

*Supporting information for*

**Mapping the reactivity and selectivity of 2-azidofucosyl donors for the assembly of *N*-acetyl fucosamine containing bacterial oligosaccharides**

*Bas Hagen, Sara Ali, Herman S. Overkleeft, Gijsbert A. van der Marel, Jeroen D. C. Codée\**

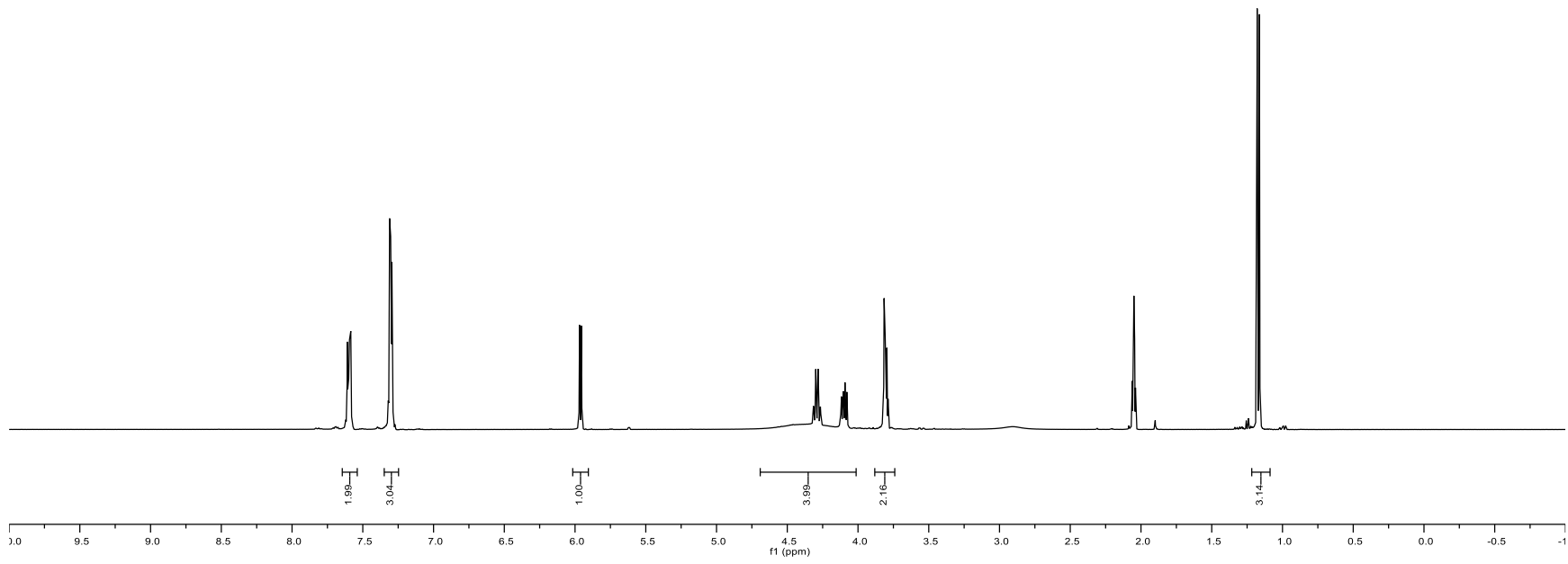
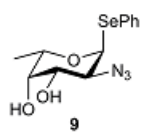
7.61  
7.61  
7.60  
7.59  
7.59  
7.59  
7.58  
7.58  
7.34  
7.31  
7.31  
7.30  
7.29  
7.29  
7.28

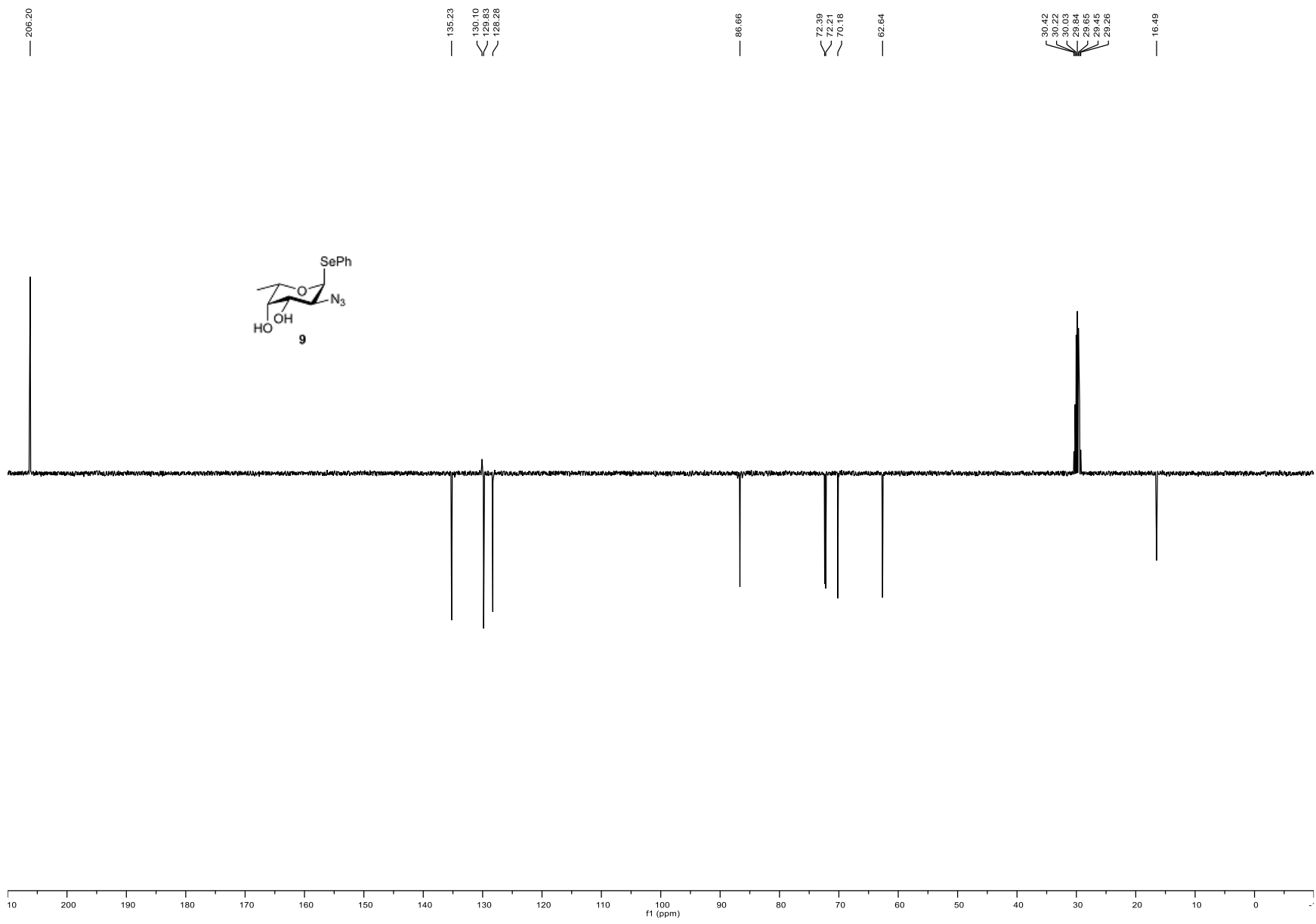
5.97  
5.96

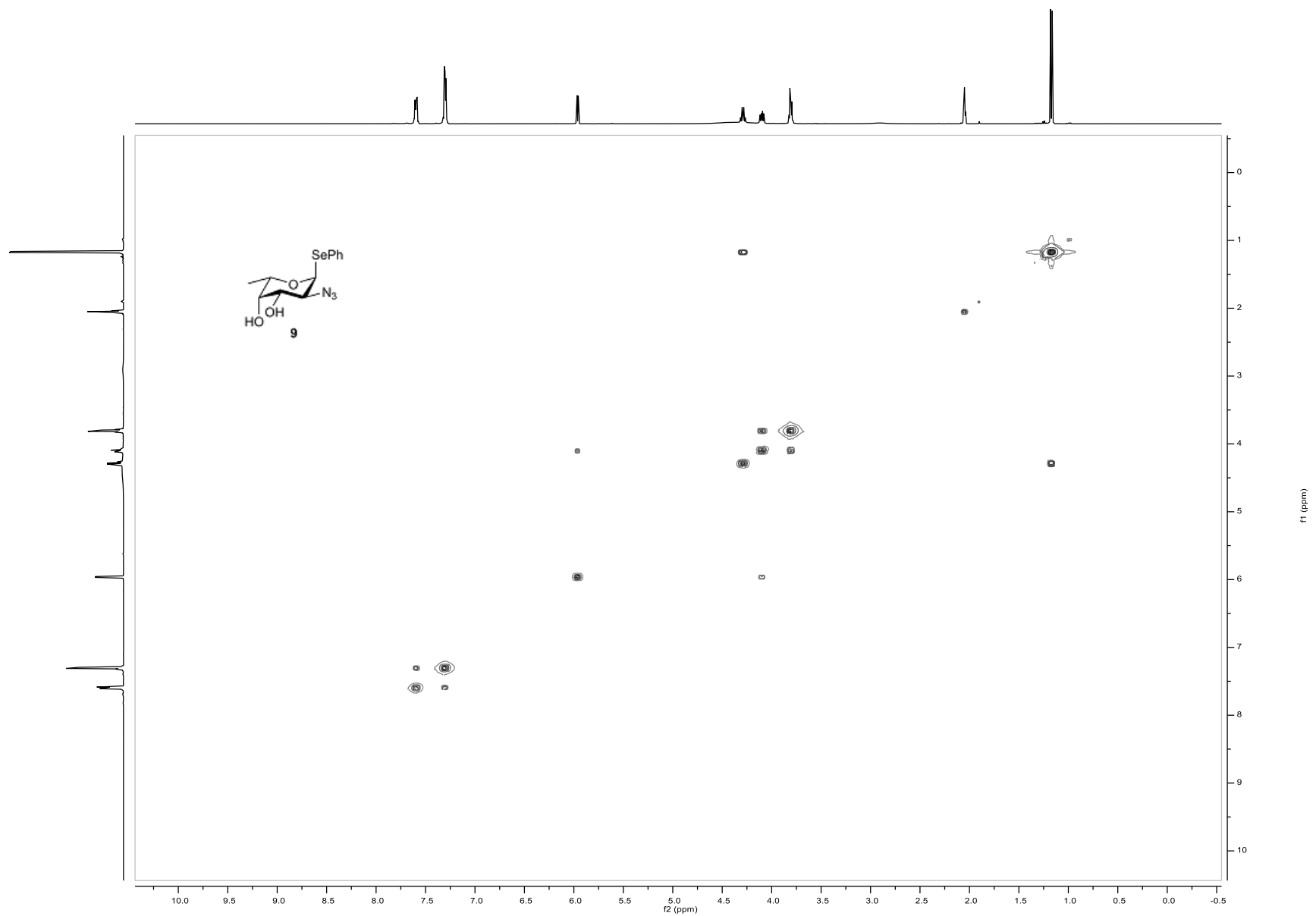
4.31  
4.30  
4.28  
4.27  
4.12  
4.12  
4.11  
4.10  
4.09  
4.08  
4.08  
3.82  
3.81  
3.81  
3.80  
3.80  
3.79

2.06  
2.05  
2.05  
2.04

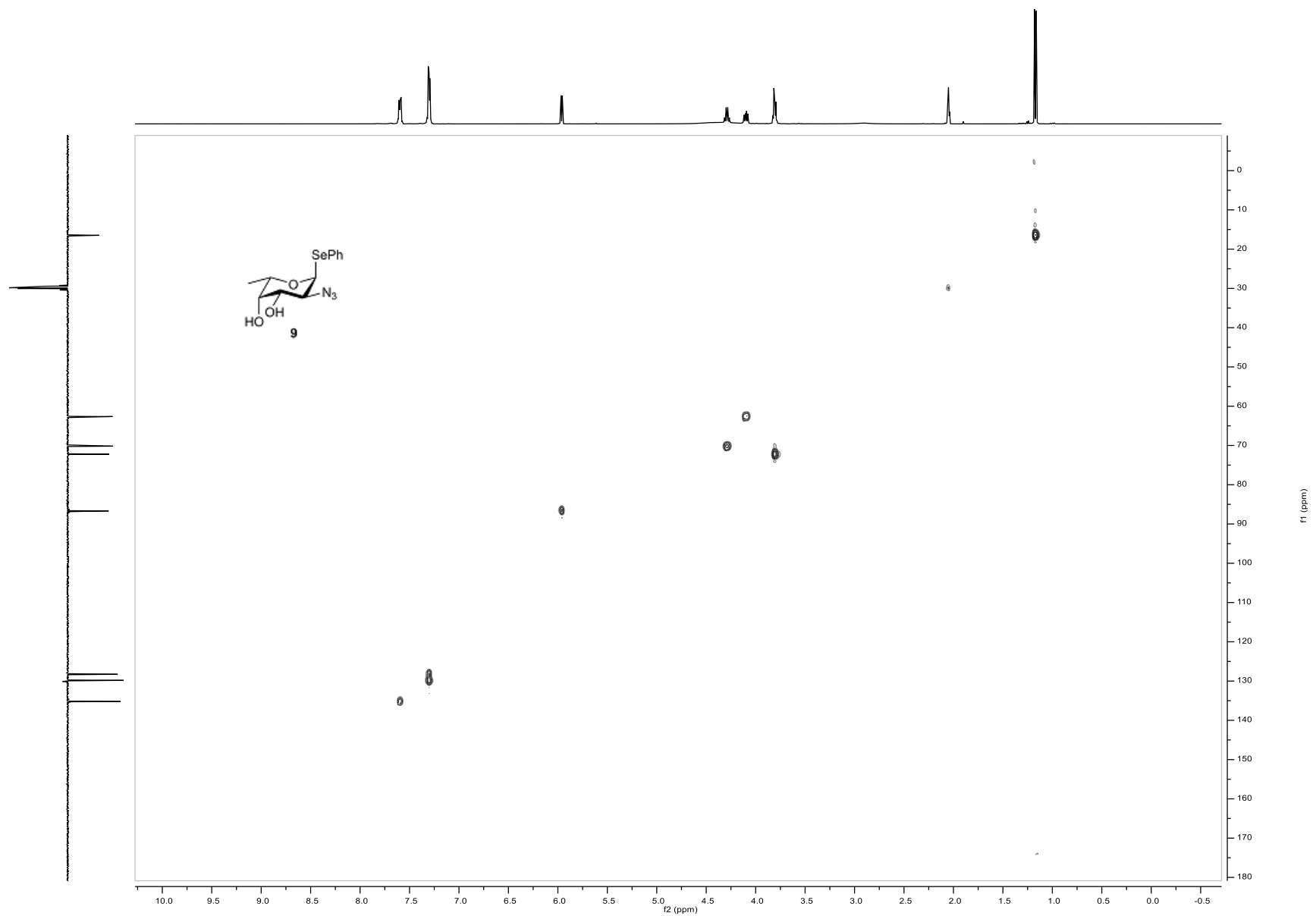
1.18  
1.16

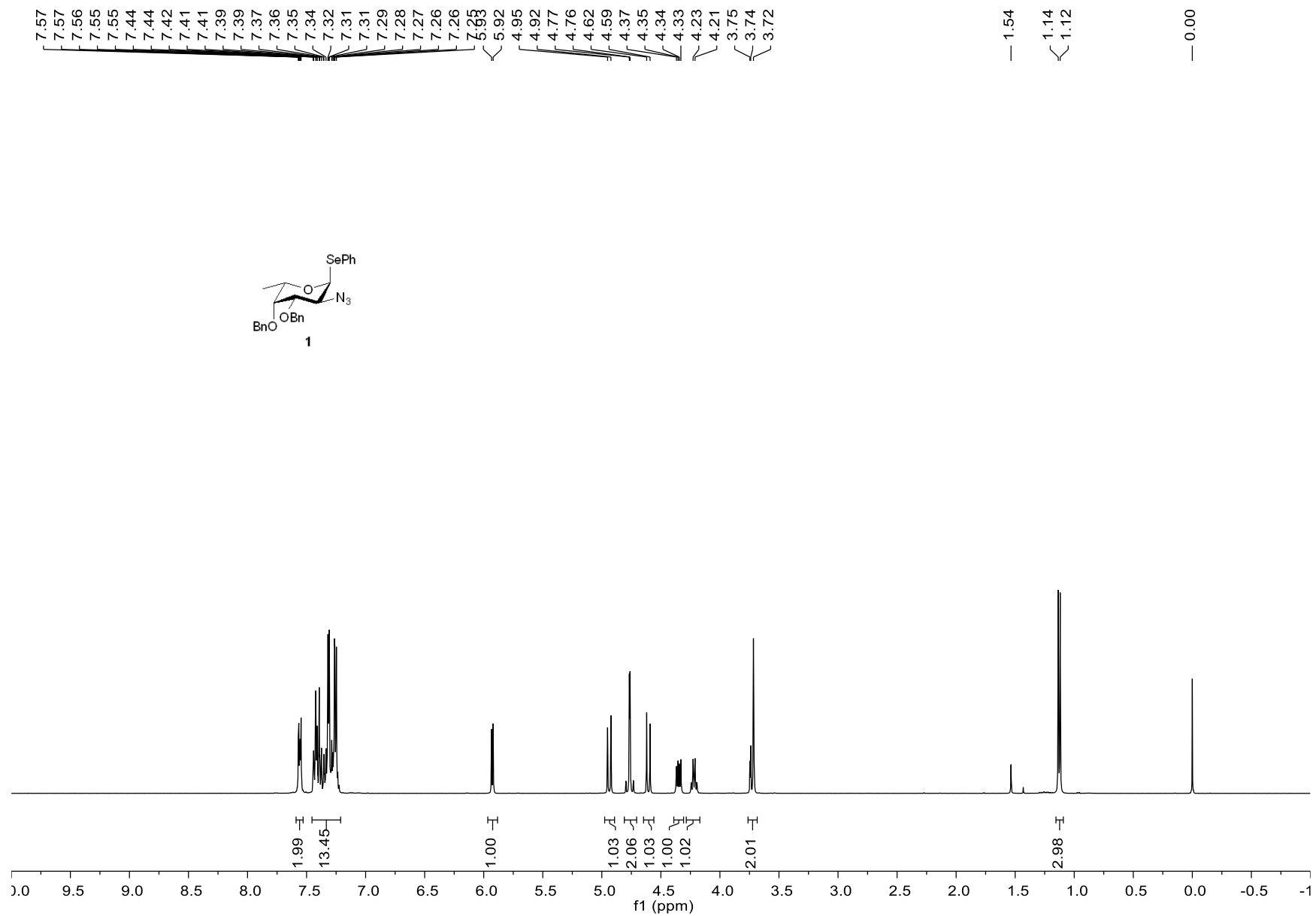


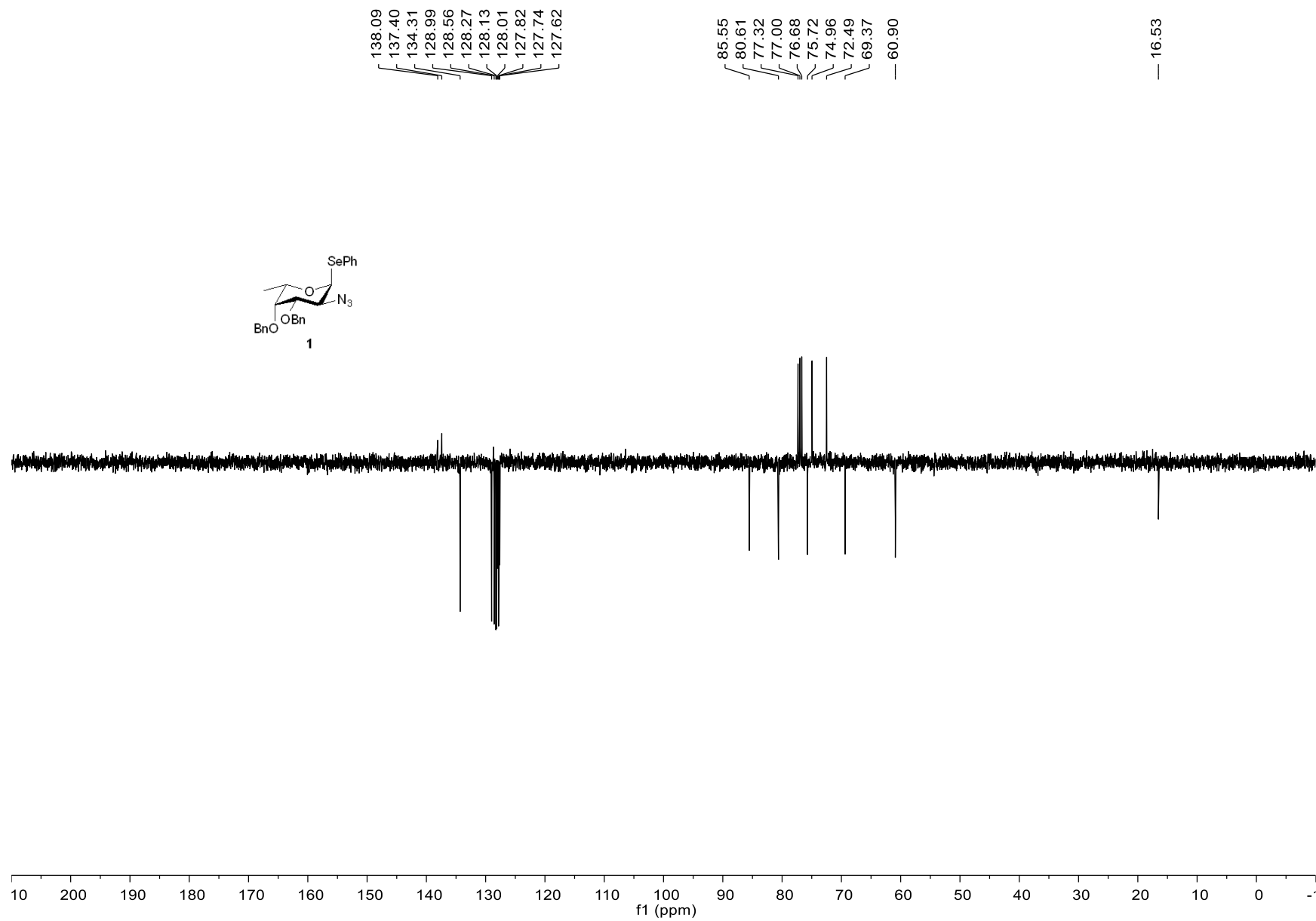
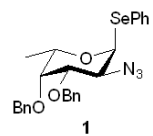


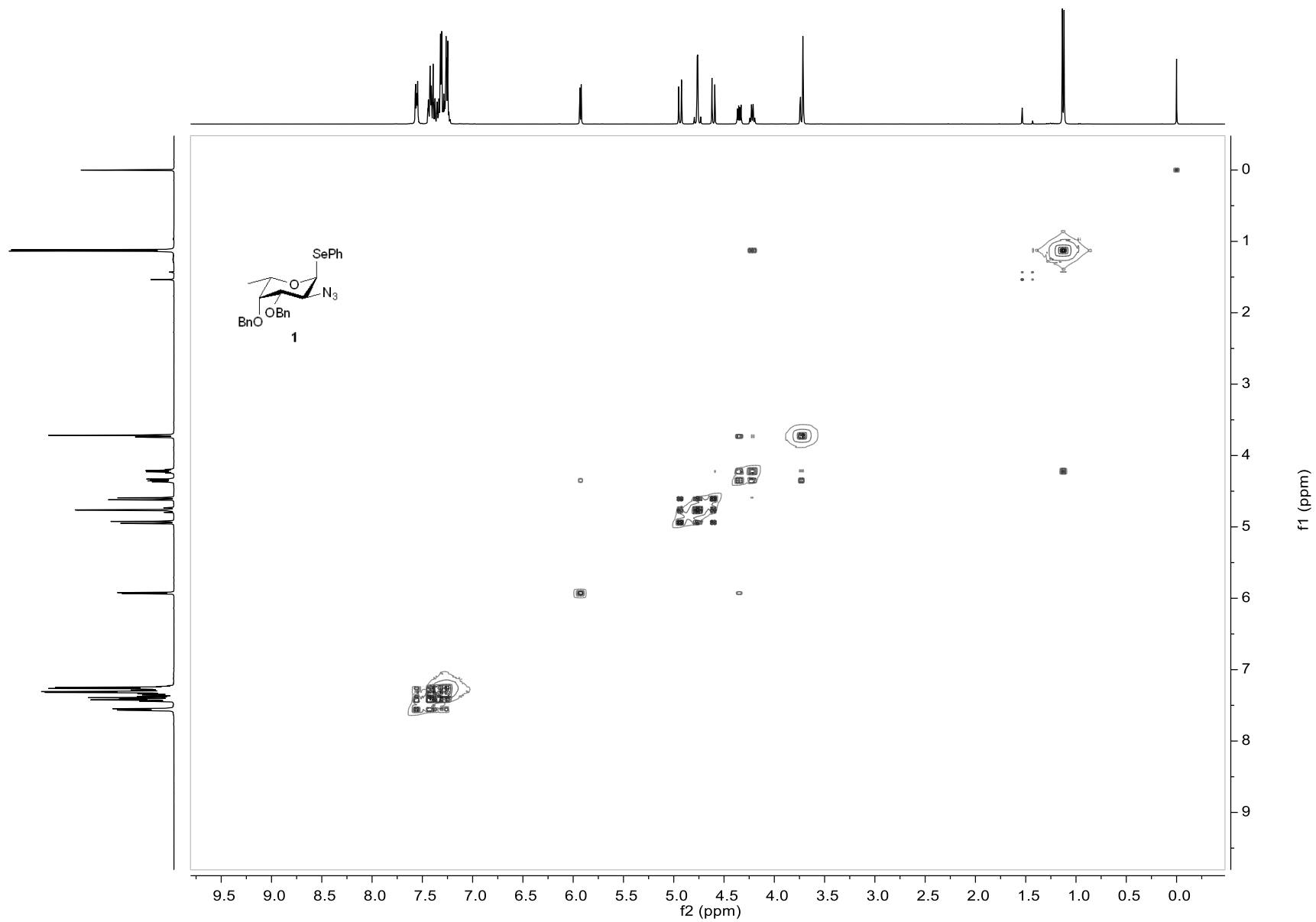


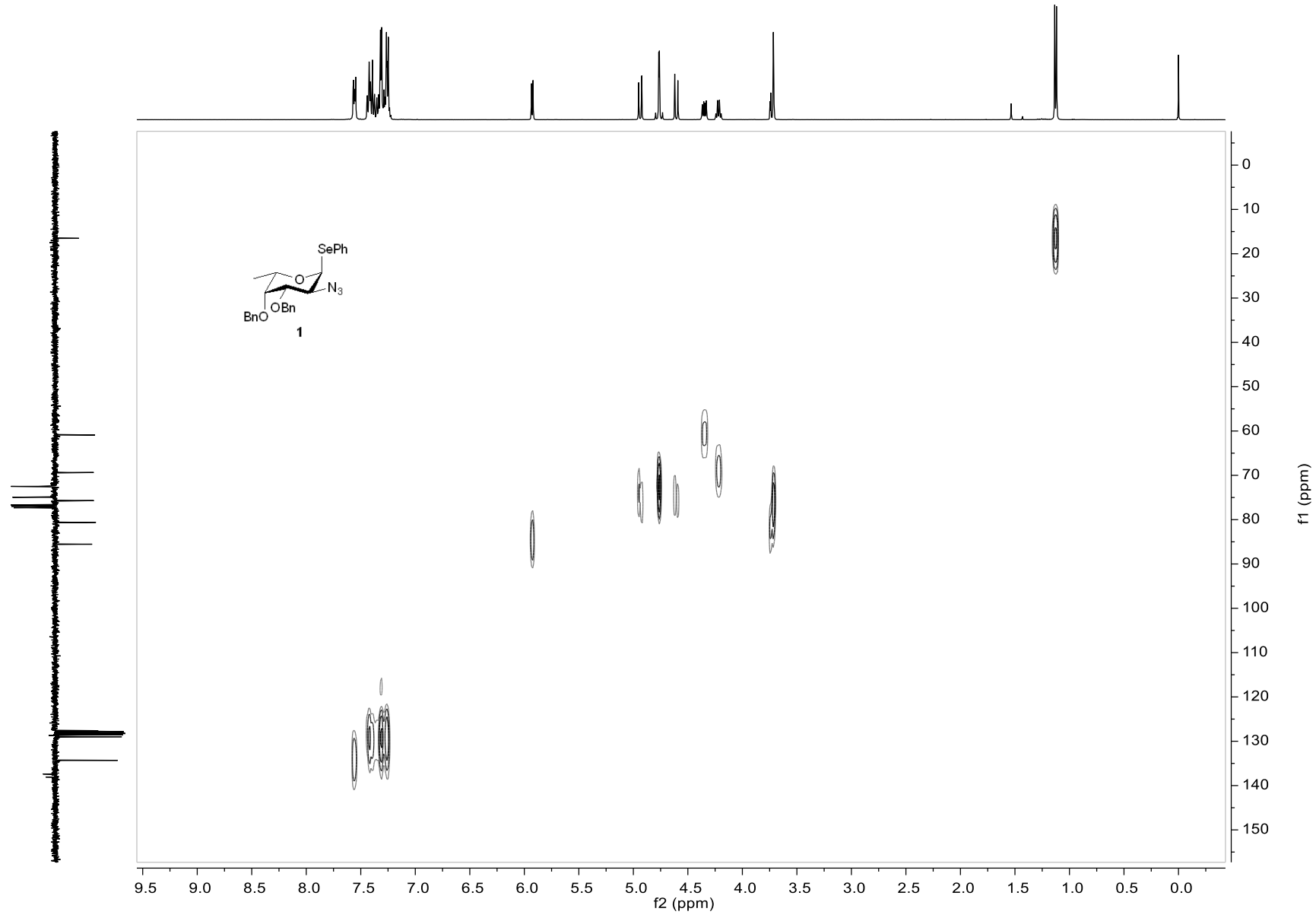


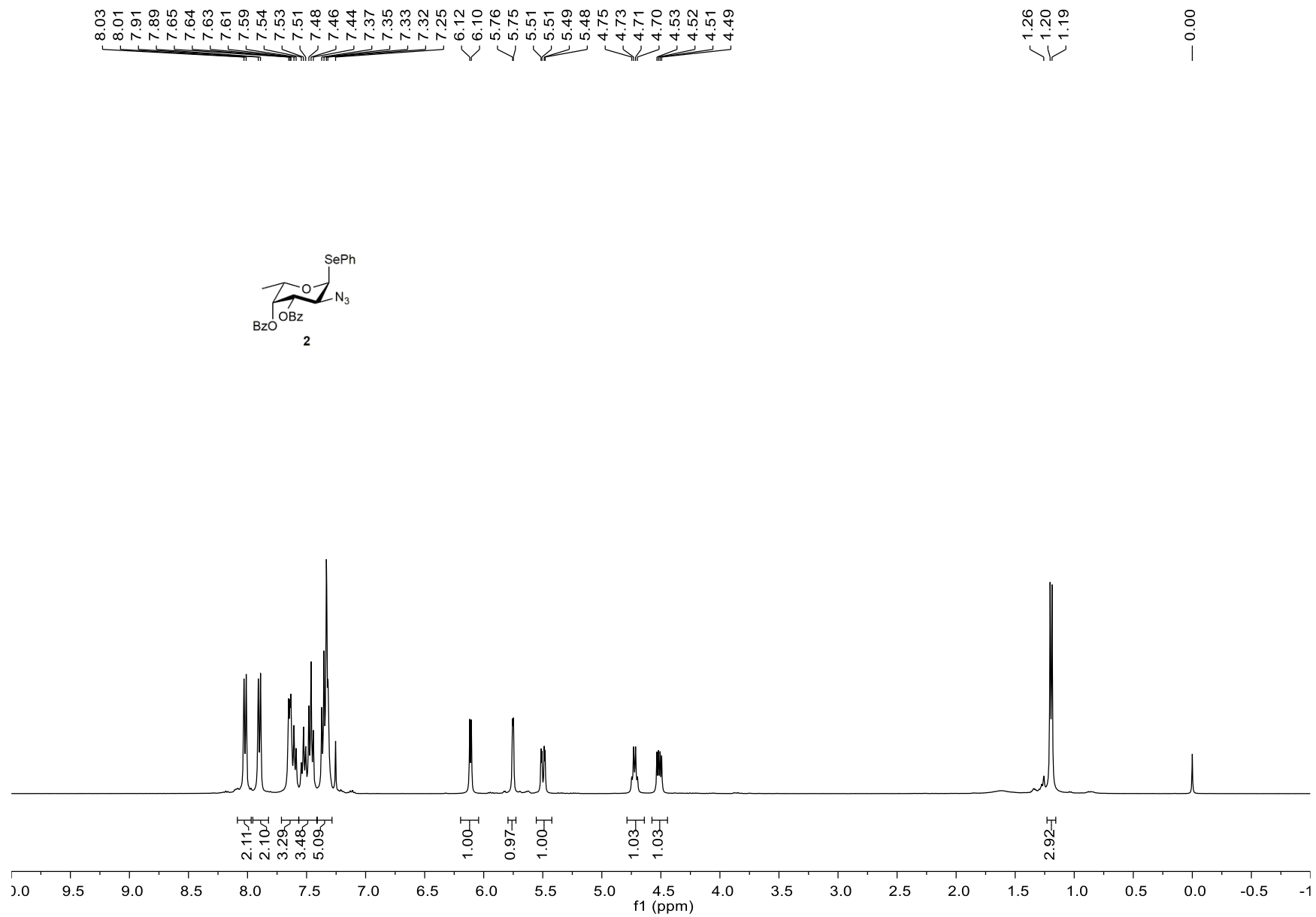










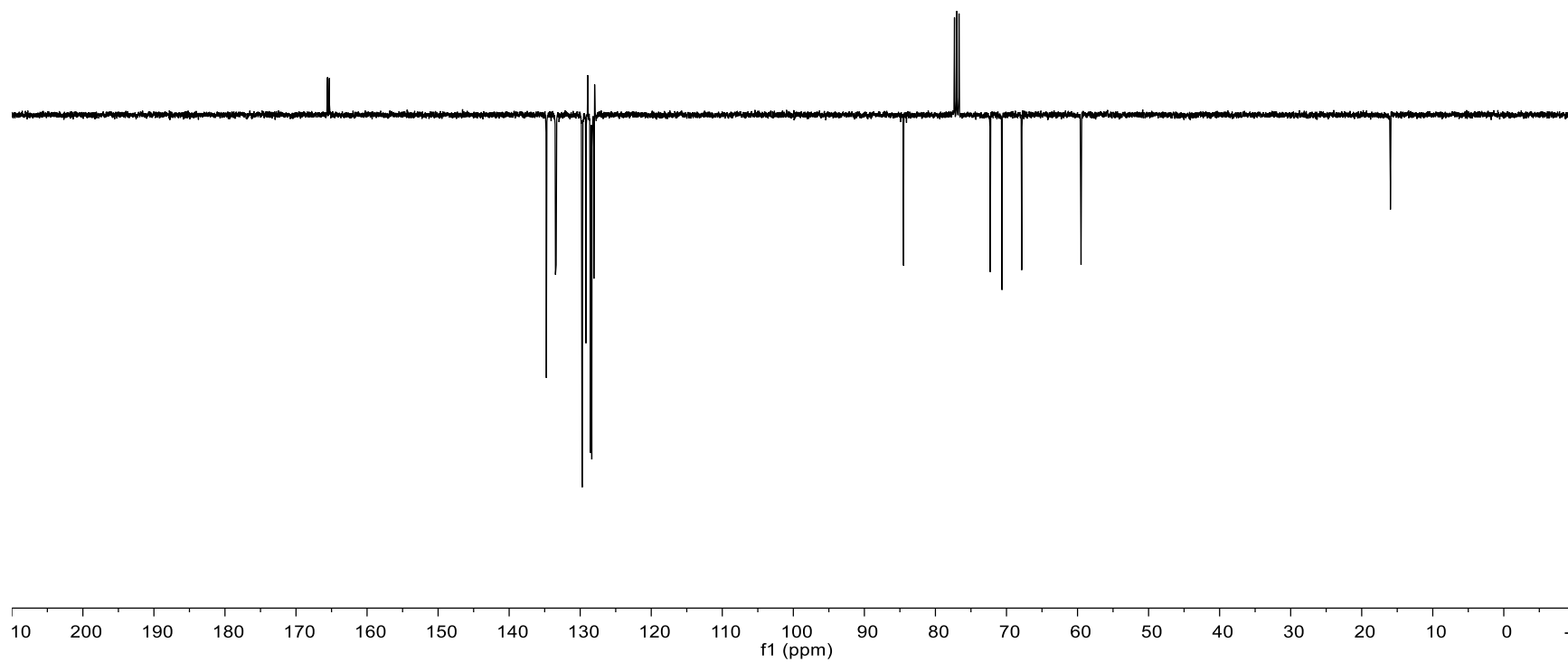
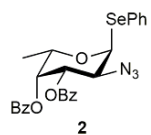


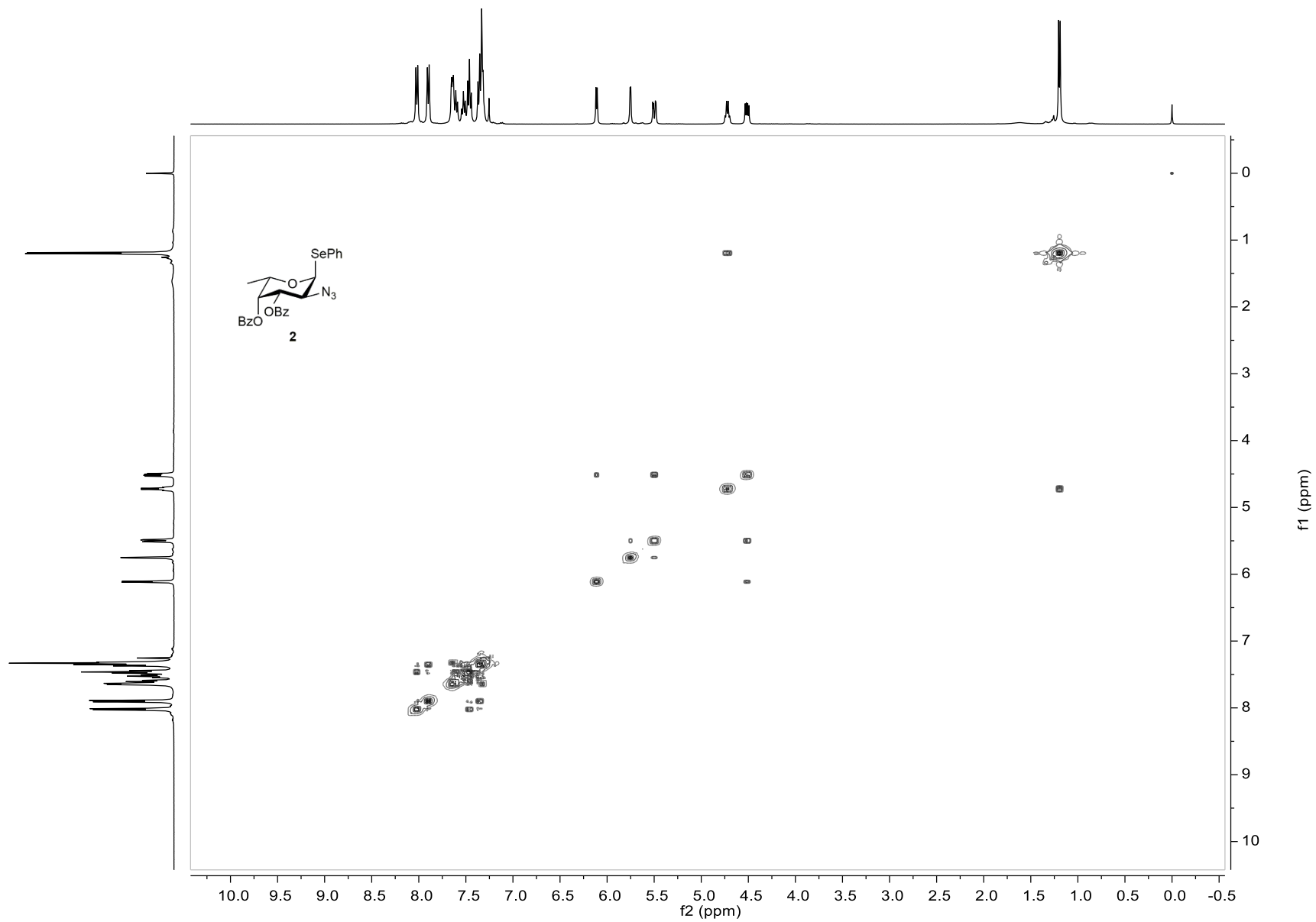
165.57  
165.30

134.76  
133.48  
133.38  
129.74  
129.71  
129.19  
128.94  
128.56  
128.37  
128.07  
127.97

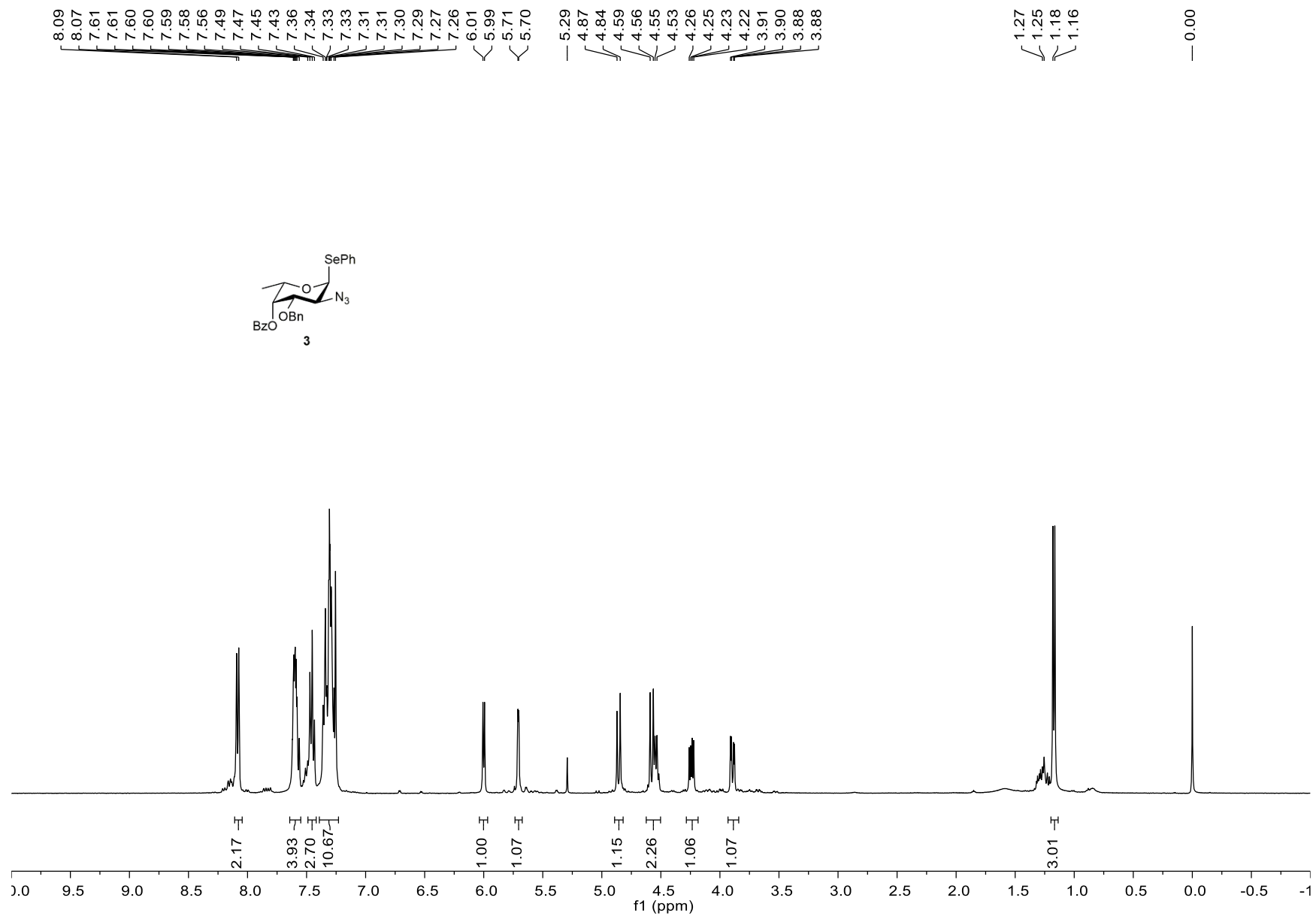
84.49  
77.32  
77.00  
76.68  
72.28  
70.63  
67.85  
59.50

15.96

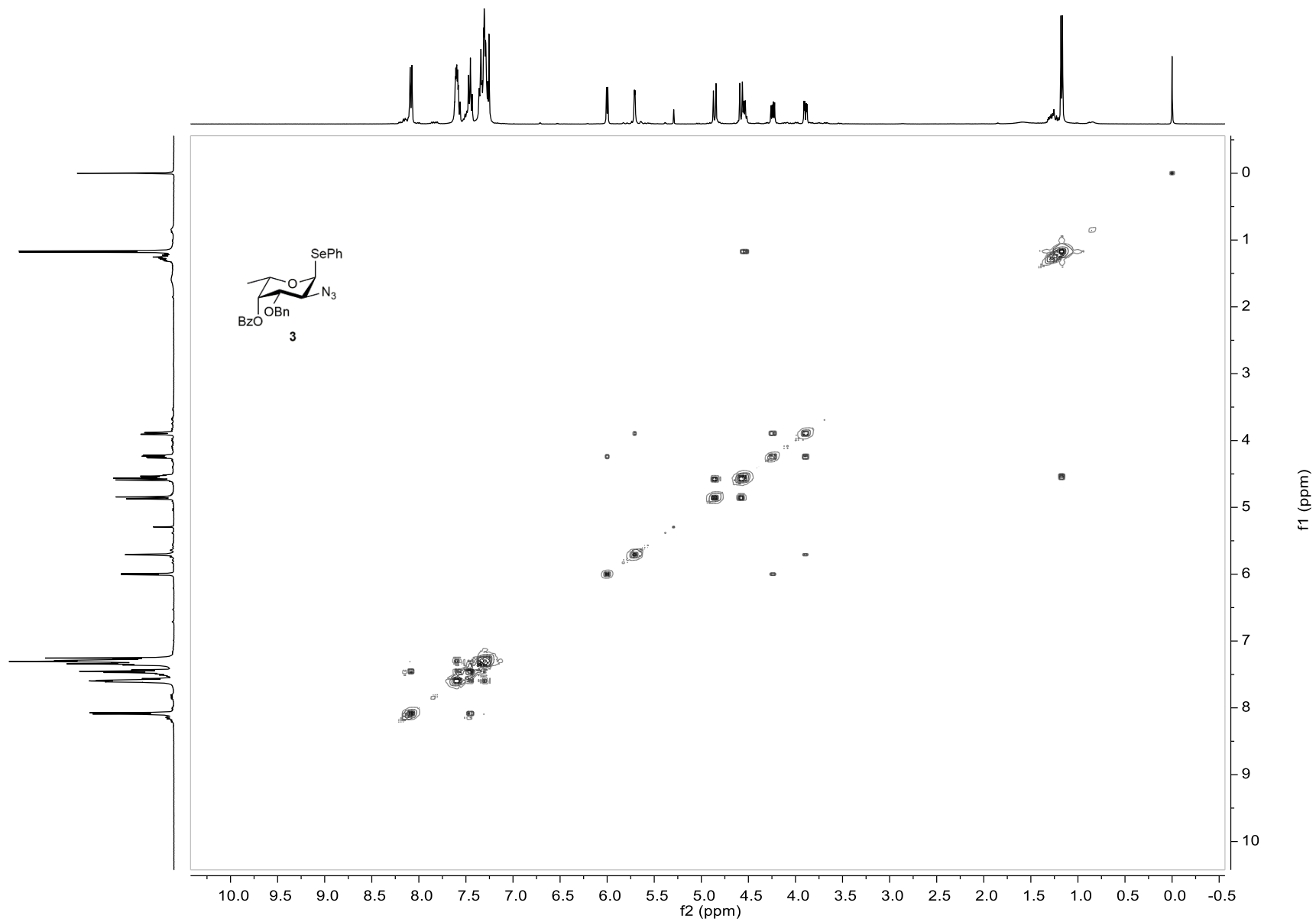


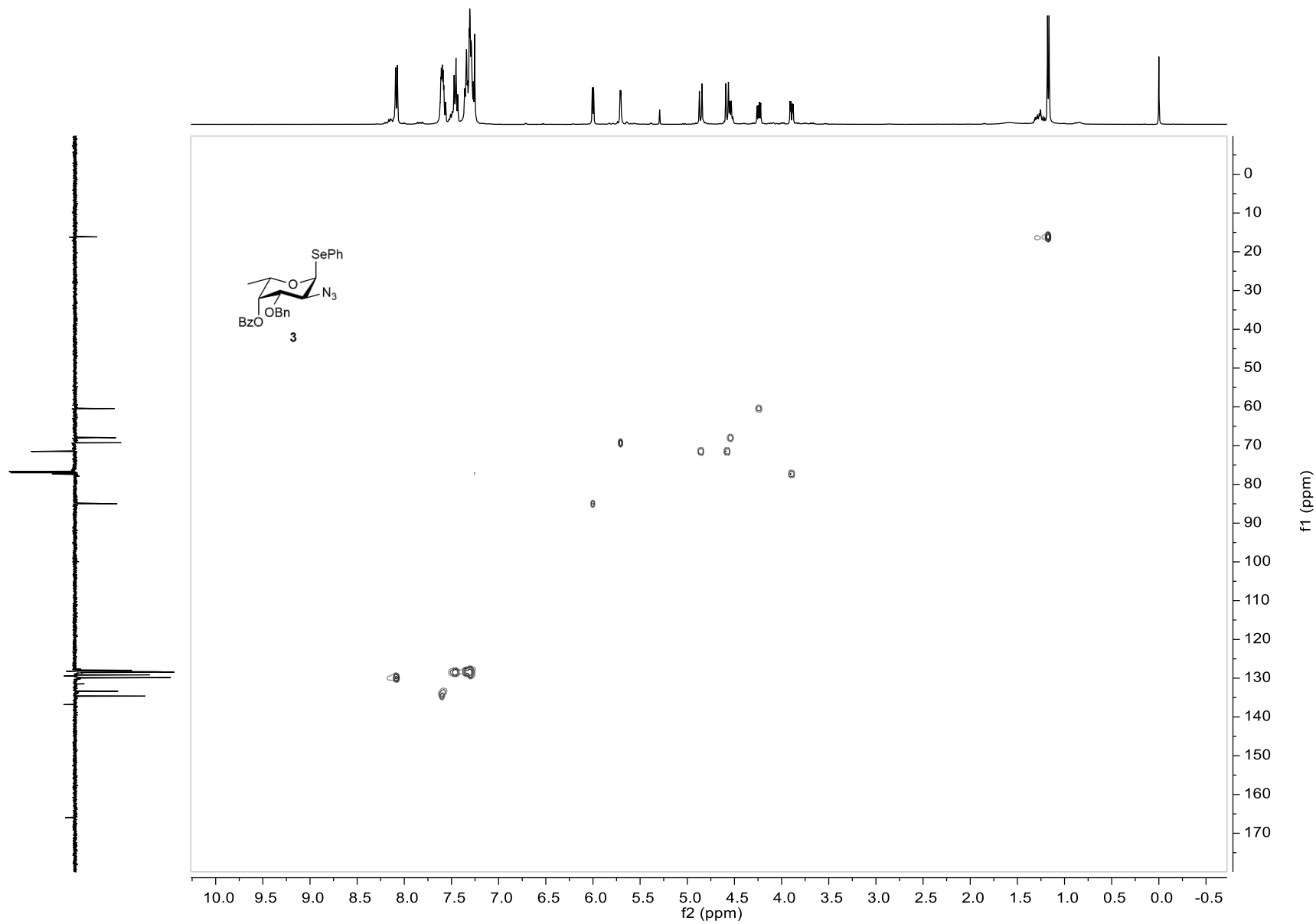


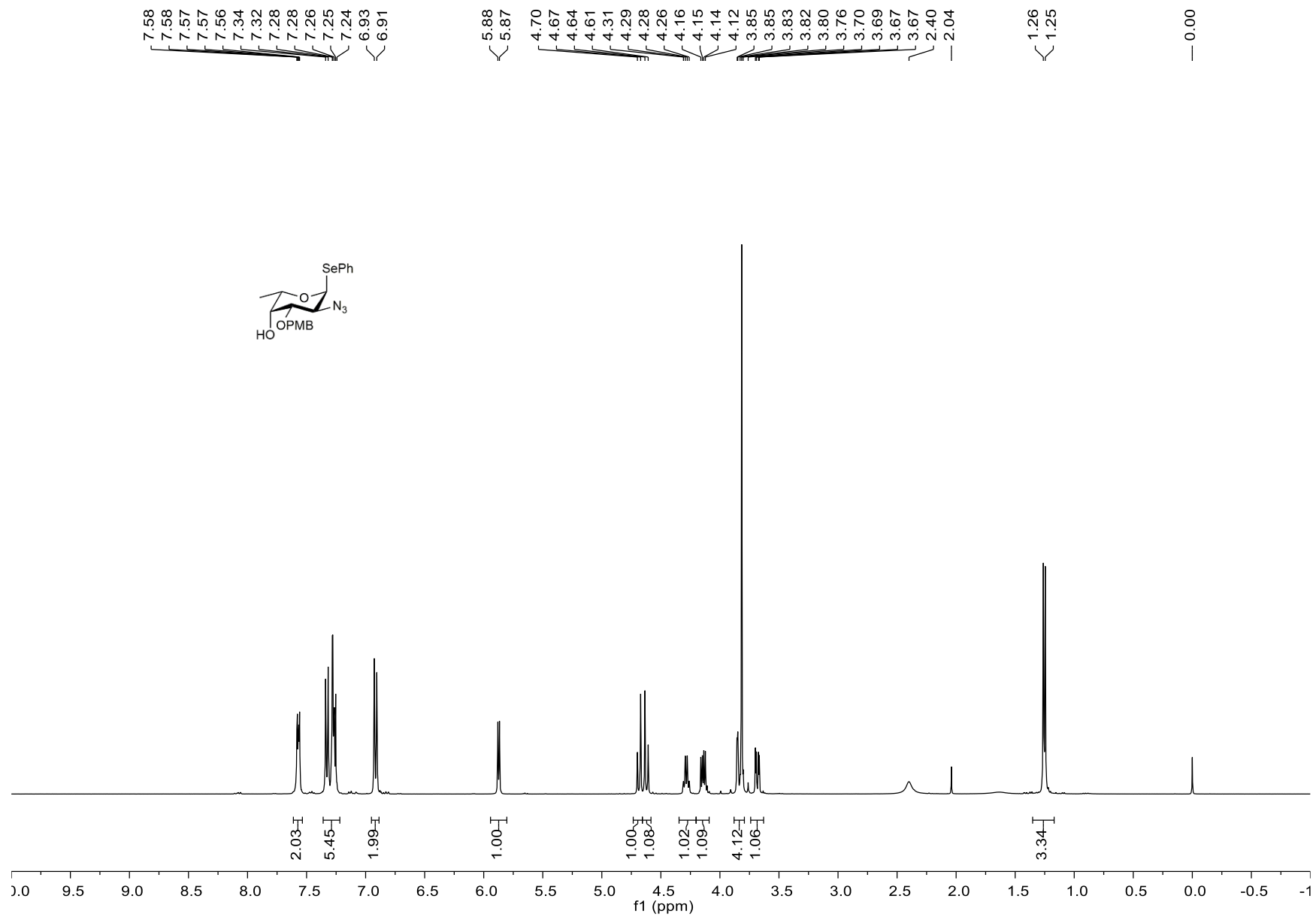


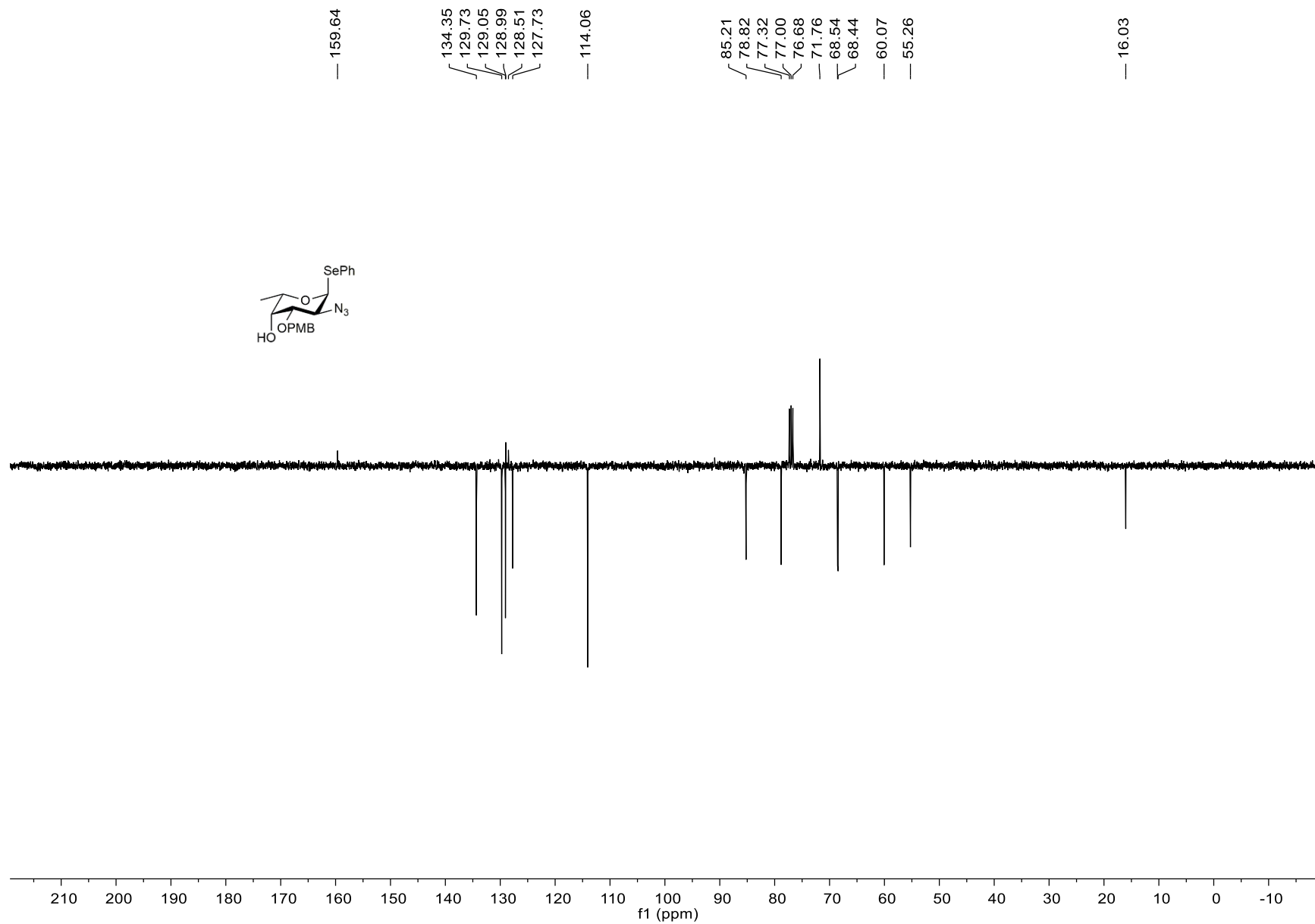
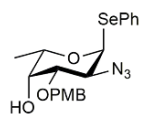


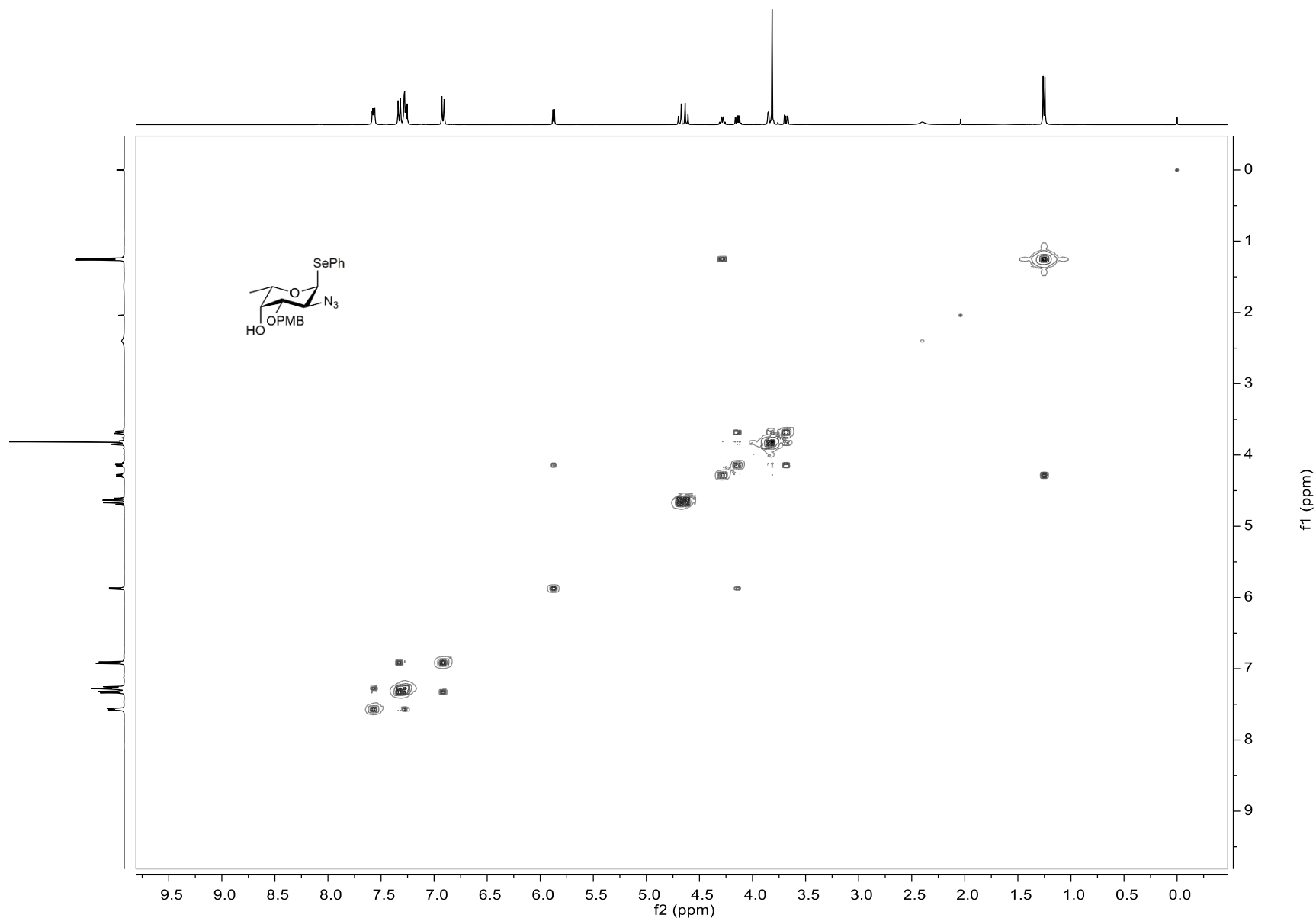


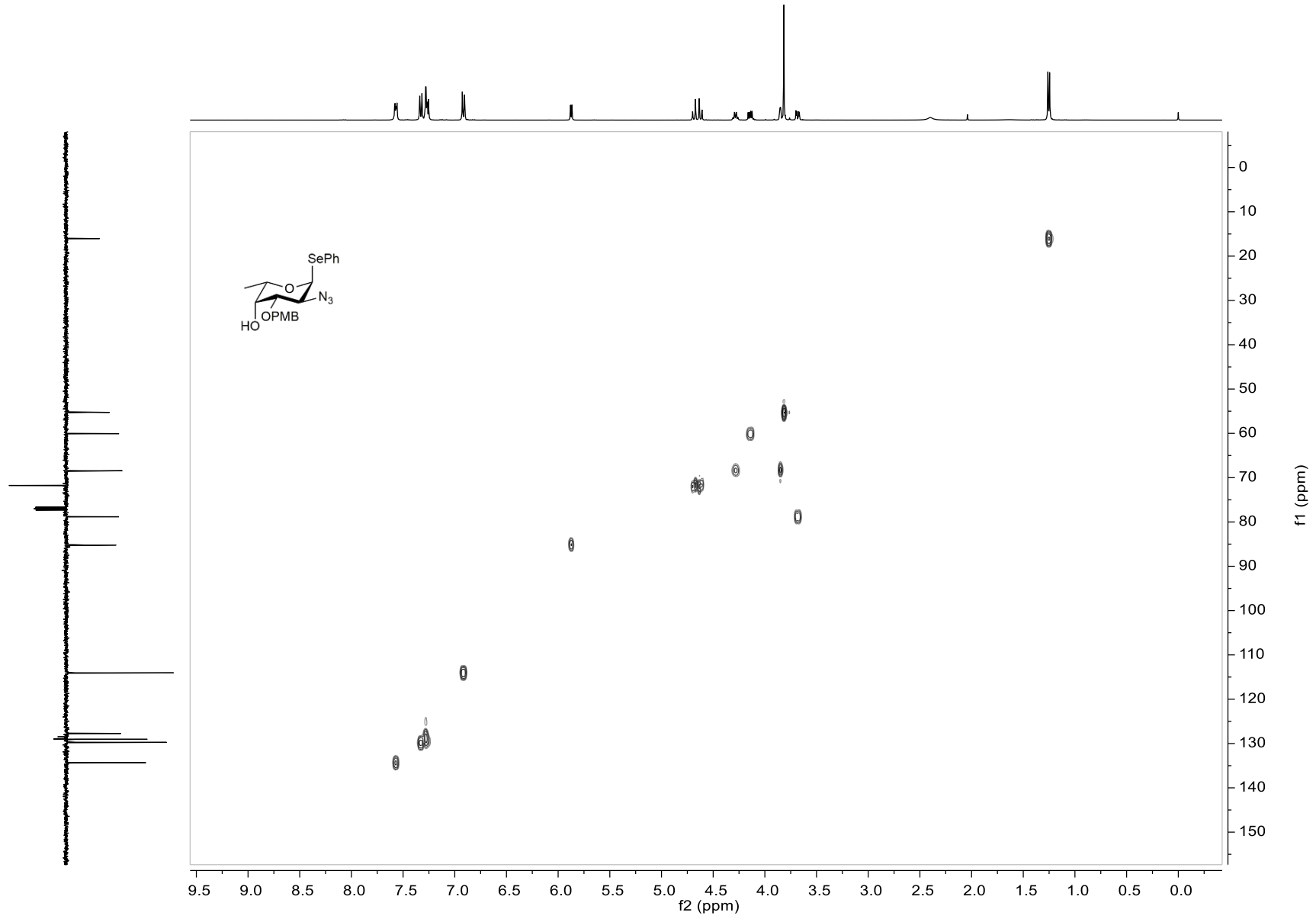




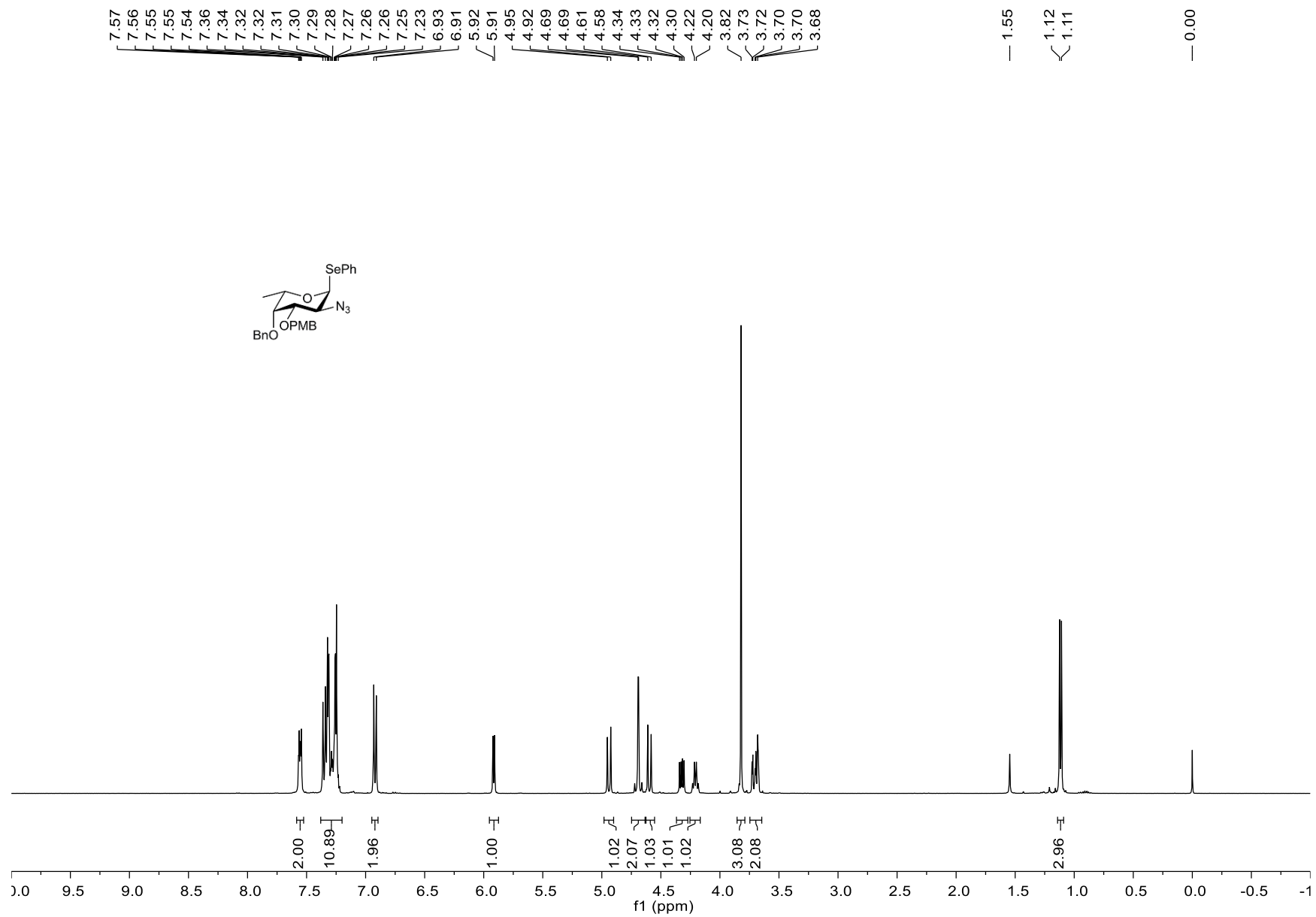


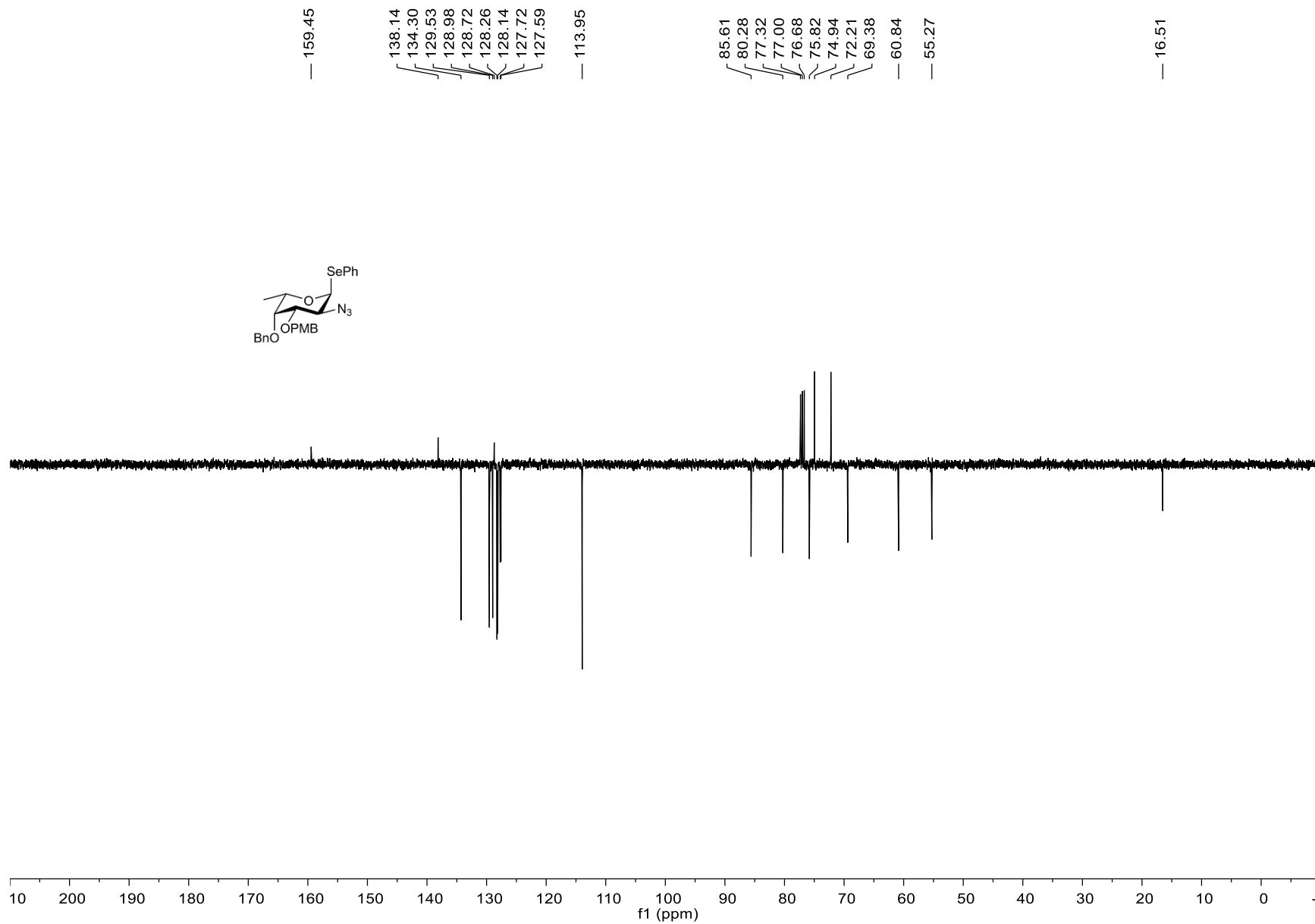
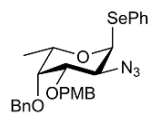


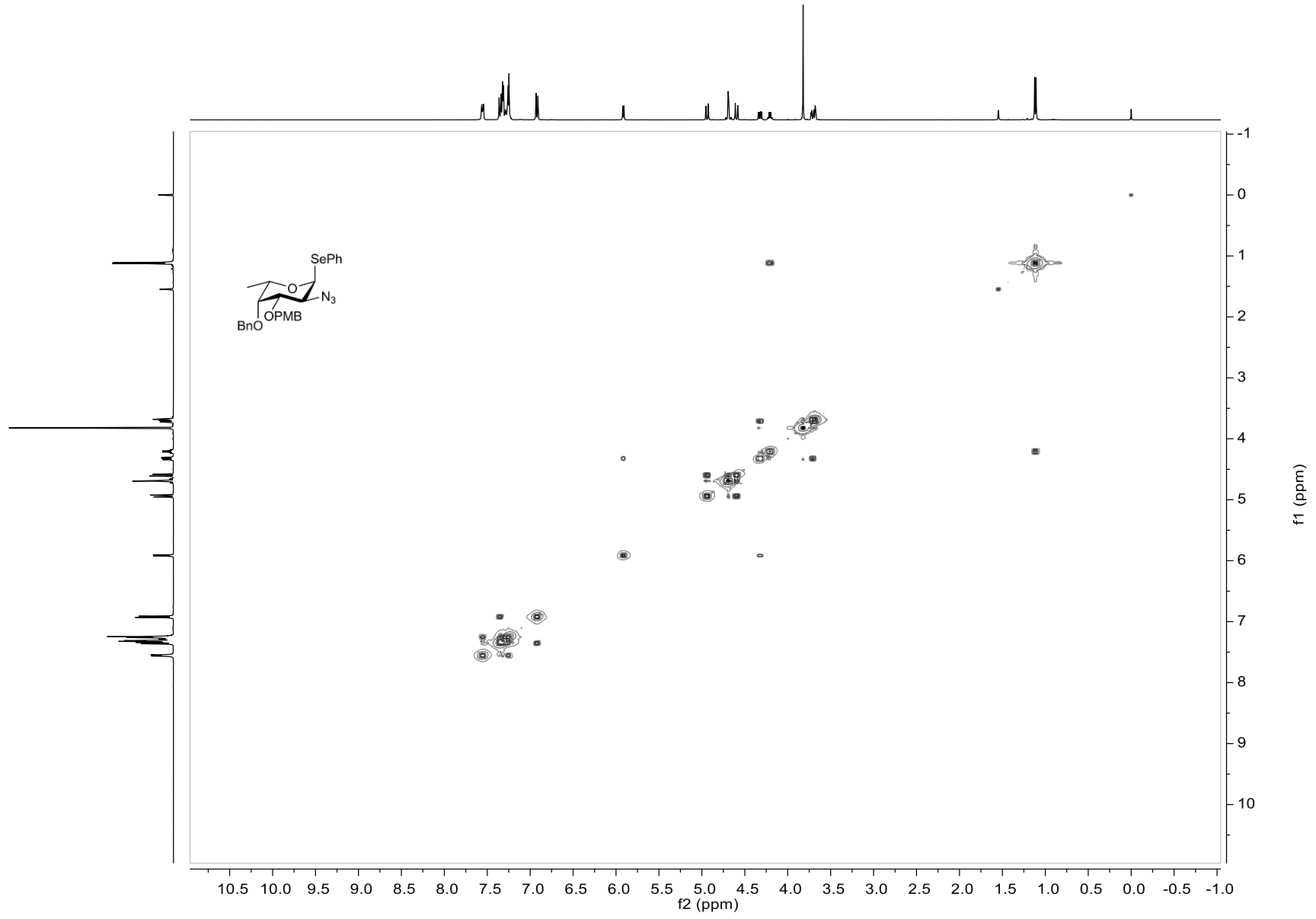


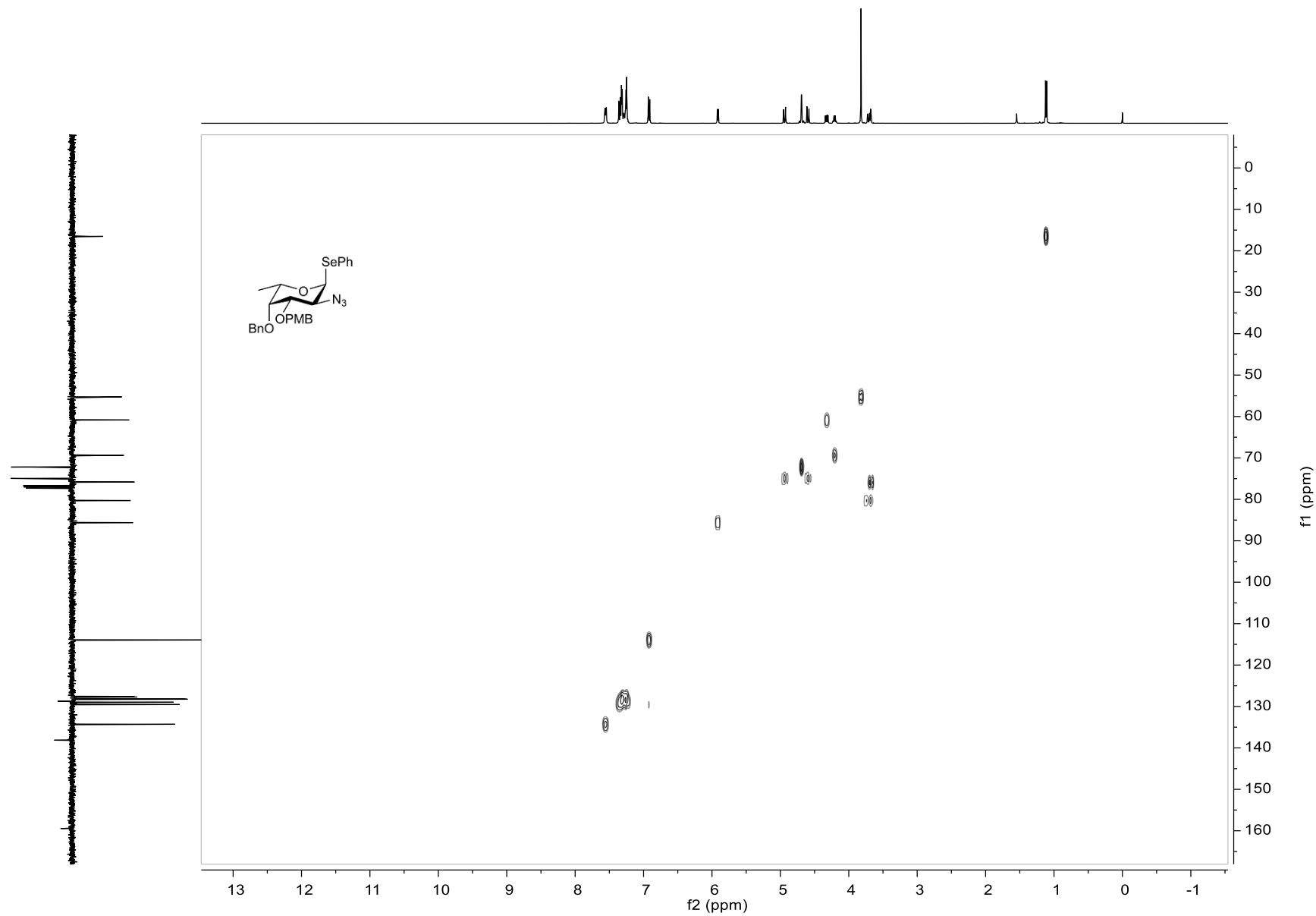












7.58  
7.57  
7.57  
7.56  
7.38  
7.37  
7.34  
7.34  
7.32  
7.32  
7.31  
7.30  
7.28  
7.28  
7.26  
7.25

5.92  
5.90

4.83  
4.80  
4.73  
4.70  
4.36  
4.34  
4.32  
4.31  
4.04  
4.02  
4.01  
3.85  
3.84  
3.83  
3.82  
3.80  
3.79  
3.69  
3.68

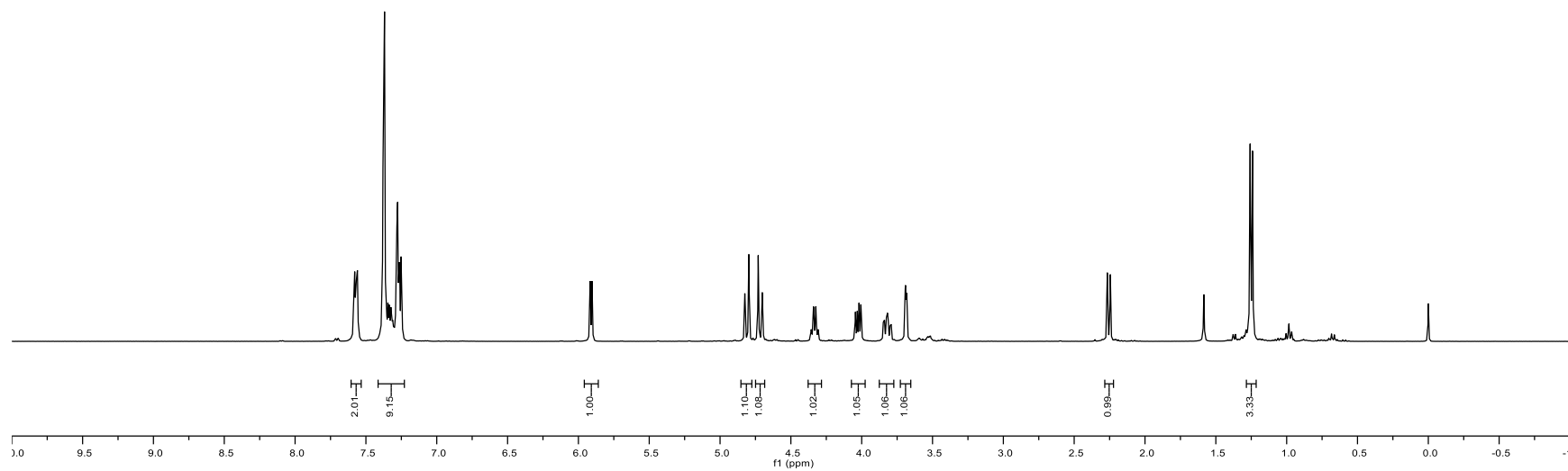
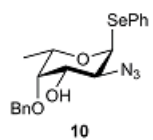
2.27  
2.24

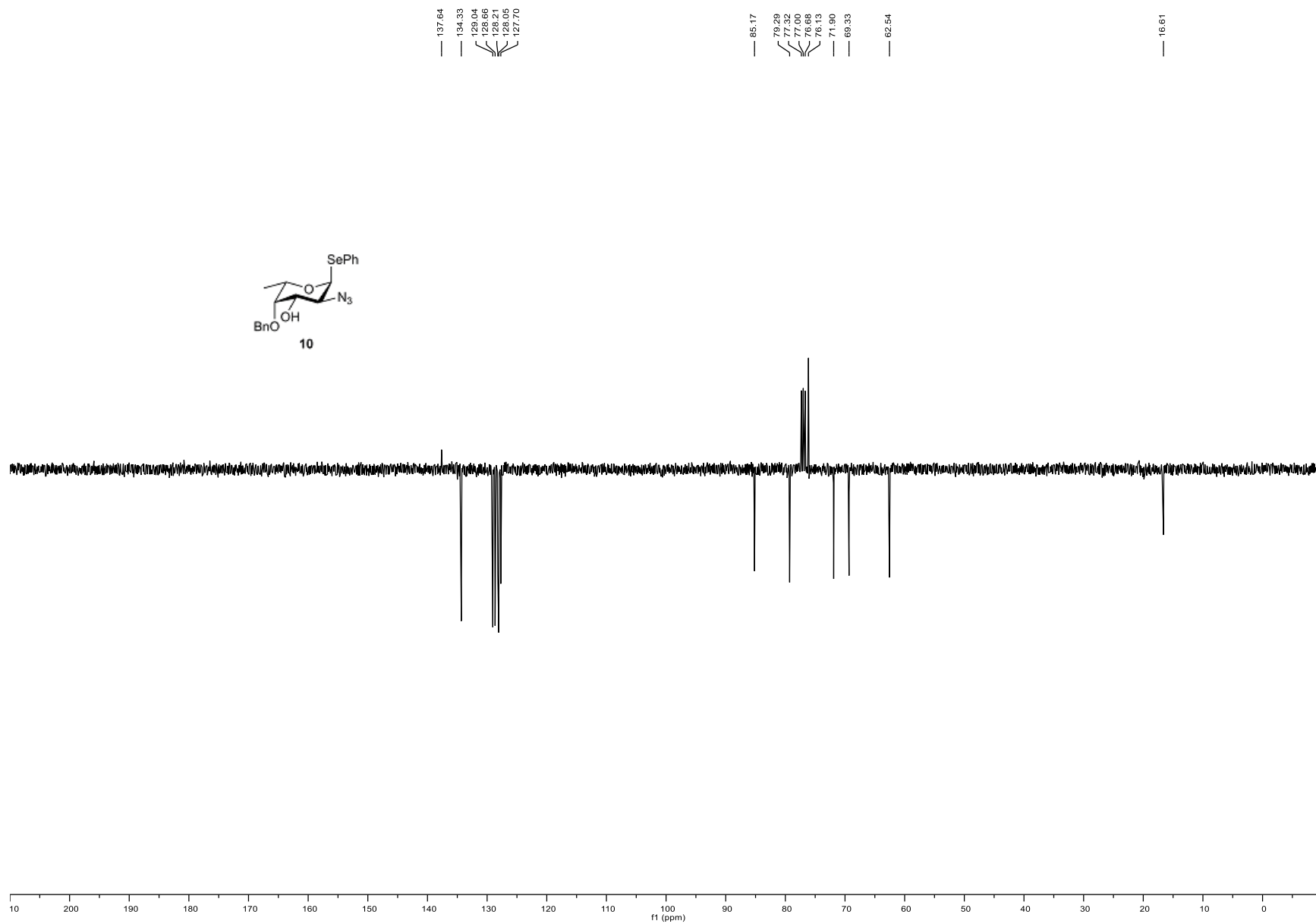
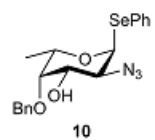
1.56

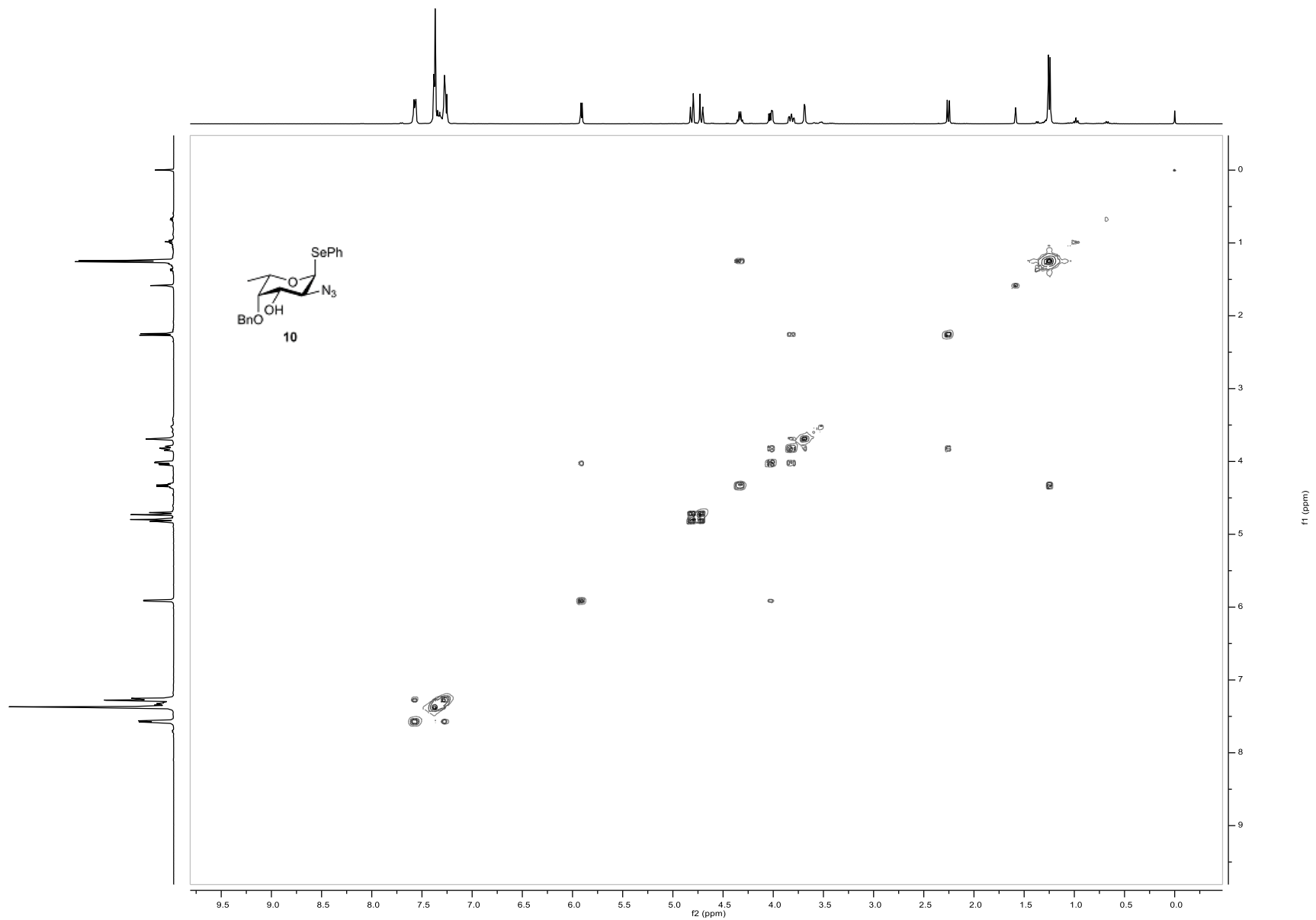
1.29  
1.26  
1.24

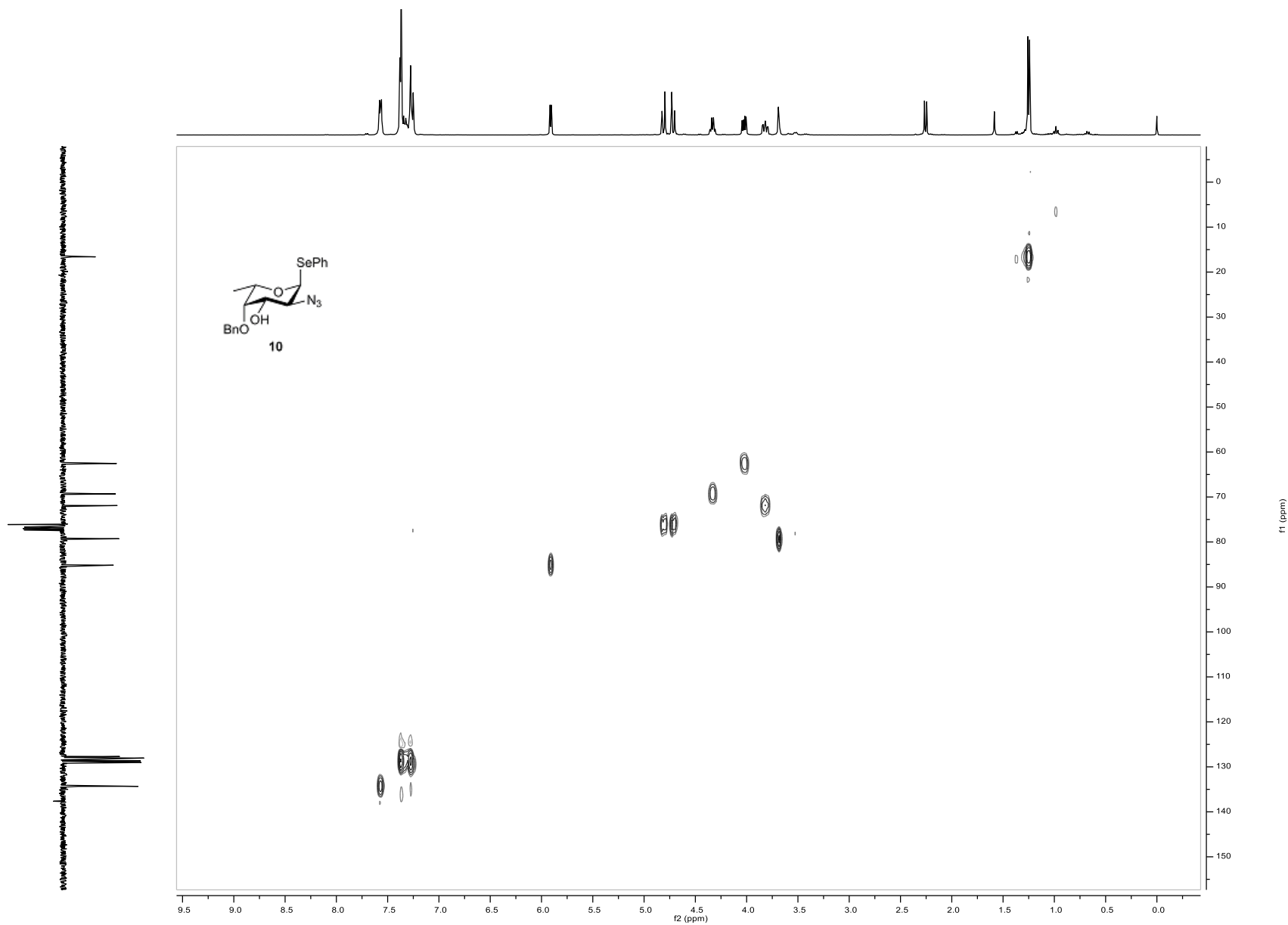
0.98

0.00

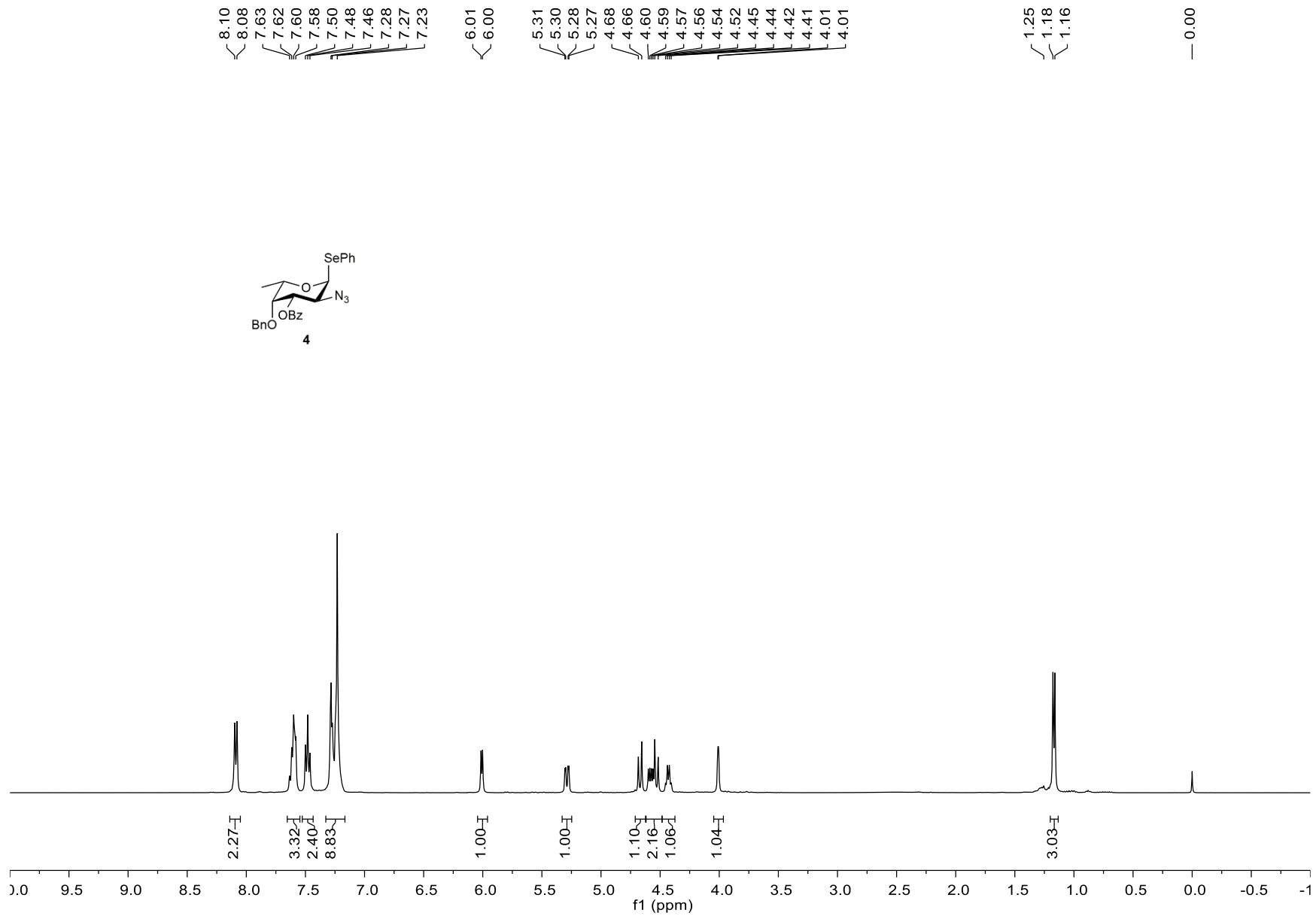
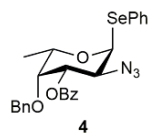


