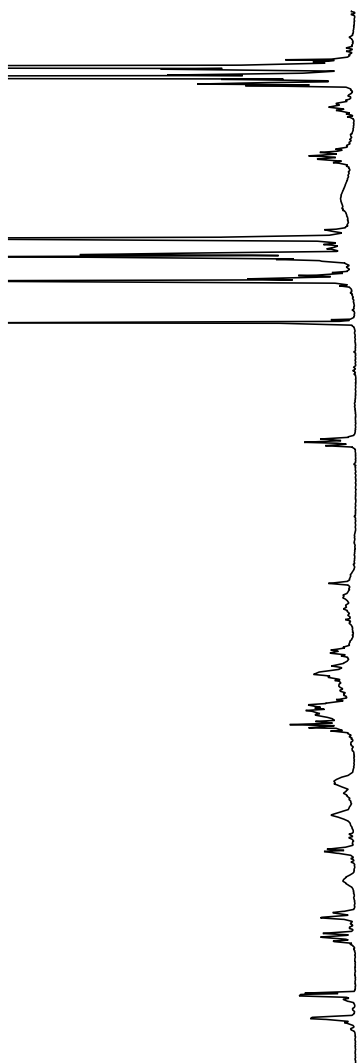
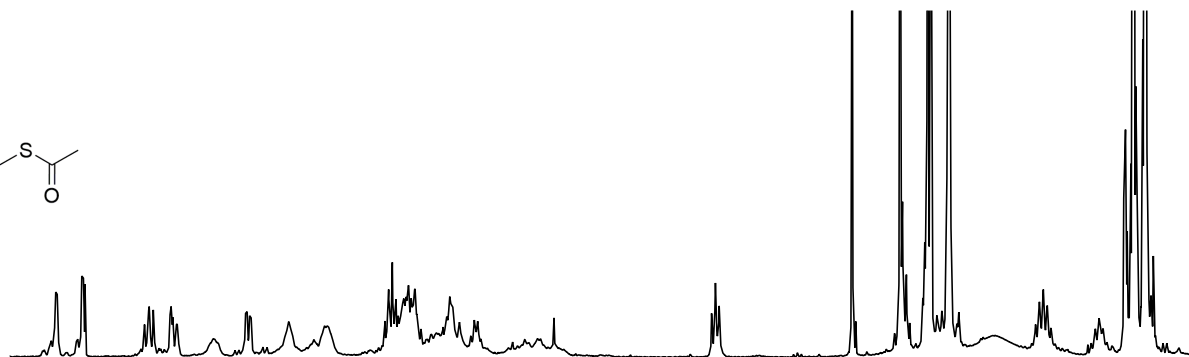