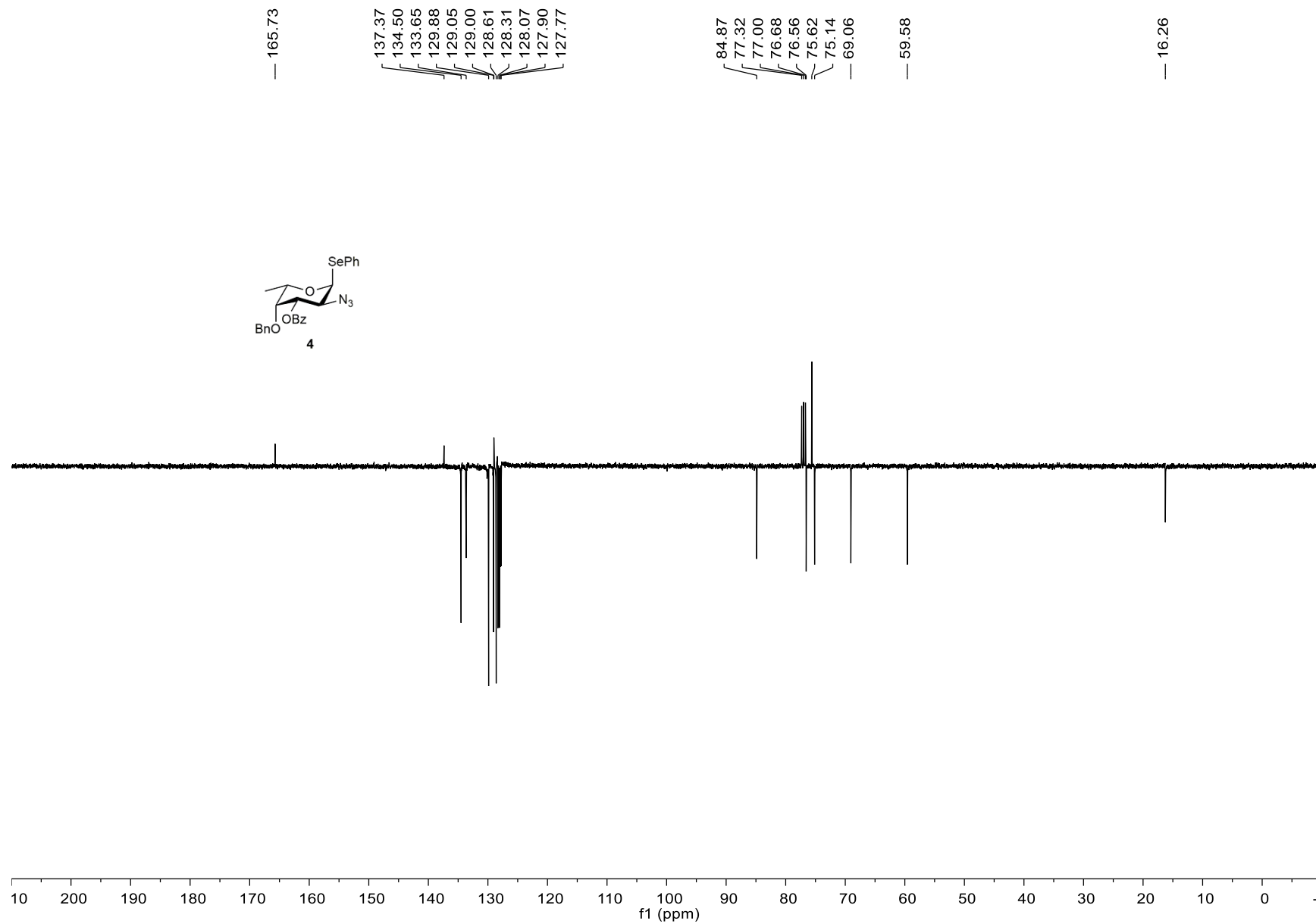


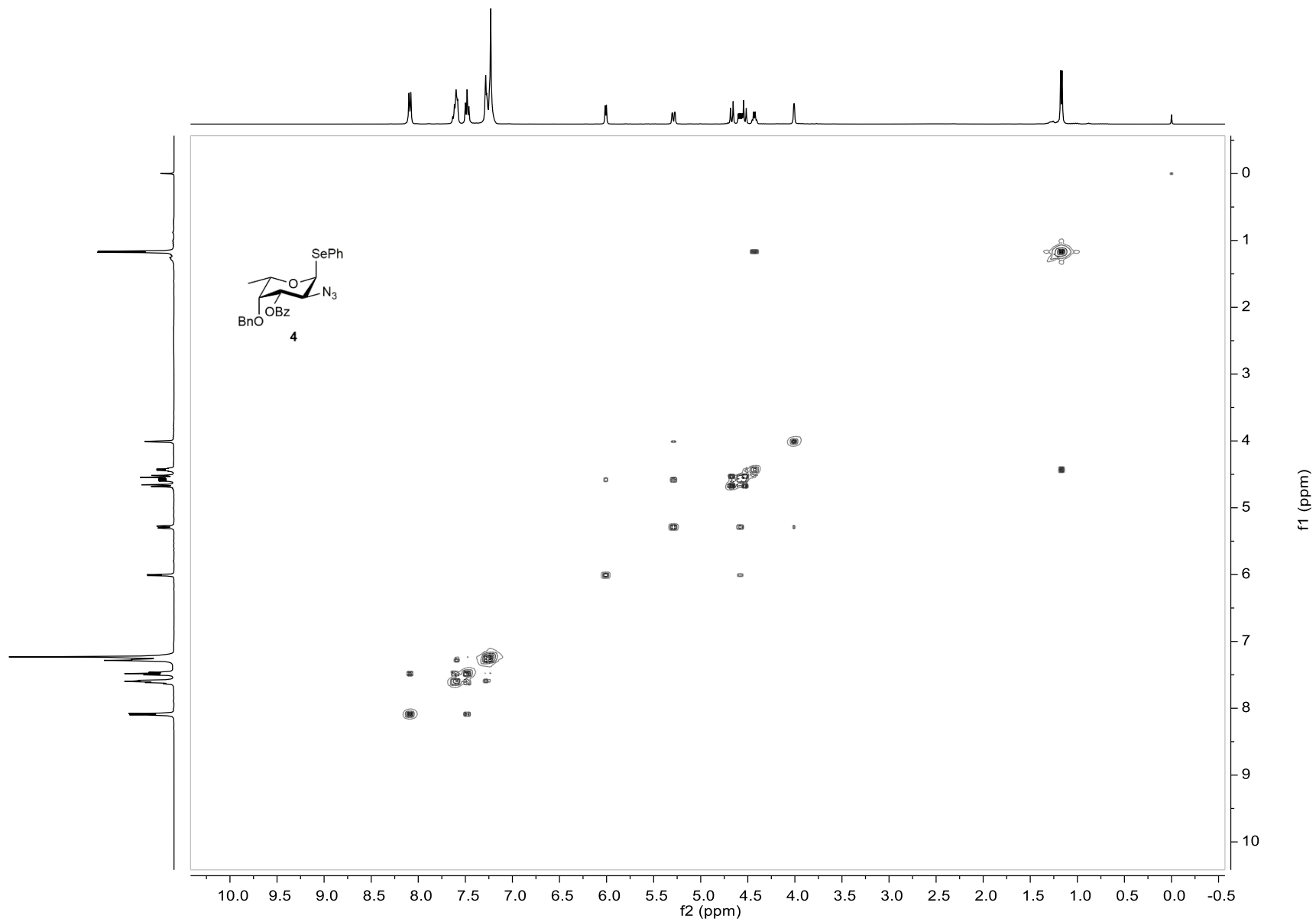


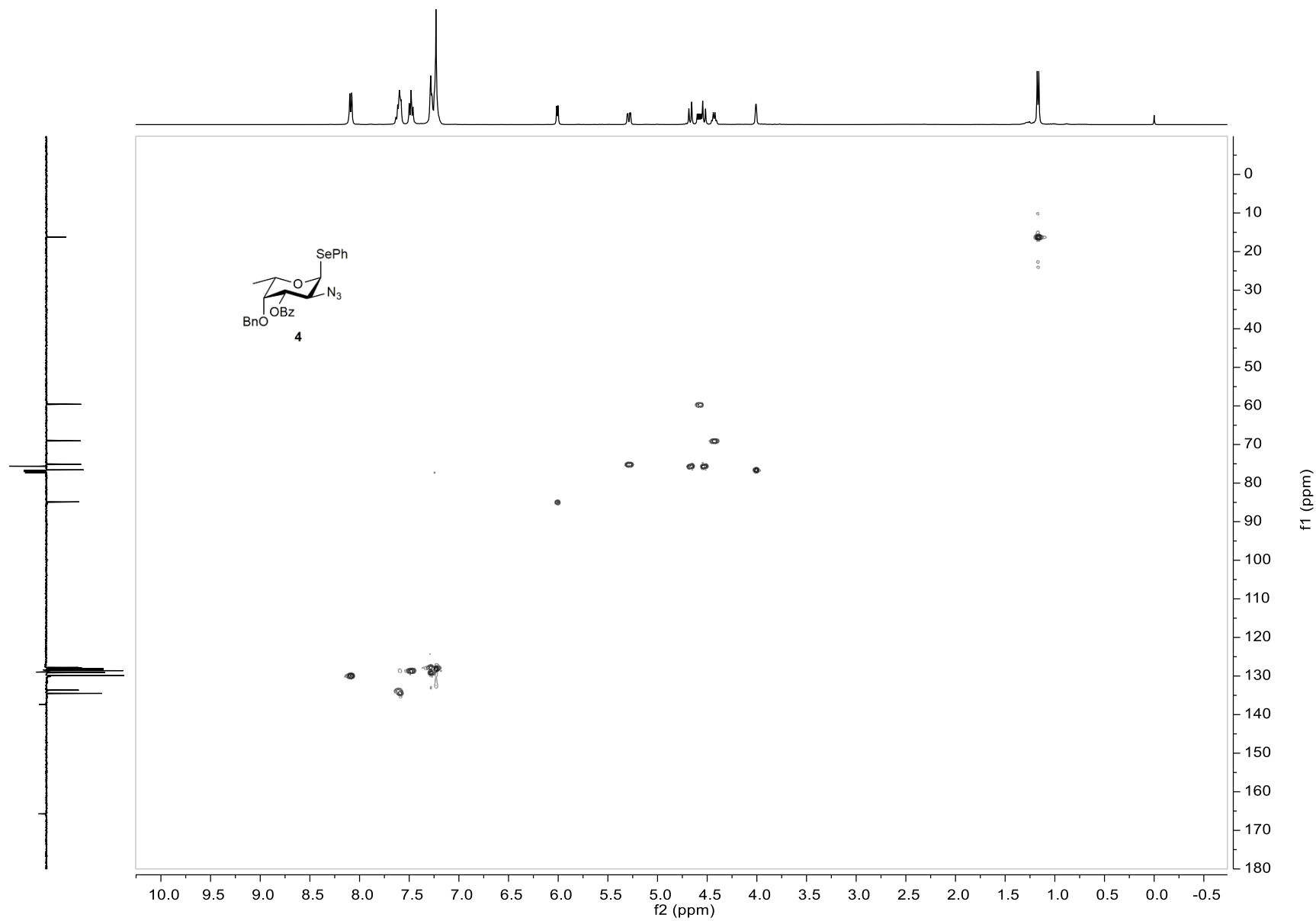


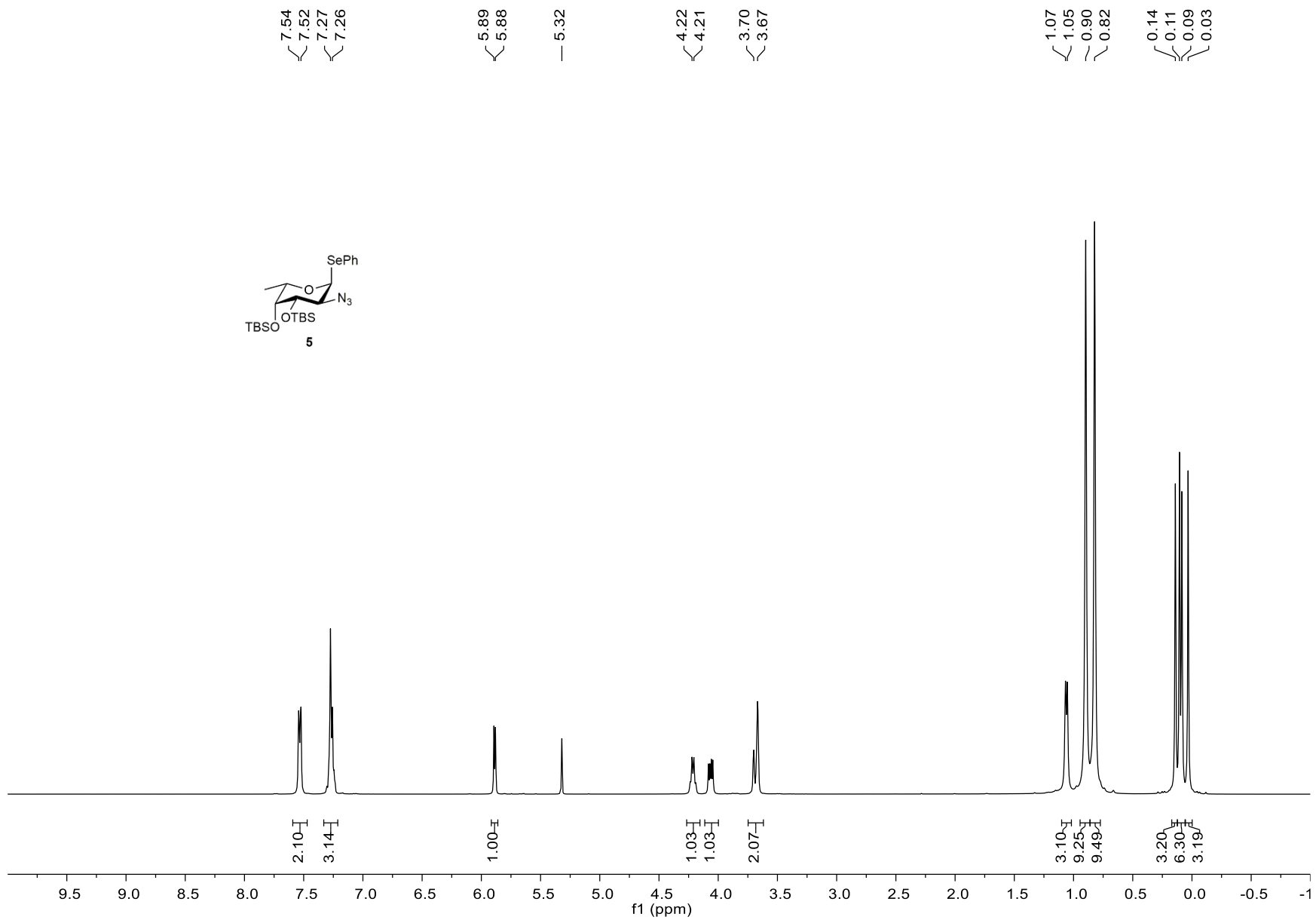
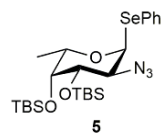


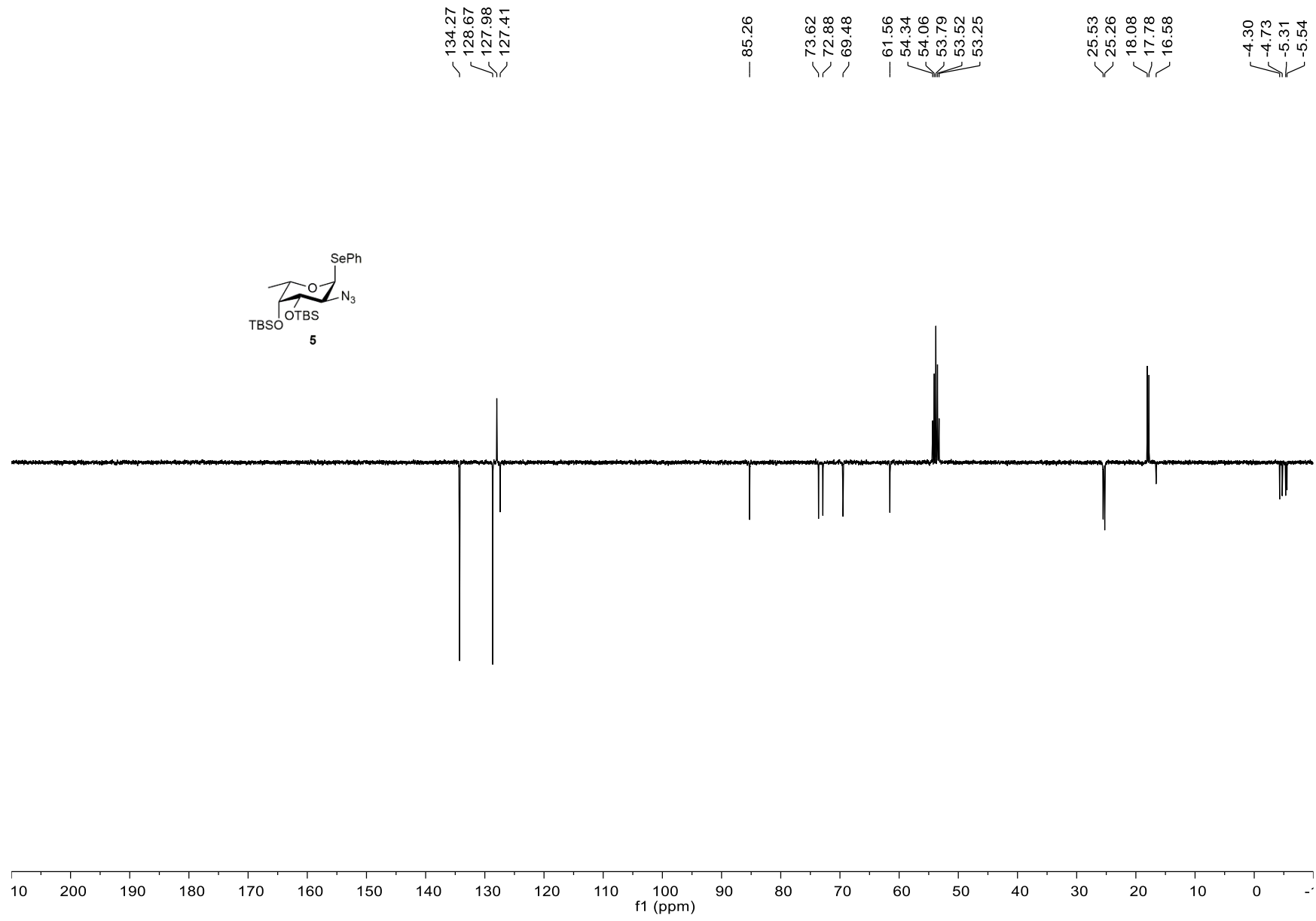
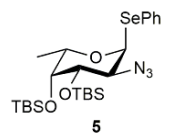


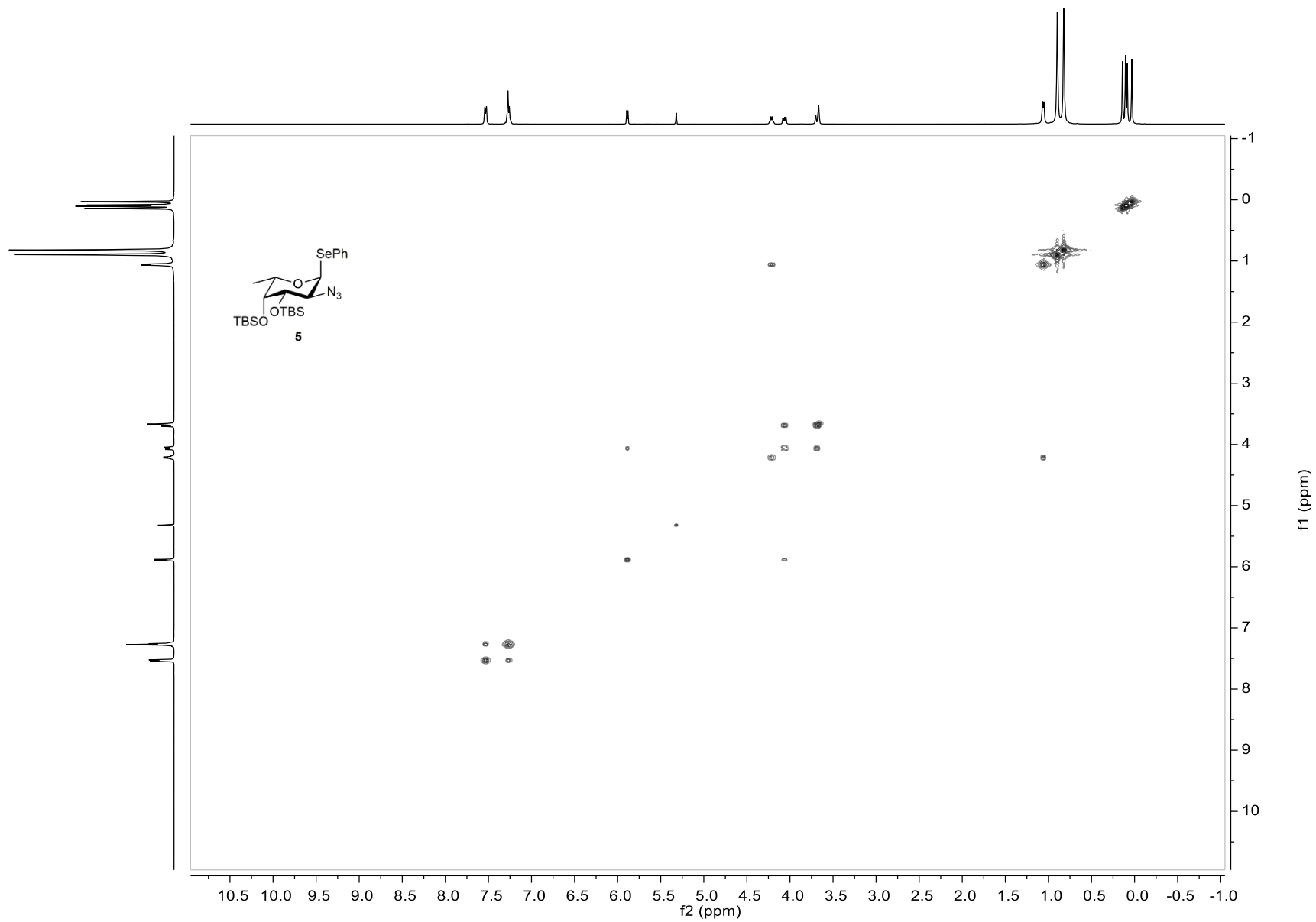


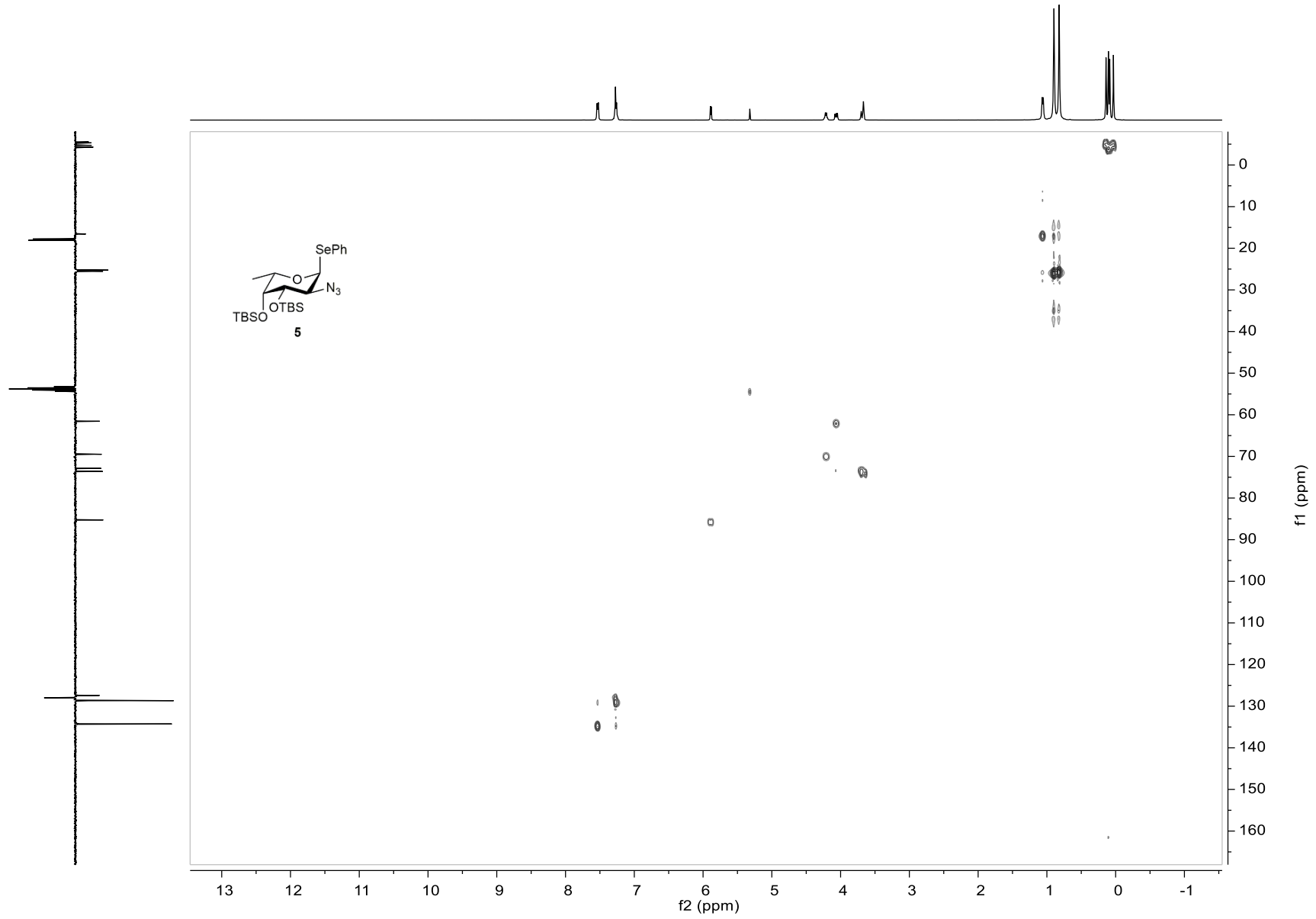




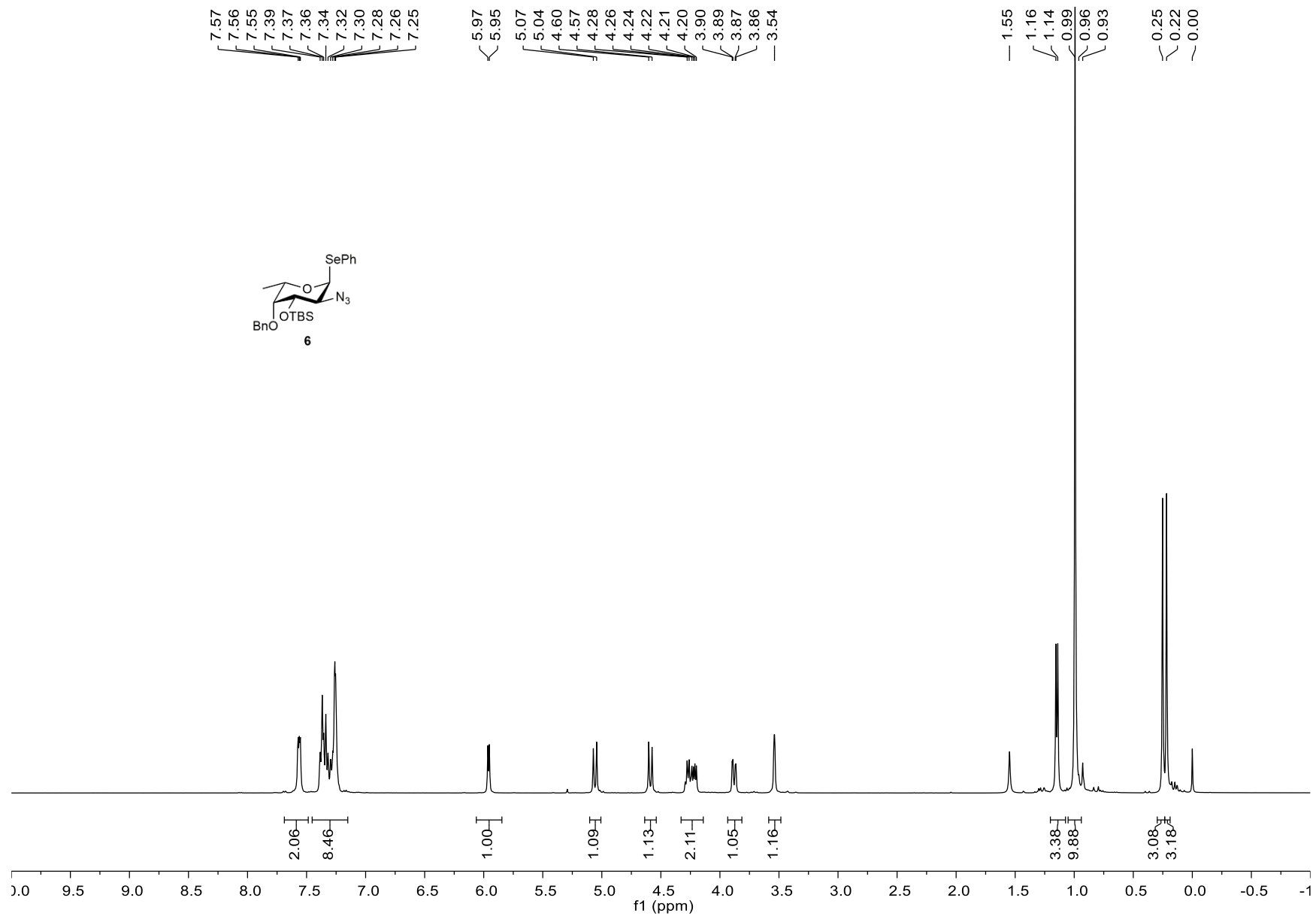


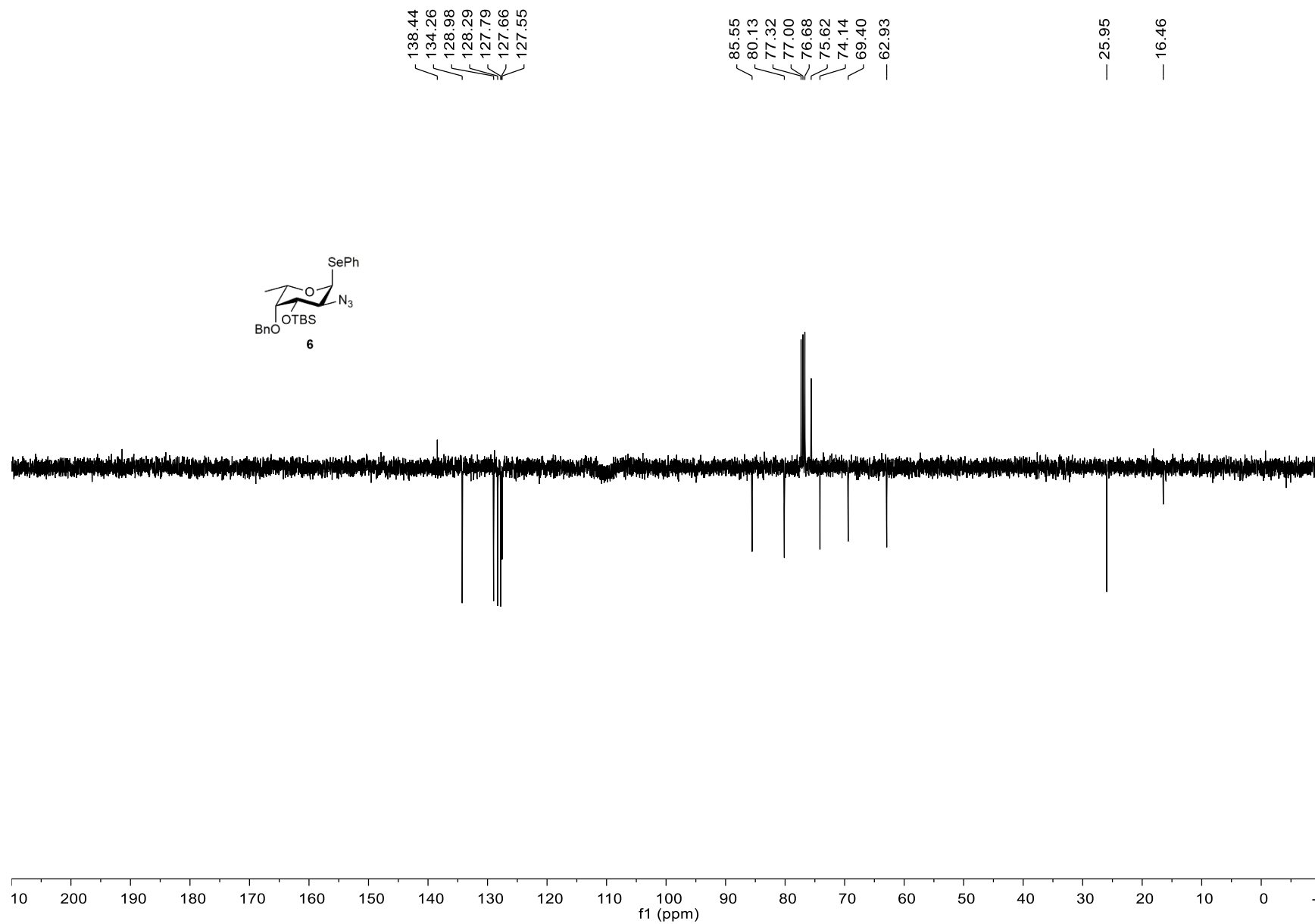
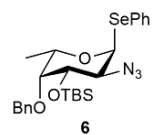


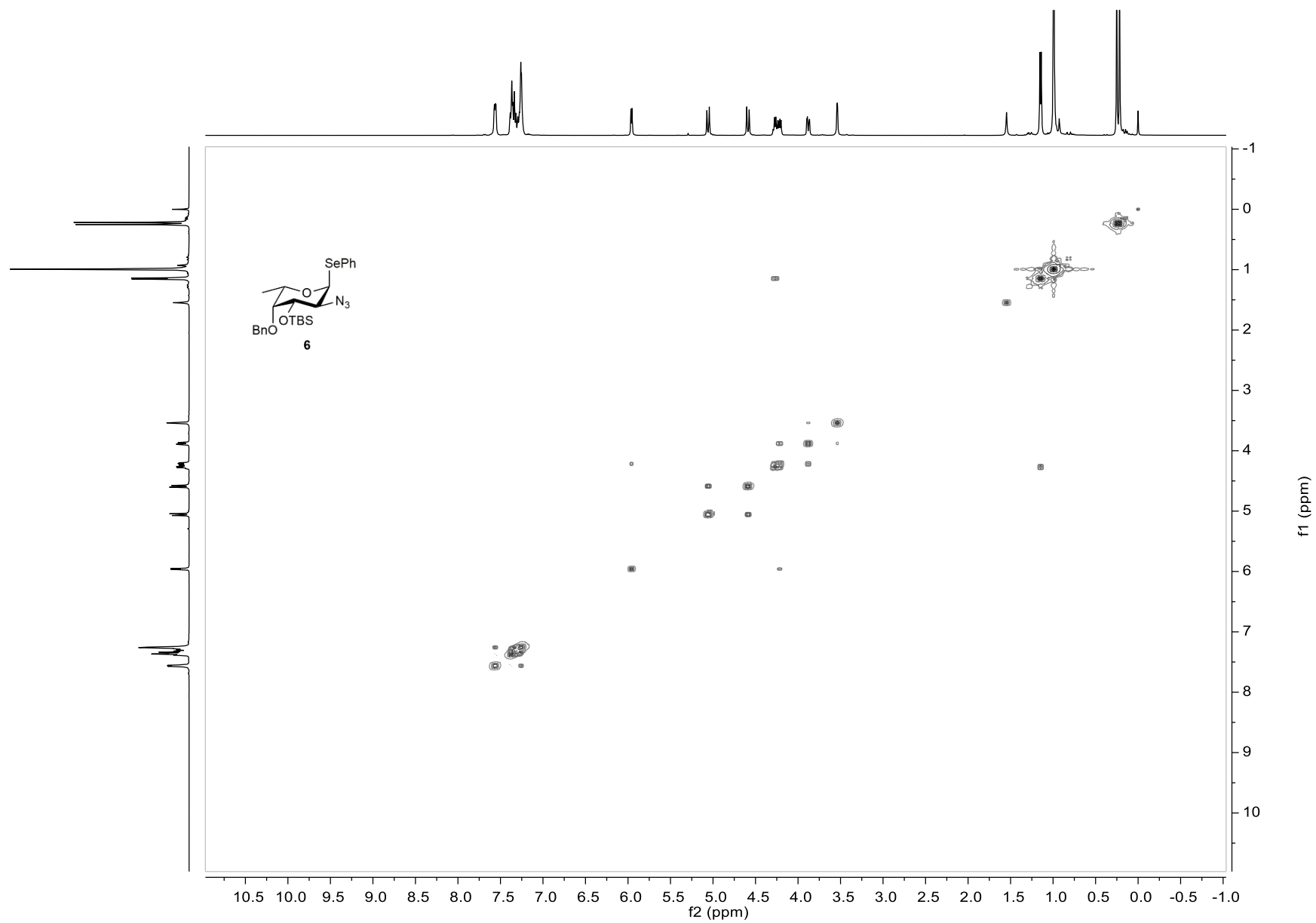


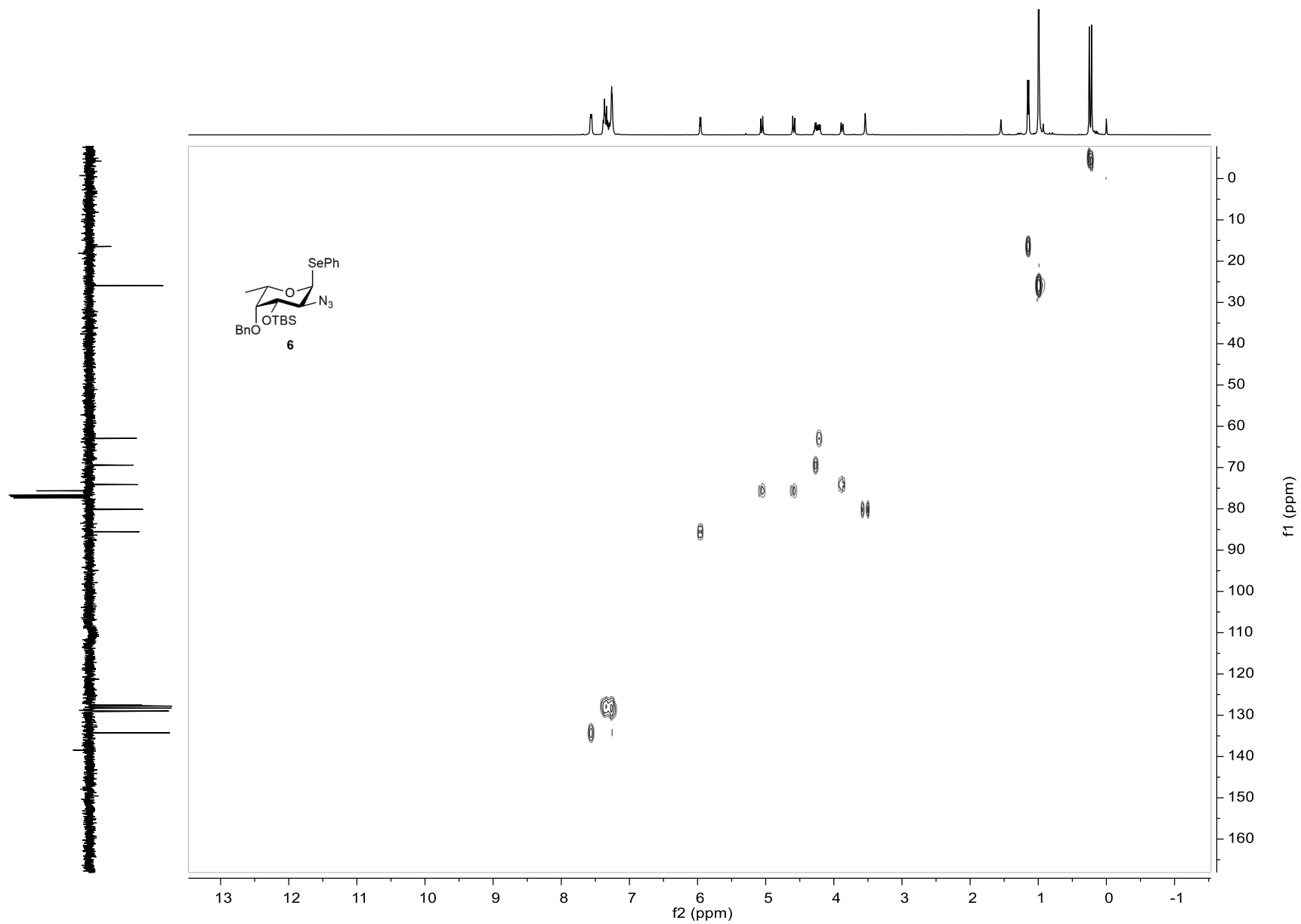




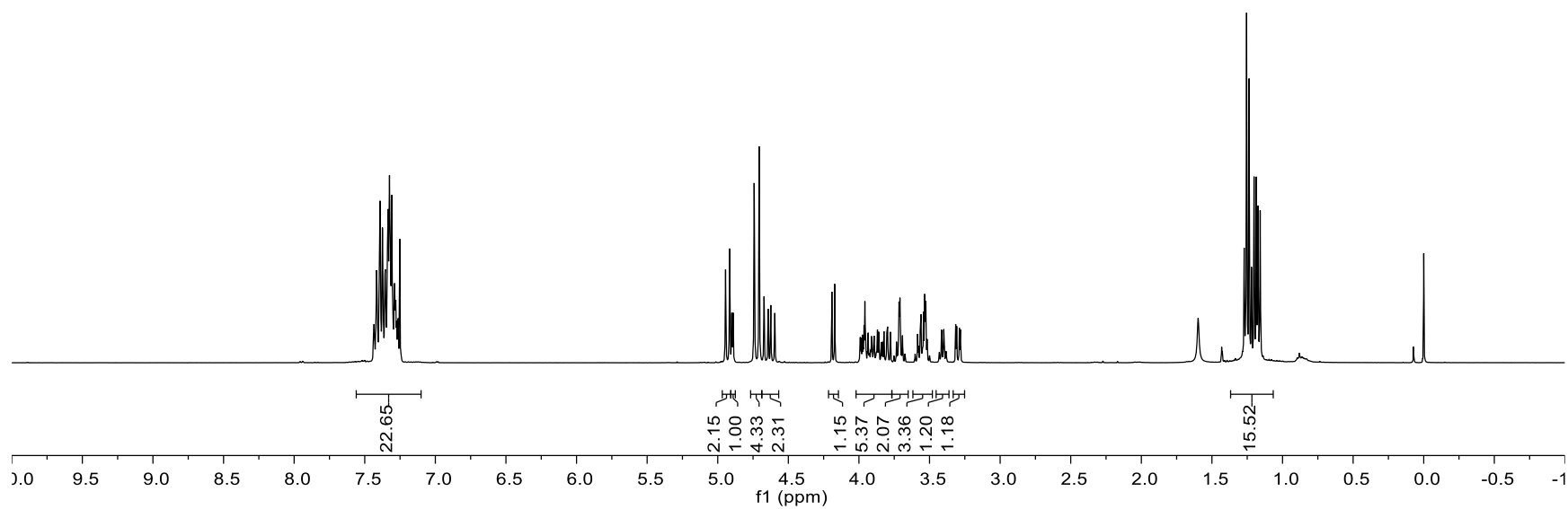
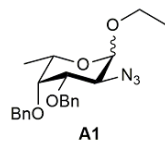


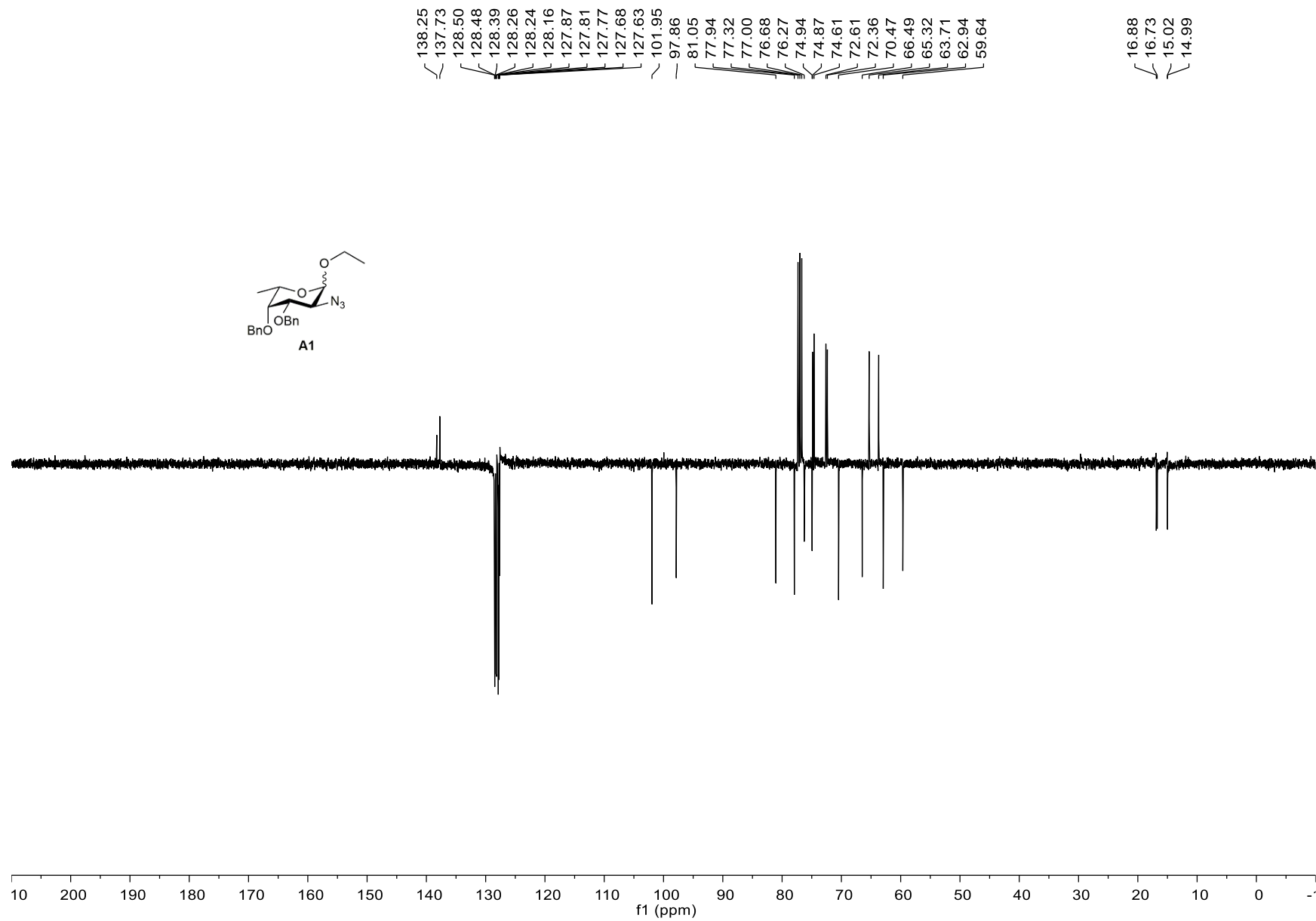


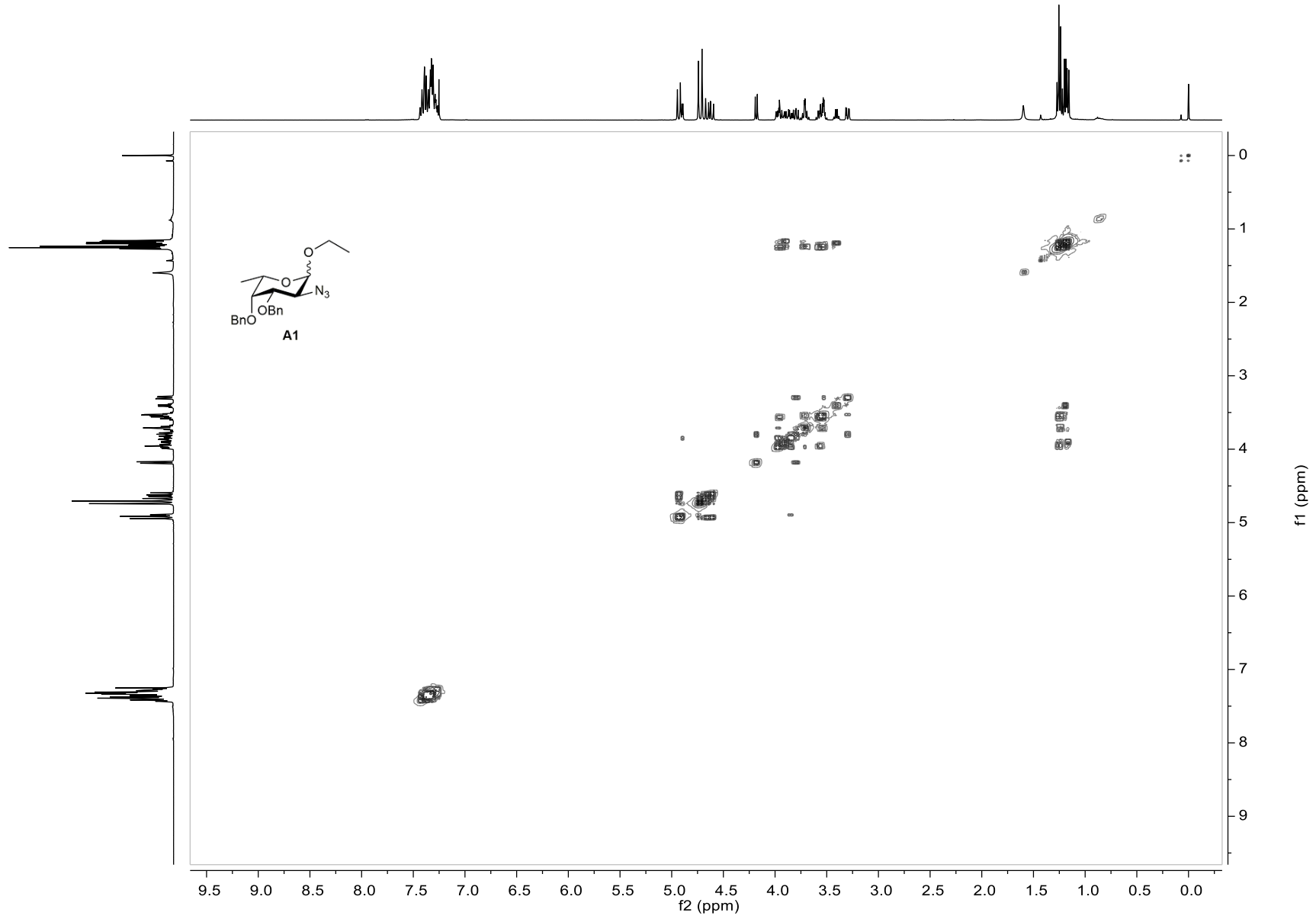


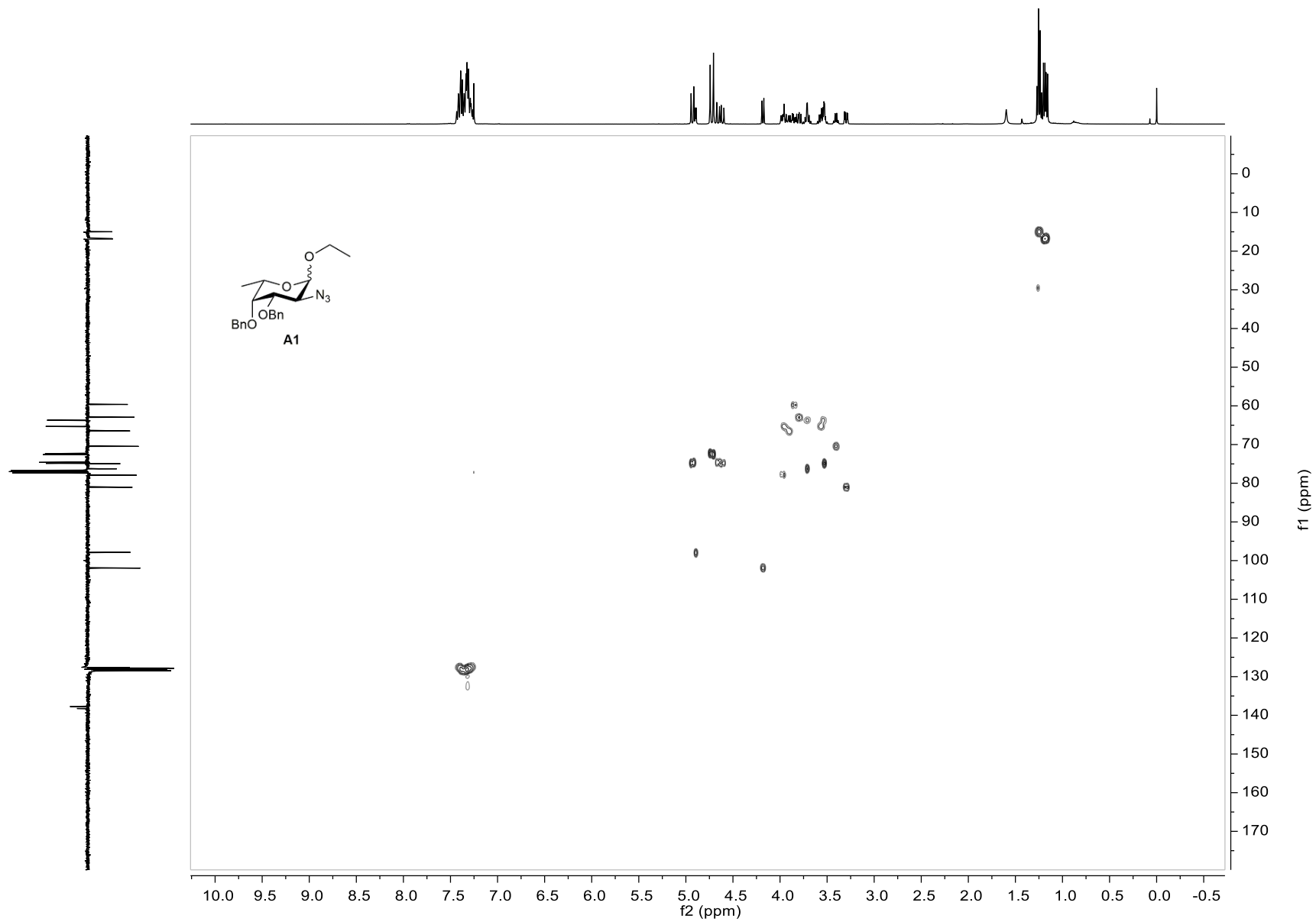


7.43  
7.42  
7.39  
7.37  
7.37  
7.35  
7.34  
7.33  
7.32  
7.31  
7.29  
7.28  
7.26  
7.25  
4.94  
4.92  
4.90  
4.89  
4.74  
4.71  
4.67  
4.64  
4.62  
4.60  
4.19  
4.17  
3.99  
3.98  
3.98  
3.96  
3.96  
3.95  
3.93  
3.91  
3.89  
3.87  
3.86  
3.84  
3.83  
3.82  
3.80  
3.80  
3.78  
3.73  
3.72  
3.71  
3.69  
3.58  
3.58  
3.57  
3.56  
3.54  
3.53  
3.53  
3.52  
3.42  
3.40  
3.31  
3.31  
3.29  
3.28  
1.60  
1.27  
1.25  
1.24  
1.22  
1.20  
1.19  
1.17  
1.16  
-0.00



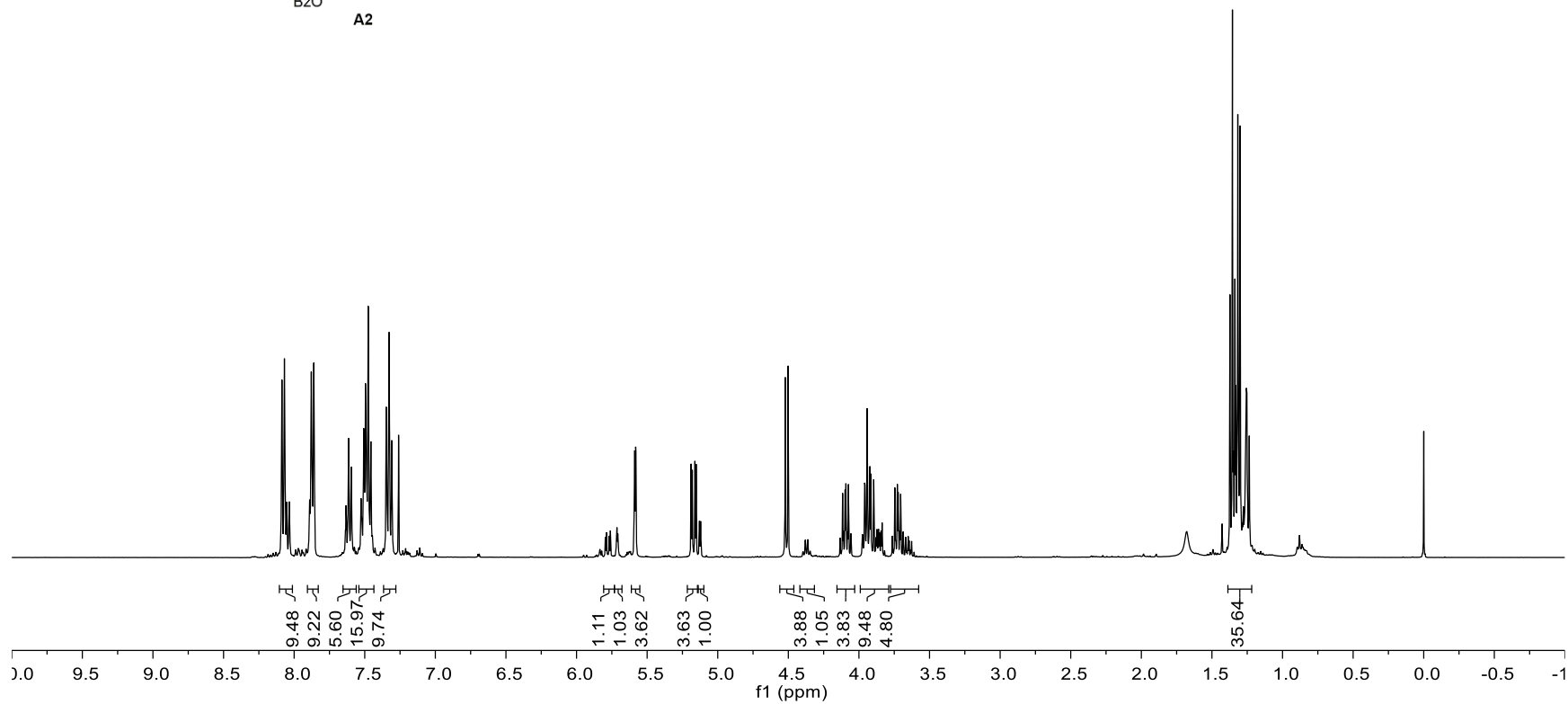
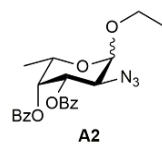


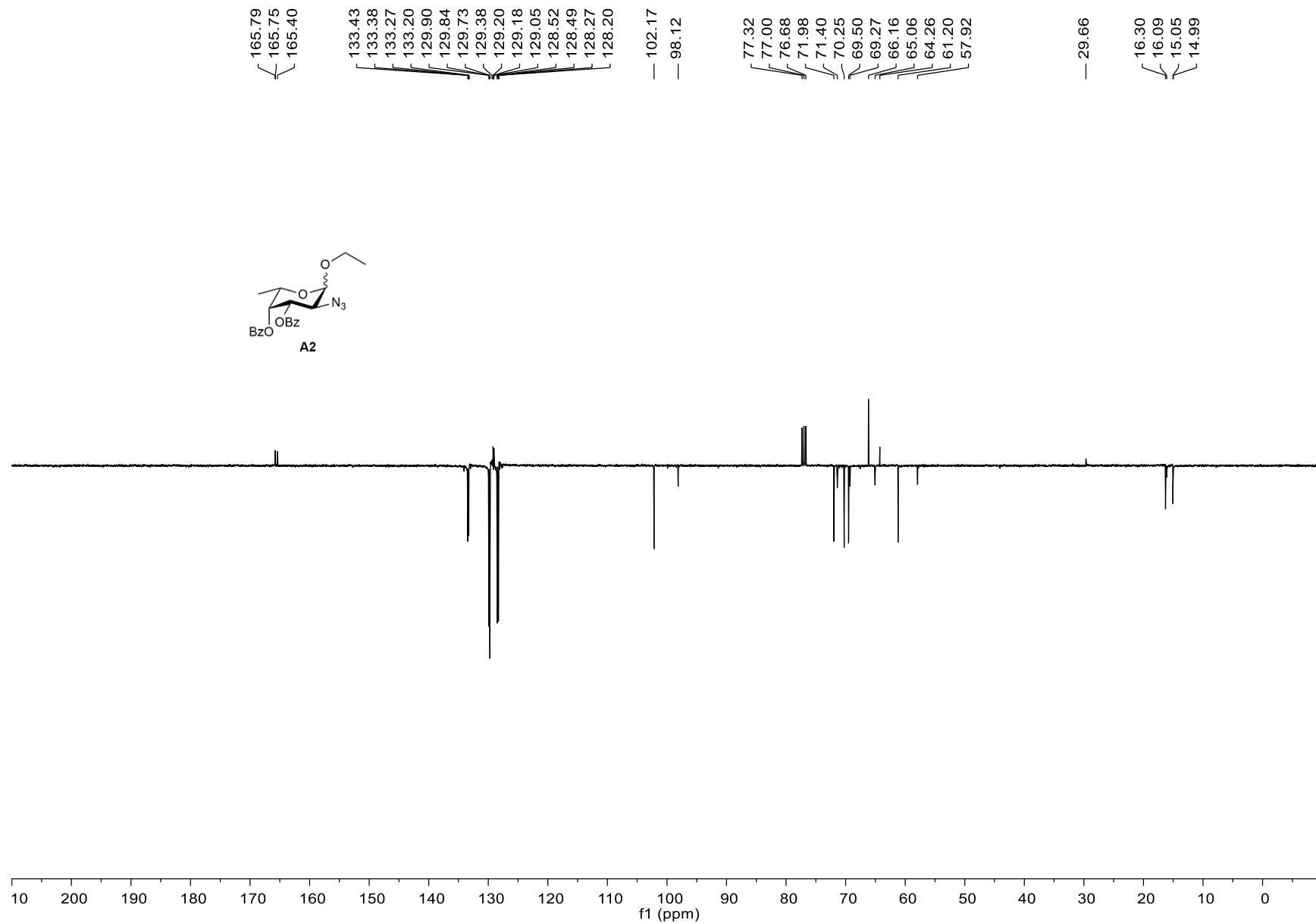


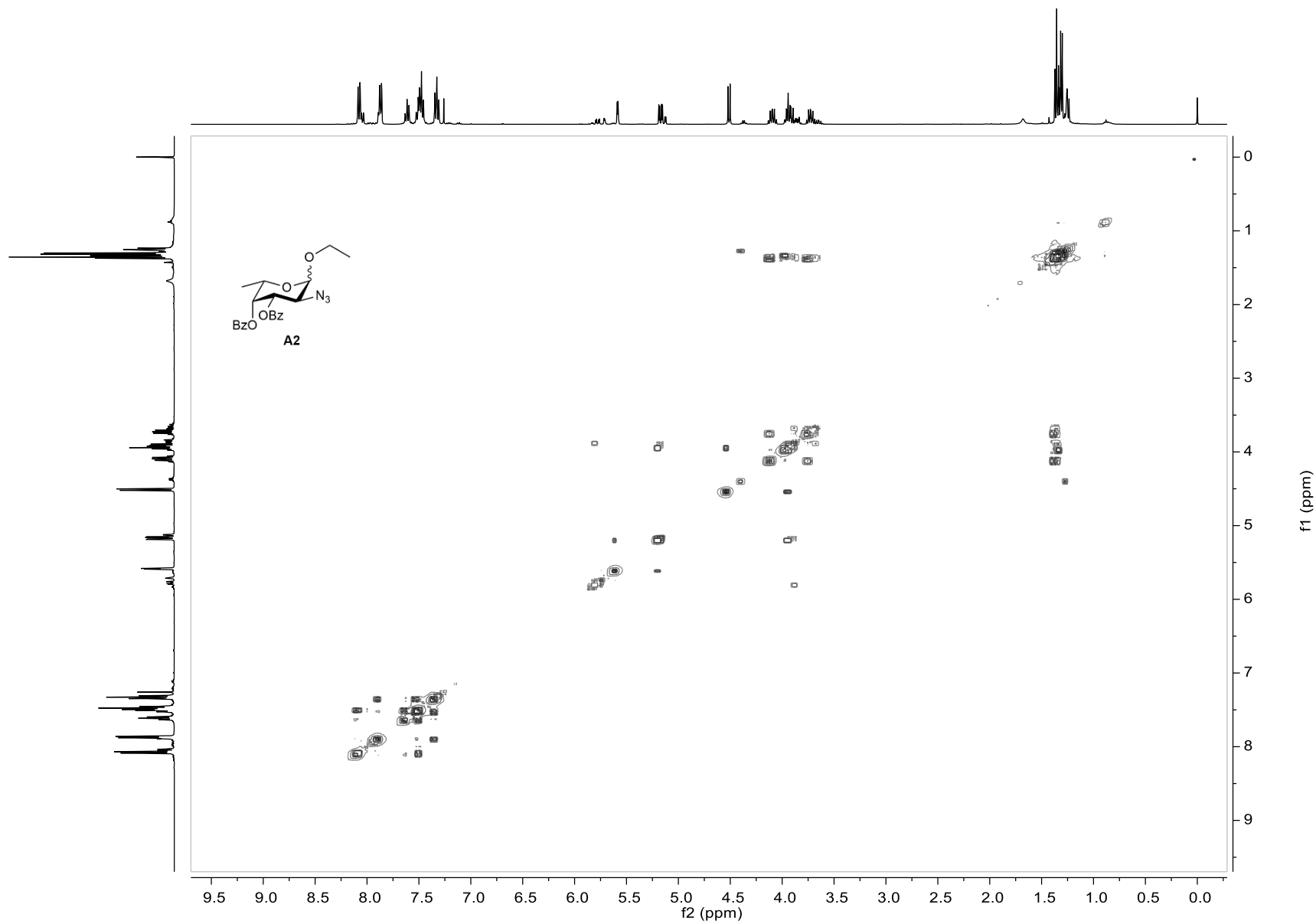


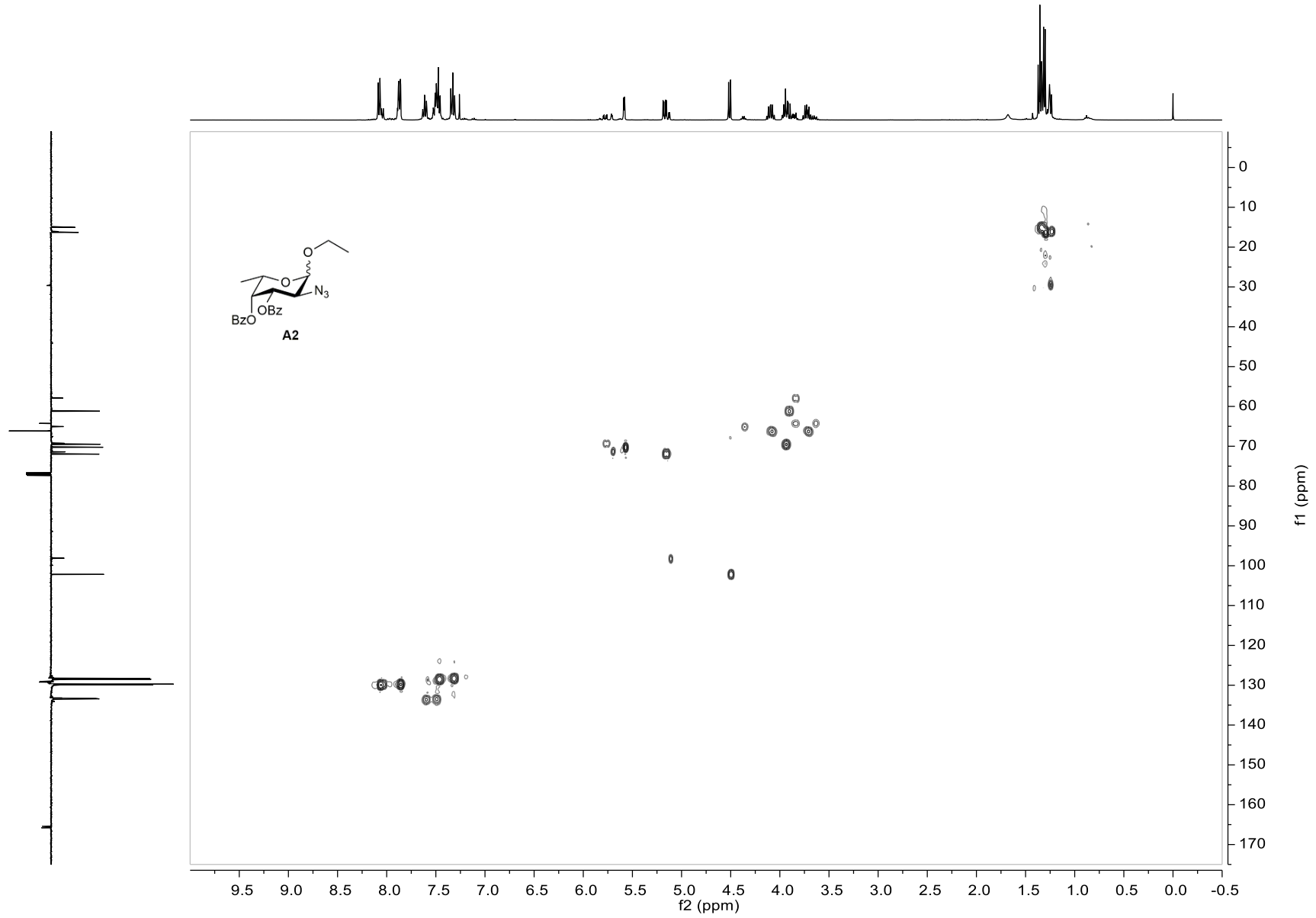


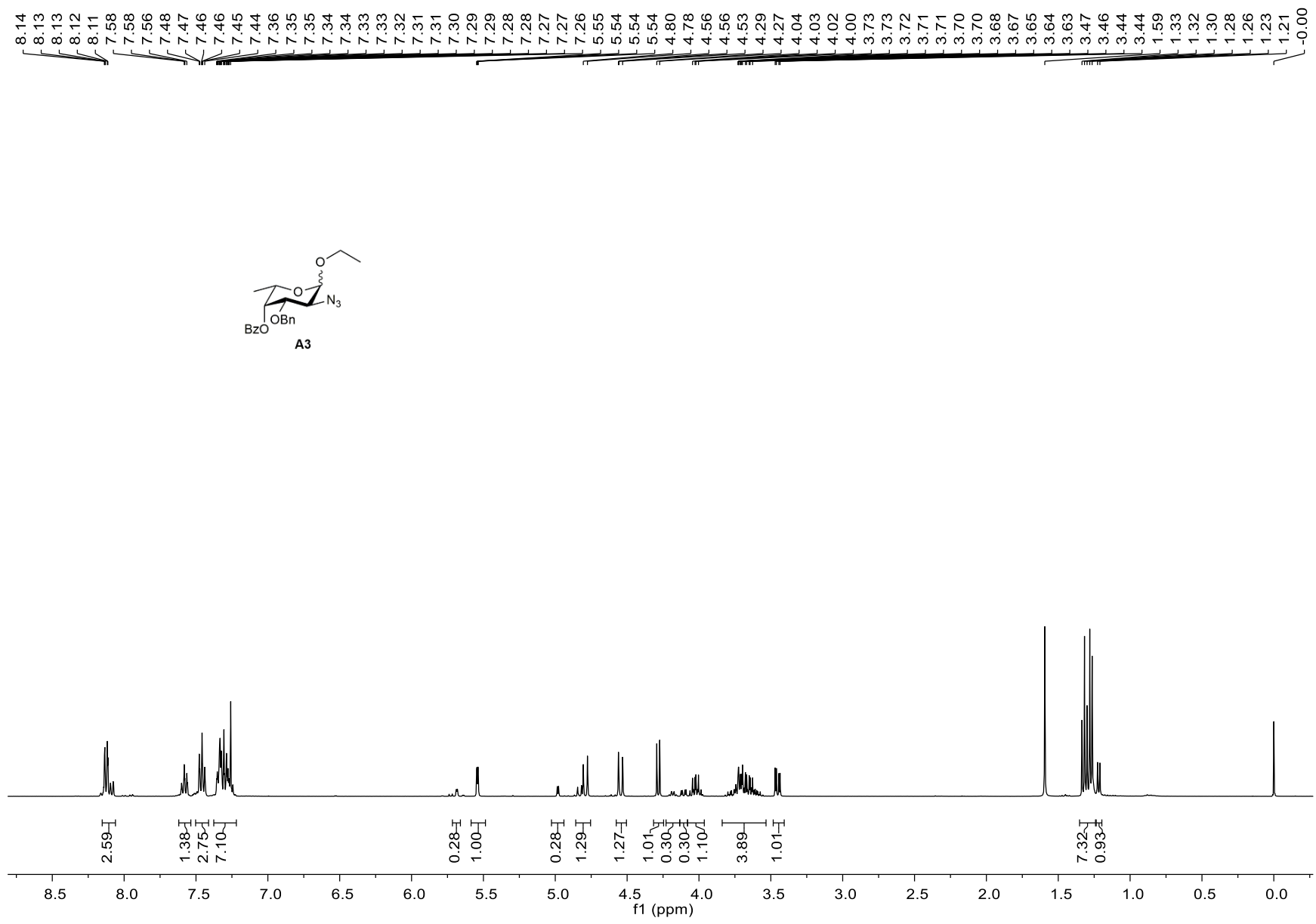
8.09  
8.08  
8.07  
8.07  
8.07  
7.89  
7.88  
7.88  
7.87  
7.87  
7.87  
7.86  
7.61  
7.61  
7.61  
7.60  
7.59  
7.53  
7.51  
7.50  
7.50  
7.49  
7.49  
7.49  
7.48  
7.46  
7.35  
7.34  
7.33  
7.33  
7.32  
7.31  
7.26  
7.26  
5.59  
5.59  
5.58  
5.58  
5.19  
5.18  
5.16  
5.15  
4.52  
4.50  
4.12  
4.10  
4.09  
4.07  
3.96  
3.96  
3.94  
3.92  
3.92  
3.90  
3.90  
3.75  
3.73  
3.72  
3.70  
1.37  
1.35  
1.35  
1.34  
1.33  
1.32  
1.31  
1.30  
1.26  
1.26  
1.25  
1.24  
-0.00

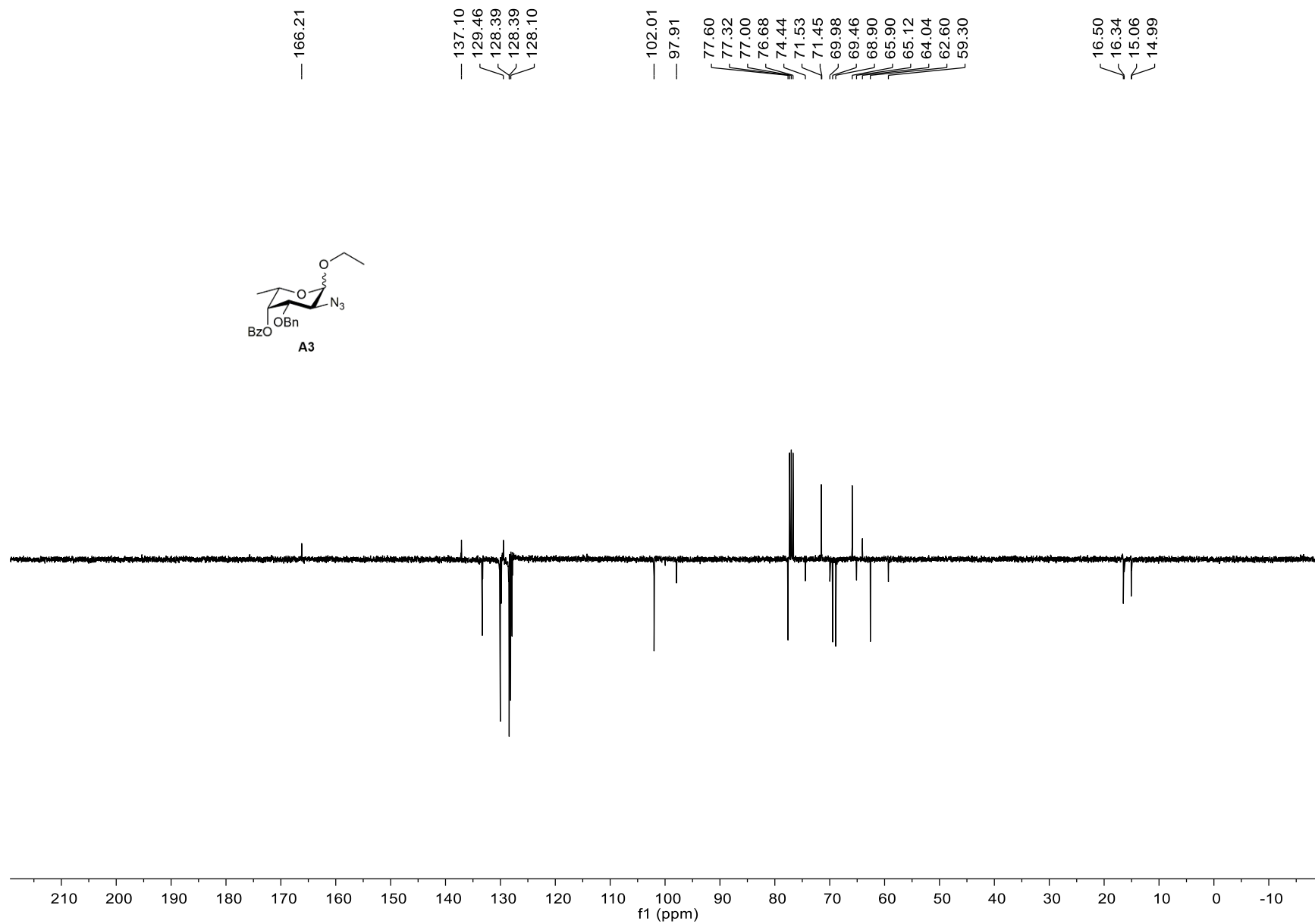
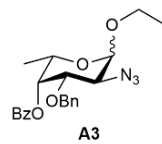


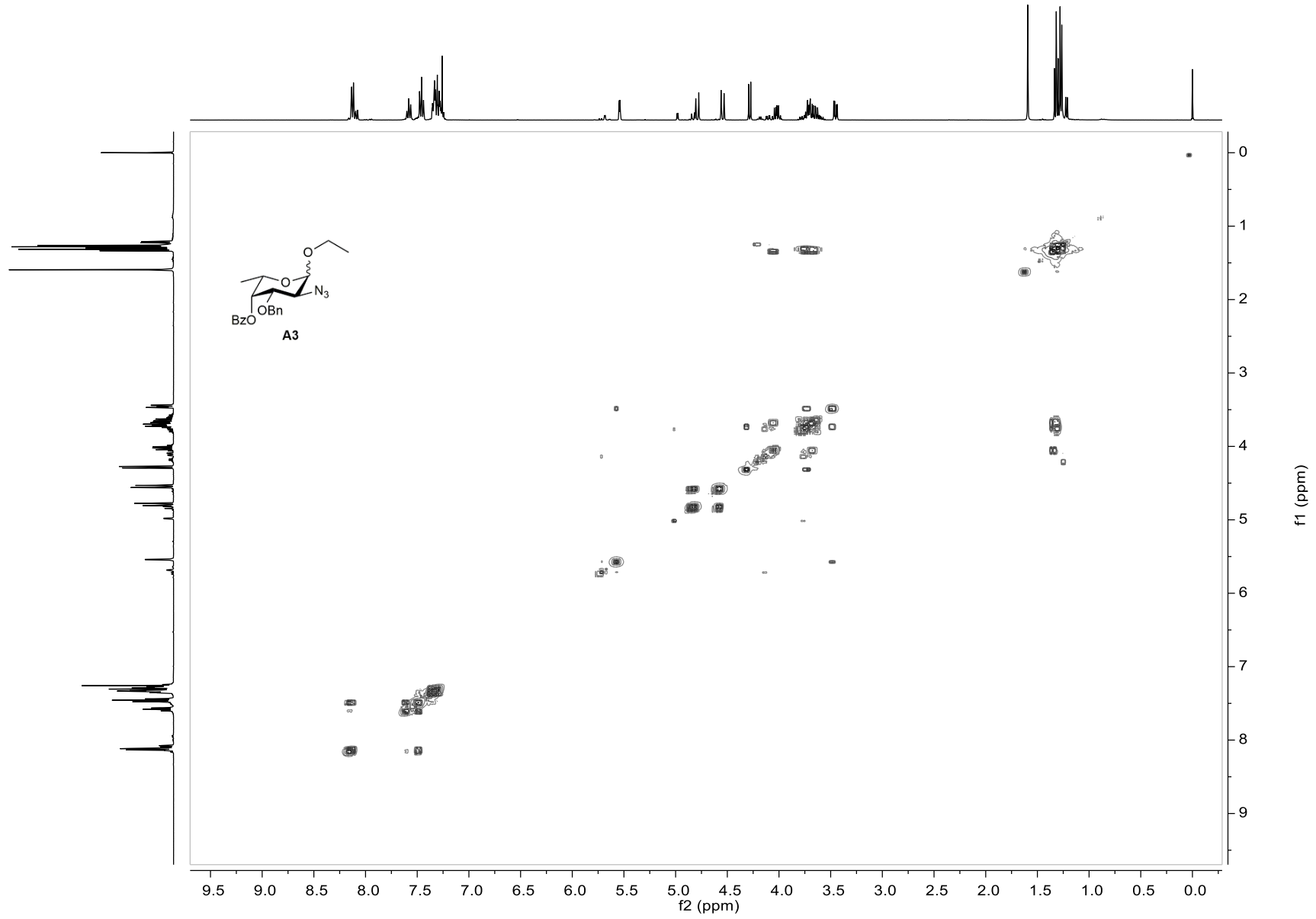


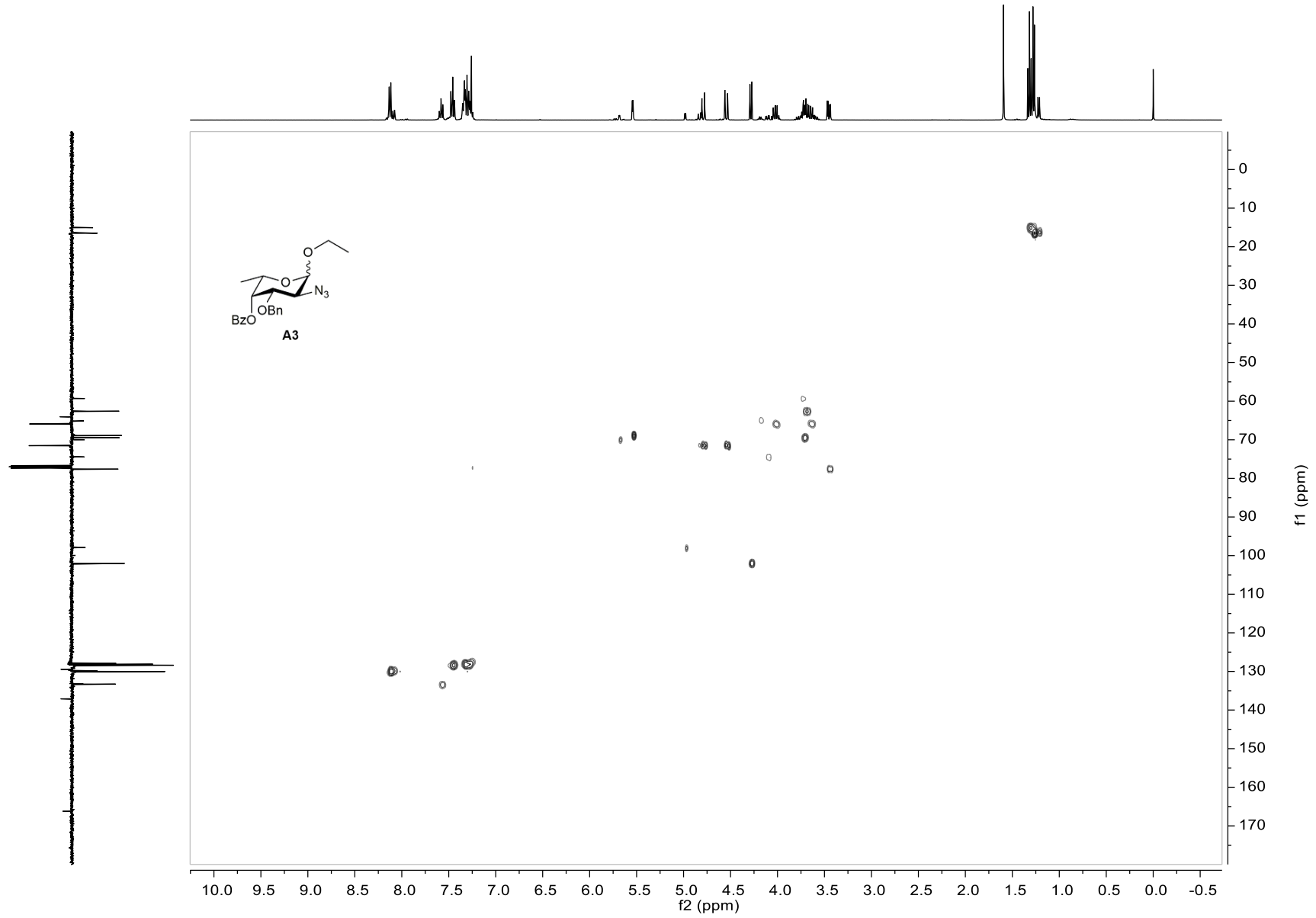






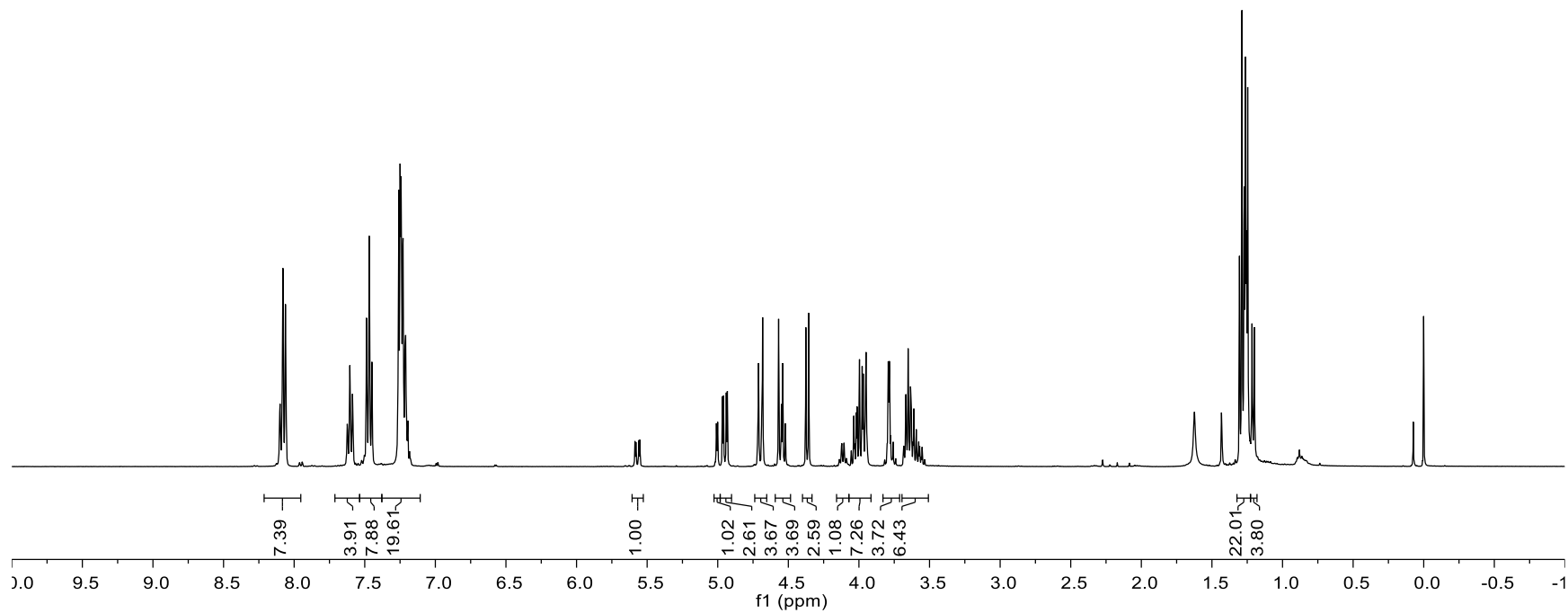
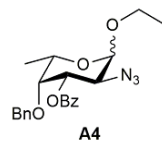


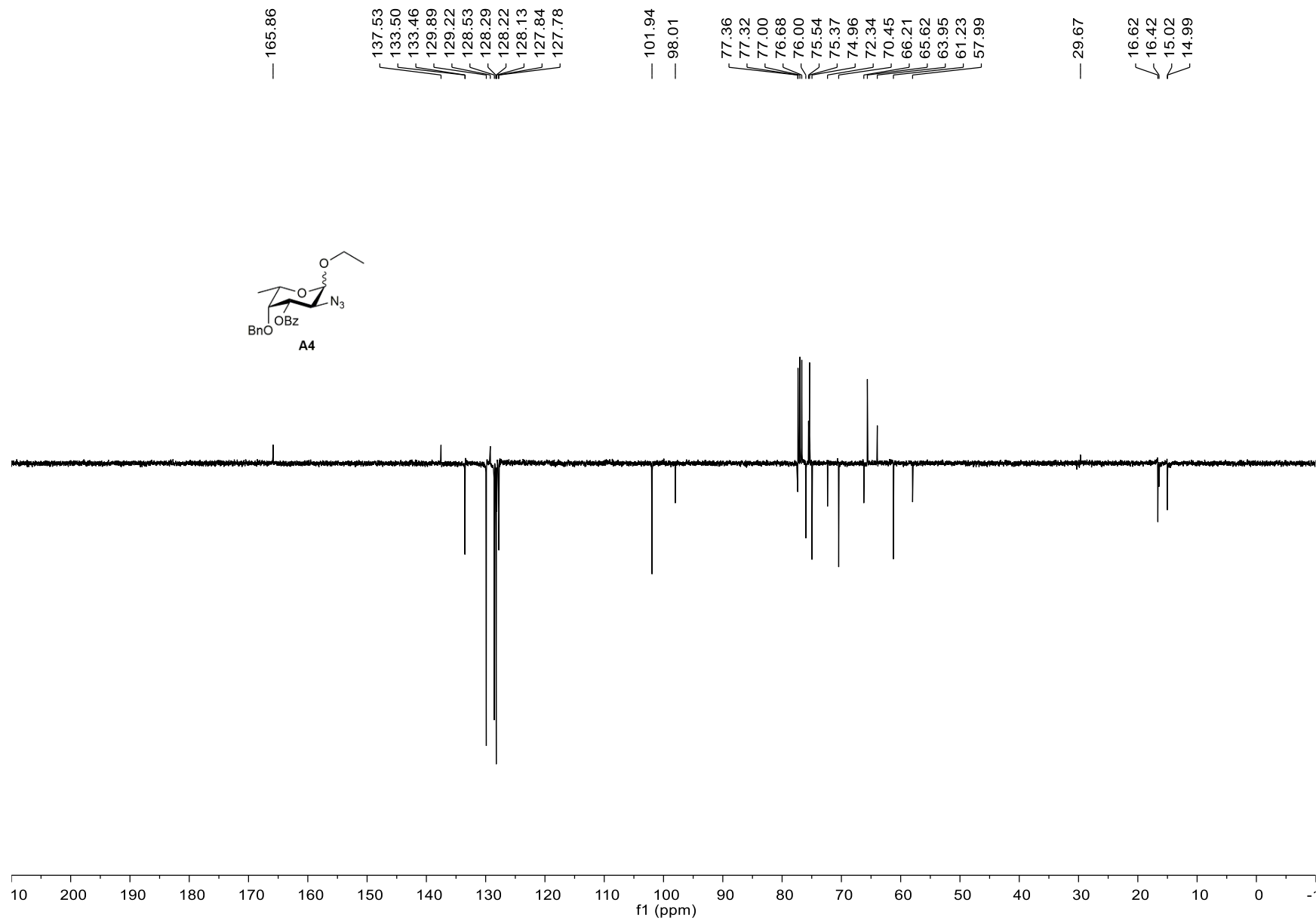


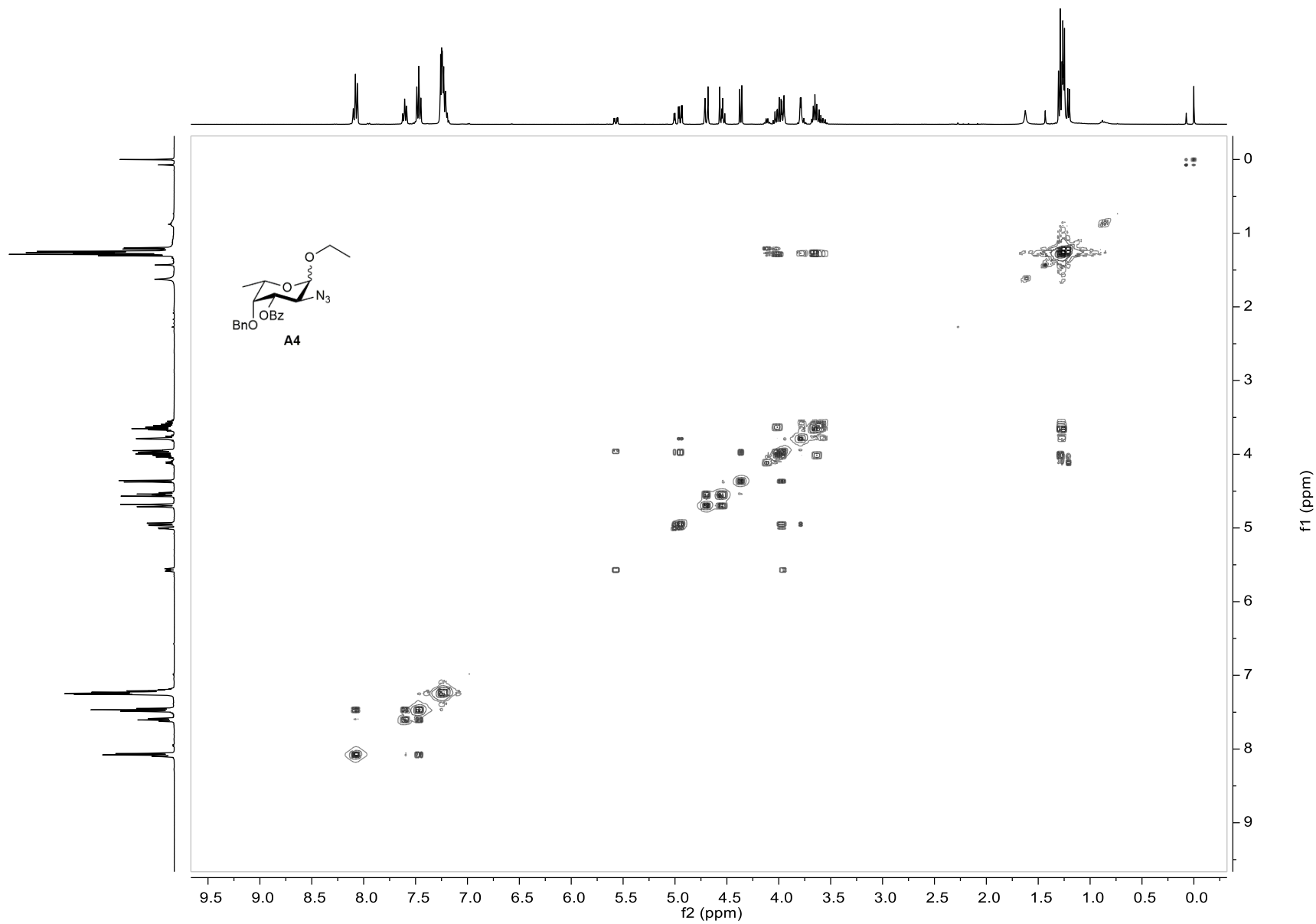


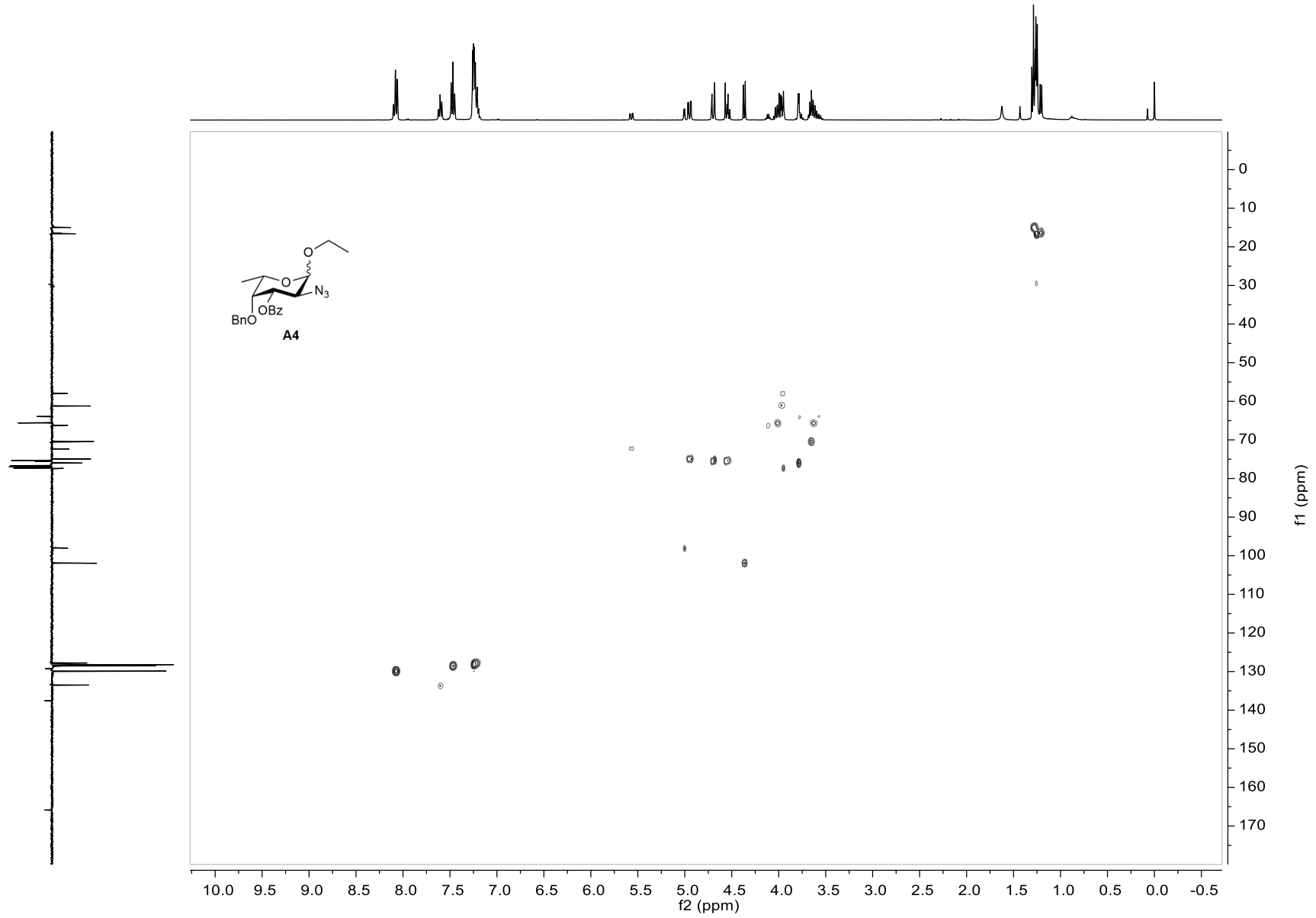


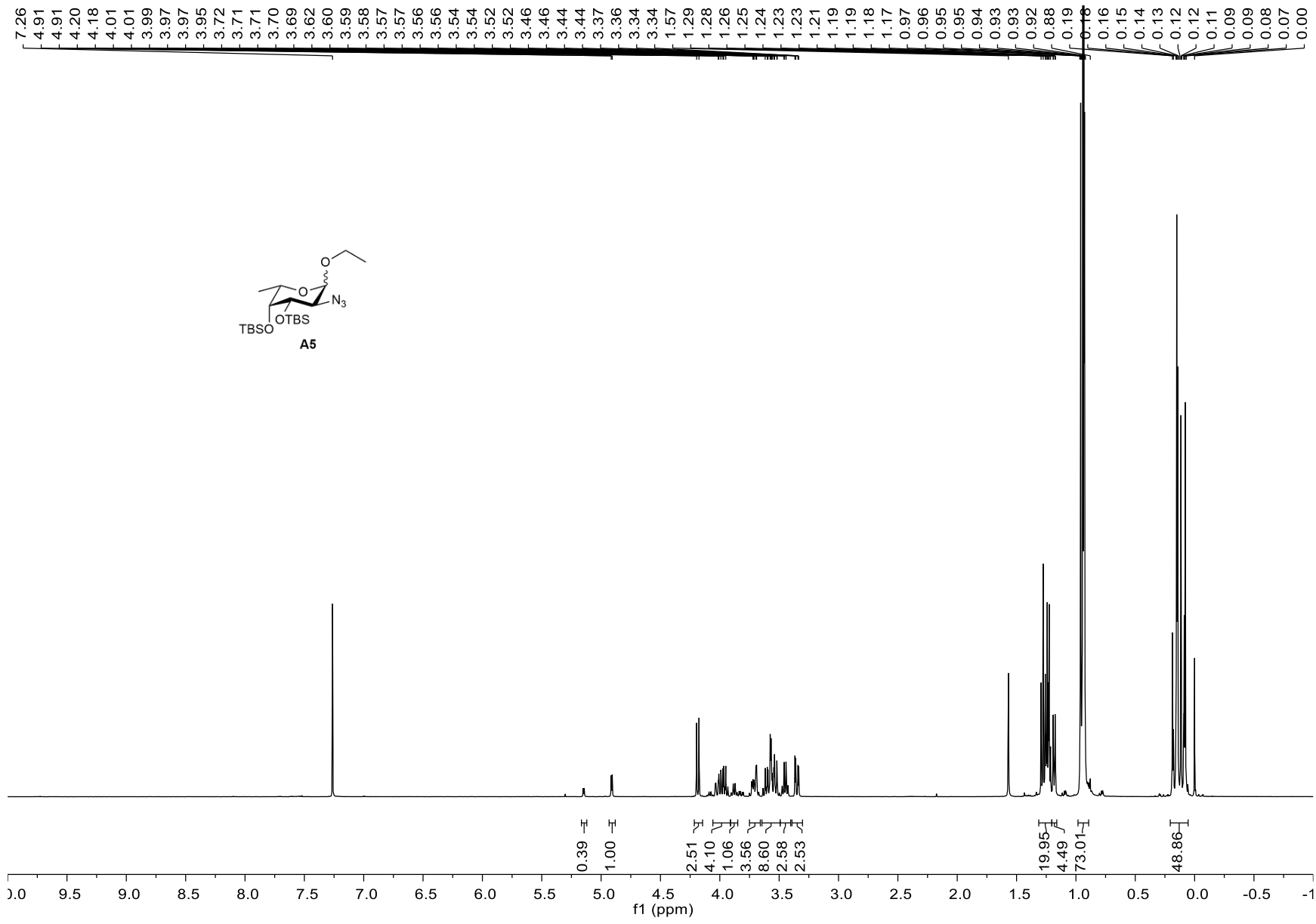
8.10  
8.08  
8.06  
8.06  
7.62  
7.61  
7.59  
7.49  
7.47  
7.45  
7.26  
7.25  
7.24  
7.23  
7.22  
7.21  
7.21  
7.19  
5.59  
5.56  
5.55  
5.01  
5.00  
4.97  
4.96  
4.94  
4.93  
4.72  
4.71  
4.69  
4.68  
4.57  
4.55  
4.54  
4.52  
4.38  
4.36  
4.04  
4.02  
4.01  
4.00  
3.98  
3.97  
3.95  
3.94  
3.80  
3.79  
3.78  
3.78  
3.67  
3.65  
3.63  
3.63  
3.62  
3.61  
3.59  
3.58  
1.62  
1.43  
1.43  
1.31  
1.29  
1.27  
1.27  
1.26  
1.26  
1.25  
1.22  
1.20

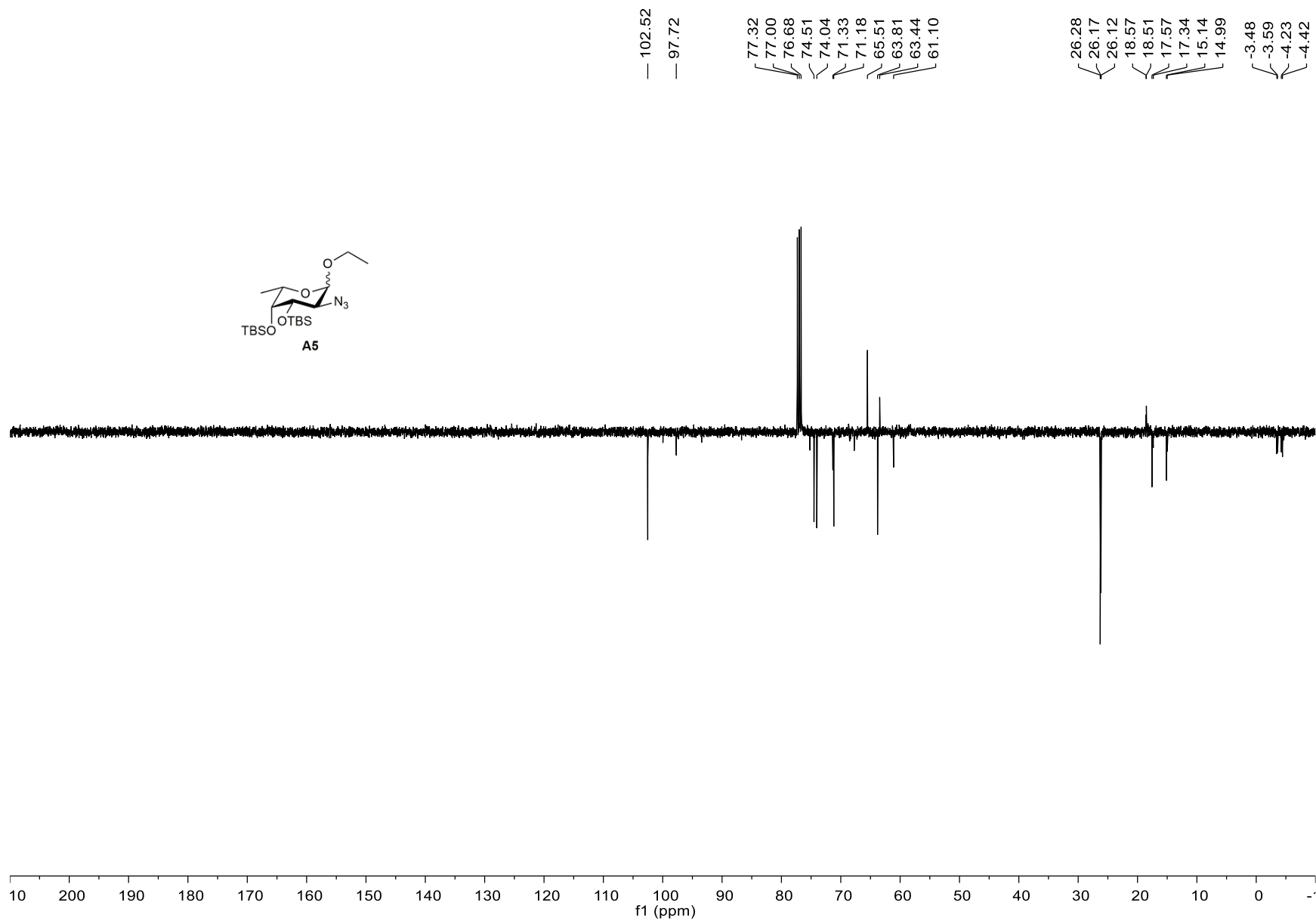
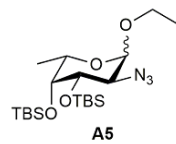


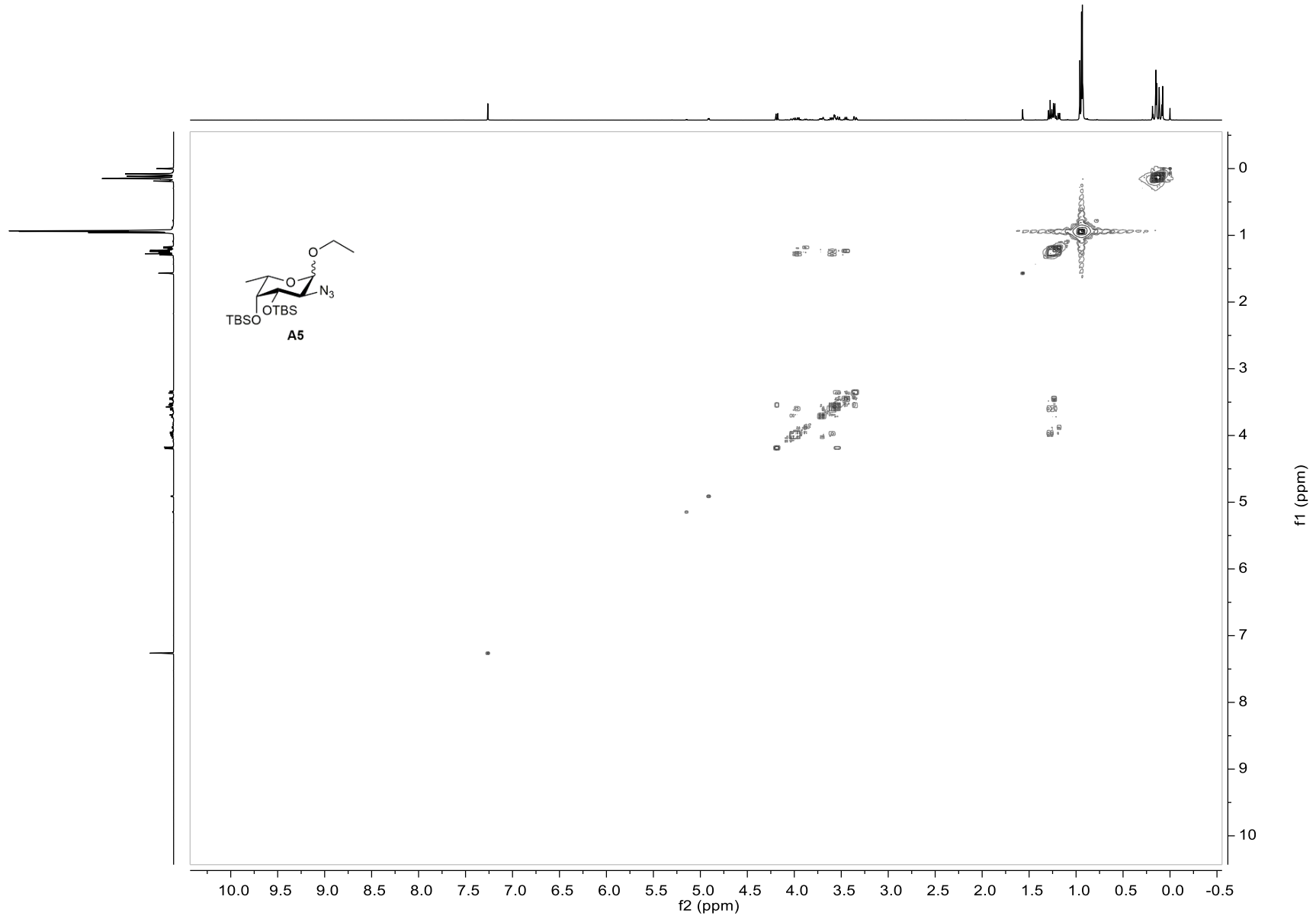


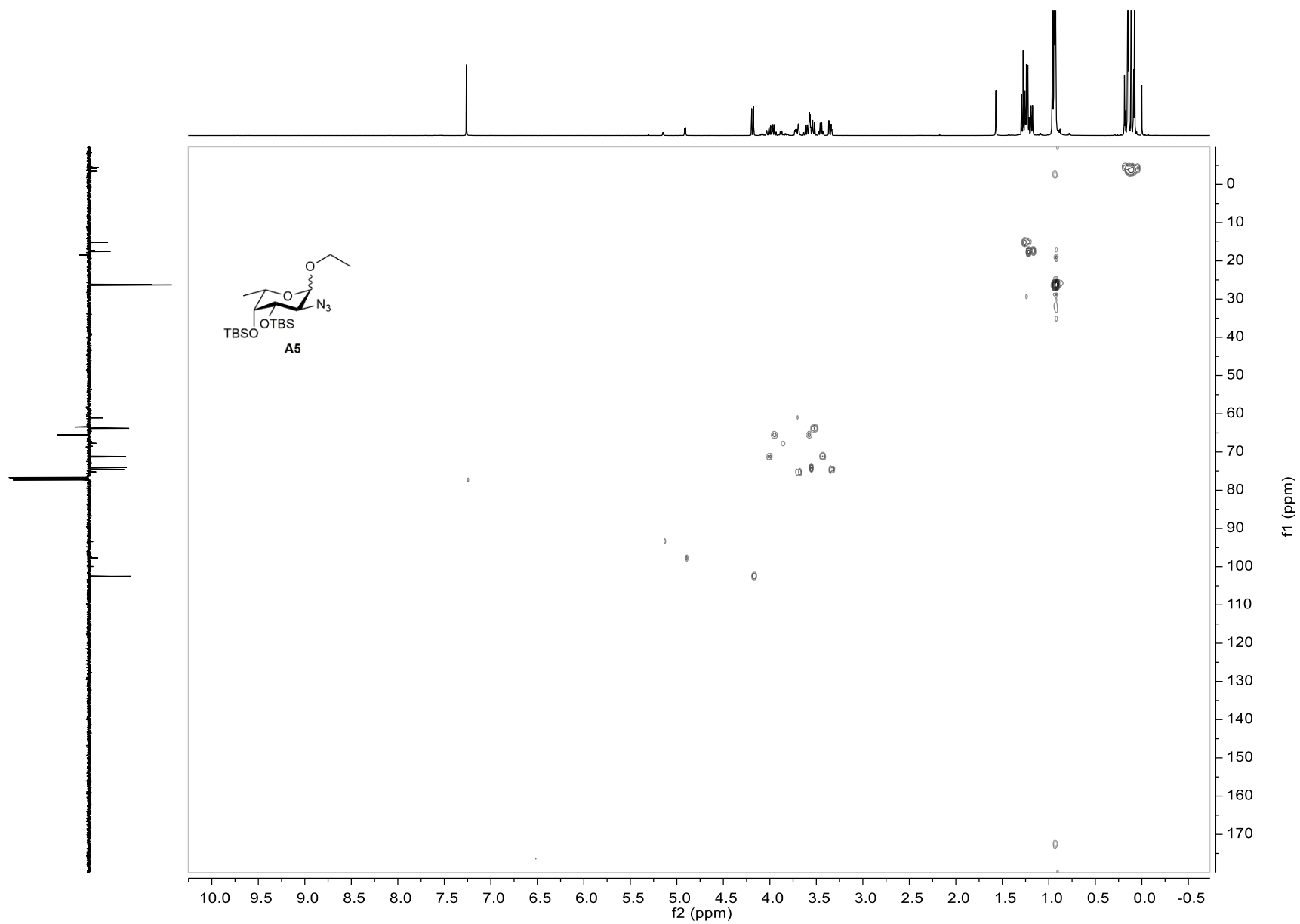






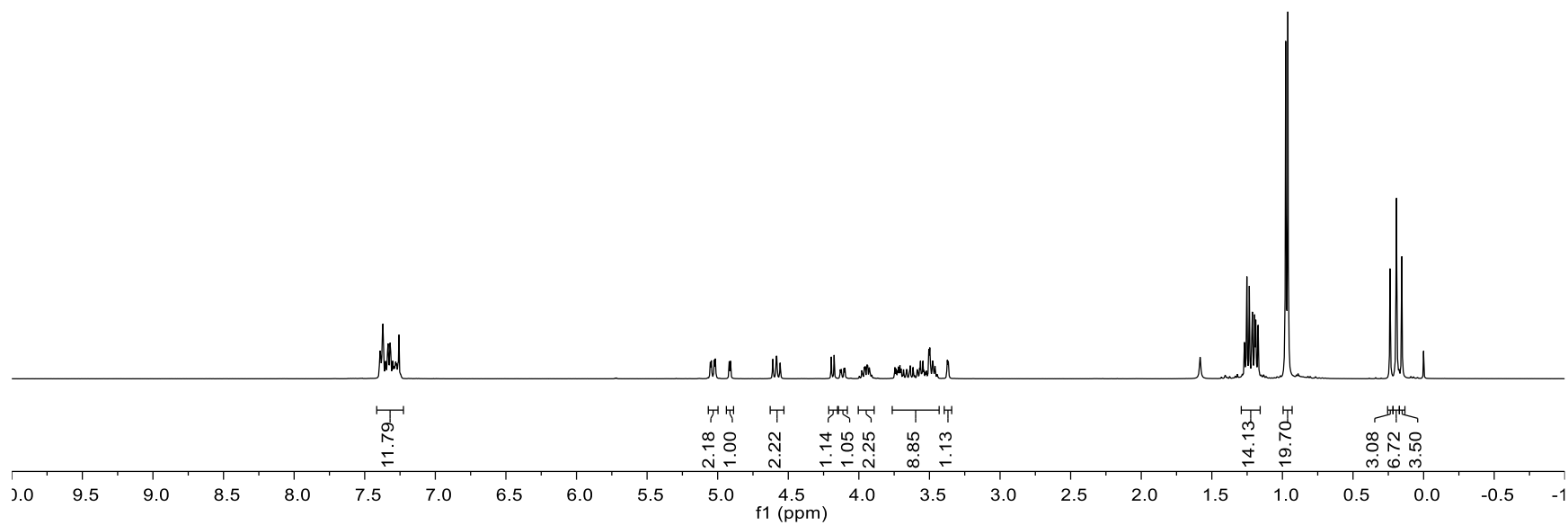
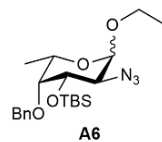


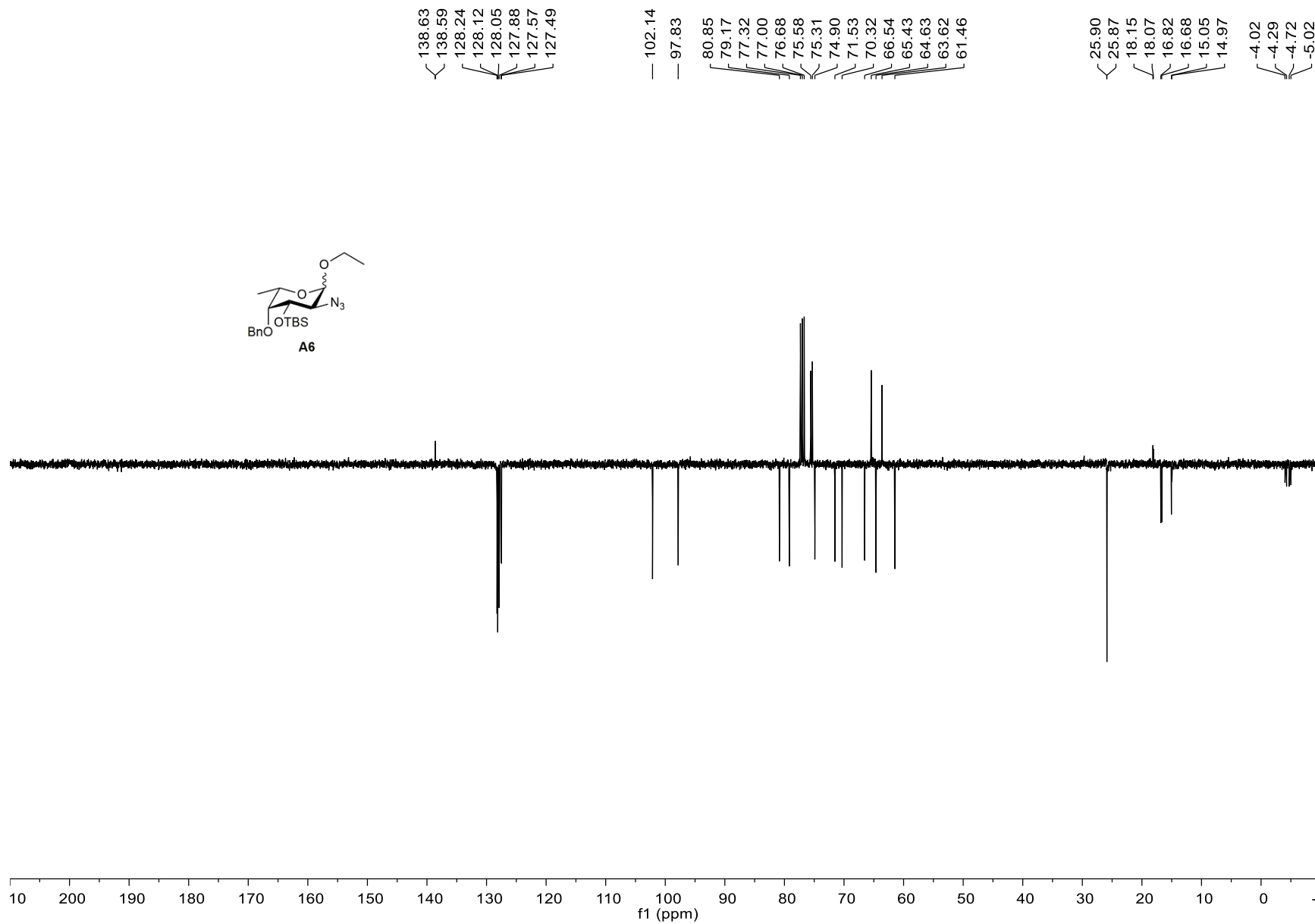
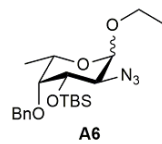


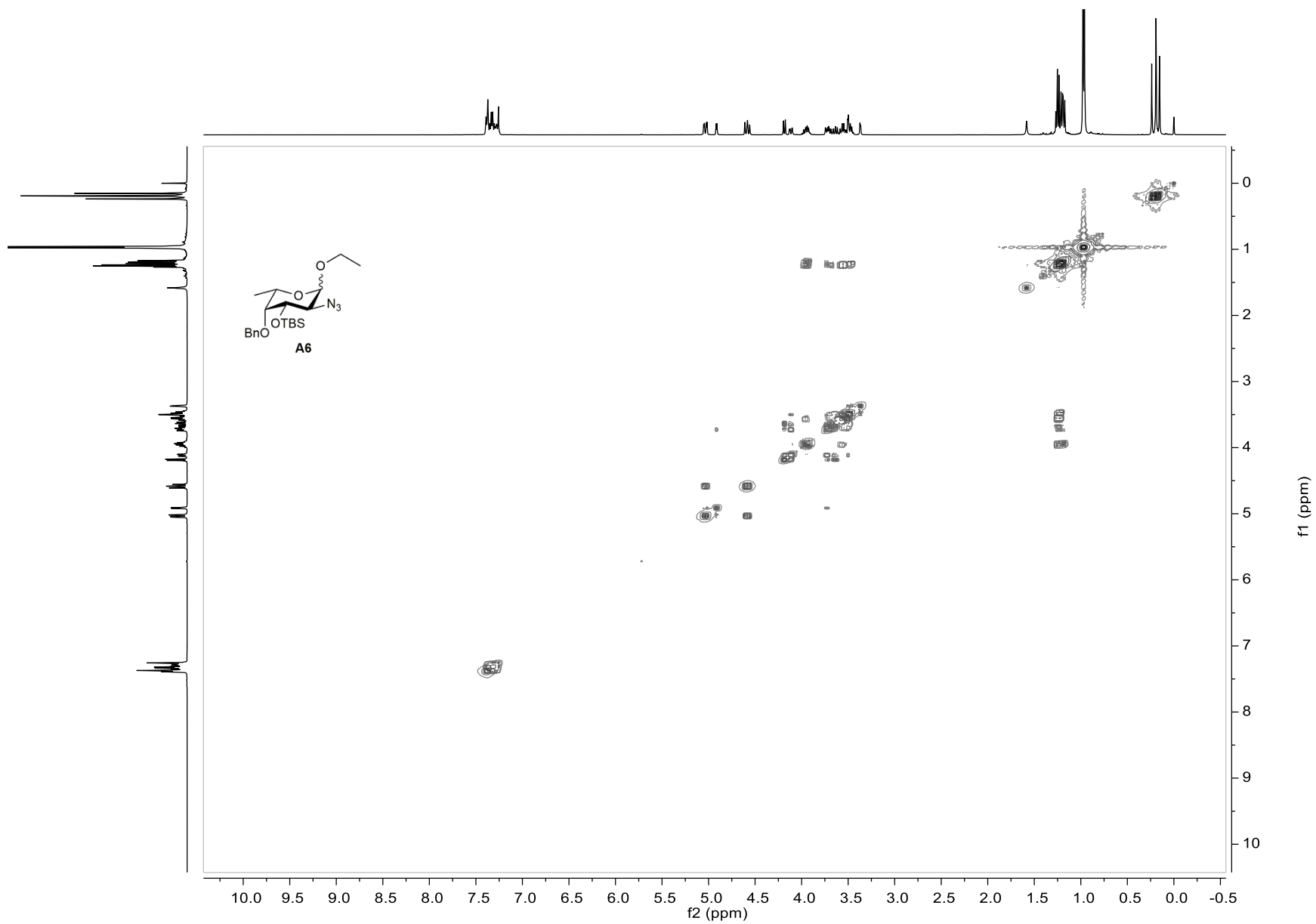


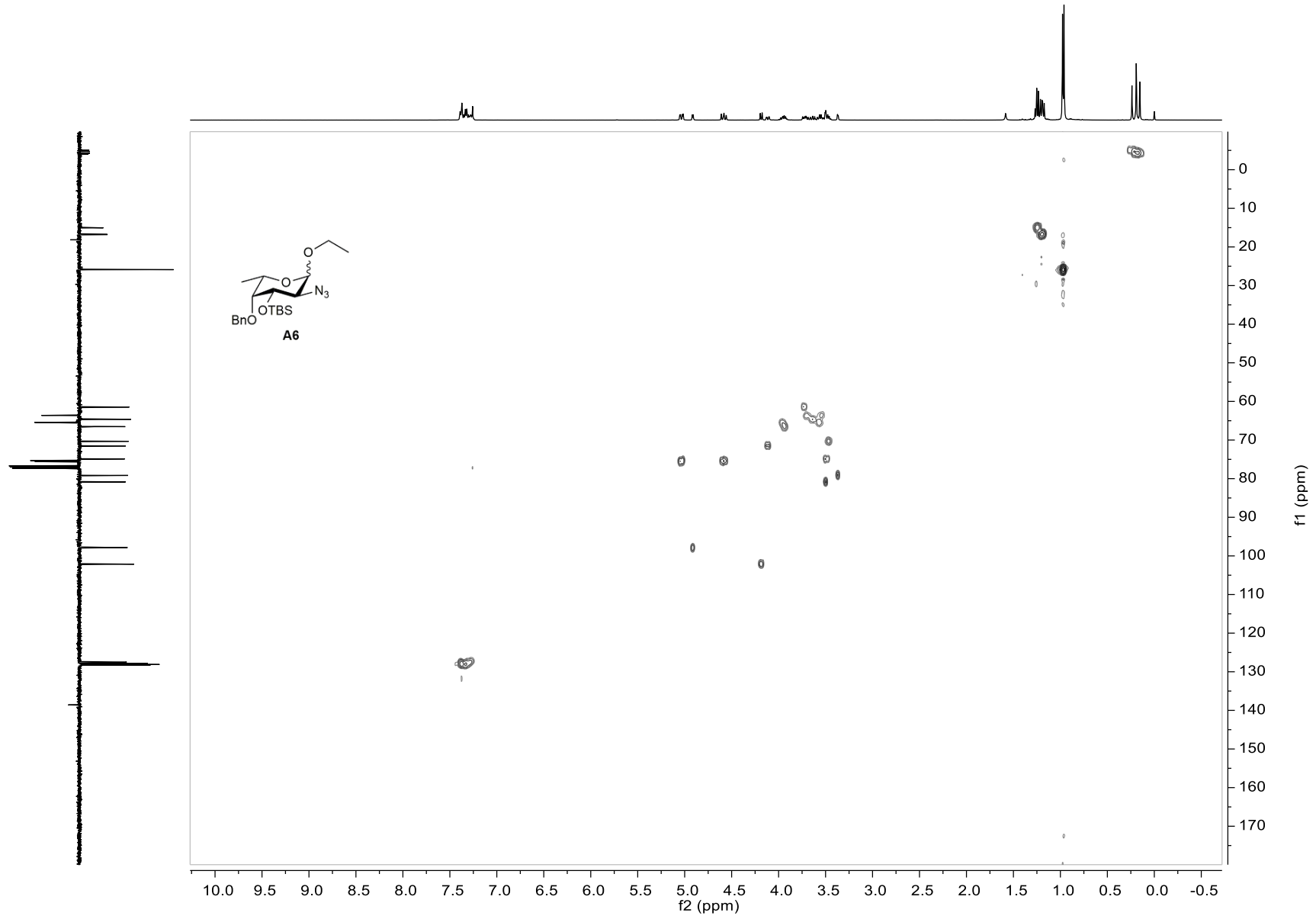


7.40  
7.39  
7.39  
7.37  
7.37  
7.37  
7.35  
7.35  
7.34  
7.34  
7.33  
7.33  
7.32  
7.32  
7.30  
7.29  
7.29  
7.28  
7.27  
7.26  
7.26  
5.05  
5.04  
5.02  
5.02  
5.02  
4.92  
4.91  
4.61  
4.59  
4.58  
4.56  
4.20  
4.18  
3.96  
3.94  
3.94  
3.72  
3.71  
3.64  
3.56  
3.55  
3.50  
3.50  
3.48  
3.48  
3.47  
3.46  
3.46  
3.37  
3.37  
3.37  
1.58  
1.27  
1.25  
1.23  
1.22  
1.21  
1.20  
1.19  
1.17  
0.99  
0.98  
0.97  
0.96  
0.95  
0.24  
0.20  
0.19  
0.19  
0.15  
0.00

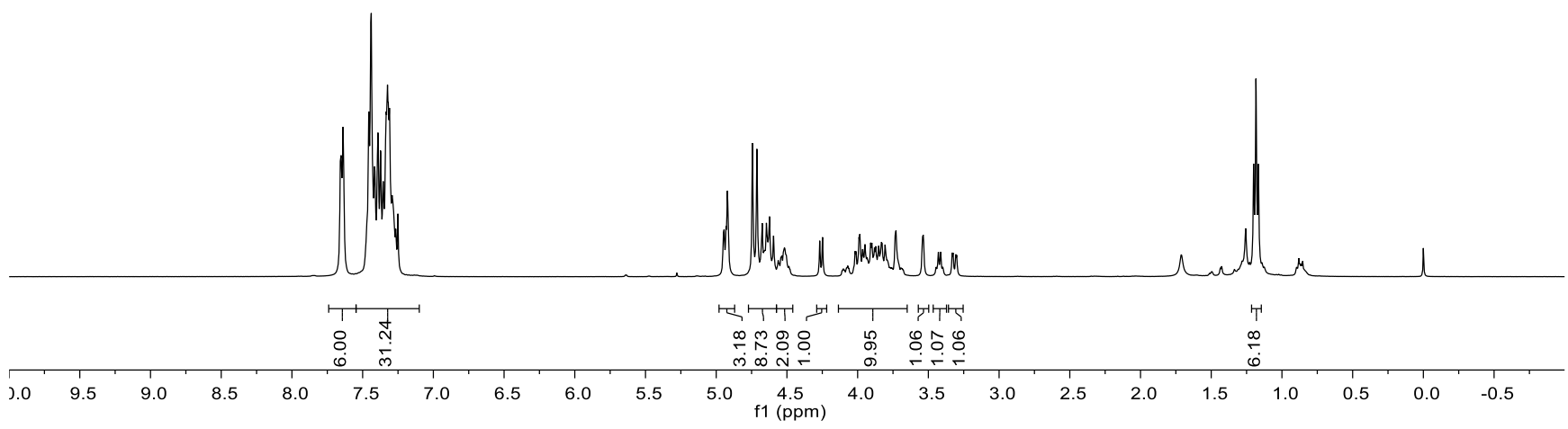
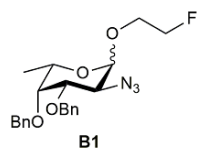


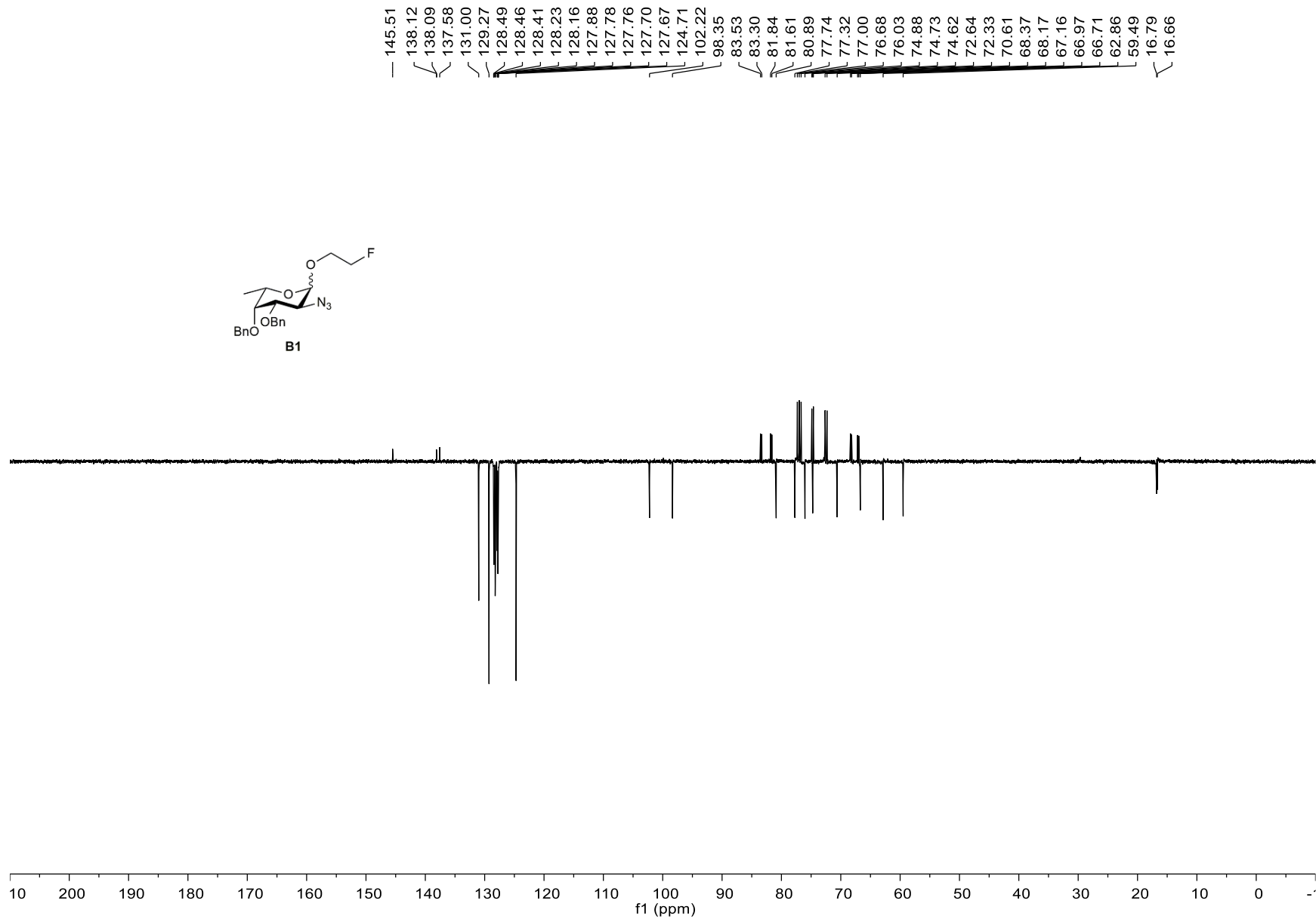
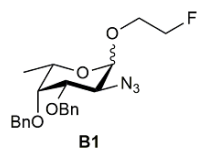


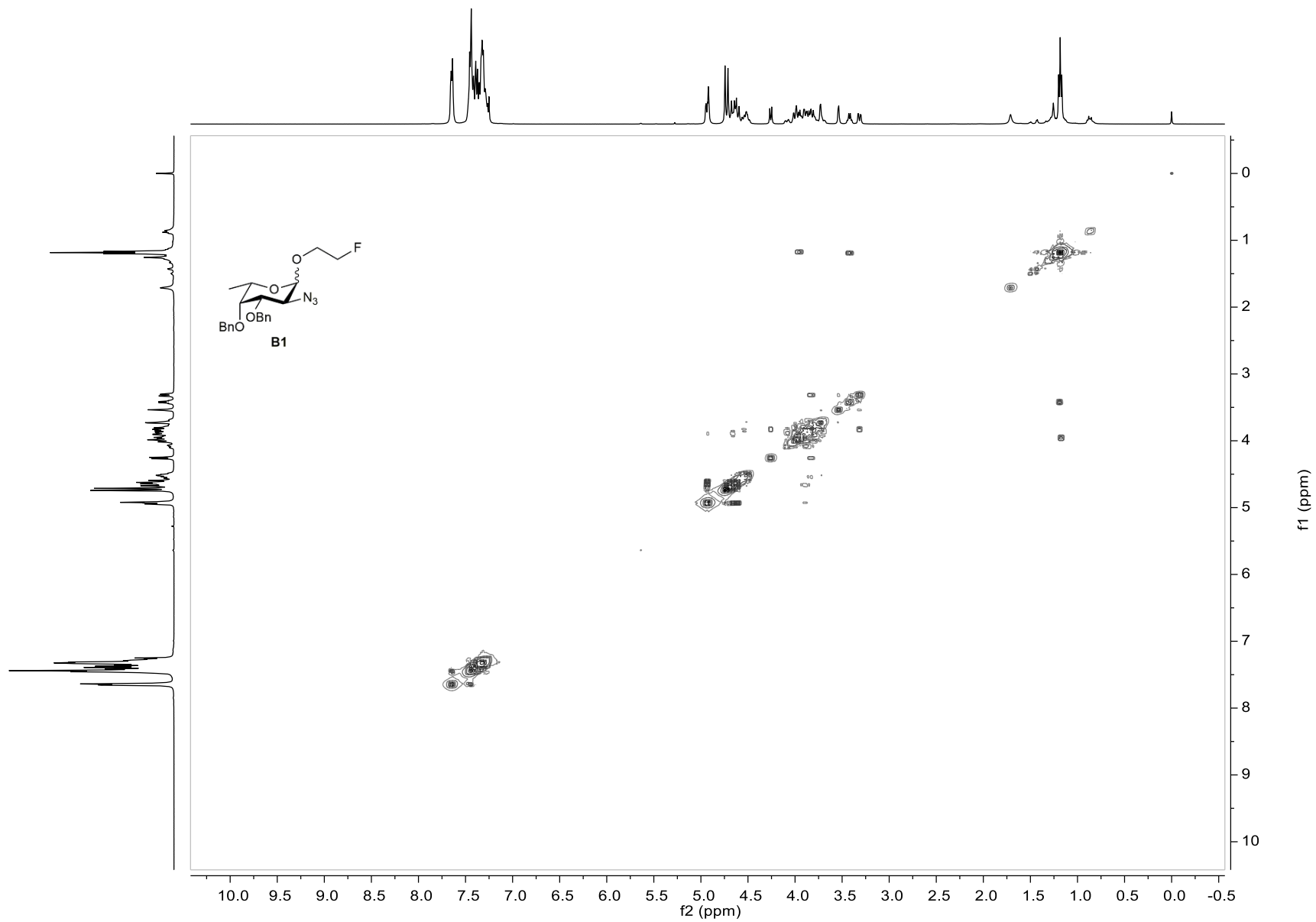


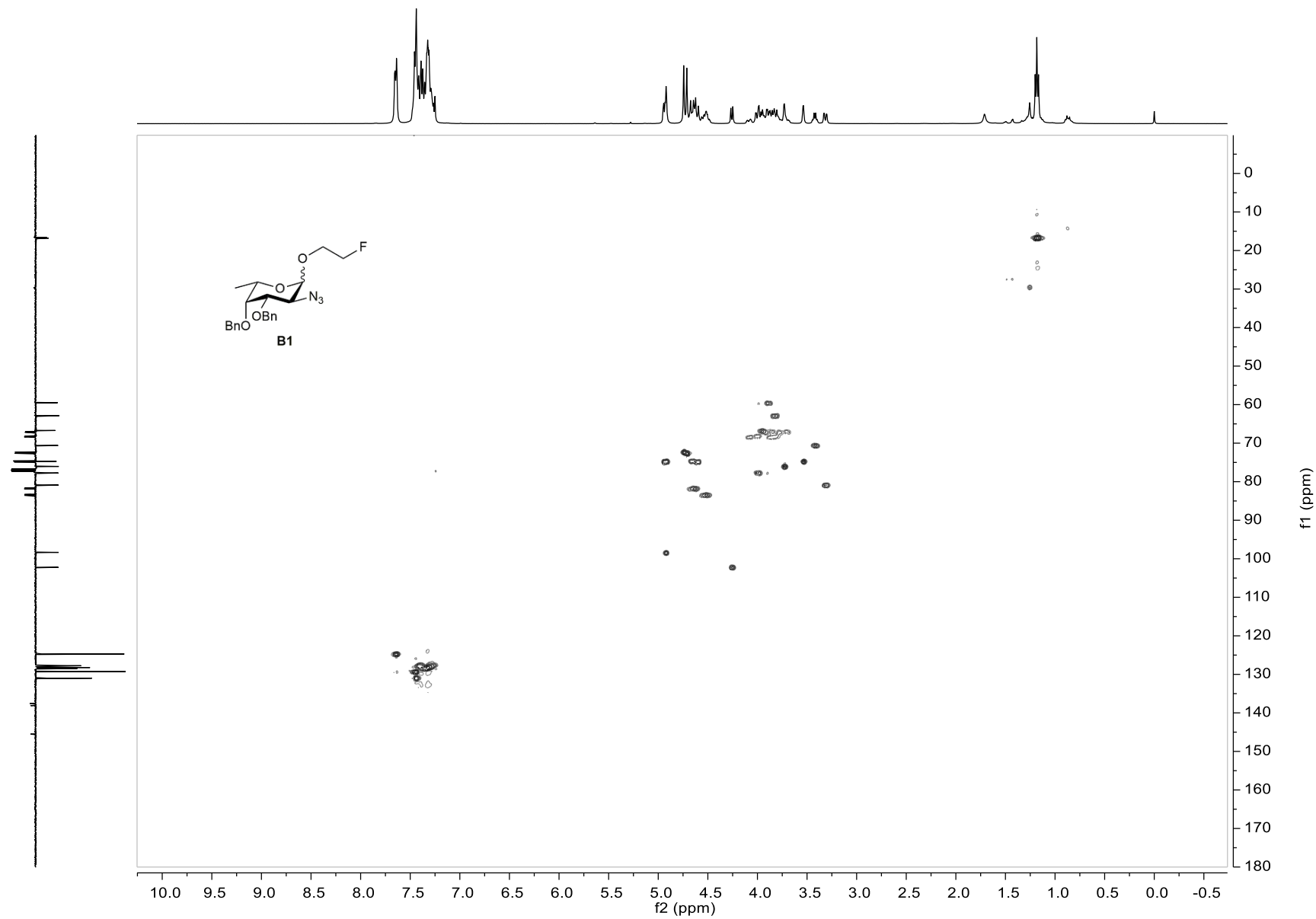


7.66  
7.65  
7.64  
7.64  
7.46  
7.44  
7.44  
7.42  
7.39  
7.37  
7.35  
7.33  
7.32  
7.32  
7.31  
7.29  
7.27  
7.25  
4.94  
4.93  
4.92  
4.74  
4.71  
4.67  
4.65  
4.64  
4.62  
4.59  
4.56  
4.55  
4.54  
4.54  
4.52  
4.50  
4.27  
4.25  
4.02  
4.01  
3.99  
3.98  
3.96  
3.95  
3.93  
3.91  
3.90  
3.88  
3.87  
3.85  
3.83  
3.81  
3.79  
3.73  
3.54  
3.54  
3.43  
3.41  
3.33  
3.33  
3.31  
3.30  
1.71  
1.28  
1.26  
1.23  
1.20  
1.18  
1.17  
1.14  
0.88  
0.86  
0.85  
0.00



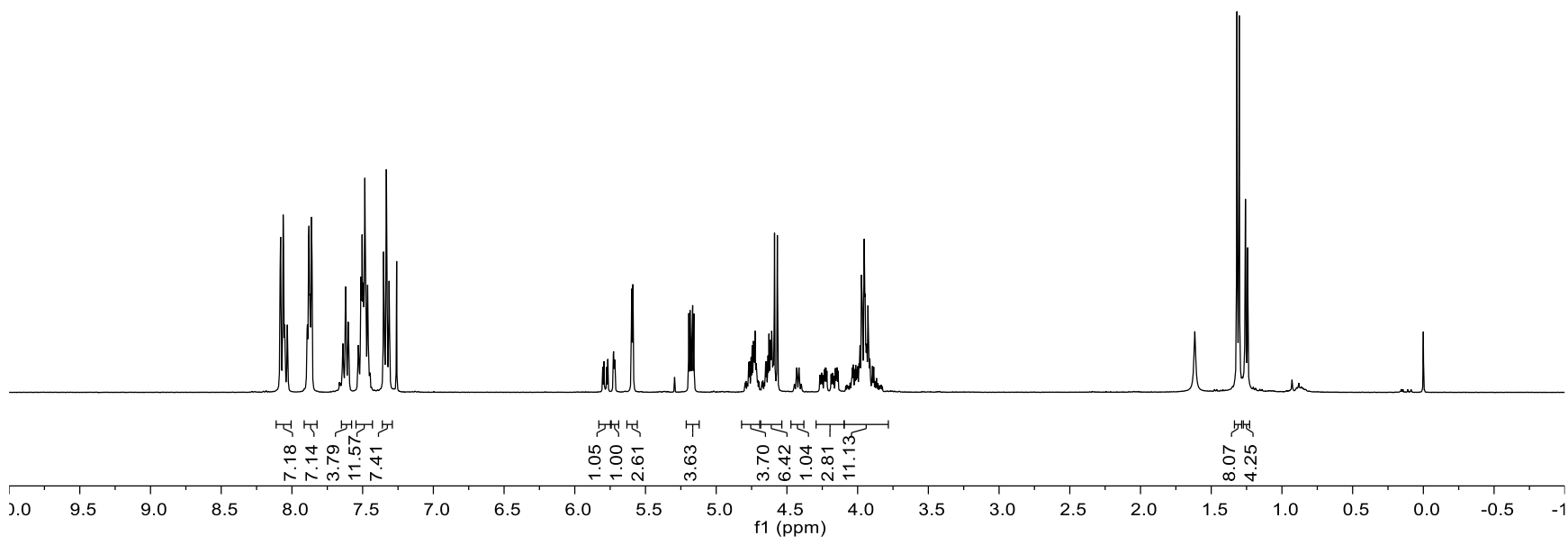
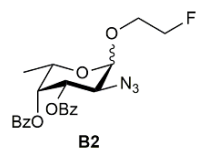


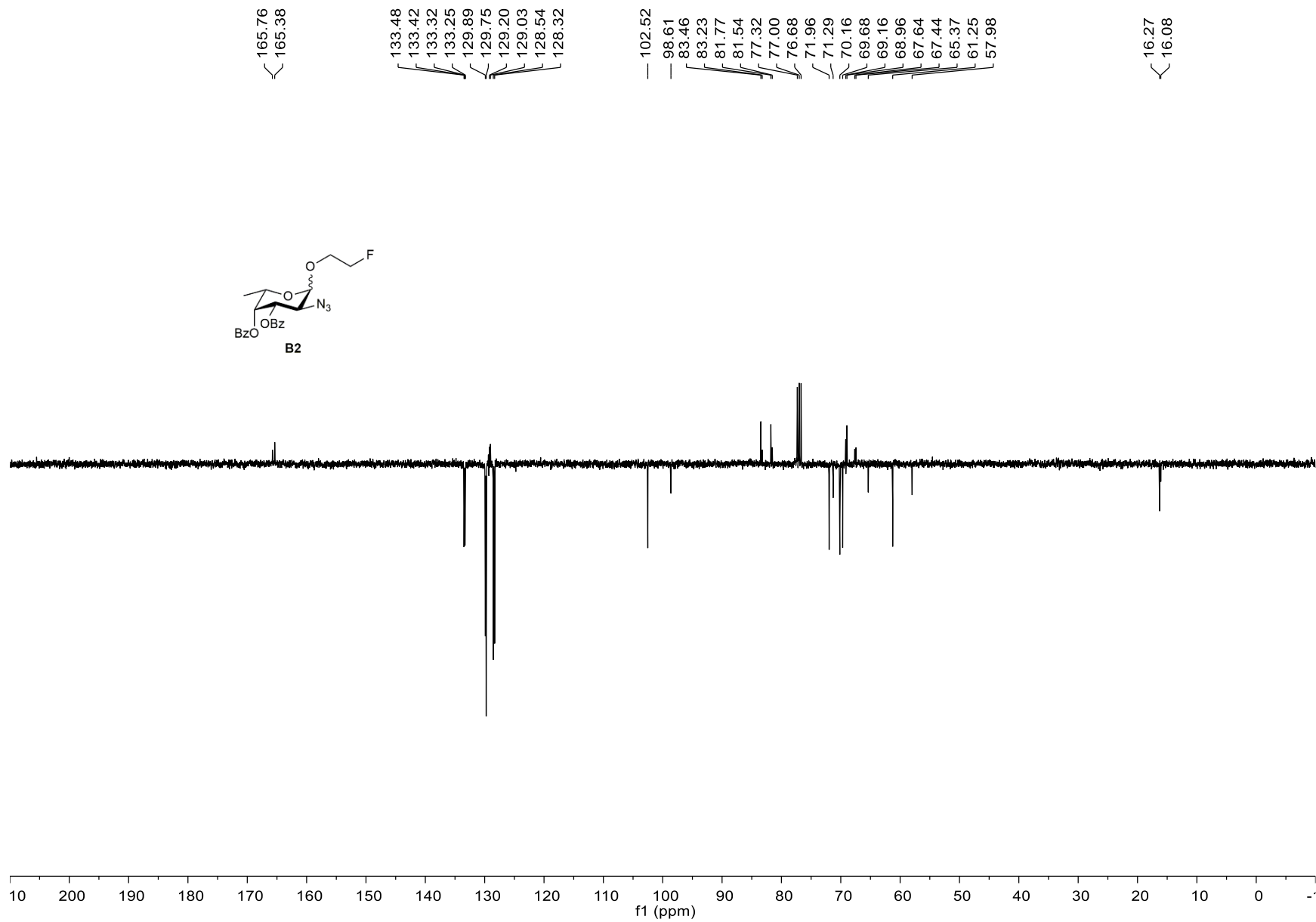
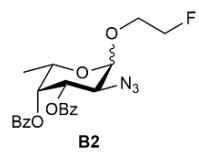


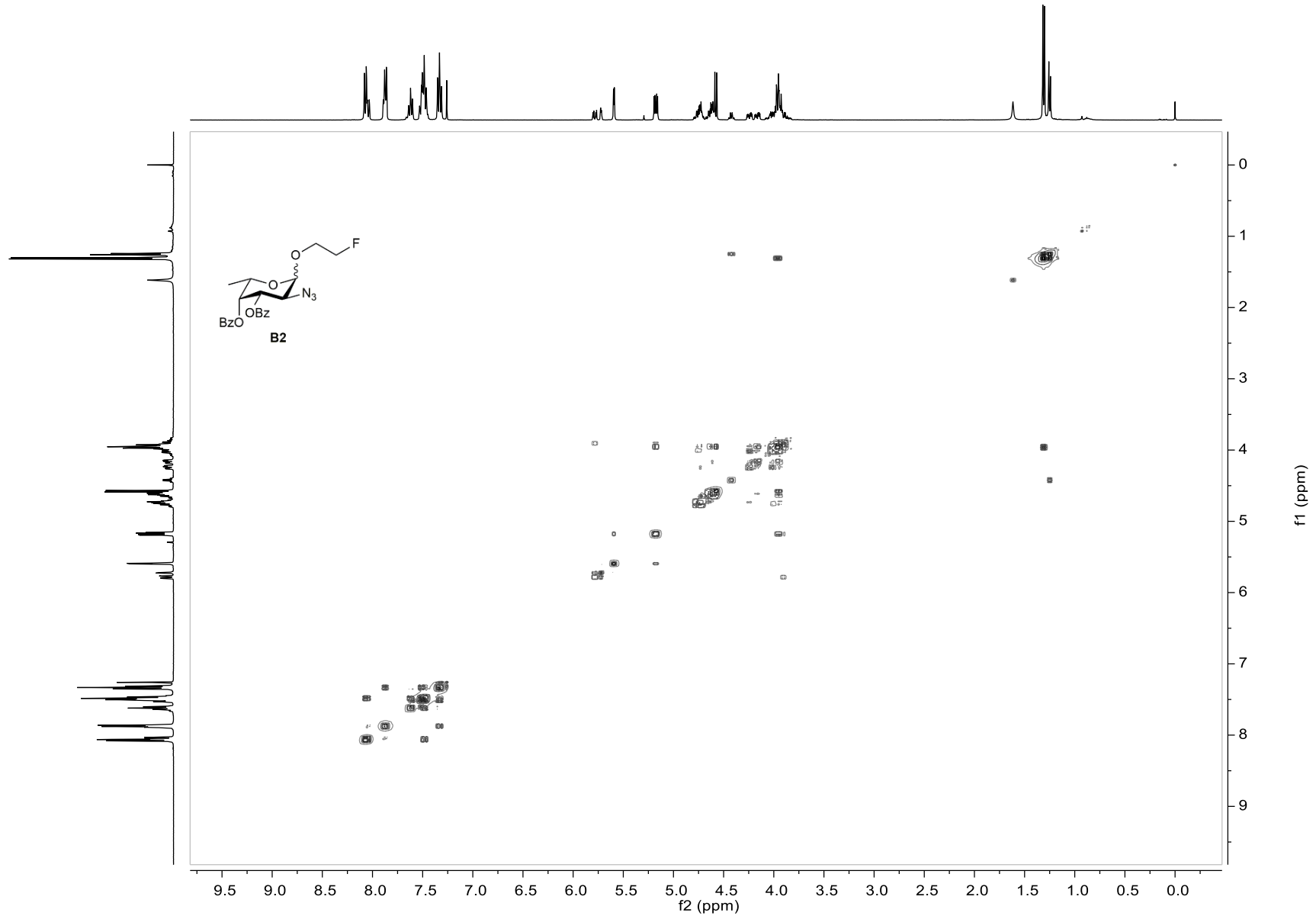


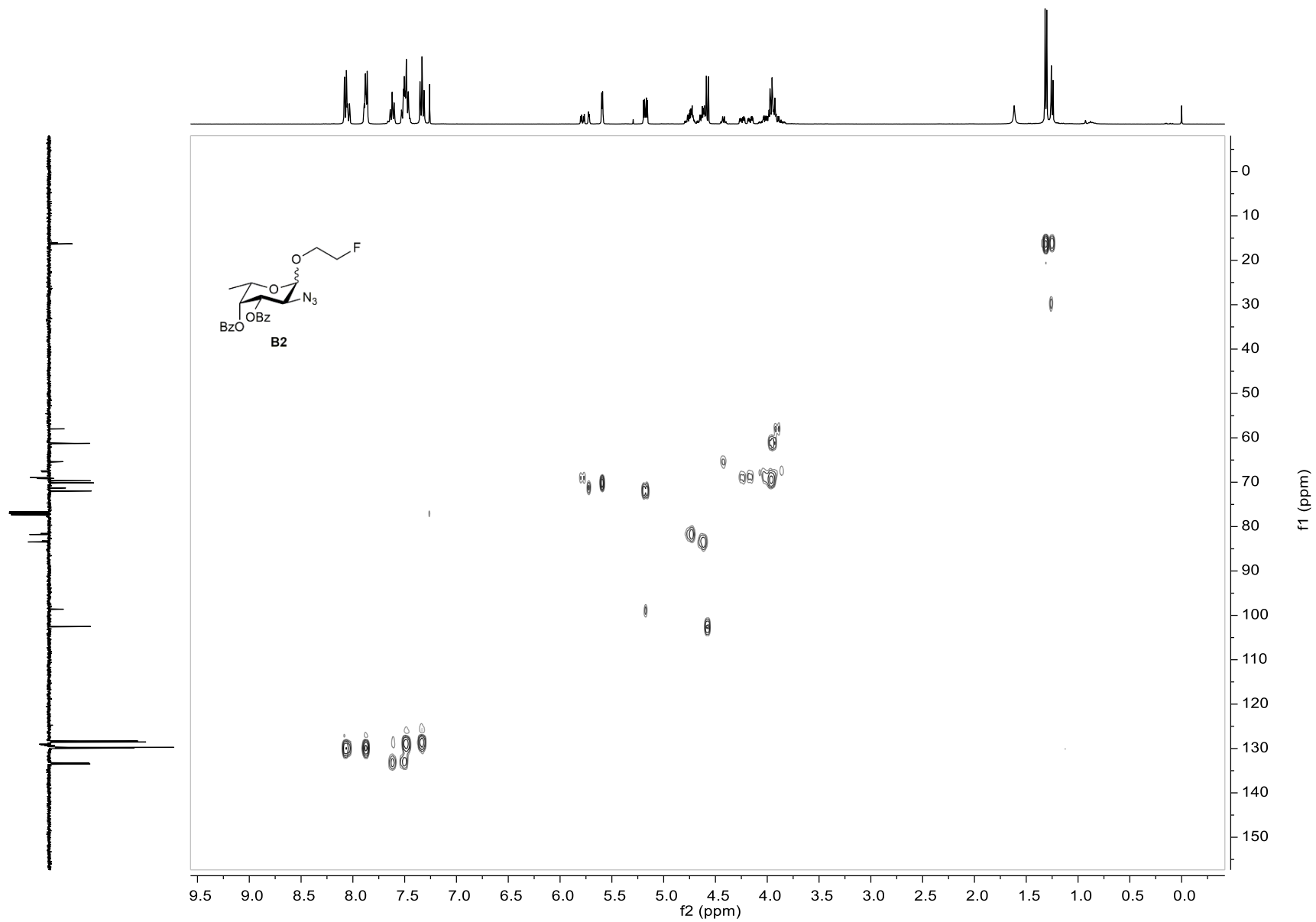


8.08  
8.06  
8.06  
8.05  
8.03  
8.03  
7.89  
7.88  
7.87  
7.87  
7.86  
7.86  
7.64  
7.62  
7.60  
7.53  
7.51  
7.50  
7.50  
7.49  
7.48  
7.46  
7.35  
7.33  
7.31  
7.26  
5.79  
5.77  
5.73  
5.72  
5.60  
5.59  
5.19  
5.18  
5.18  
5.17  
5.17  
5.16  
4.77  
4.76  
4.75  
4.75  
4.74  
4.73  
4.73  
4.72  
4.65  
4.64  
4.63  
4.63  
4.62  
4.62  
4.61  
4.60  
4.59  
4.57  
4.03  
3.99  
3.98  
3.97  
3.97  
3.95  
3.95  
3.94  
3.93  
3.91  
1.62  
1.32  
1.30  
1.26  
1.24  
0.00

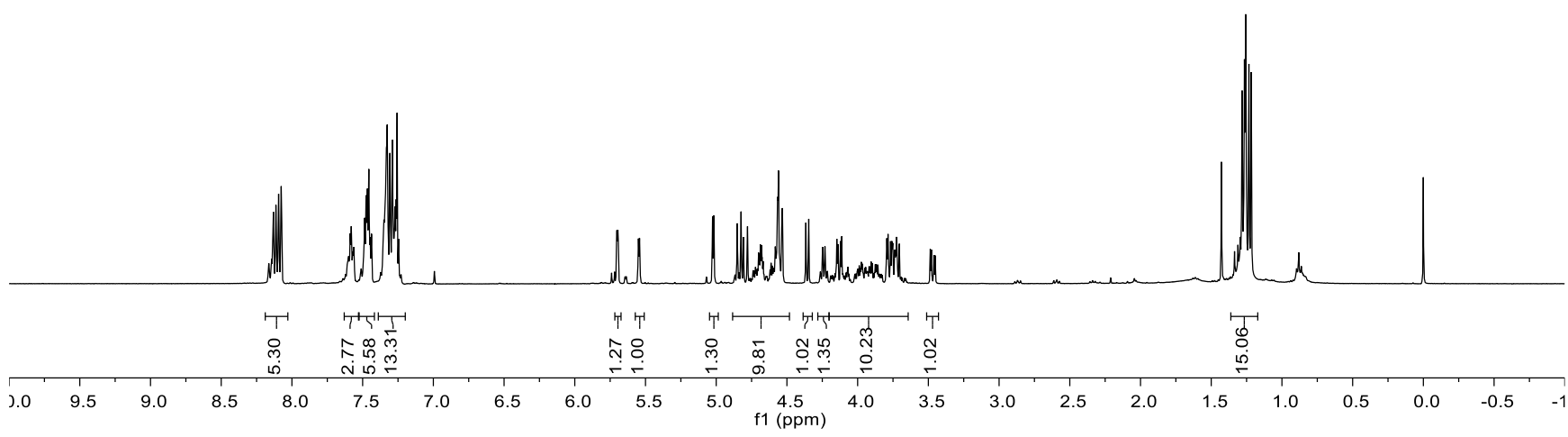
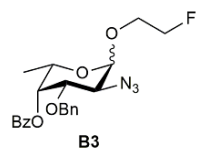


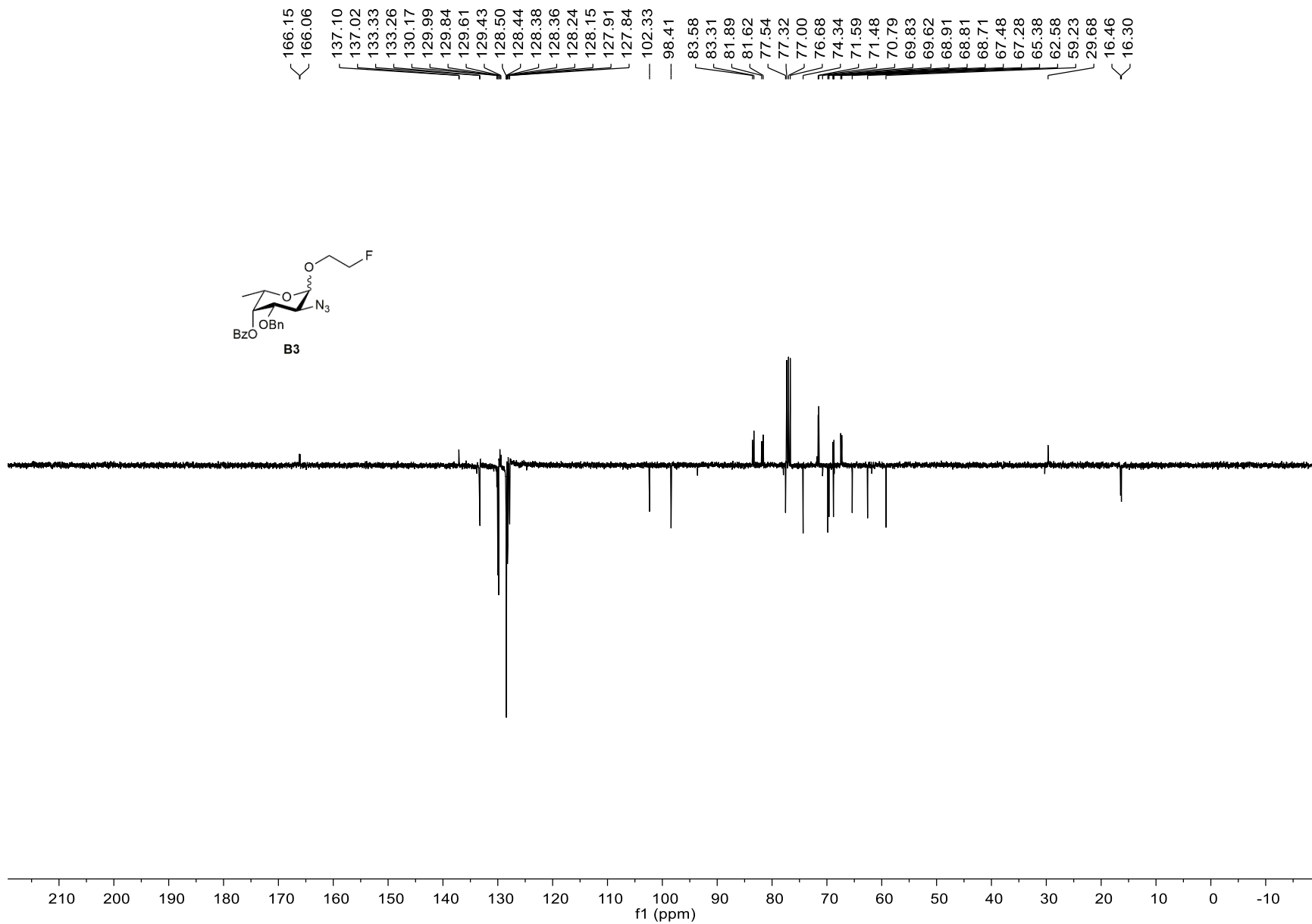
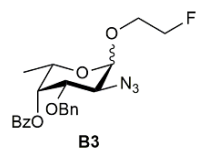


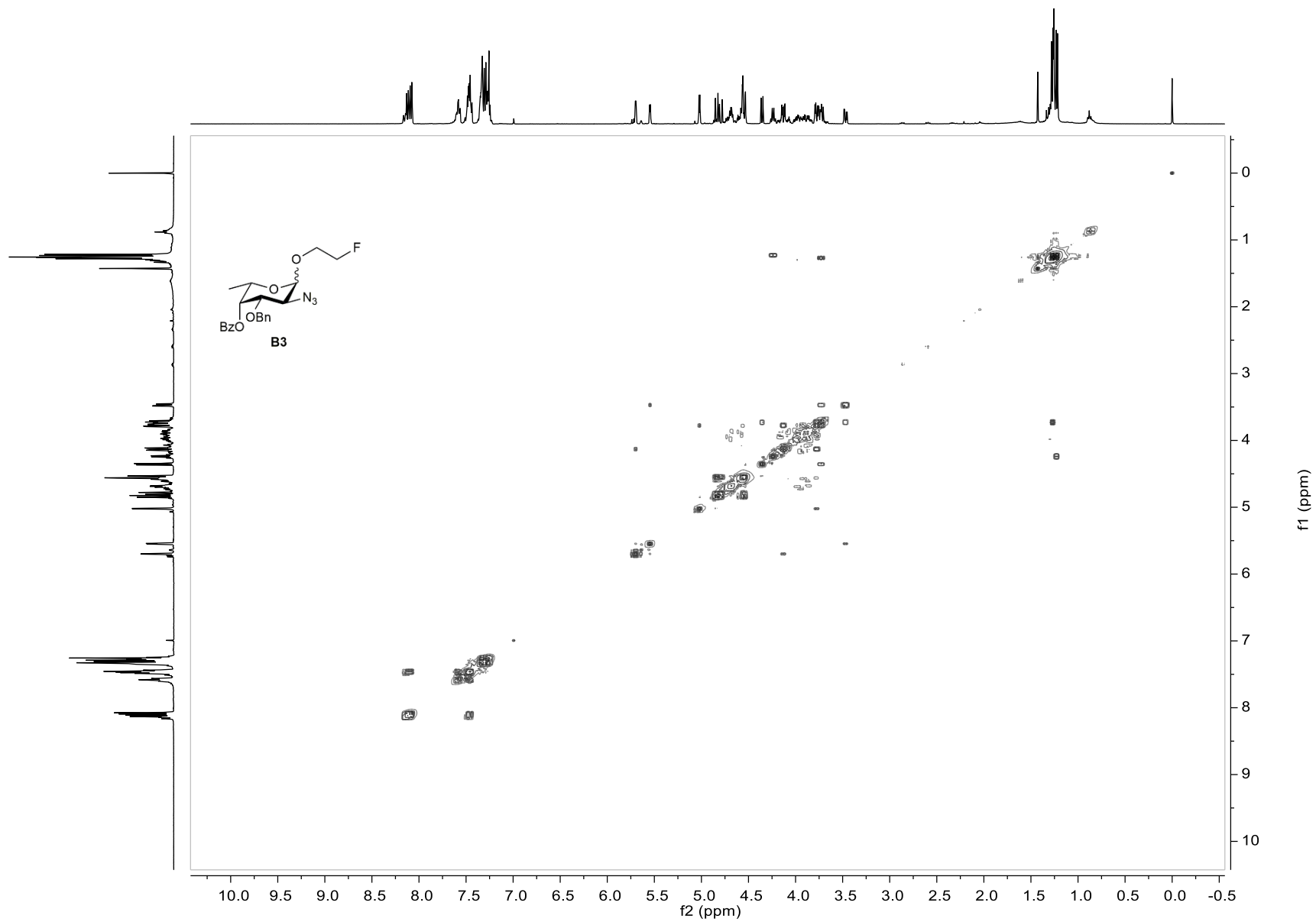


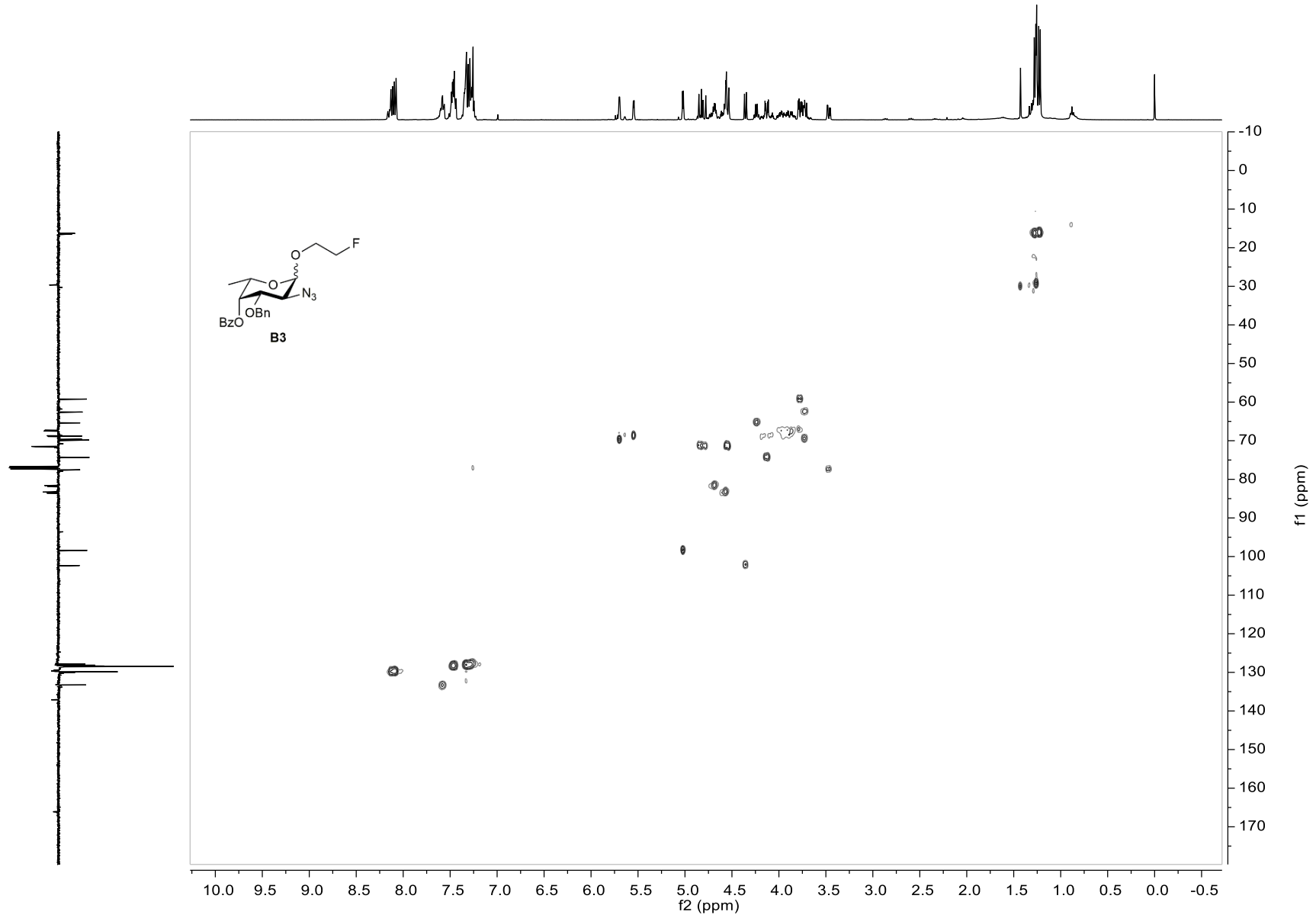


8.13  
8.11  
8.09  
8.08  
7.59  
7.58  
7.57  
7.57  
7.56  
7.49  
7.48  
7.47  
7.46  
7.45  
7.44  
7.35  
7.34  
7.33  
7.33  
7.31  
7.29  
7.28  
7.27  
7.26  
7.26  
7.25  
5.70  
5.70  
5.55  
5.54  
5.03  
5.02  
4.85  
4.82  
4.81  
4.78  
4.69  
4.68  
4.58  
4.57  
4.56  
4.53  
4.37  
4.35  
4.25  
4.23  
4.15  
4.14  
4.12  
4.11  
3.79  
3.79  
3.77  
3.76  
3.75  
3.74  
3.73  
3.73  
3.71  
3.49  
3.48  
1.43  
1.34  
1.31  
1.29  
1.28  
1.27  
1.26  
1.23  
1.22  
0.88  
0.00



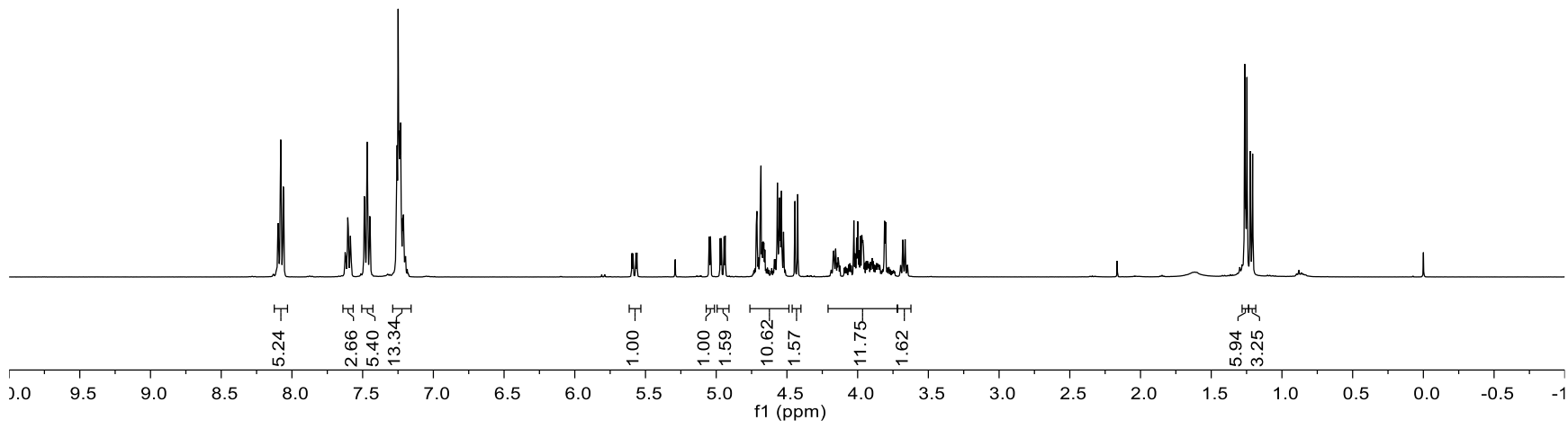
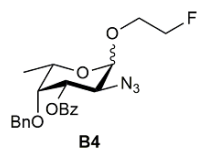


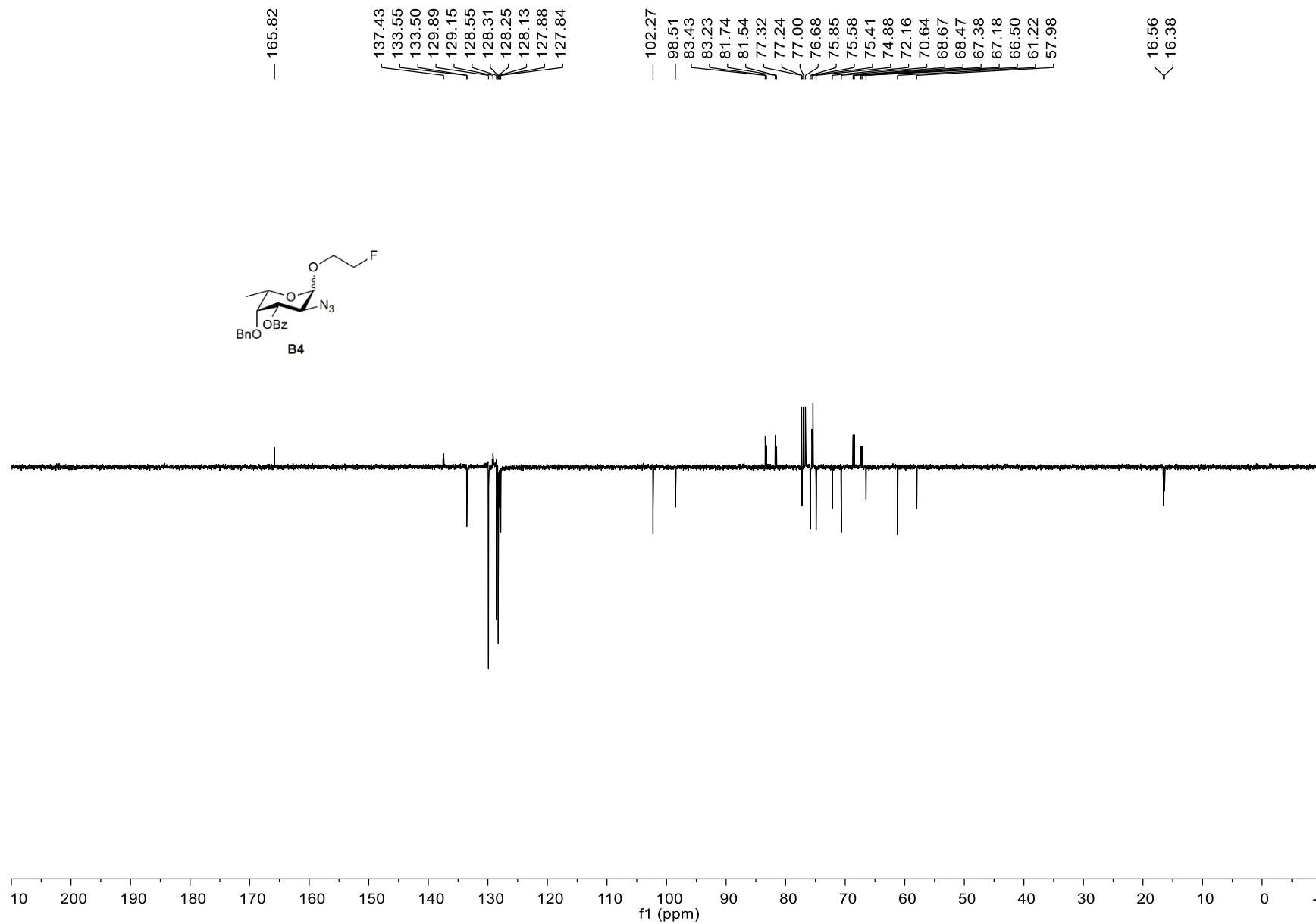


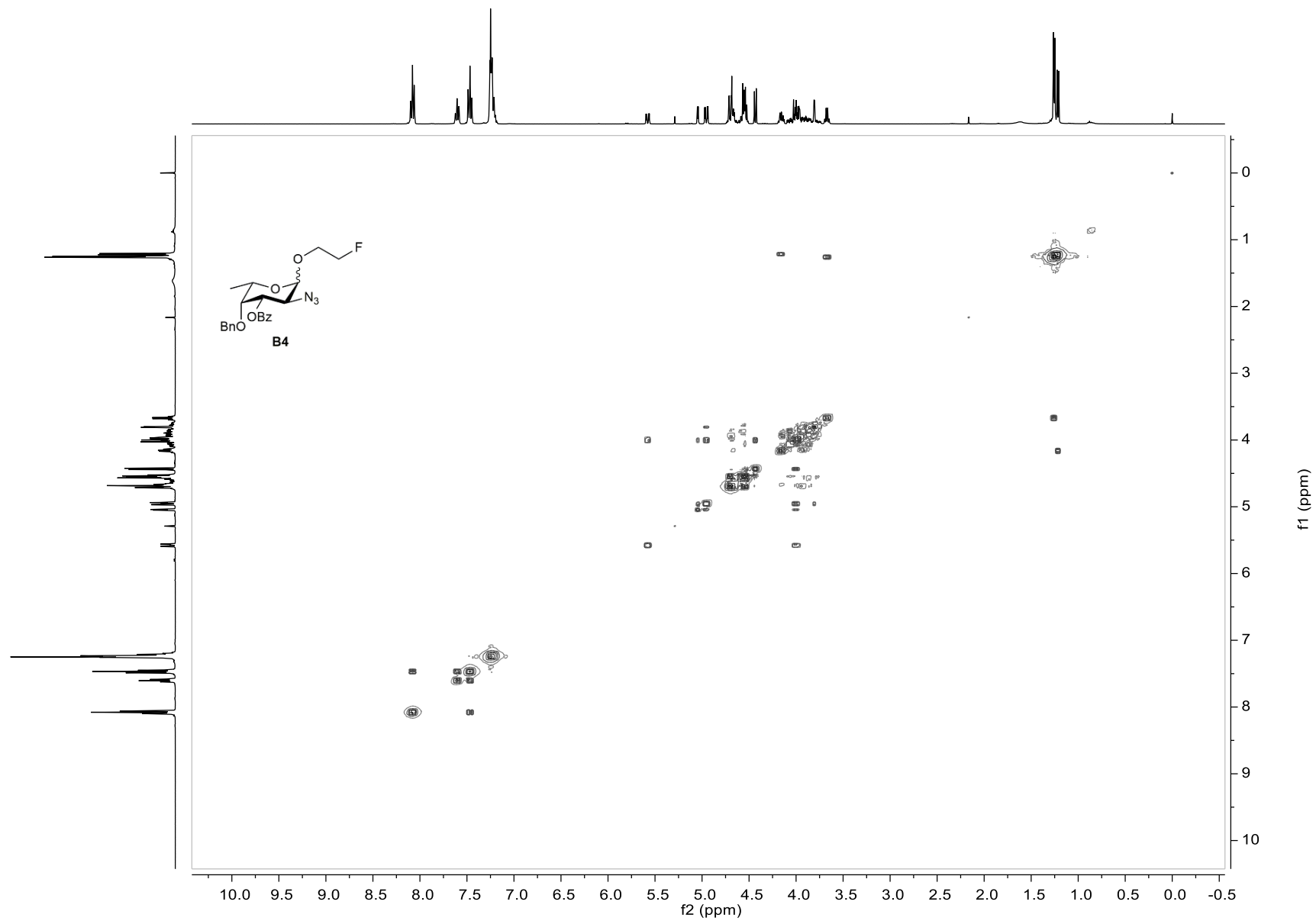


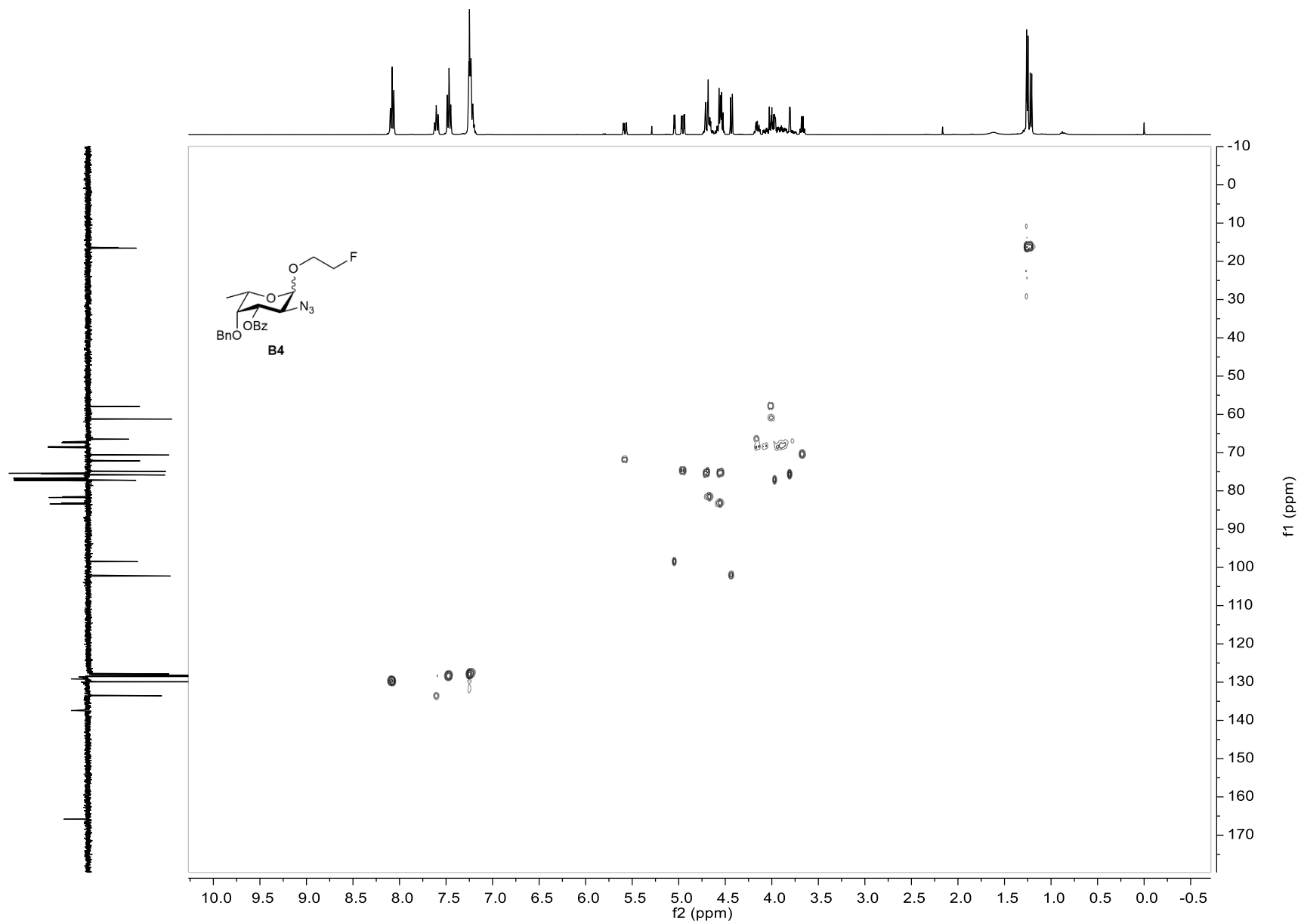


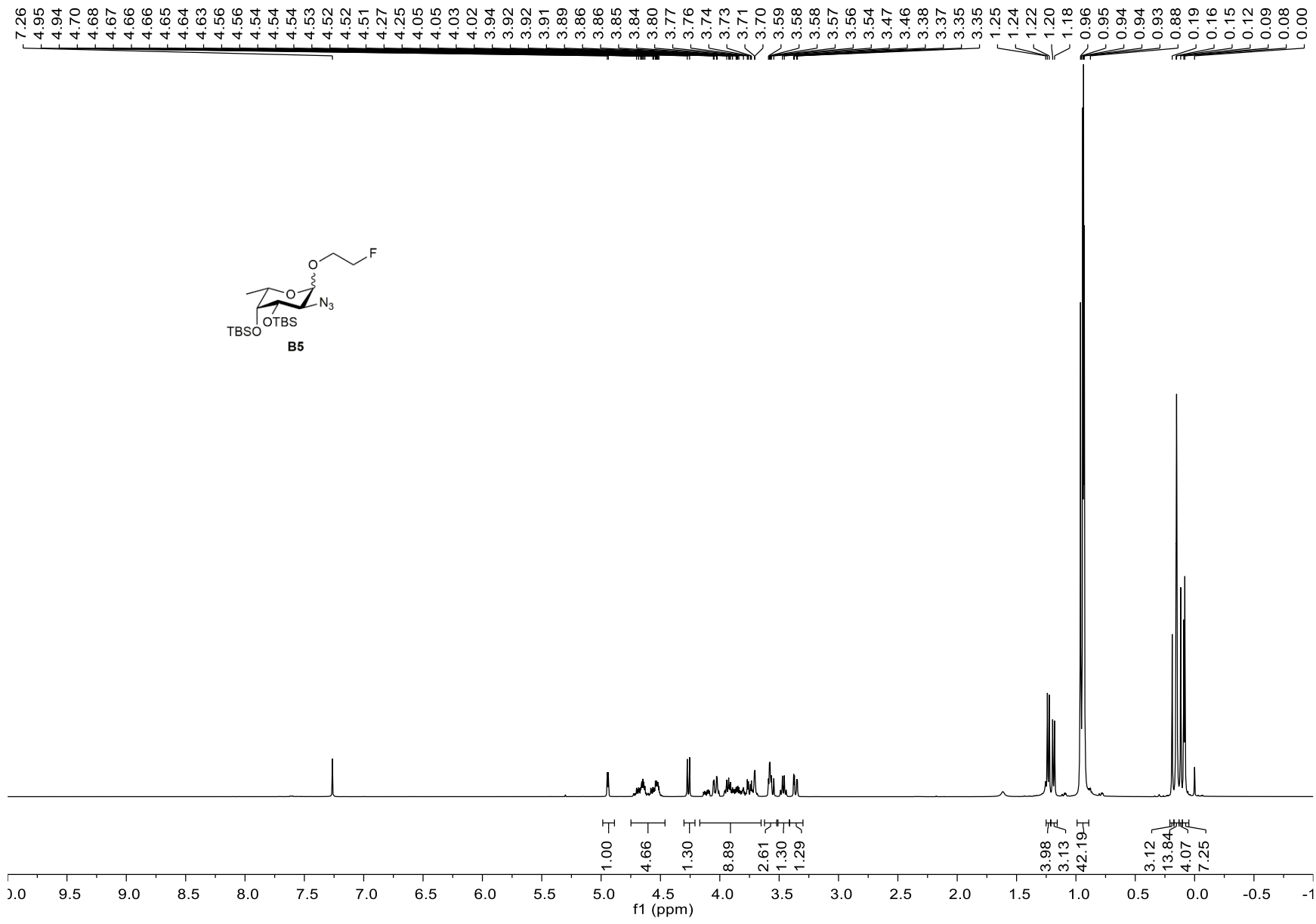
8.10  
8.08  
8.06  
8.06  
7.62  
7.62  
7.61  
7.60  
7.59  
7.58  
7.49  
7.47  
7.45  
7.26  
7.25  
7.24  
7.24  
7.23  
7.23  
7.22  
7.21  
7.20  
7.20  
5.60  
5.59  
5.57  
5.56  
5.05  
5.04  
4.97  
4.96  
4.94  
4.94  
4.72  
4.71  
4.70  
4.69  
4.68  
4.68  
4.67  
4.66  
4.66  
4.57  
4.56  
4.56  
4.55  
4.55  
4.54  
4.52  
4.44  
4.42  
4.17  
4.16  
4.14  
4.03  
4.02  
4.01  
4.00  
4.00  
3.99  
3.98  
3.97  
3.96  
3.90  
3.81  
3.80  
3.68  
3.66  
1.26  
1.26  
1.25  
1.22  
1.21  
-0.00

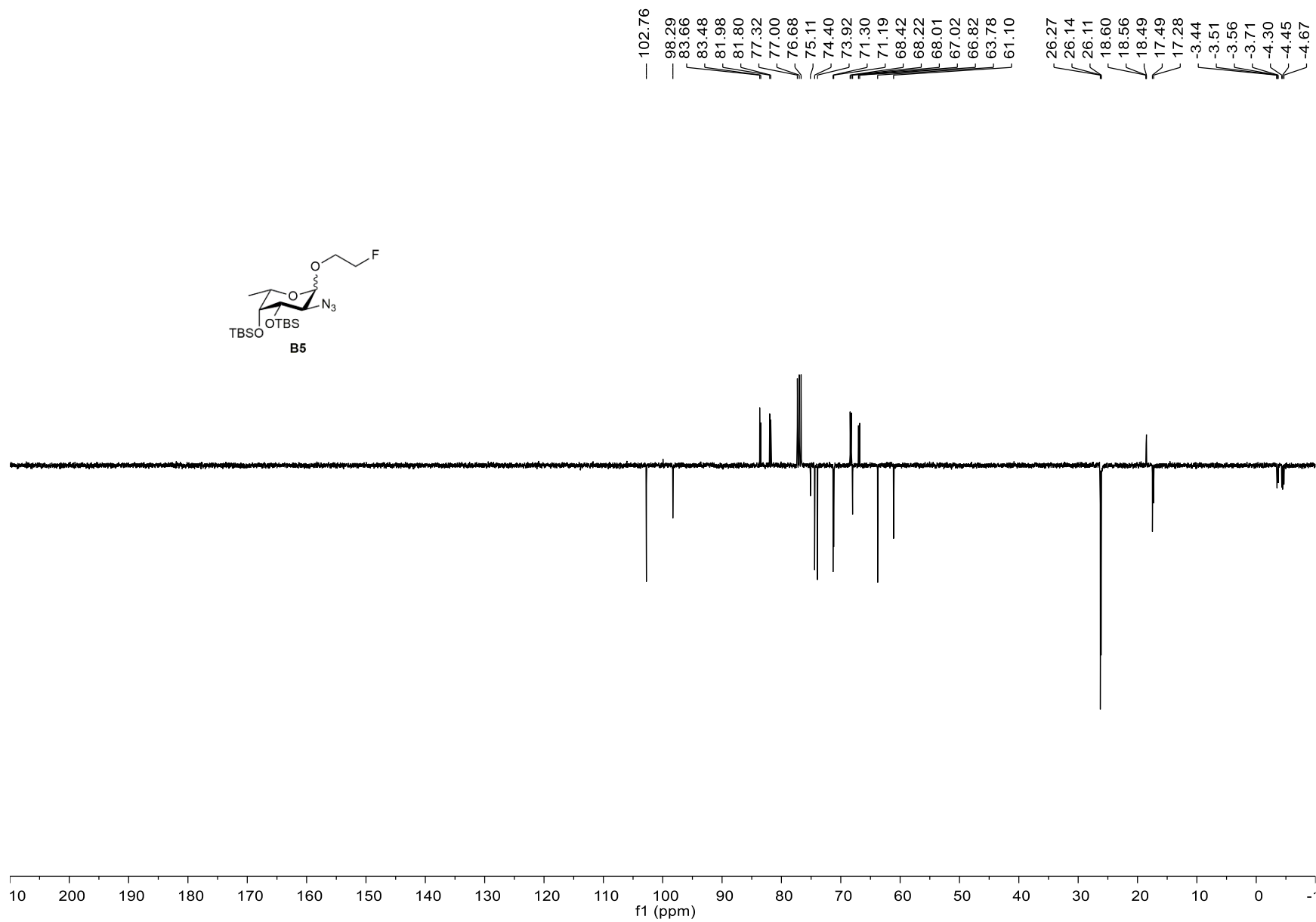
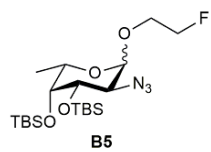


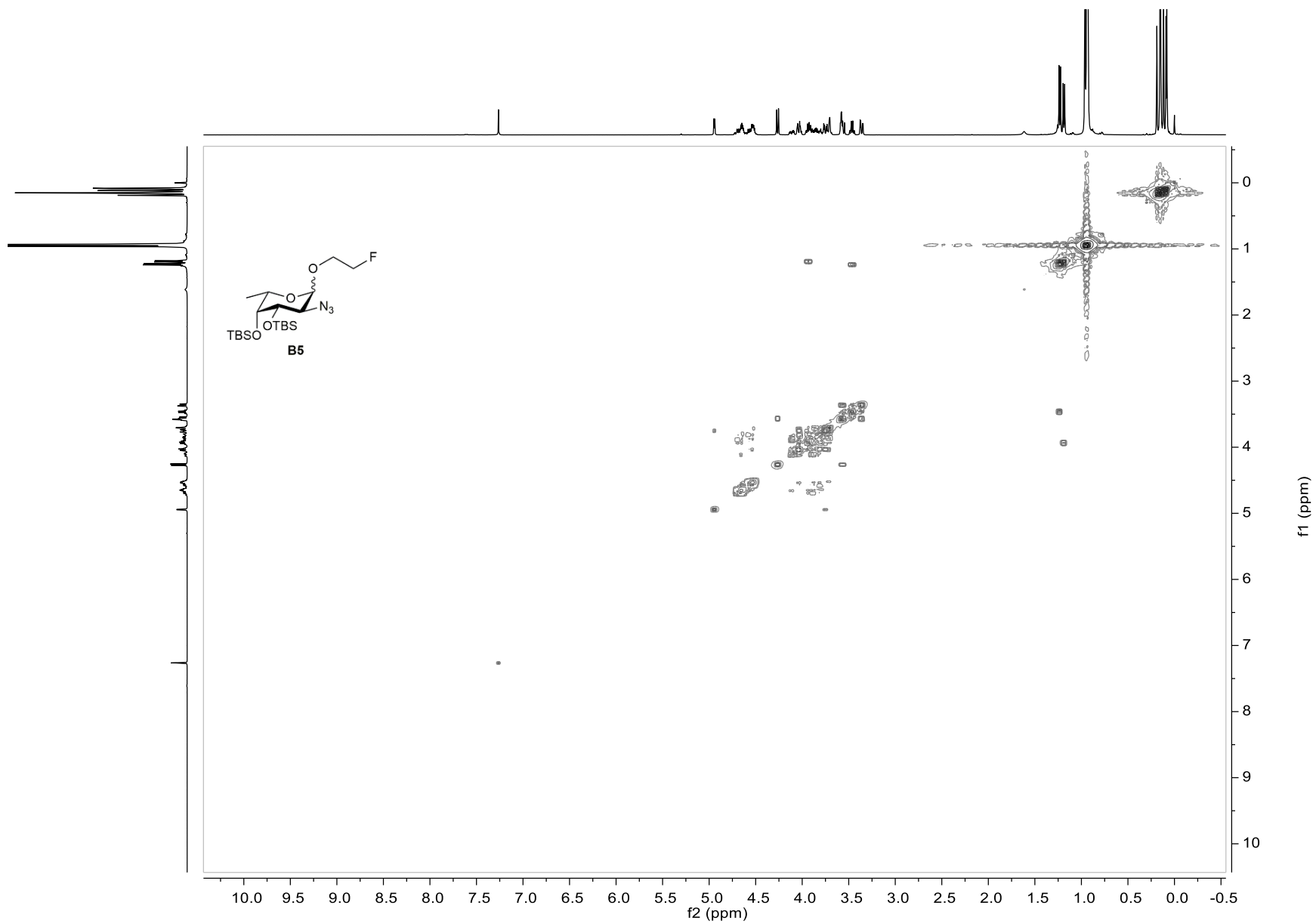


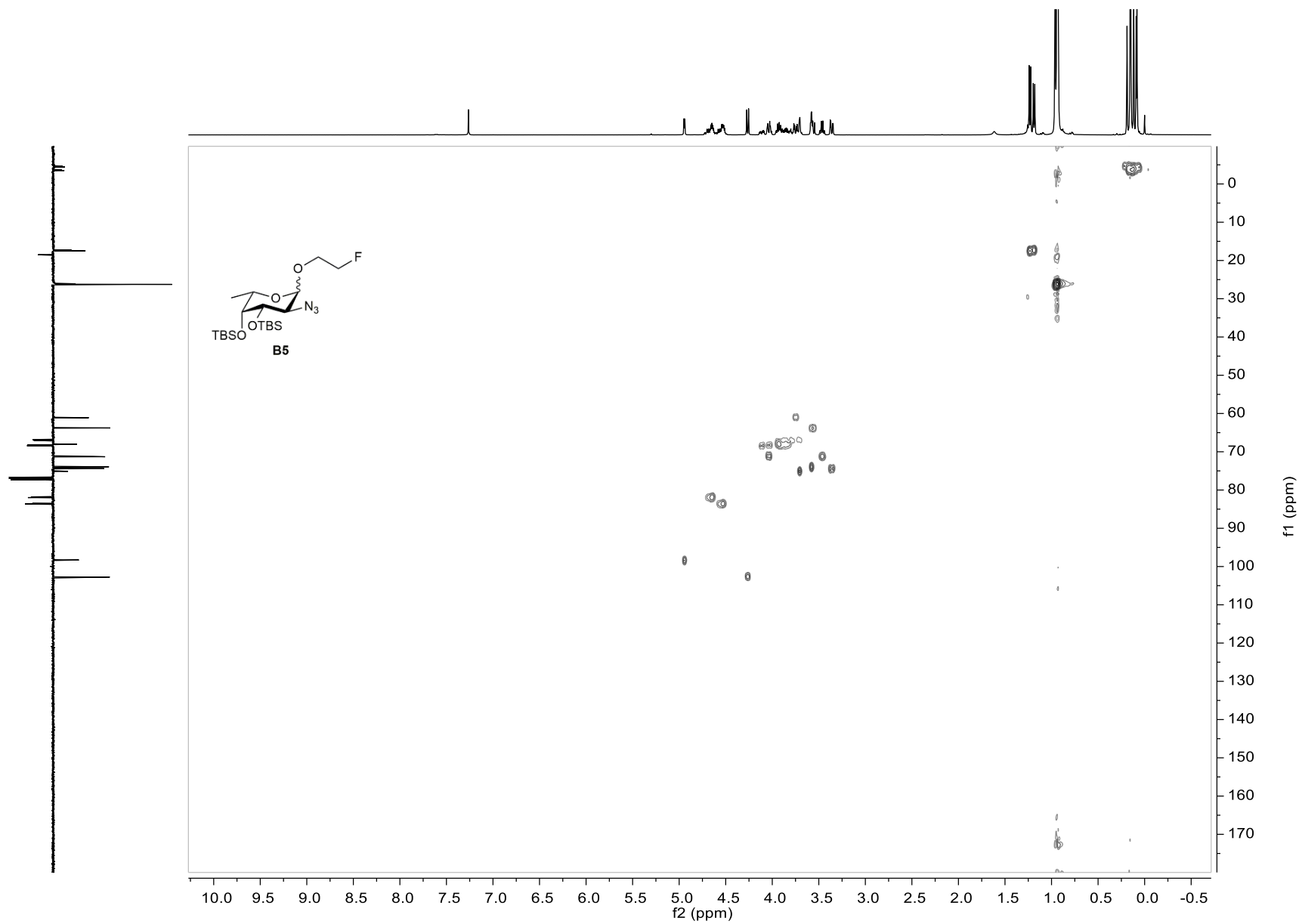




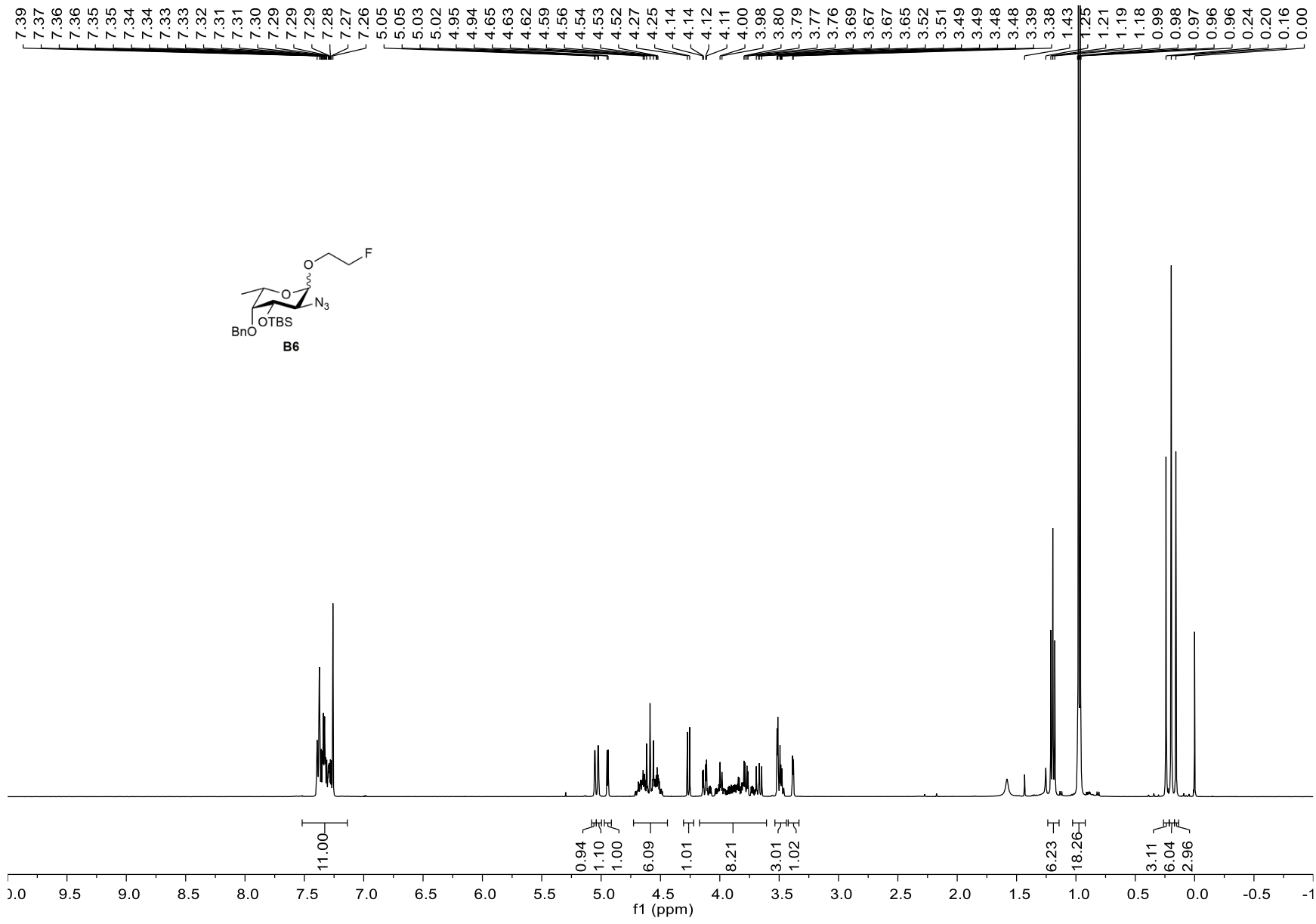


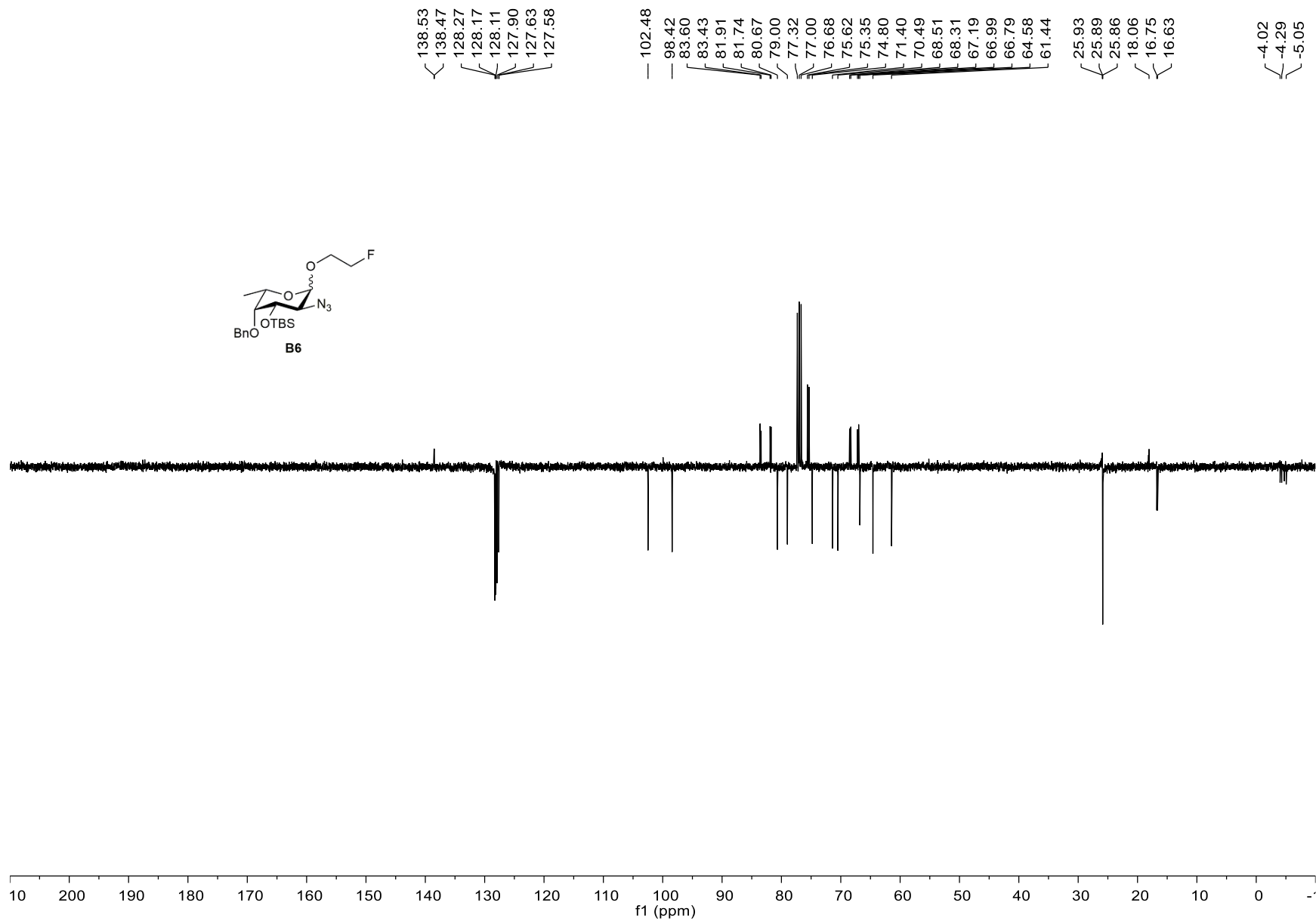
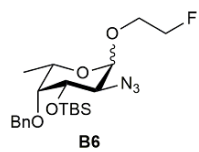