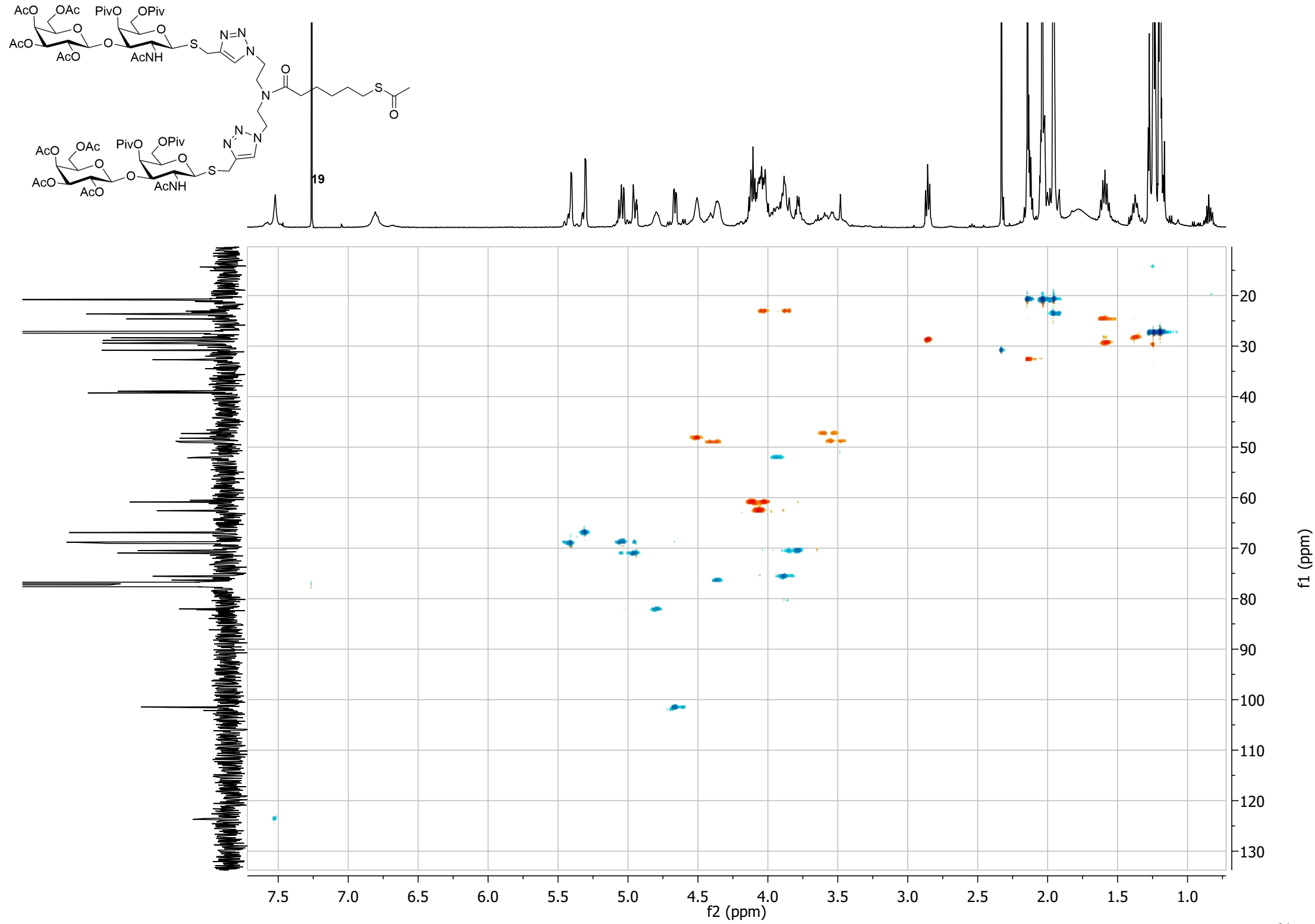


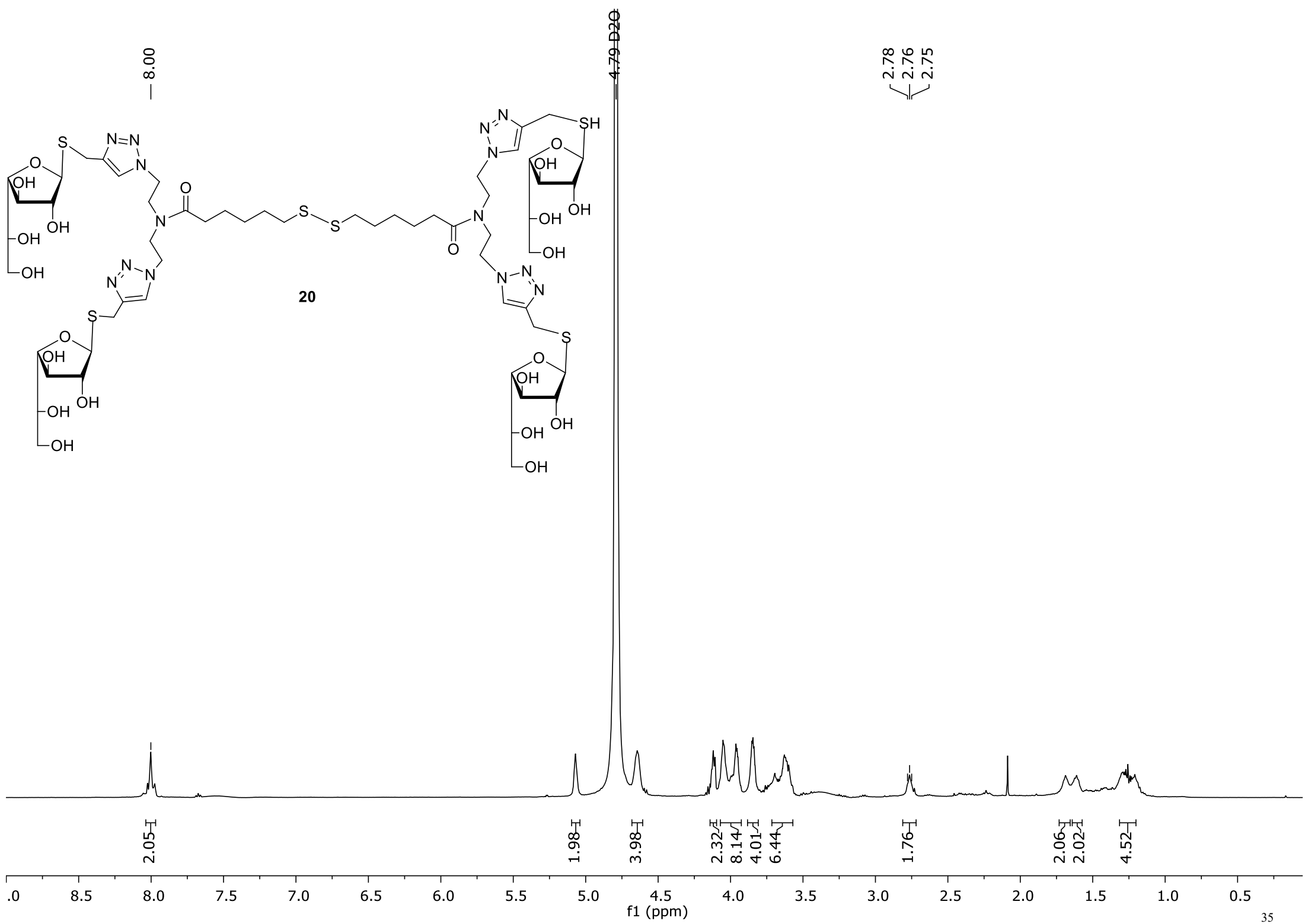


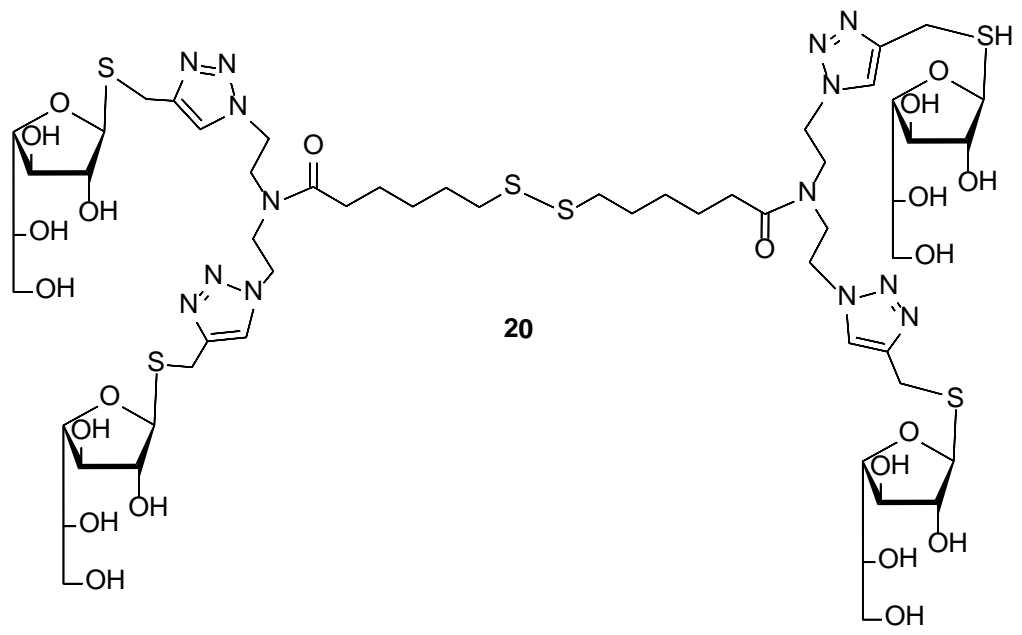


19

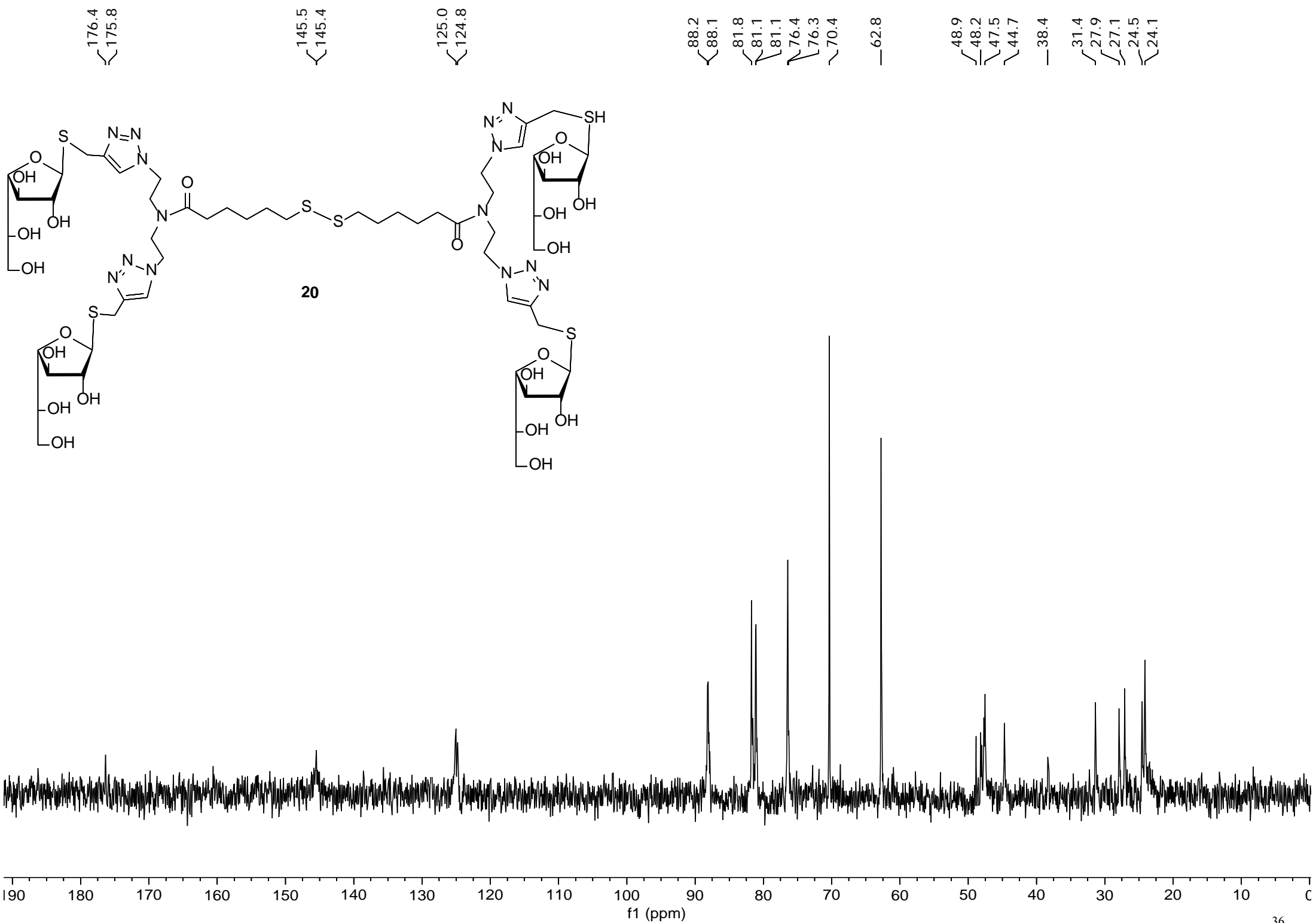