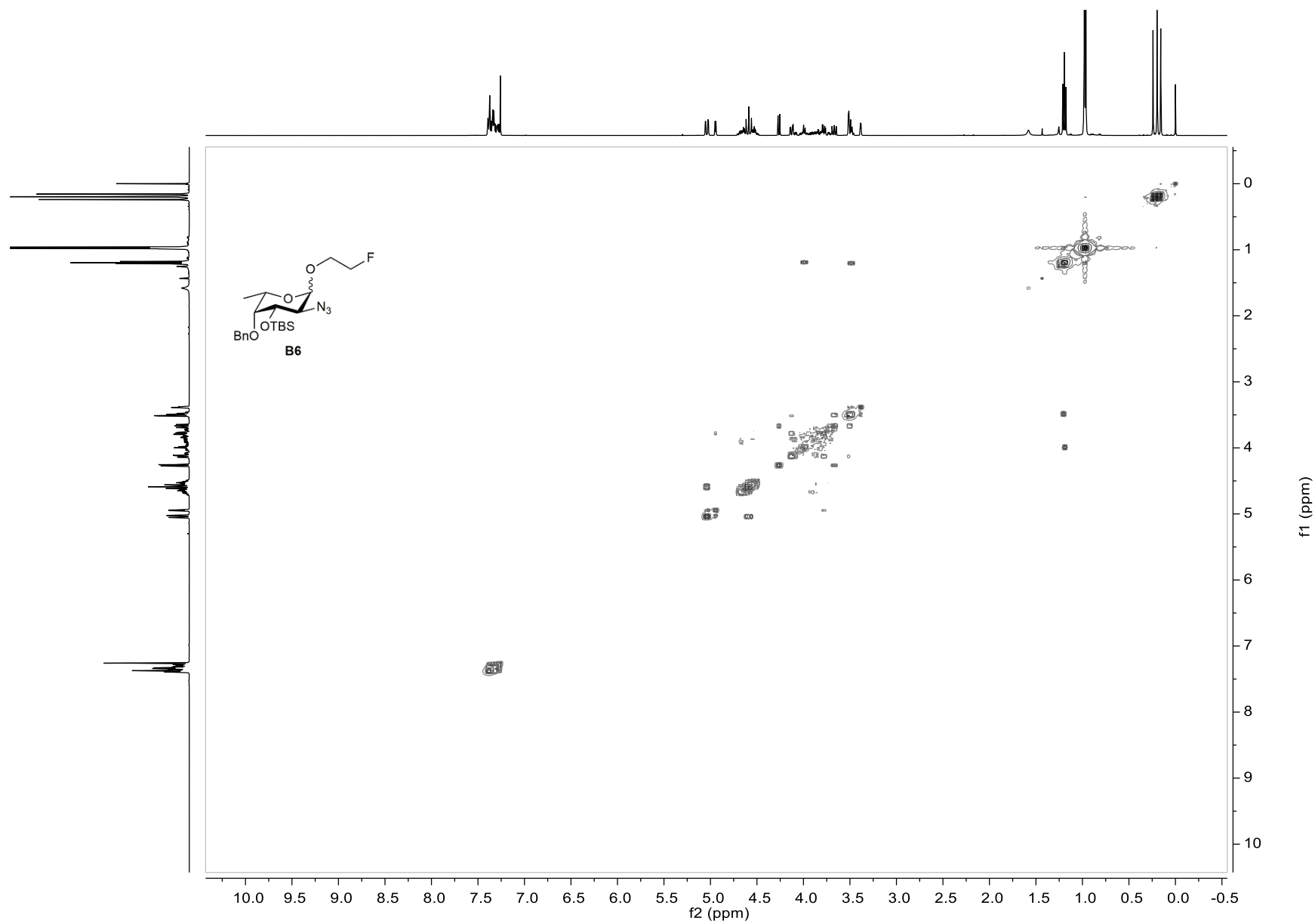


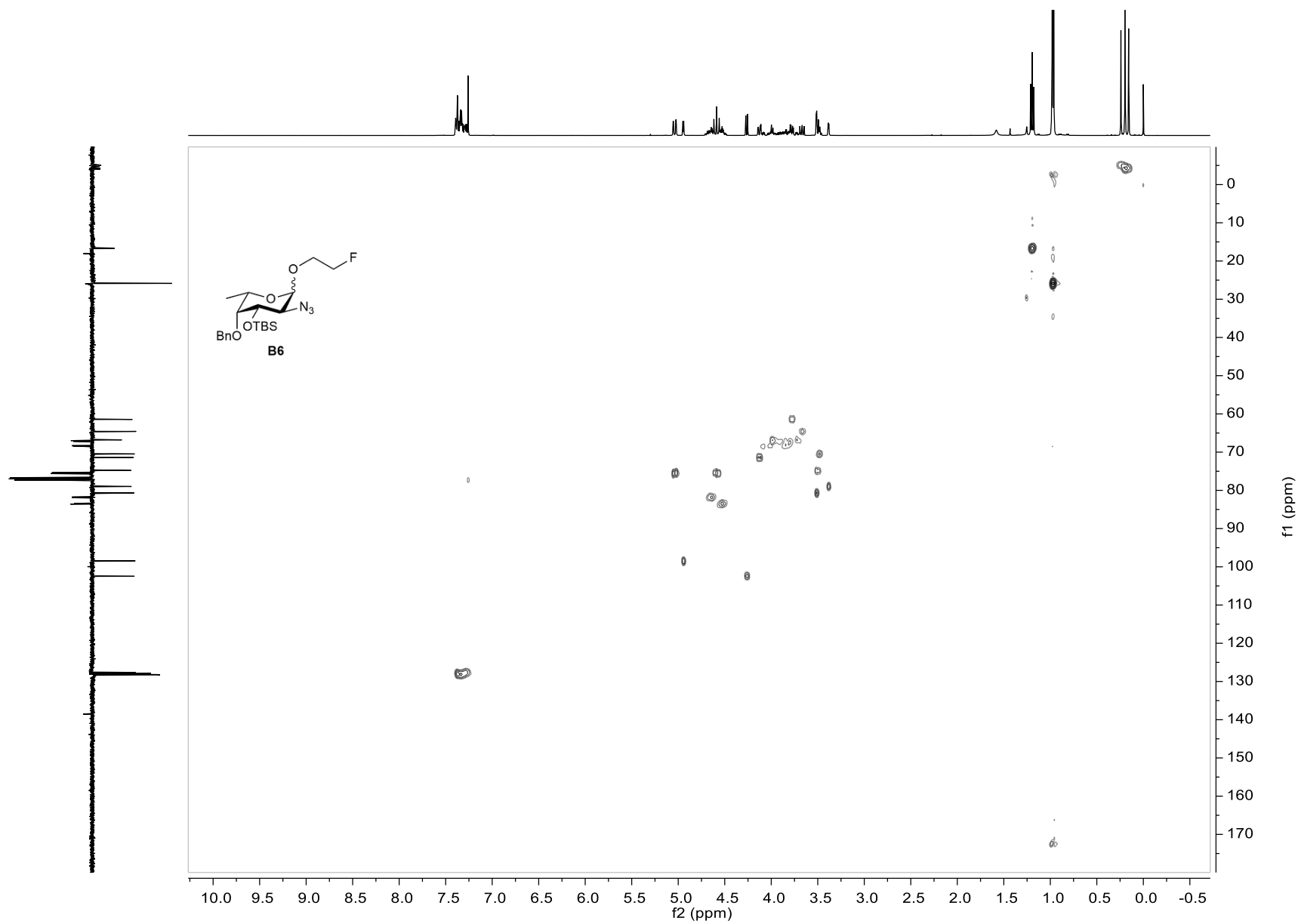




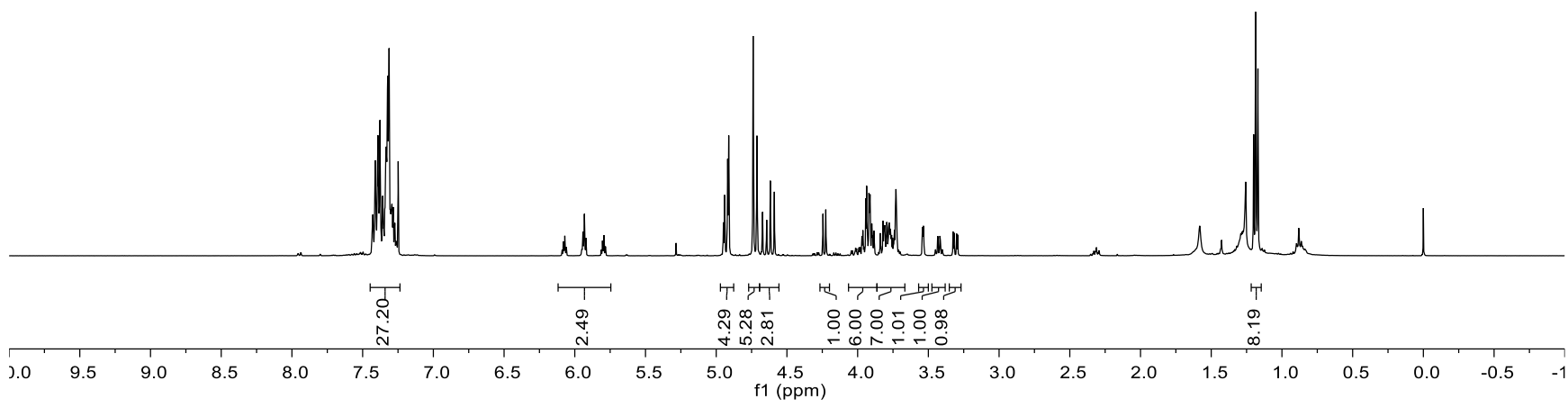
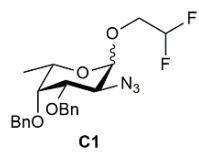


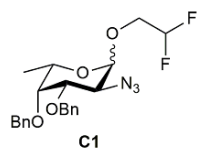




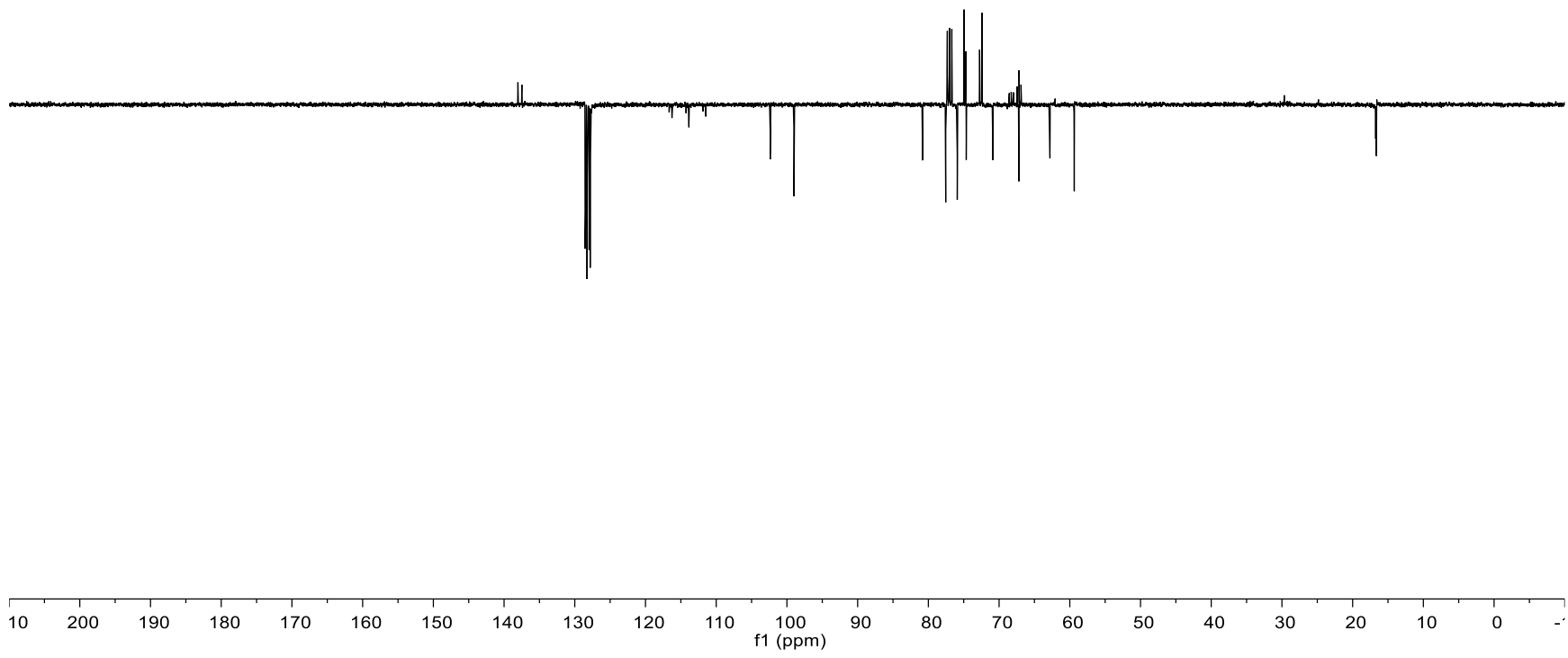


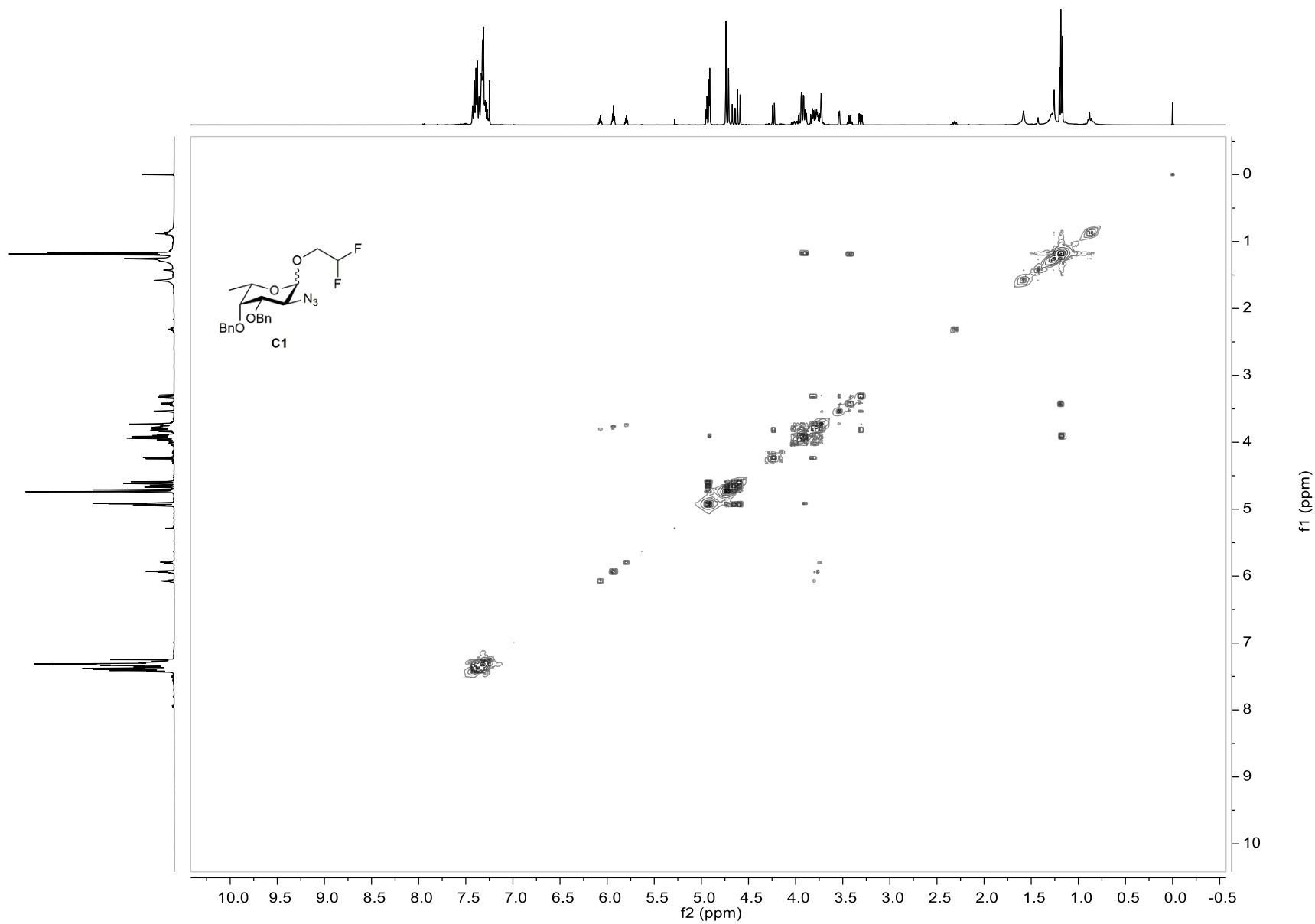
7.43  
7.43  
7.41  
7.41  
7.40  
7.39  
7.38  
7.38  
7.36  
7.35  
7.34  
7.34  
7.34  
7.33  
7.32  
7.32  
7.31  
7.30  
7.30  
7.30  
7.29  
7.28  
7.27  
7.25  
5.94  
5.93  
4.95  
4.94  
4.92  
4.91  
4.74  
4.71  
4.67  
4.64  
4.62  
4.59  
4.25  
4.23  
3.96  
3.94  
3.94  
3.92  
3.91  
3.90  
3.89  
3.84  
3.82  
3.81  
3.81  
3.79  
3.79  
3.78  
3.77  
3.77  
3.74  
3.73  
3.54  
3.53  
3.33  
3.32  
3.30  
1.58  
1.29  
1.28  
1.27  
1.26  
1.20  
1.19  
1.17  
0.88

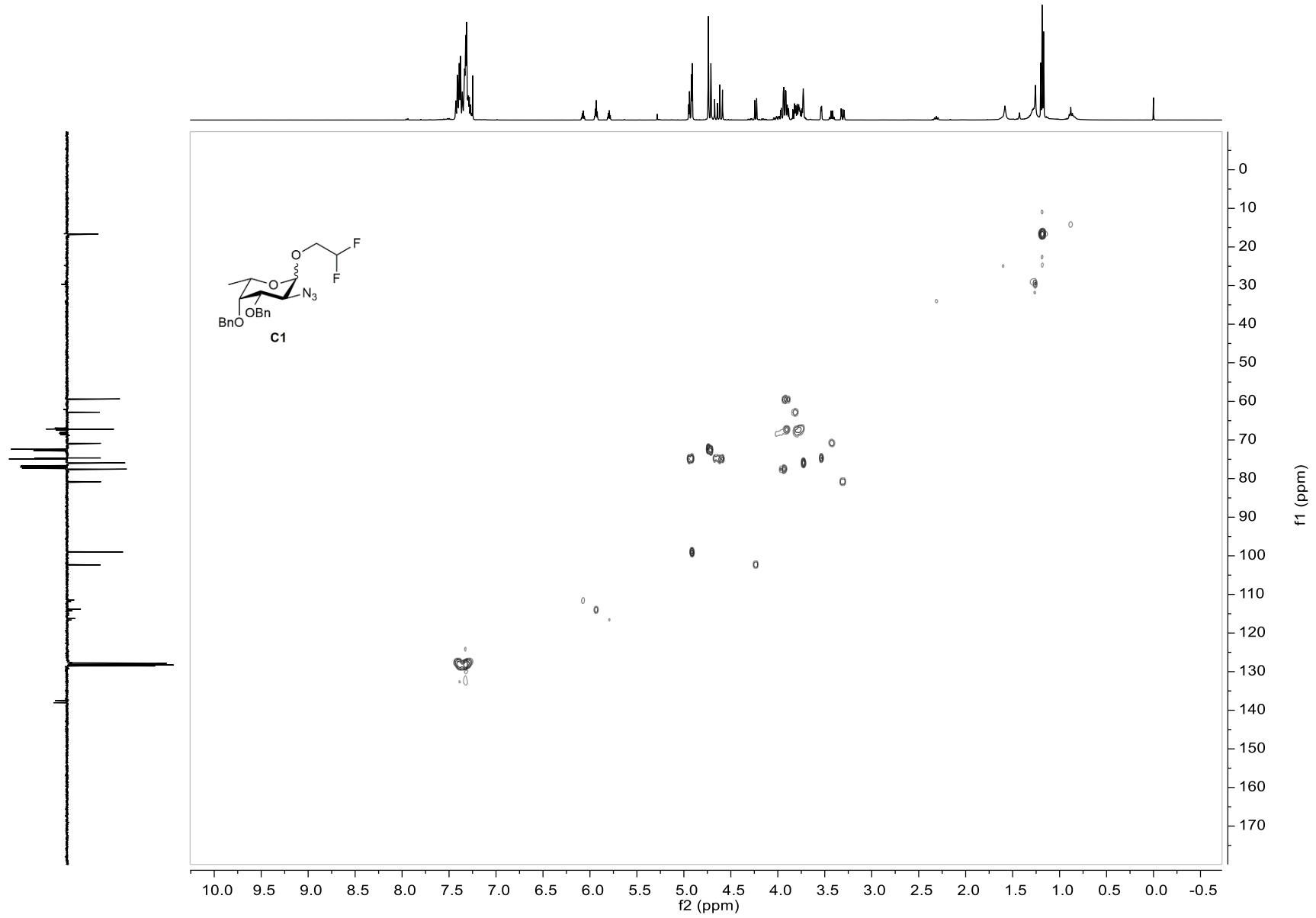




- |        |        |       |
|--------|--------|-------|
| 138.04 | 102.36 | 80.81 |
| 138.00 | 99.01  | 77.55 |
| 137.52 |        | 77.32 |
| 137.48 |        | 77.00 |
| 128.54 |        | 76.68 |
| 128.52 |        | 75.91 |
| 128.45 |        | 74.94 |
| 128.29 |        | 74.71 |
| 128.27 |        | 74.64 |
| 128.24 |        | 72.75 |
| 127.97 |        | 72.39 |
| 127.82 |        | 70.87 |
| 127.81 |        | 68.56 |
| 127.79 |        | 68.29 |
| 116.66 |        | 68.25 |
| 116.26 |        | 67.98 |
| 114.25 |        | 67.46 |
| 113.86 |        | 67.20 |
| 111.46 |        | 67.18 |
|        |        | 66.89 |
|        |        | 62.81 |
|        |        | 59.37 |
|        |        | 29.67 |
|        |        | 16.75 |
|        |        | 16.65 |

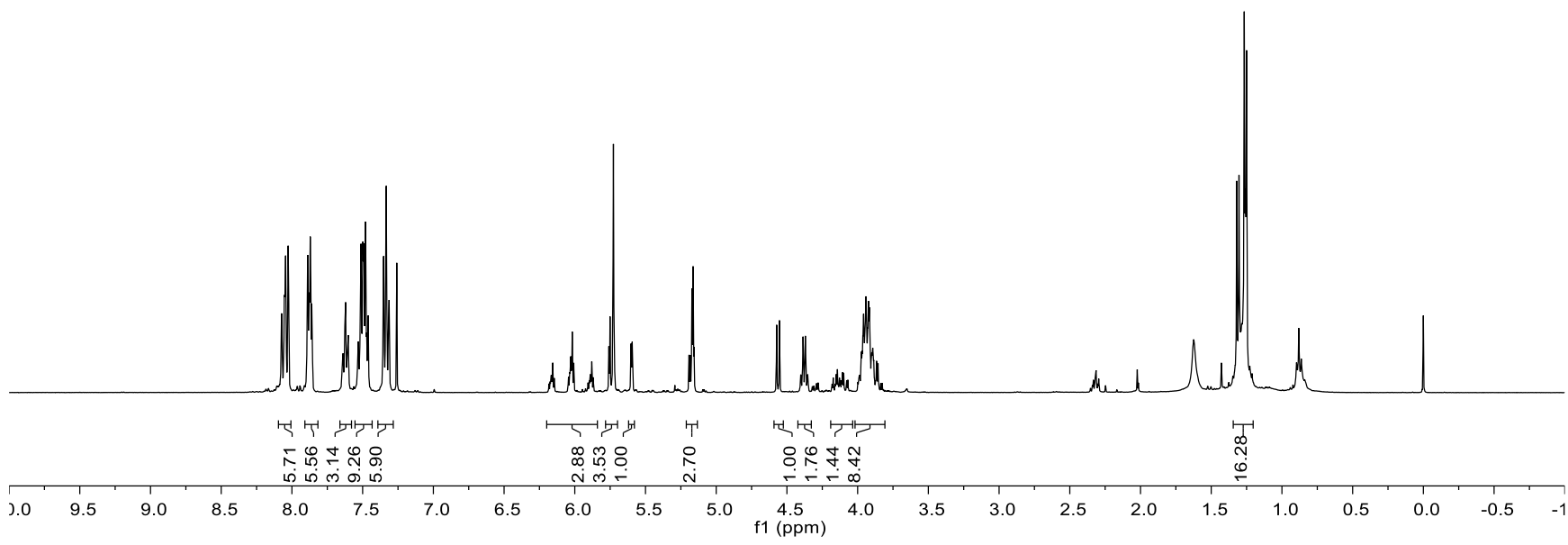
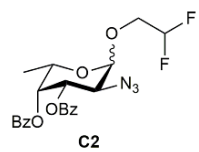


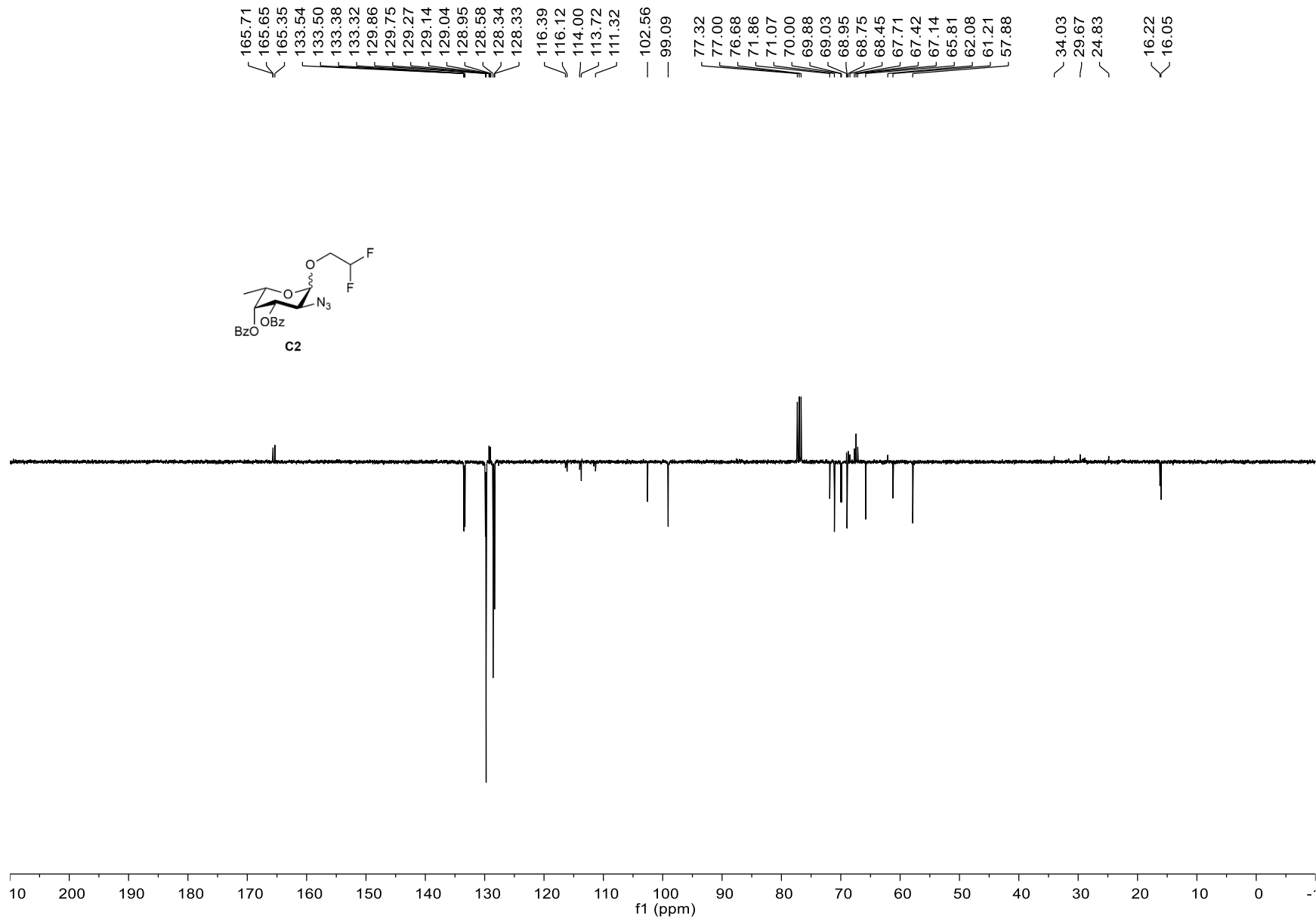
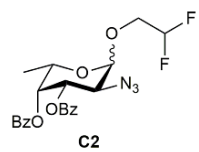


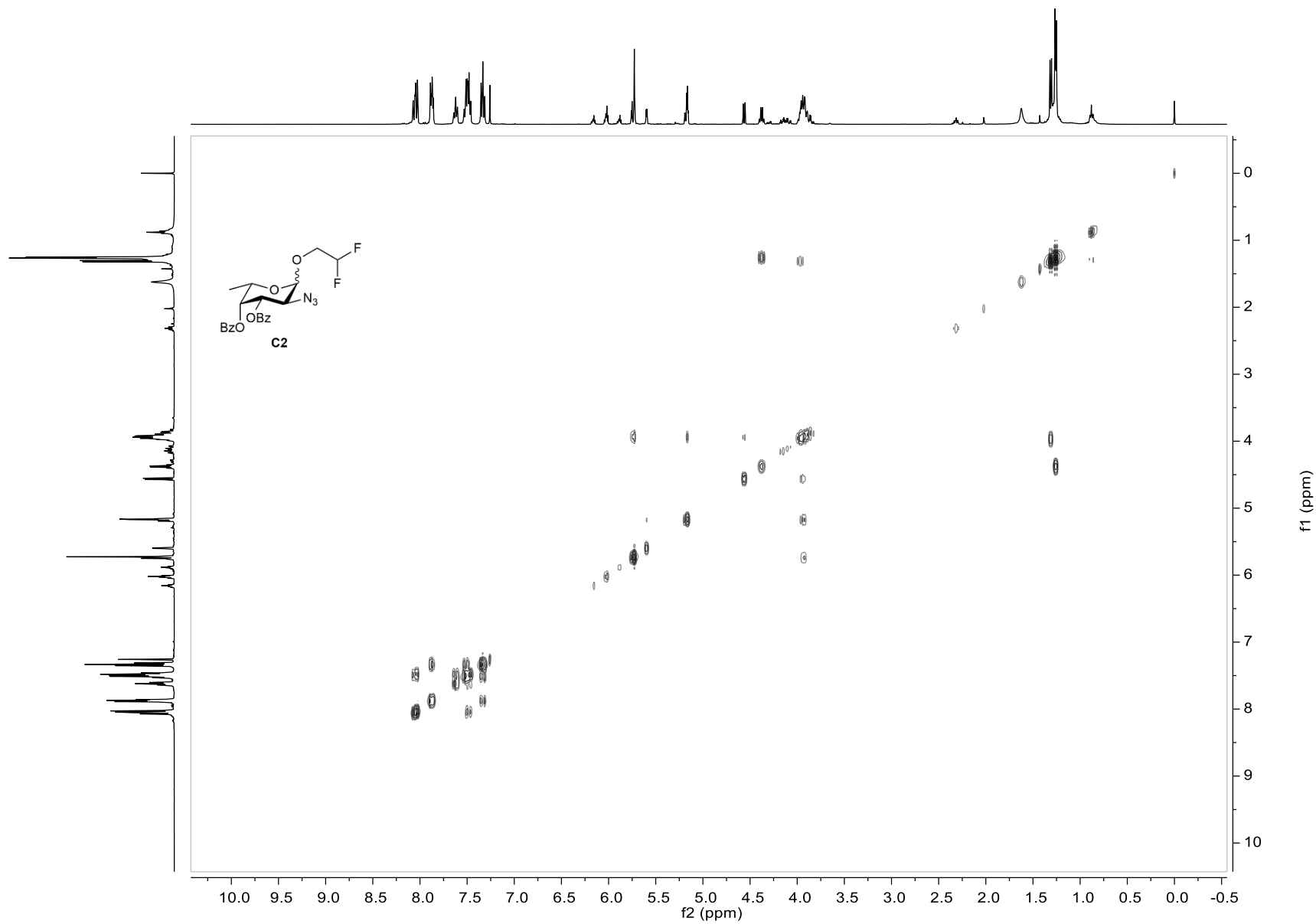


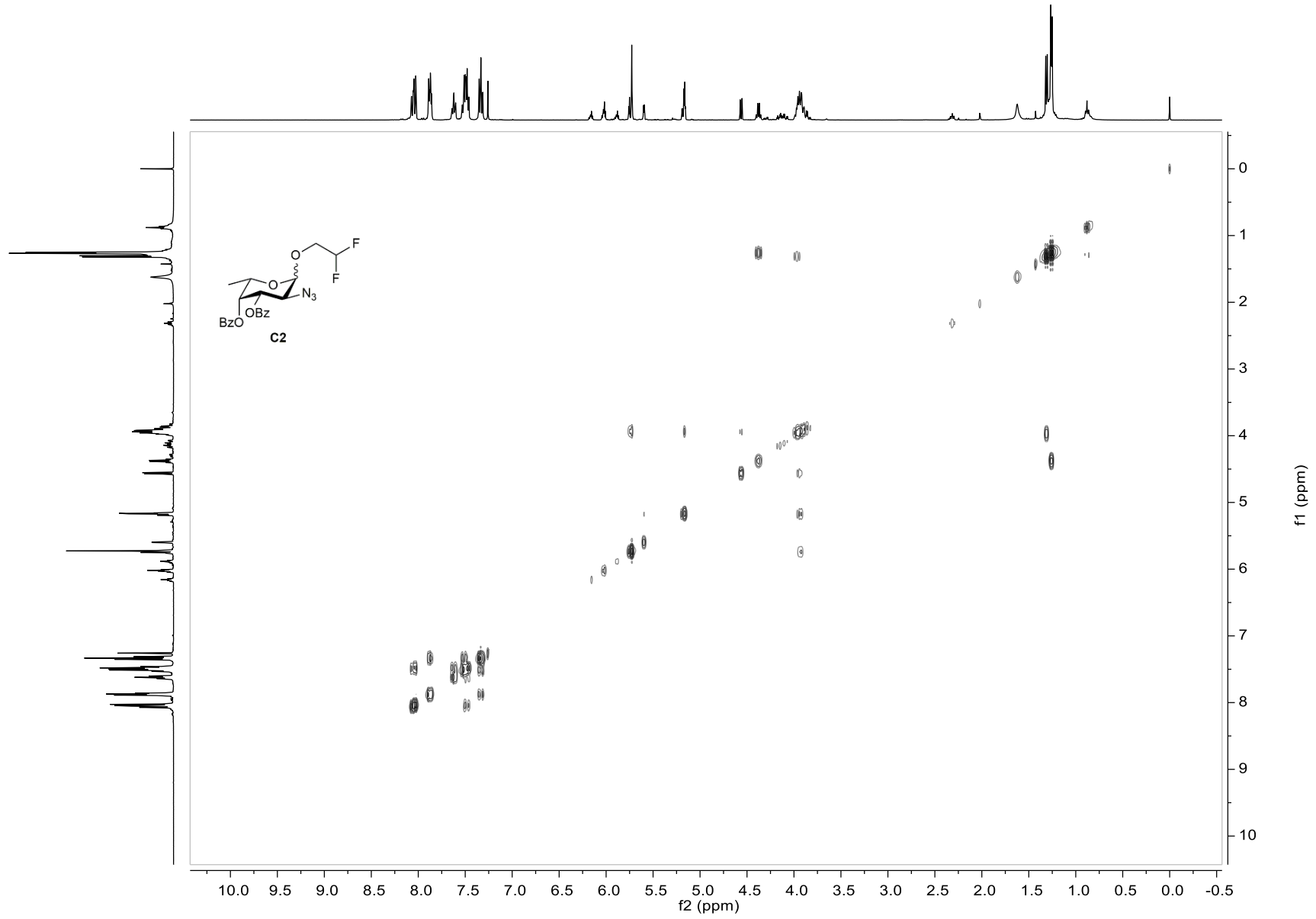


8.07  
8.05  
8.05  
8.05  
8.04  
8.03  
8.02  
7.89  
7.88  
7.87  
7.87  
7.86  
7.86  
7.64  
7.64  
7.63  
7.62  
7.61  
7.60  
7.60  
7.53  
7.53  
7.51  
7.50  
7.49  
7.49  
7.48  
7.47  
7.46  
7.35  
7.33  
7.31  
7.26  
7.26  
6.03  
6.02  
5.76  
5.75  
5.73  
5.60  
5.59  
5.19  
5.18  
5.17  
5.16  
5.16  
4.57  
4.55  
4.39  
4.37  
3.97  
3.97  
3.96  
3.96  
3.95  
3.94  
3.93  
3.92  
3.92  
3.90  
3.90  
3.89  
3.89  
1.62  
1.32  
1.30  
1.28  
1.27  
1.26  
1.25  
0.88  
0.86  
0.00

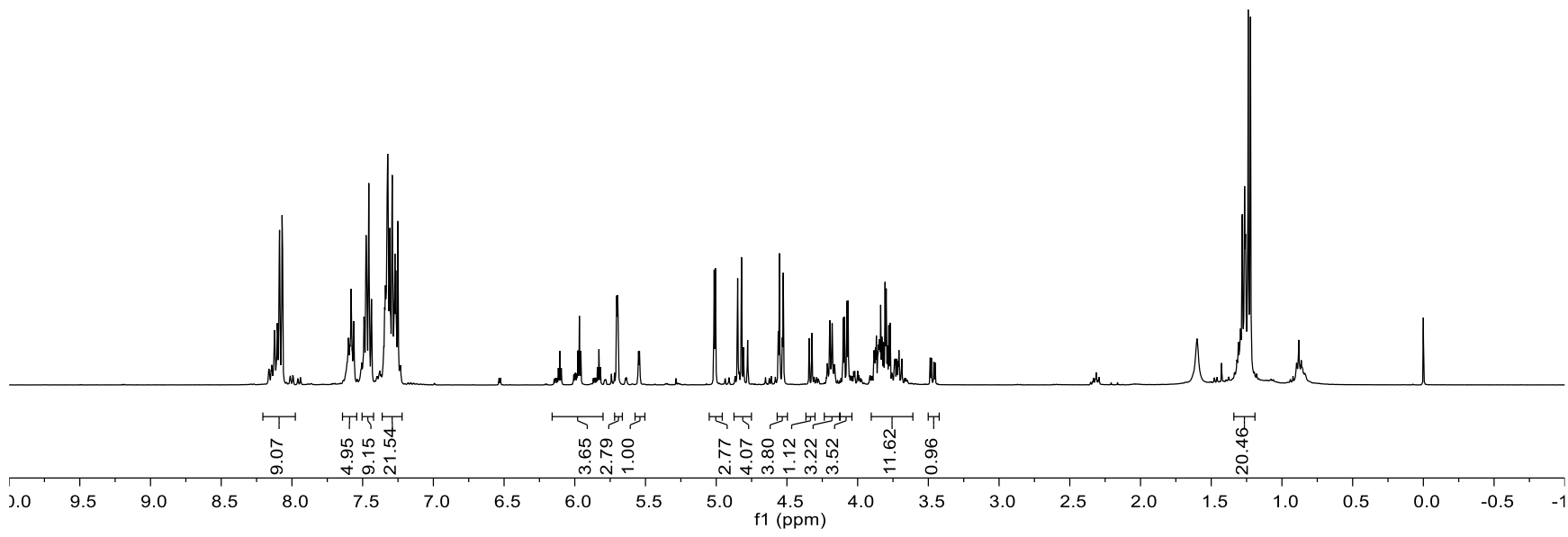
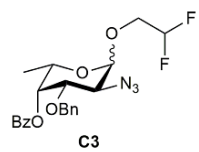


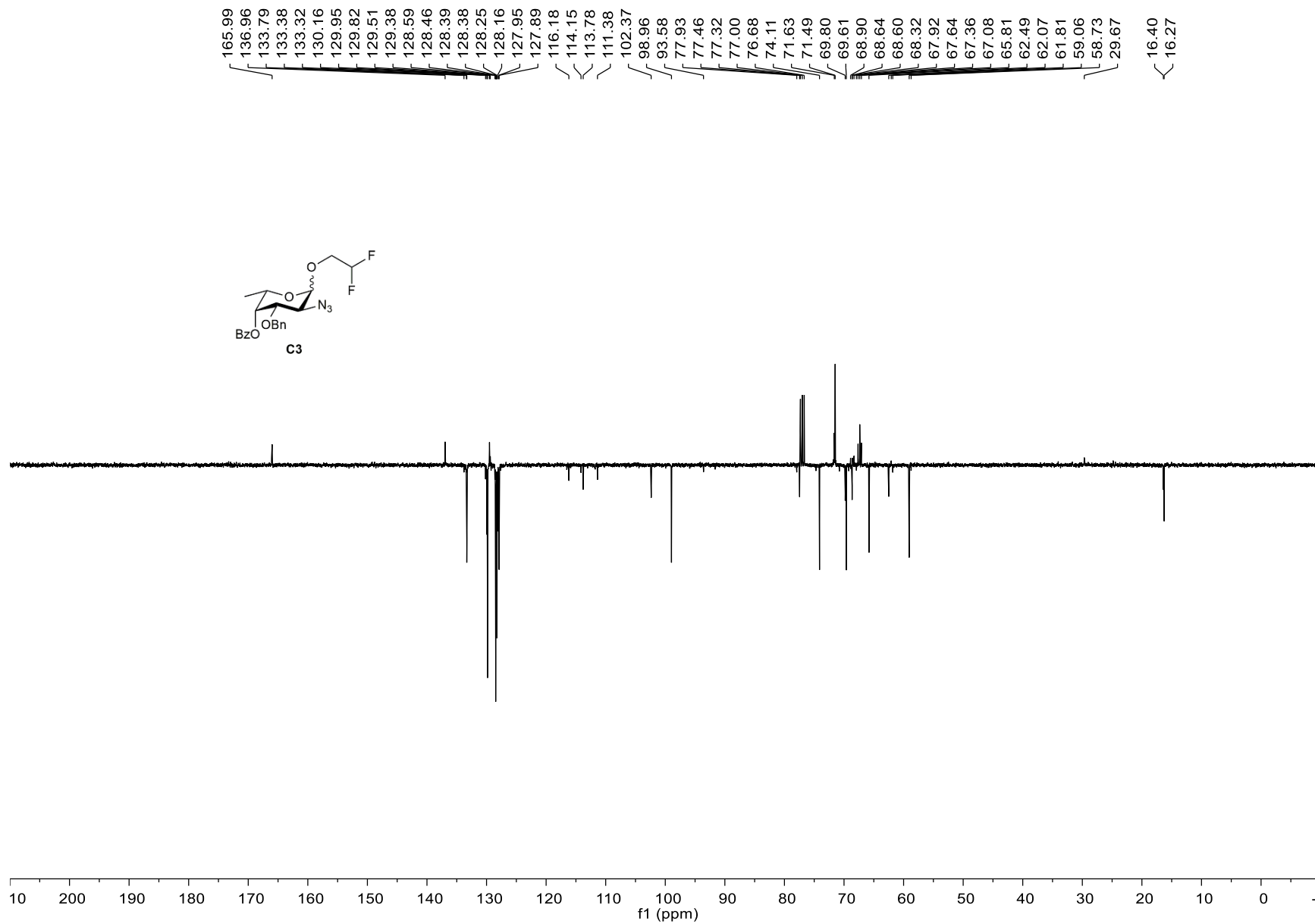
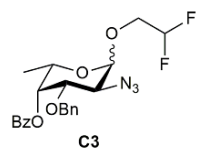


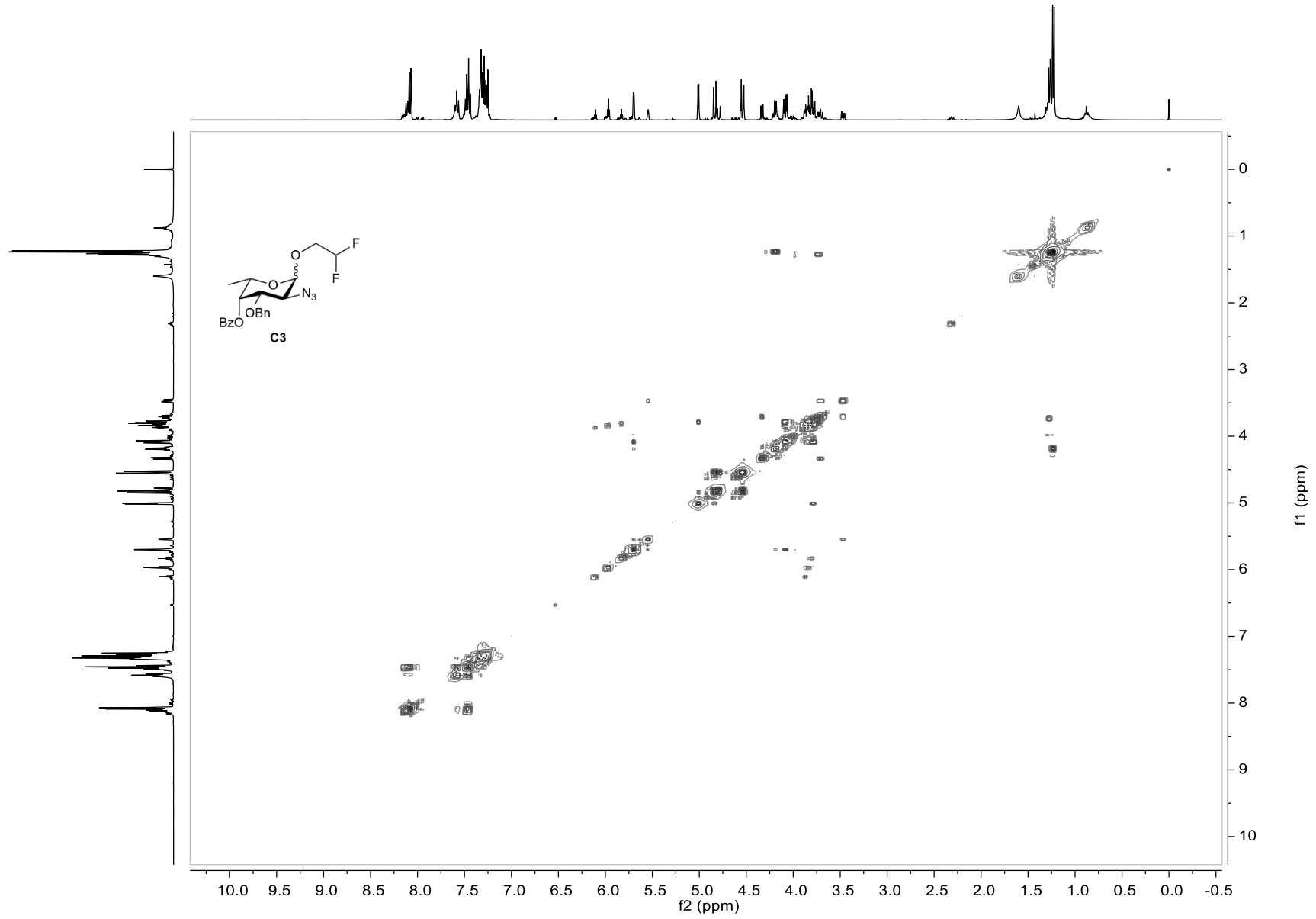


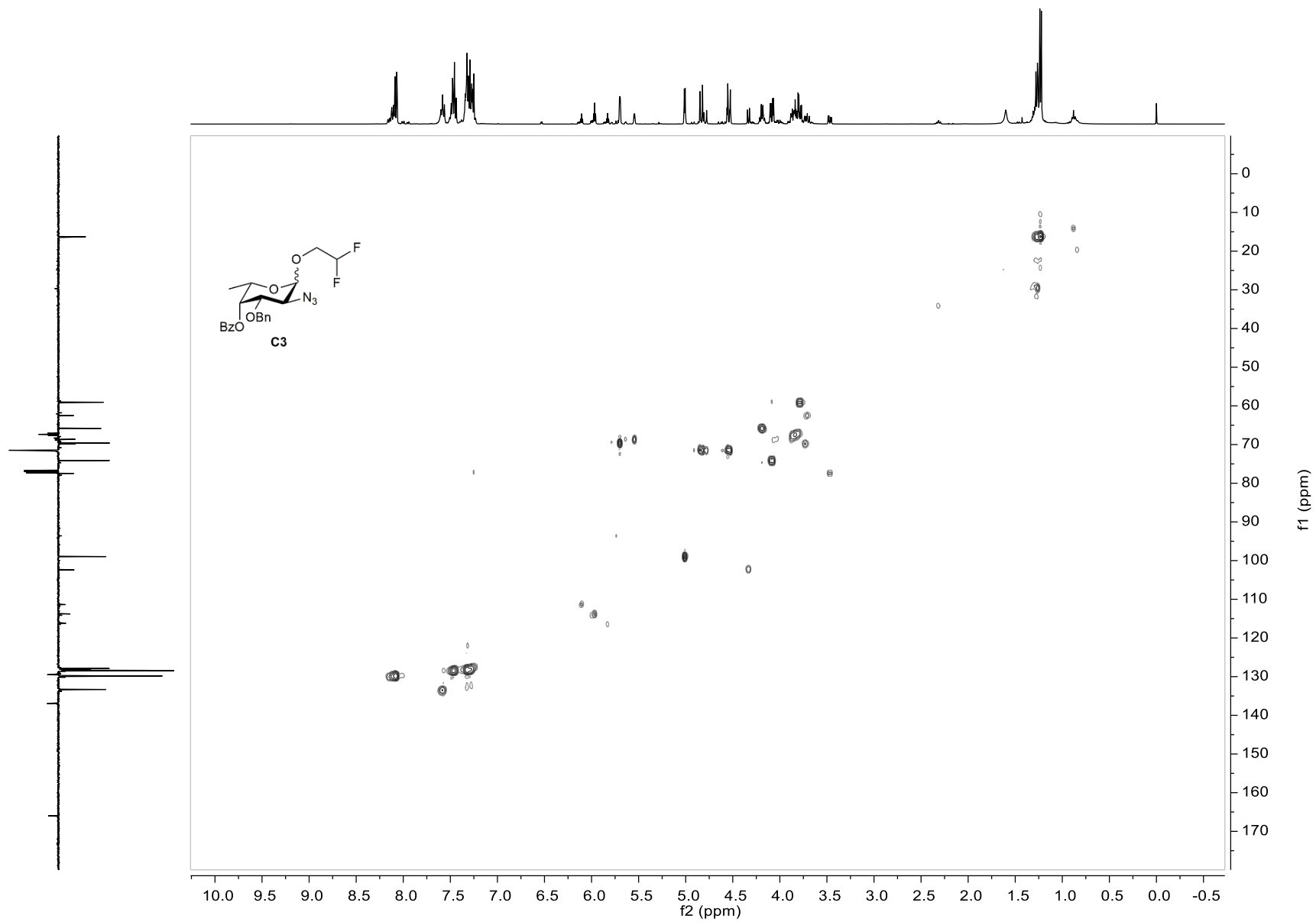


8.12  
8.10  
8.10  
8.09  
8.07  
8.07  
7.60  
7.60  
7.59  
7.59  
7.58  
7.56  
7.49  
7.48  
7.47  
7.46  
7.44  
7.34  
7.34  
7.33  
7.32  
7.31  
7.31  
7.30  
7.29  
7.27  
7.27  
7.26  
7.25  
5.97  
5.70  
5.70  
5.01  
5.01  
4.85  
4.82  
4.78  
4.56  
4.55  
4.53  
4.53  
4.34  
4.32  
4.20  
4.18  
4.10  
4.09  
4.08  
4.07  
3.87  
3.85  
3.85  
3.84  
3.84  
3.83  
3.82  
3.82  
3.81  
3.80  
3.78  
3.77  
1.60  
1.31  
1.29  
1.28  
1.26  
1.26  
1.24  
1.23  
1.22  
0.88  
0.00



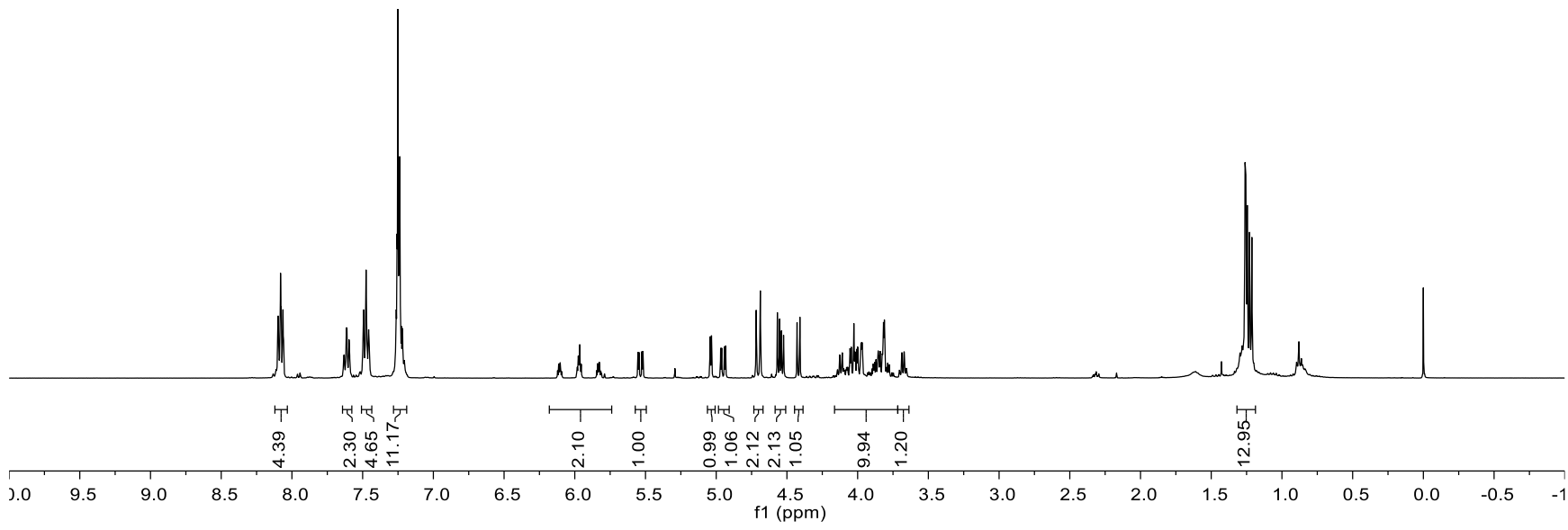
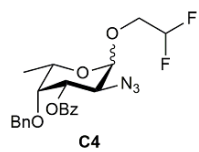




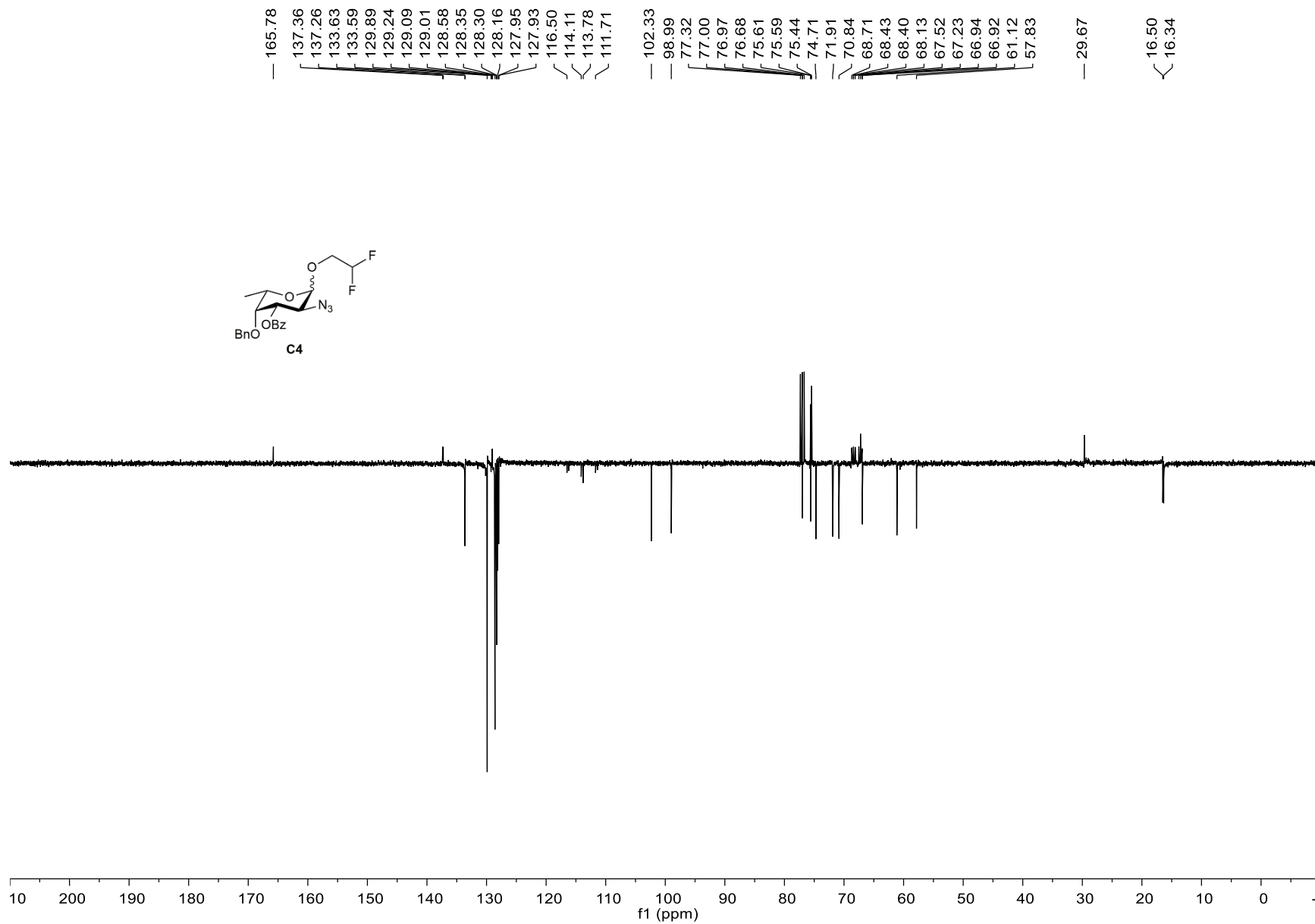
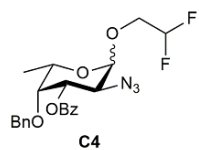


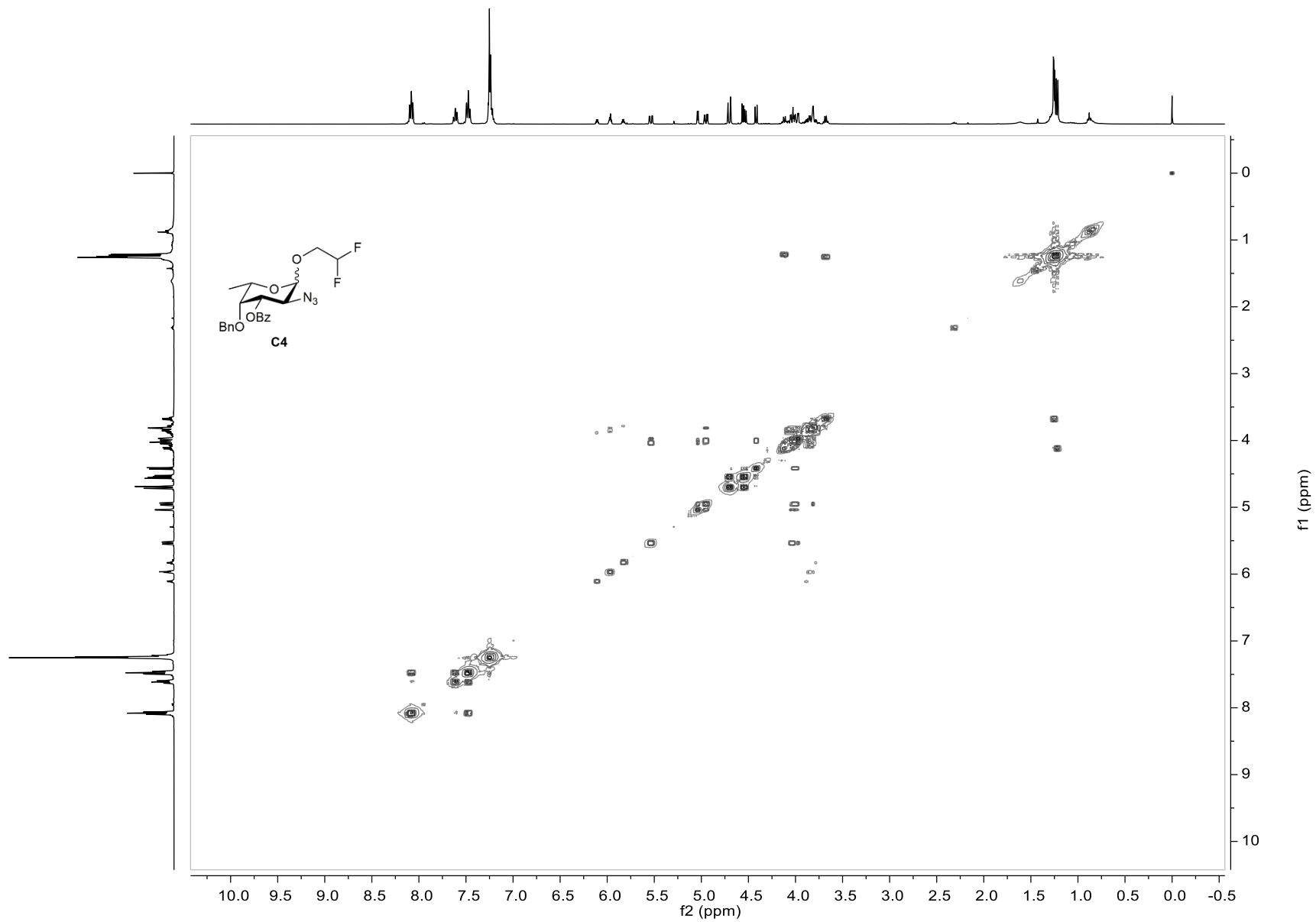


8.10  
8.10  
8.08  
8.08  
8.08  
8.06  
8.06  
7.61  
7.61  
7.60  
7.59  
7.50  
7.49  
7.48  
7.46  
7.45  
7.26  
7.26  
7.25  
7.24  
7.24  
7.23  
7.22  
7.22  
5.96  
5.55  
5.55  
5.53  
5.52  
5.04  
5.03  
4.97  
4.96  
4.94  
4.93  
4.72  
4.69  
4.57  
4.55  
4.54  
4.52  
4.43  
4.41  
4.41  
4.05  
4.05  
4.03  
4.02  
4.01  
4.00  
3.98  
3.97  
3.97  
3.85  
3.84  
3.83  
3.82  
3.81  
3.69  
3.67  
3.67  
1.28  
1.27  
1.26  
1.26  
1.25  
1.23  
1.21  
0.88  
0.00

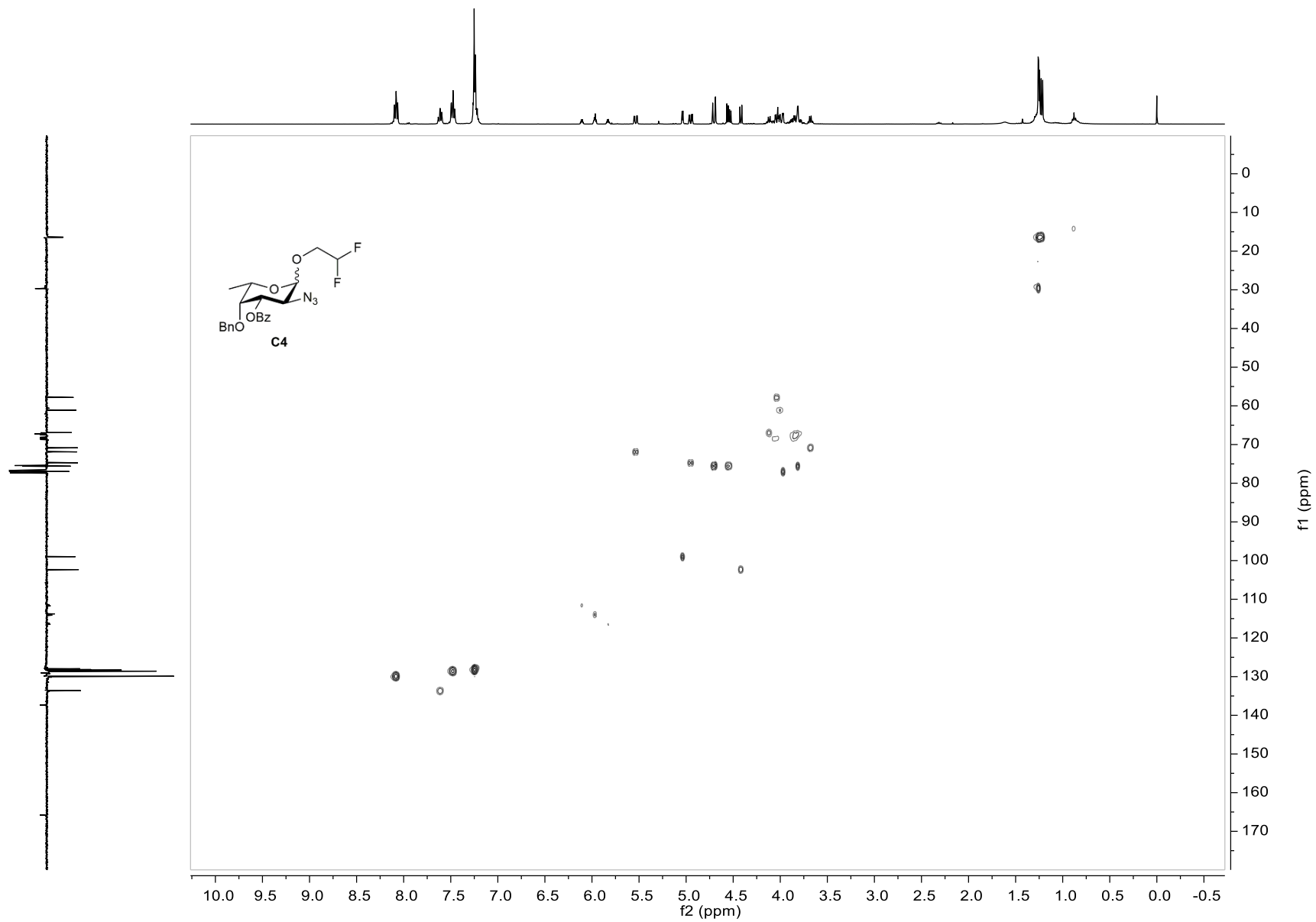


S101

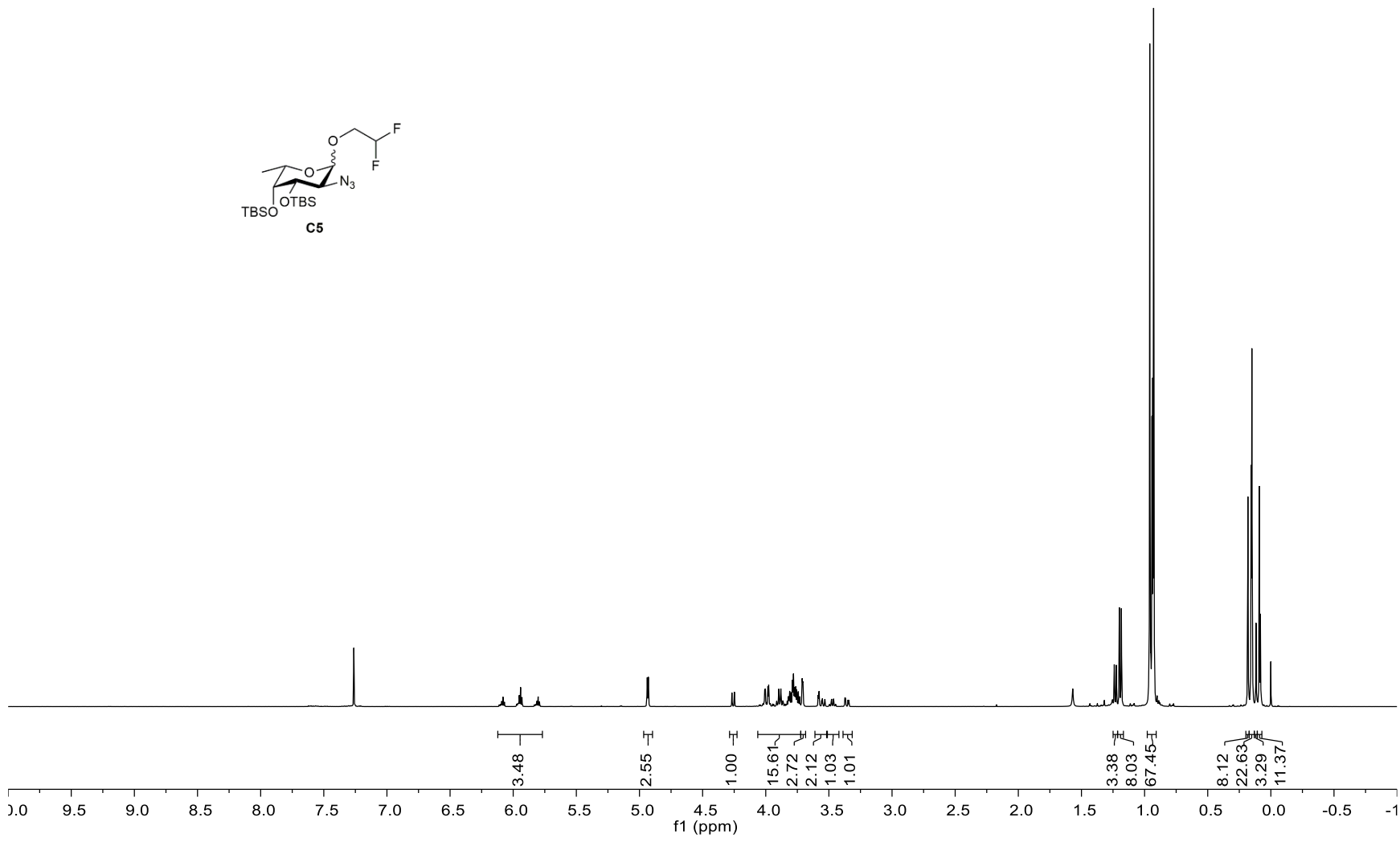
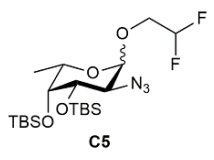


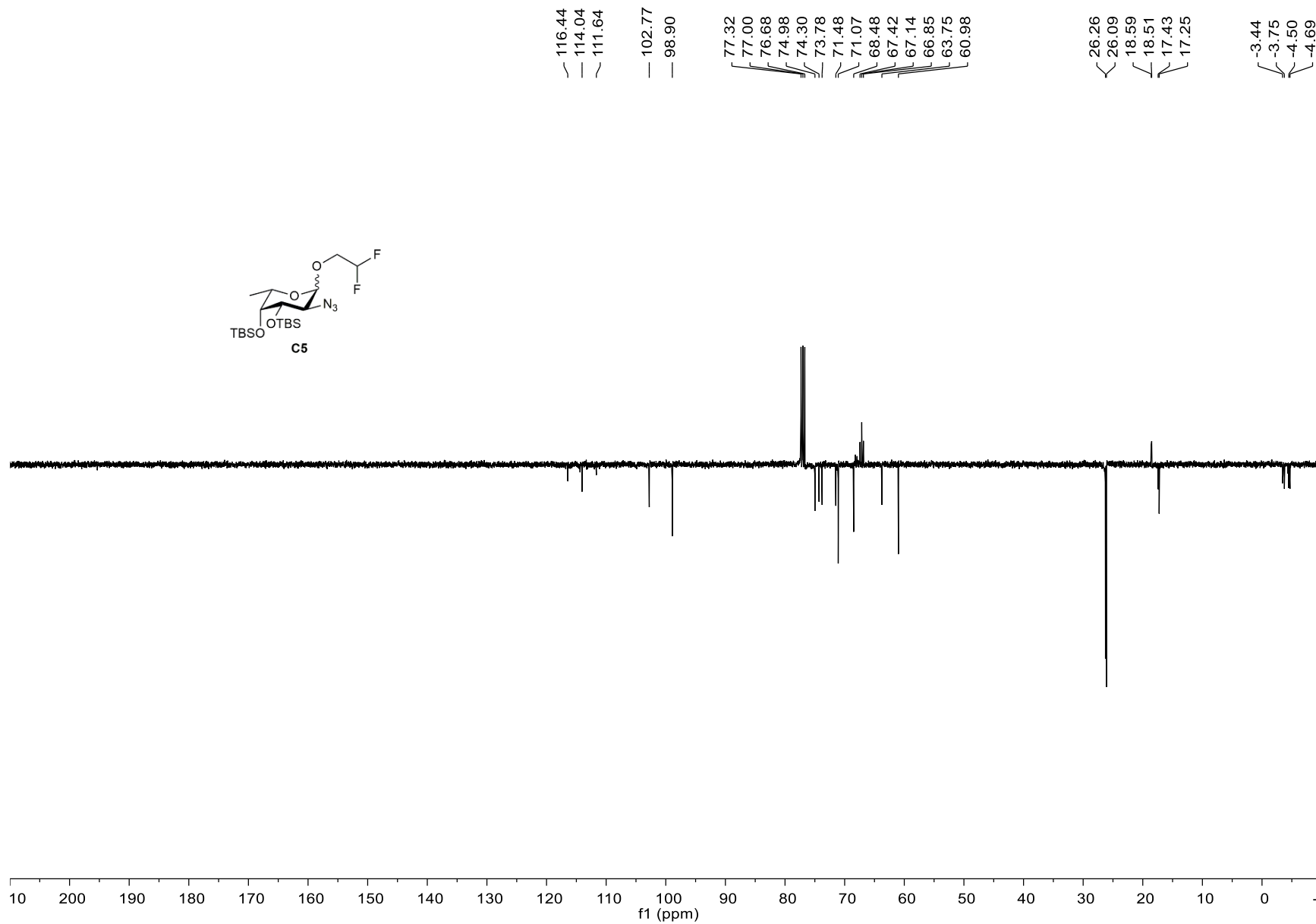
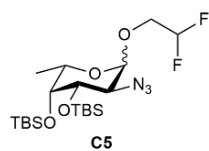


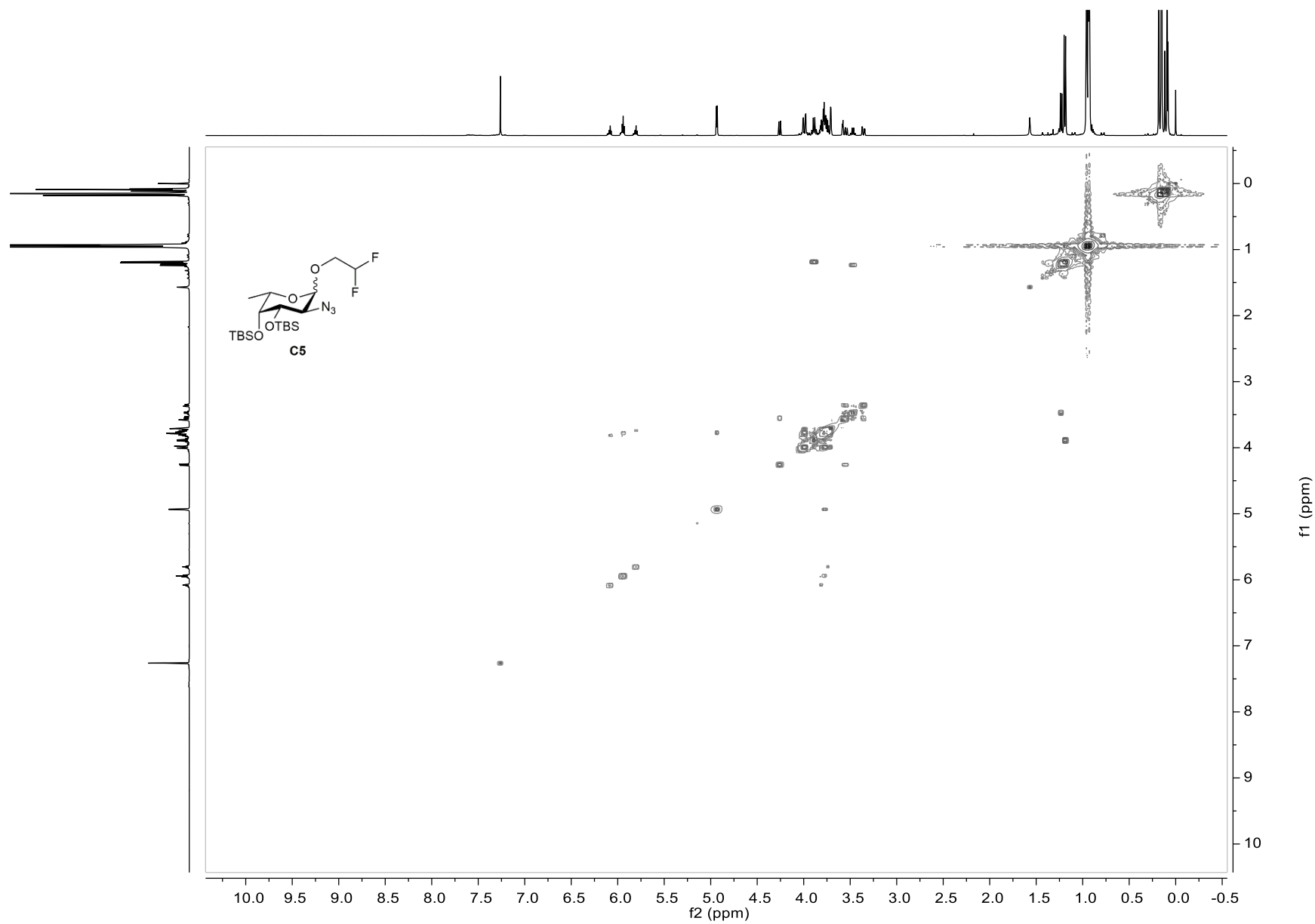
S103



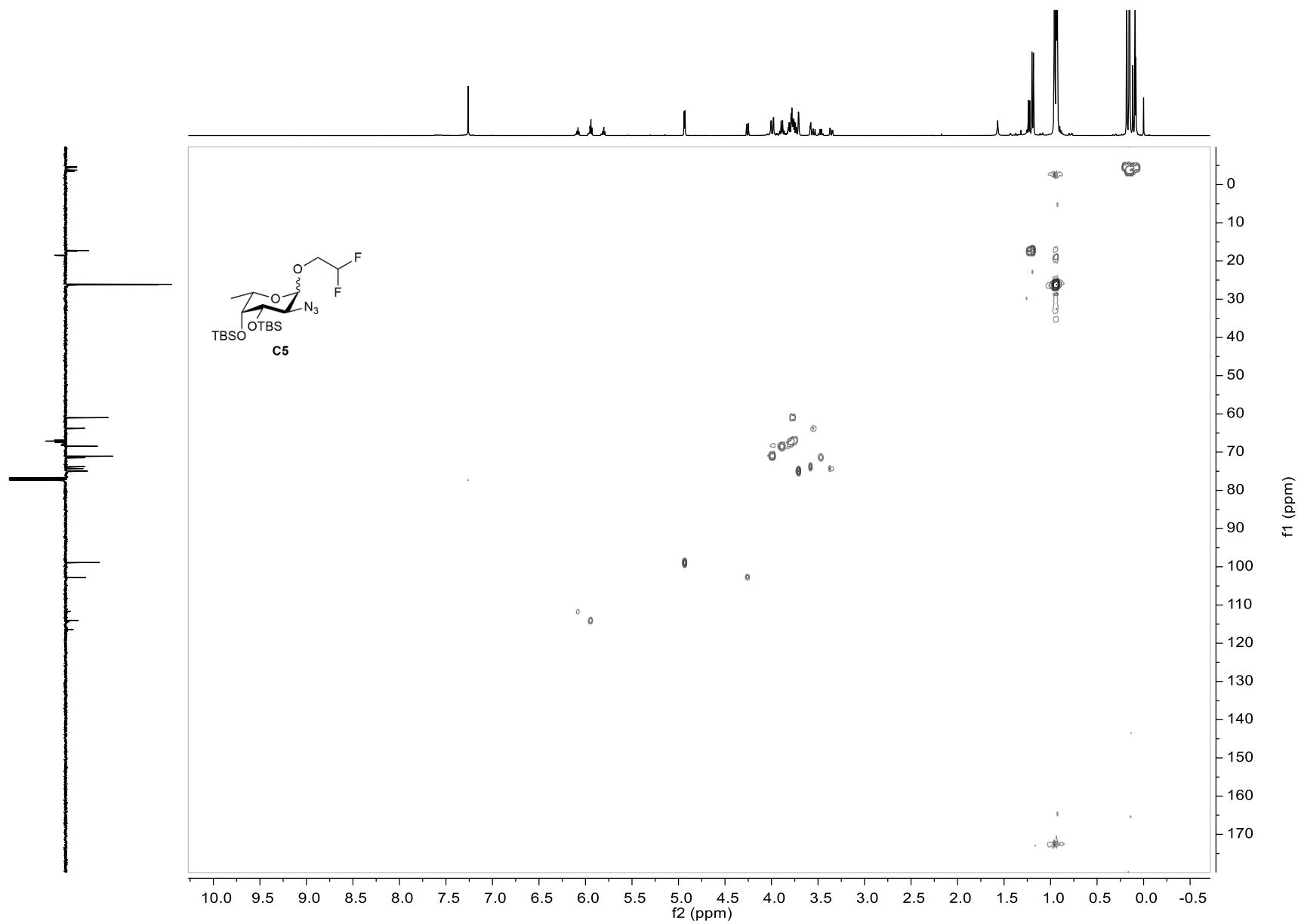
7.26  
6.09  
6.08  
6.07  
5.96  
5.95  
5.94  
5.93  
5.81  
5.80  
5.79  
4.94  
4.93  
4.27  
4.25  
4.01  
4.00  
3.99  
3.98  
3.98  
3.91  
3.90  
3.88  
3.86  
3.83  
3.82  
3.82  
3.81  
3.80  
3.79  
3.78  
3.77  
3.76  
3.75  
3.74  
3.73  
3.71  
3.71  
3.58  
3.58  
3.56  
3.55  
3.53  
3.48  
3.46  
3.37  
3.37  
3.35  
3.34  
1.57  
1.32  
1.25  
1.24  
1.22  
1.20  
1.20  
1.18  
0.96  
0.95  
0.94  
0.94  
0.93  
0.90  
0.89  
0.88  
0.18  
0.16  
0.15  
0.12  
0.11  
0.09  
0.08  
0.00



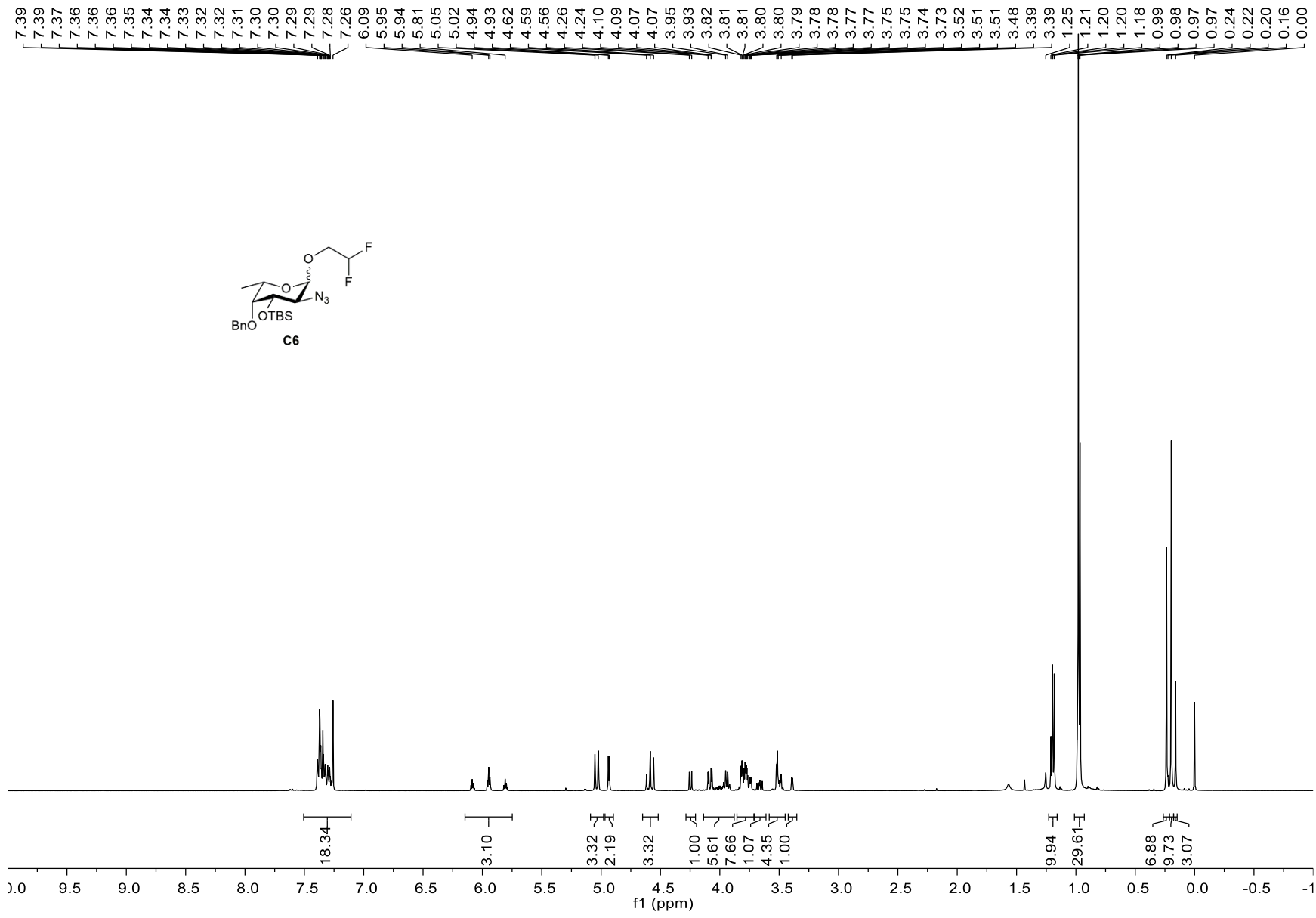


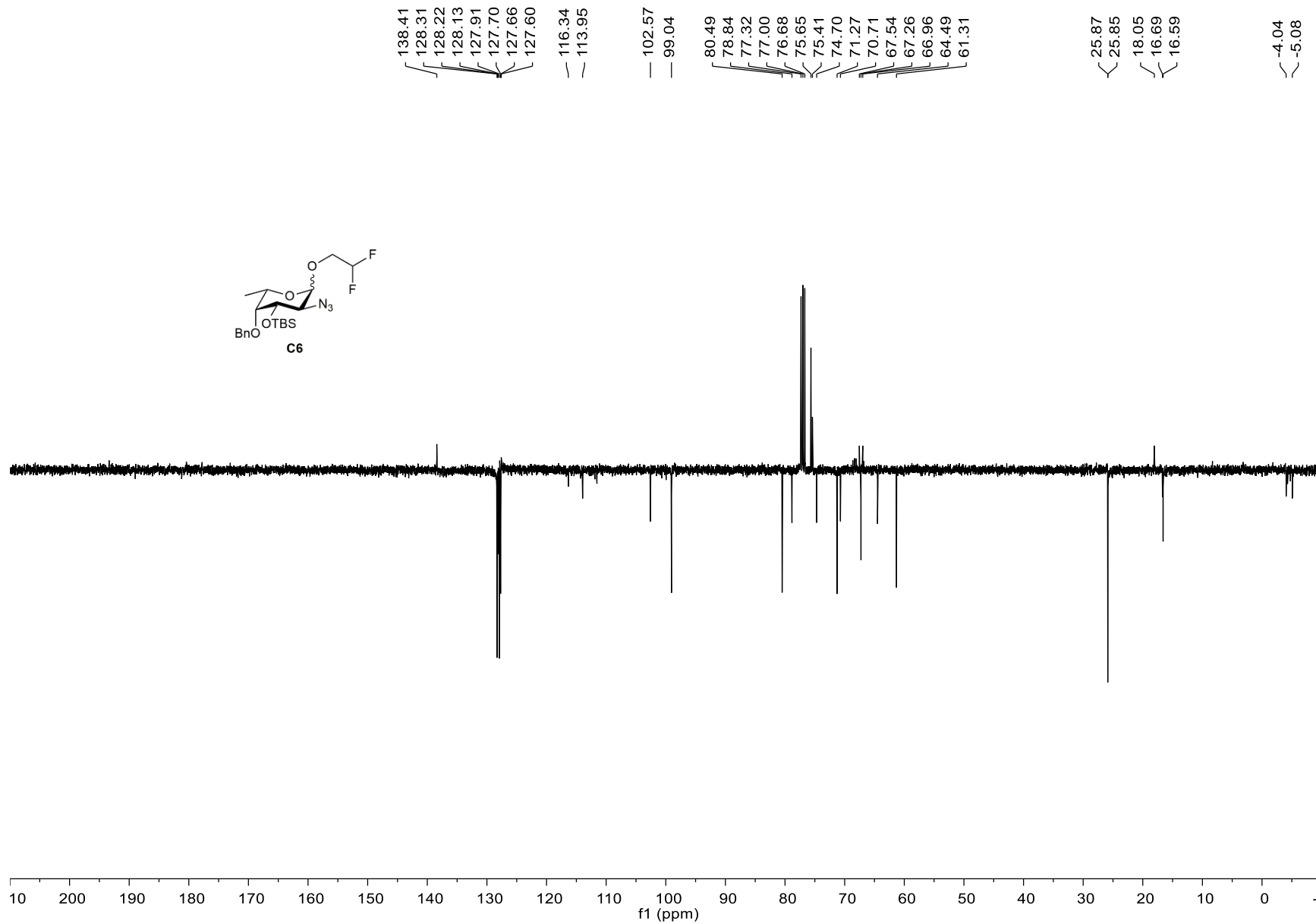
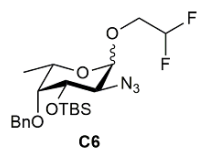


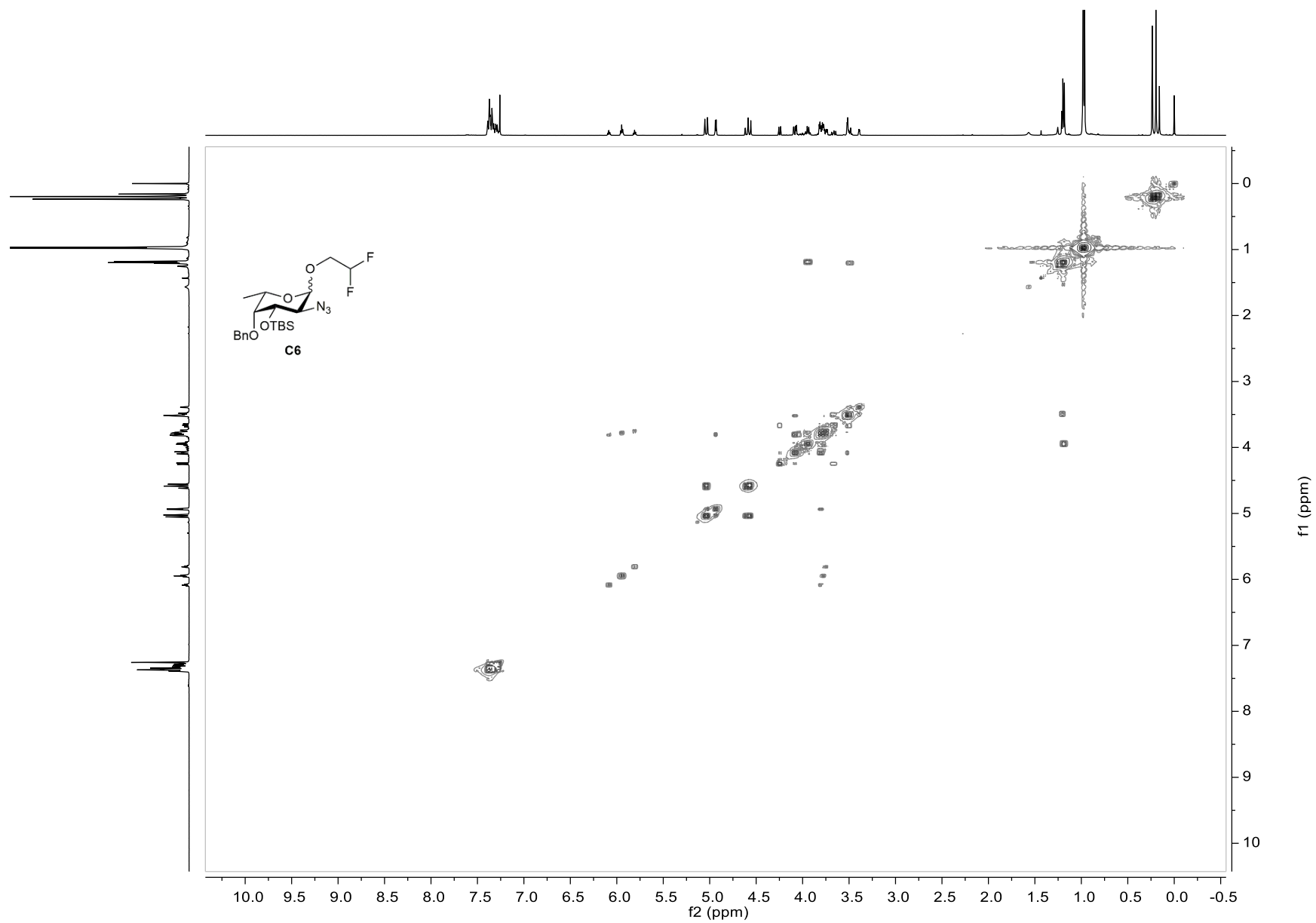
S107

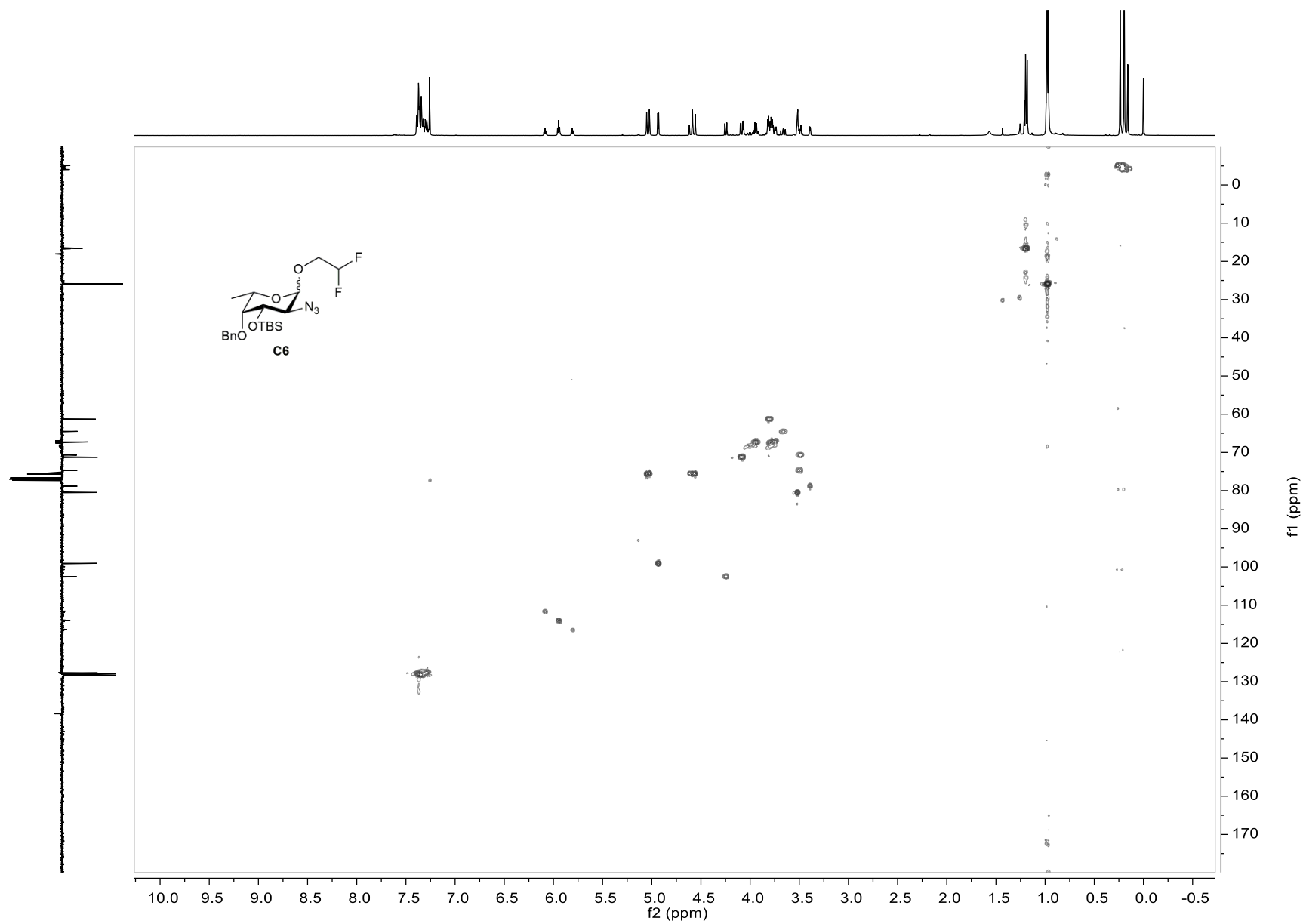


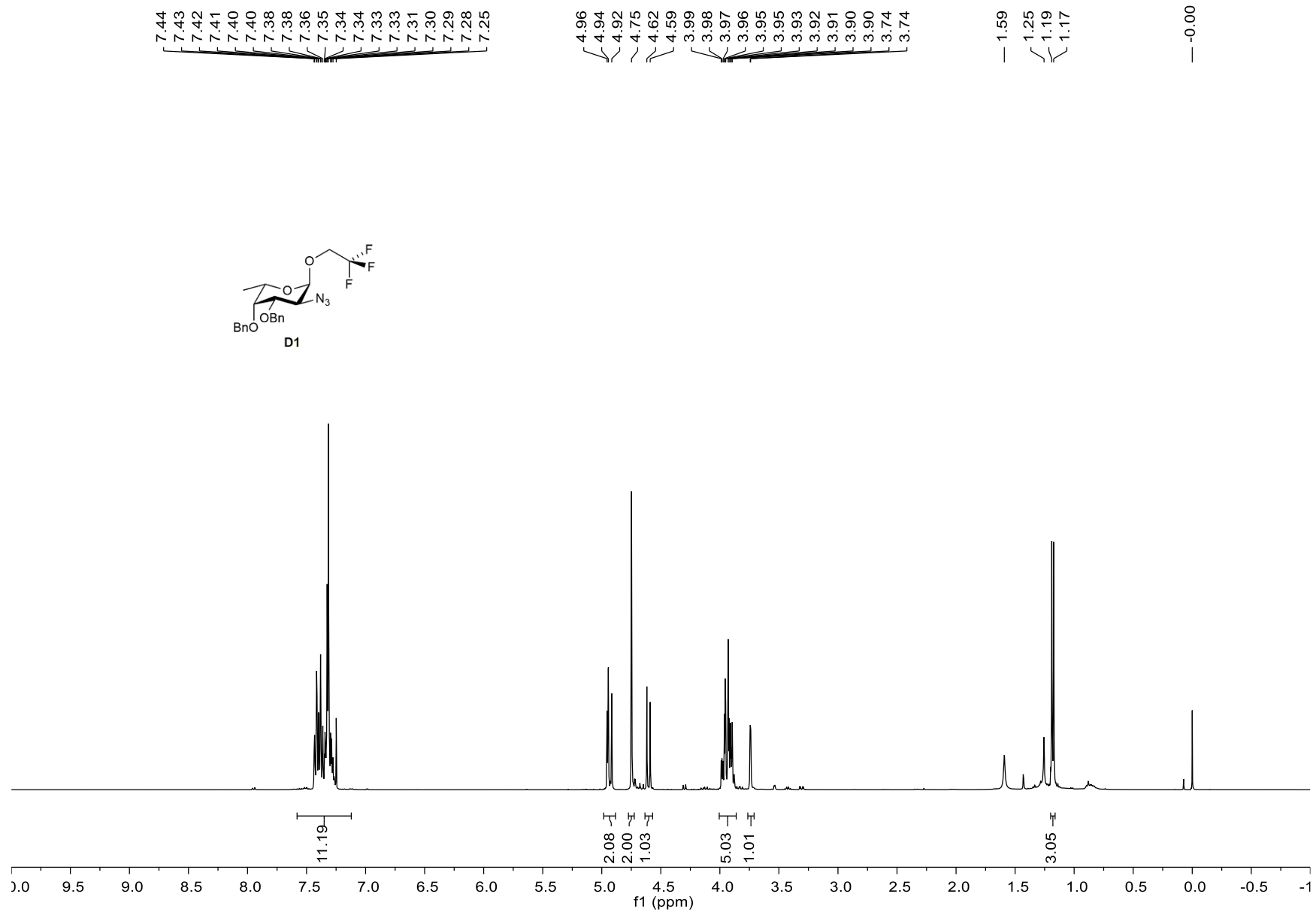


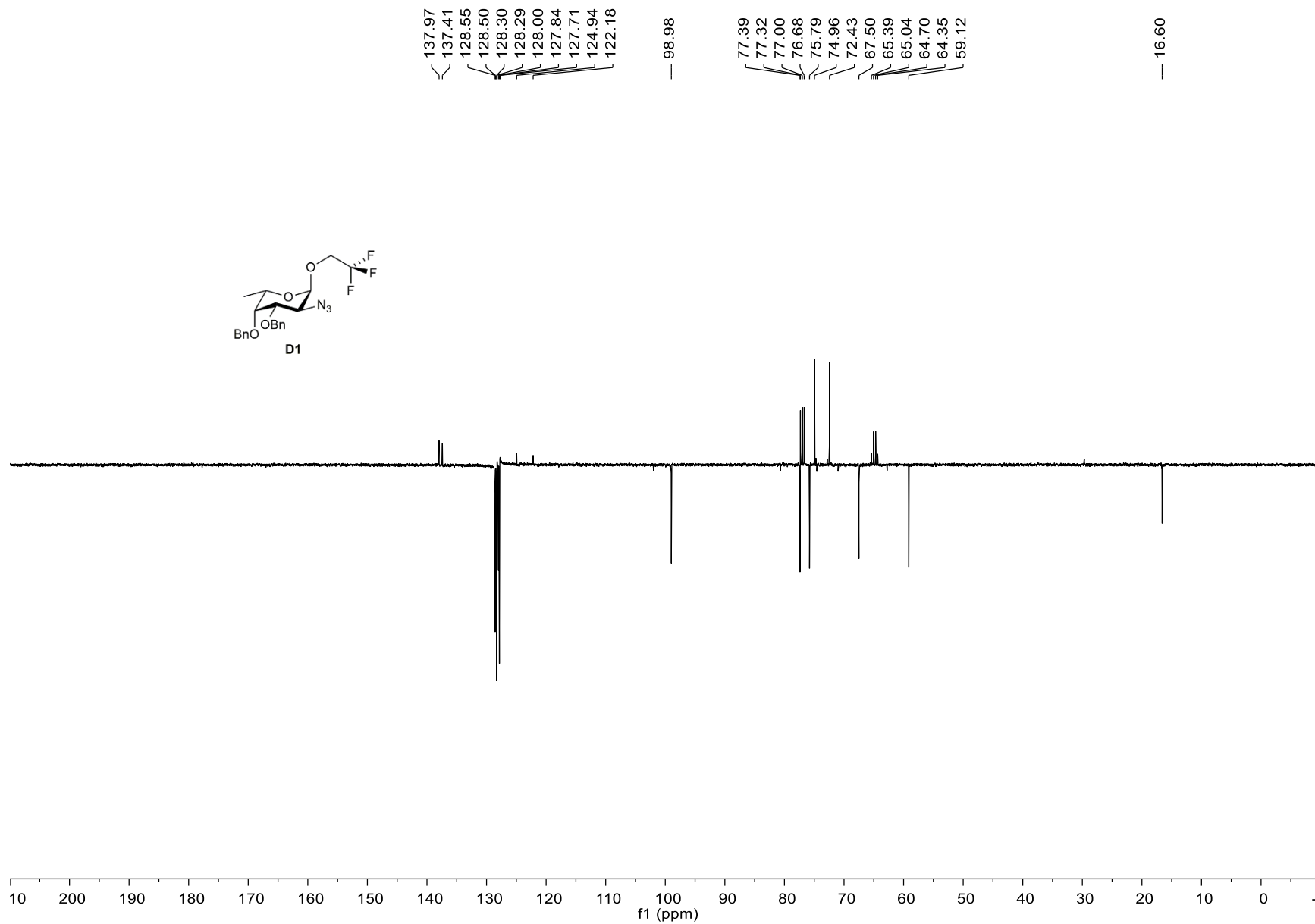
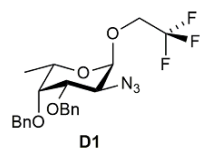