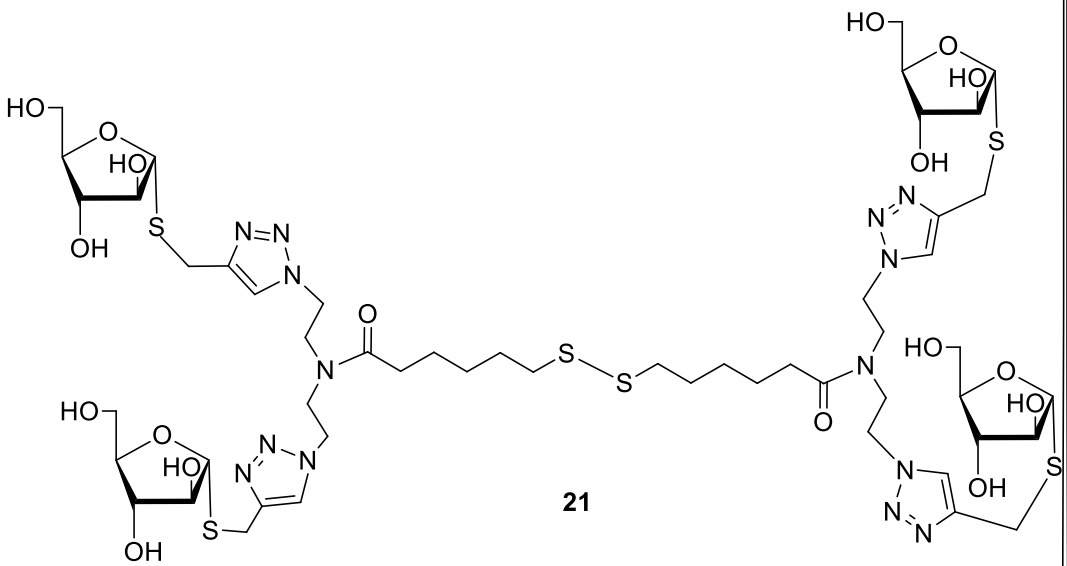




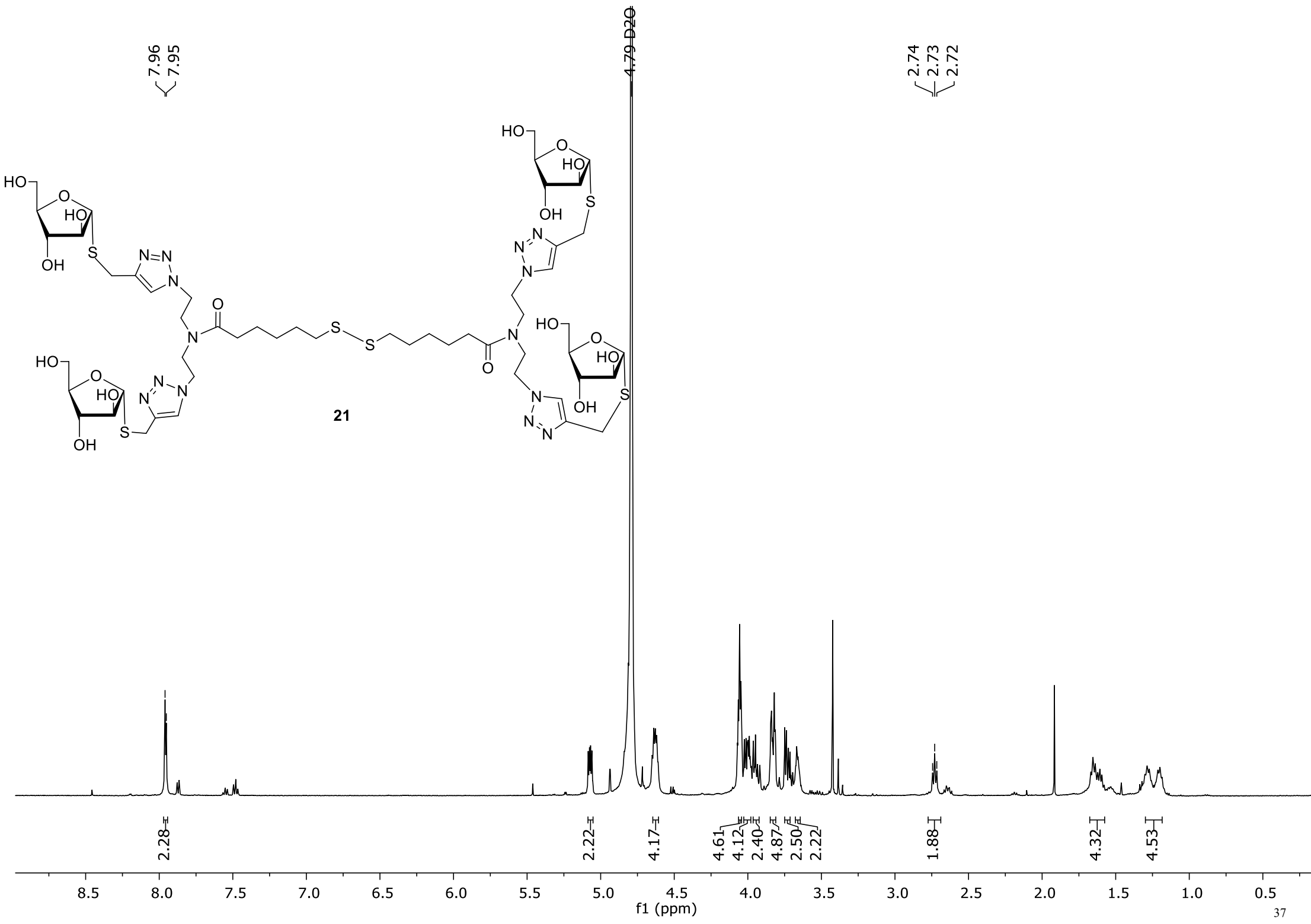


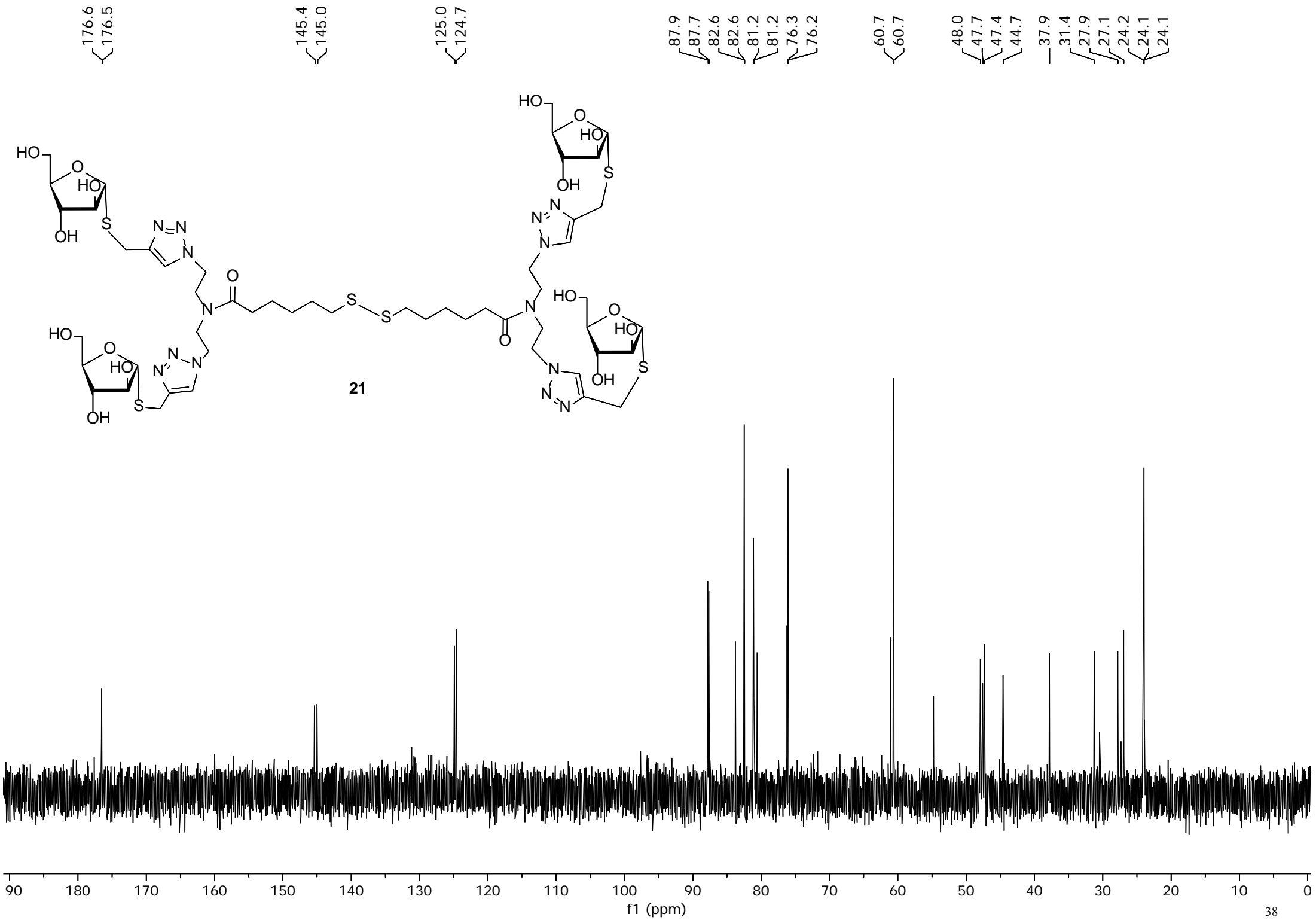