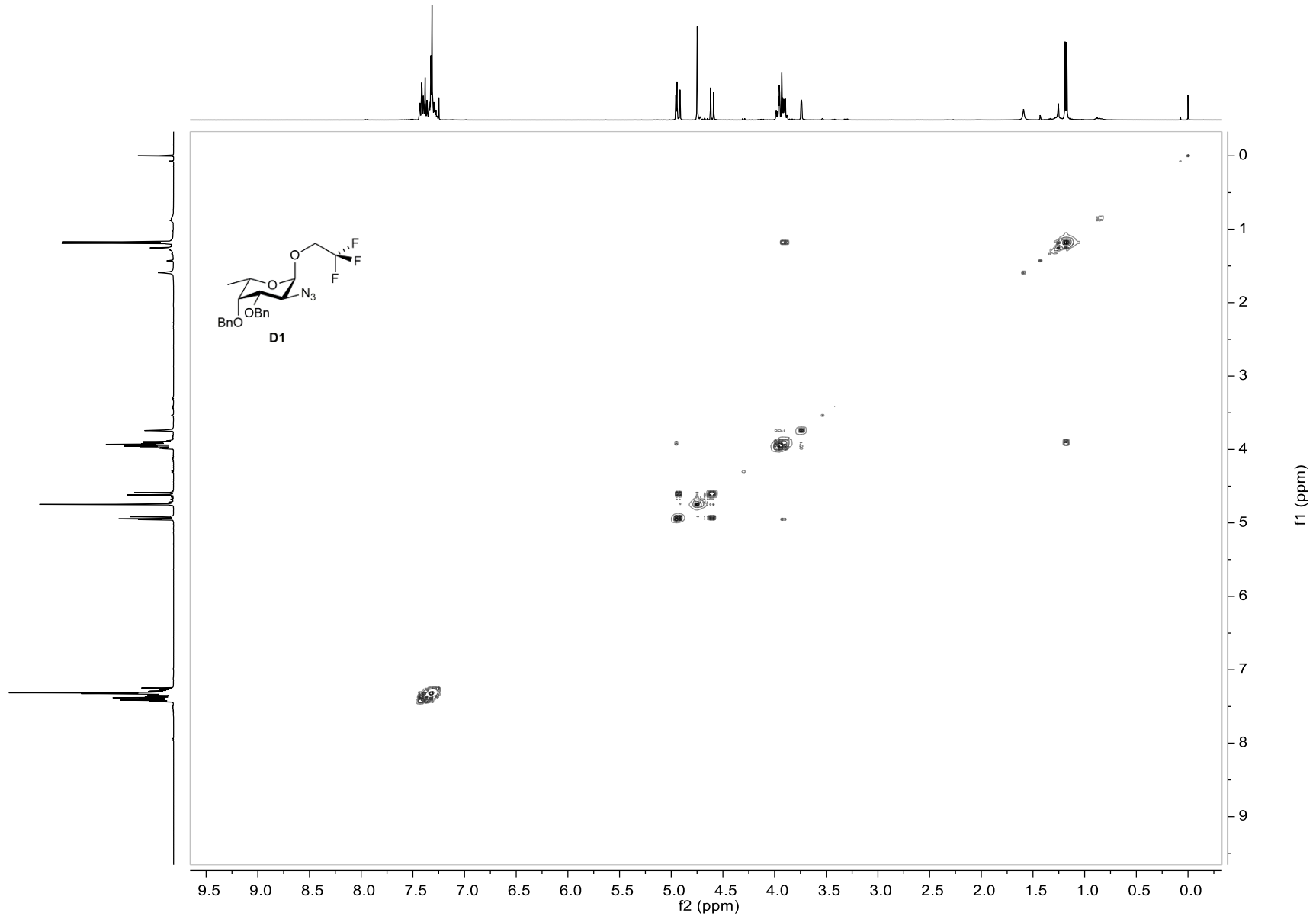




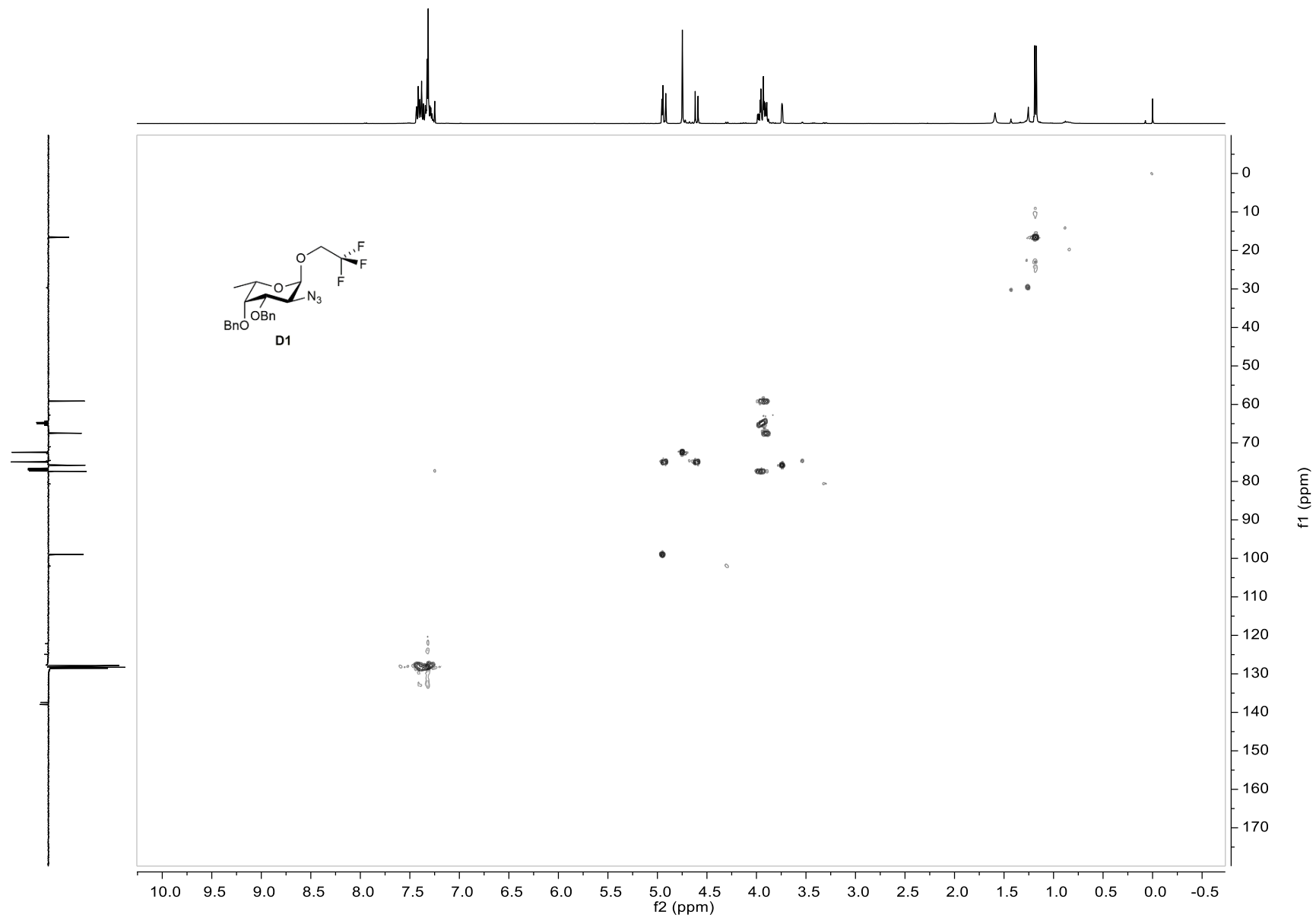








S115





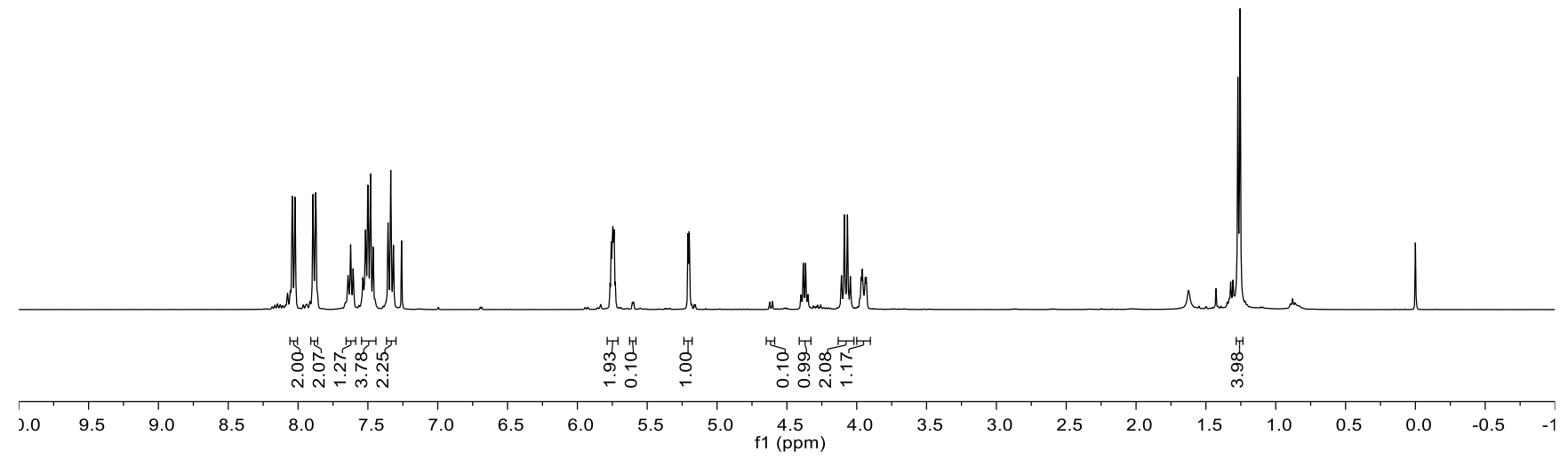
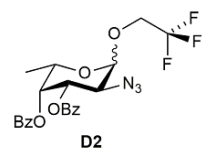
8.04  
8.02  
7.89  
7.87  
7.64  
7.62  
7.61  
7.54  
7.52  
7.50  
7.48  
7.46  
7.36  
7.34  
7.32  
7.26

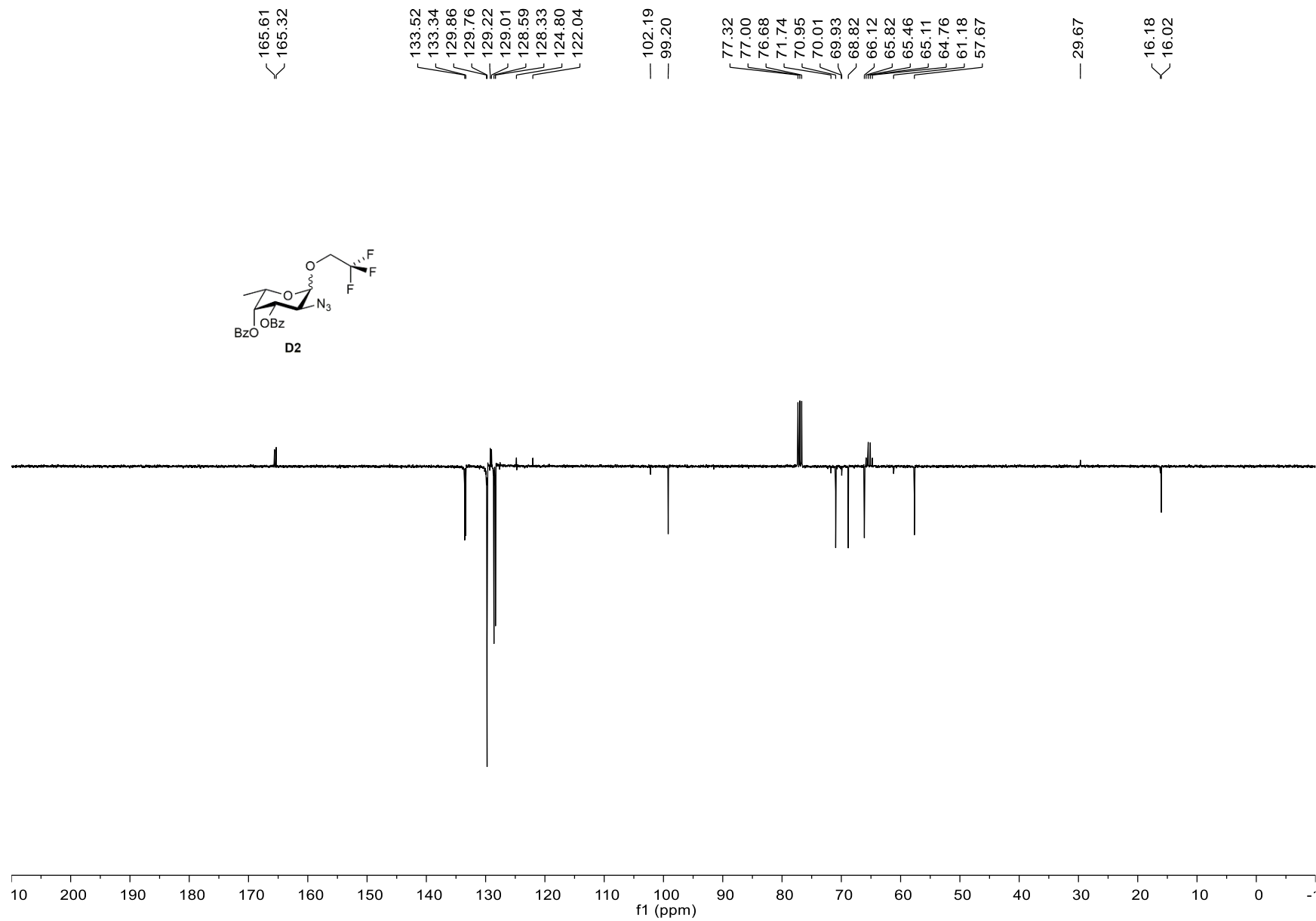
5.76  
5.75  
5.74  
5.21  
5.20

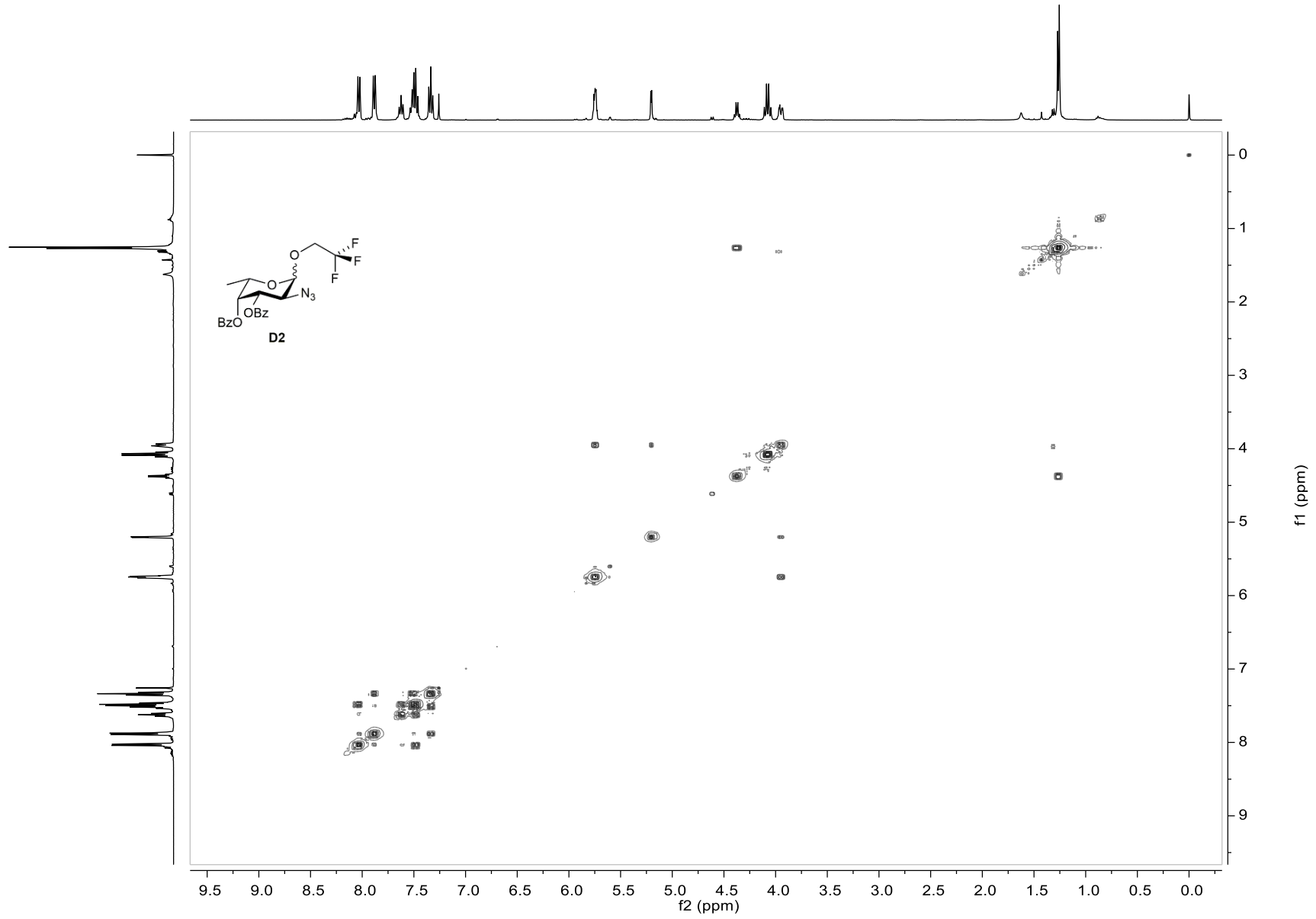
4.38  
4.37  
4.11  
4.09  
4.07  
4.05  
3.97  
3.96  
3.94  
3.93

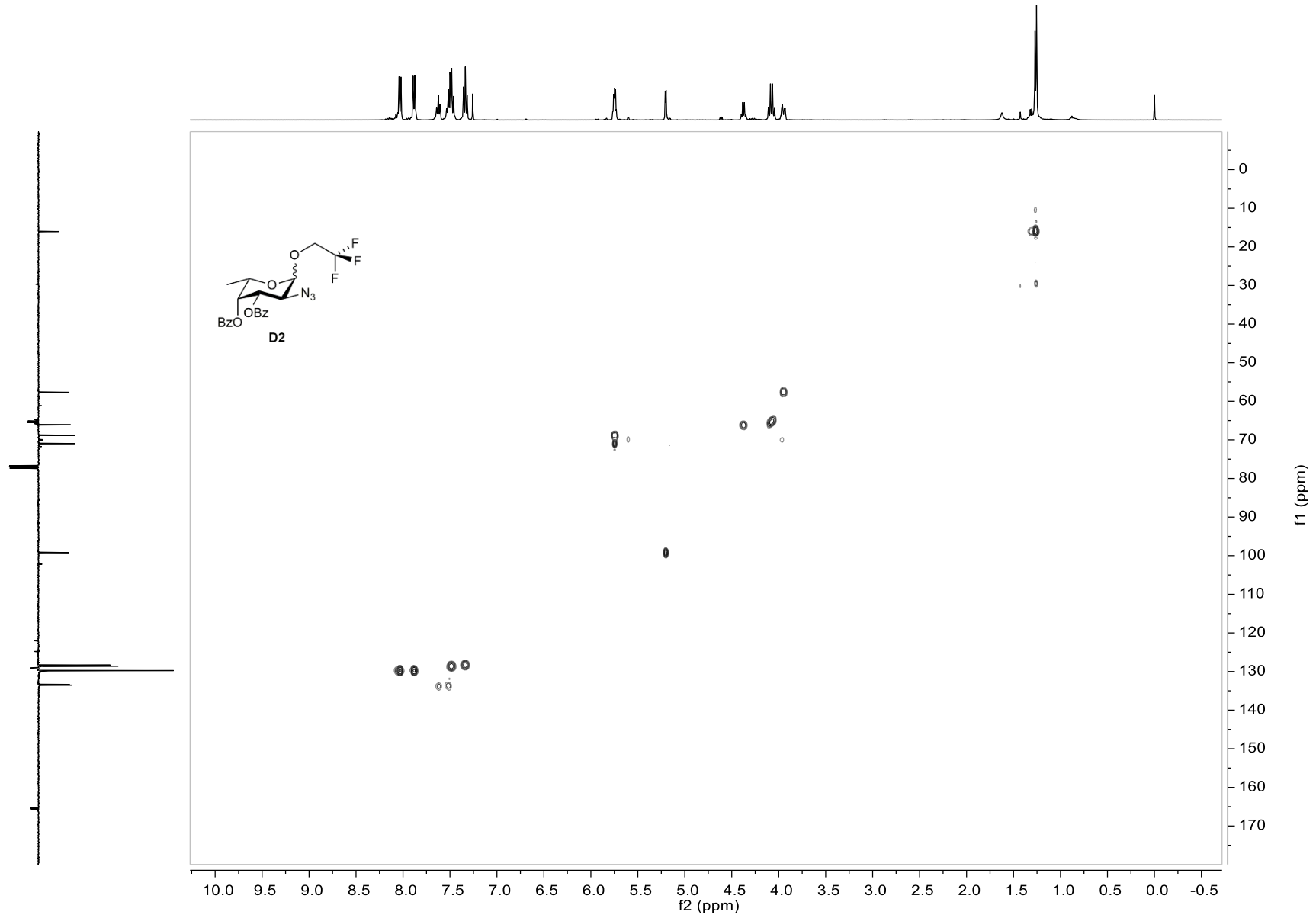
1.27  
1.26

-0.00

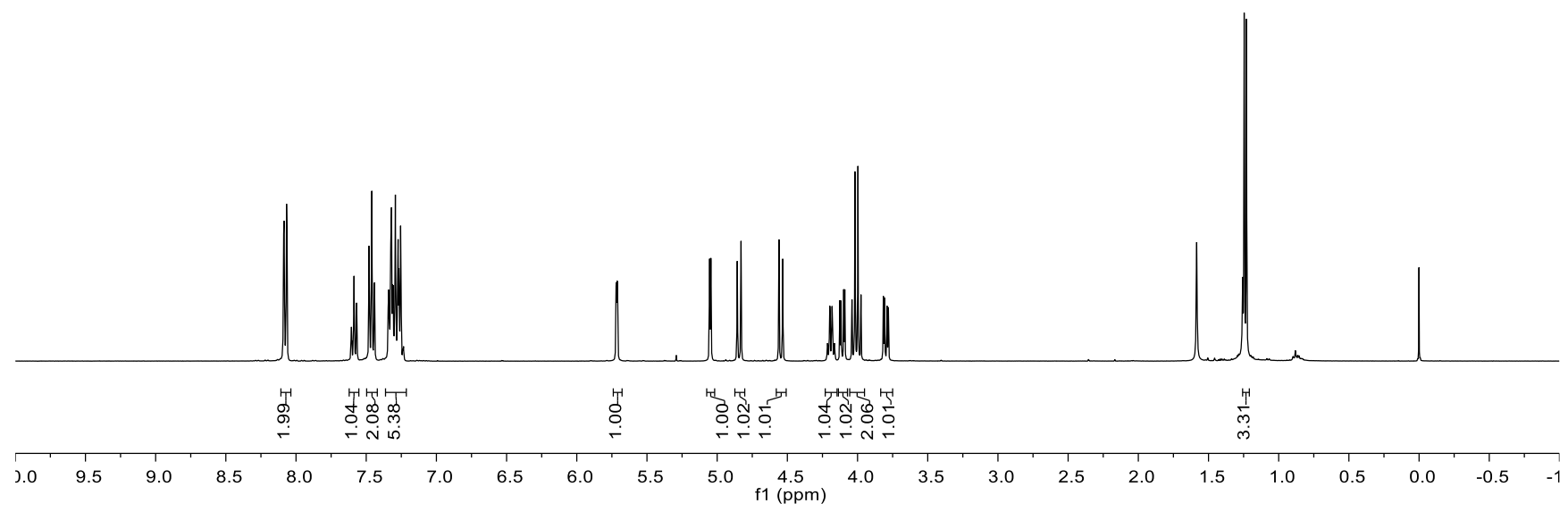
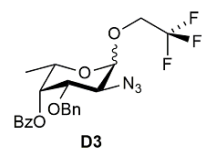




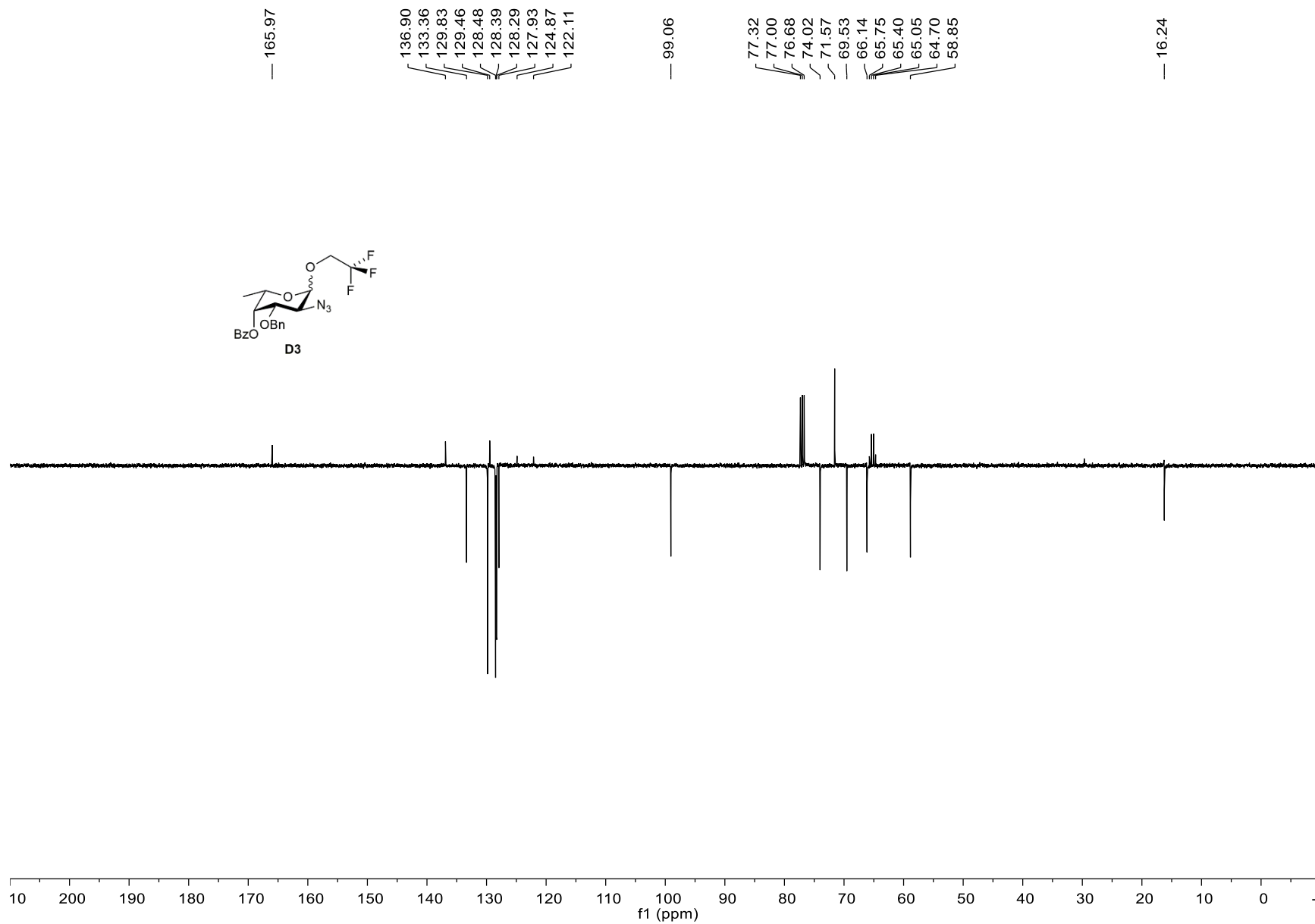
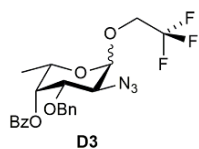


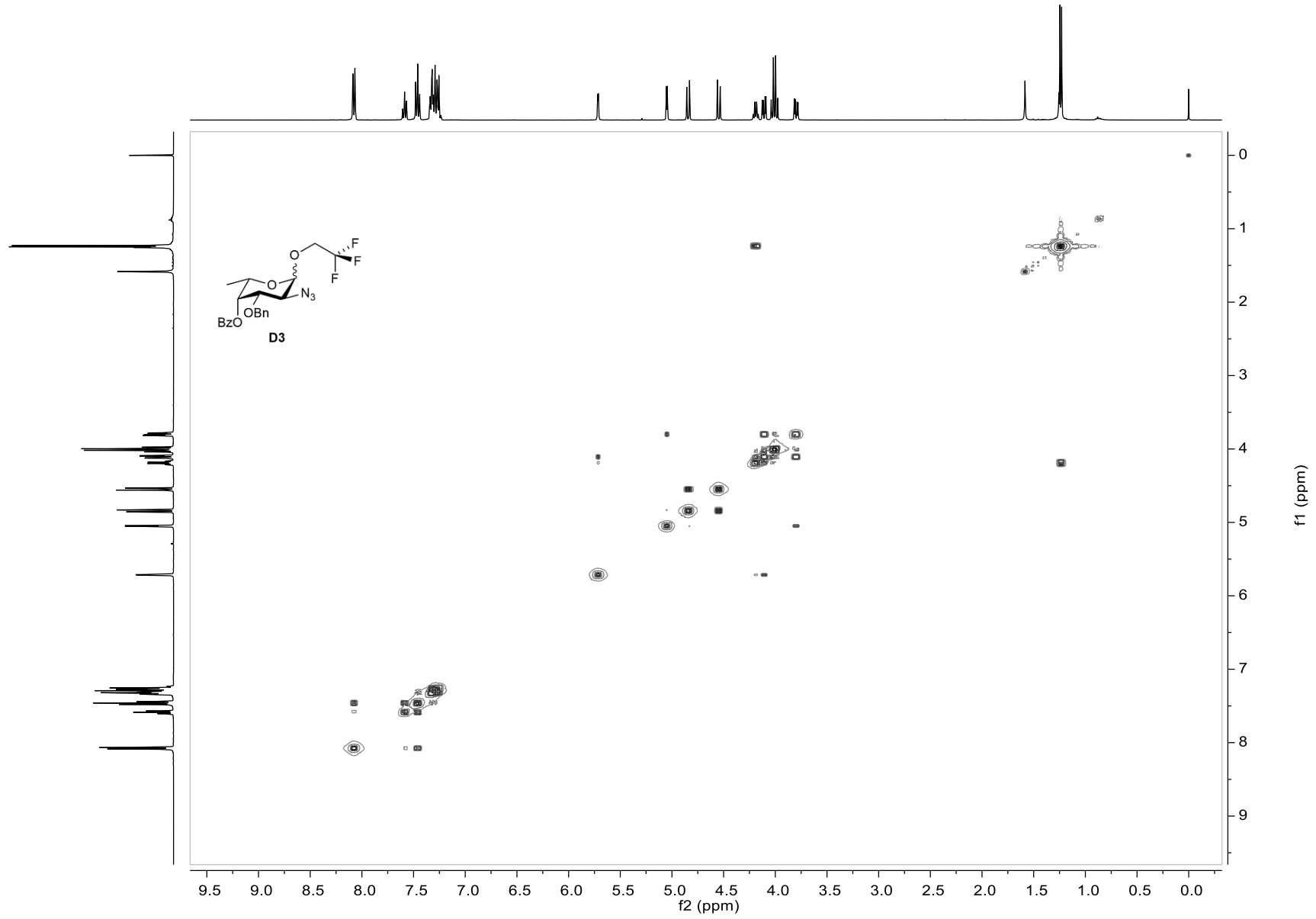


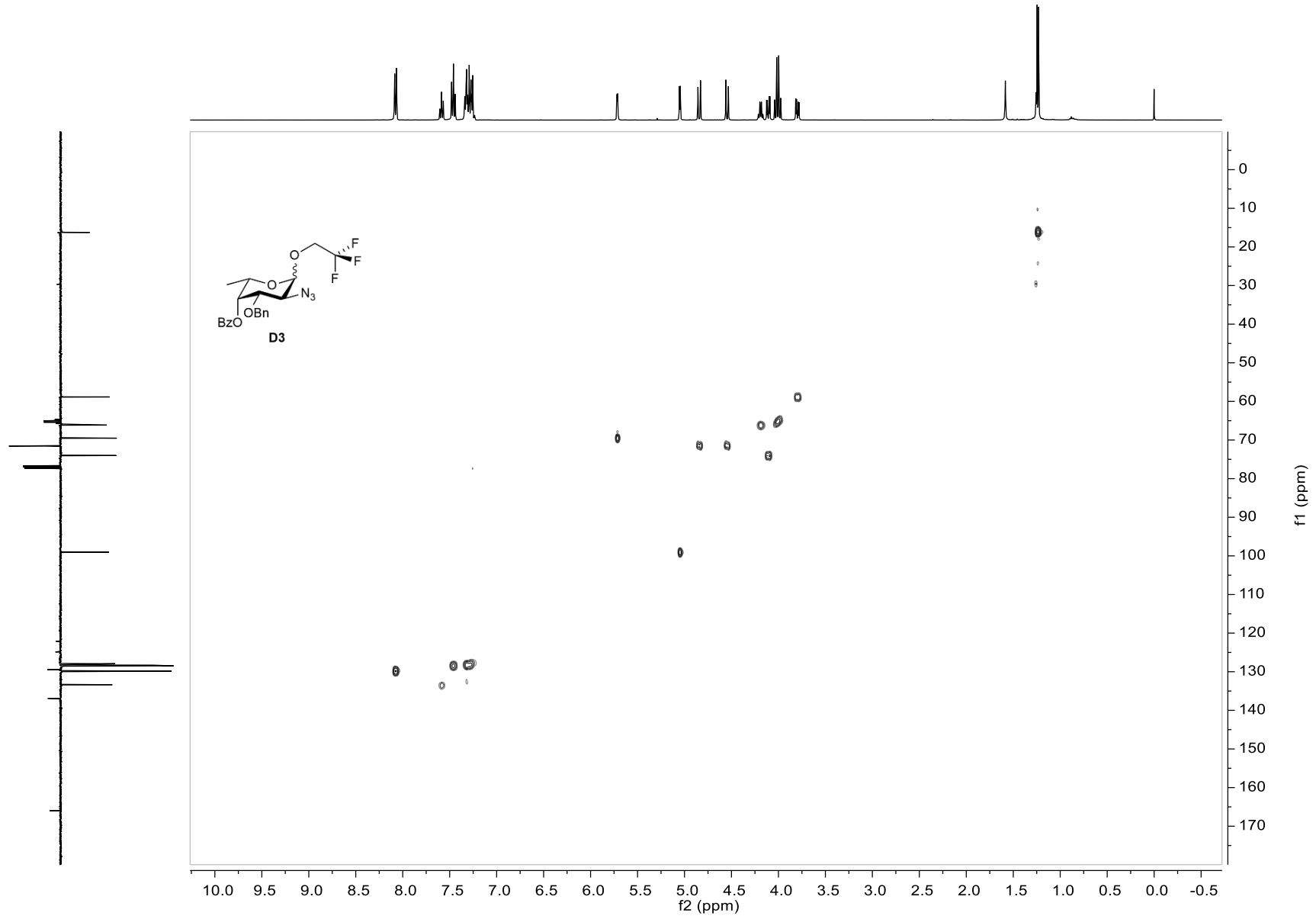
8.09  
8.09  
8.07  
8.06  
7.61  
7.61  
7.60  
7.59  
7.57  
7.57  
7.56  
7.48  
7.46  
7.44  
7.44  
7.34  
7.34  
7.33  
7.32  
7.32  
7.31  
7.31  
7.30  
7.29  
7.29  
7.28  
7.27  
7.27  
7.26  
7.26  
7.25  
5.72  
5.71  
5.05  
5.04  
4.86  
4.83  
4.56  
4.53  
4.21  
4.20  
4.18  
4.17  
4.13  
4.12  
4.10  
4.09  
4.04  
4.02  
4.00  
3.98  
3.82  
3.81  
3.79  
3.78  
1.58  
1.26  
1.25  
1.23



0.00



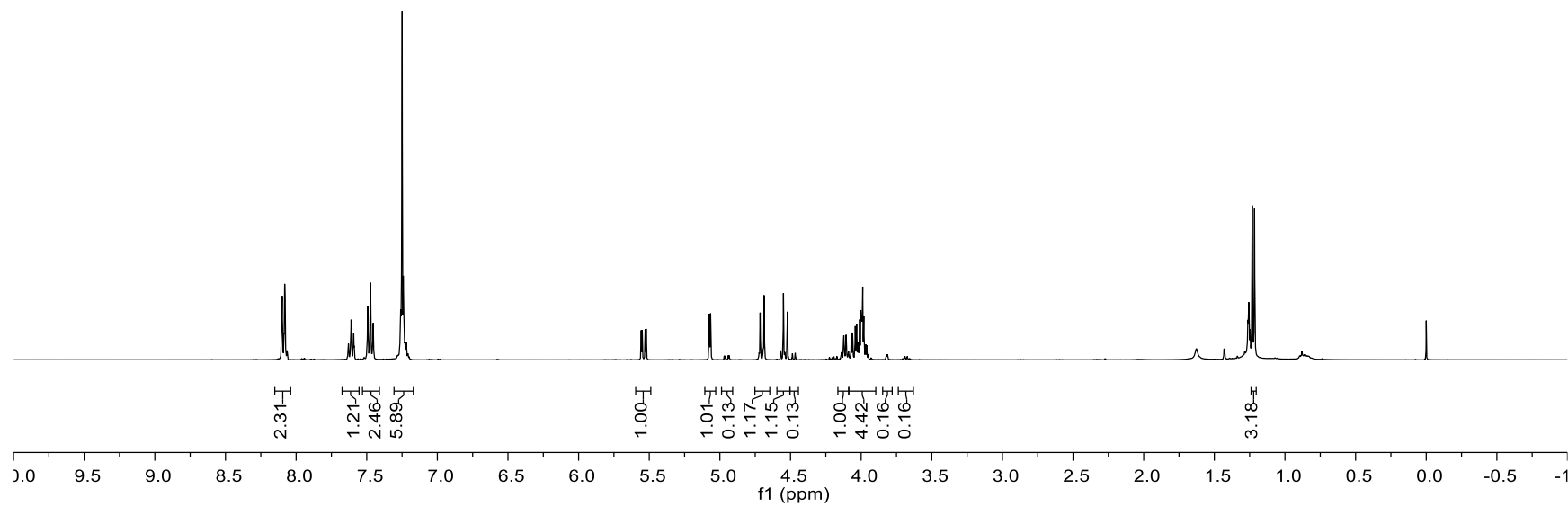
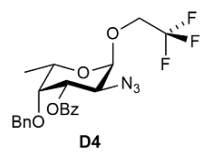


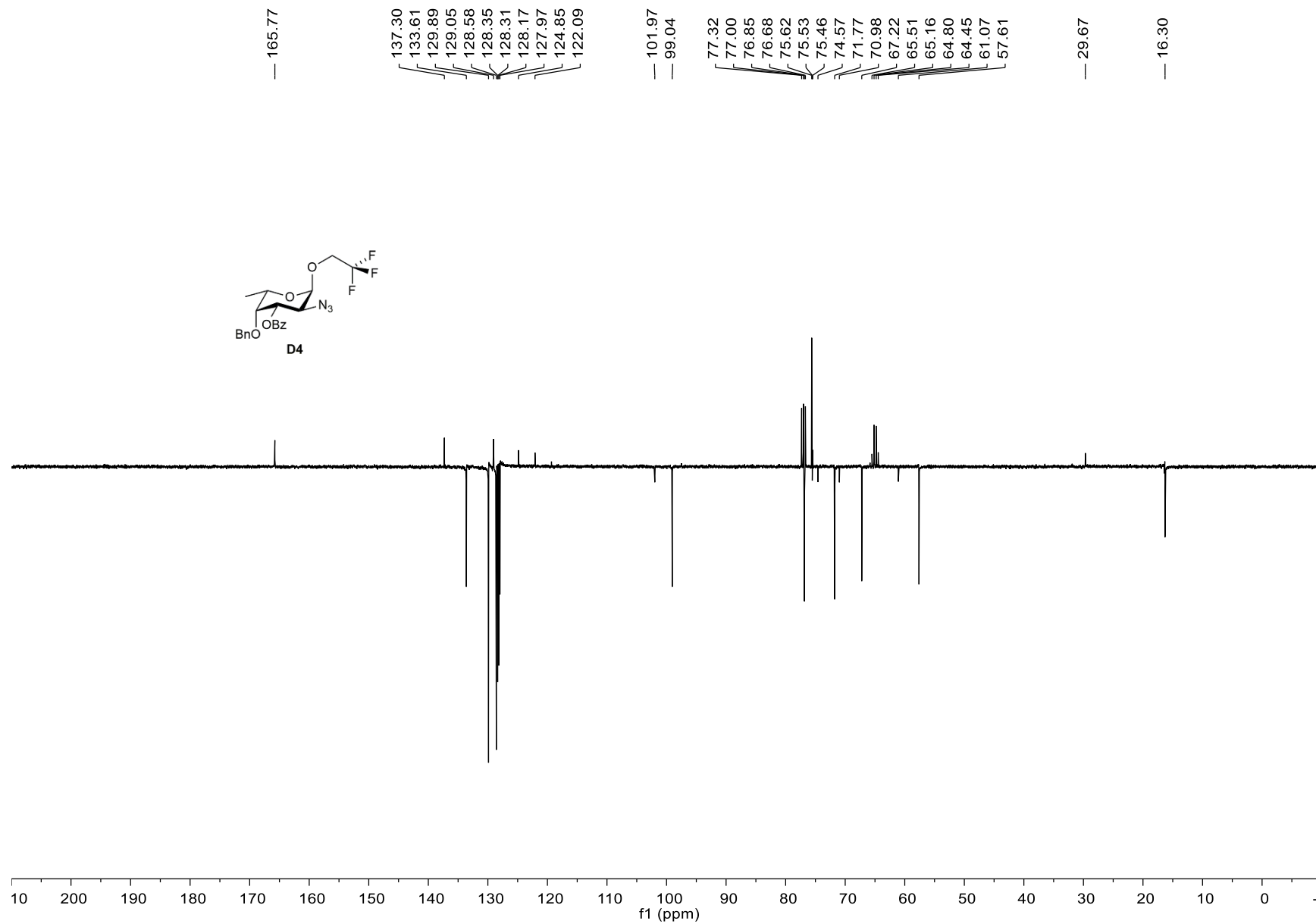


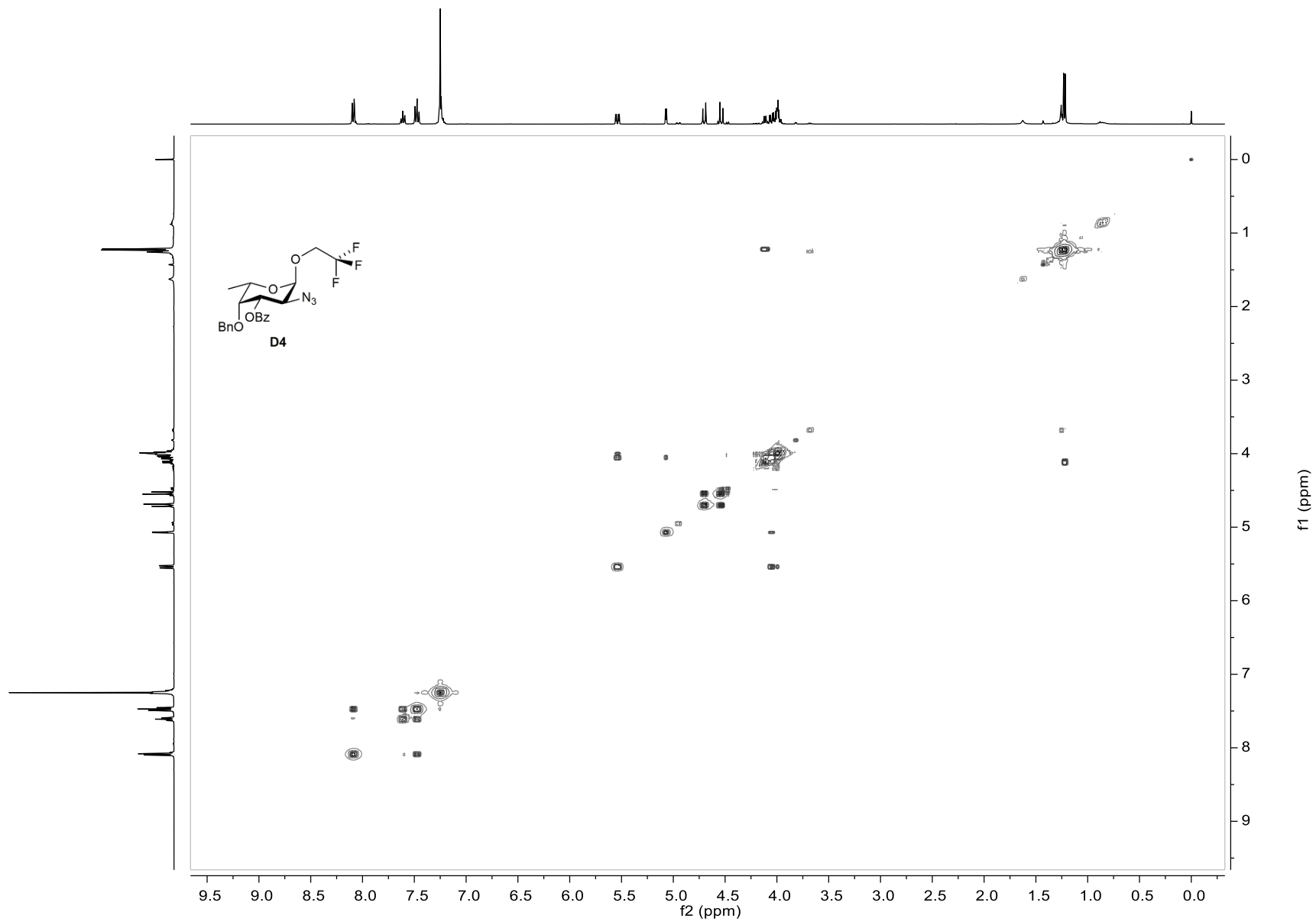


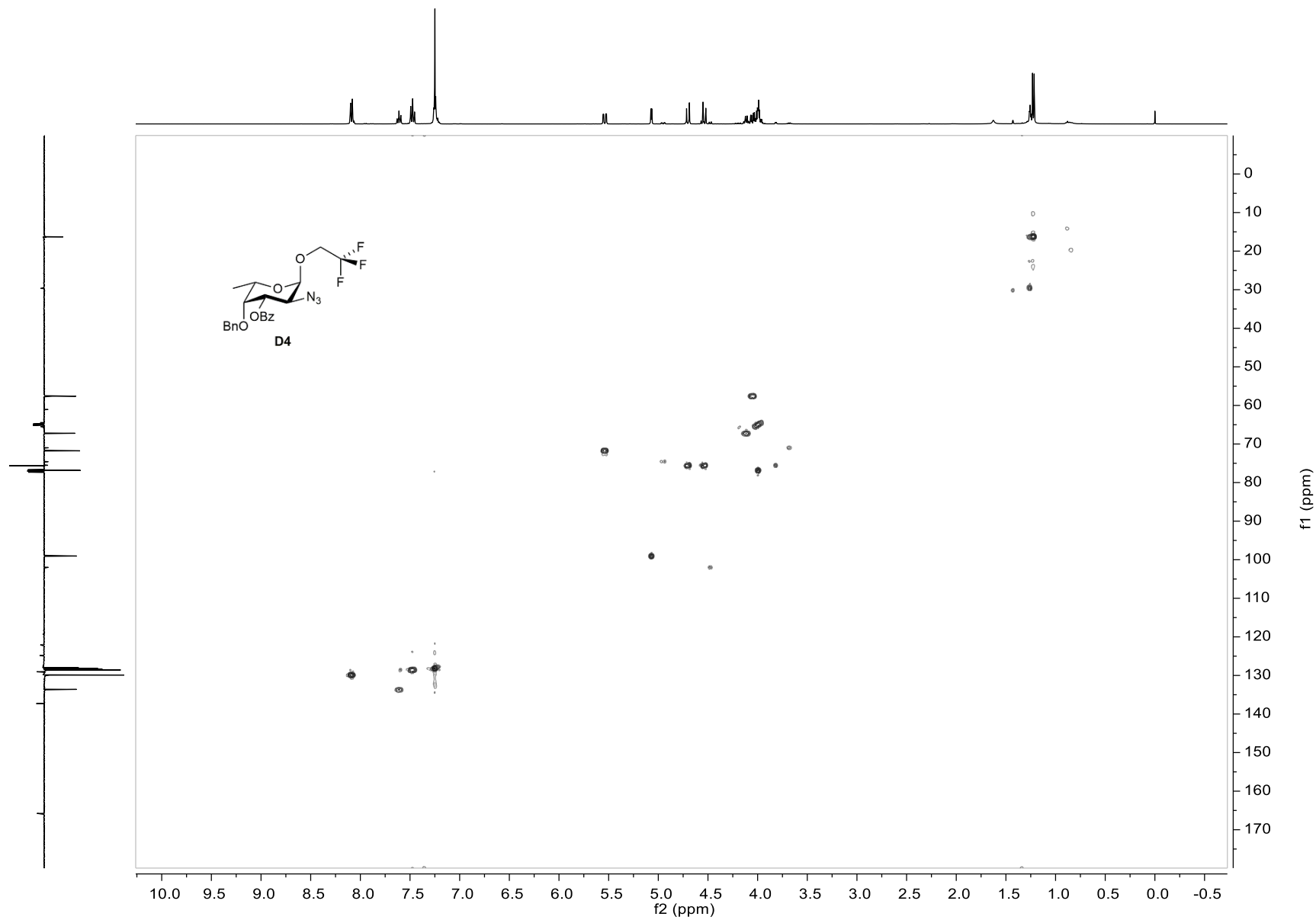
8.10  
8.10  
8.09  
8.08  
8.08  
7.63  
7.62  
7.61  
7.60  
7.59  
7.49  
7.47  
7.46  
7.45  
7.26  
7.25  
7.24  
7.23  
7.22  
5.56  
5.55  
5.53  
5.52  
5.07  
5.07  
4.72  
4.69  
4.55  
4.52  
4.12  
4.11  
4.07  
4.06  
4.04  
4.03  
4.02  
4.01  
4.00  
4.00  
3.99  
3.98

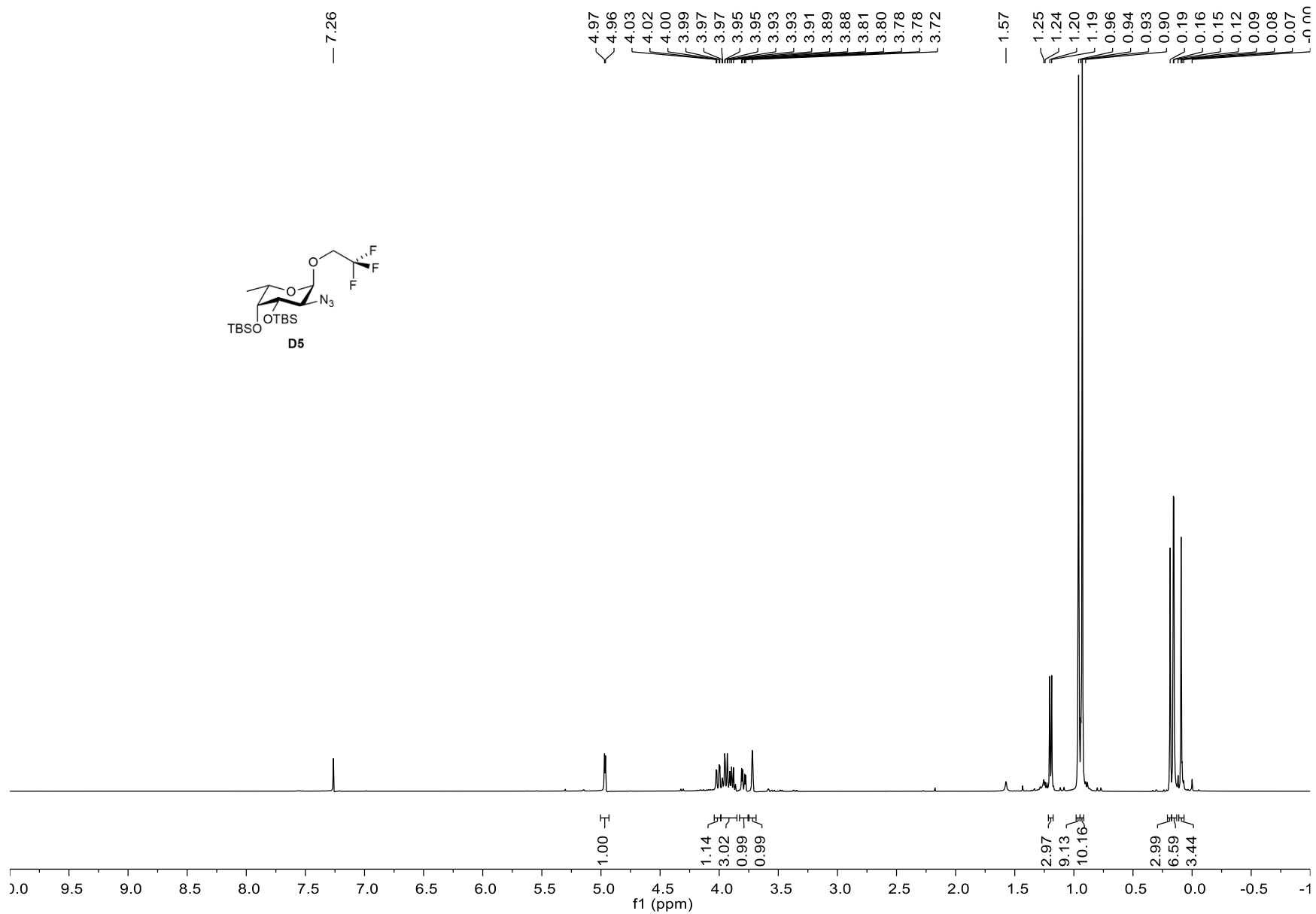
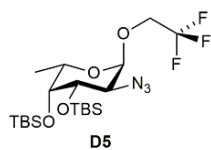
1.26  
1.26  
1.25  
1.23  
1.22

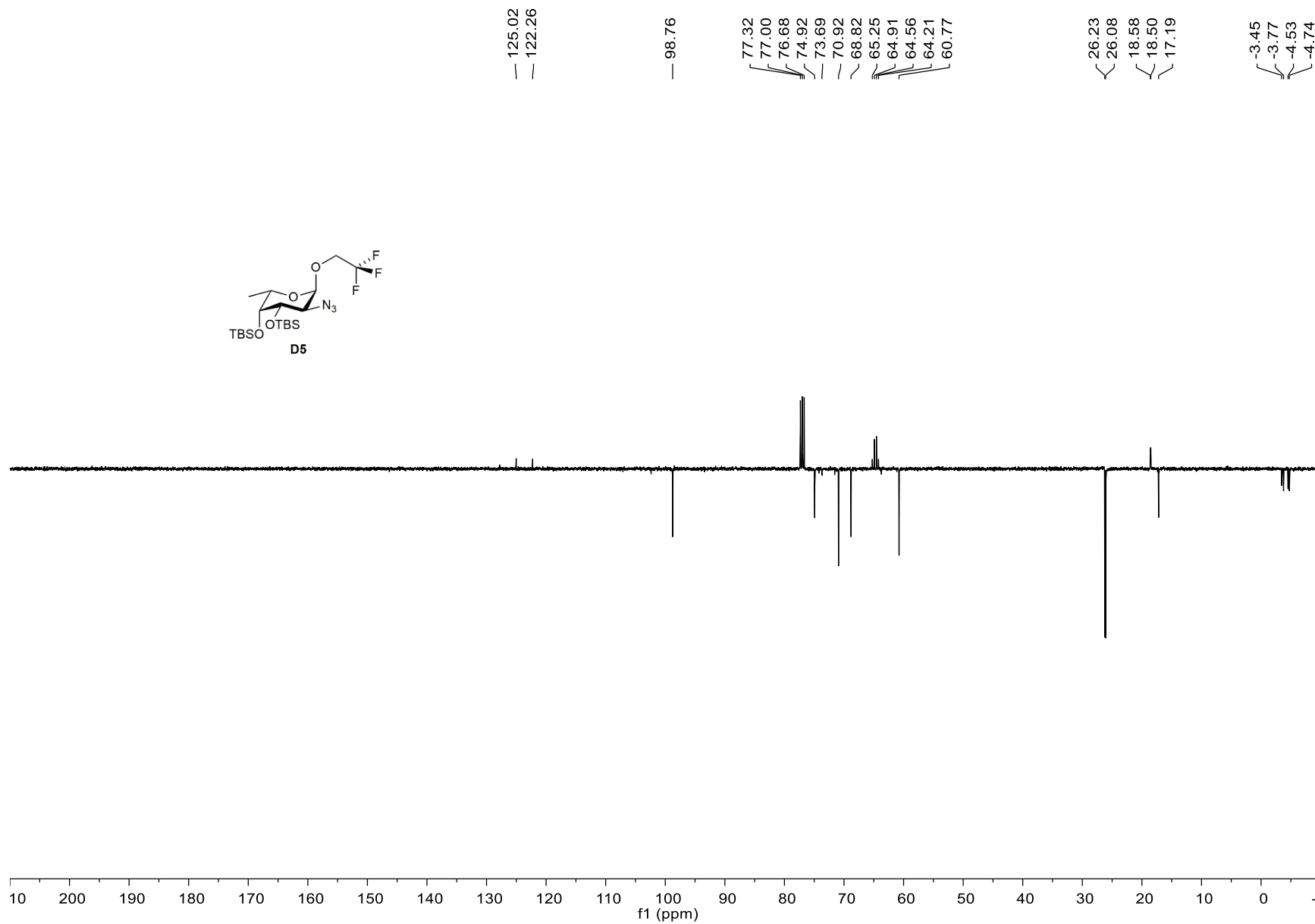
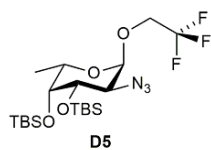


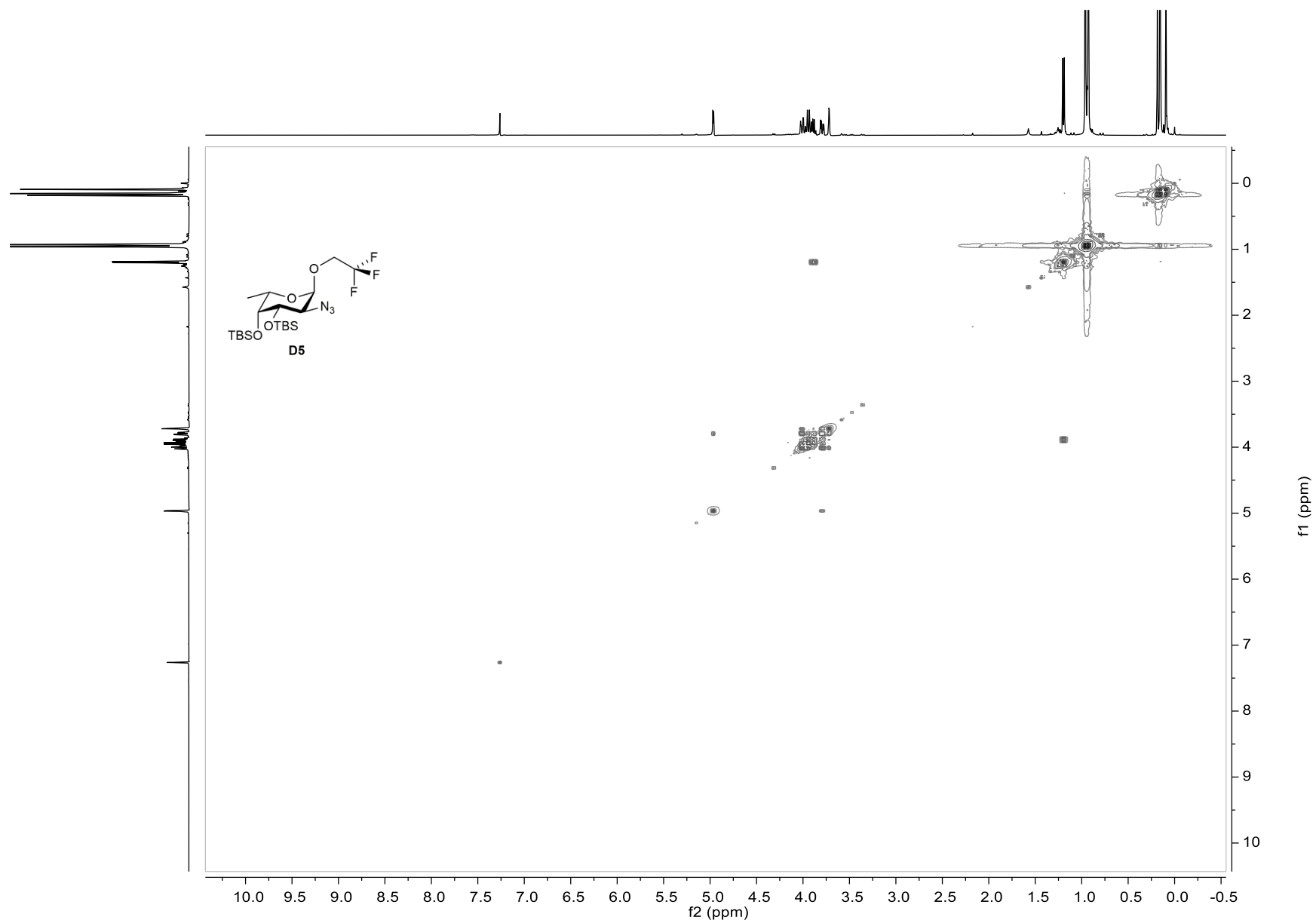


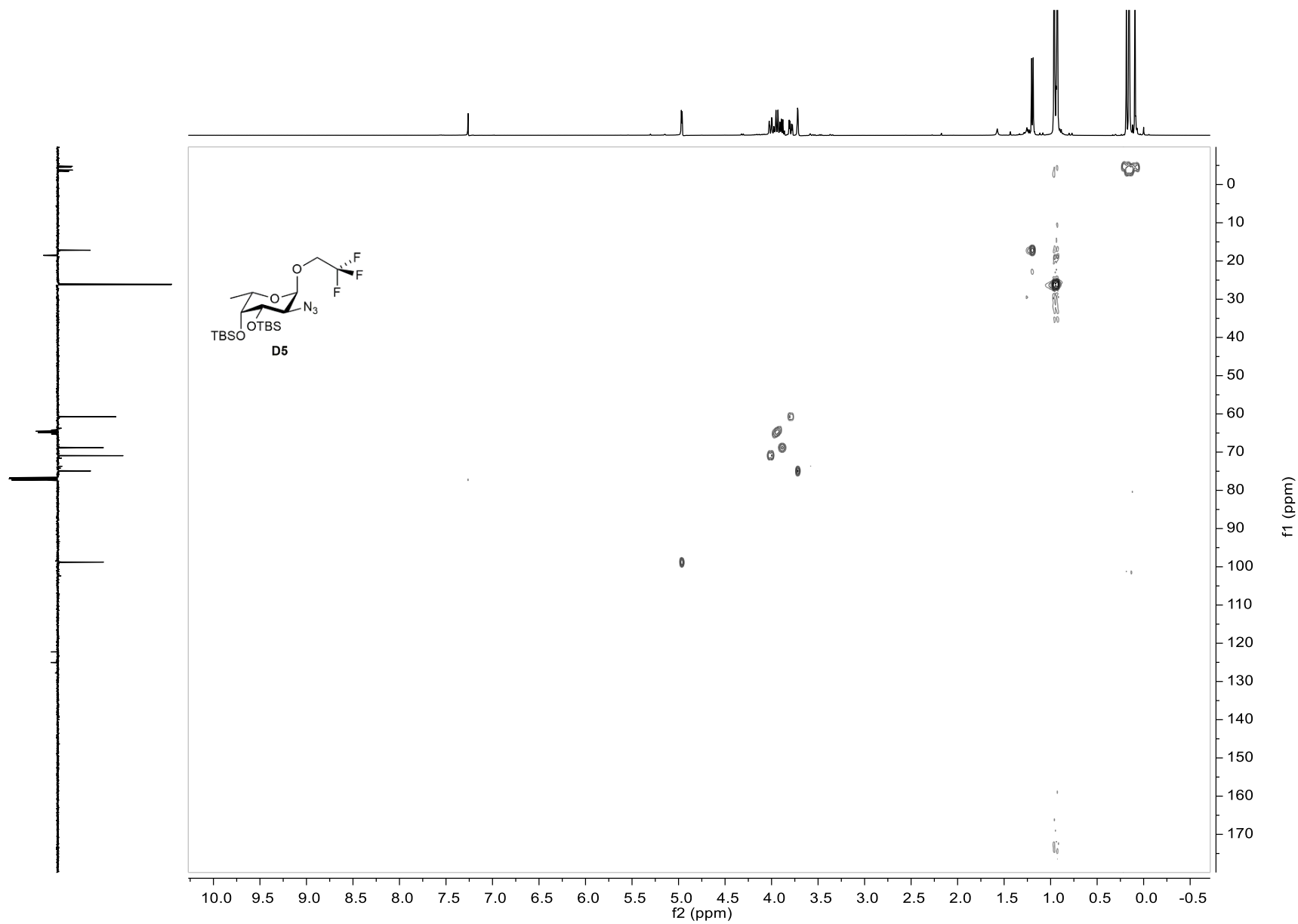




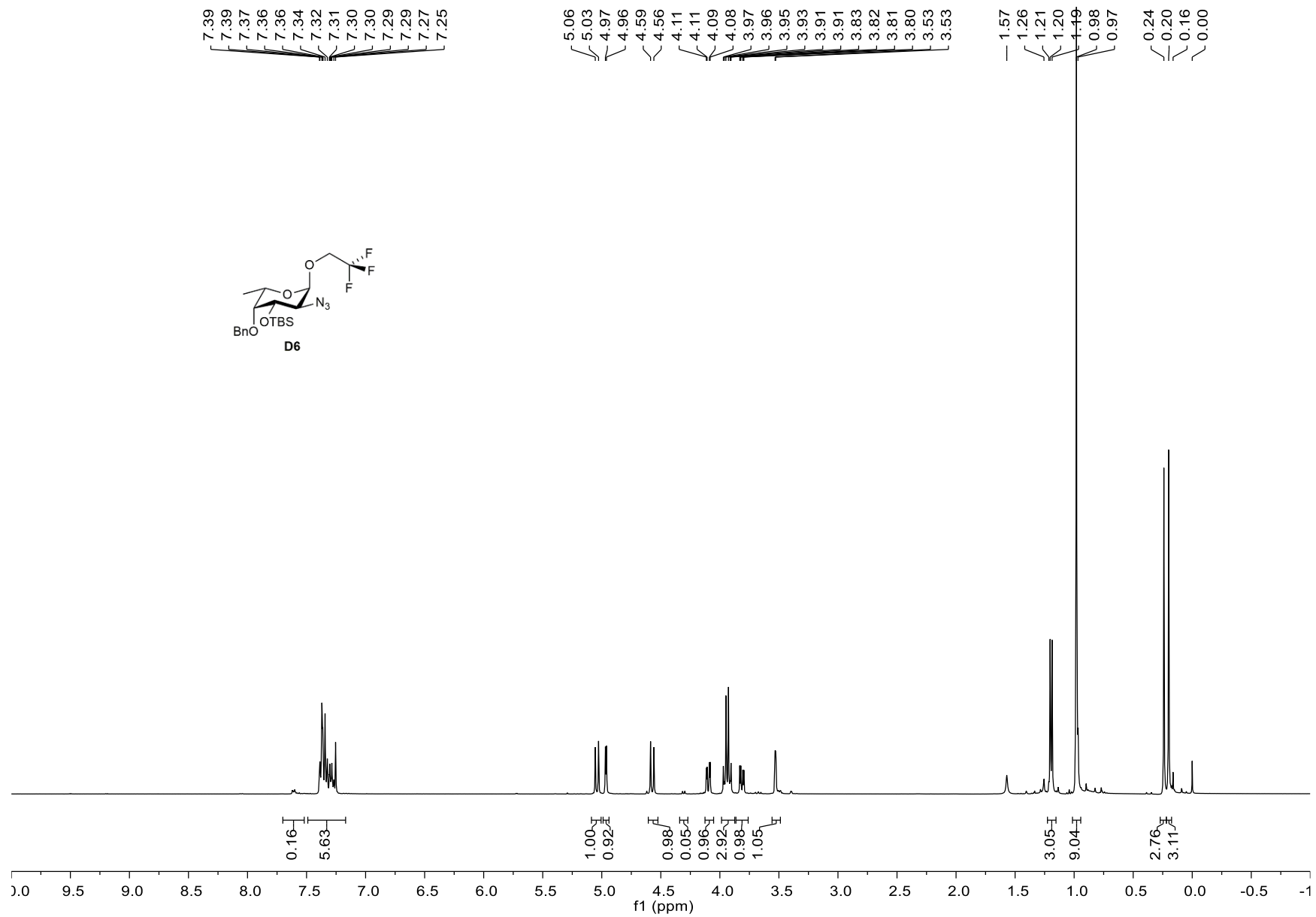


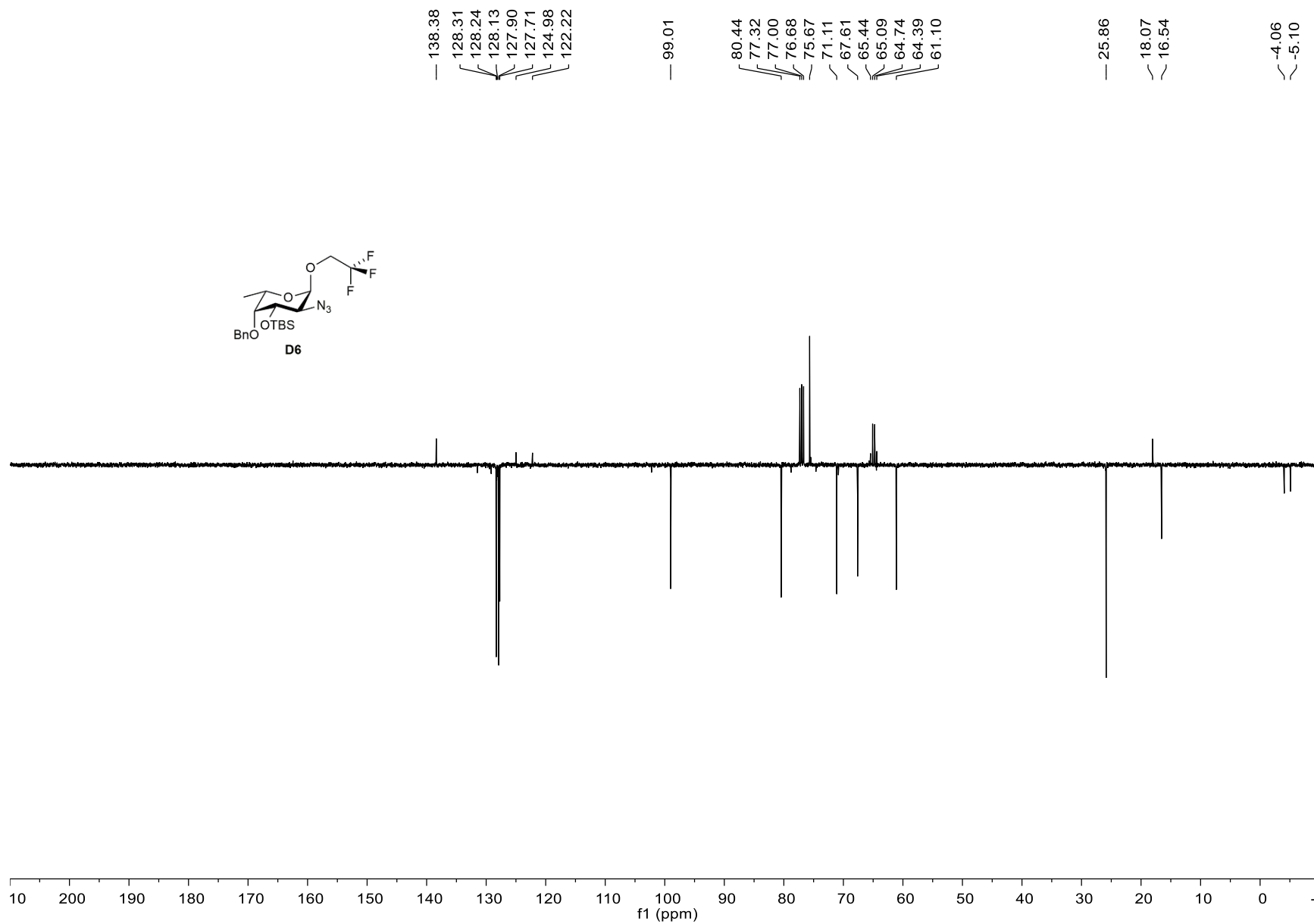
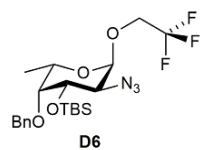


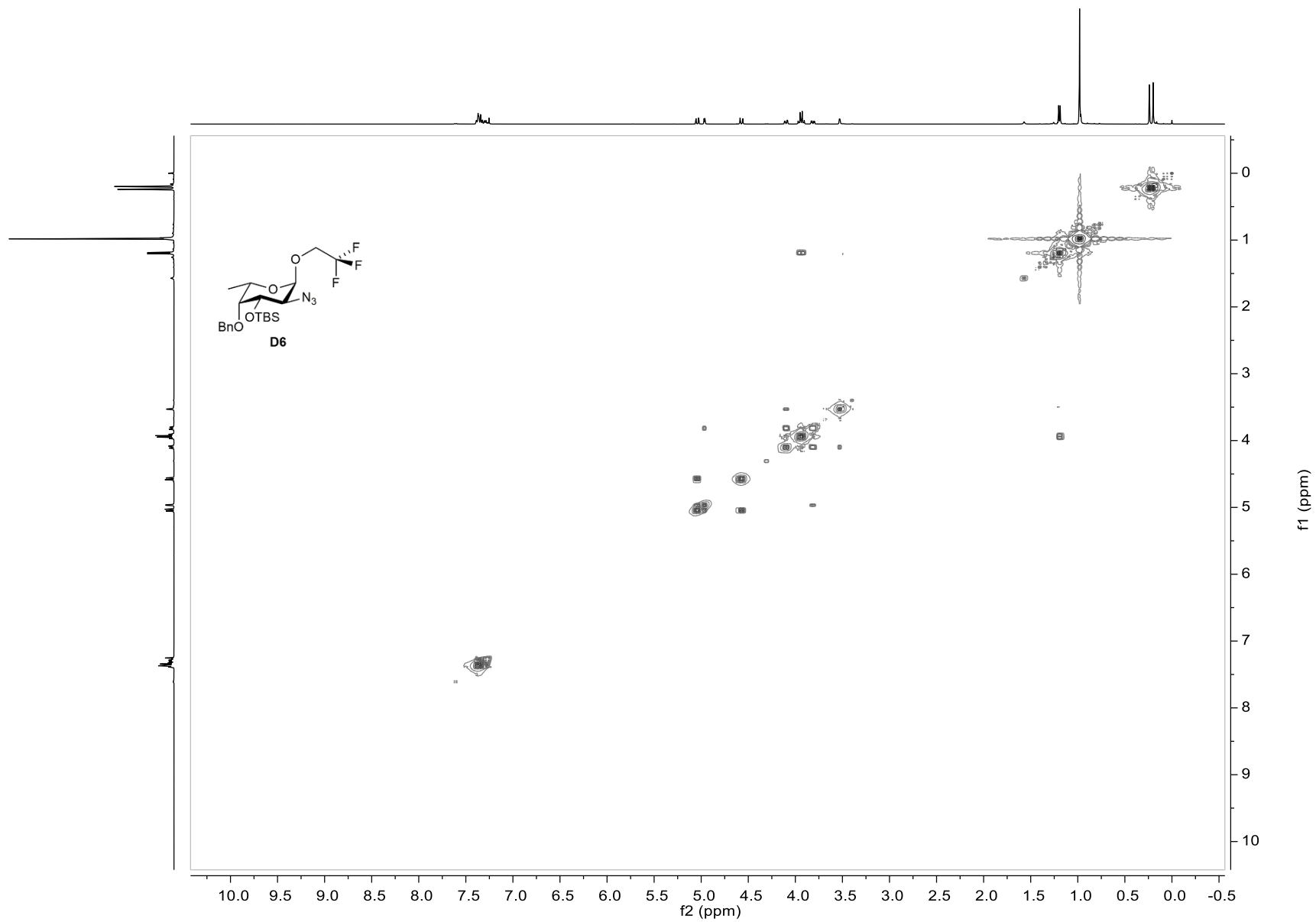


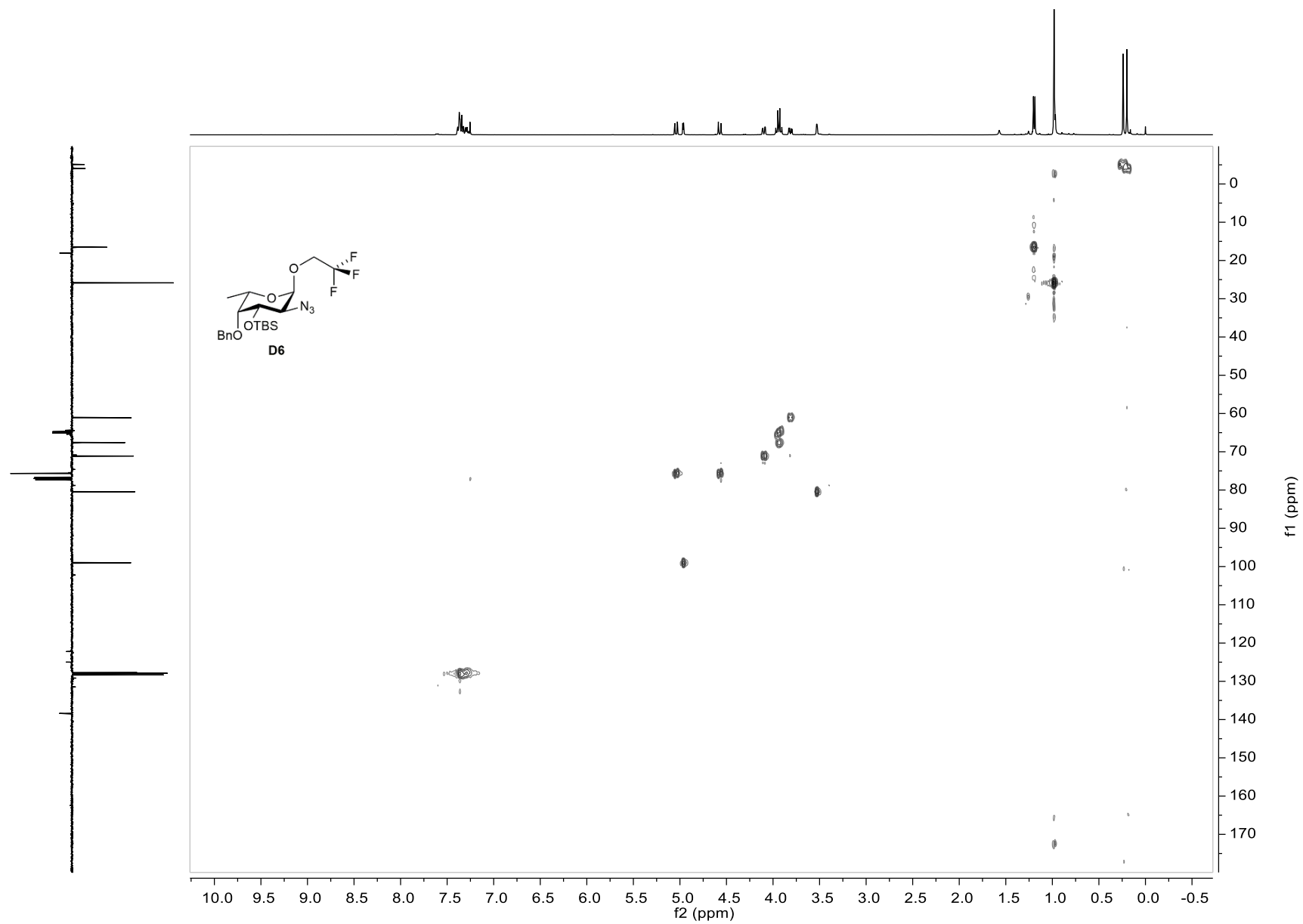




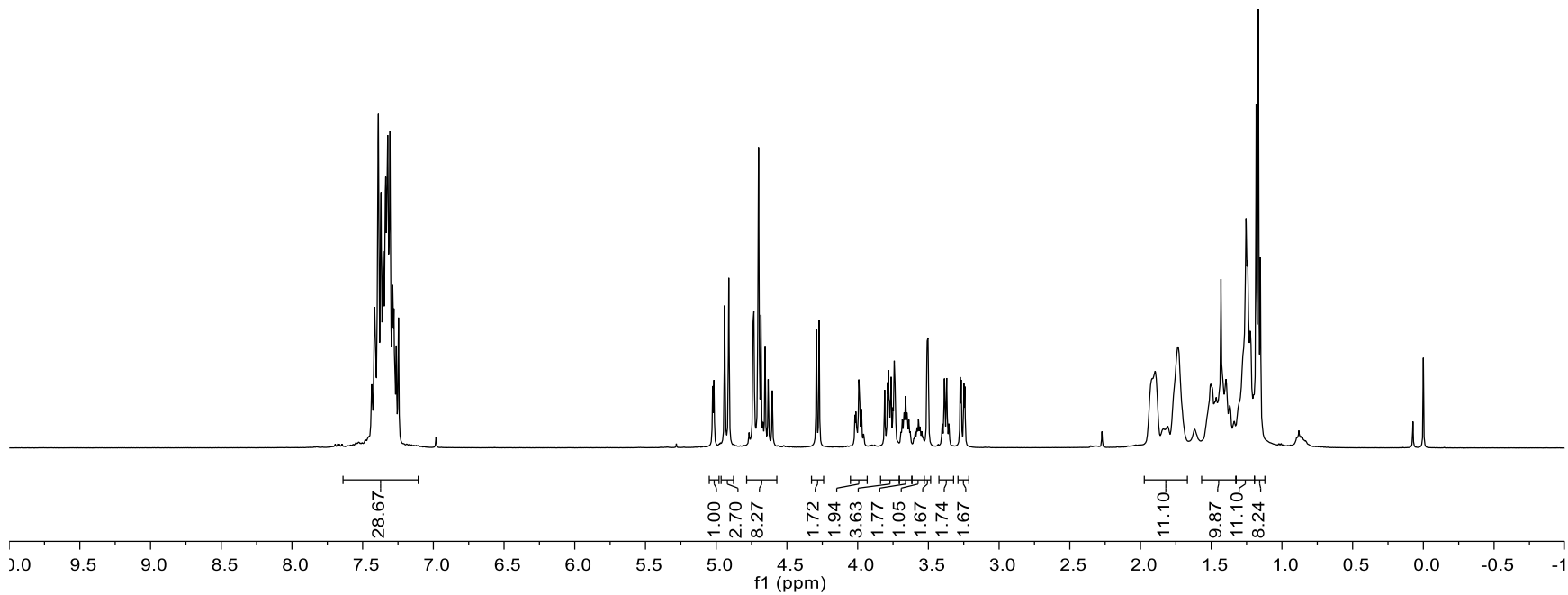
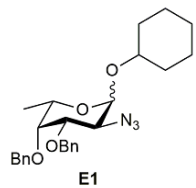


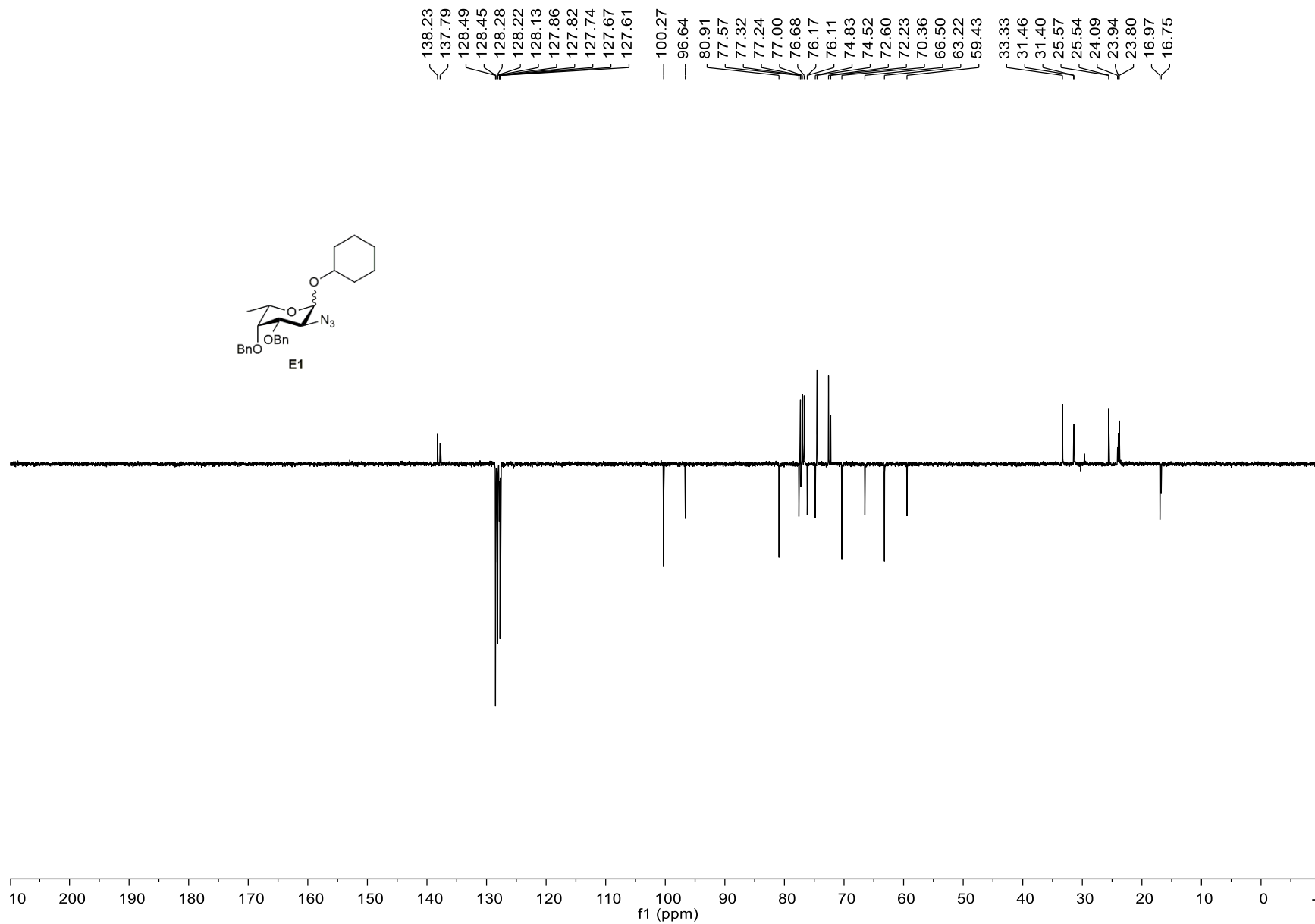
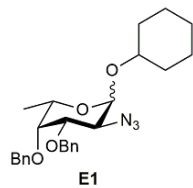


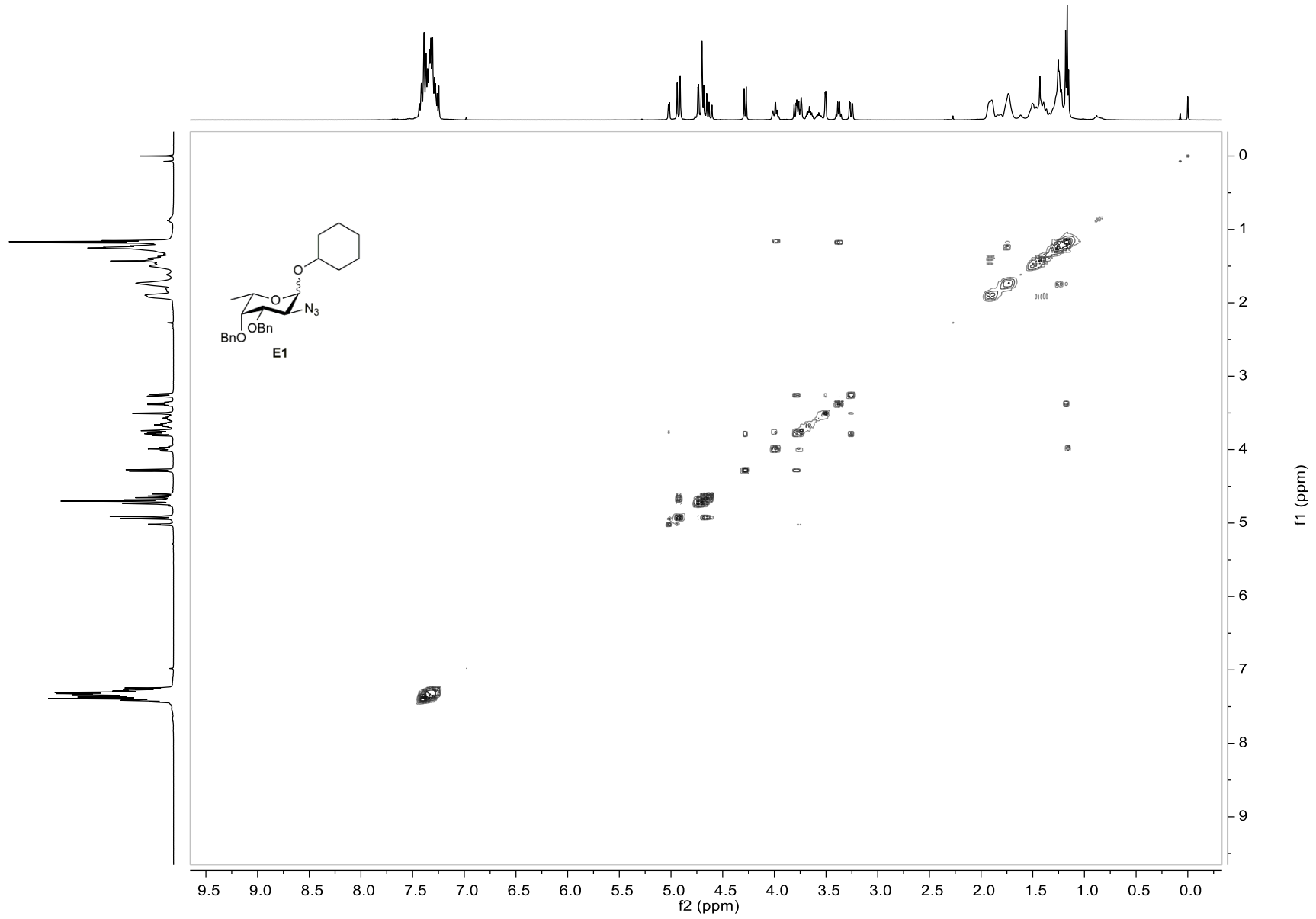


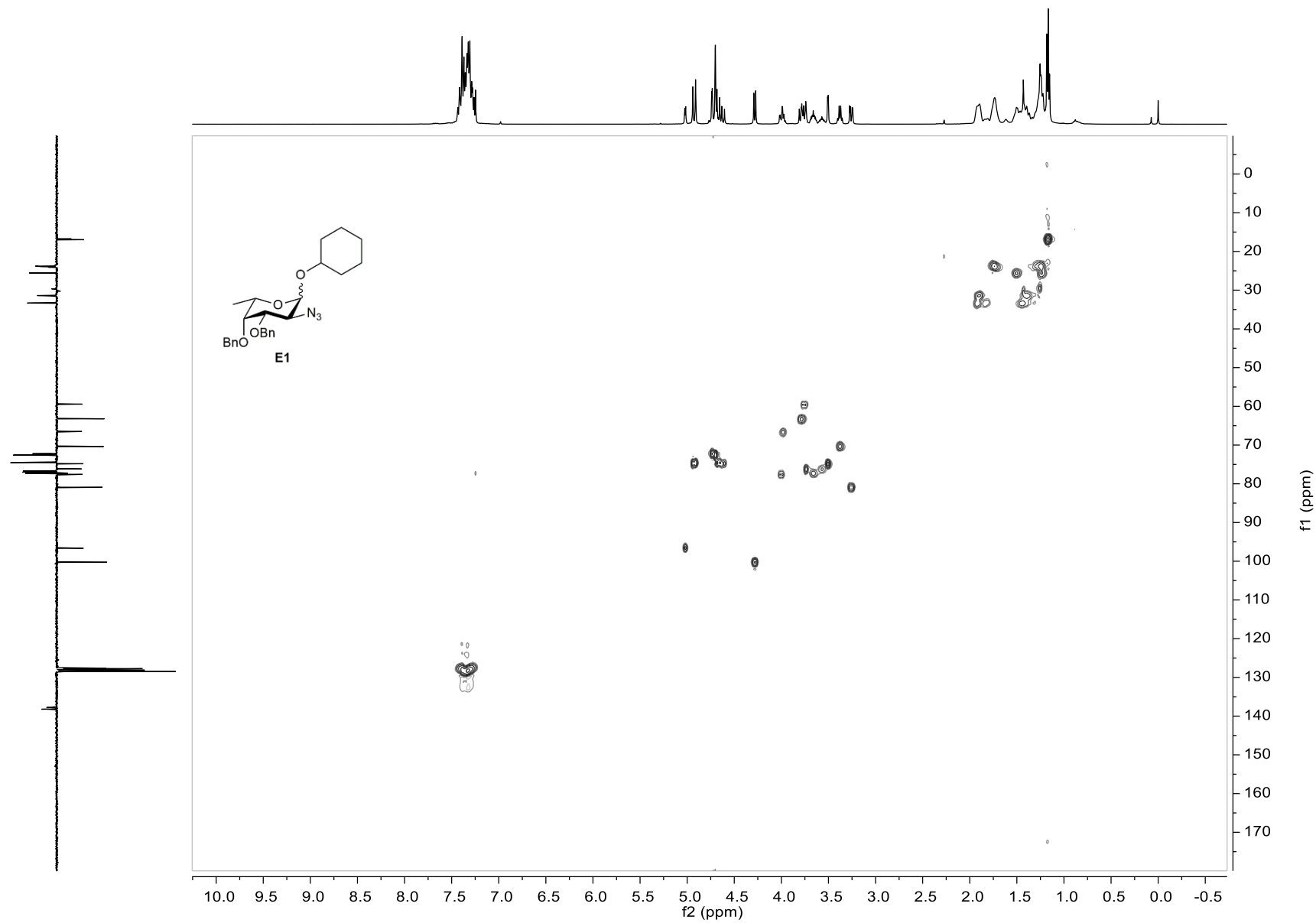


7.43  
7.42  
7.41  
7.39  
7.37  
7.36  
7.34  
7.32  
7.31  
7.29  
7.28  
7.26  
7.25  
5.02  
5.02  
4.94  
4.91  
4.74  
4.73  
4.70  
4.68  
4.67  
4.65  
4.63  
4.60  
4.29  
4.27  
4.02  
4.01  
3.99  
3.99  
3.97  
3.81  
3.79  
3.78  
3.78  
3.76  
3.75  
3.74  
3.68  
3.67  
3.66  
3.65  
3.64  
3.57  
3.51  
3.50  
3.40  
3.39  
3.37  
3.35  
3.28  
3.27  
3.25  
3.24  
1.90  
1.81  
1.73  
1.50  
1.46  
1.43  
1.40  
1.37  
1.34  
1.25  
1.24  
1.22  
1.18  
1.17  
1.15  
0.07  
0.00







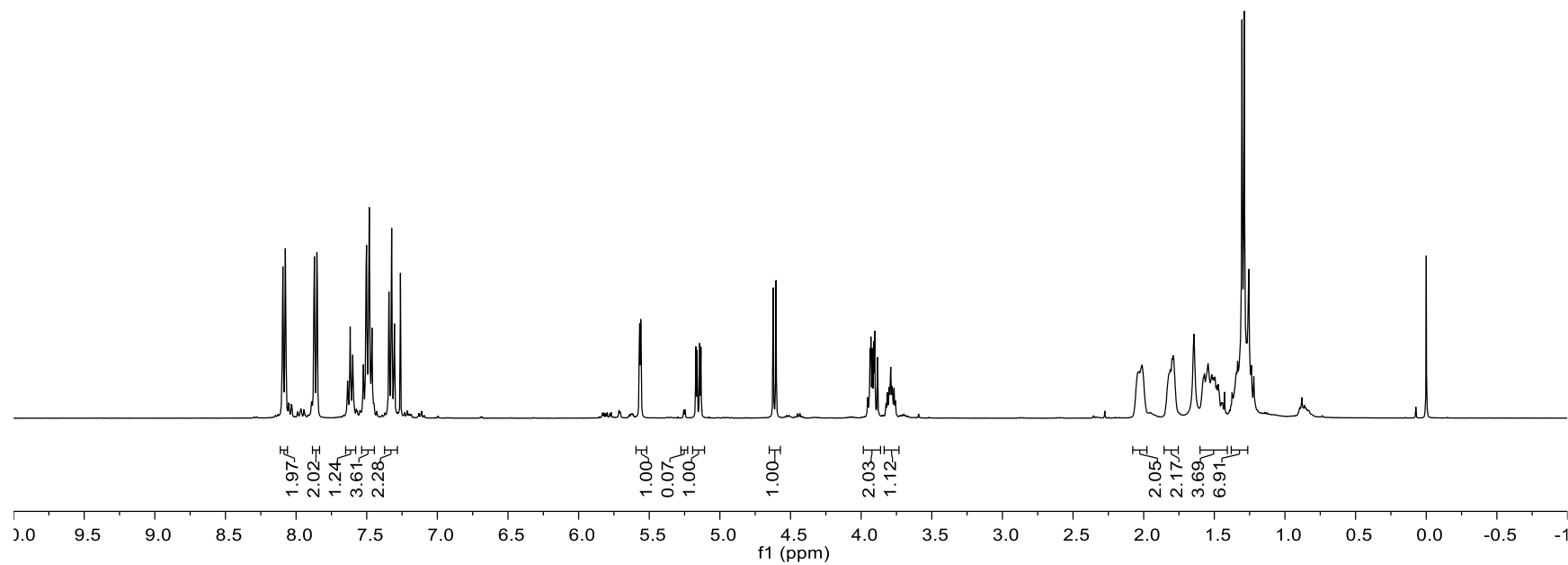
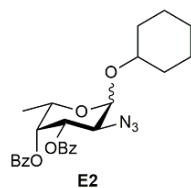


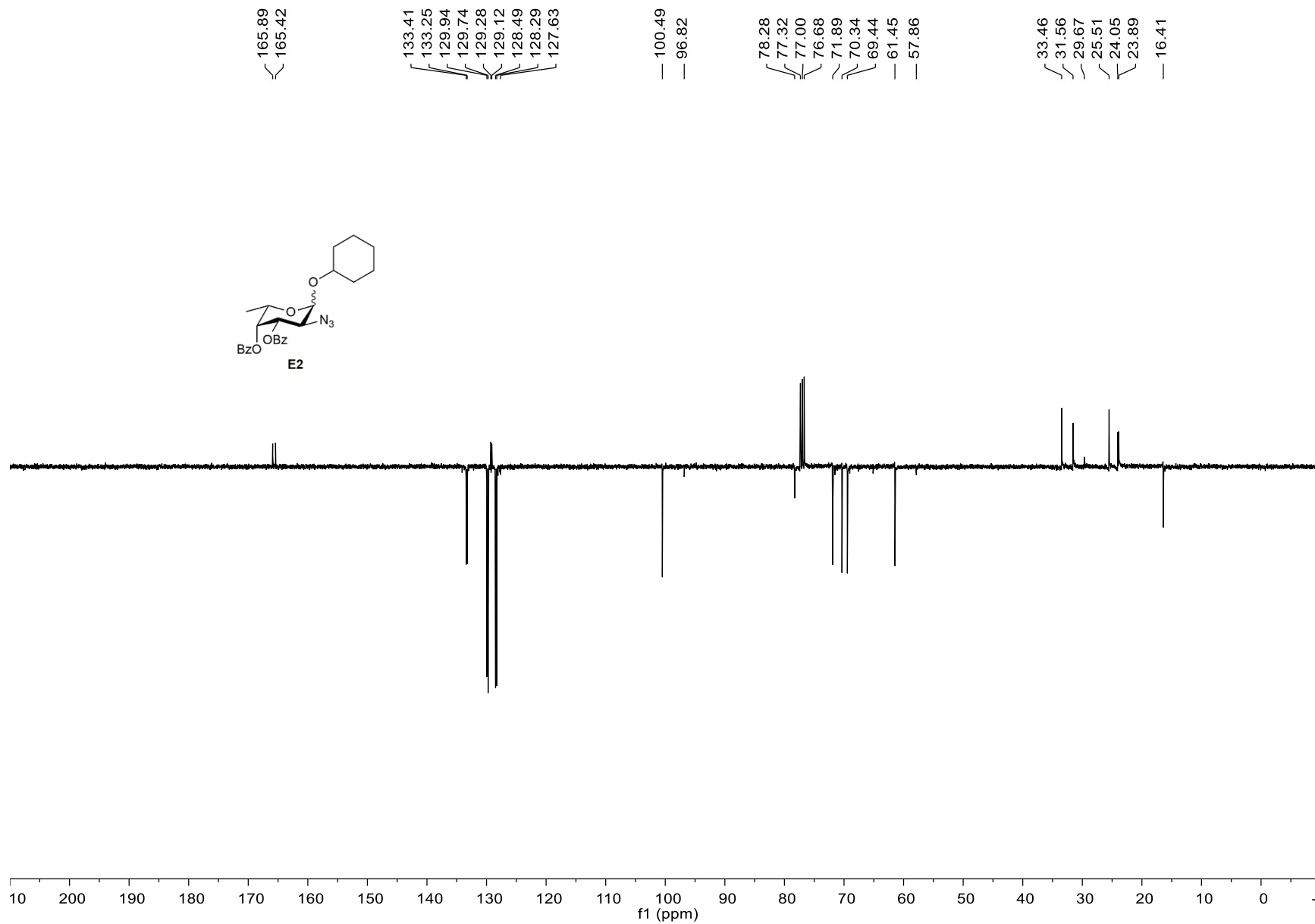
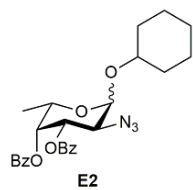


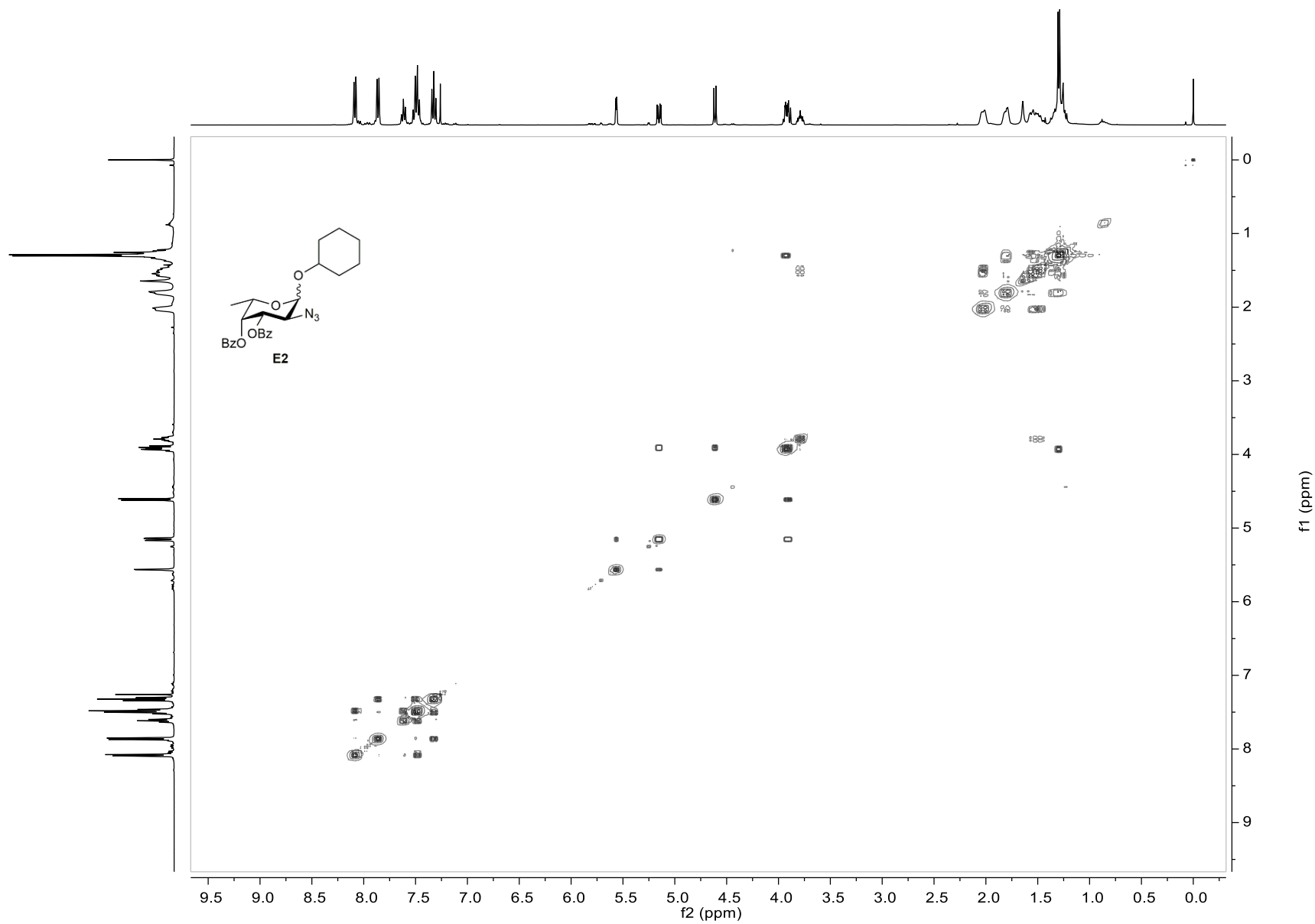
8.09  
8.08  
8.07  
7.87  
7.85  
7.85  
7.64  
7.62  
7.60  
7.52  
7.50  
7.50  
7.48  
7.46  
7.34  
7.32  
7.30  
7.26

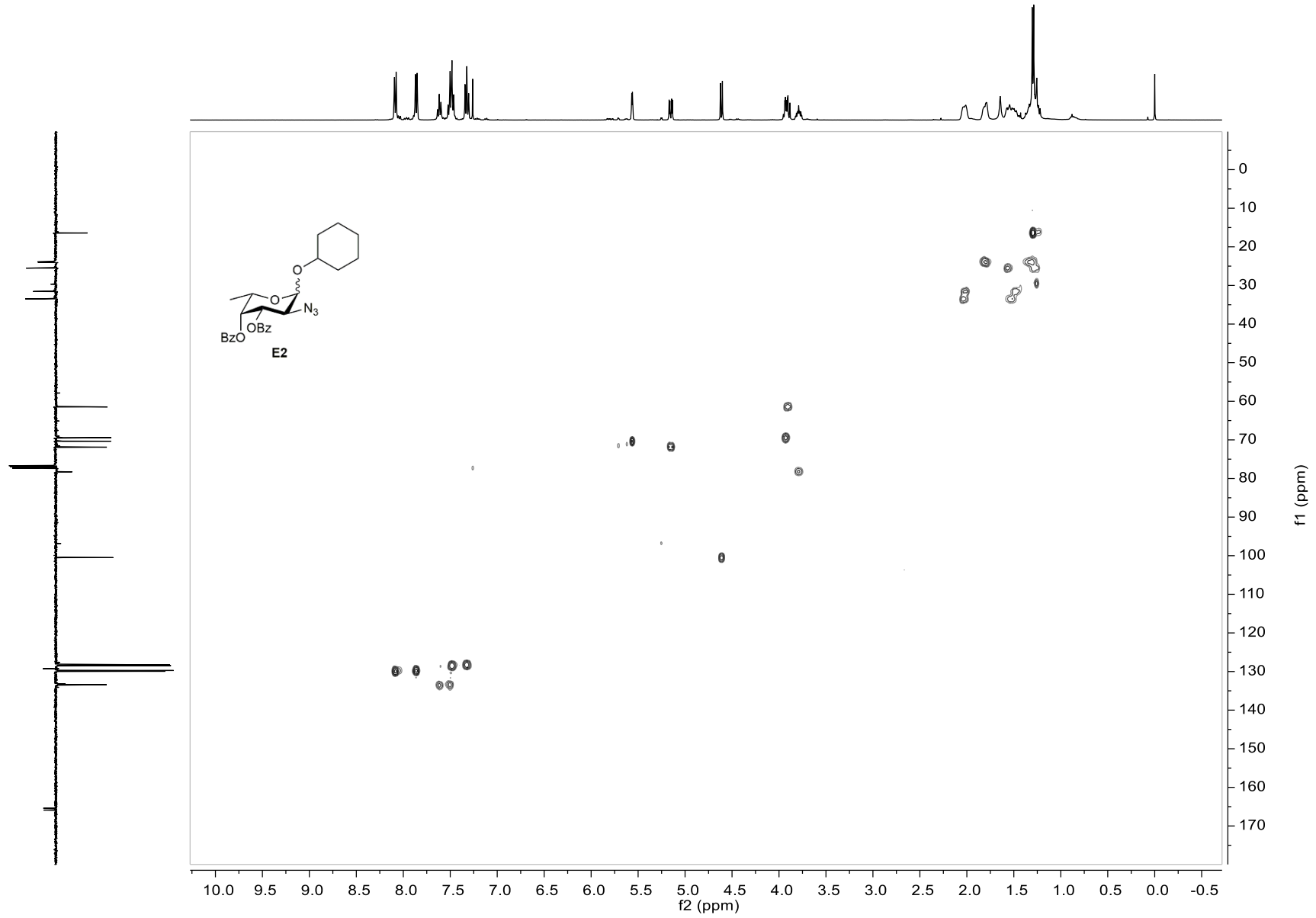
5.57  
5.56  
5.17  
5.16  
5.14  
5.13  
4.62  
4.60

3.94  
3.94  
3.93  
3.92  
3.91  
3.90  
3.88  
3.80  
3.79  
3.78  
3.77  
2.03  
2.01  
1.81  
1.80  
1.79  
1.64  
1.57  
1.54  
1.52  
1.51  
1.50  
1.49  
1.47  
1.43  
1.37  
1.34  
1.34  
1.30  
1.32  
1.29  
1.27  
1.26  
1.24  
1.22

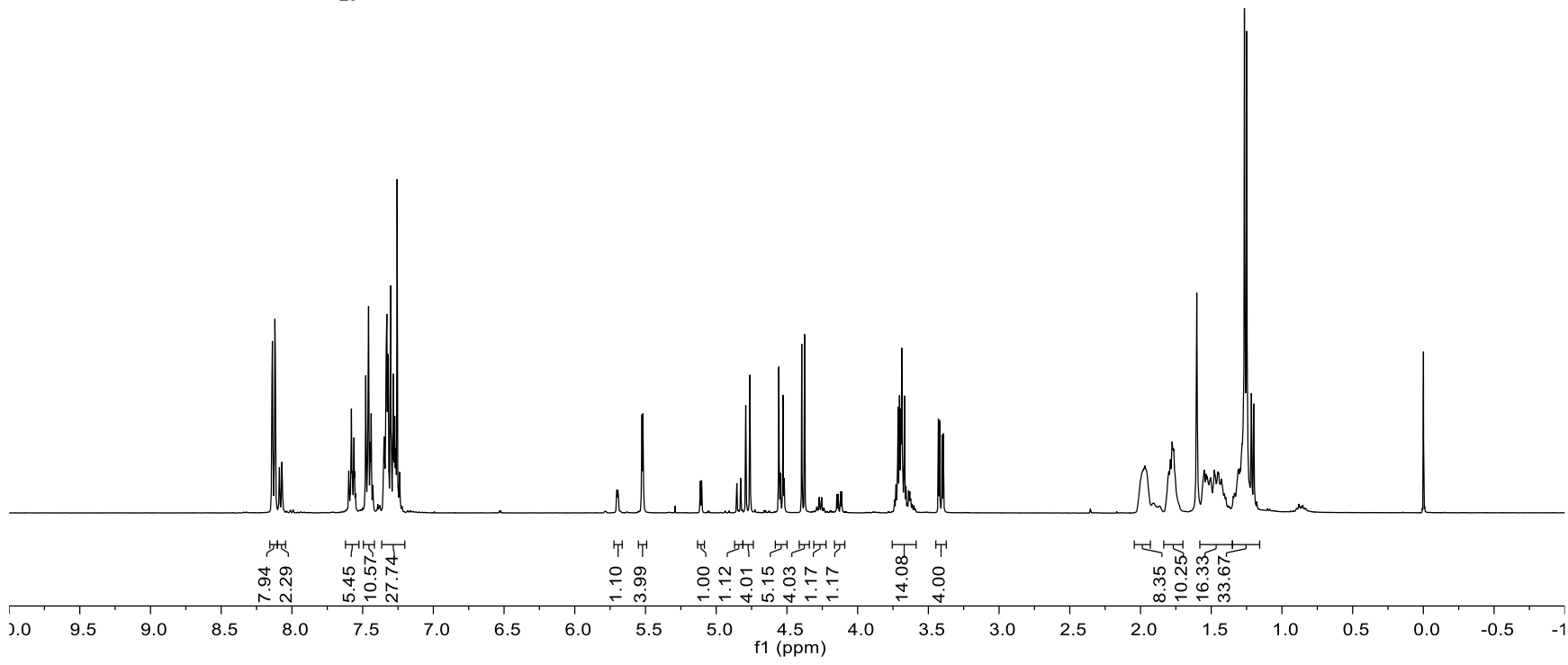
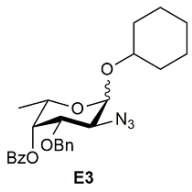


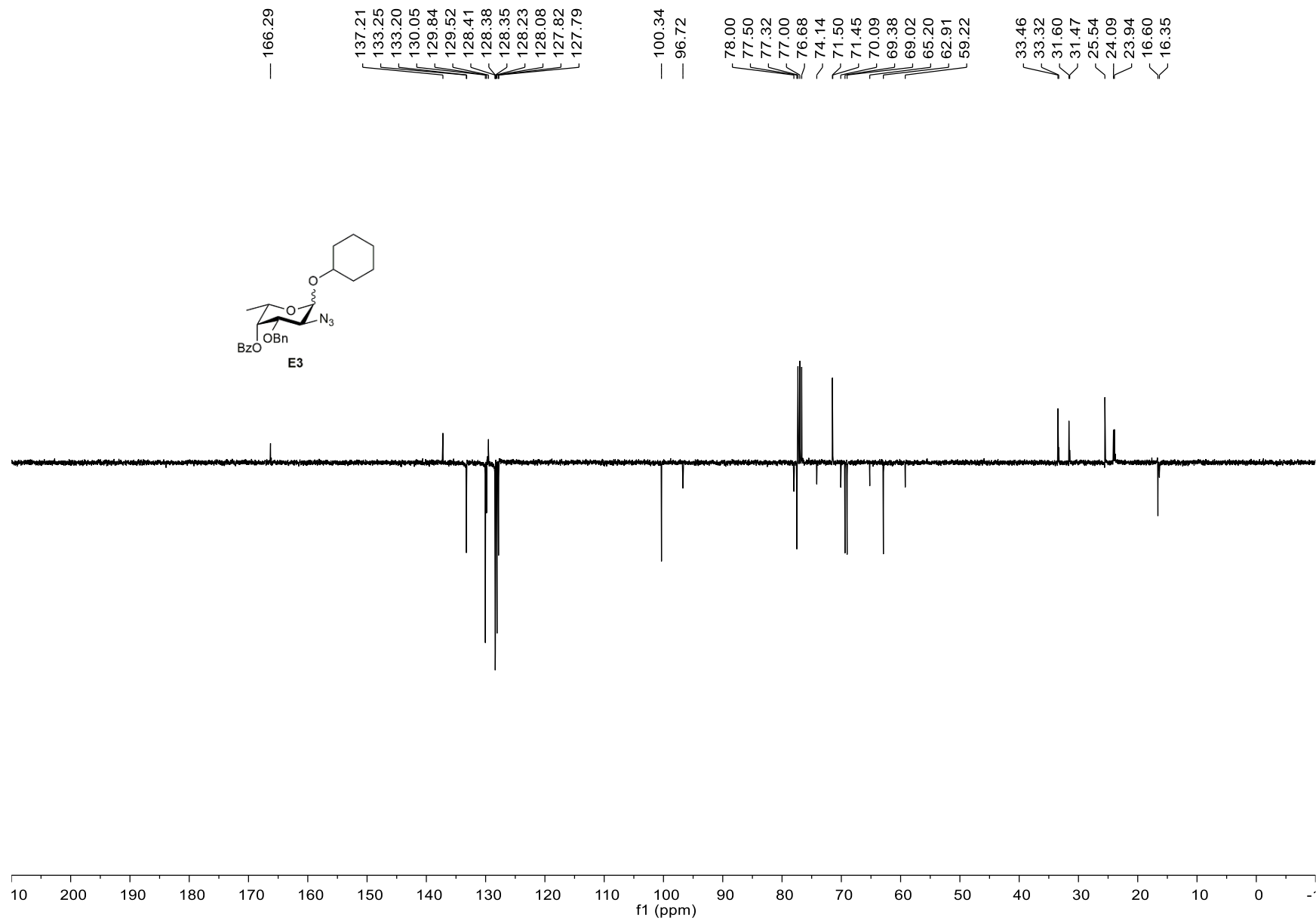


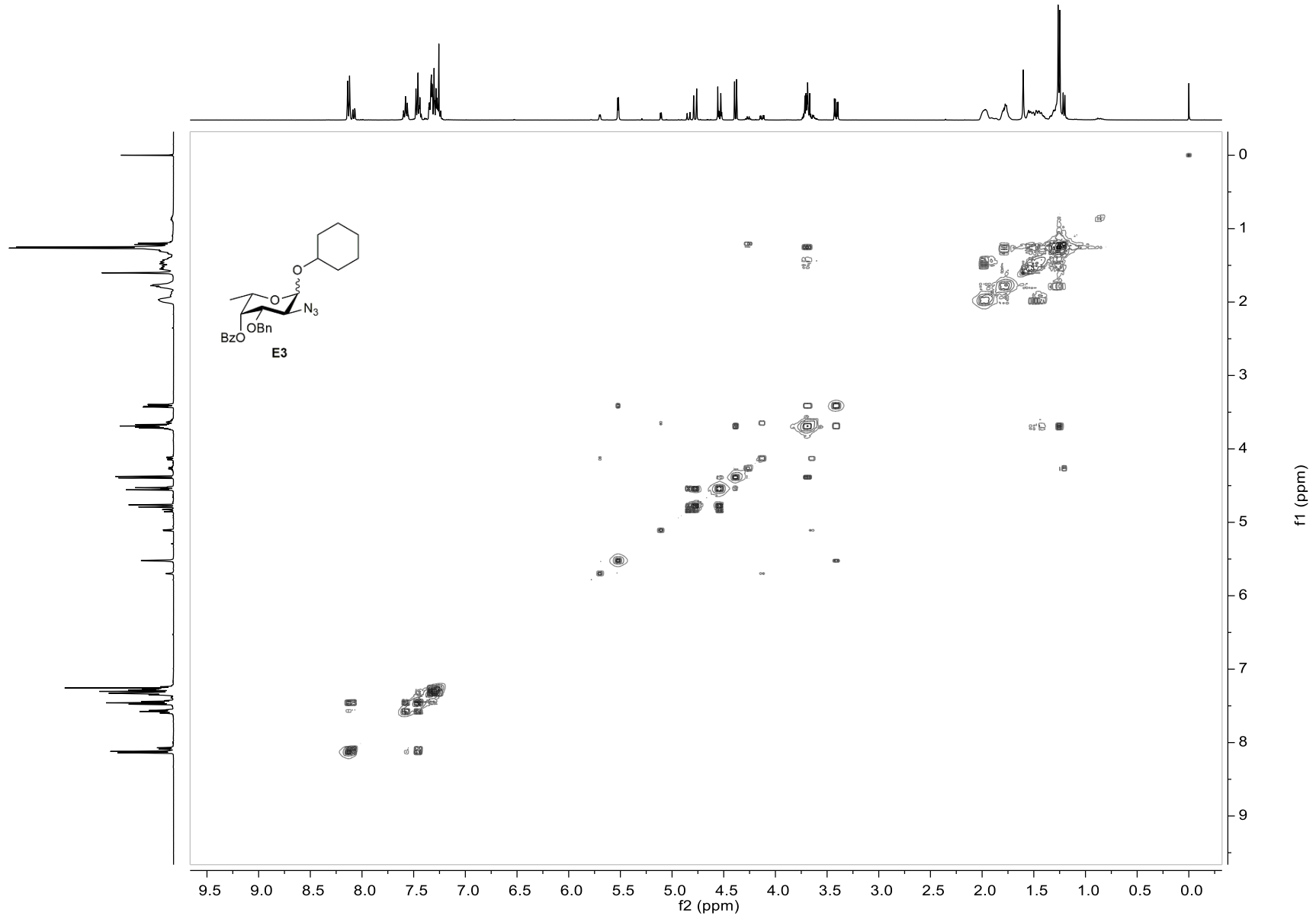


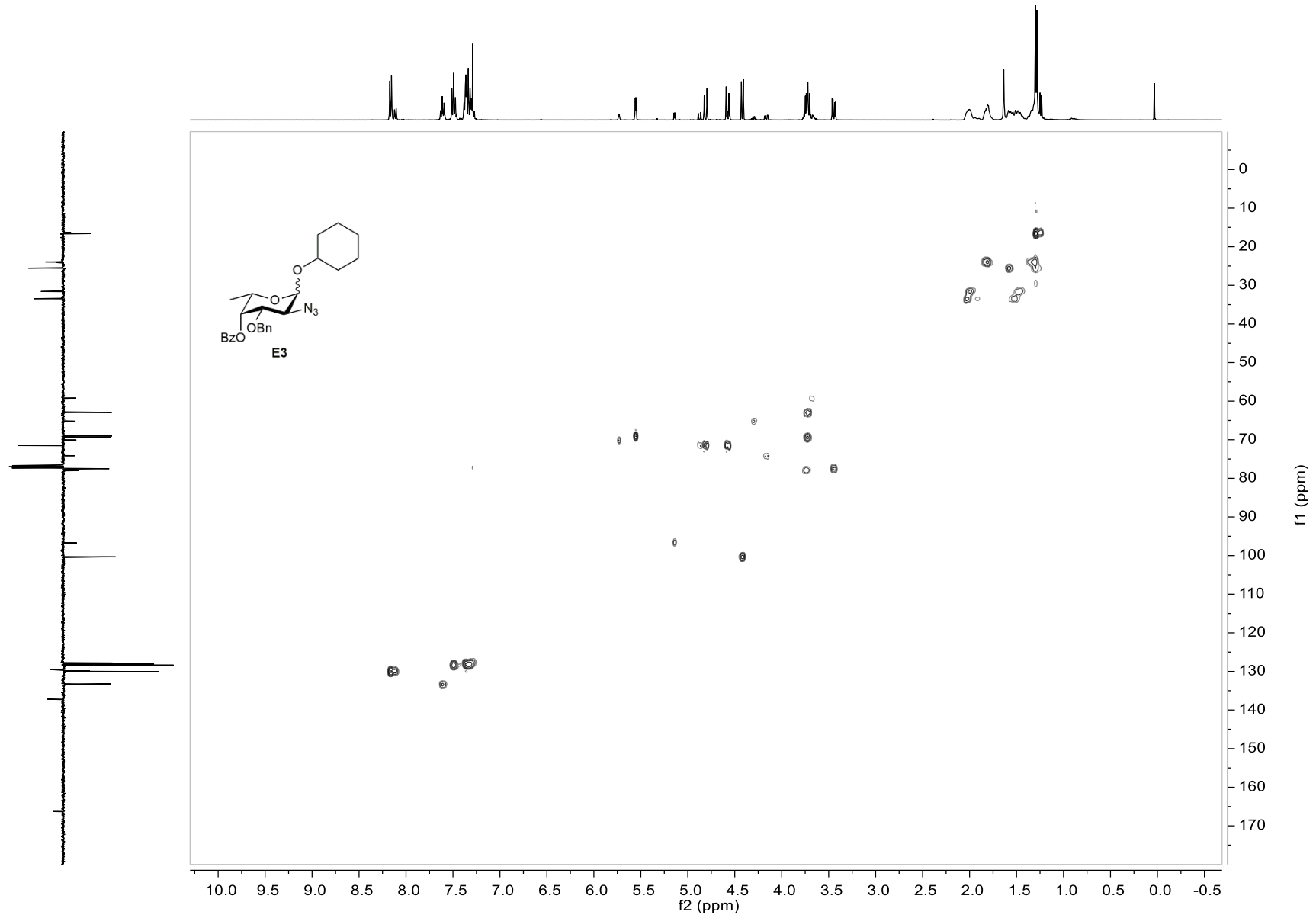


8.14  
8.13  
8.12  
8.12  
8.09  
8.07  
8.07  
7.60  
7.58  
7.57  
7.56  
7.56  
7.48  
7.47  
7.46  
7.45  
7.44  
7.35  
7.35  
7.33  
7.33  
7.33  
7.32  
7.32  
7.30  
7.30  
7.29  
7.28  
7.28  
7.27  
7.27  
7.26  
7.26  
7.24  
5.52  
5.52  
5.52  
4.79  
4.76  
4.56  
4.53  
4.40  
4.40  
4.38  
3.71  
3.70  
3.69  
3.69  
3.67  
3.43  
3.42  
3.40  
3.39  
1.98  
1.97  
1.97  
1.80  
1.79  
1.78  
1.76  
1.60  
1.55  
1.48  
1.45  
1.31  
1.30  
1.28  
1.26  
1.25  
1.22  
1.20  
-0.00



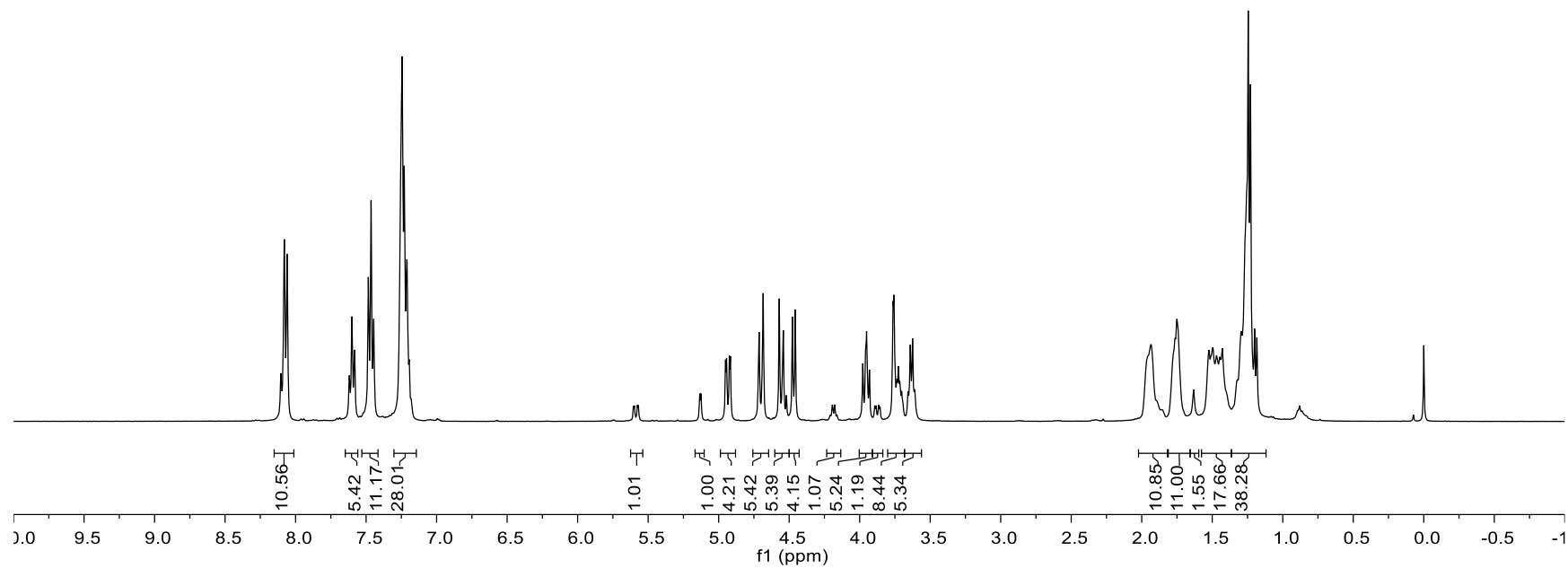
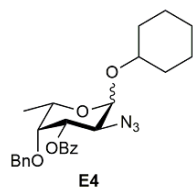


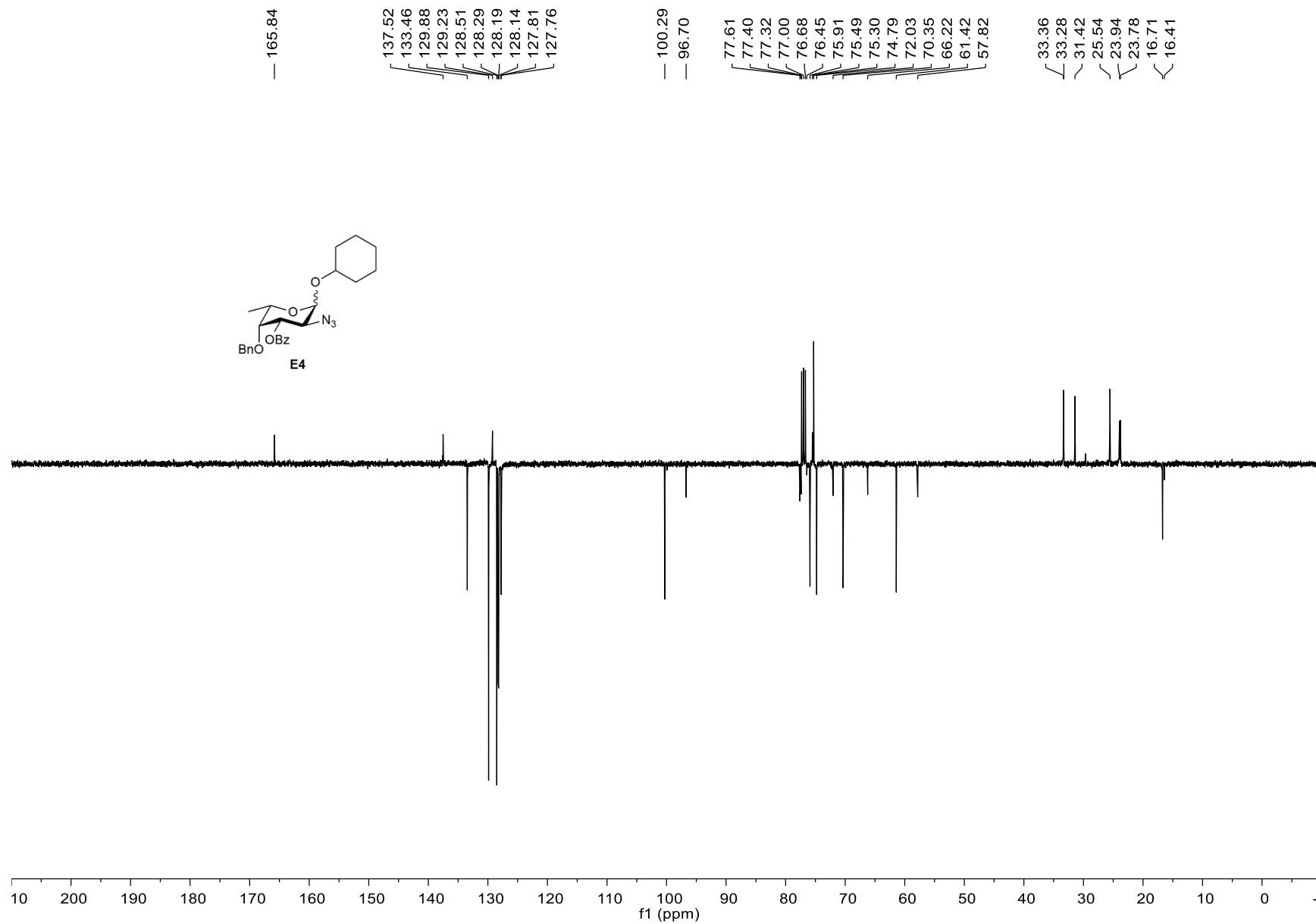


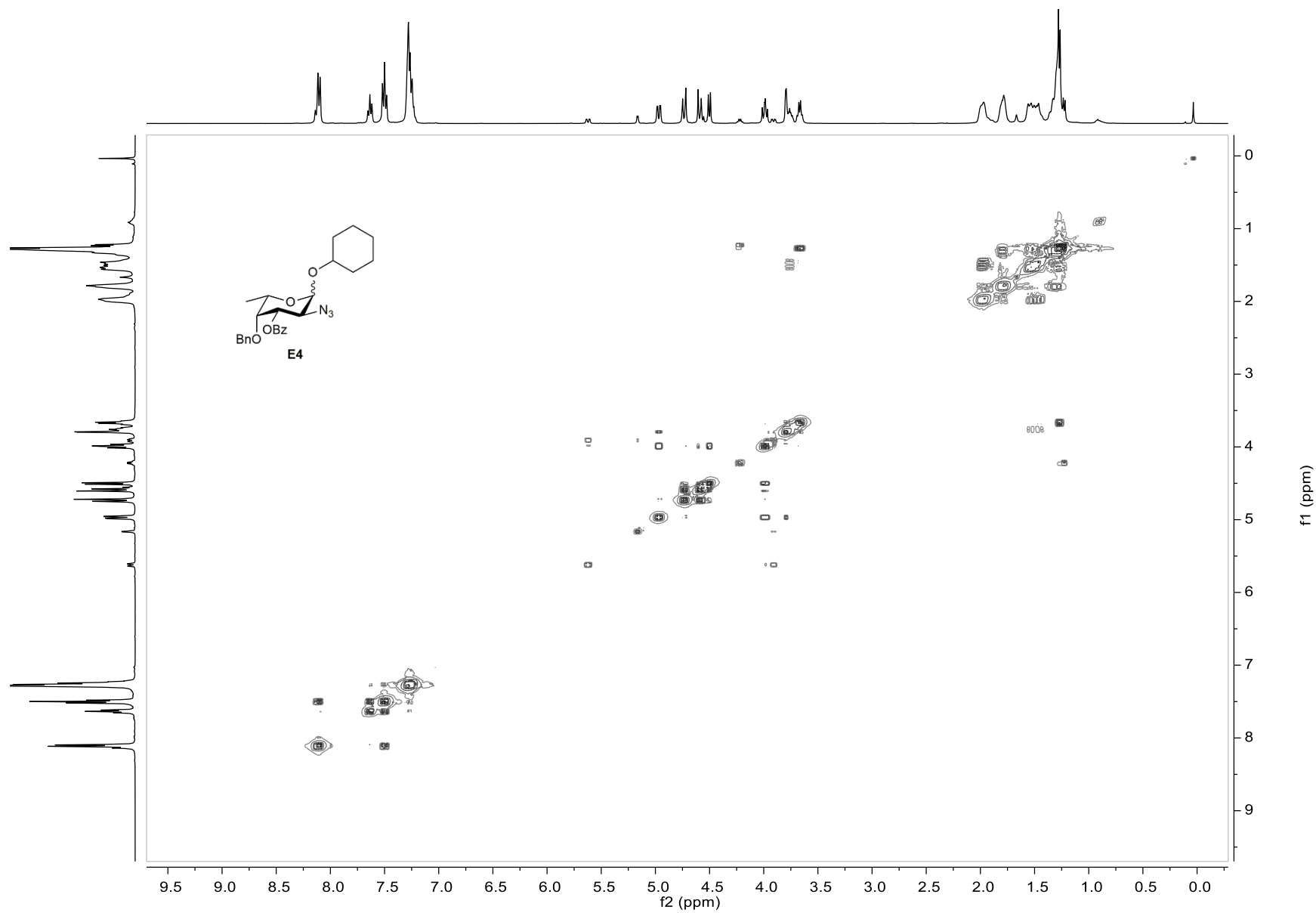




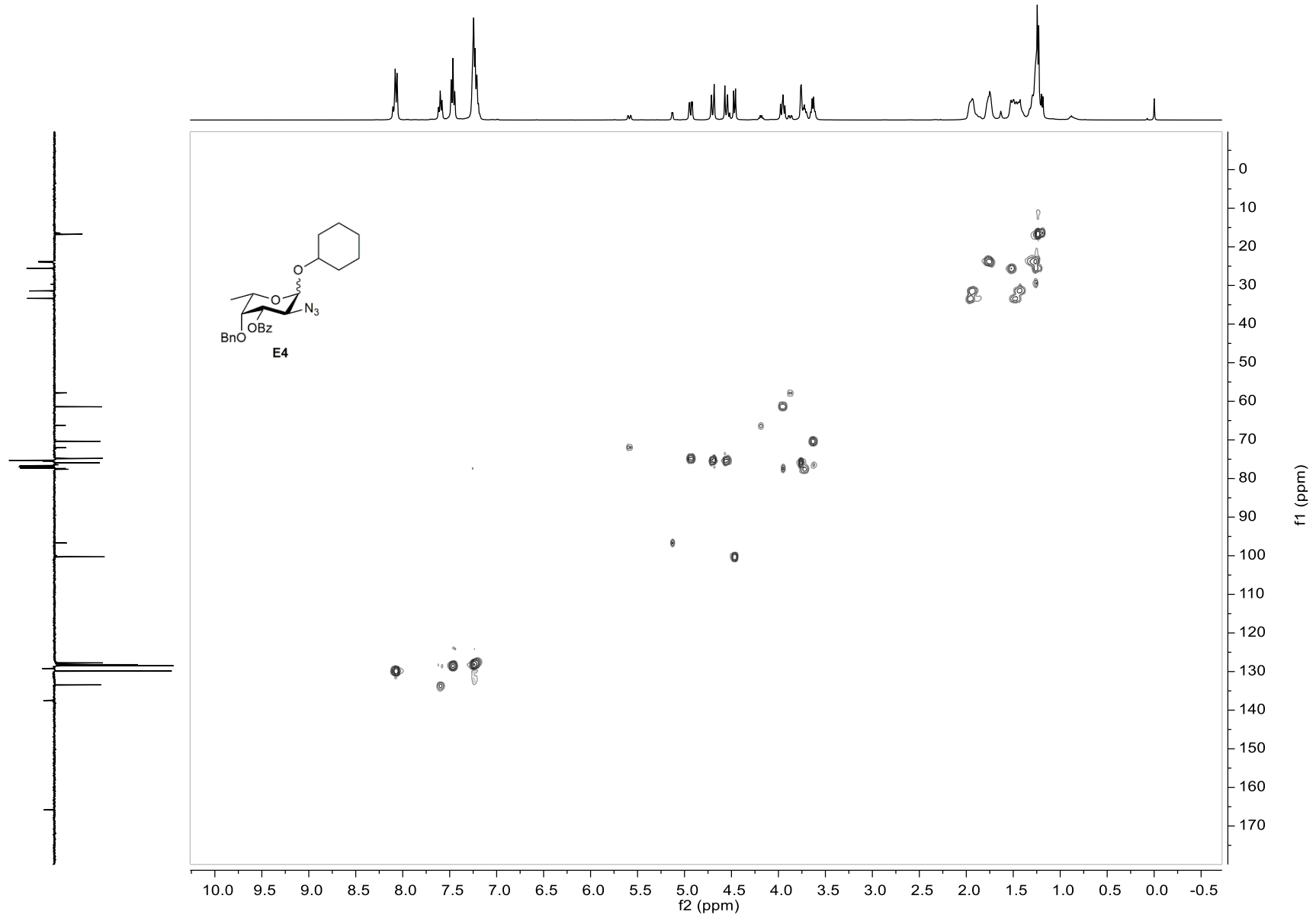
8.10  
8.08  
8.06  
7.62  
7.60  
7.58  
7.48  
7.46  
7.45  
7.24  
7.23  
7.21  
7.19  
7.18  
5.60  
5.60  
5.58  
5.57  
5.13  
5.13  
5.13  
4.95  
4.94  
4.92  
4.92  
4.71  
4.68  
4.57  
4.54  
4.52  
4.48  
4.46  
4.19  
4.18  
3.98  
3.96  
3.95  
3.93  
3.89  
3.88  
3.86  
3.86  
3.76  
3.76  
3.74  
3.73  
3.72  
3.70  
3.66  
3.64  
3.63  
3.61  
1.93  
1.76  
1.75  
1.63  
1.52  
1.50  
1.47  
1.45  
1.43  
1.32  
1.29  
1.24  
1.23  
1.20  
1.18  
0.88  
0.86  
-0.00

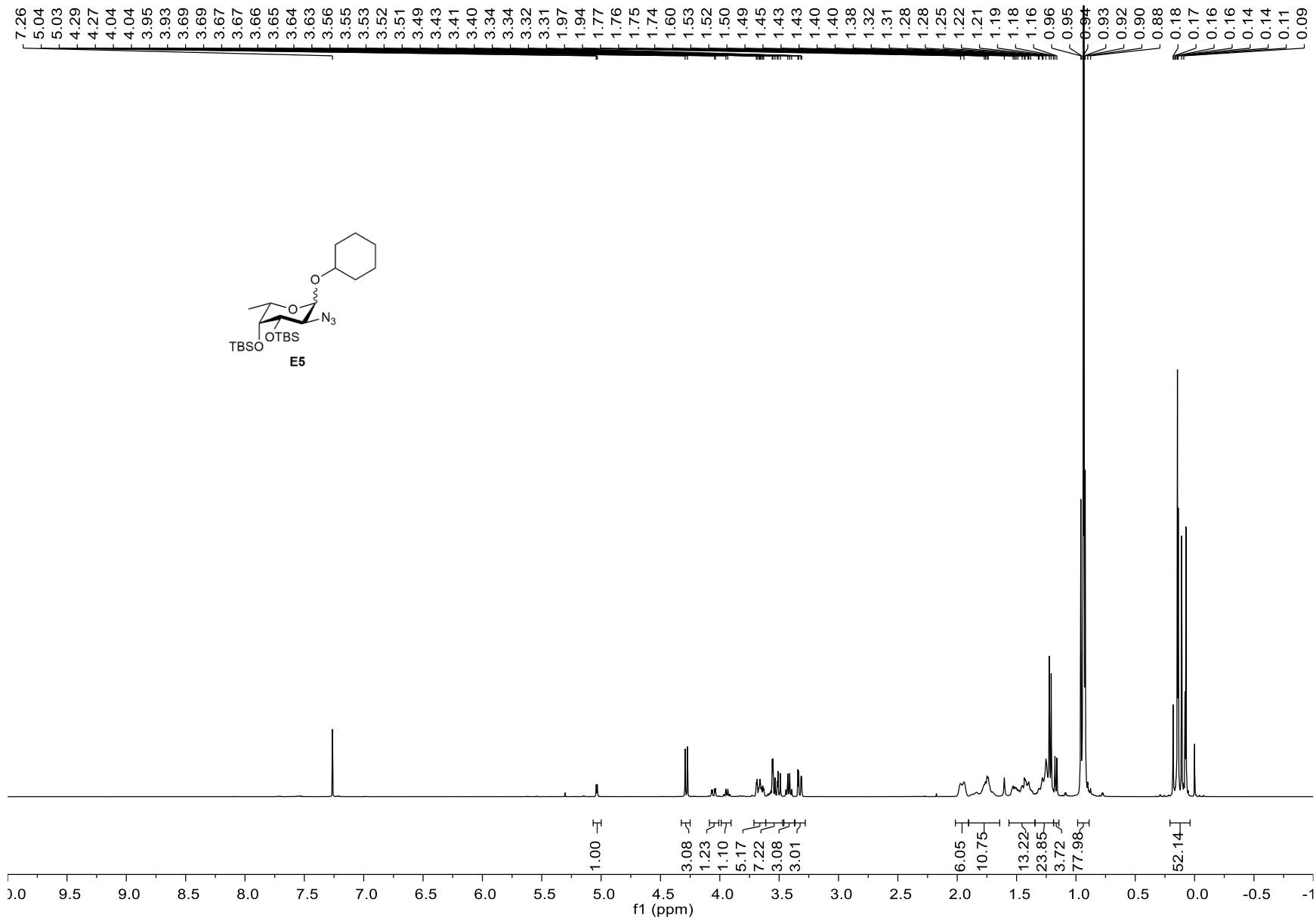


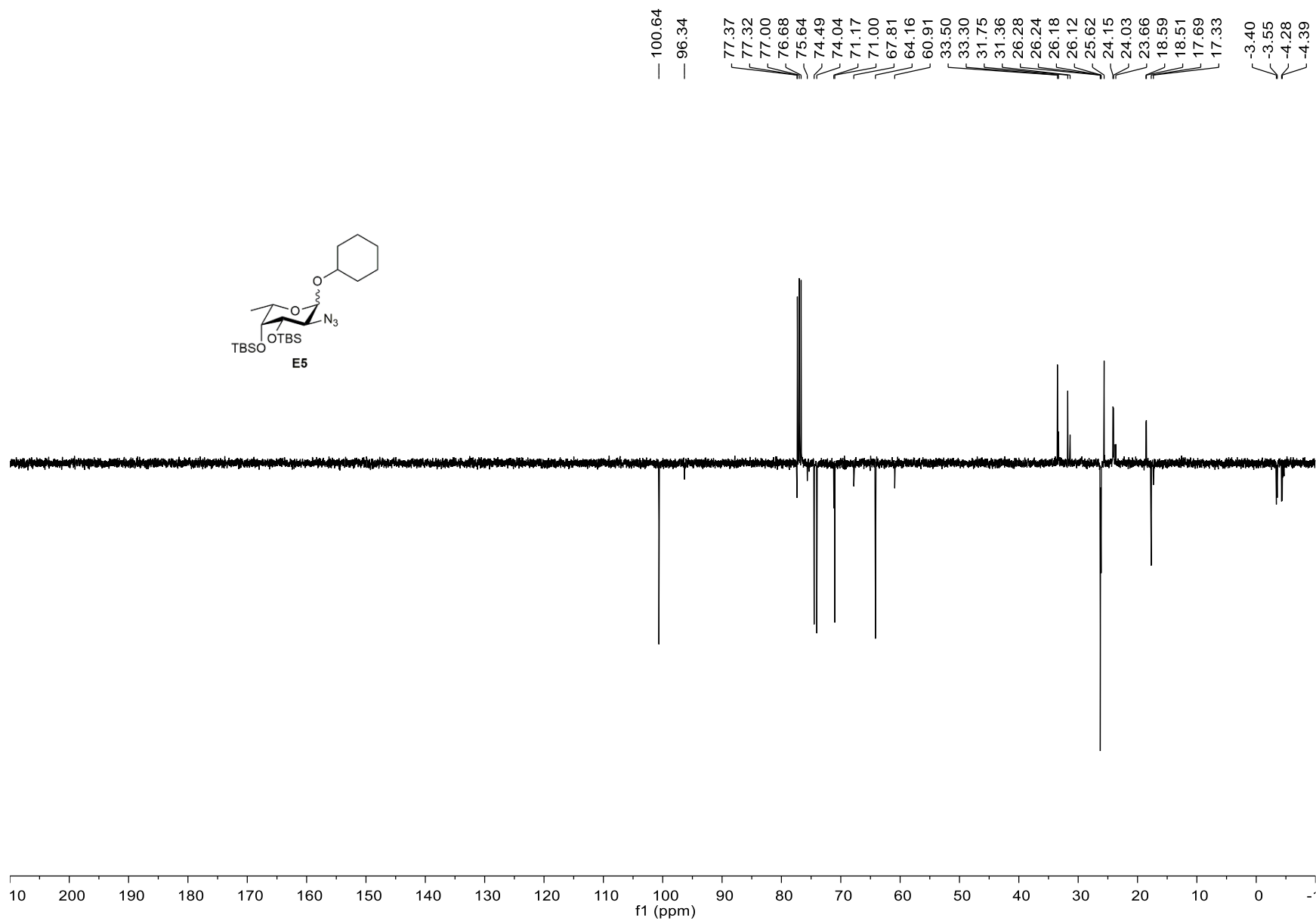
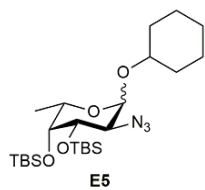


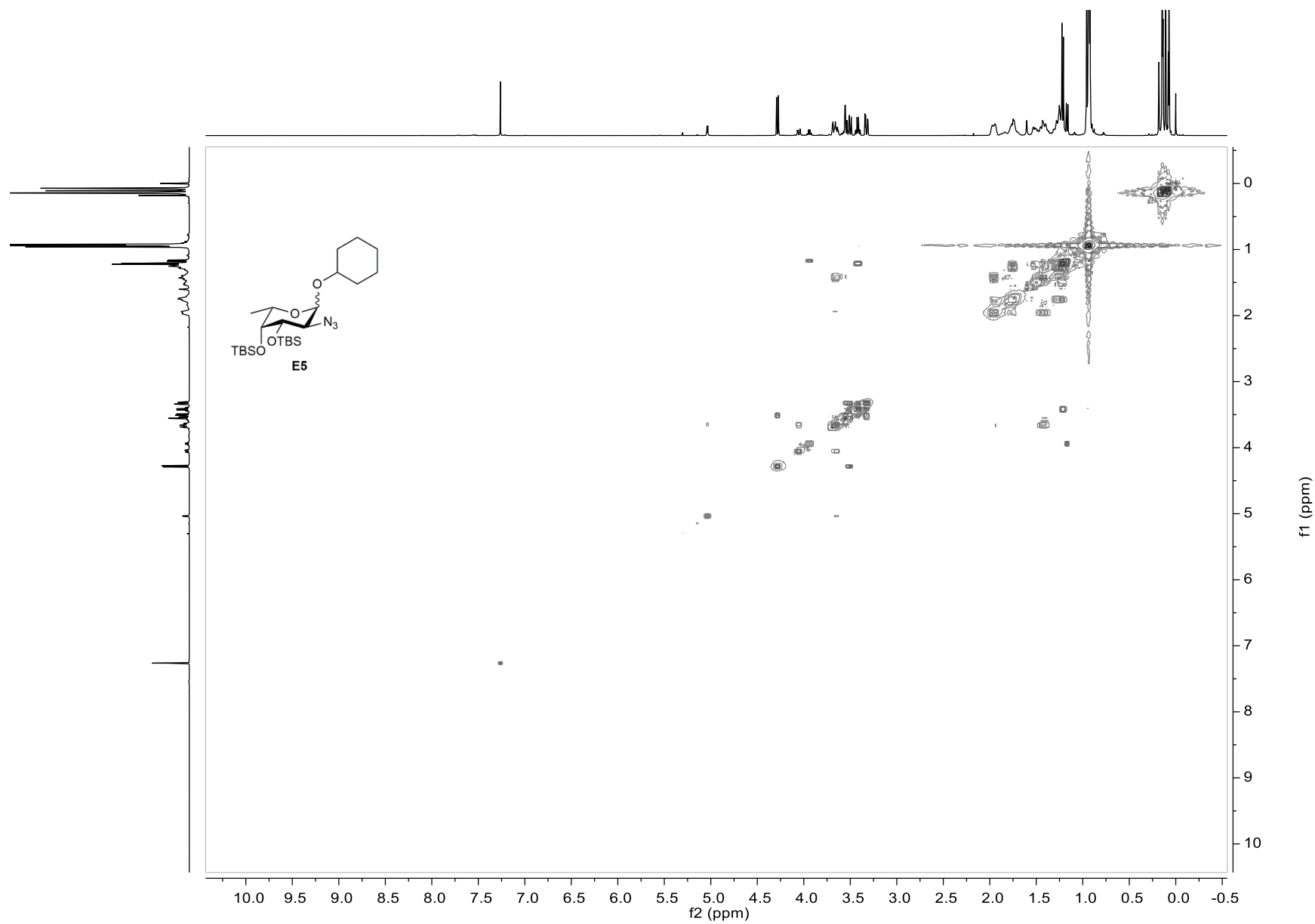


S151

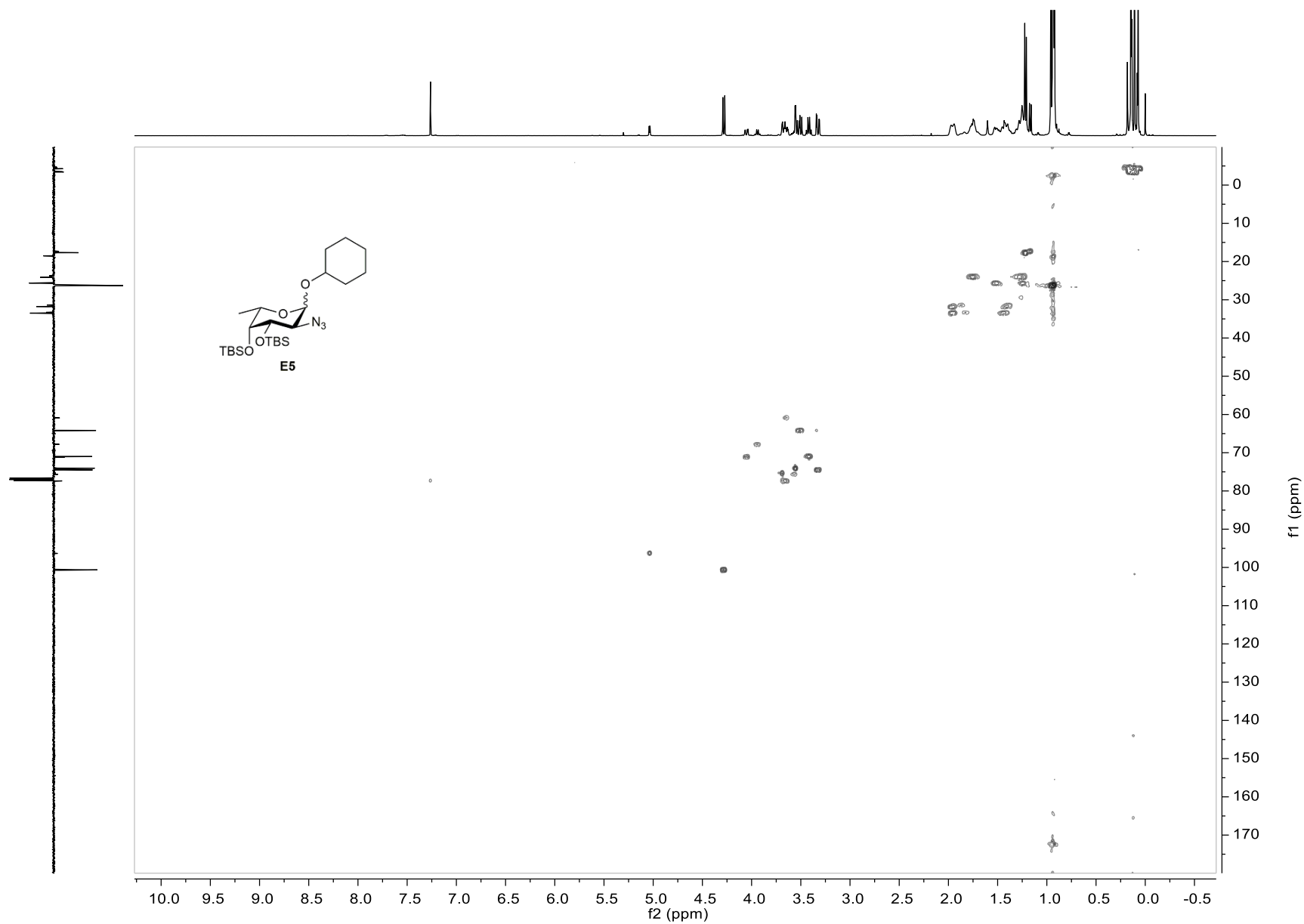




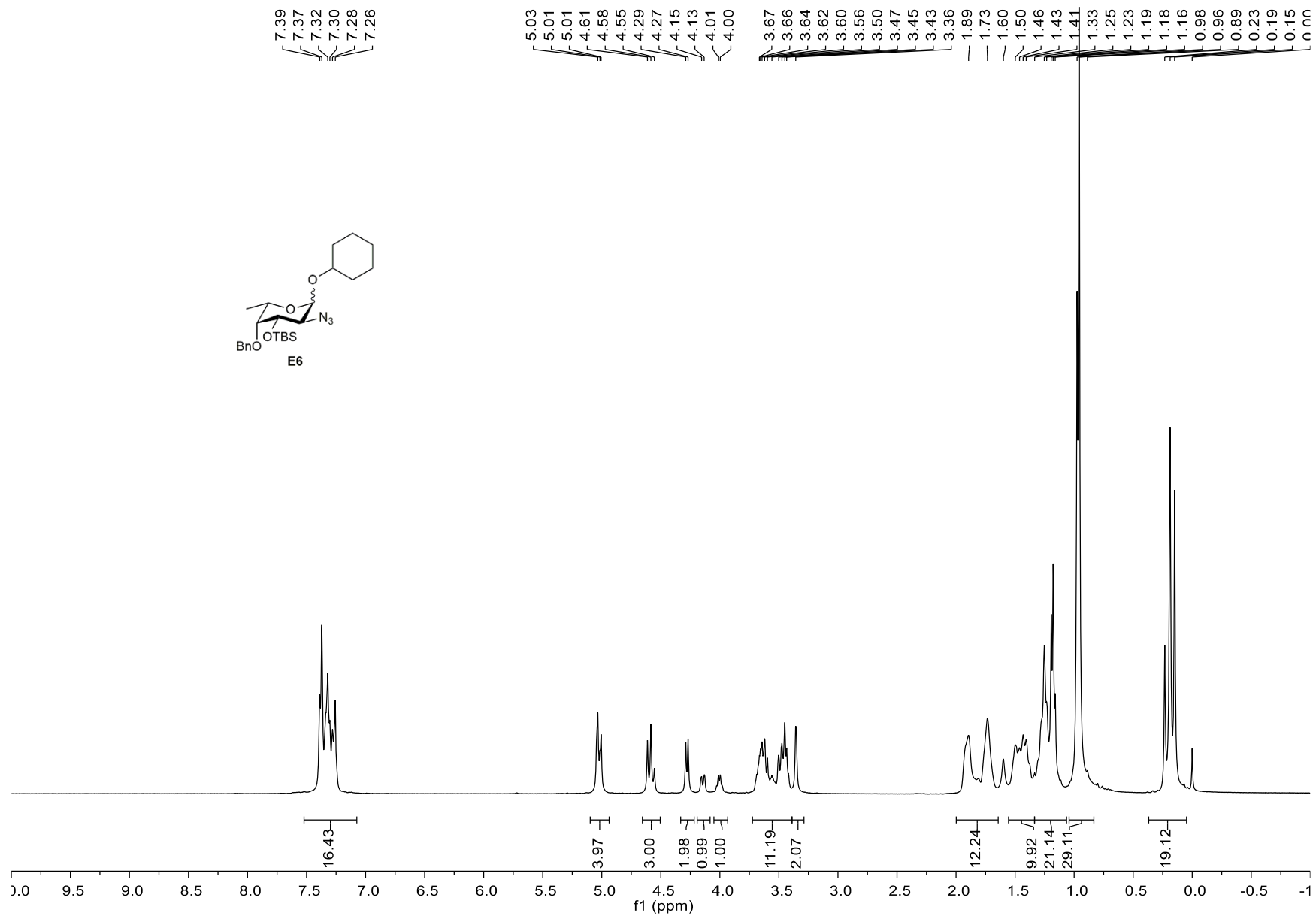
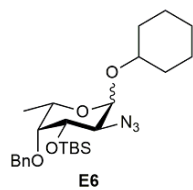


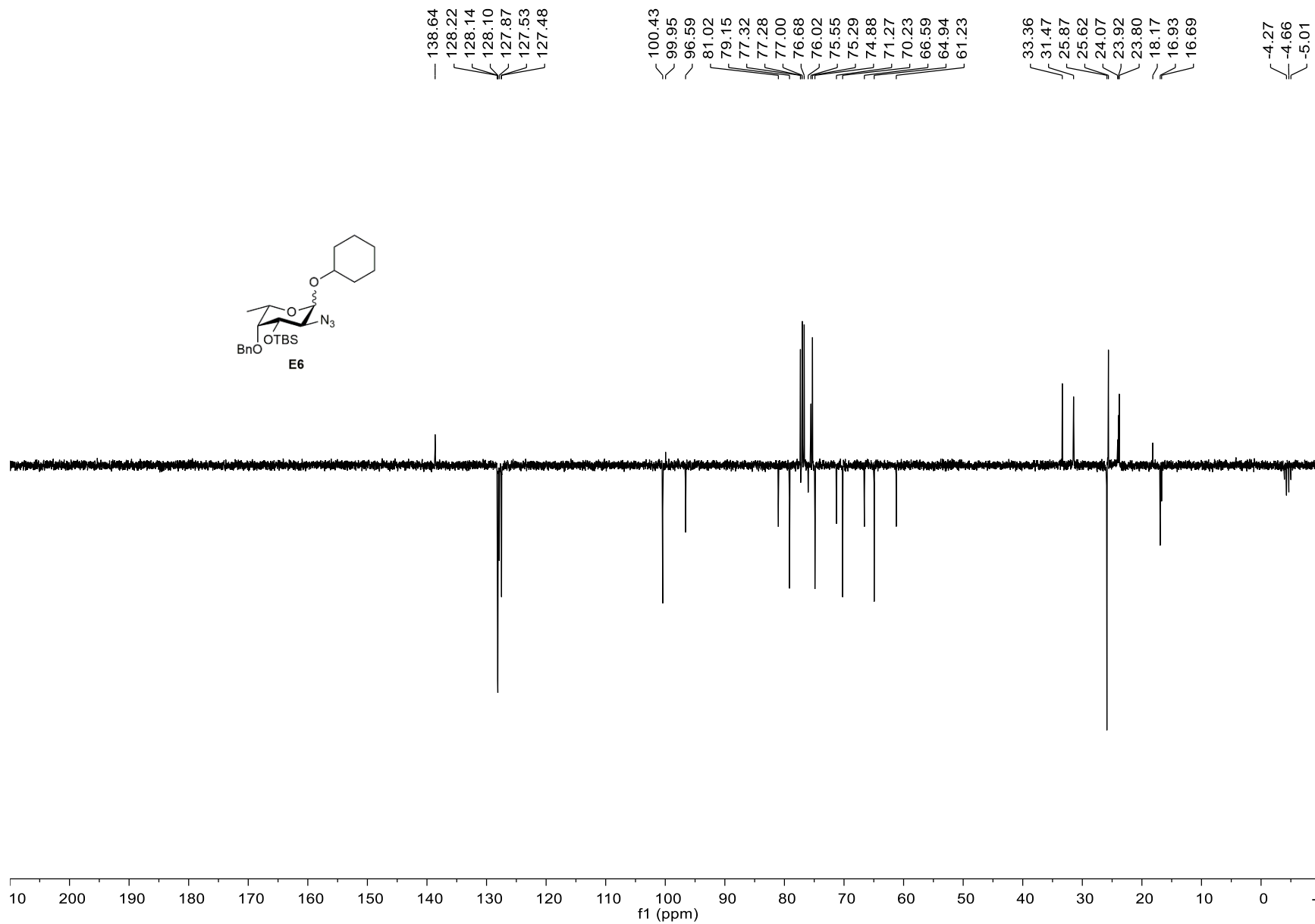
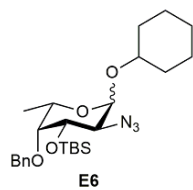


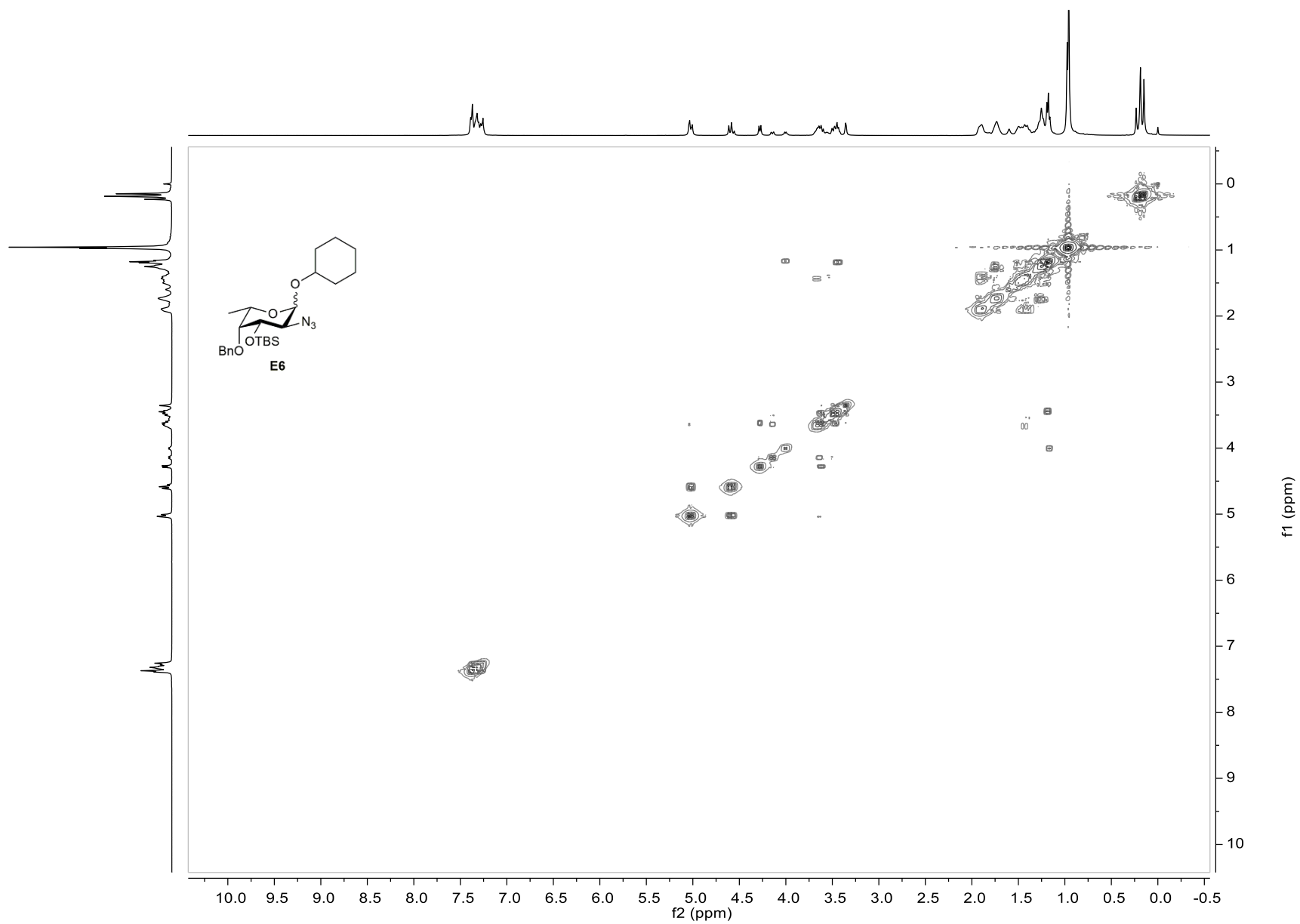
S155

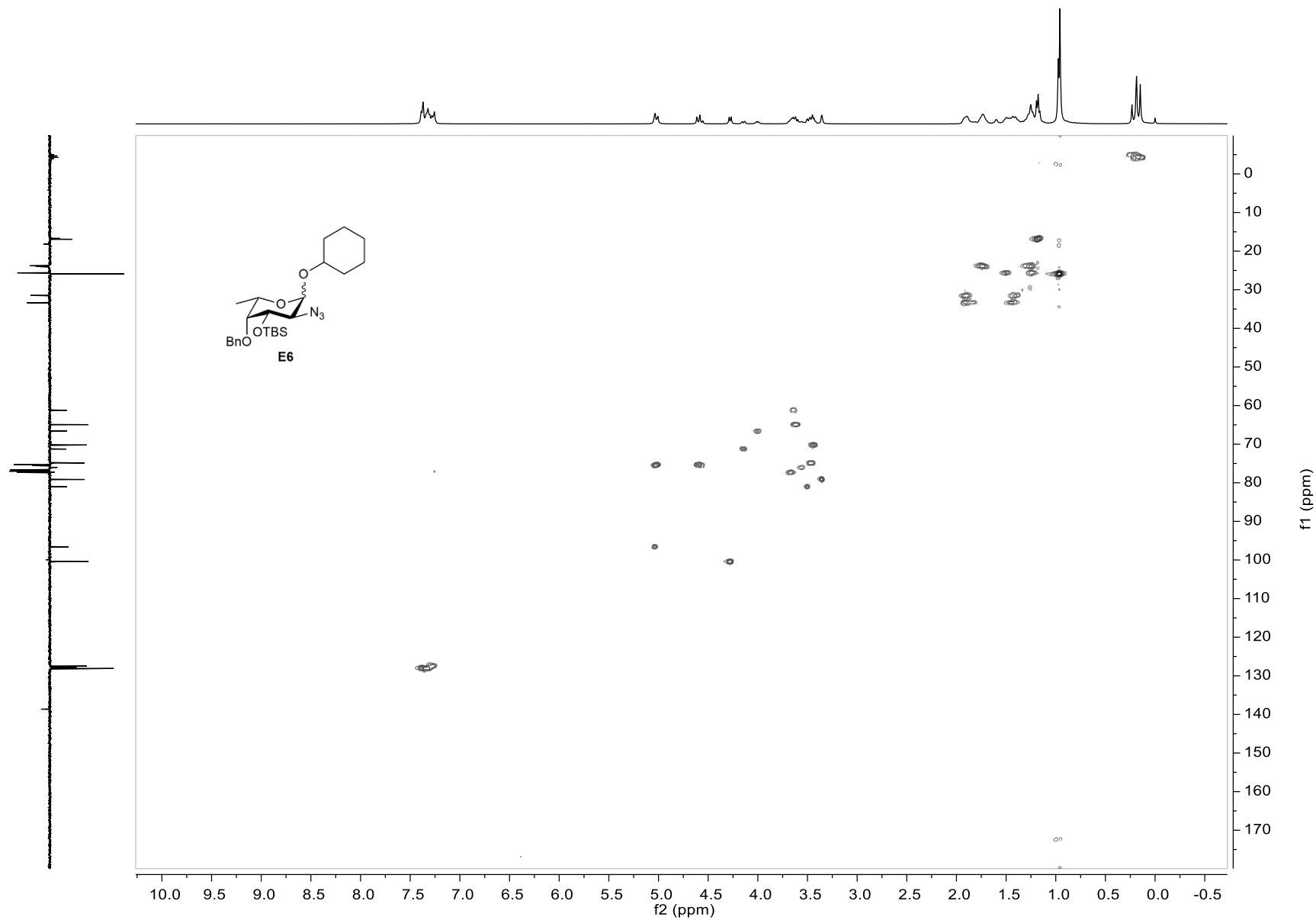




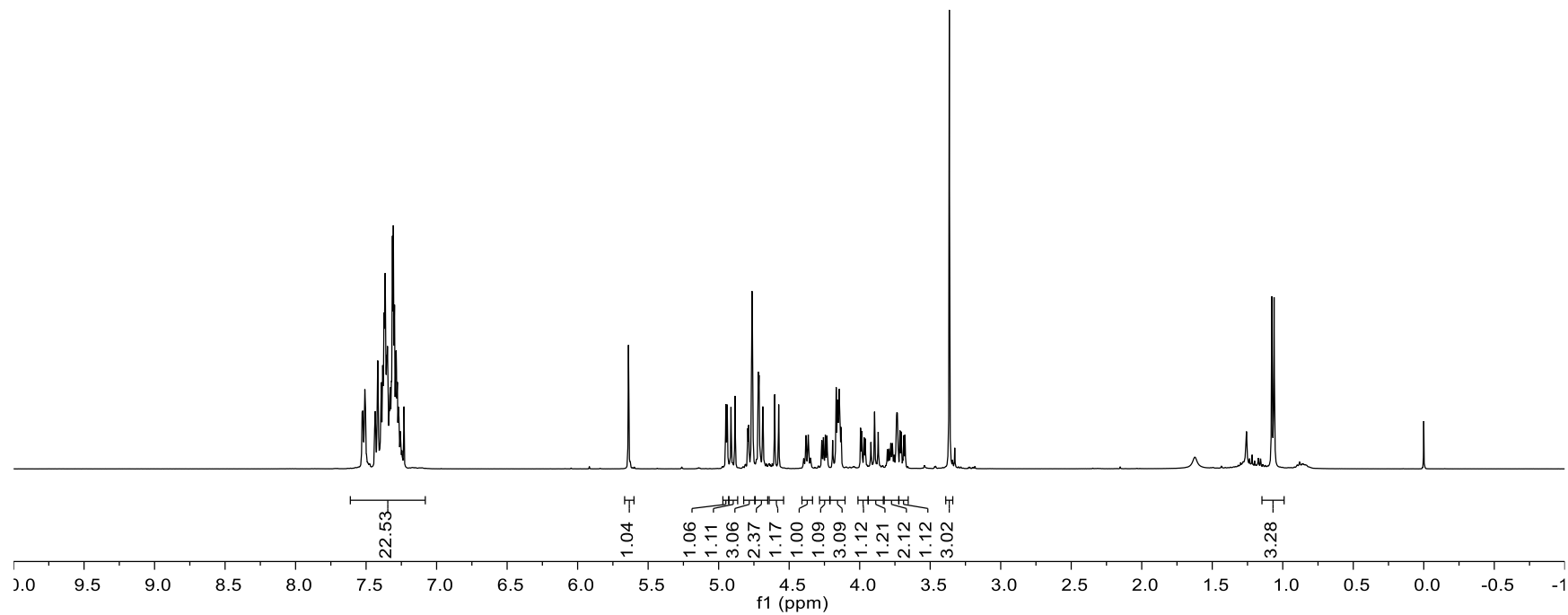
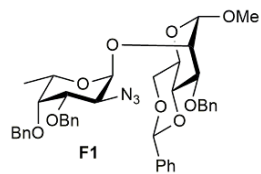




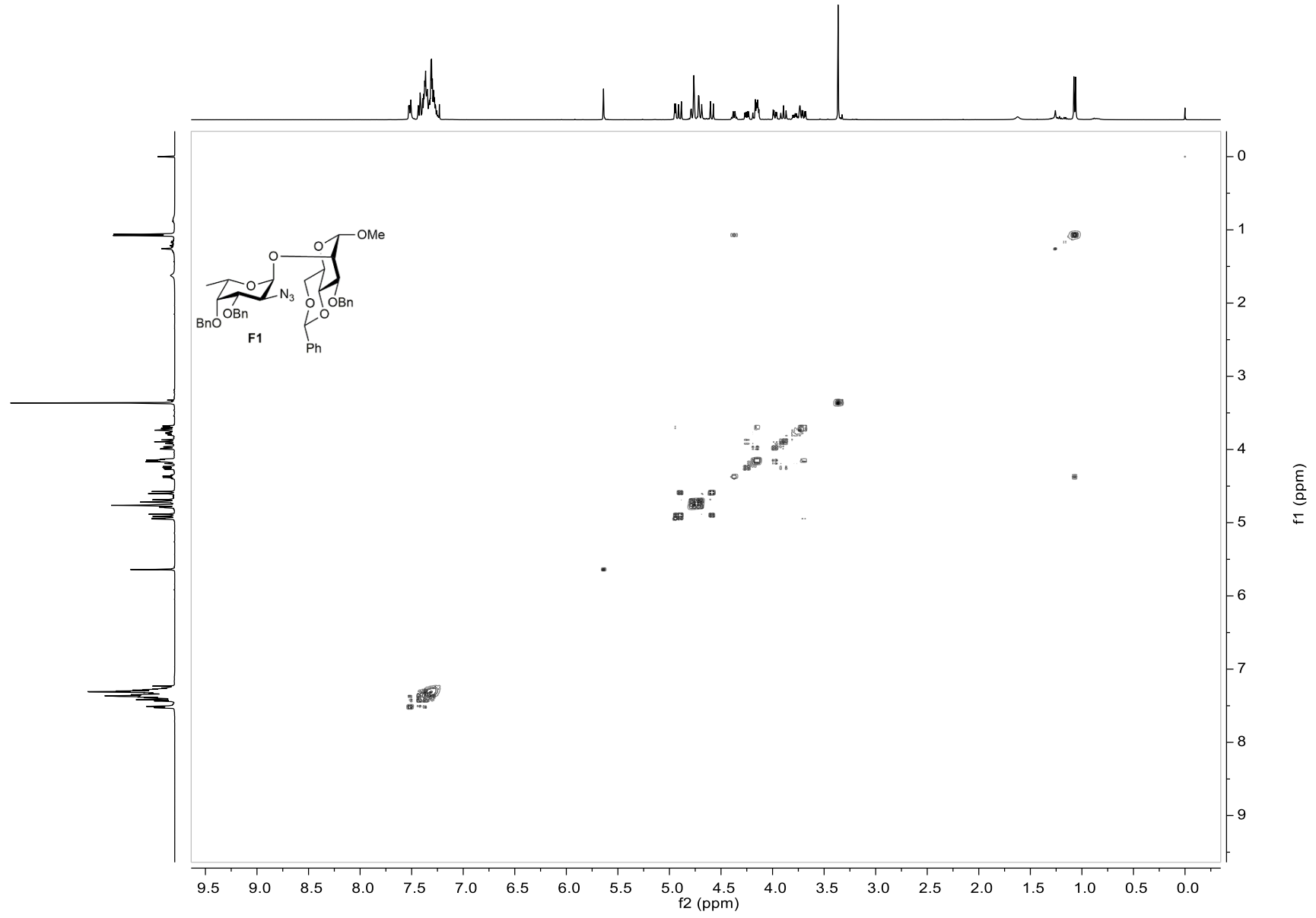


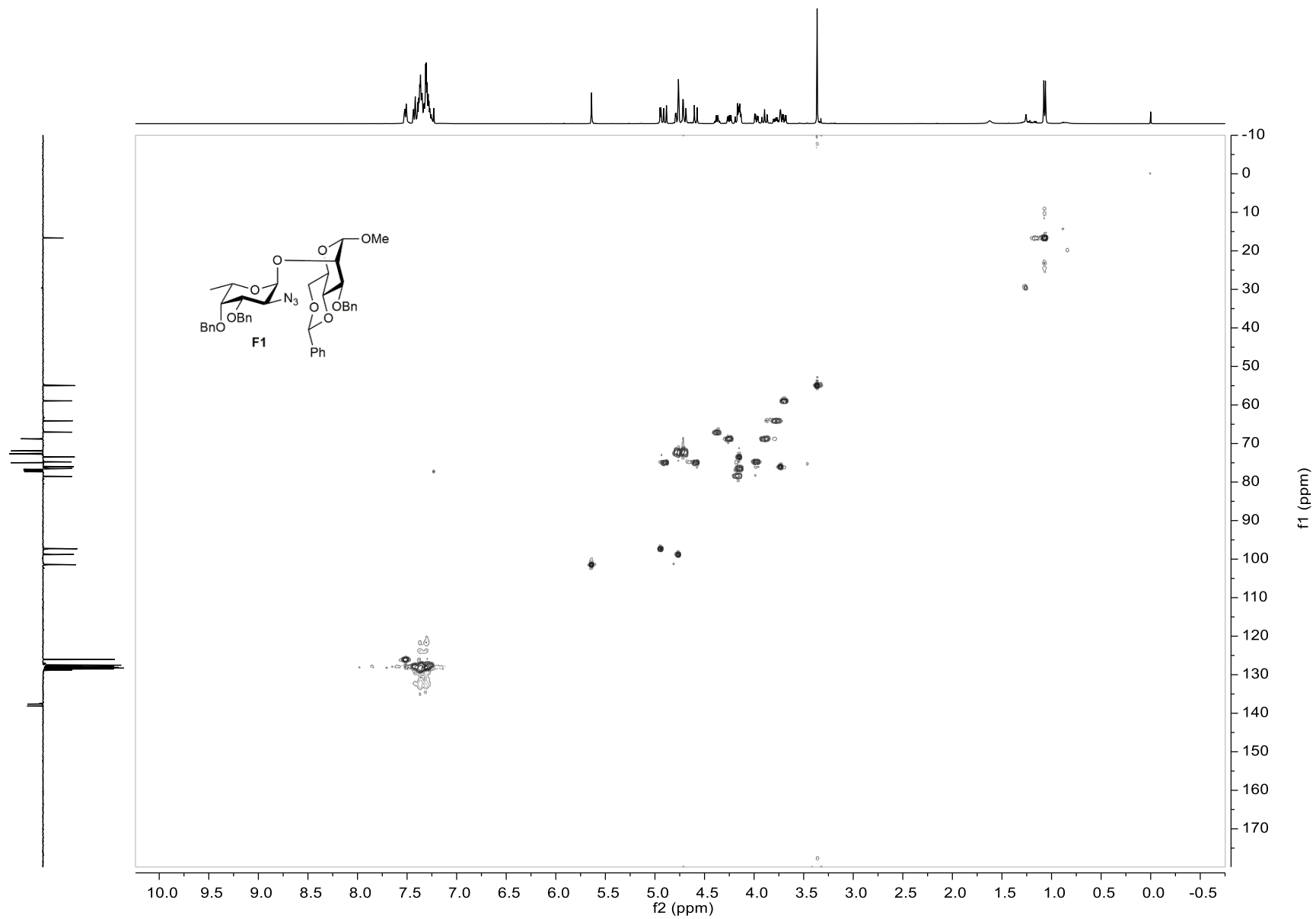


7.53  
7.52  
7.51  
7.50  
7.44  
7.44  
7.42  
7.39  
7.38  
7.37  
7.37  
7.36  
7.35  
7.35  
7.35  
7.34  
7.33  
7.33  
7.32  
7.31  
7.31  
7.30  
7.29  
7.29  
7.28  
7.27  
7.26  
7.23  
5.64  
4.95  
4.94  
4.91  
4.88  
4.79  
4.79  
4.76  
4.72  
4.71  
4.69  
4.60  
4.60  
4.57  
4.57  
4.38  
4.36  
4.27  
4.26  
4.24  
4.23  
4.19  
4.17  
4.16  
4.15  
4.15  
4.14  
4.14  
4.13  
3.99  
3.99  
3.97  
3.96  
3.89  
3.87  
3.74  
3.73  
3.71  
3.71  
3.69  
3.68  
3.36  
1.26  
1.08  
1.06  
0.00



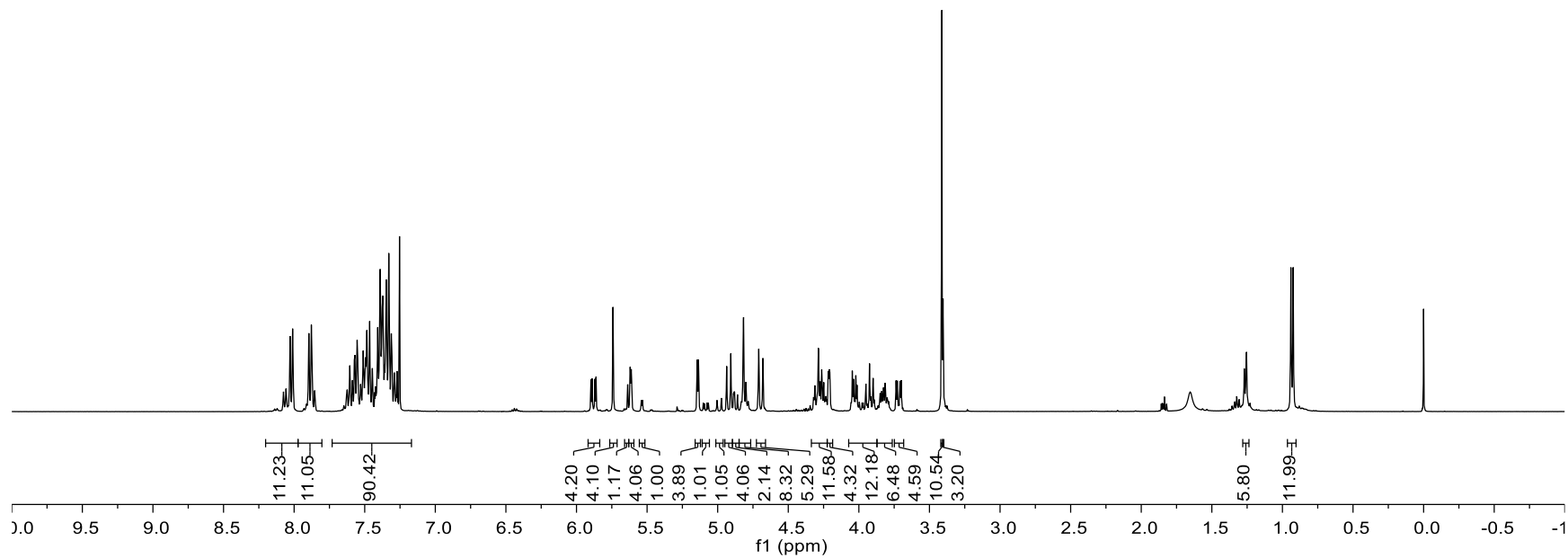
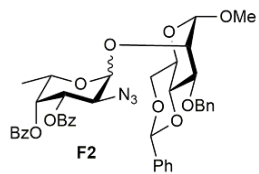




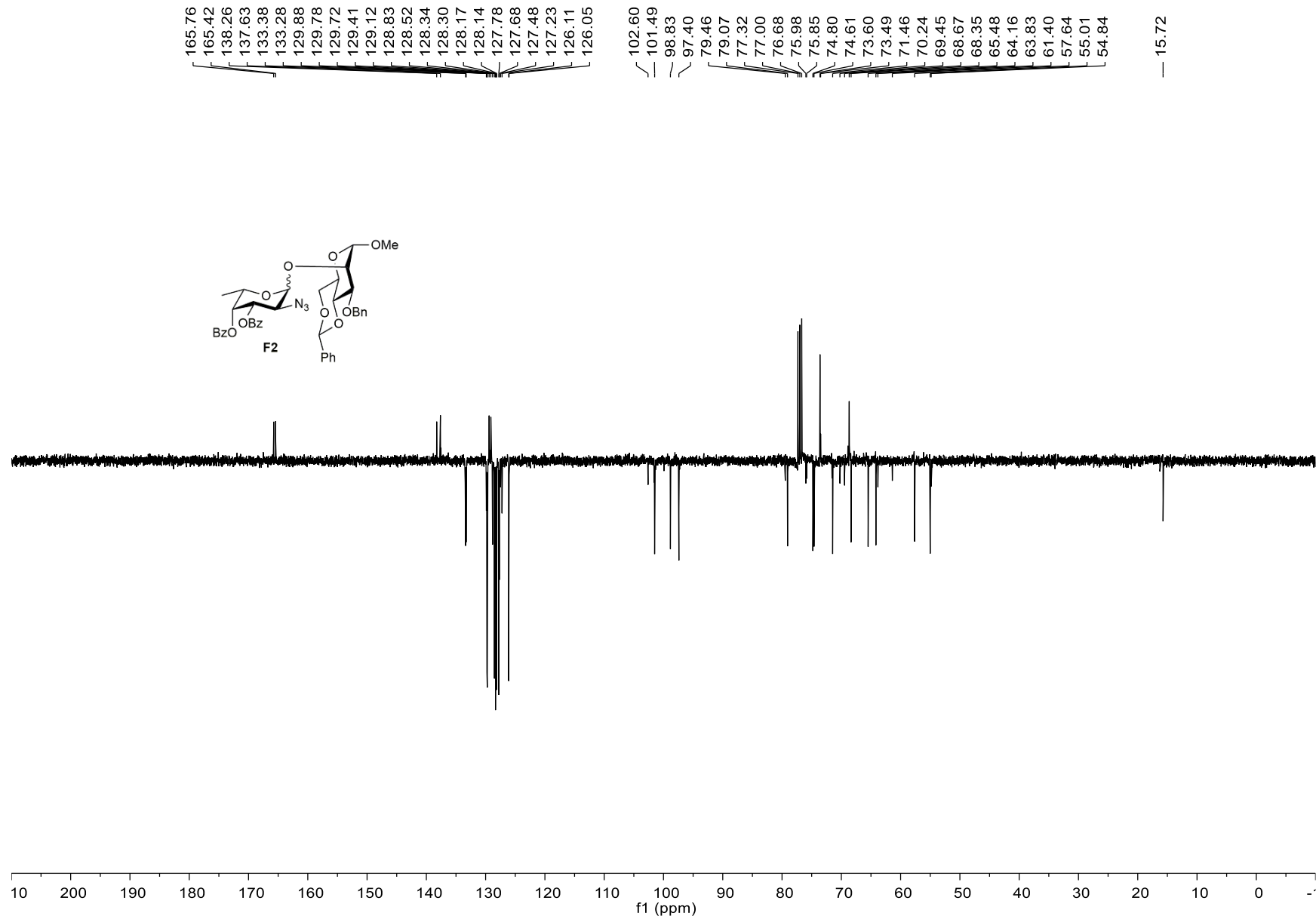


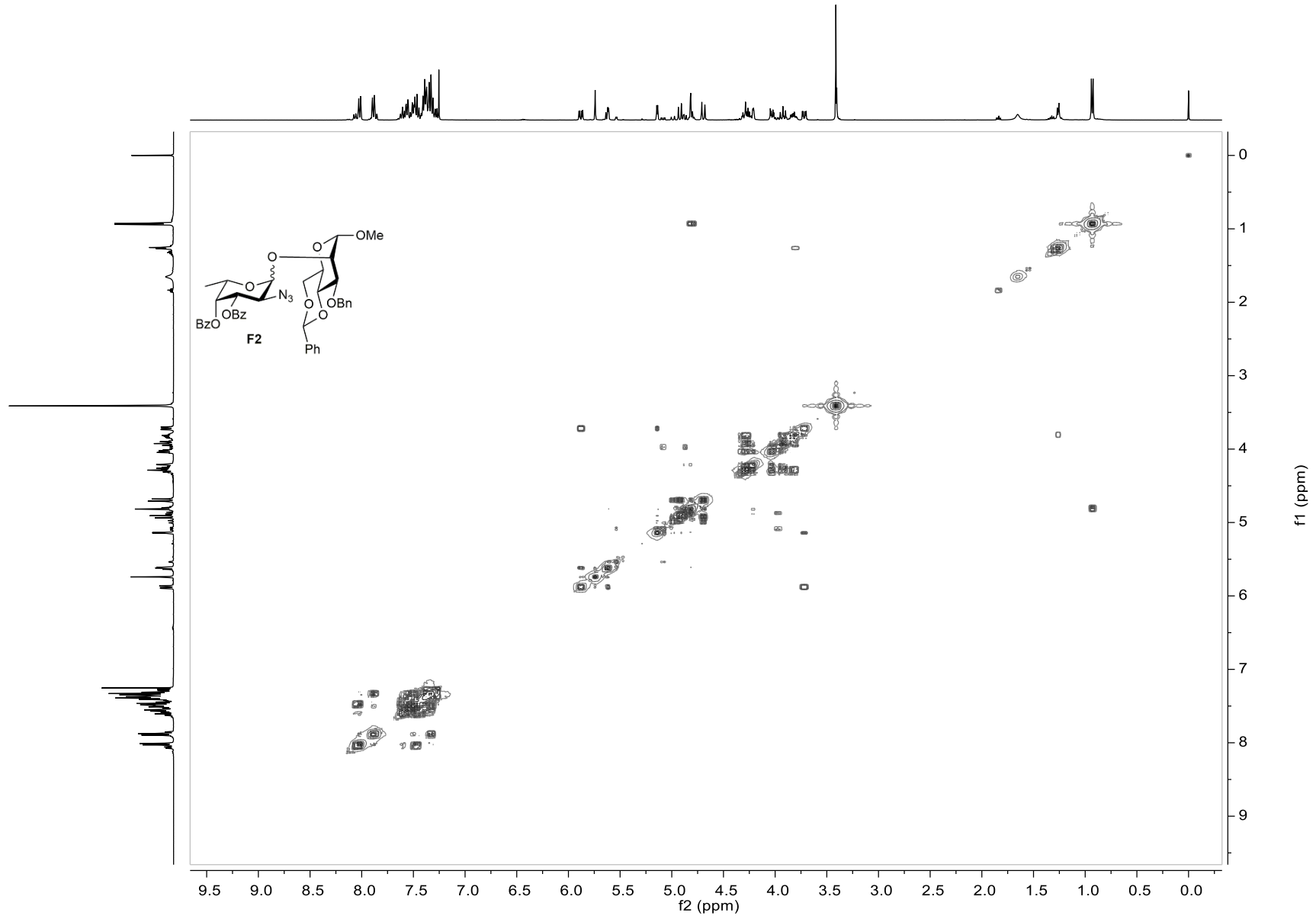


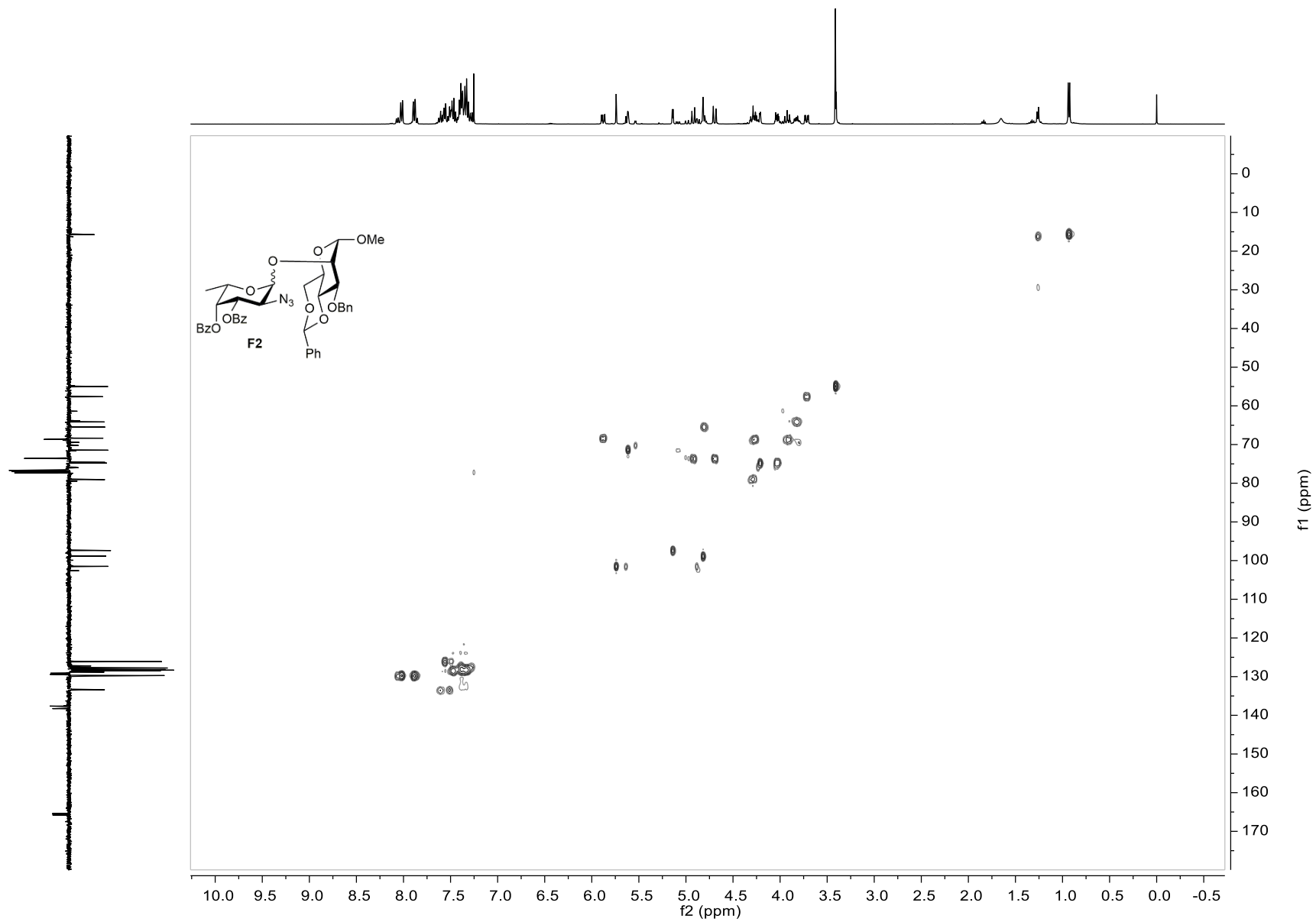
8.03  
8.01  
8.01  
7.90  
7.88  
7.87  
7.61  
7.59  
7.57  
7.57  
7.55  
7.55  
7.51  
7.50  
7.49  
7.49  
7.48  
7.46  
7.45  
7.41  
7.39  
7.38  
7.37  
7.37  
7.36  
7.35  
7.33  
7.31  
7.29  
7.29  
7.27  
7.25  
5.90  
5.89  
5.87  
5.86  
5.74  
5.62  
5.61  
5.15  
5.14  
4.94  
4.91  
4.82  
4.80  
4.71  
4.68  
4.29  
4.27  
4.26  
4.26  
4.25  
4.22  
4.21  
4.21  
4.21  
4.05  
4.04  
4.02  
3.92  
3.90  
3.74  
3.73  
3.71  
3.70  
3.41  
3.40  
1.27  
1.25  
0.94  
0.92  
0.00



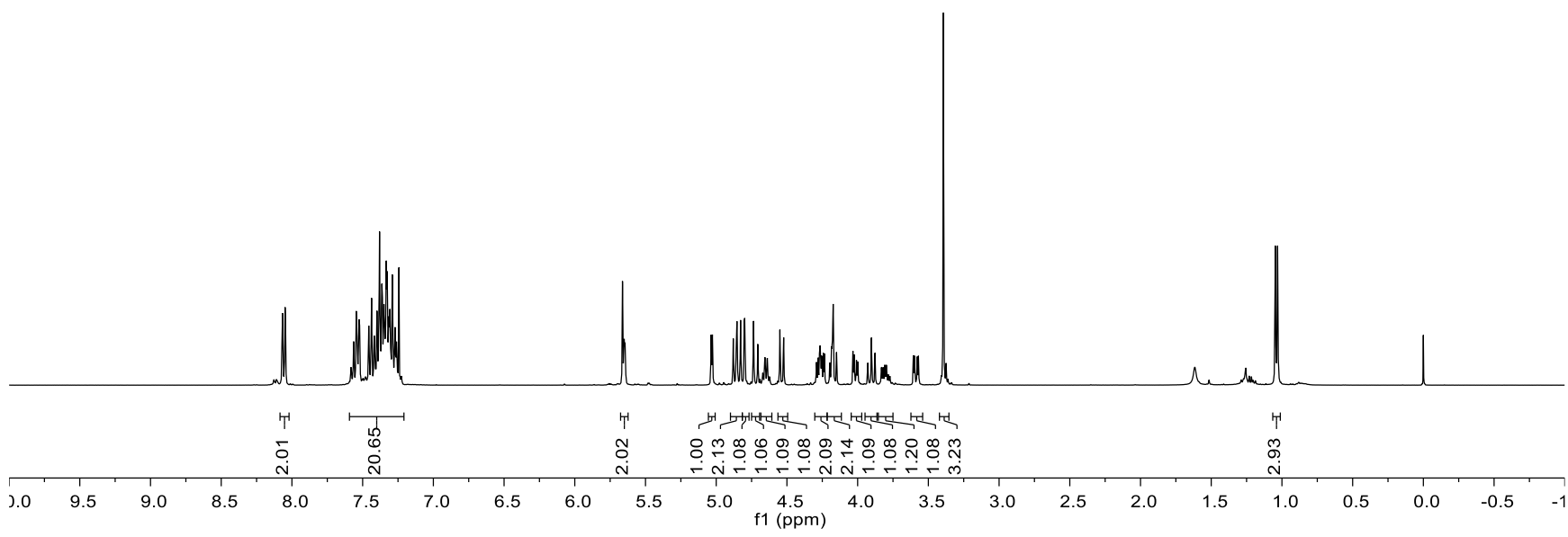
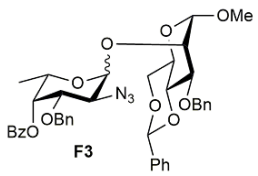
S165