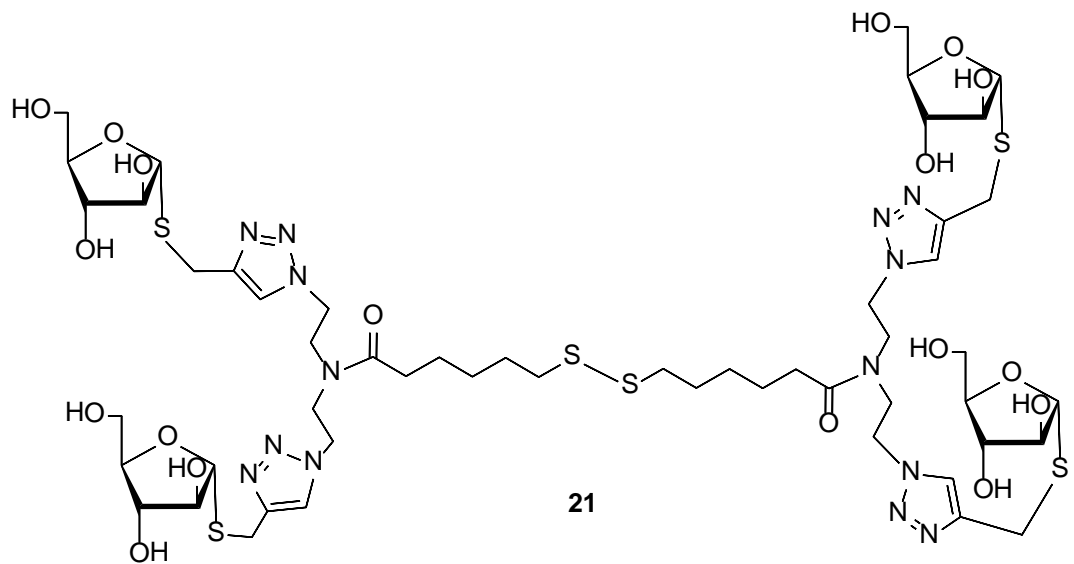
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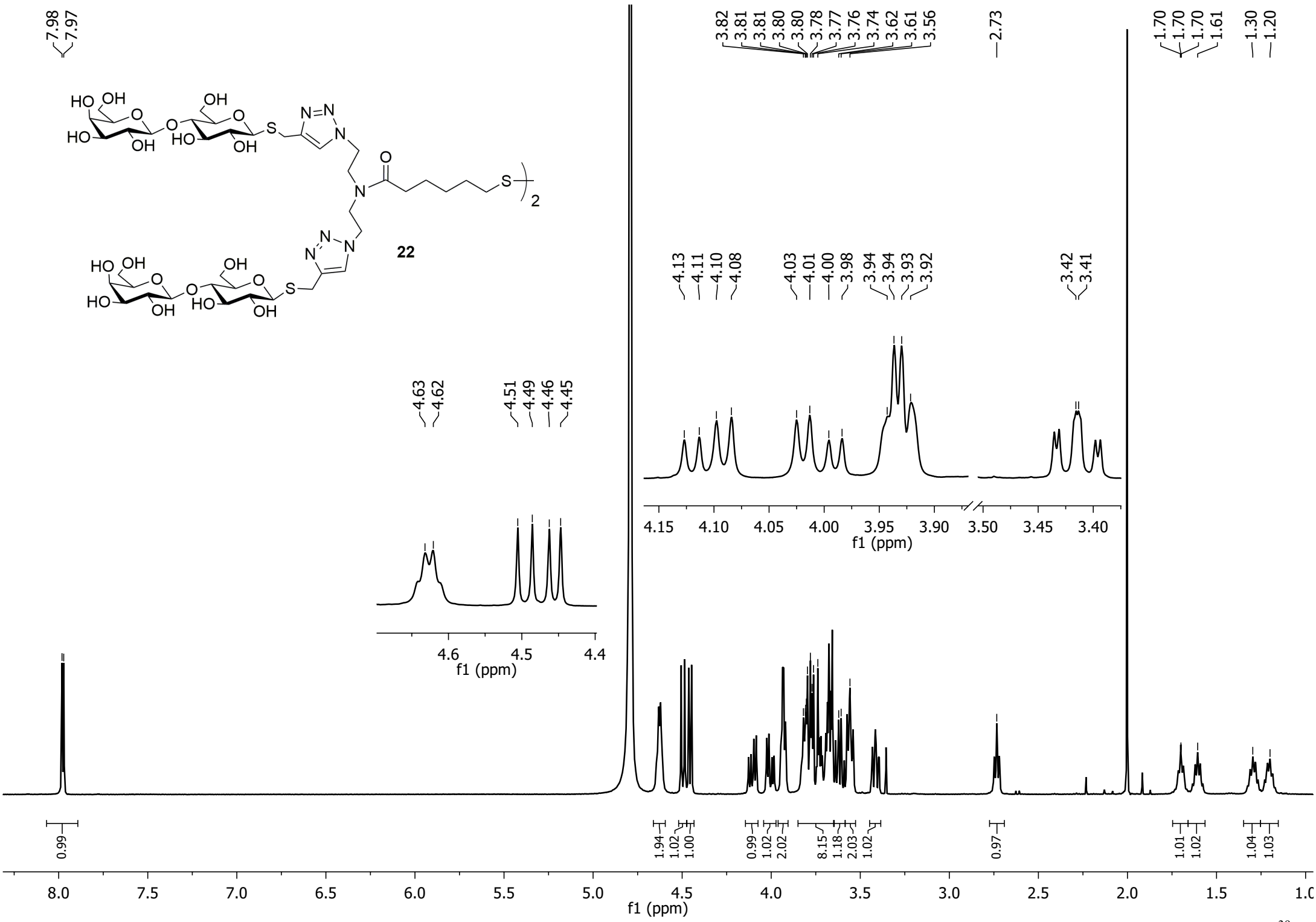
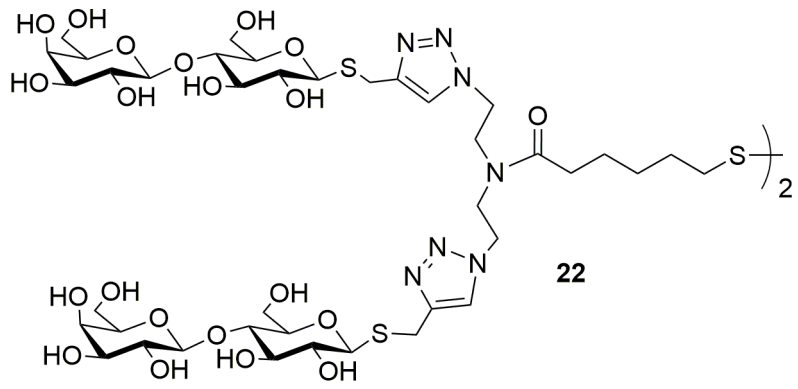


21





7.98  
7.97



—176.5

145.5  
145.2

125.1  
124.7

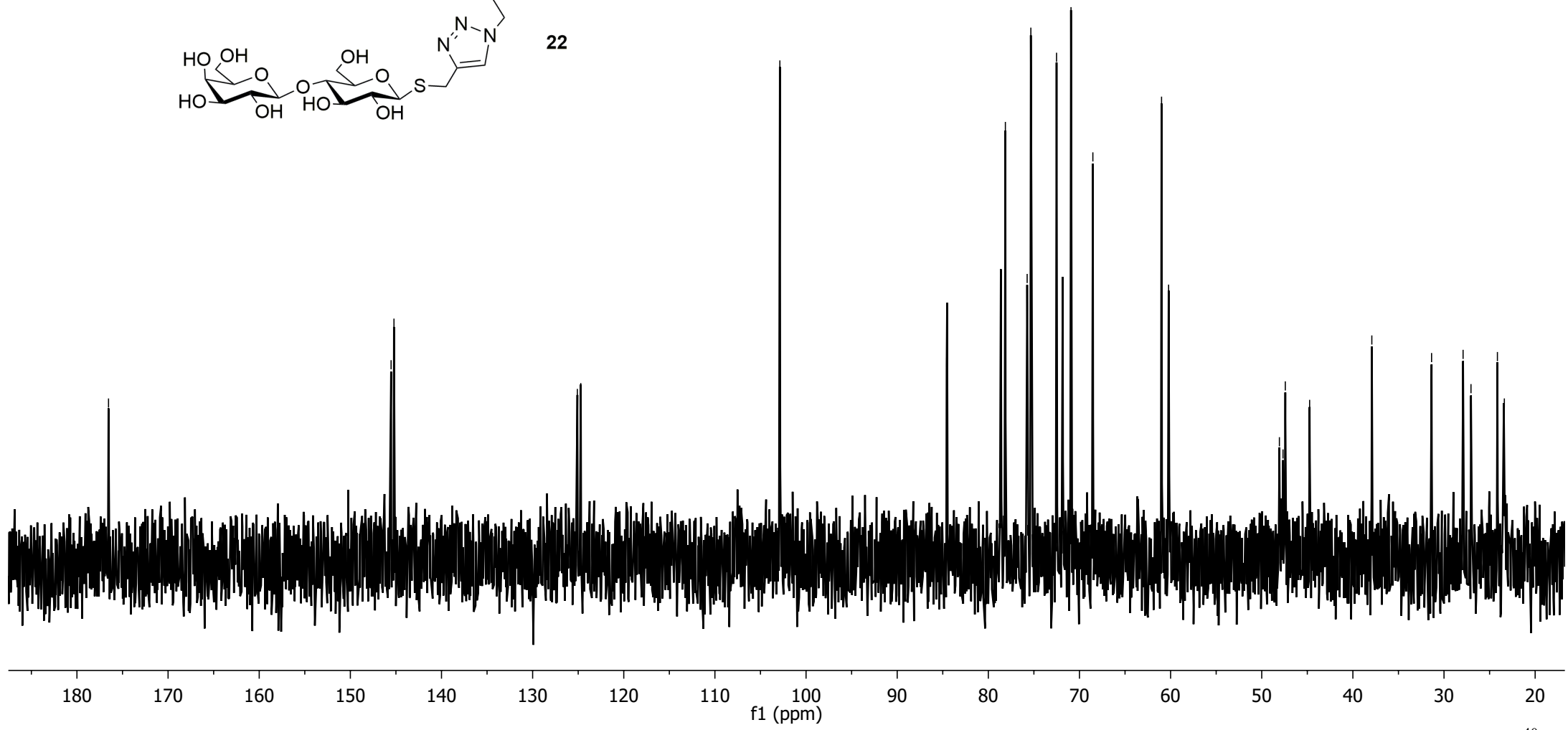
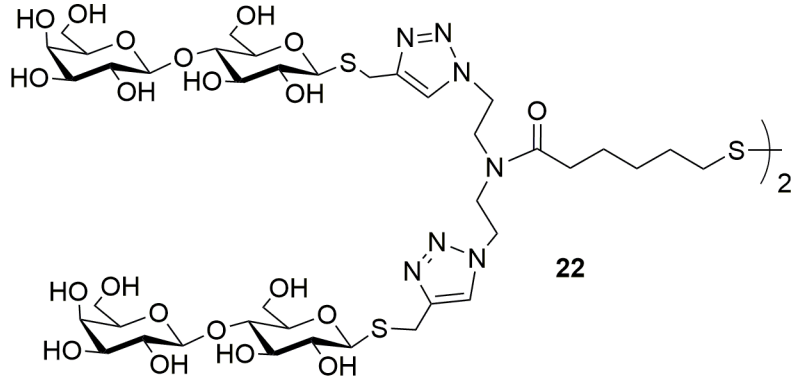
—102.9

84.6  
84.5  
78.7  
78.6  
78.1  
75.7  
75.7  
75.3  
72.5  
71.9  
70.9  
68.5  
61.0  
60.2

48.1  
47.7  
47.4  
44.7

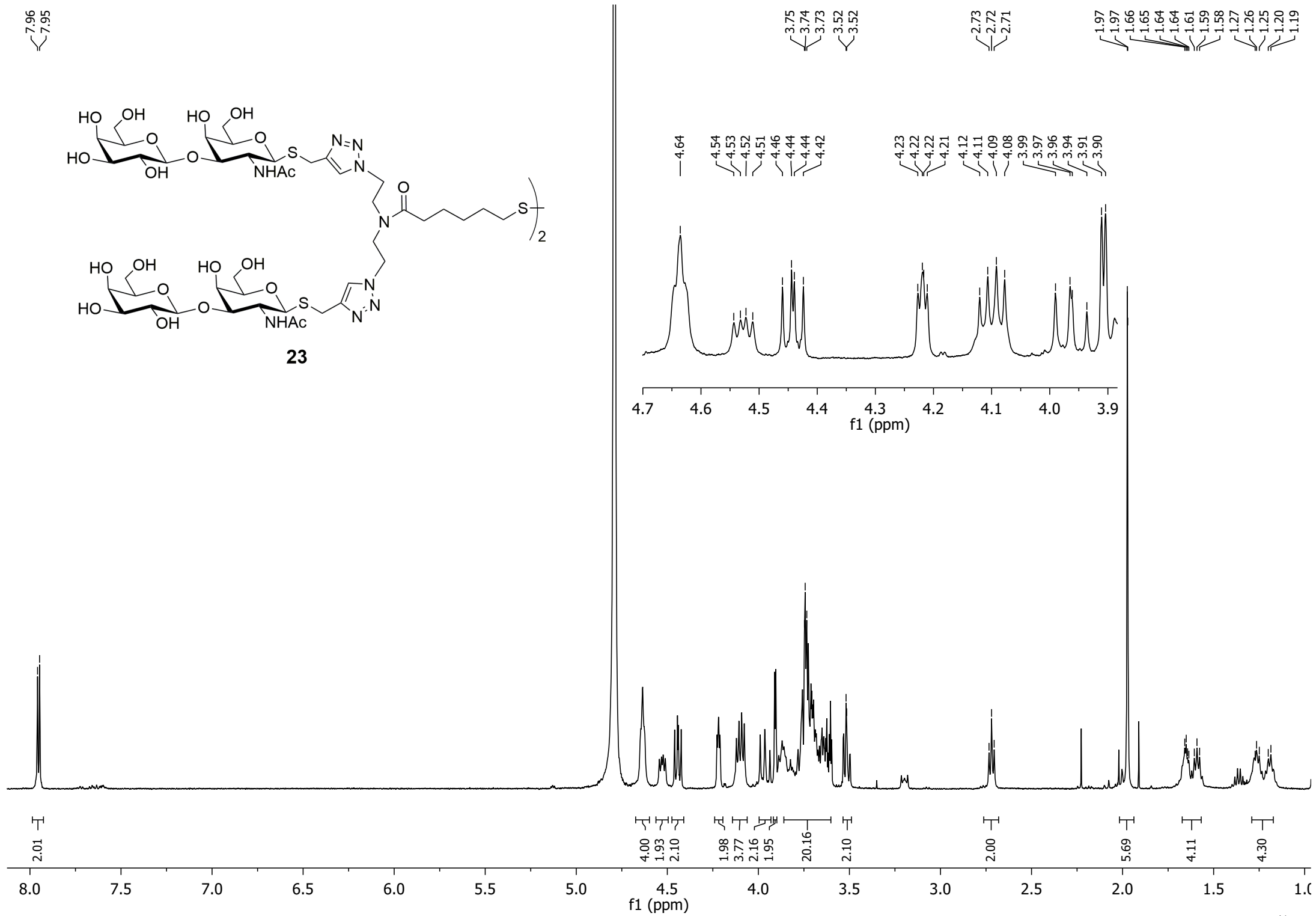
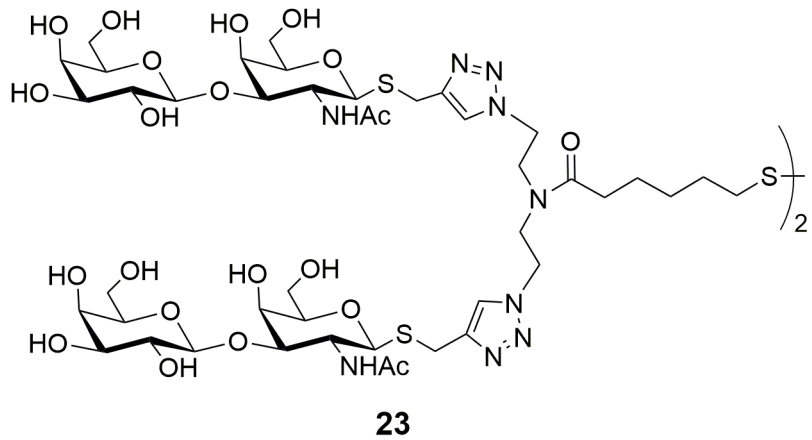
—37.9