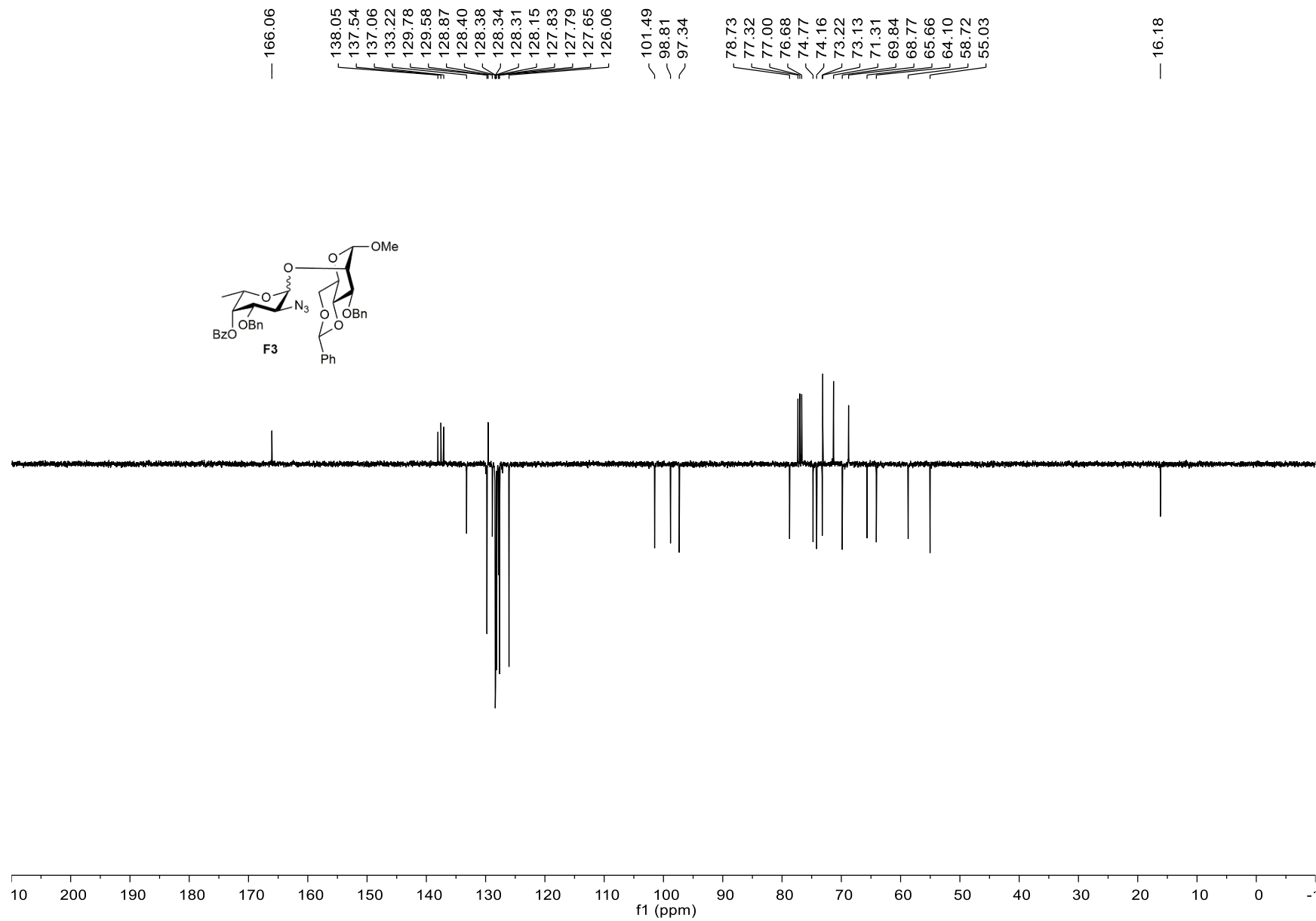


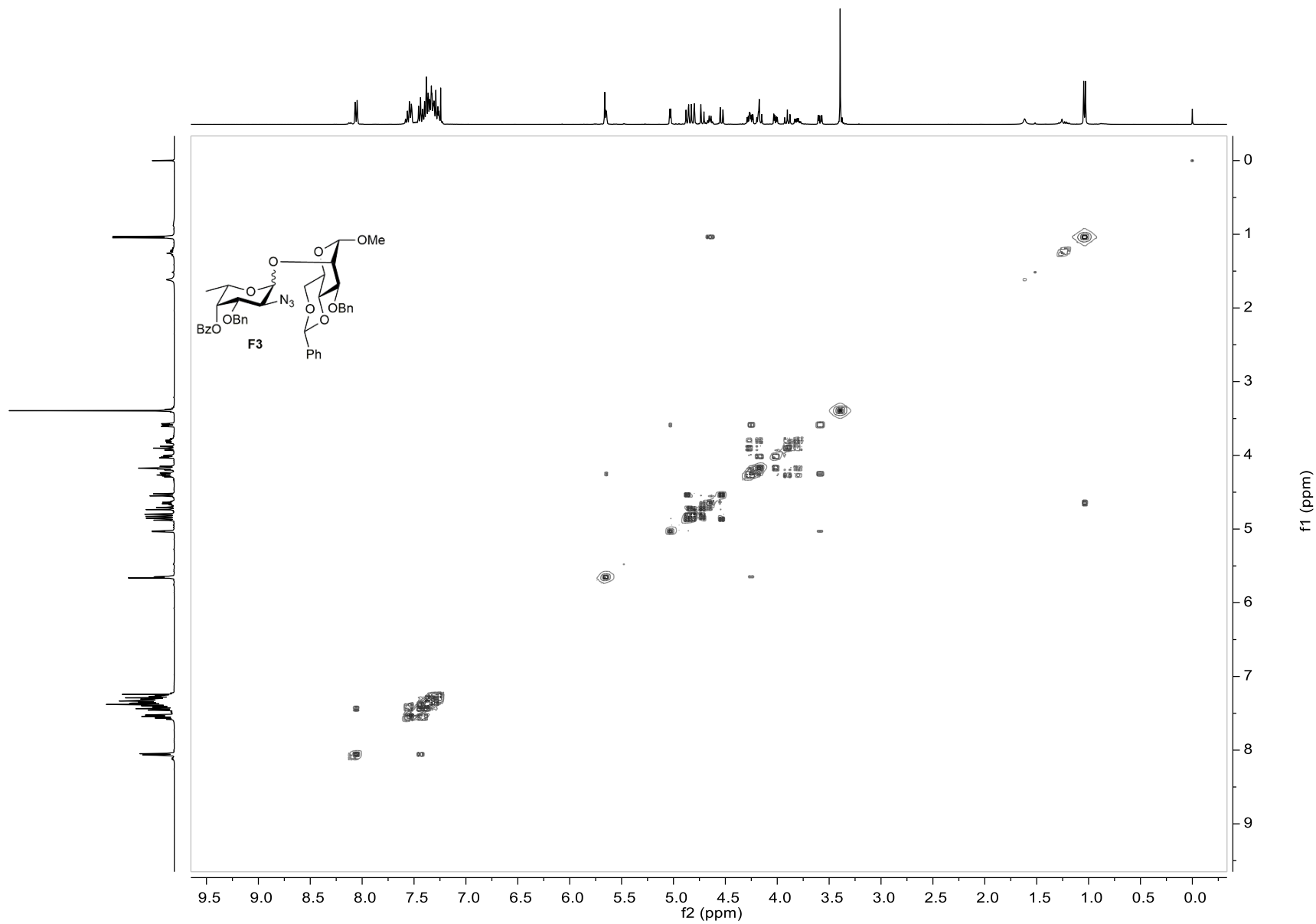


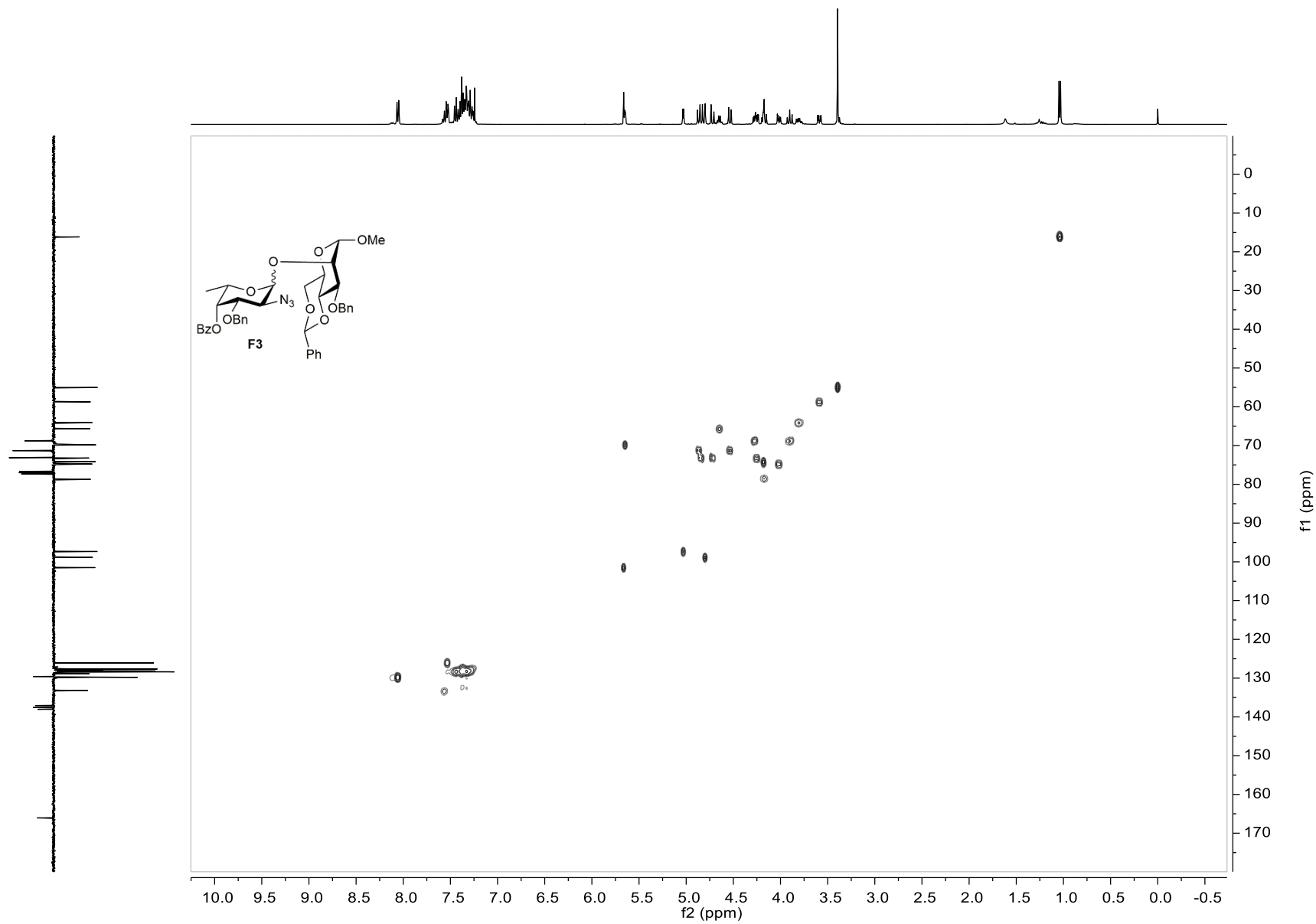


8.07  
8.05  
8.05  
7.56  
7.55  
7.54  
7.53  
7.52  
7.46  
7.44  
7.42  
7.40  
7.38  
7.36  
7.35  
7.35  
7.34  
7.33  
7.33  
7.31  
7.31  
7.29  
7.27  
7.27  
7.26  
7.24  
5.66  
5.65  
5.65  
5.04  
5.03  
4.88  
4.85  
4.83  
4.80  
4.80  
4.74  
4.71  
4.66  
4.64  
4.55  
4.52  
4.29  
4.28  
4.27  
4.27  
4.26  
4.25  
4.24  
4.23  
4.20  
4.18  
4.18  
4.17  
4.15  
4.03  
4.02  
4.01  
4.00  
3.93  
3.90  
3.88  
3.61  
3.60  
3.58  
3.57  
3.39  
3.37  
1.05  
1.03  
0.00



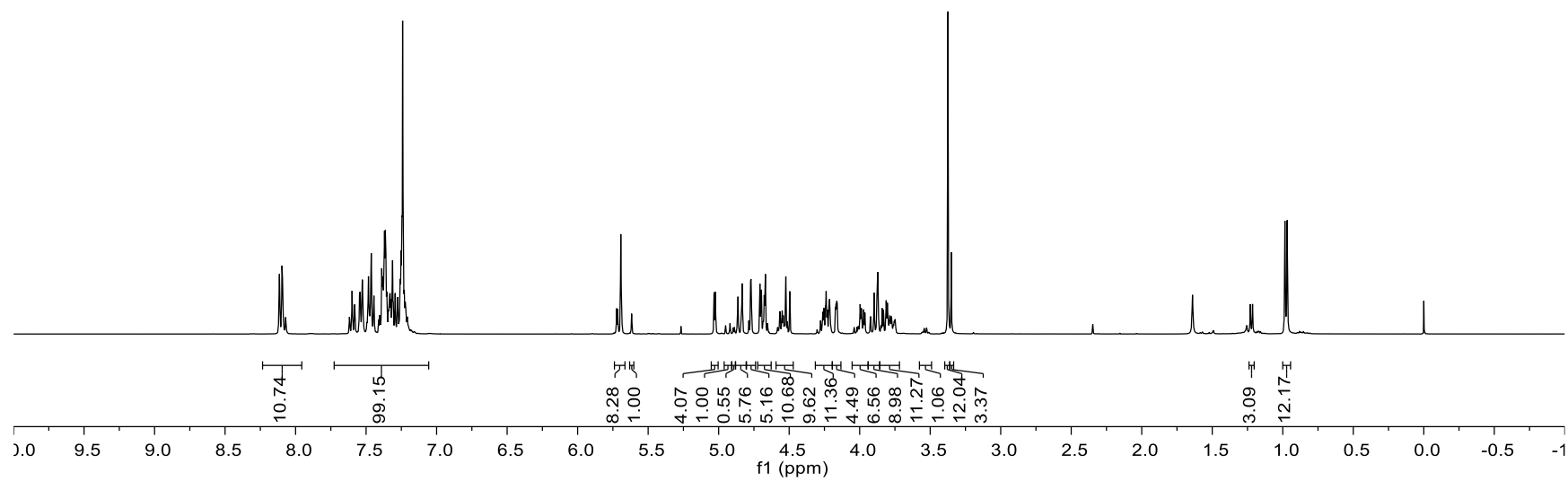
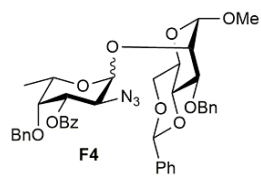


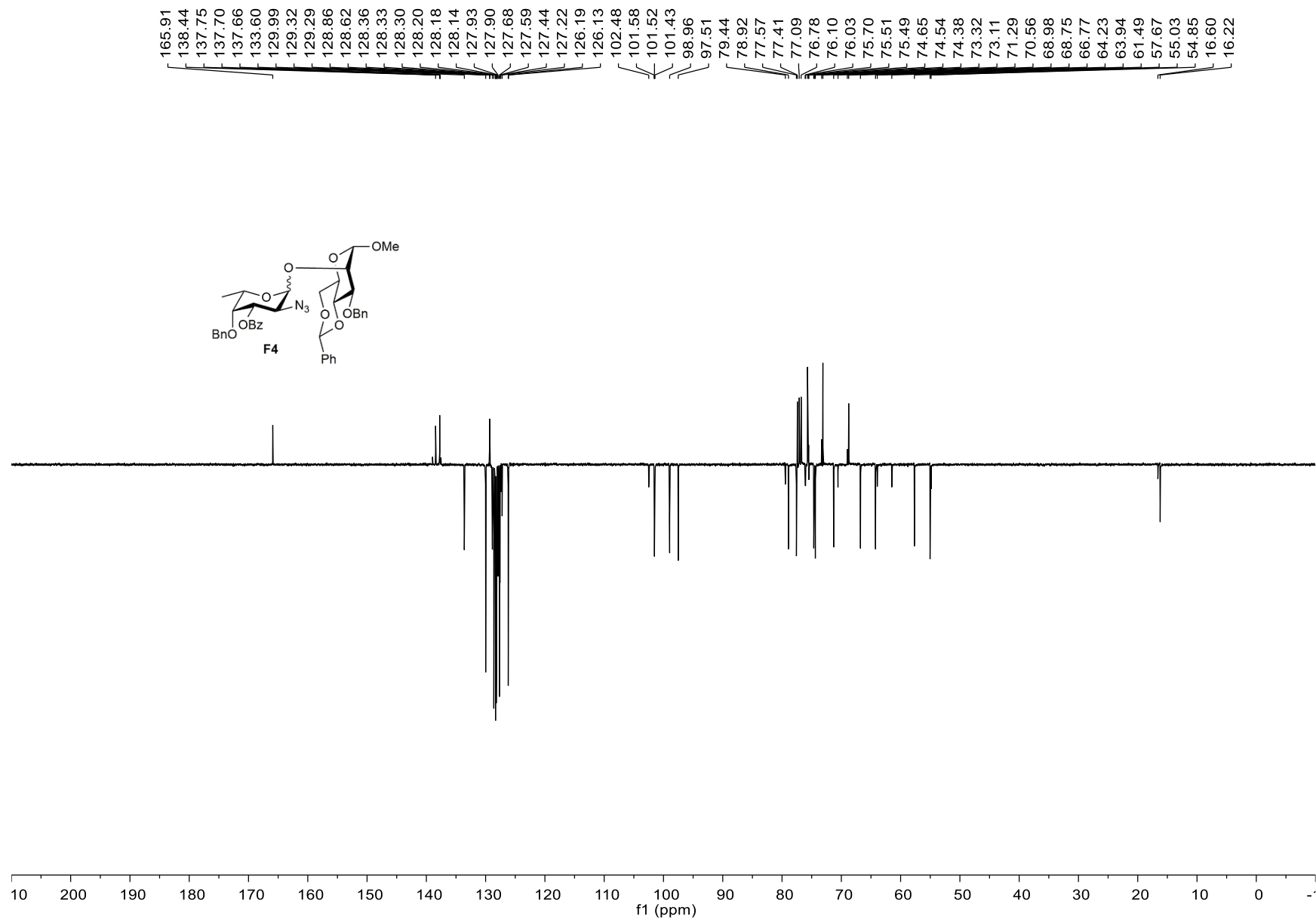


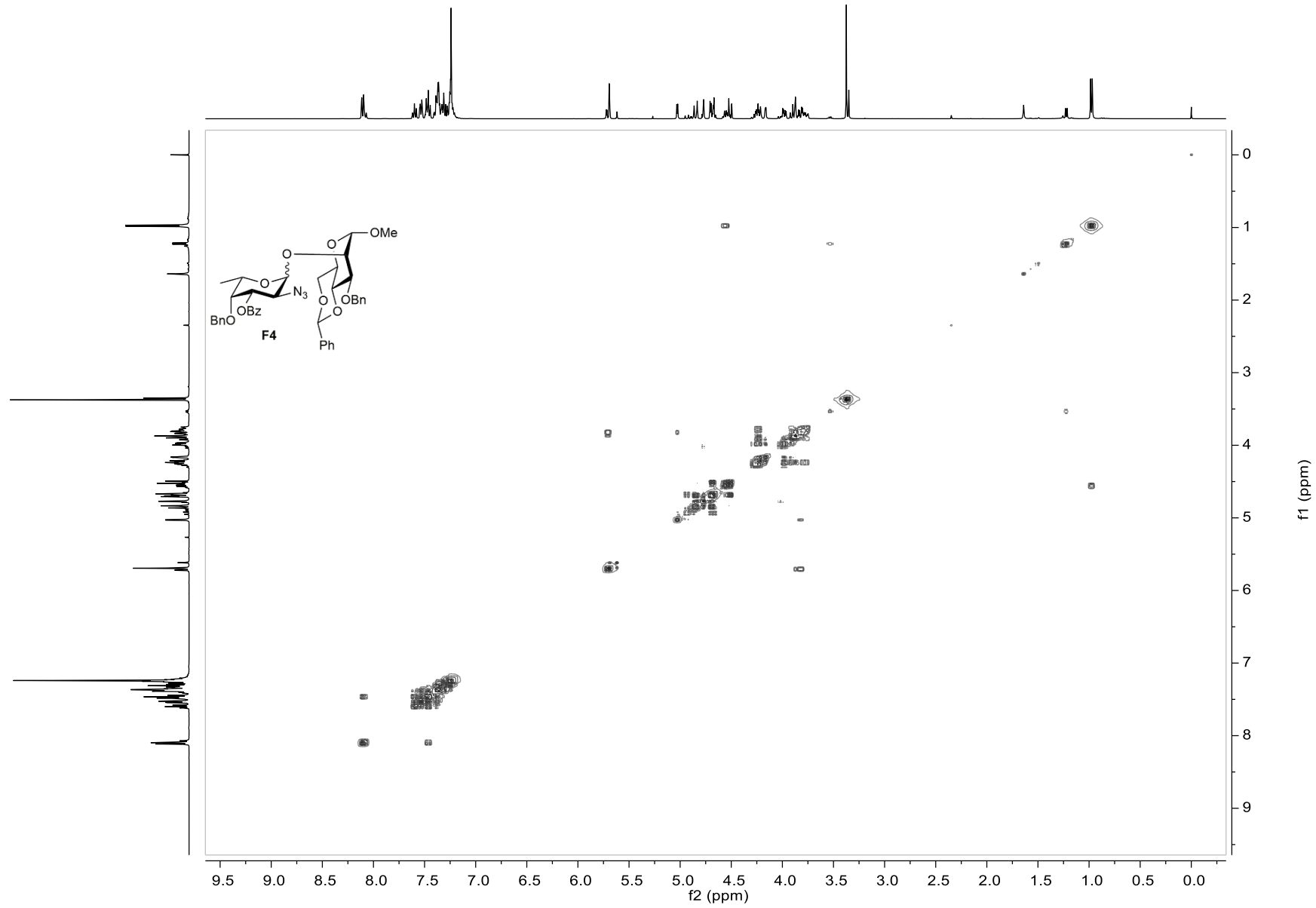


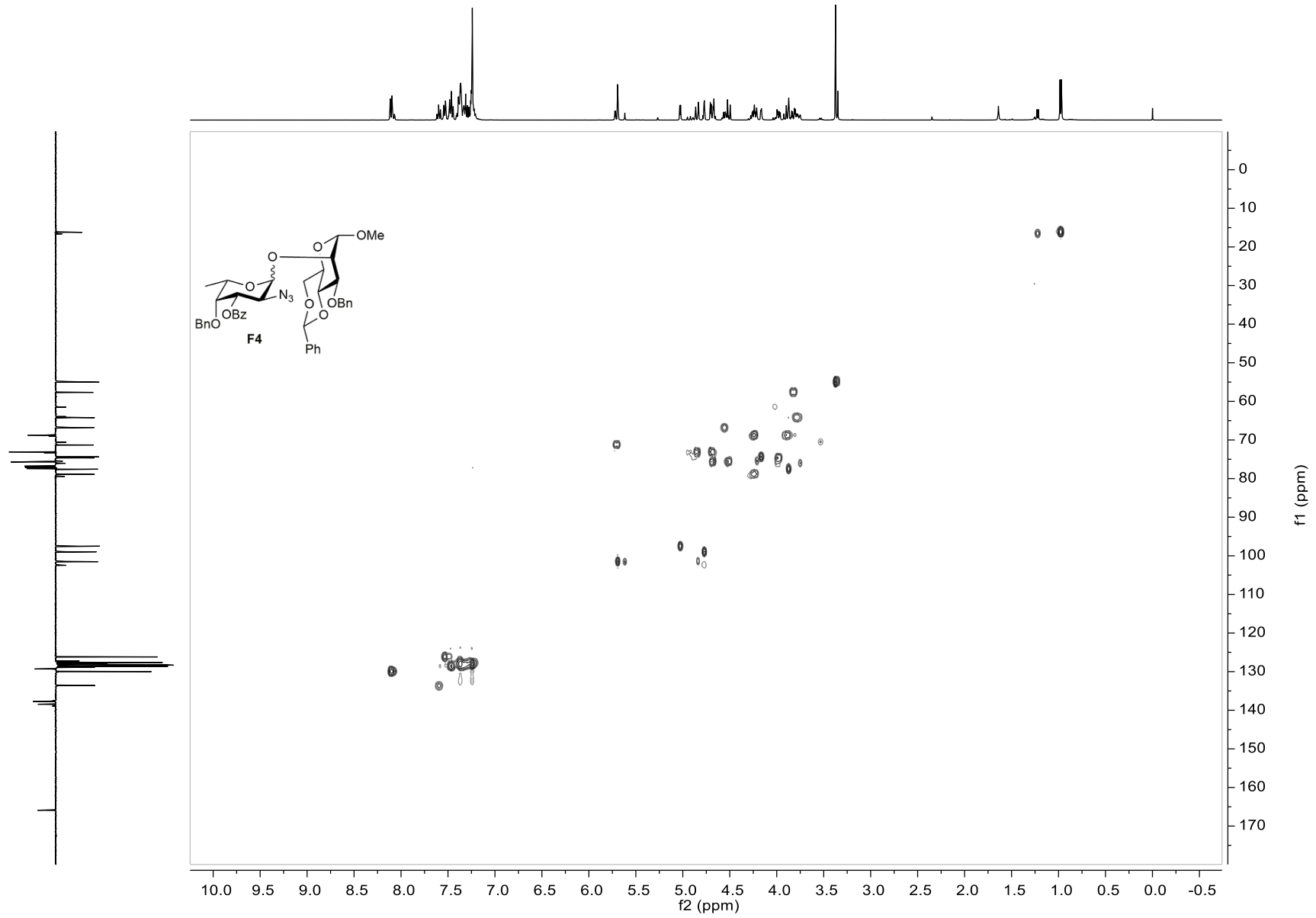


8.11  
8.10  
8.09  
7.60  
7.58  
7.55  
7.54  
7.53  
7.52  
7.48  
7.46  
7.44  
7.39  
7.38  
7.37  
7.36  
7.35  
7.34  
7.33  
7.33  
7.32  
7.31  
7.31  
7.29  
7.28  
7.26  
7.25  
7.25  
7.24  
7.23  
7.22  
5.72  
5.69  
5.69  
5.03  
5.02  
4.86  
4.83  
4.77  
4.77  
4.71  
4.70  
4.68  
4.67  
4.67  
4.52  
4.50  
4.25  
4.24  
4.24  
4.23  
4.22  
4.21  
4.17  
4.17  
4.16  
4.16  
4.00  
3.99  
3.90  
3.87  
3.84  
3.81  
3.80  
3.37  
3.35  
1.64  
1.23  
1.21  
0.98  
0.97  
-0.00

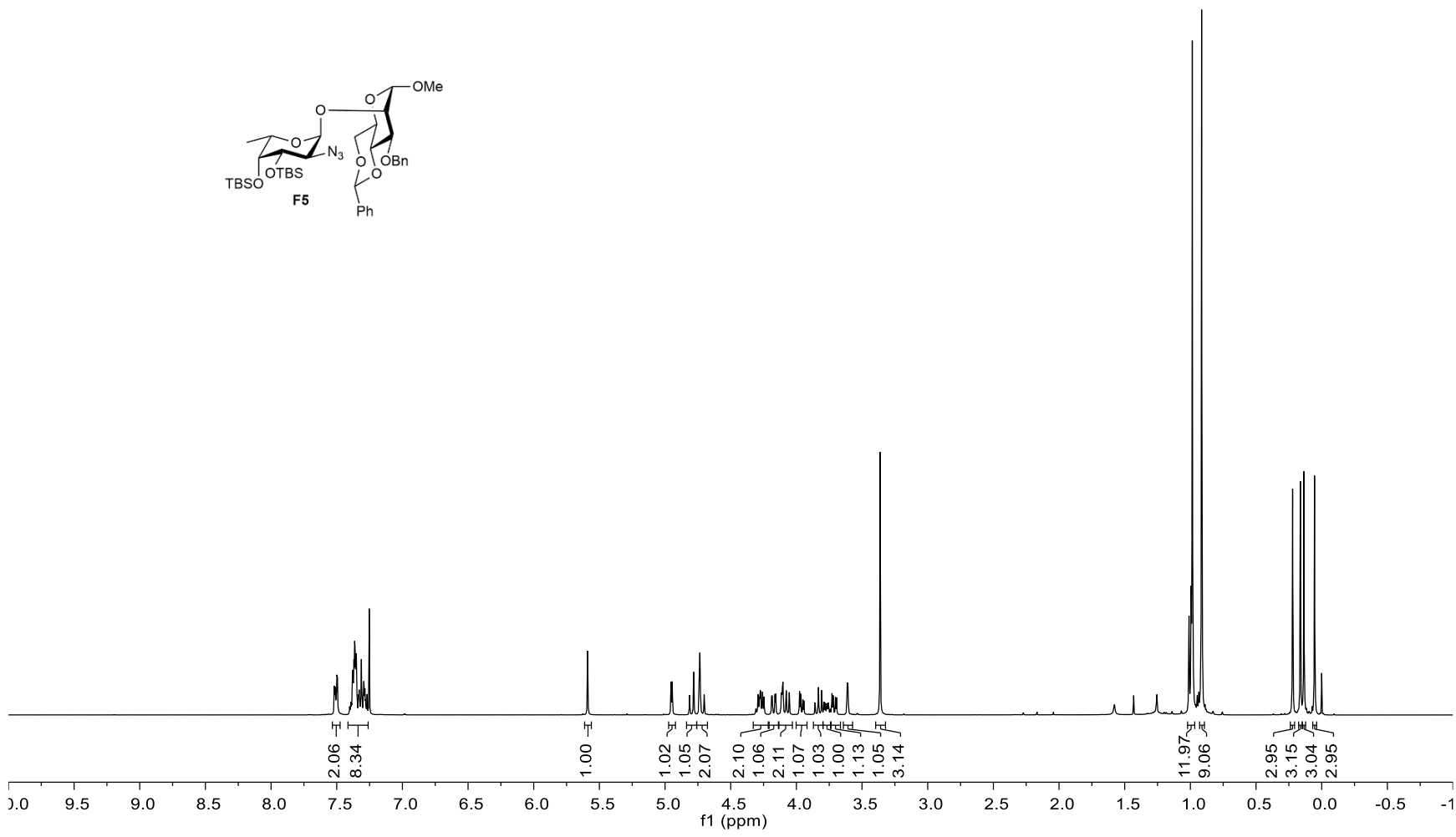
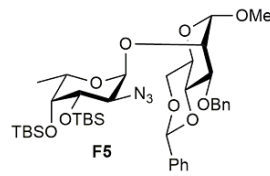


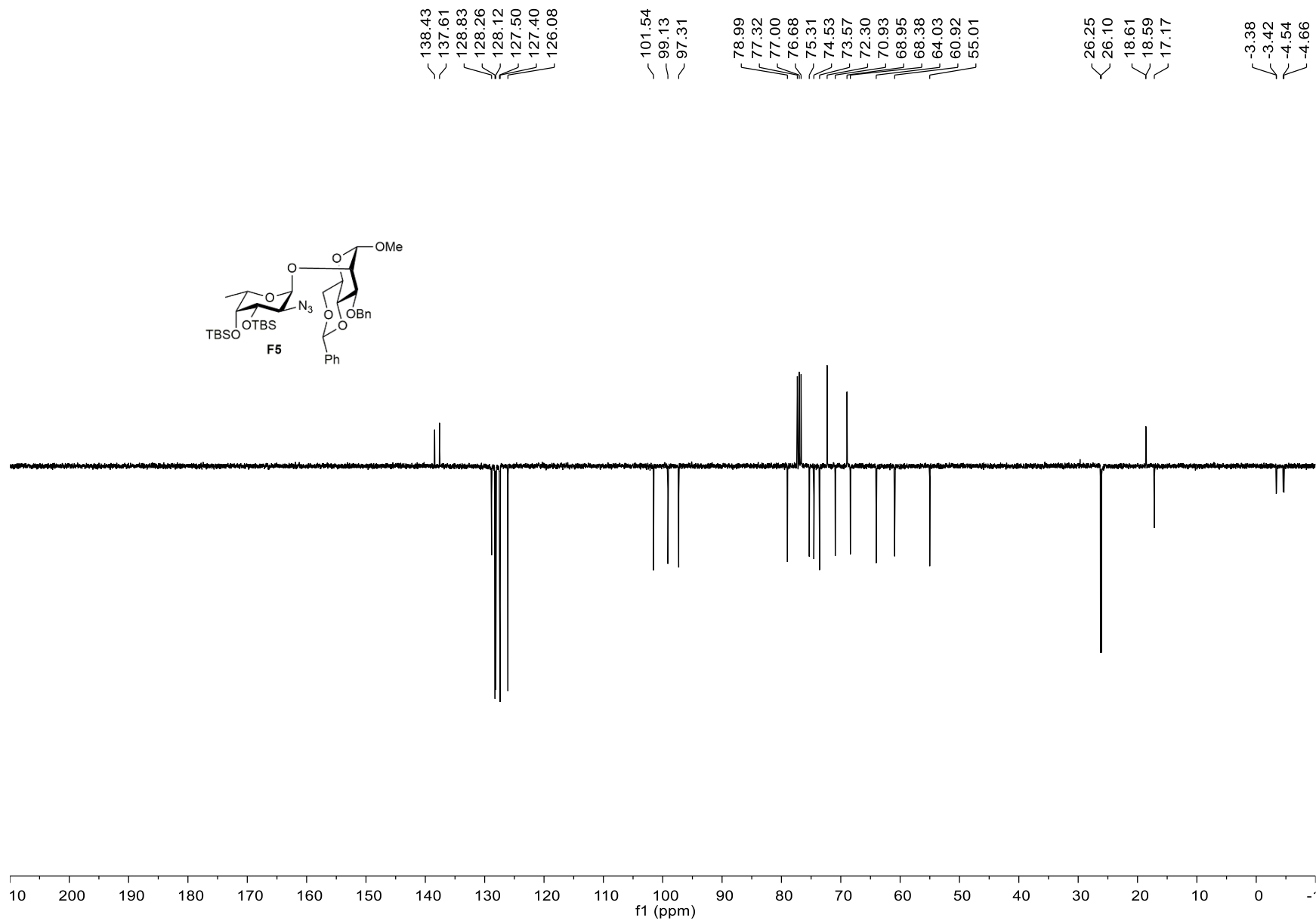
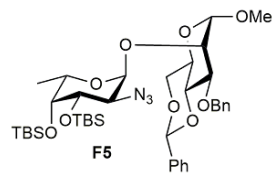


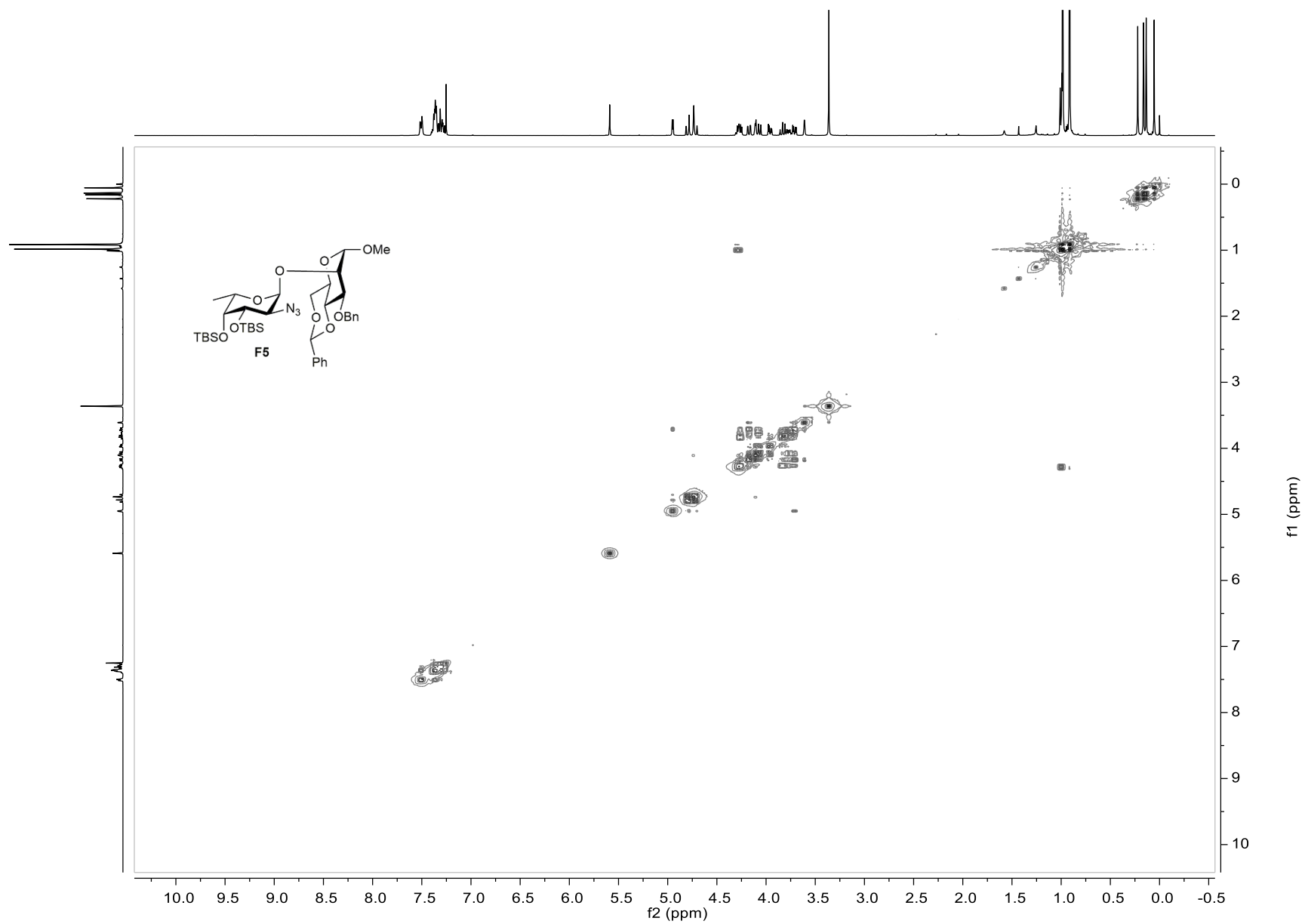


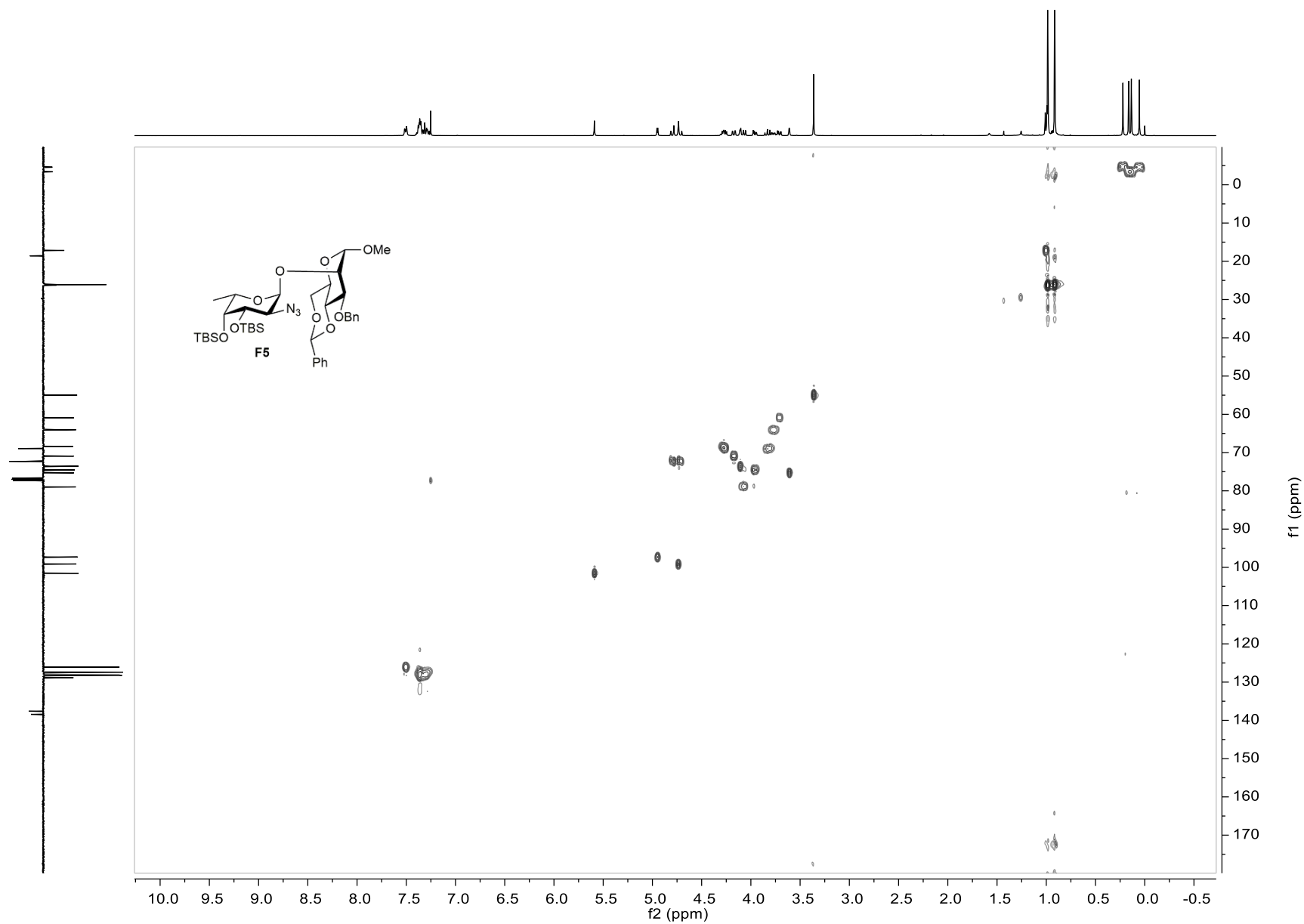


7.52  
7.51  
7.50  
7.49  
7.39  
7.38  
7.37  
7.37  
7.36  
7.36  
7.35  
7.33  
7.33  
7.31  
7.31  
7.29  
7.29  
7.28  
7.27  
7.25  
5.59  
4.95  
4.95  
4.81  
4.78  
4.74  
4.73  
4.70  
4.29  
4.28  
4.28  
4.27  
4.26  
4.25  
4.19  
4.18  
4.16  
4.16  
4.12  
4.11  
4.11  
4.10  
4.08  
4.05  
3.98  
3.97  
3.95  
3.94  
3.83  
3.81  
3.79  
3.73  
3.72  
3.70  
3.69  
3.61  
3.61  
3.36  
1.43  
1.25  
1.01  
0.99  
0.99  
0.95  
0.94  
0.91  
0.22  
0.16  
0.15  
0.14  
0.05  
0.00

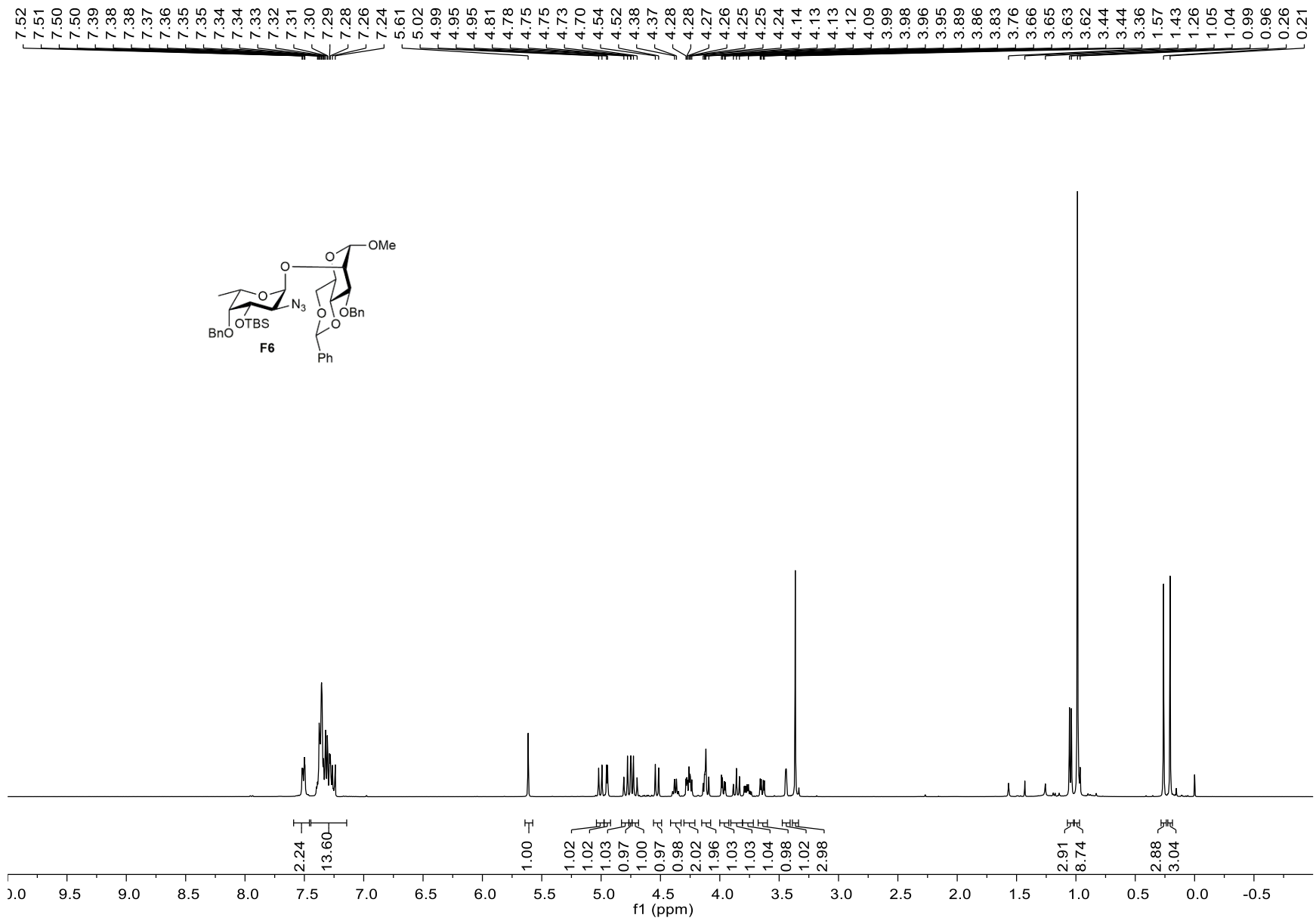


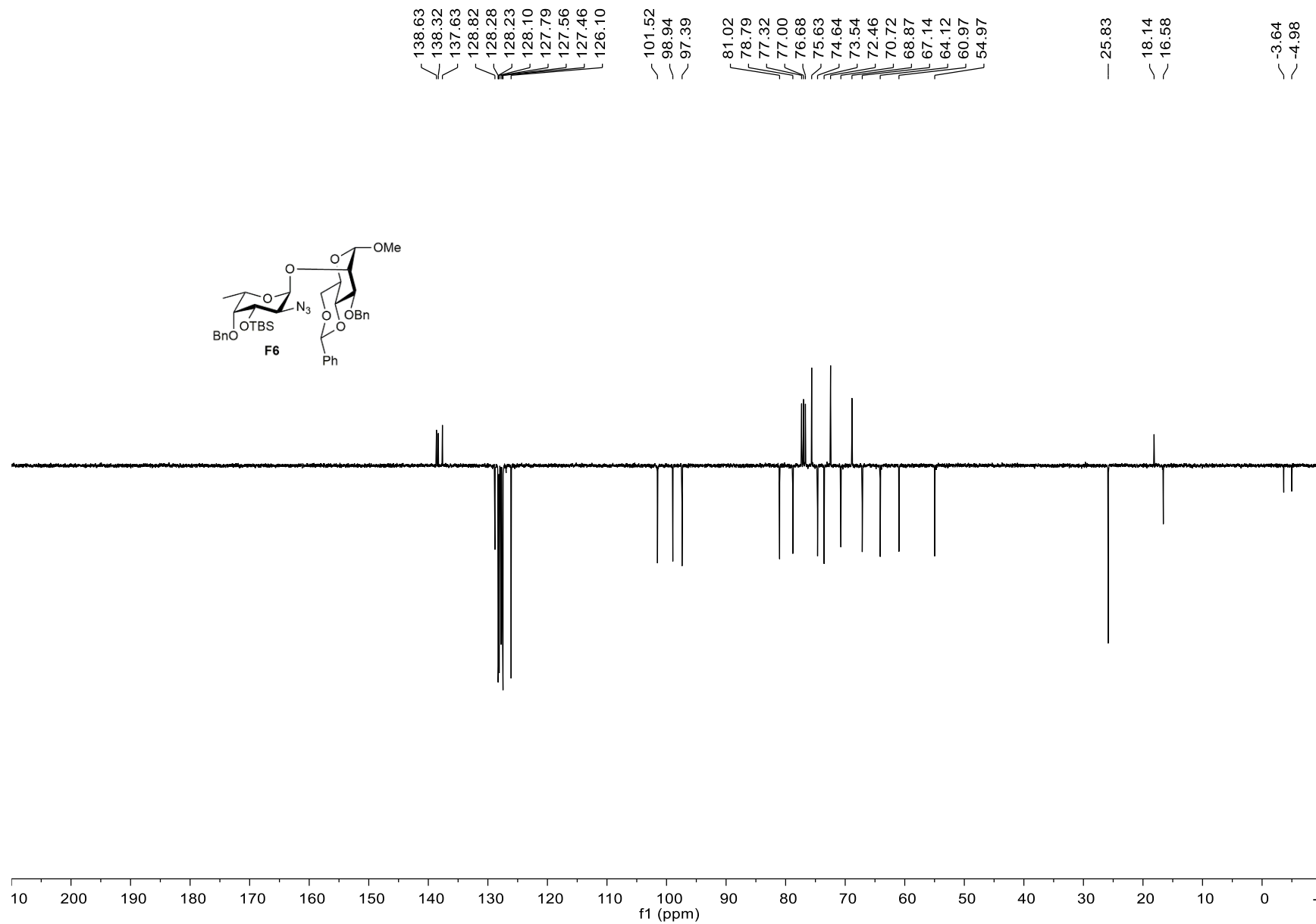


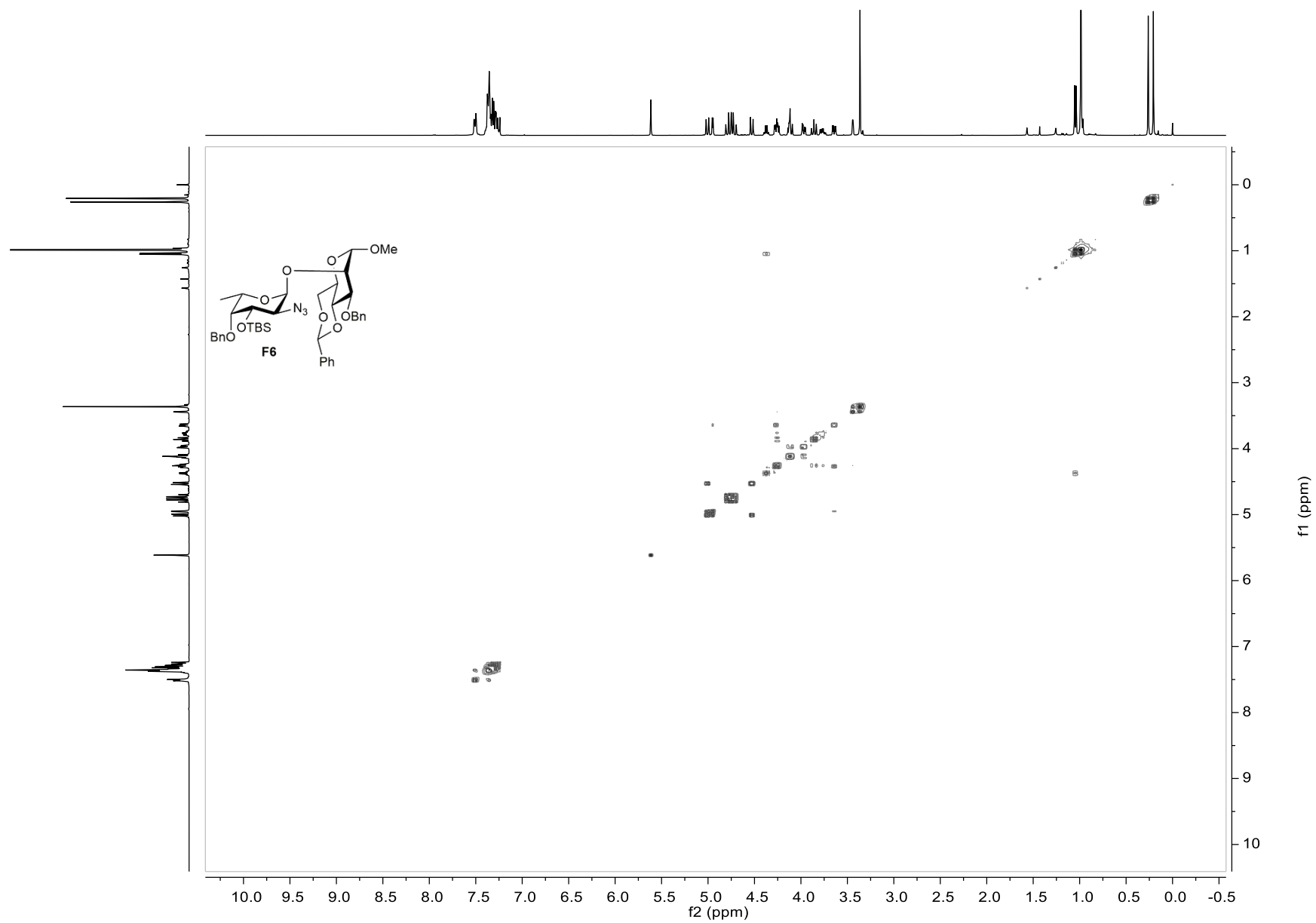


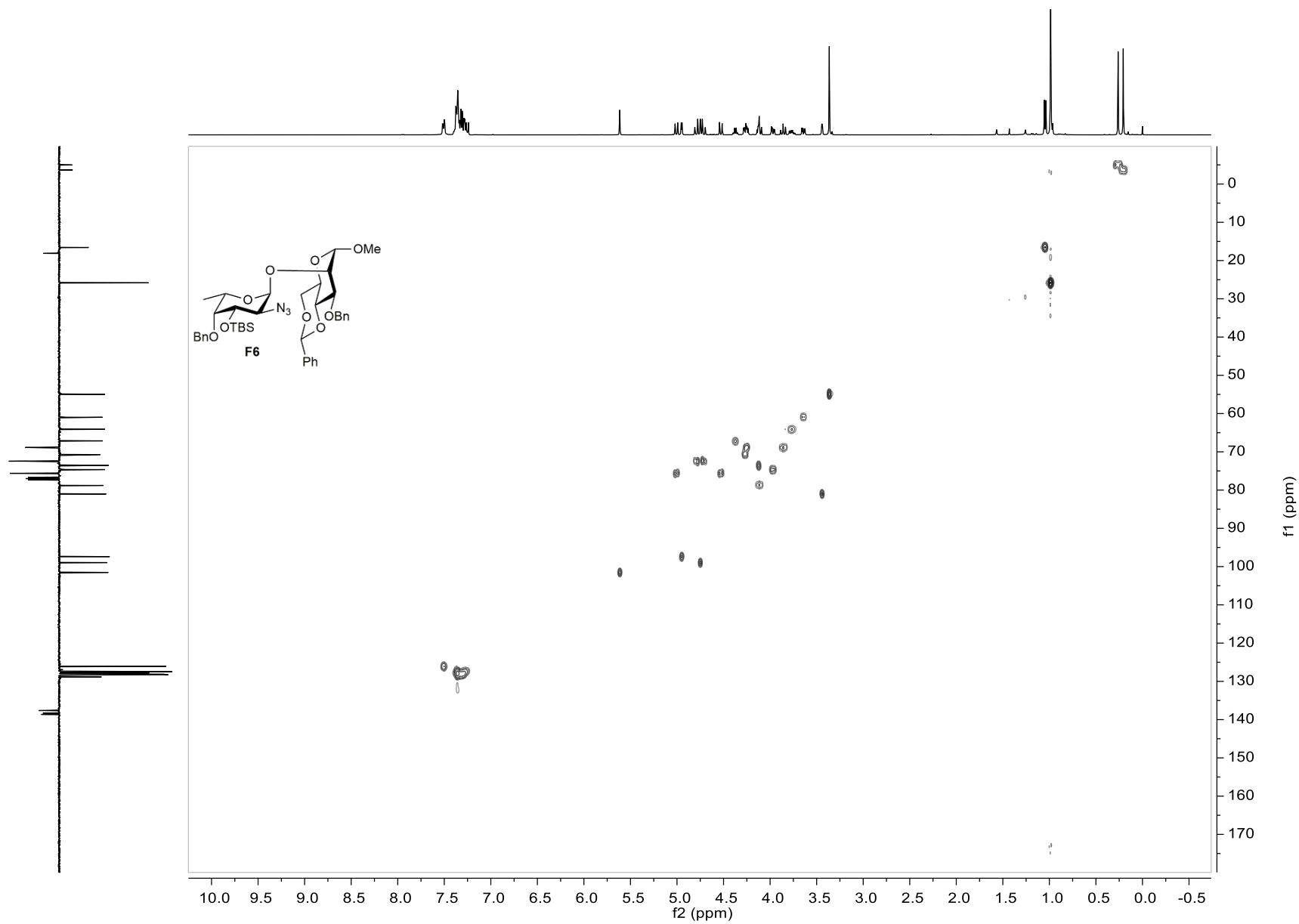






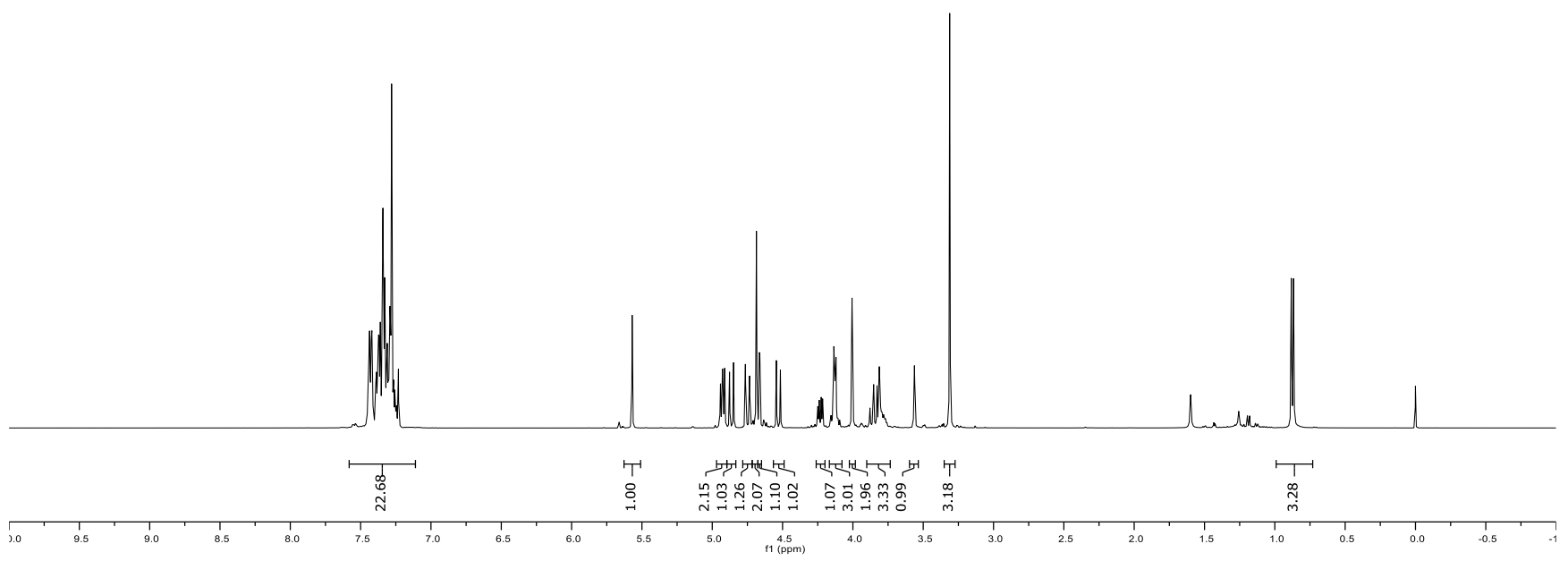
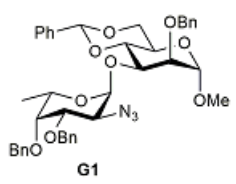


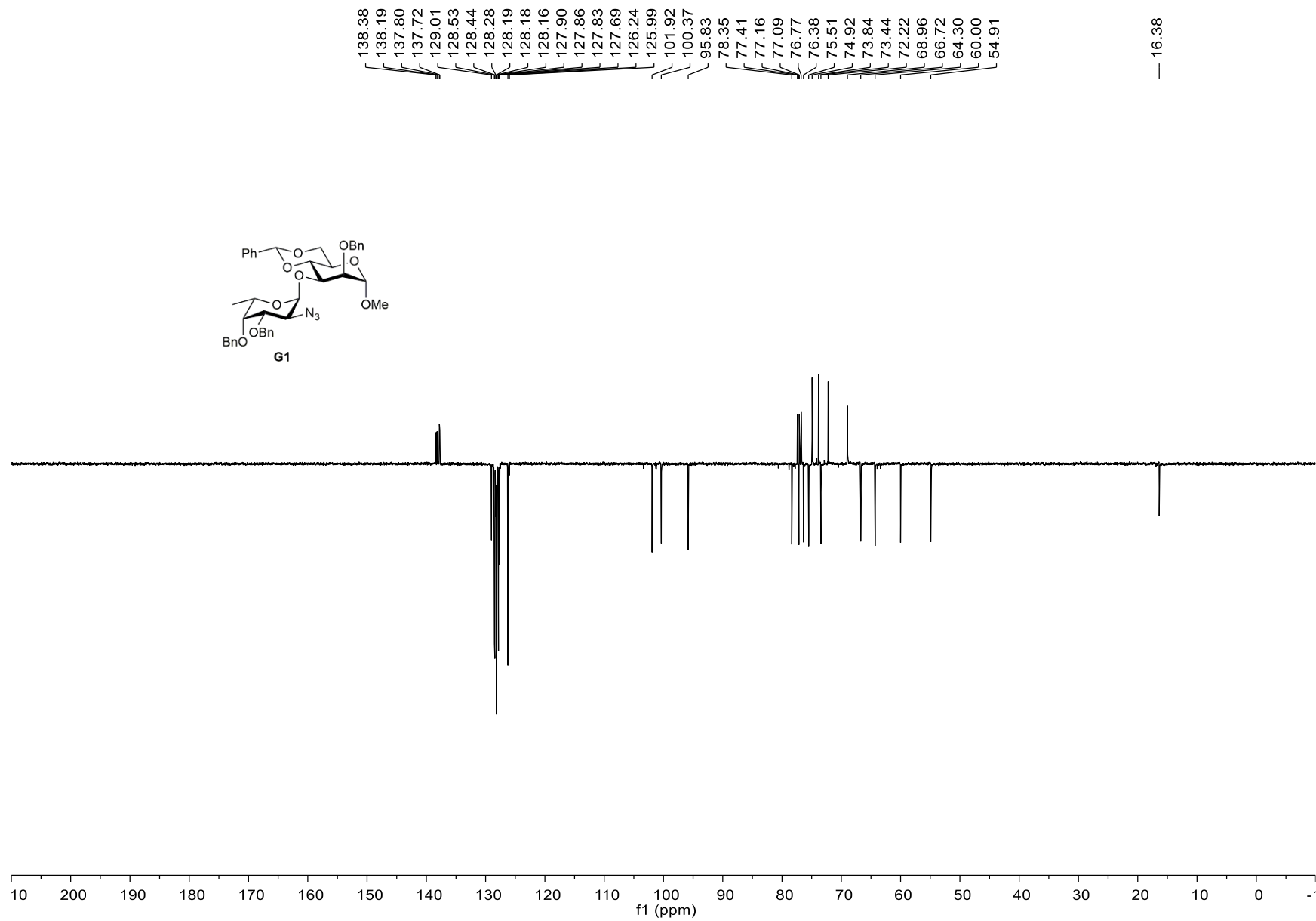


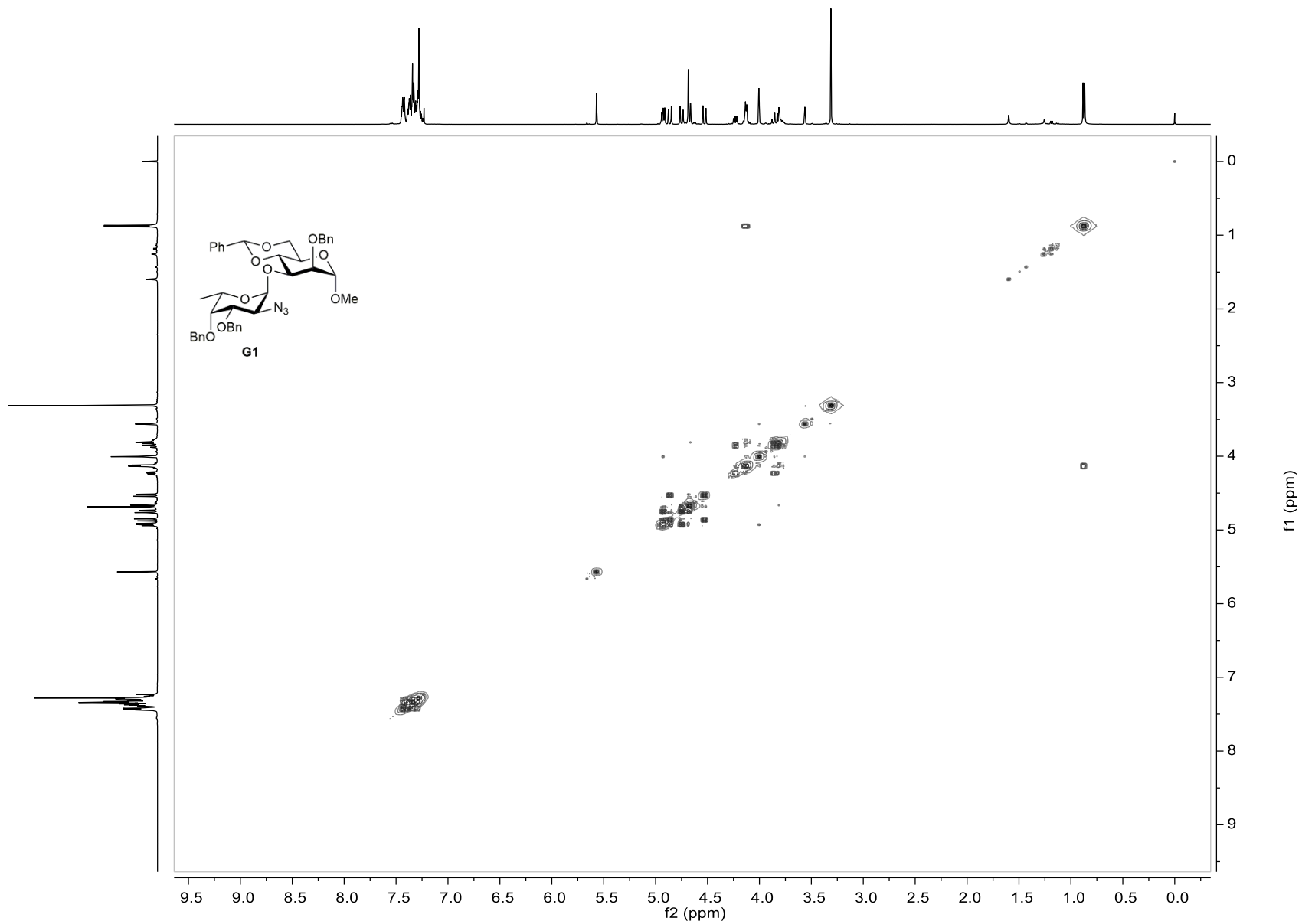


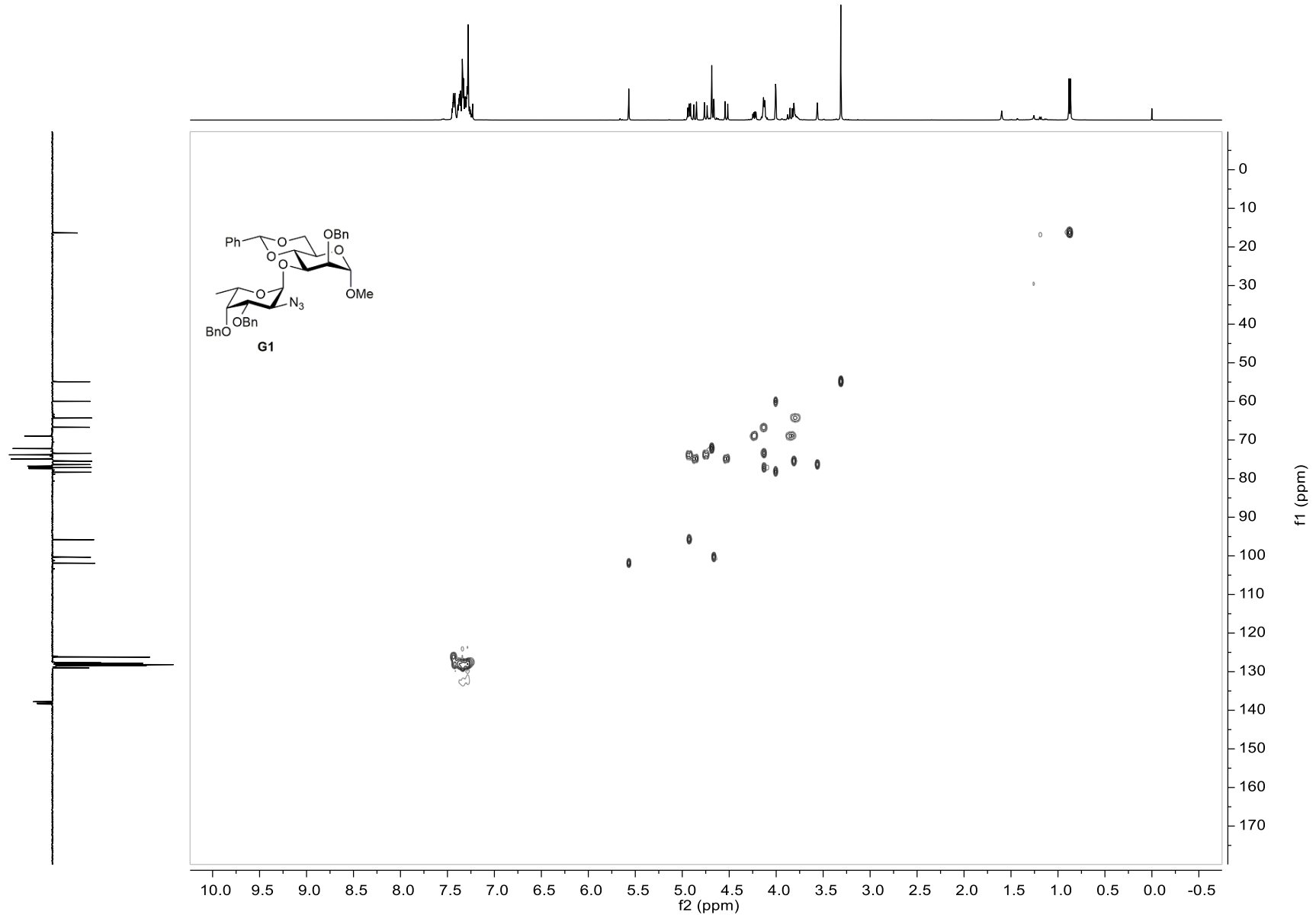
7.45  
7.44  
7.44  
7.42  
7.42  
7.39  
7.39  
7.38  
7.38  
7.37  
7.37  
7.36  
7.36  
7.35  
7.35  
7.34  
7.34  
7.33  
7.33  
7.32  
7.31  
7.31  
7.30  
7.30  
7.29  
7.29  
7.28  
7.28  
7.27  
7.26  
7.25  
7.25  
7.24  
7.24  
7.23  
5.57  
4.94  
4.93  
4.91  
4.88  
4.85  
4.76  
4.73  
4.69  
4.67  
4.66  
4.54  
4.52  
4.25  
4.24  
4.23  
4.21  
4.14  
4.13  
4.12  
4.12  
4.01  
4.00  
3.88  
3.85  
3.83  
3.81  
3.81  
3.79  
3.56  
3.31

— 1.60  
— 1.26  
∠ 0.88  
∠ 0.87



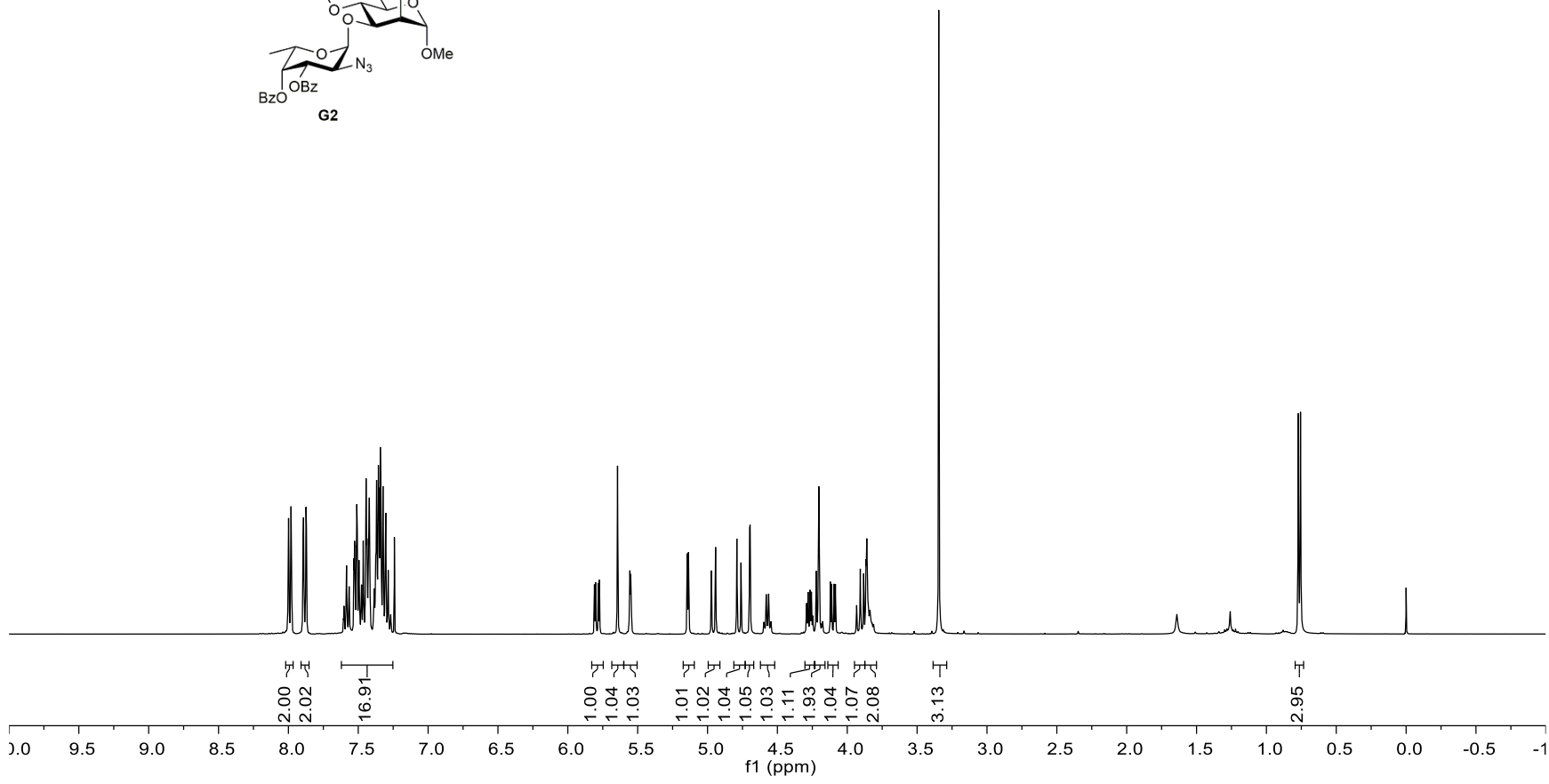
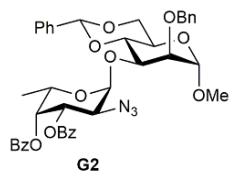


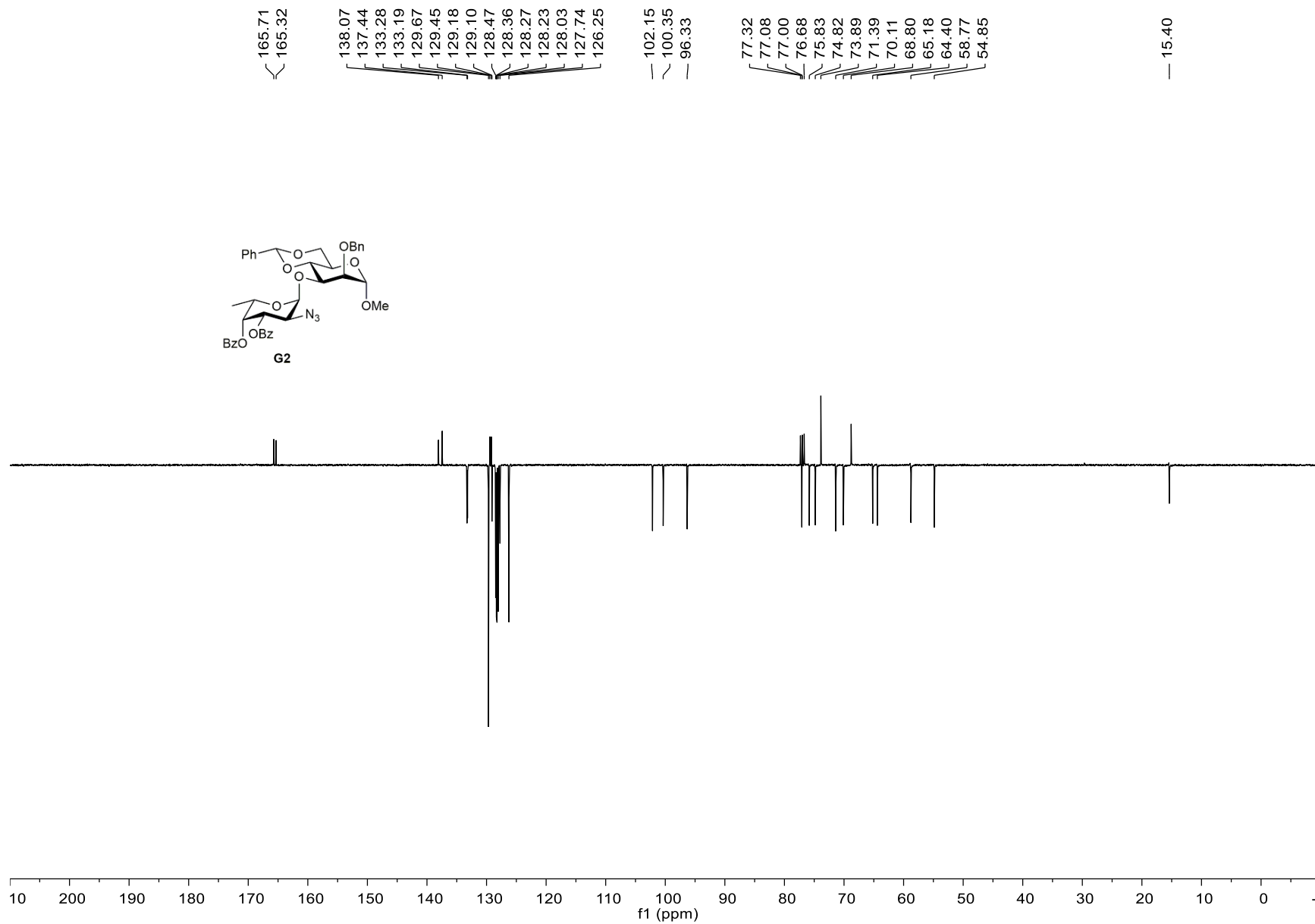


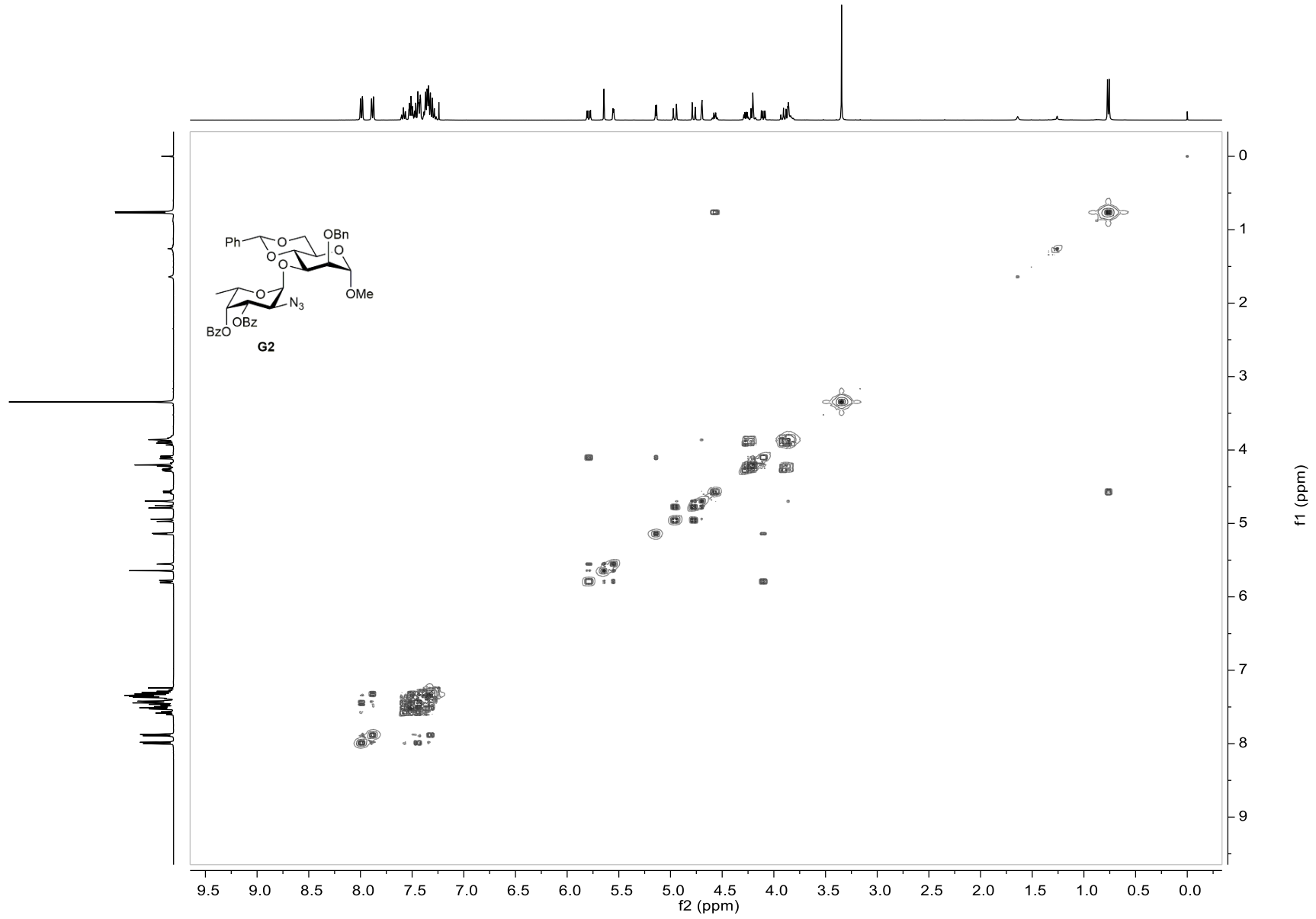


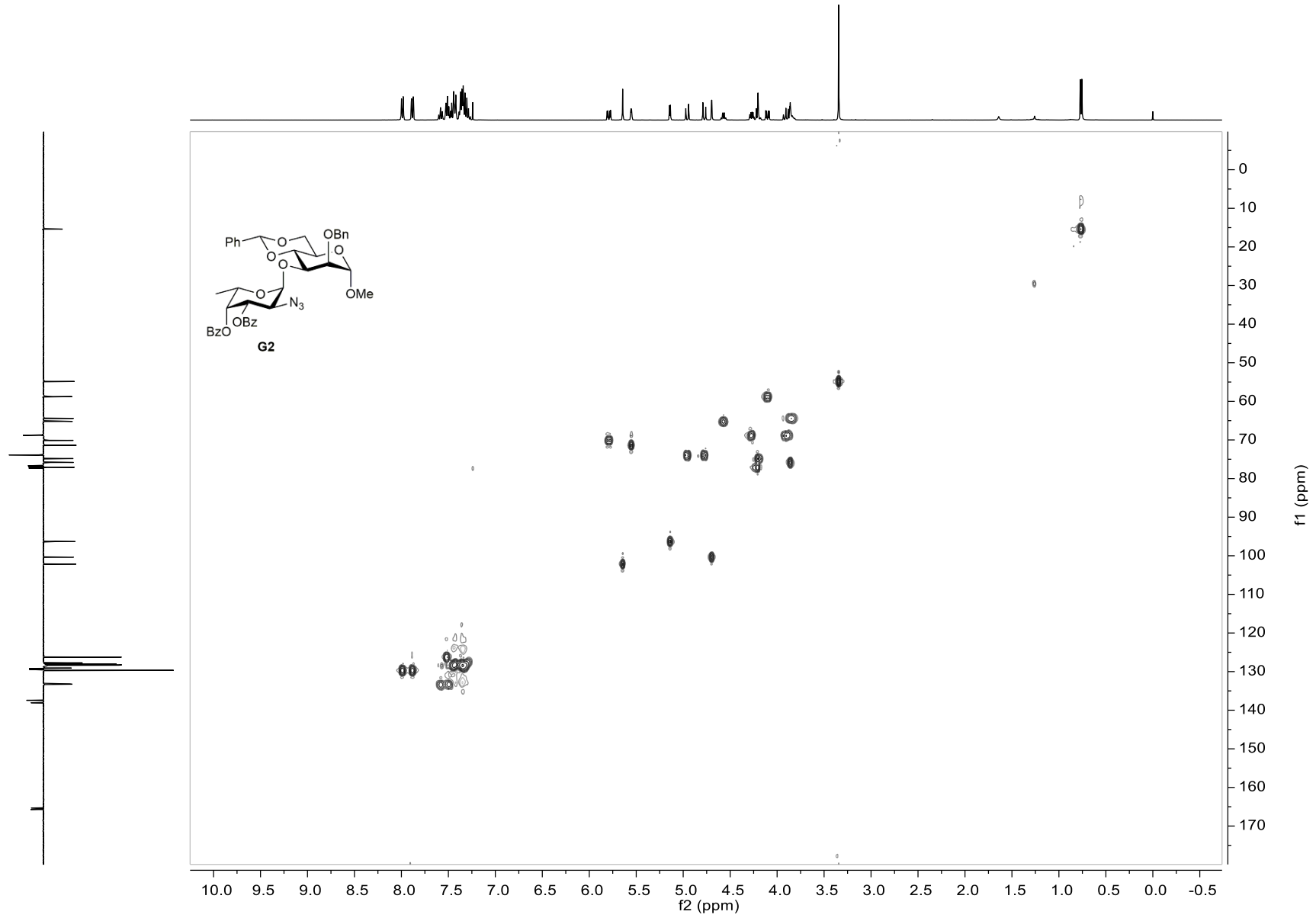


8.00  
8.00  
7.98  
7.98  
7.89  
7.89  
7.87  
7.87  
7.58  
7.57  
7.53  
7.53  
7.51  
7.51  
7.51  
7.50  
7.48  
7.46  
7.44  
7.44  
7.43  
7.42  
7.42  
7.39  
7.38  
7.37  
7.37  
7.36  
7.35  
7.34  
7.34  
7.32  
7.32  
7.31  
7.30  
7.29  
7.24  
5.81  
5.80  
5.78  
5.77  
5.64  
5.56  
5.55  
5.15  
5.14  
4.97  
4.94  
4.79  
4.76  
4.70  
4.70  
4.58  
4.56  
4.28  
4.27  
4.26  
4.22  
4.22  
4.20  
4.12  
4.11  
4.09  
4.08  
3.91  
3.88  
3.87  
3.86  
3.86  
3.35  
0.77  
0.76  
0.00

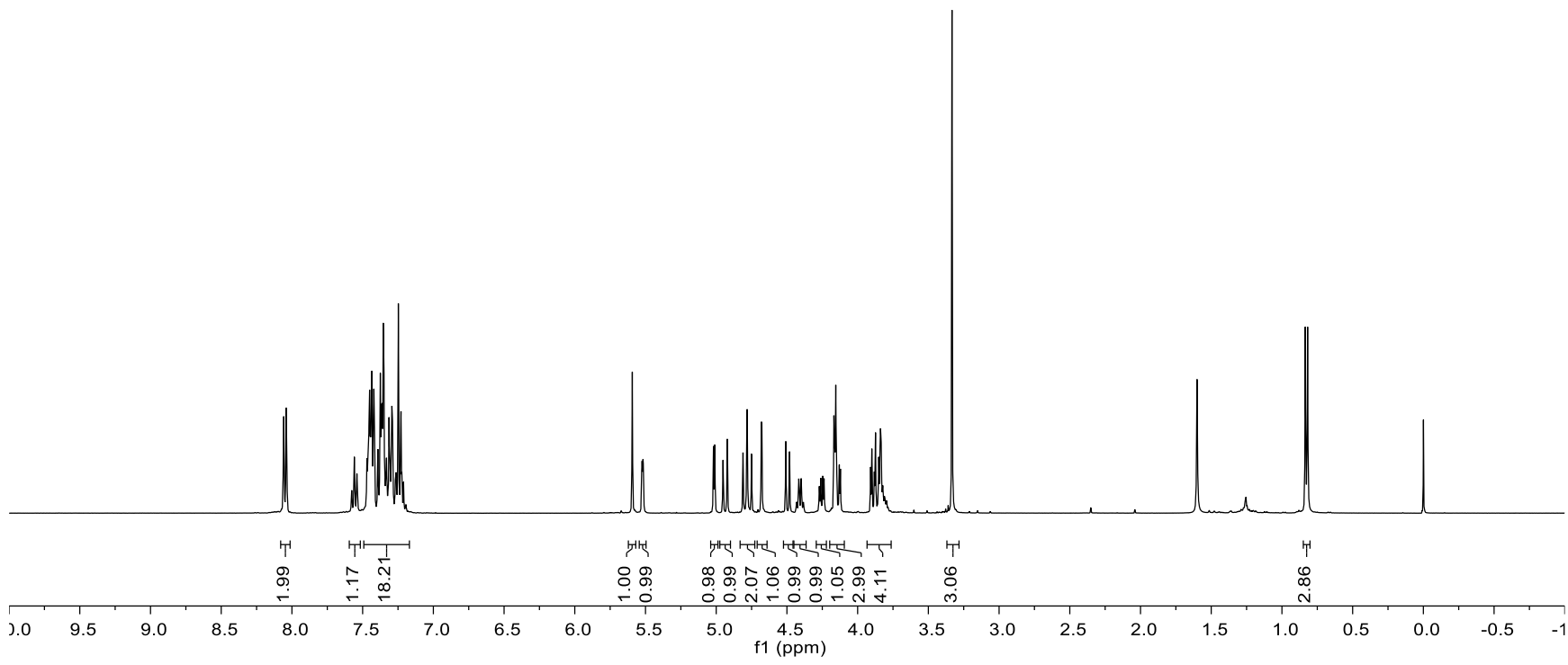
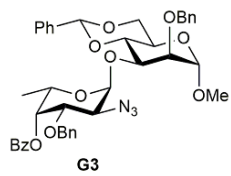


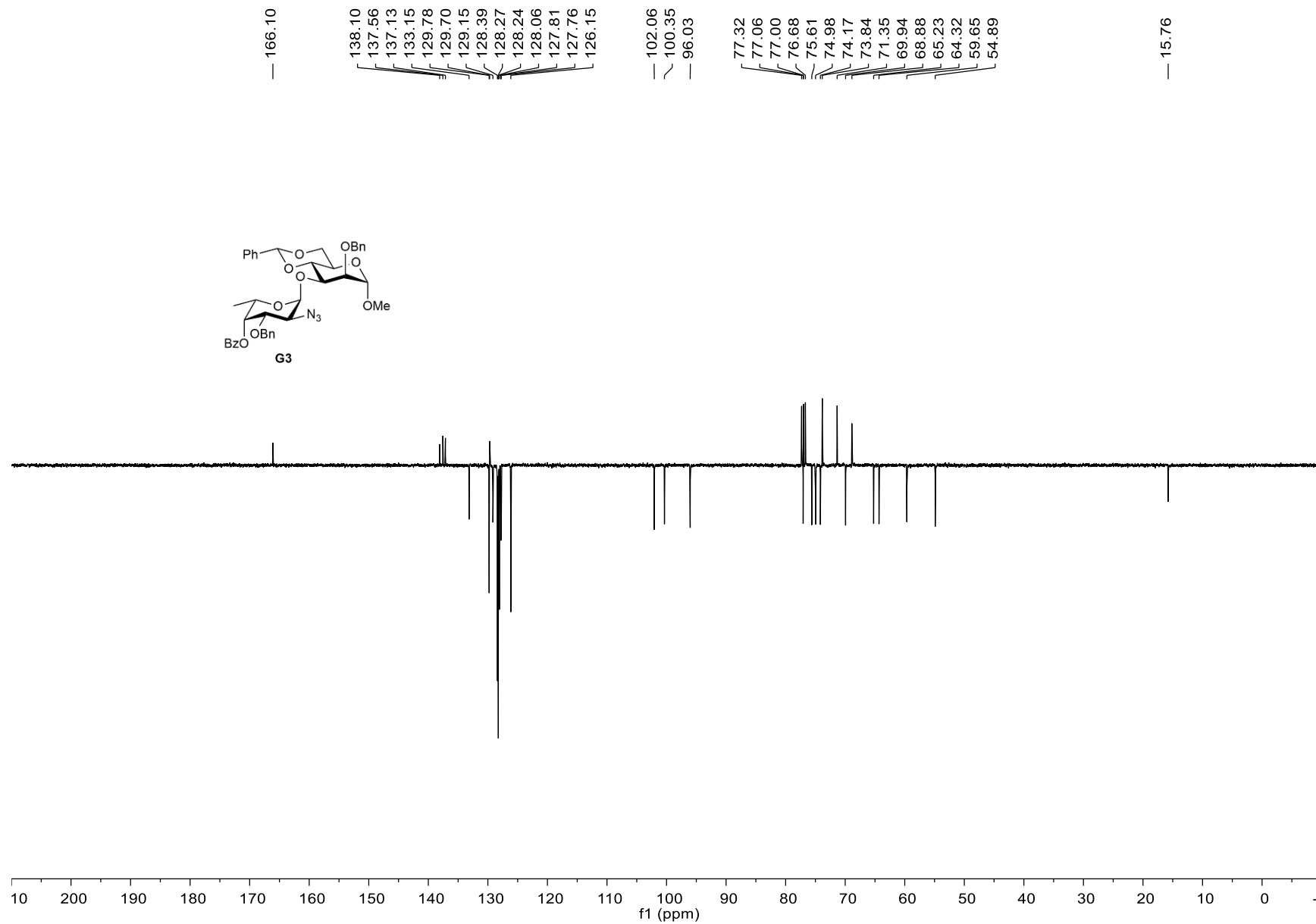


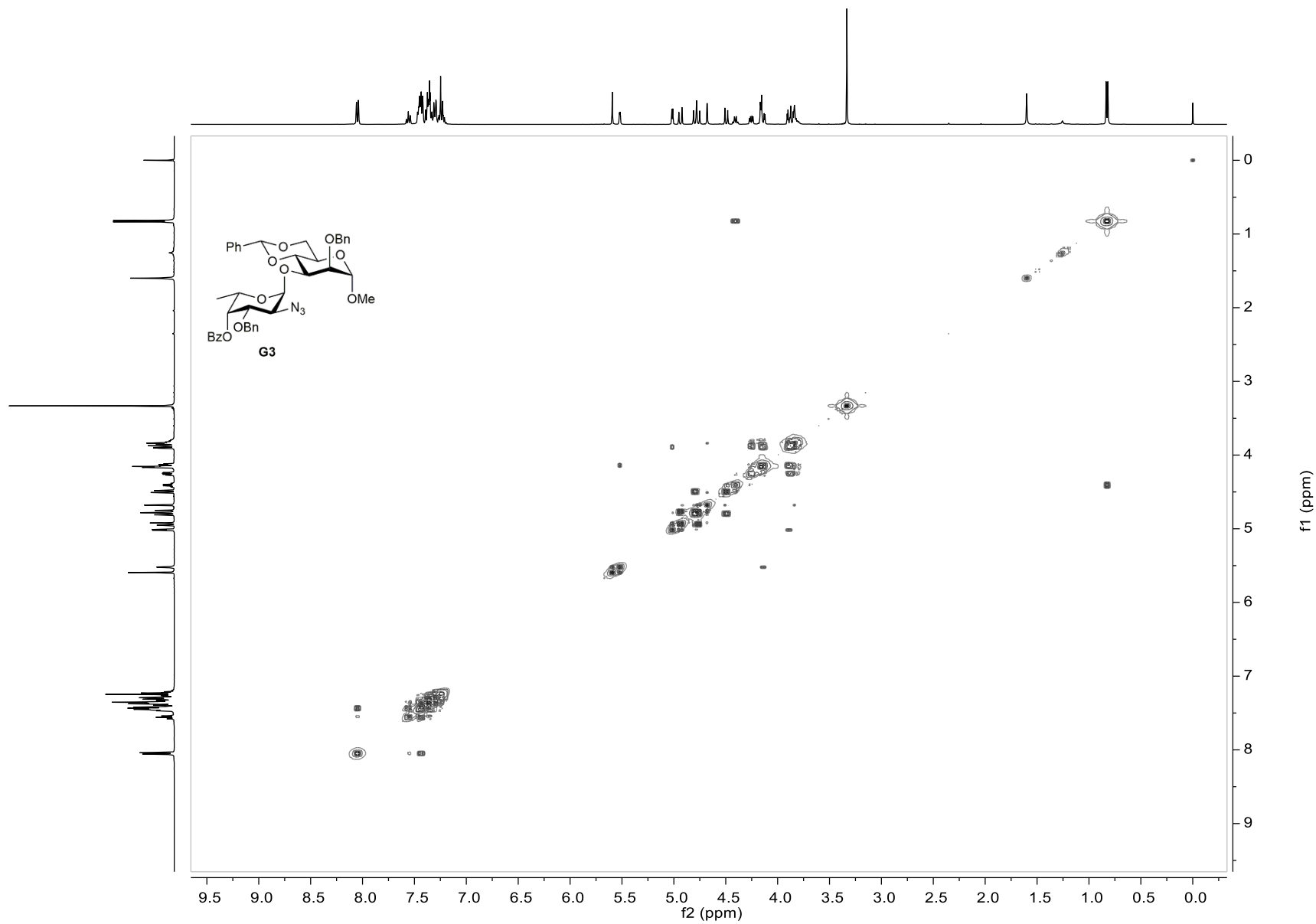


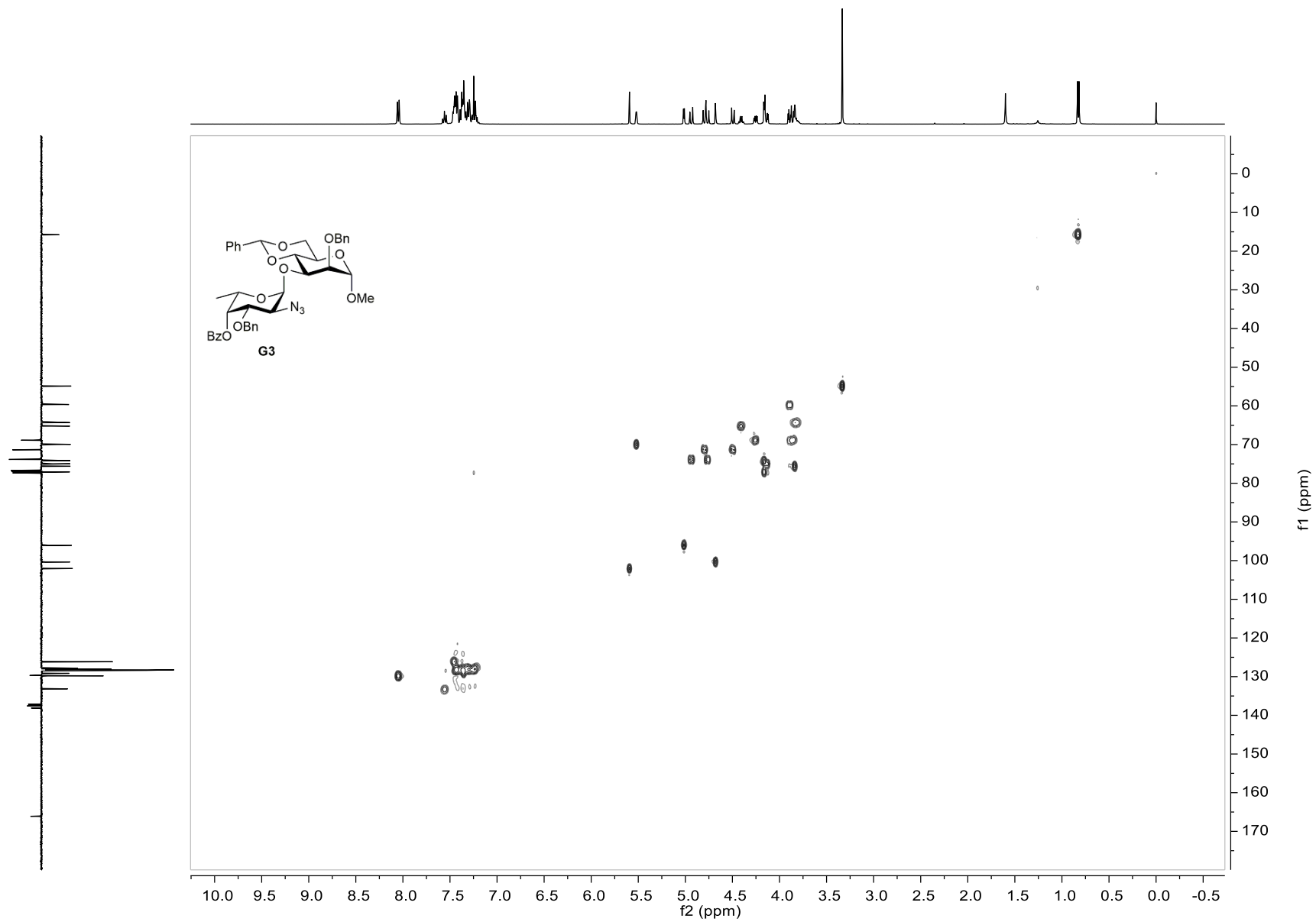


8.06  
8.04  
8.04  
7.56  
7.54  
7.47  
7.46  
7.45  
7.45  
7.43  
7.42  
7.39  
7.39  
7.37  
7.37  
7.36  
7.35  
7.33  
7.33  
7.32  
7.31  
7.31  
7.29  
7.29  
7.27  
7.26  
7.26  
7.25  
7.23  
7.22  
7.21  
5.59  
5.52  
5.52  
5.02  
5.01  
4.95  
4.92  
4.81  
4.78  
4.75  
4.68  
4.68  
4.51  
4.48  
4.42  
4.40  
4.27  
4.26  
4.25  
4.24  
4.17  
4.15  
4.15  
4.13  
4.12  
3.91  
3.90  
3.88  
3.87  
3.85  
3.84  
3.83  
3.82  
3.33  
1.60  
0.83  
0.82  
-0.00