31.4  
27.9  
27.0  
24.1  
23.4  
23.4



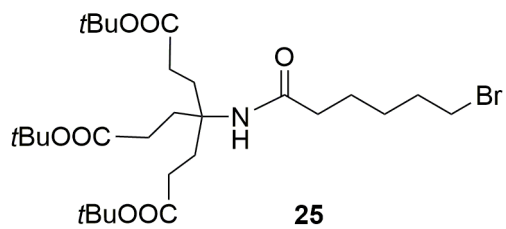


7.96  
7.95



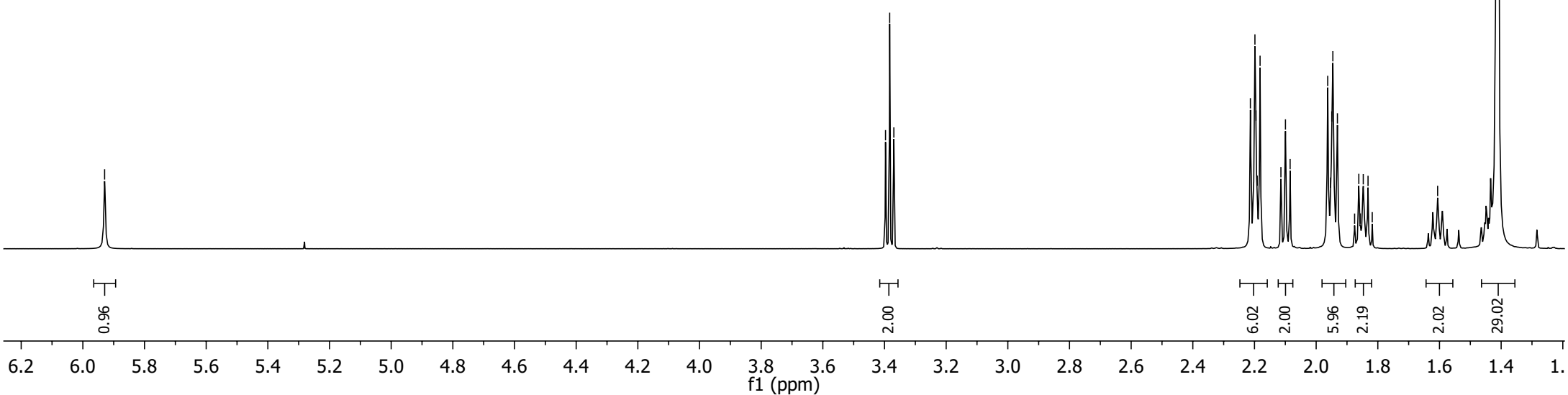


5.93

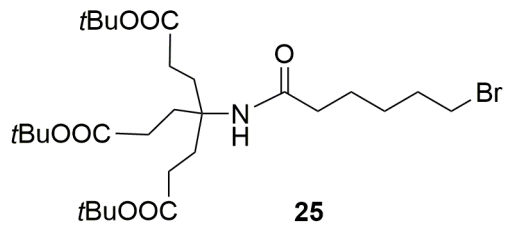


3.40  
3.38  
3.37

2.21  
2.20  
2.20  
2.19  
2.18  
2.11  
2.10  
2.08  
1.96  
1.95  
1.95  
1.95  
1.93  
1.88  
1.86  
1.86  
1.85  
1.83  
1.82  
1.61



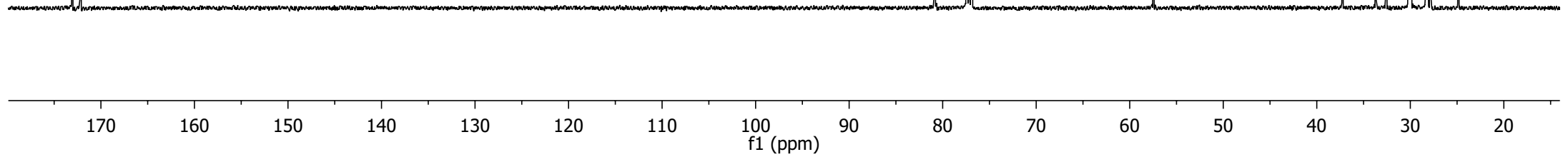
173.0  
172.2

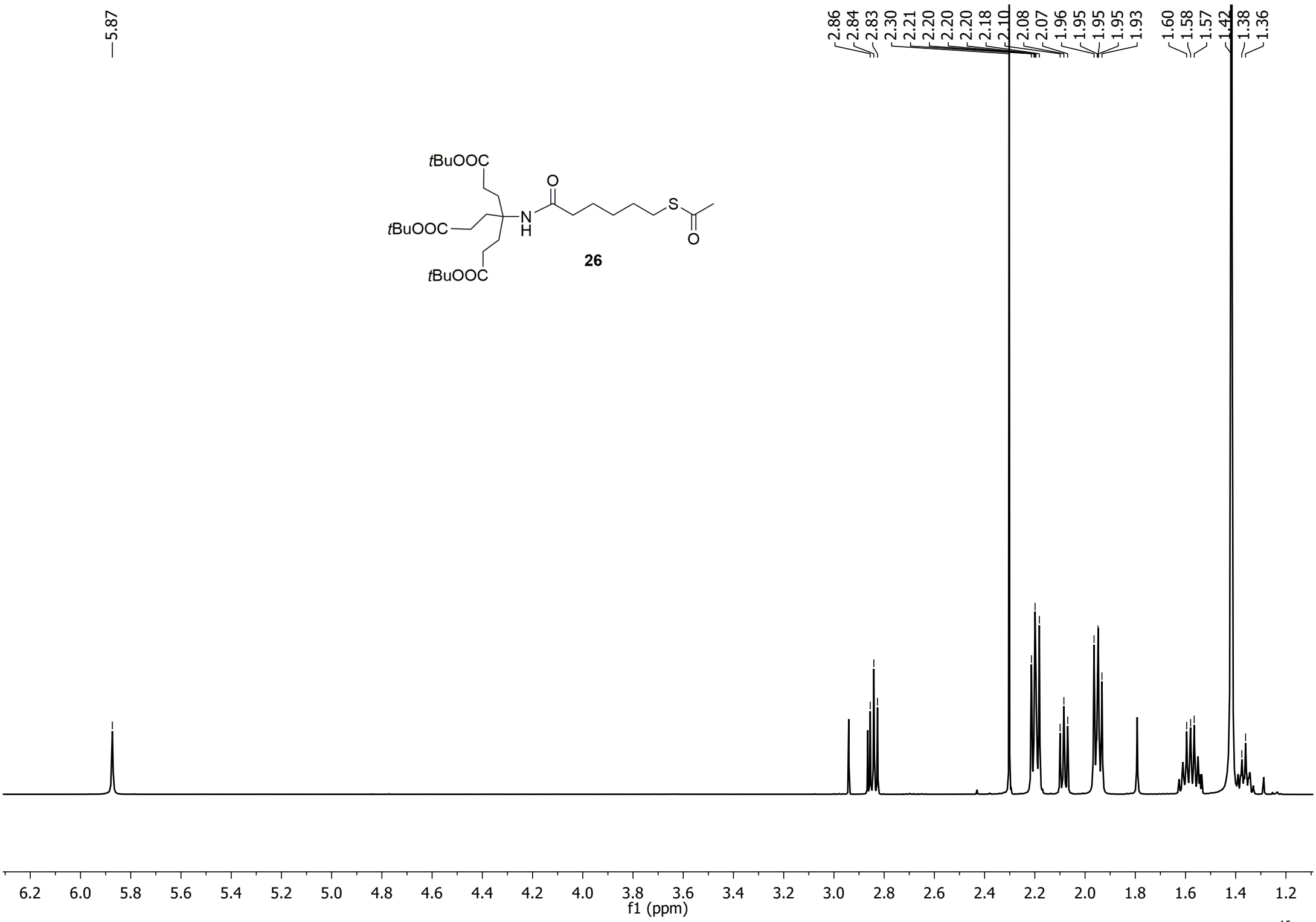


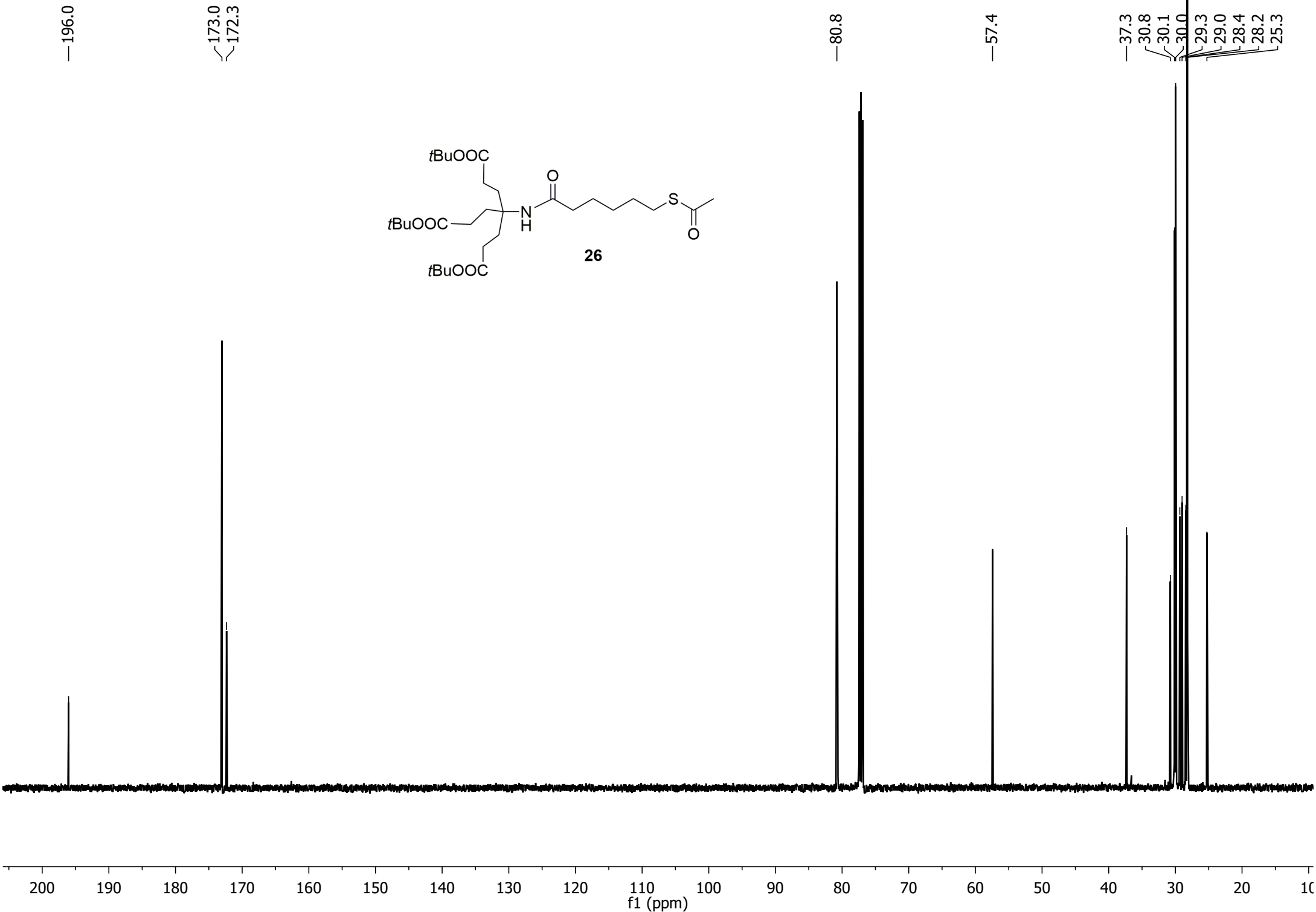
80.8

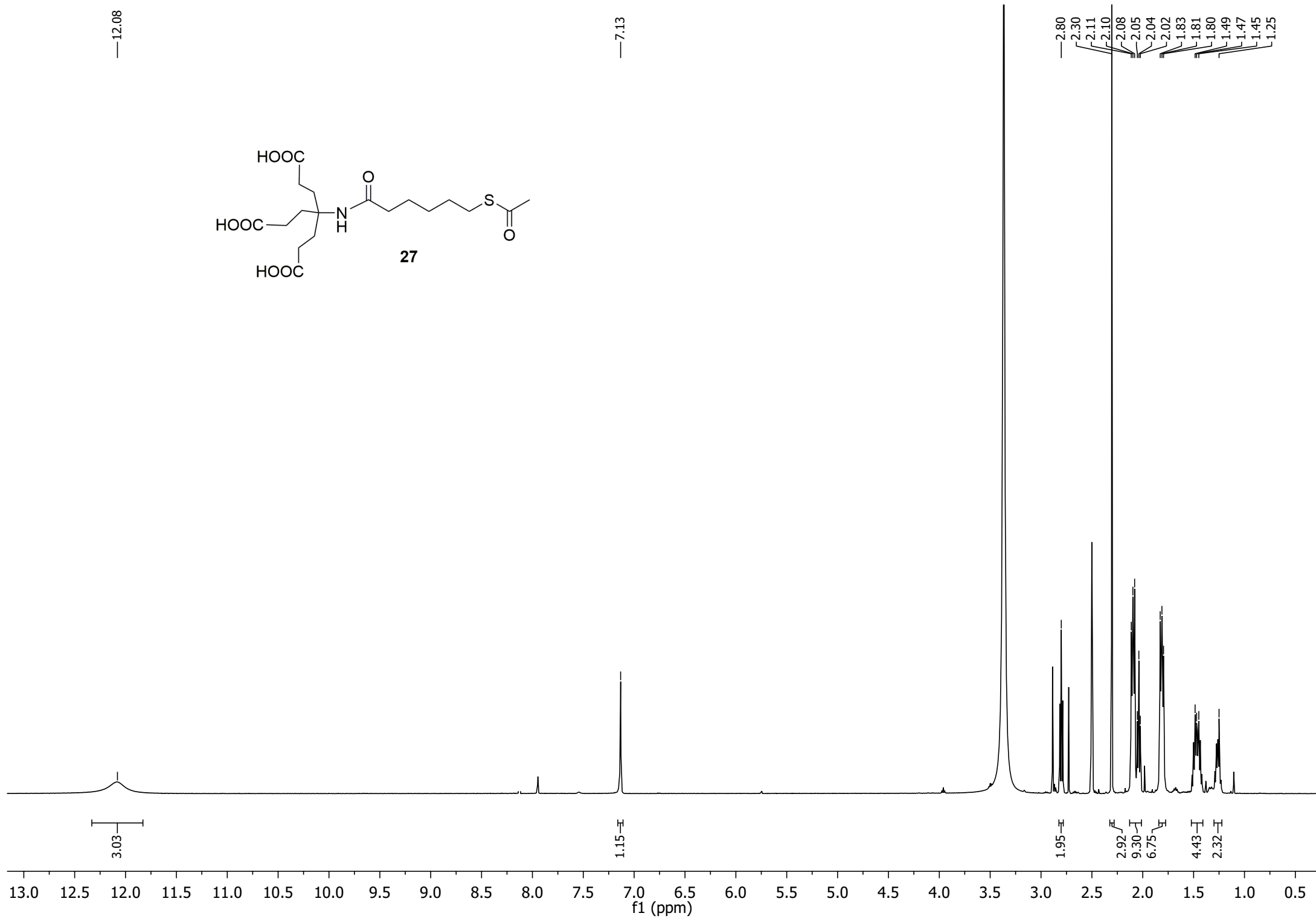
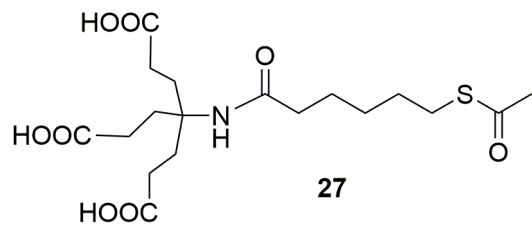
57.4

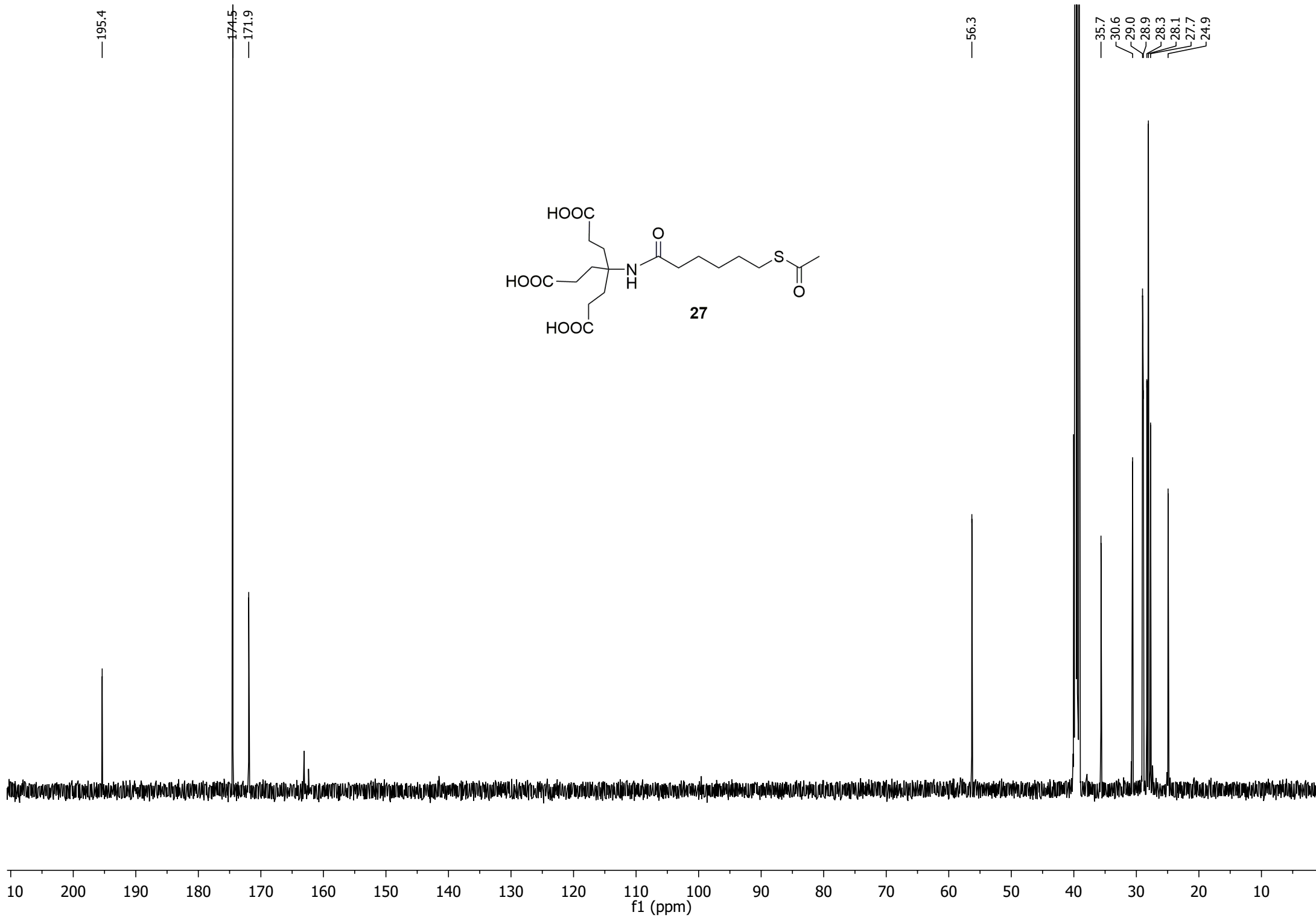
37.3  
33.7  
32.6  
30.1  
30.0  
28.2  
27.9  
24.9



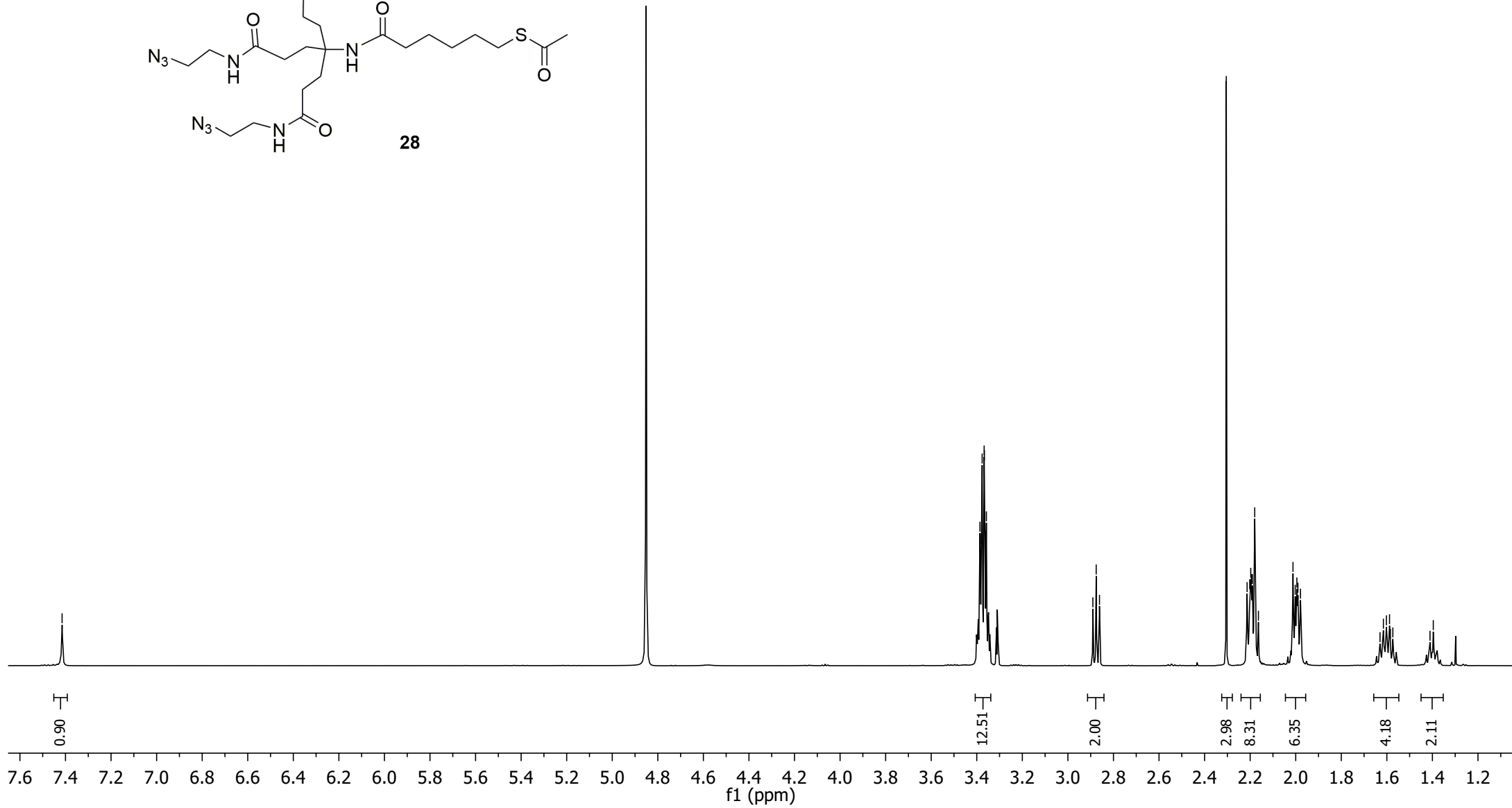
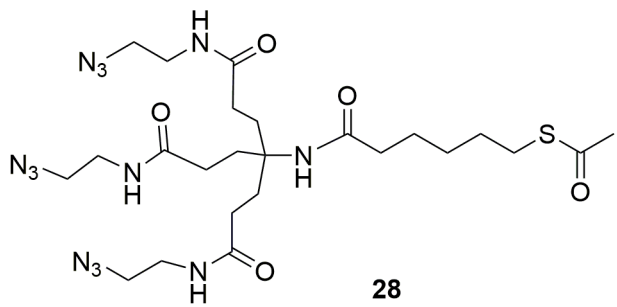












3.39  
3.38  
3.38  
3.37  
3.37  
3.36  
3.36  
2.89  
2.88  
2.86  
2.30  
2.21  
2.20  
2.20  
2.19  
2.19  
2.18  
2.16  
2.01  
2.00  
1.99  
1.99  
1.98  
1.63  
1.62  
1.60  
1.59  
1.58  
1.57  
1.41  
1.40