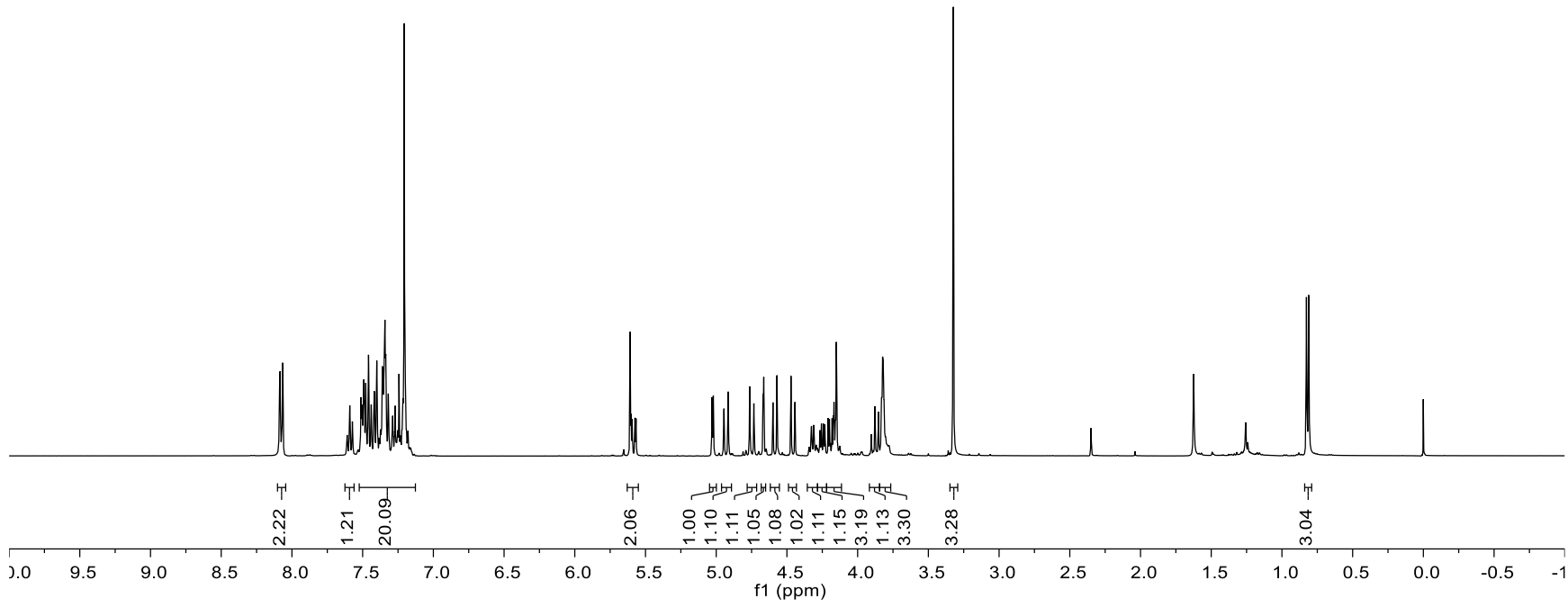
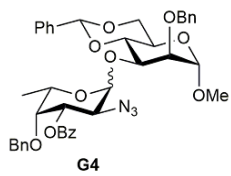


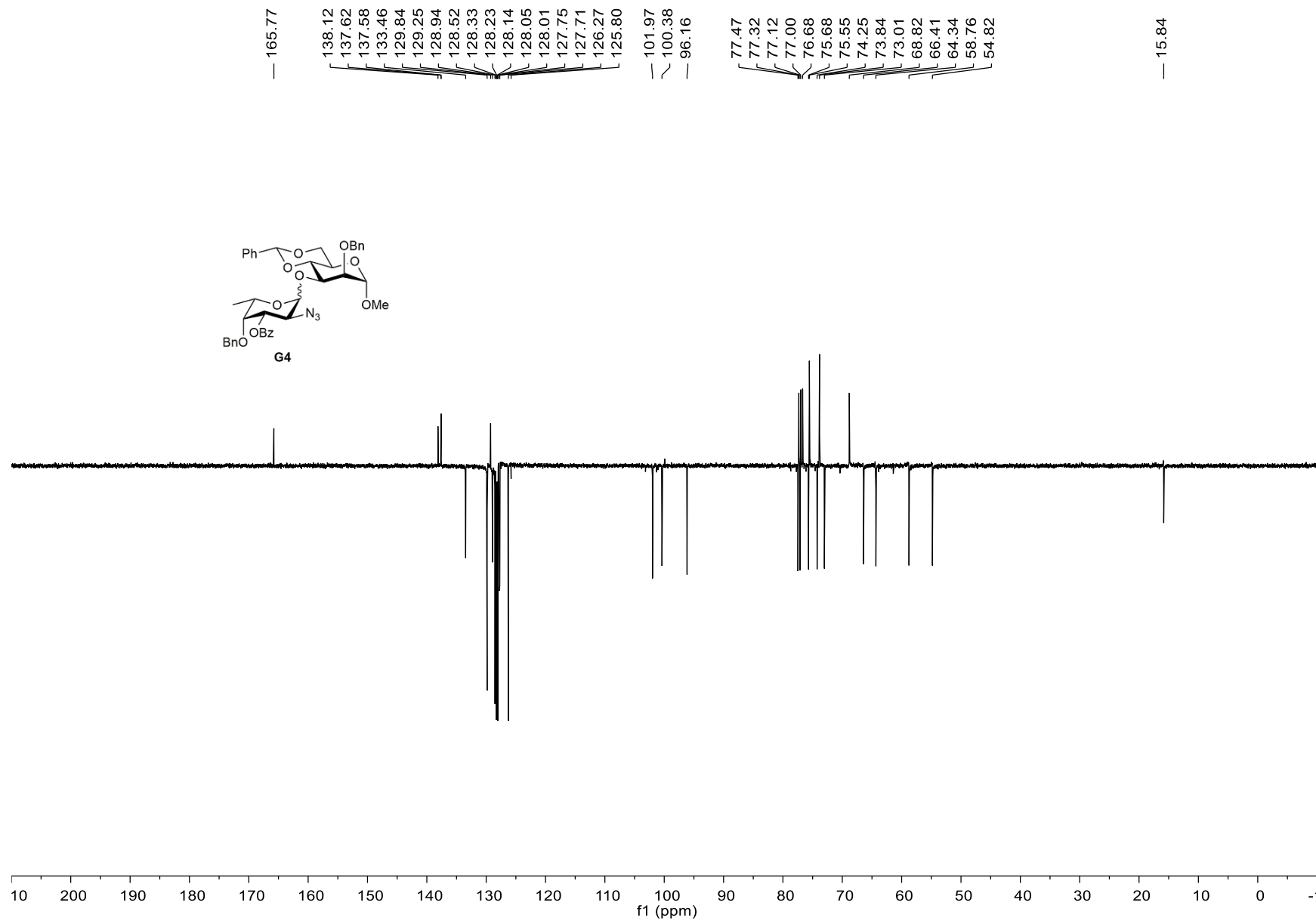


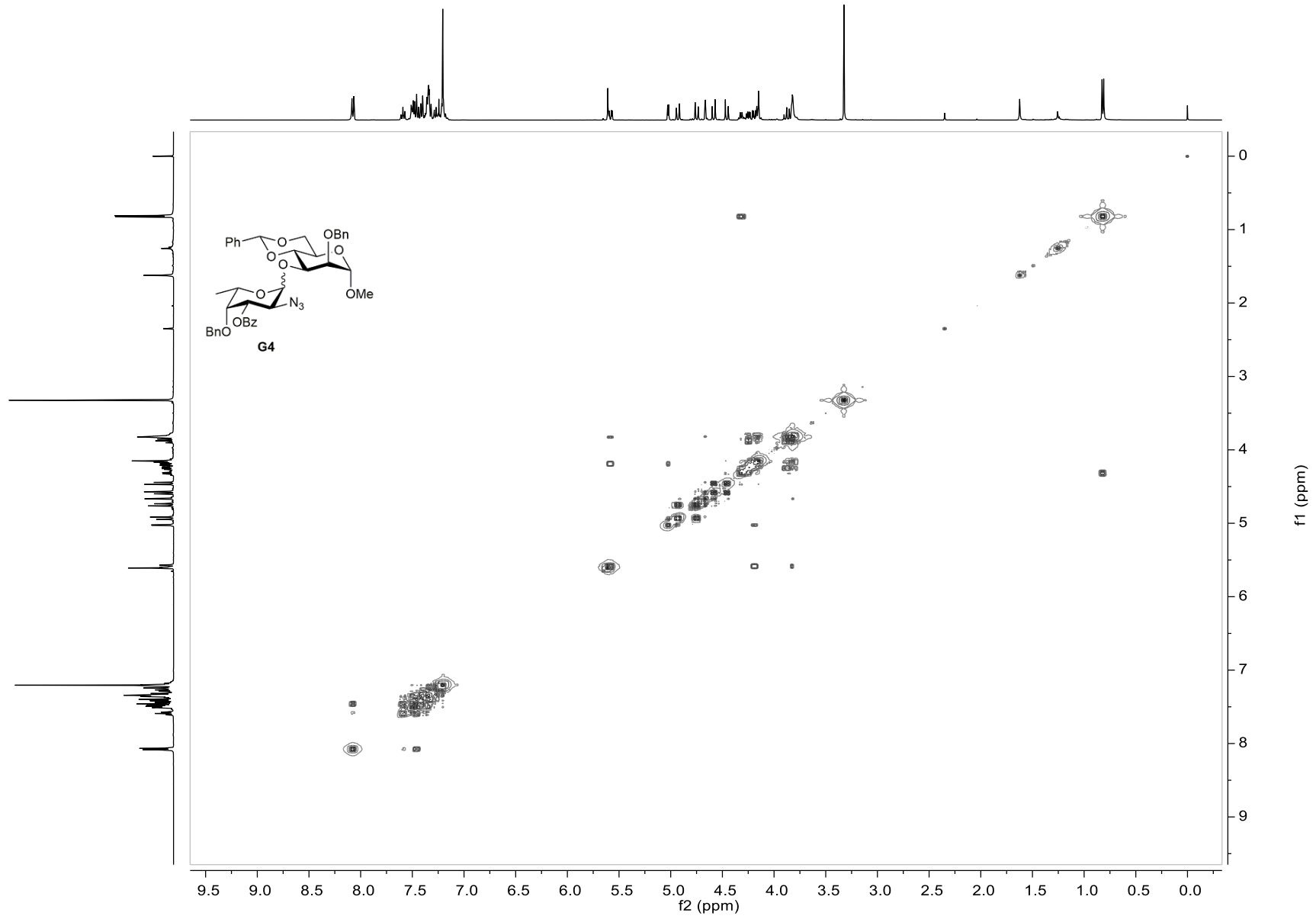


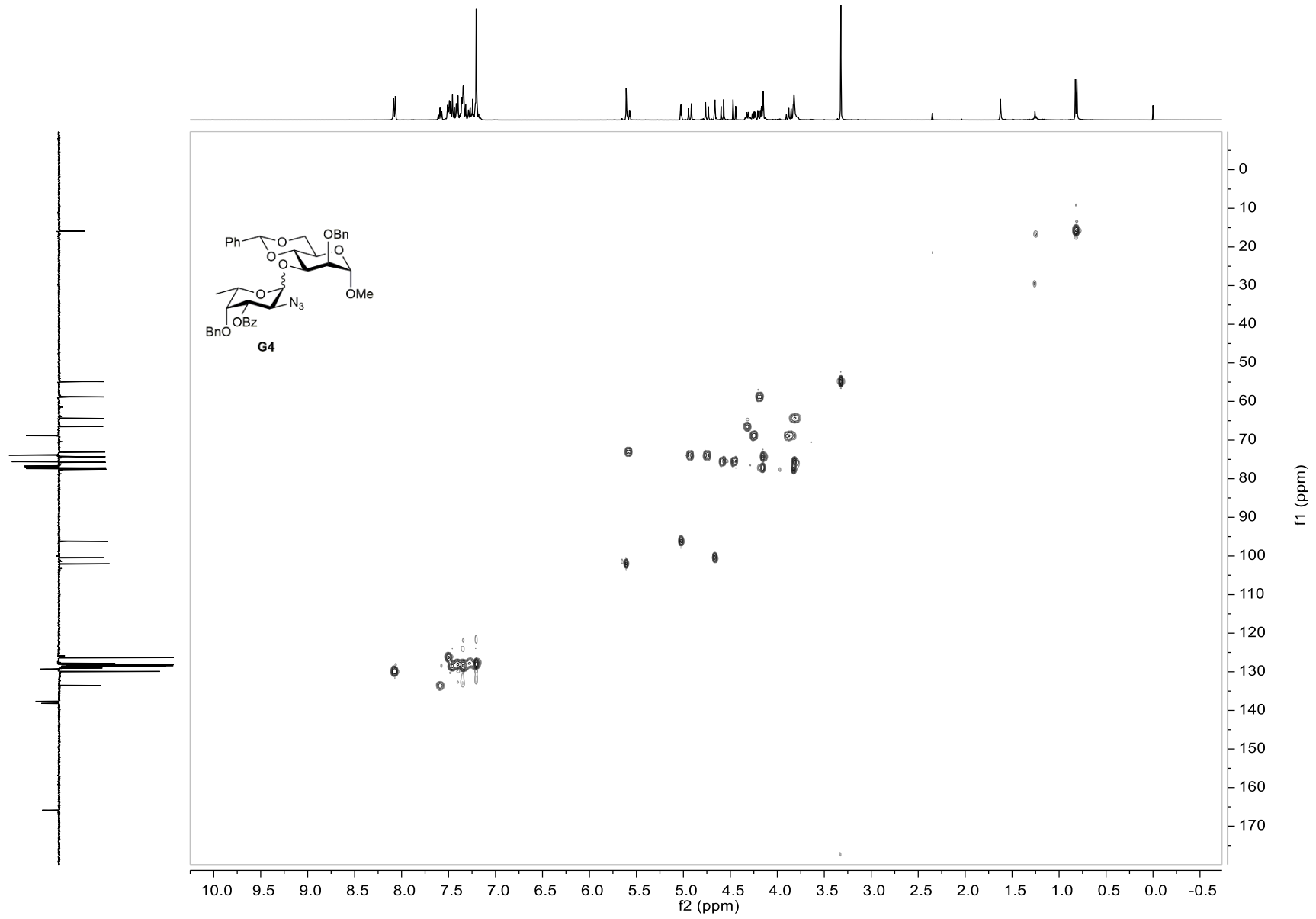


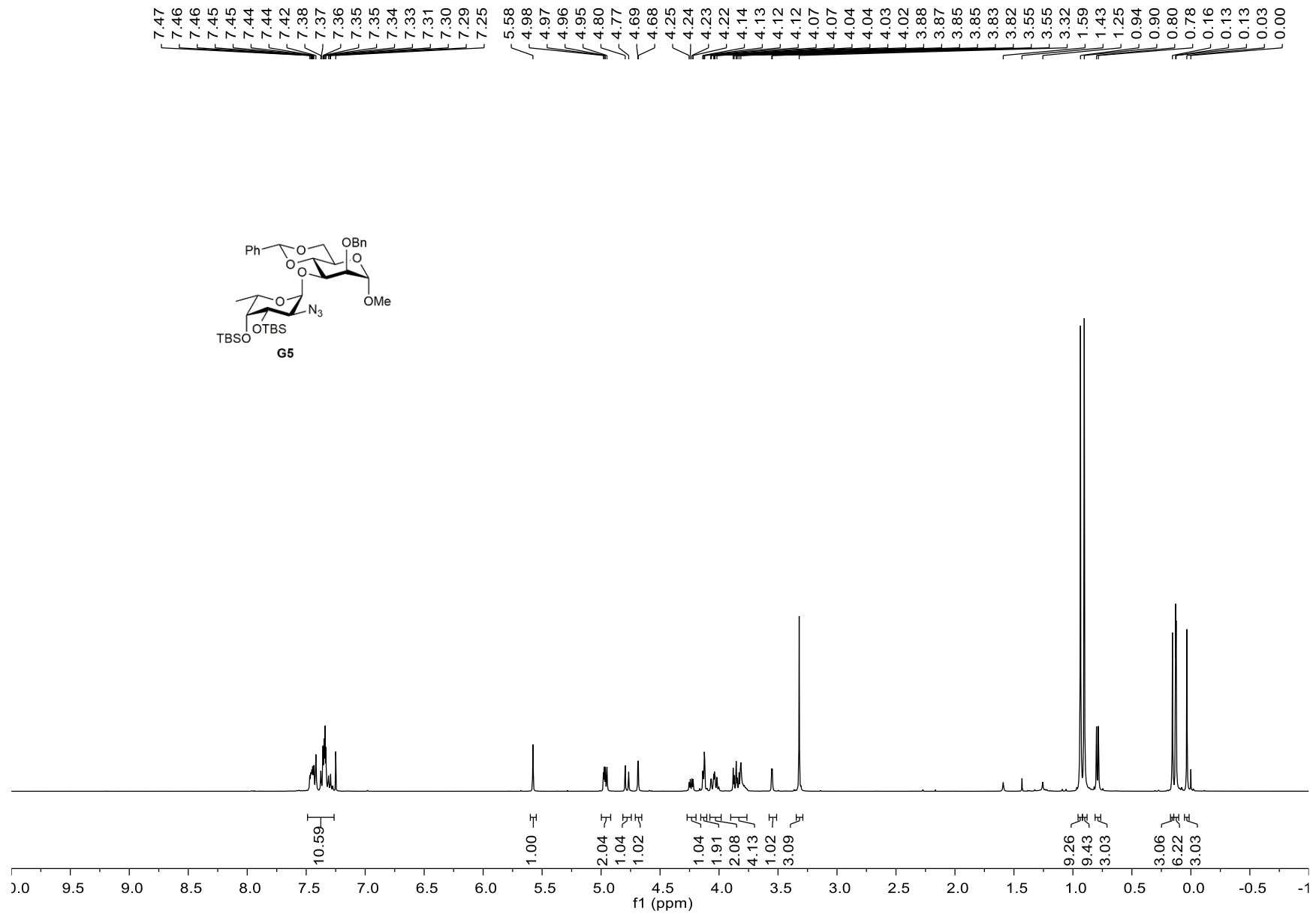
8.08  
8.07  
8.07  
8.06  
8.06  
7.59  
7.57  
7.51  
7.51  
7.49  
7.49  
7.48  
7.46  
7.44  
7.44  
7.42  
7.42  
7.40  
7.40  
7.37  
7.36  
7.36  
7.35  
7.34  
7.34  
7.33  
7.32  
7.29  
7.27  
7.24  
7.21  
7.21  
7.20  
7.19  
7.19  
5.61  
5.60  
5.59  
5.59  
5.57  
5.57  
5.03  
5.02  
4.95  
4.92  
4.76  
4.73  
4.67  
4.66  
4.60  
4.60  
4.57  
4.47  
4.44  
4.44  
4.33  
4.31  
4.26  
4.24  
4.24  
4.23  
4.21  
4.20  
4.20  
4.18  
4.17  
4.17  
4.16  
4.15  
3.88  
3.85  
3.83  
3.82  
3.82  
3.32  
2.35  
1.62  
1.26  
0.83  
0.81  
0.00



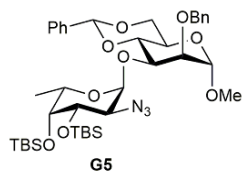








S201

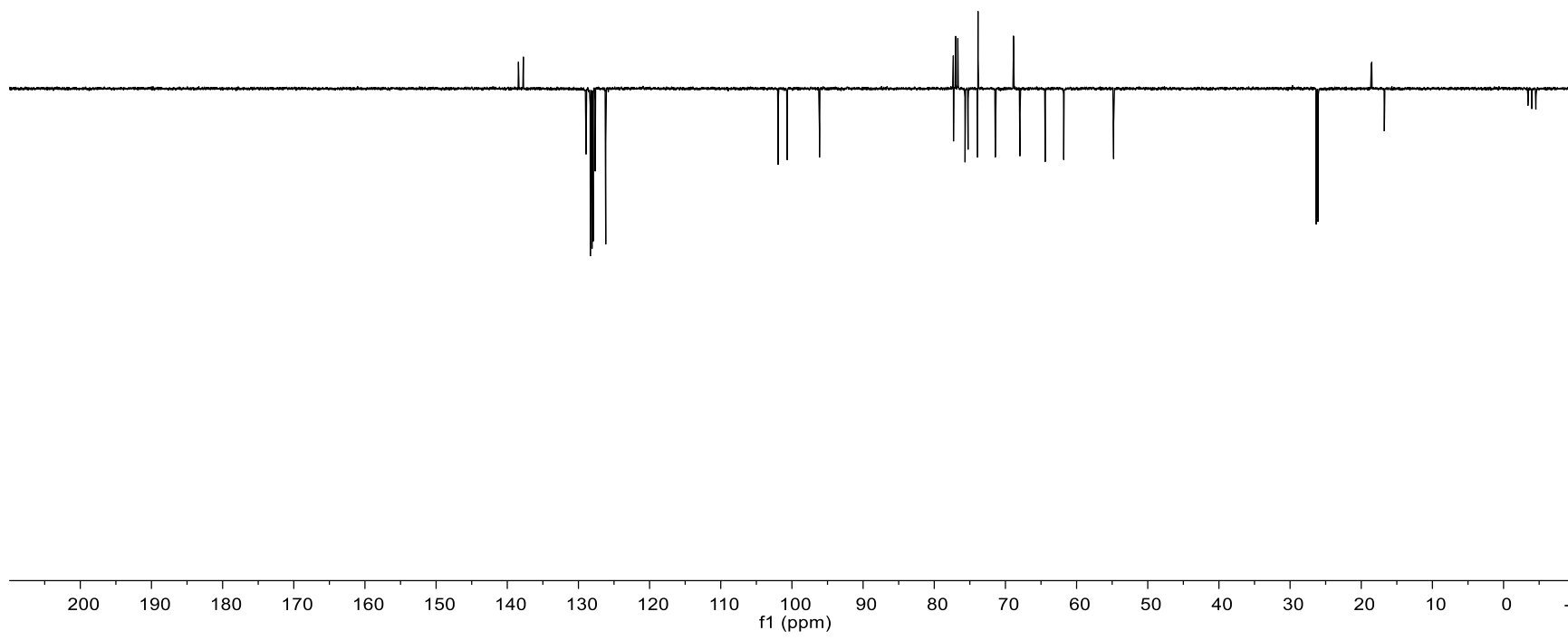


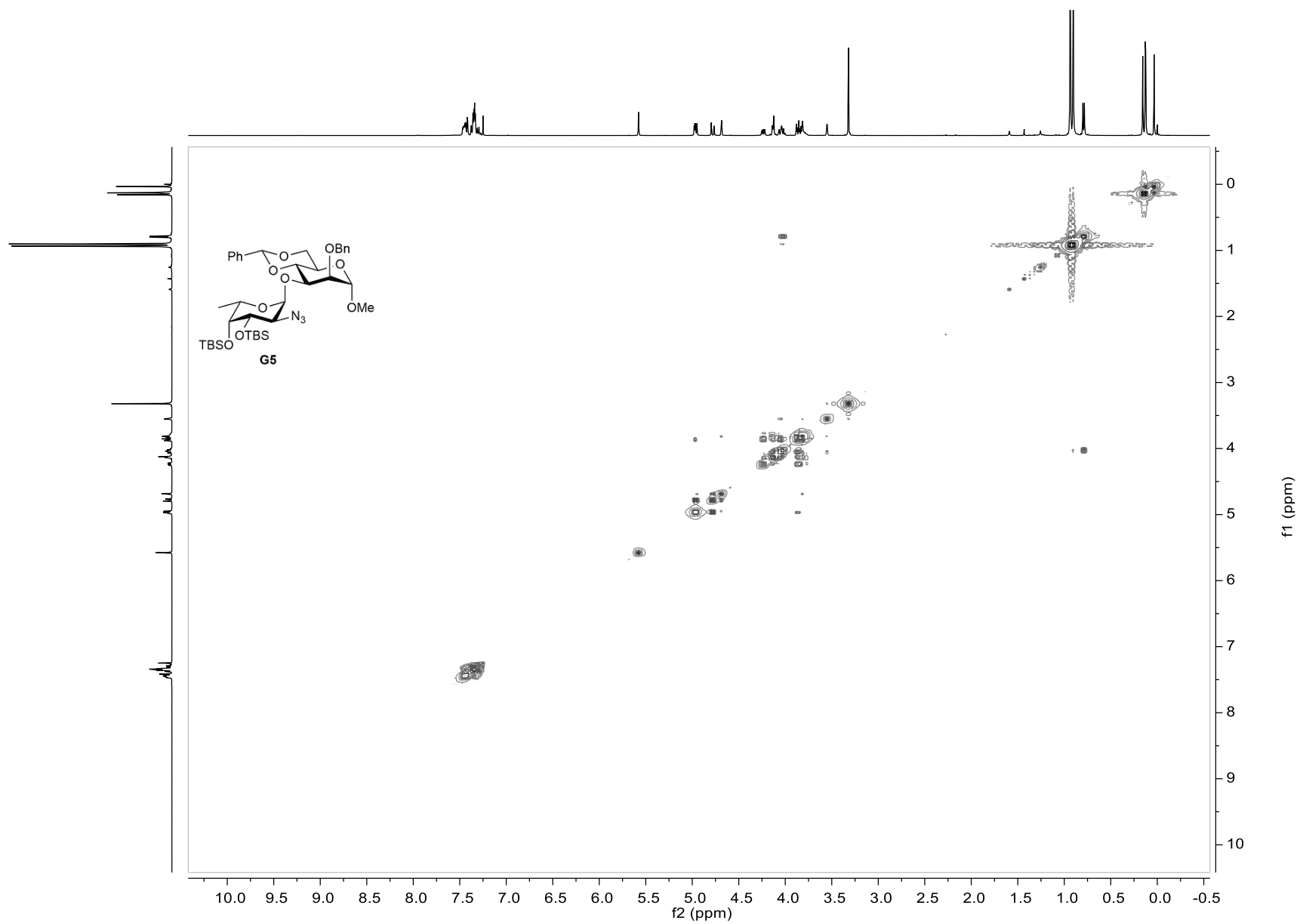
138.43  
 137.74  
 128.93  
 128.33  
 128.09  
 127.92  
 127.65  
 126.17

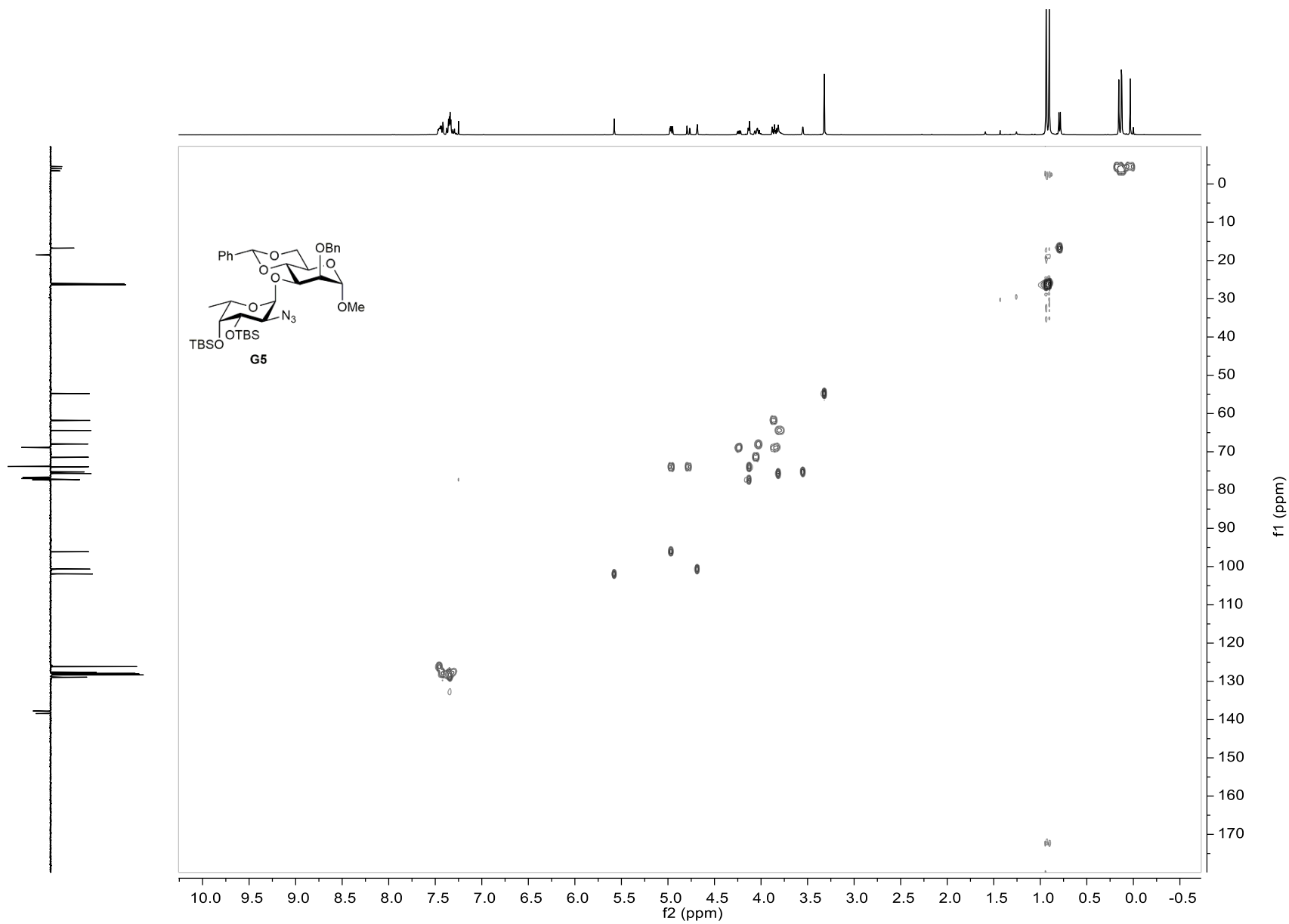
101.93  
 100.67  
 96.13  
 77.32  
 77.30  
 77.00  
 76.68  
 75.67  
 75.25  
 73.91  
 73.85  
 71.42  
 68.87  
 67.97  
 64.41  
 61.80  
 54.79

26.32  
 26.08  
 18.59  
 18.52  
 16.75

-3.42  
 -3.97  
 -4.53  
 -4.56

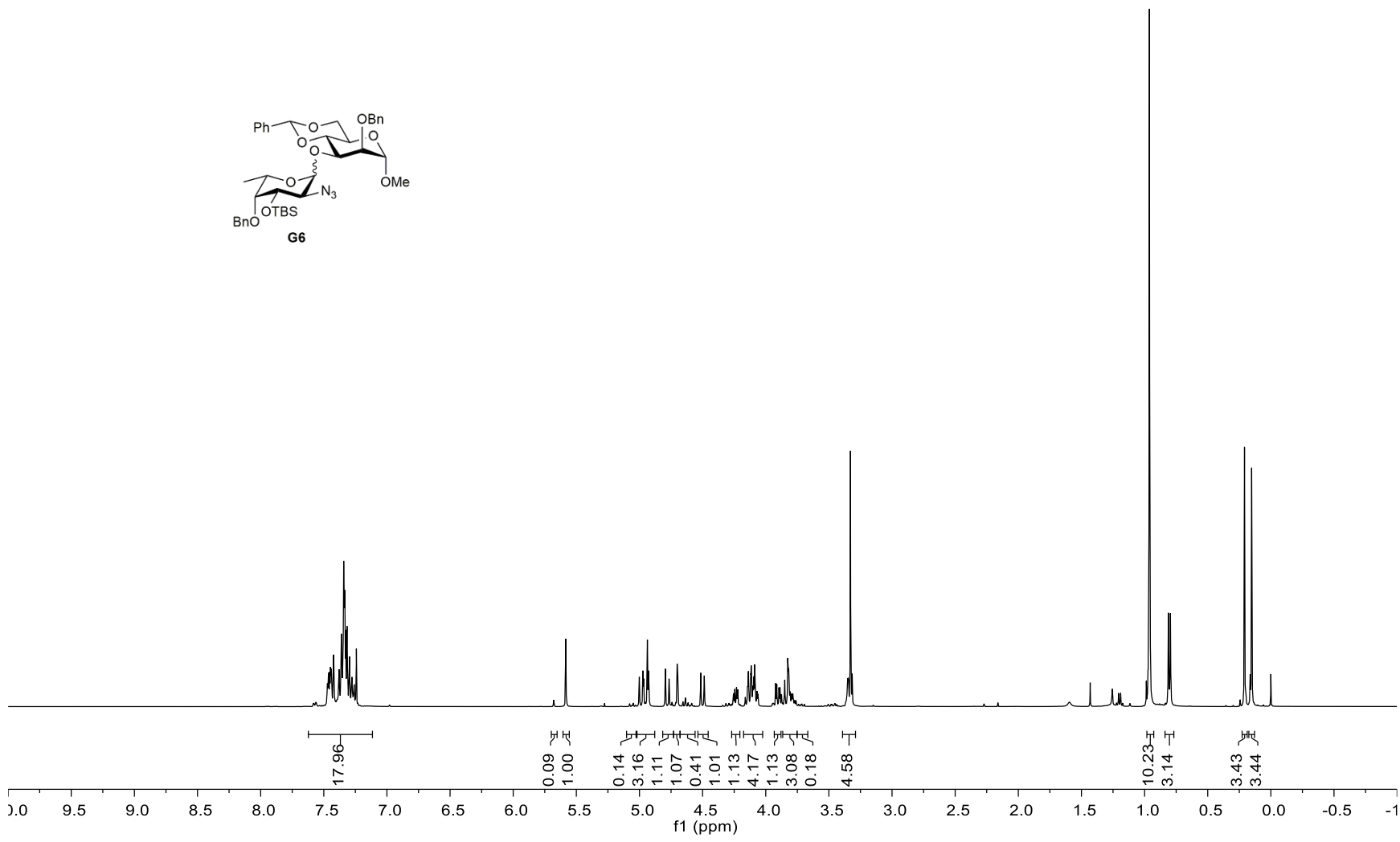
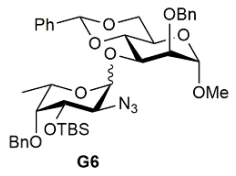


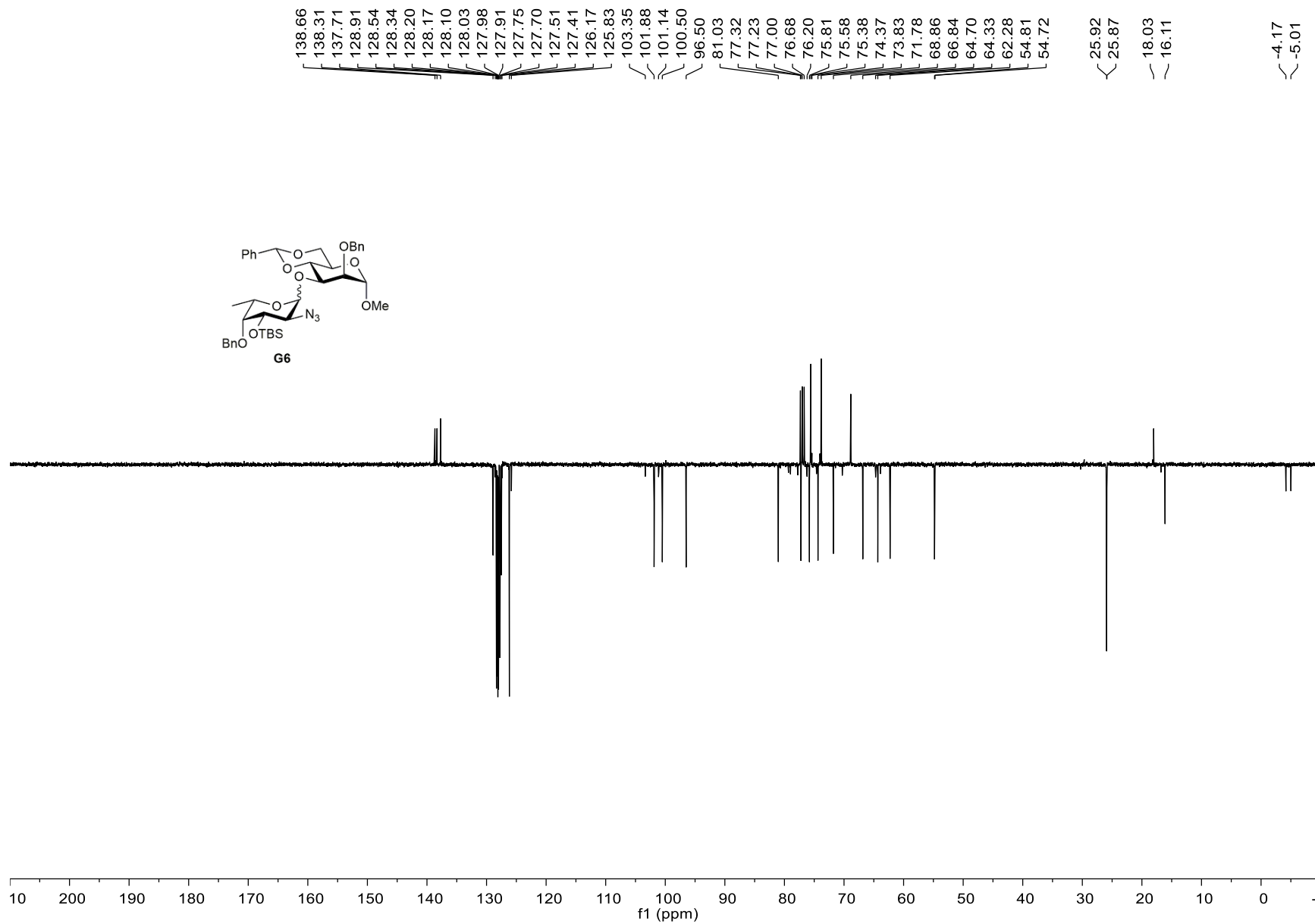


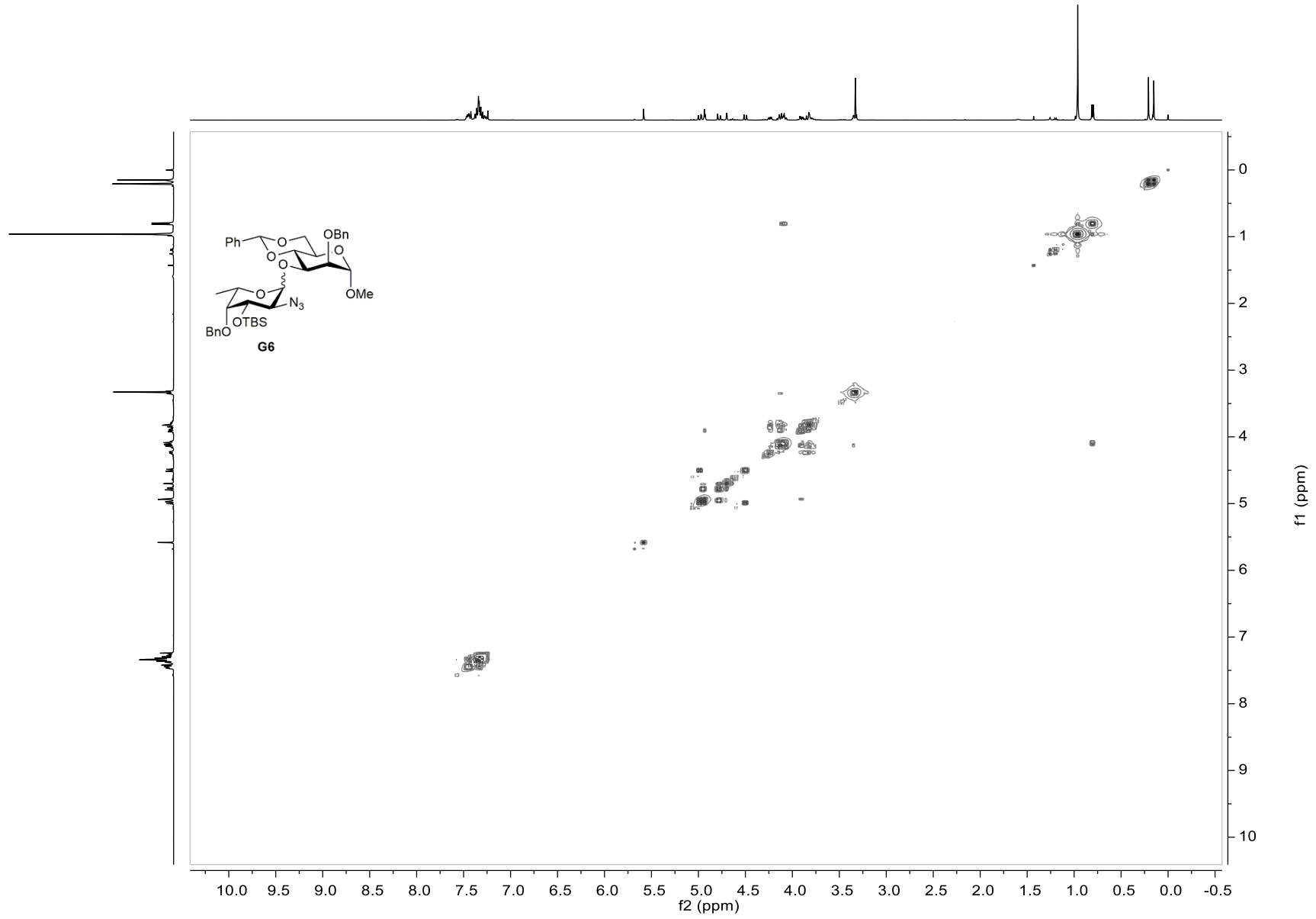


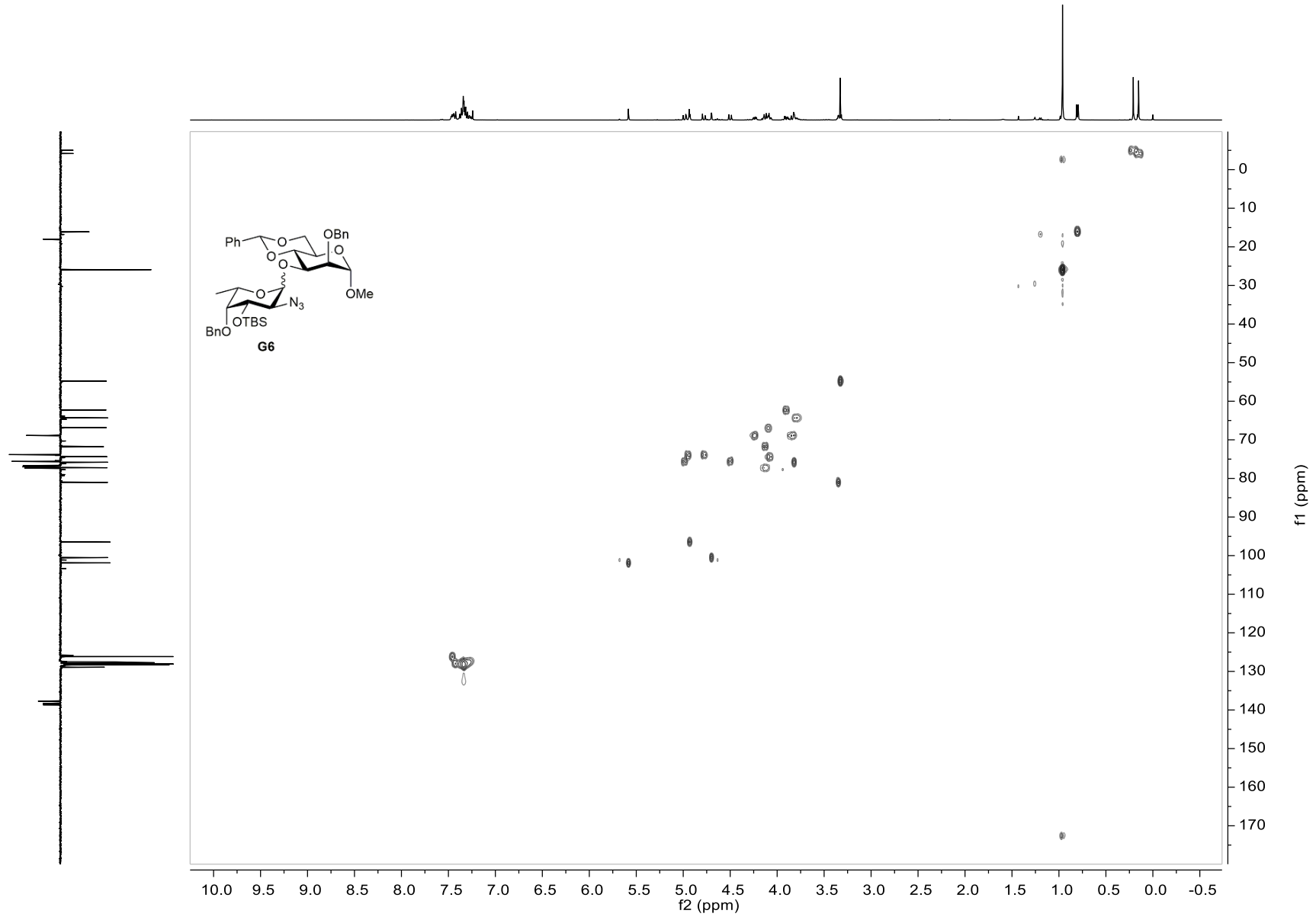


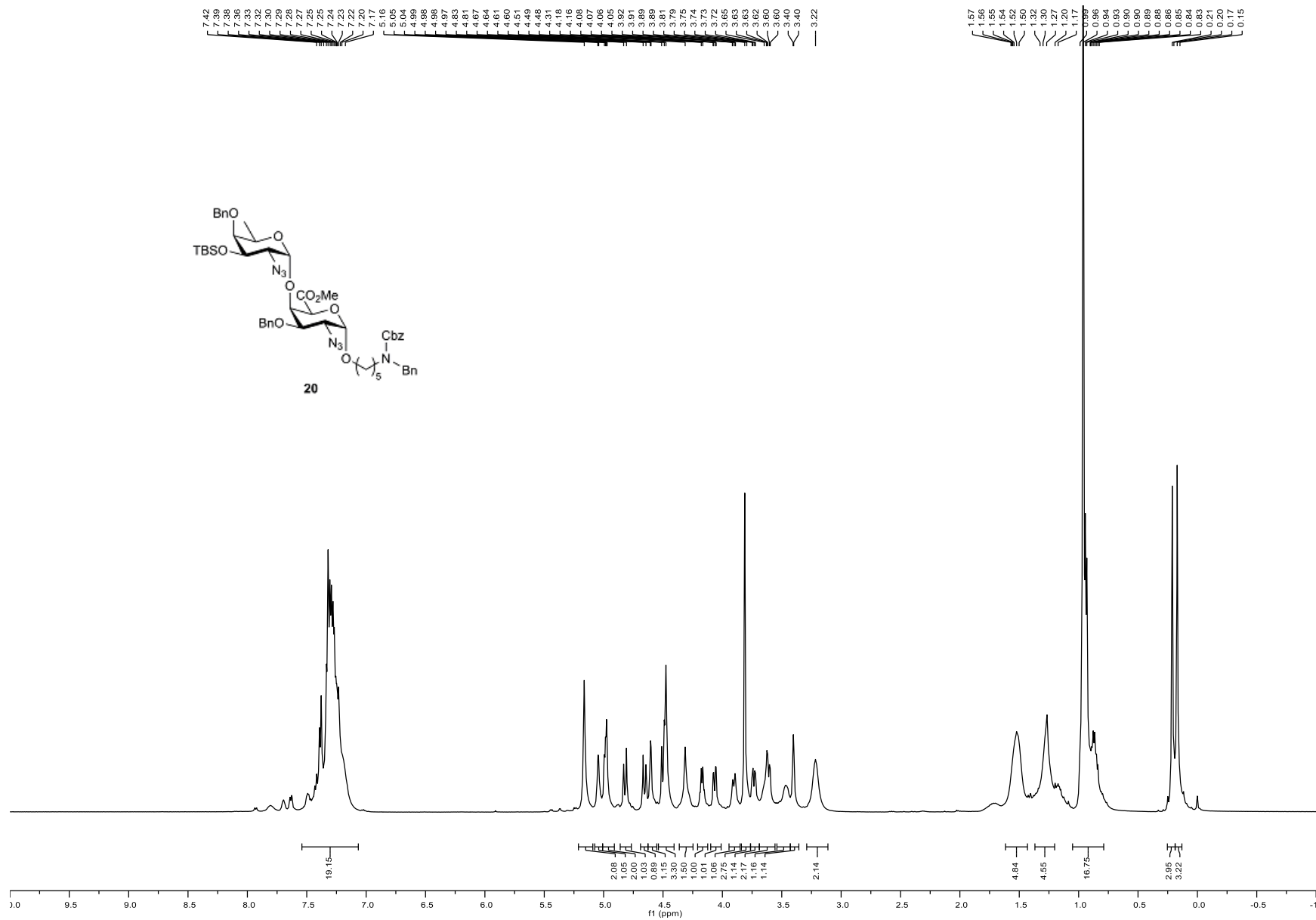
7.47  
7.46  
7.46  
7.45  
7.45  
7.44  
7.42  
7.38  
7.36  
7.34  
7.34  
7.33  
7.33  
7.32  
7.30  
7.28  
7.28  
7.27  
7.26  
7.24  
5.58  
5.00  
4.97  
4.97  
4.94  
4.93  
4.80  
4.77  
4.70  
4.70  
4.51  
4.49  
4.26  
4.24  
4.23  
4.22  
4.14  
4.14  
4.12  
4.12  
4.10  
4.09  
4.09  
4.07  
3.92  
3.90  
3.89  
3.85  
3.83  
3.82  
3.82  
3.81  
3.79  
3.35  
3.35  
3.33  
3.32  
1.43  
1.26  
1.21  
1.19  
0.99  
0.97  
0.96  
0.81  
0.80  
0.21  
0.16  
0.15  
0.00



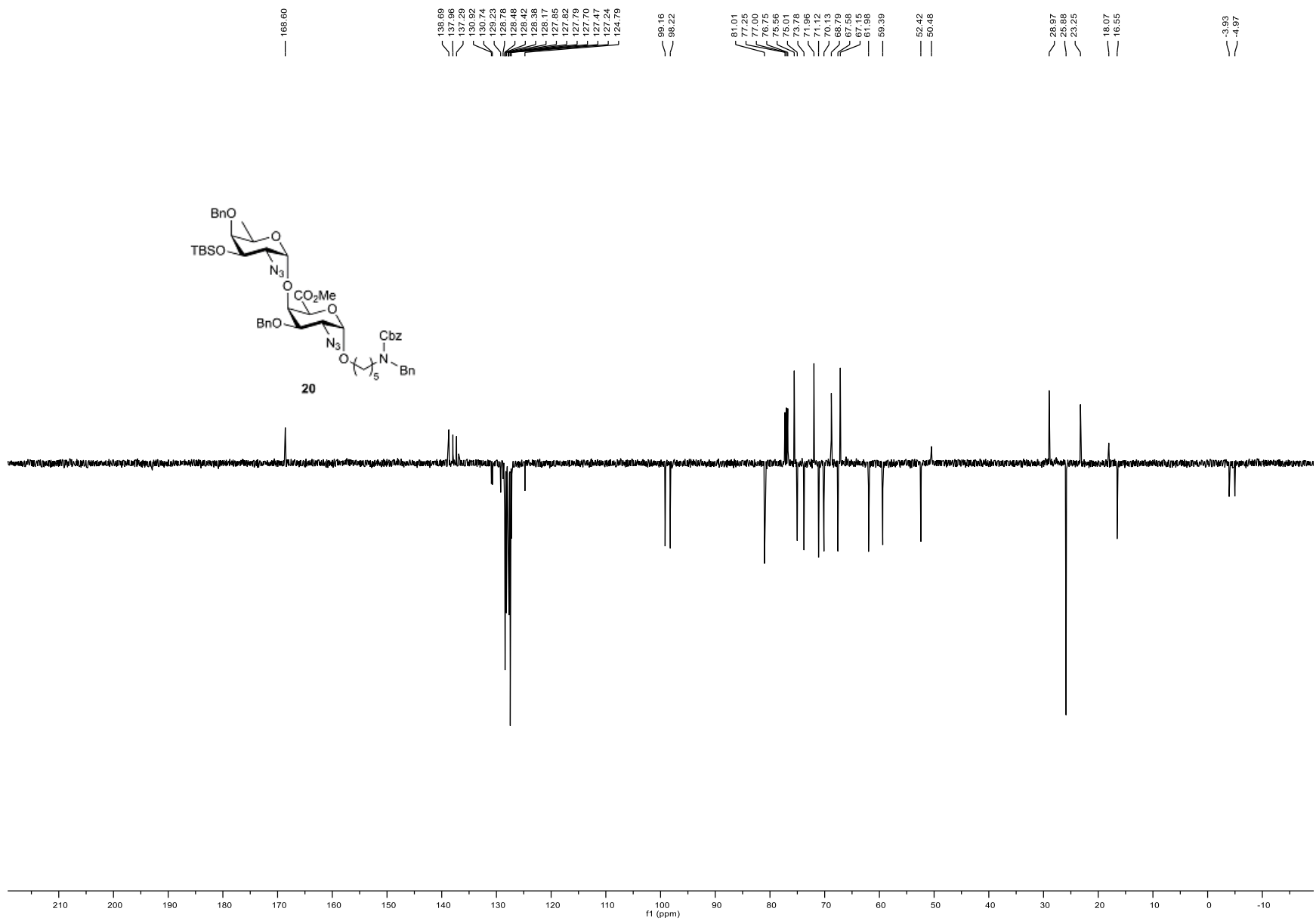


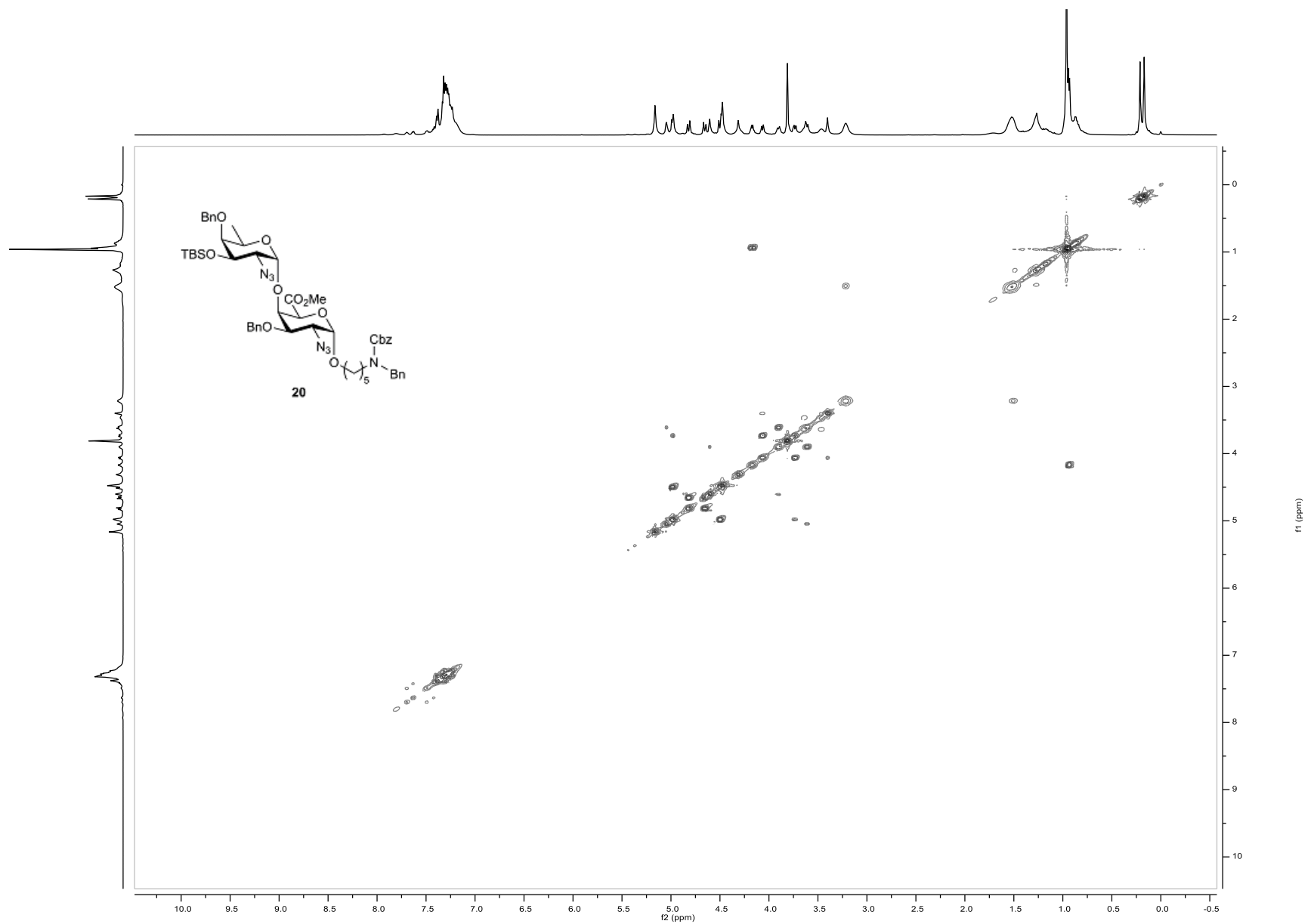


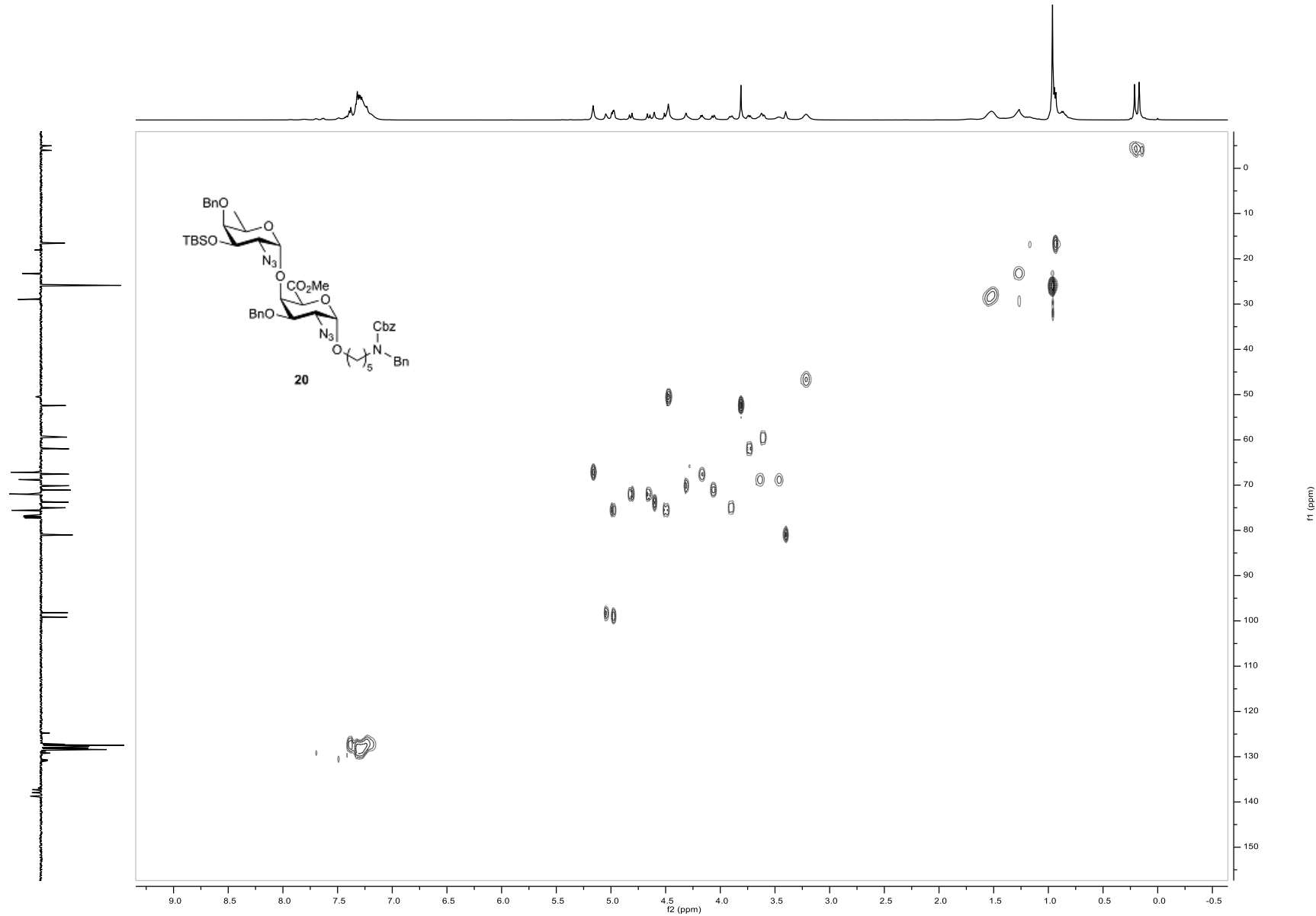




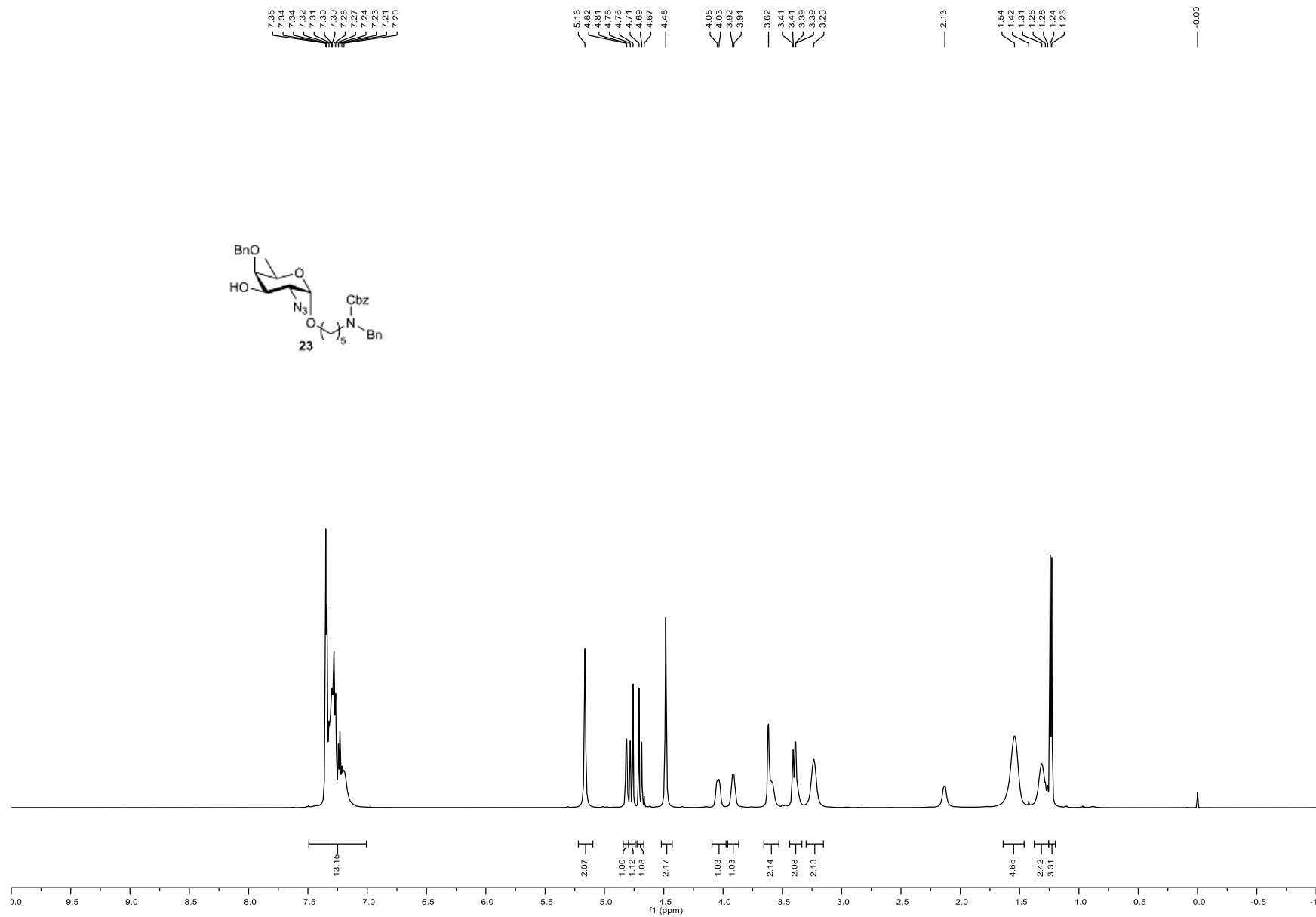
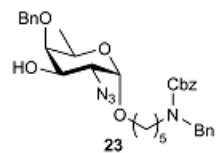
S209



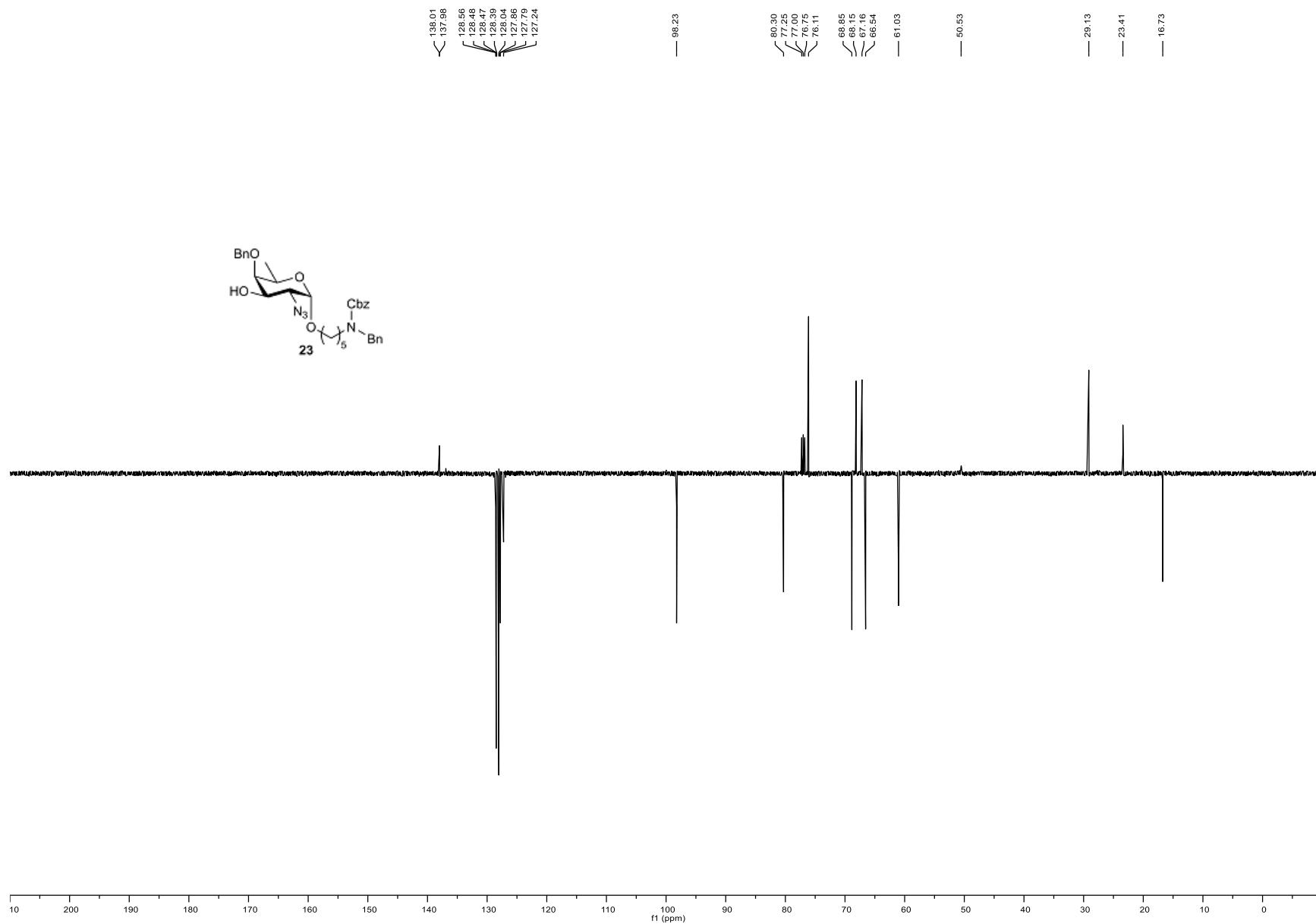


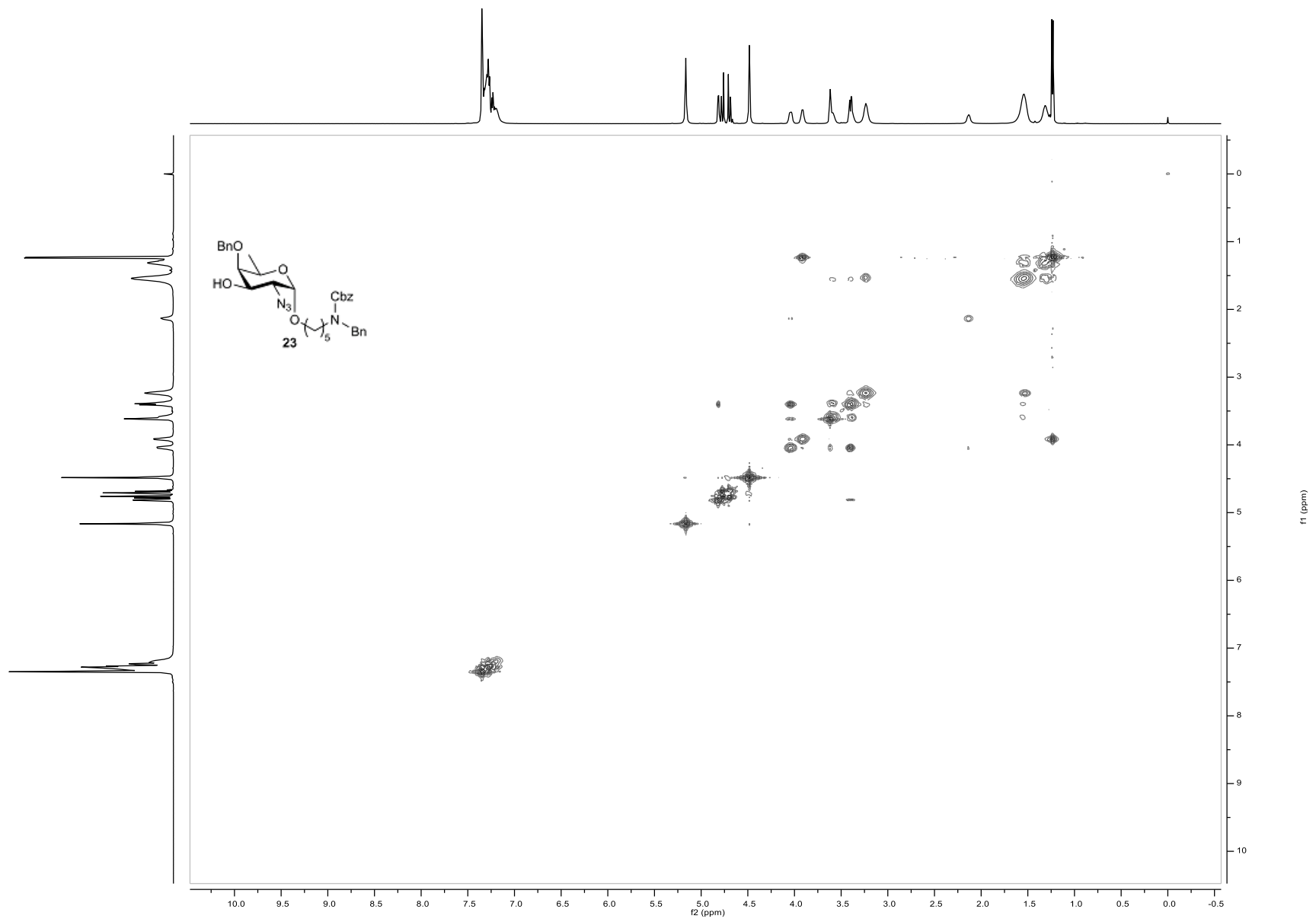




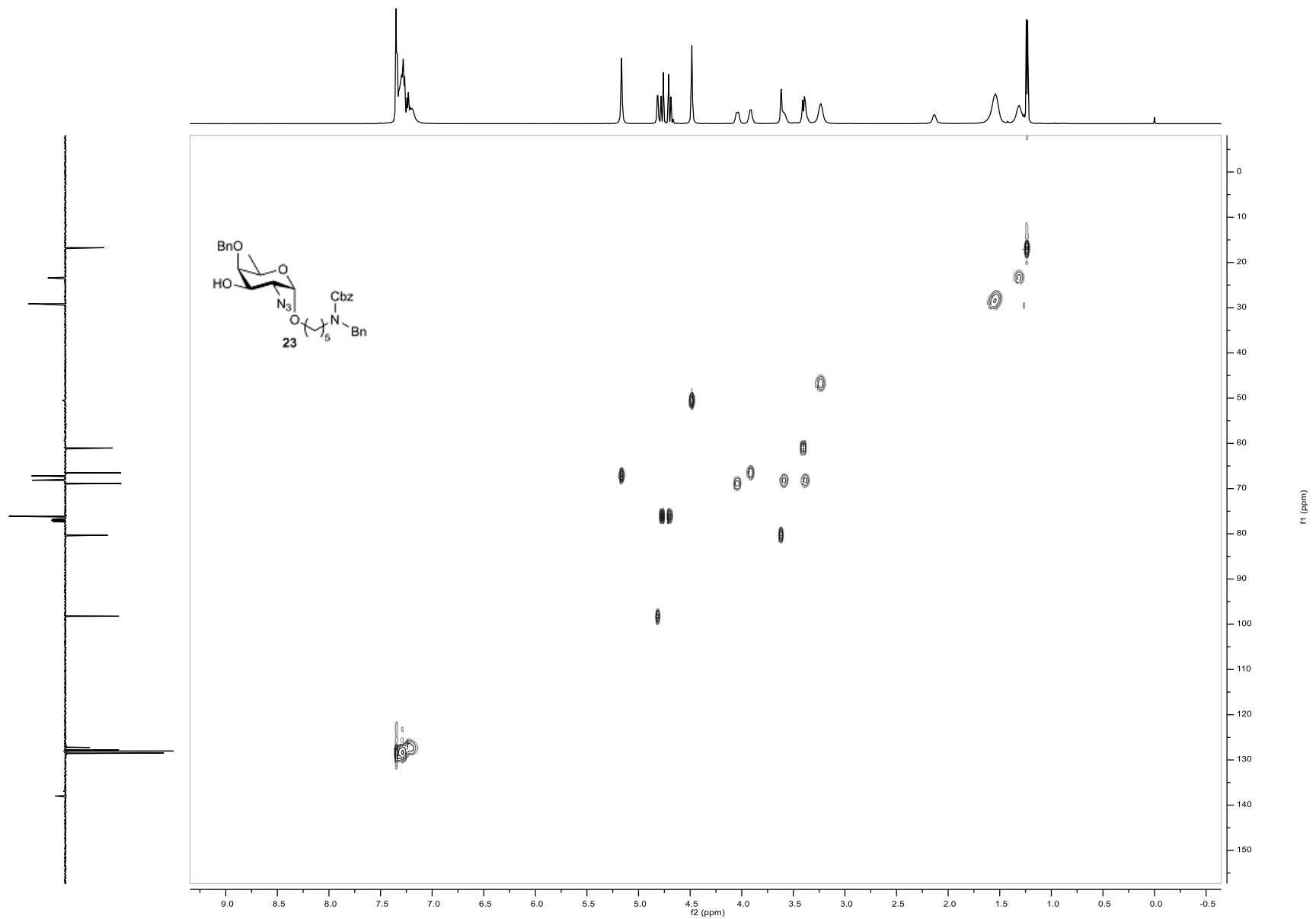


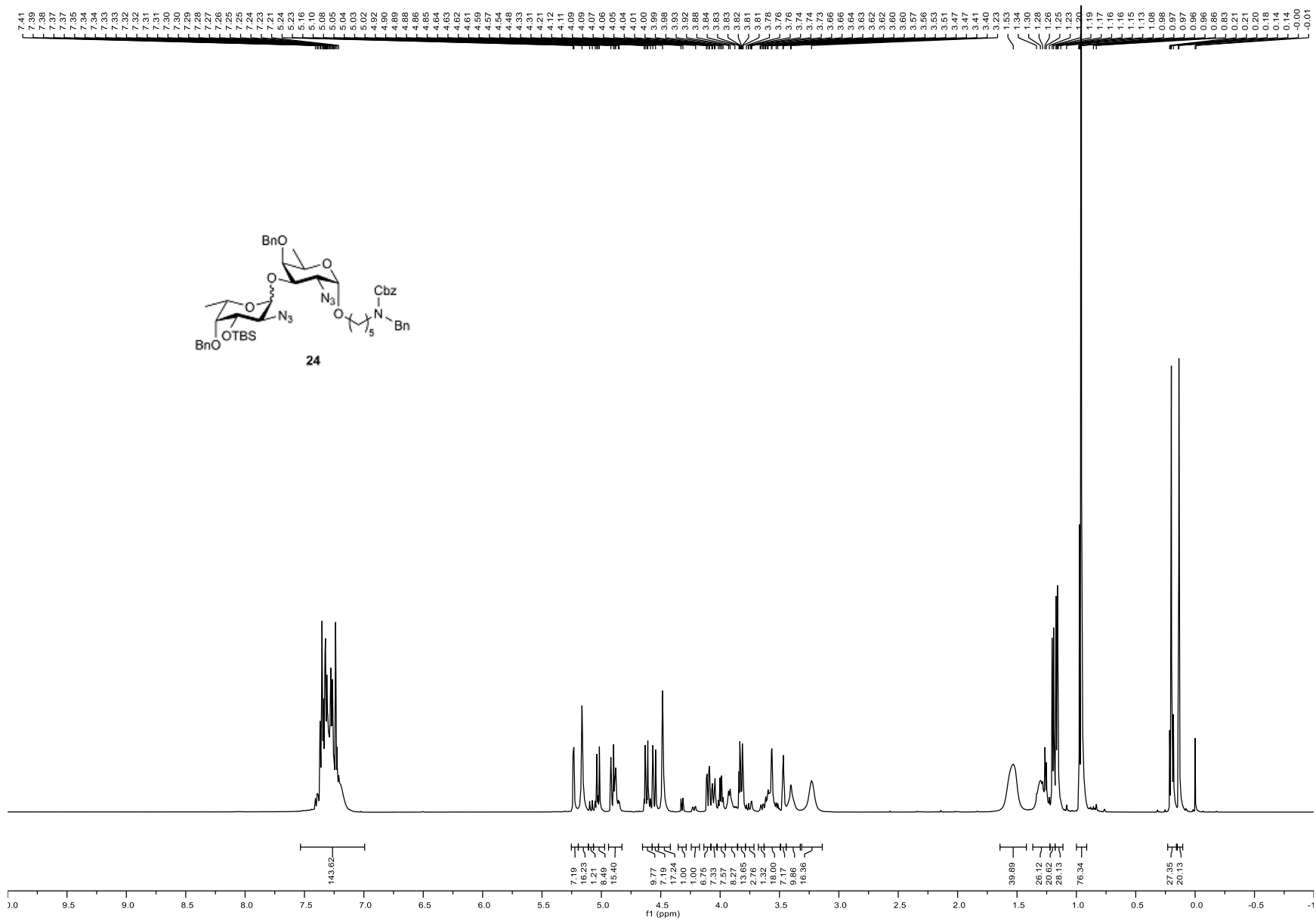
S213

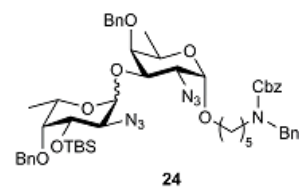




S215







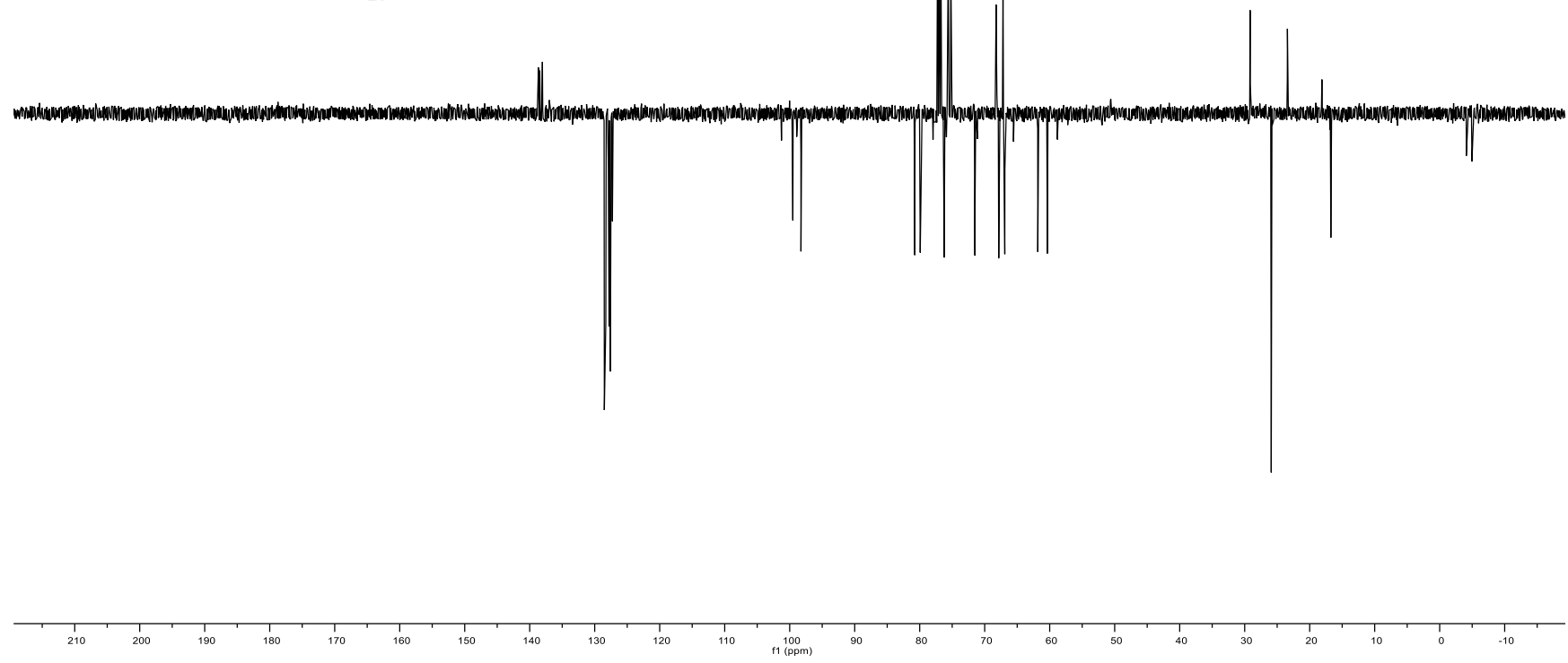
138.66  
138.45  
138.05  
137.82  
128.43  
128.37  
128.30  
128.18  
128.08  
127.88  
127.85  
127.79  
127.69  
127.62  
127.59  
127.27

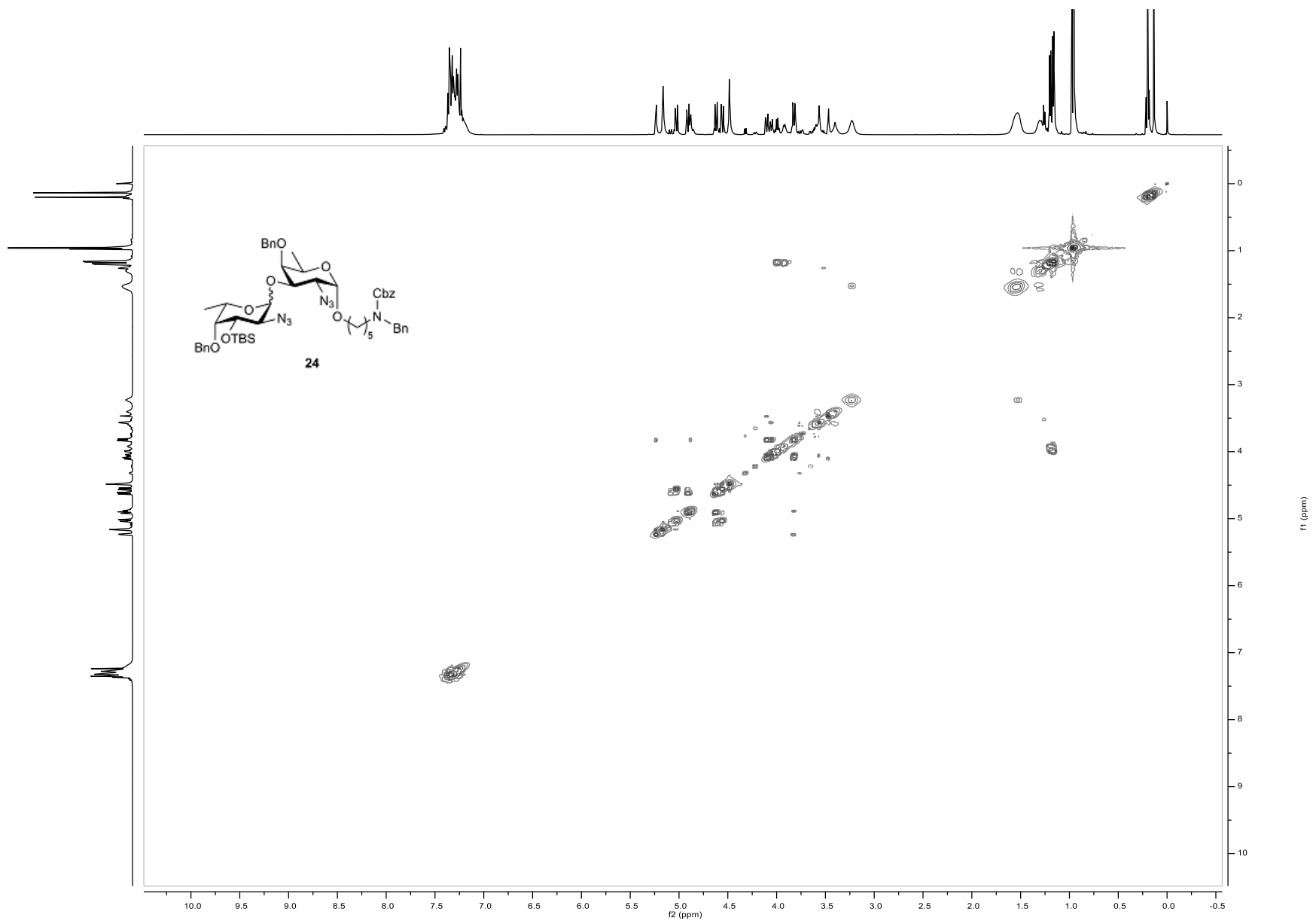
101.27  
98.52  
98.93  
98.28

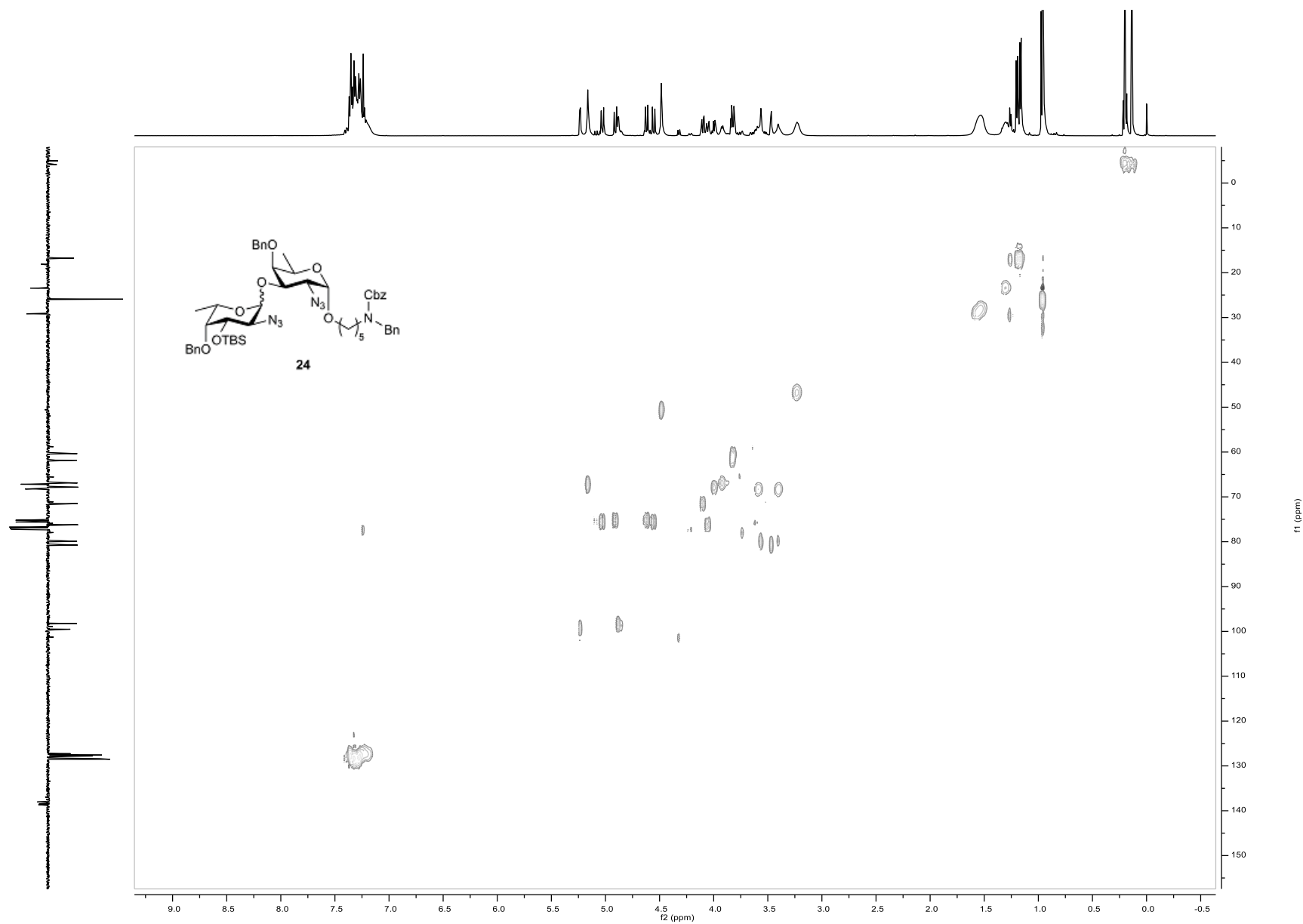
80.75  
79.92  
79.70  
77.95  
77.65  
77.05  
76.75  
76.23  
75.89  
75.61  
75.22  
74.91  
74.32  
68.25  
67.84  
67.18  
66.91  
65.56  
64.85  
60.35  
58.82

29.16  
25.91  
23.43  
18.12  
16.78  
16.74

-4.10  
-4.97





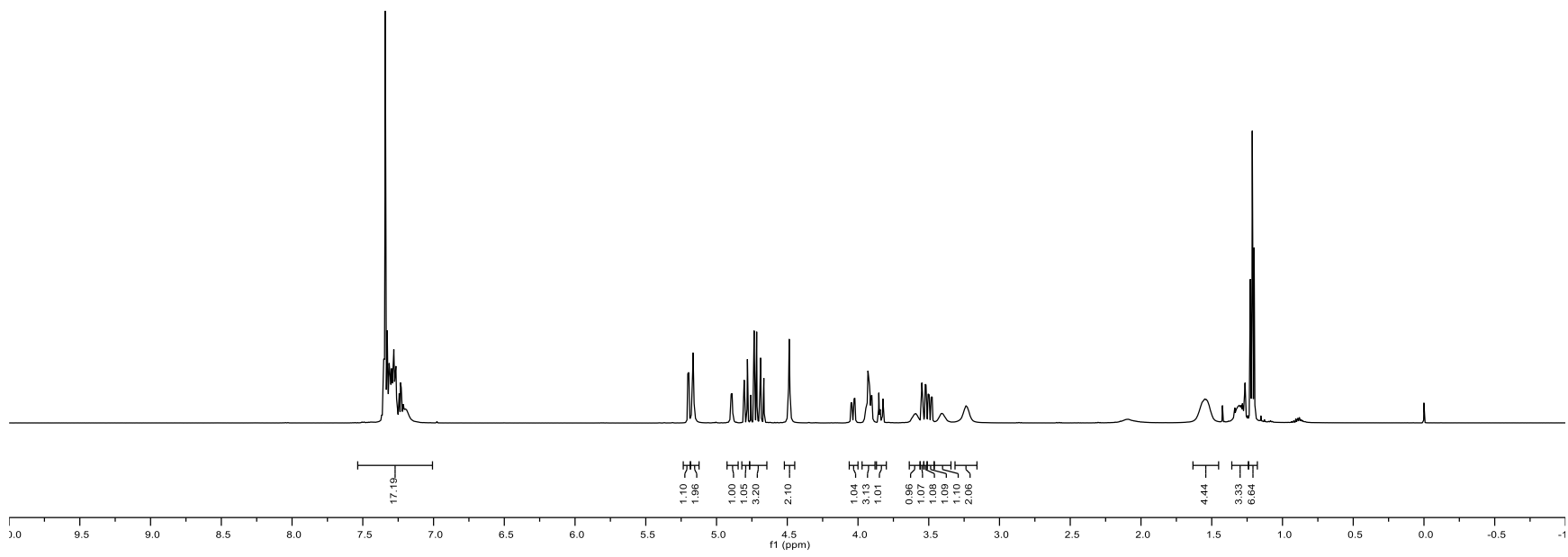
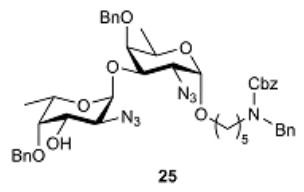


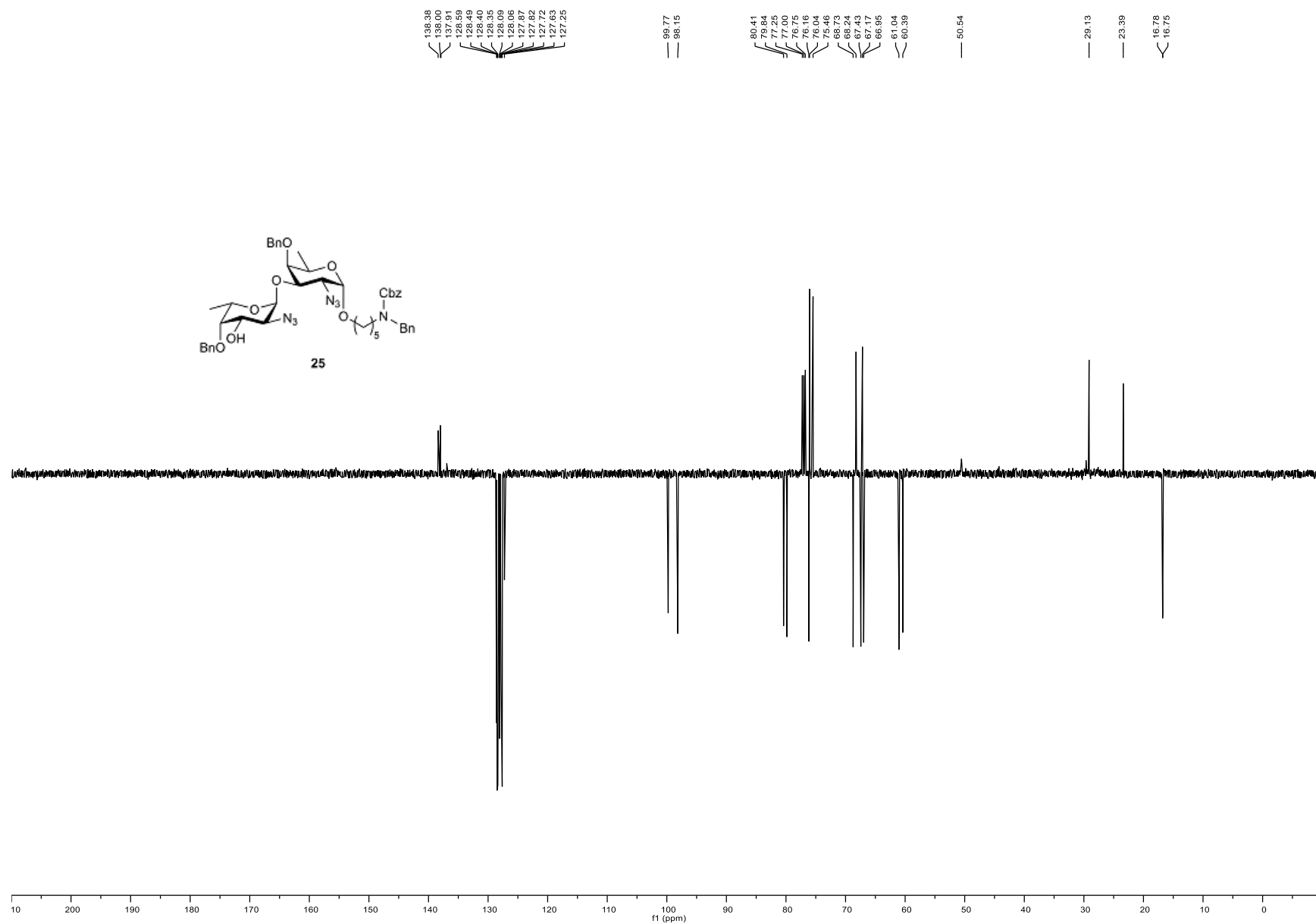
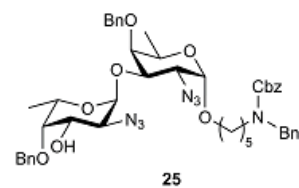


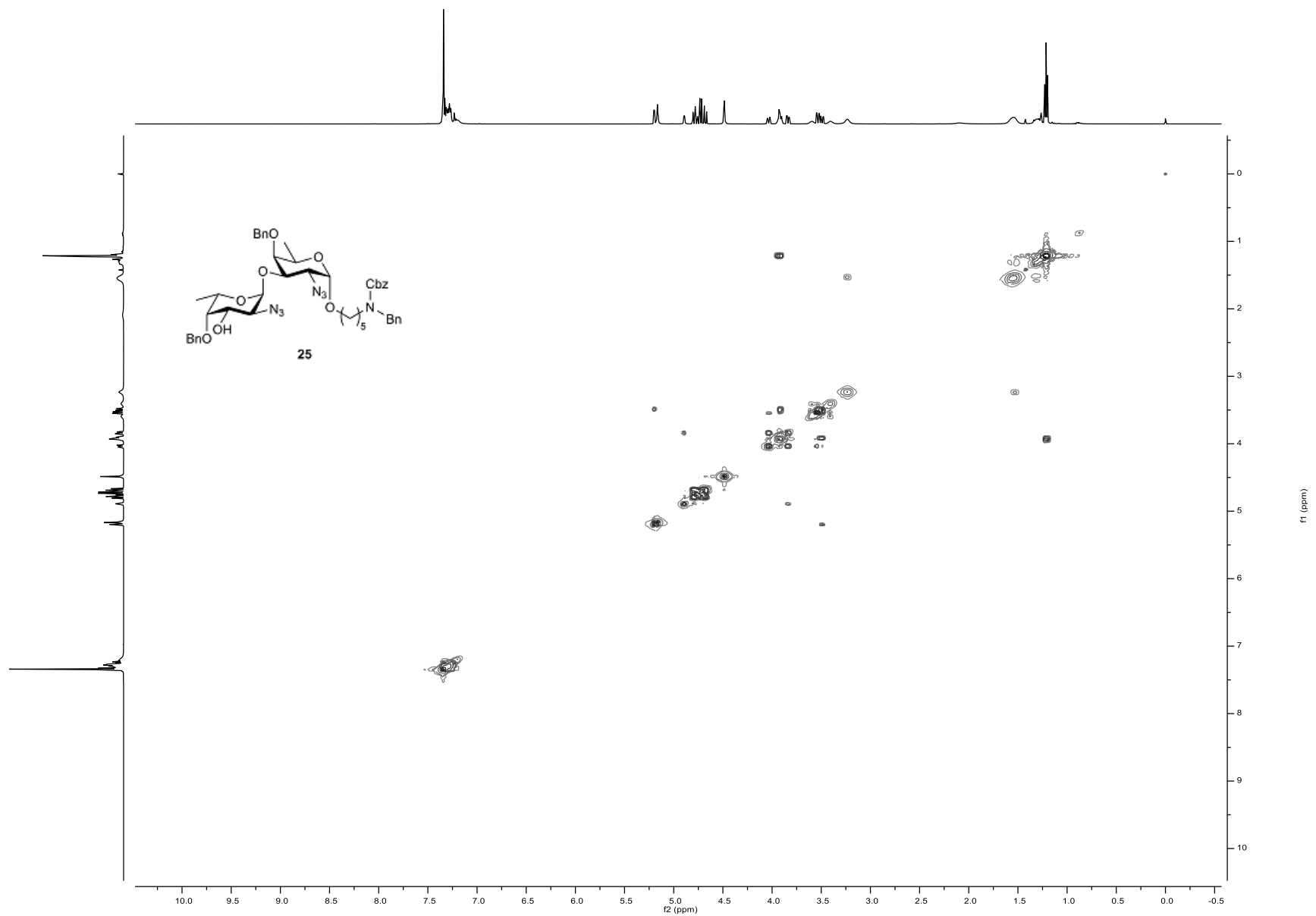
7.37  
7.36  
7.35  
7.34  
7.33  
7.32  
7.31  
7.31  
7.29  
7.29  
7.28  
7.27  
7.27  
7.26  
7.24  
7.24  
7.23  
7.23  
7.22  
7.21  
7.20

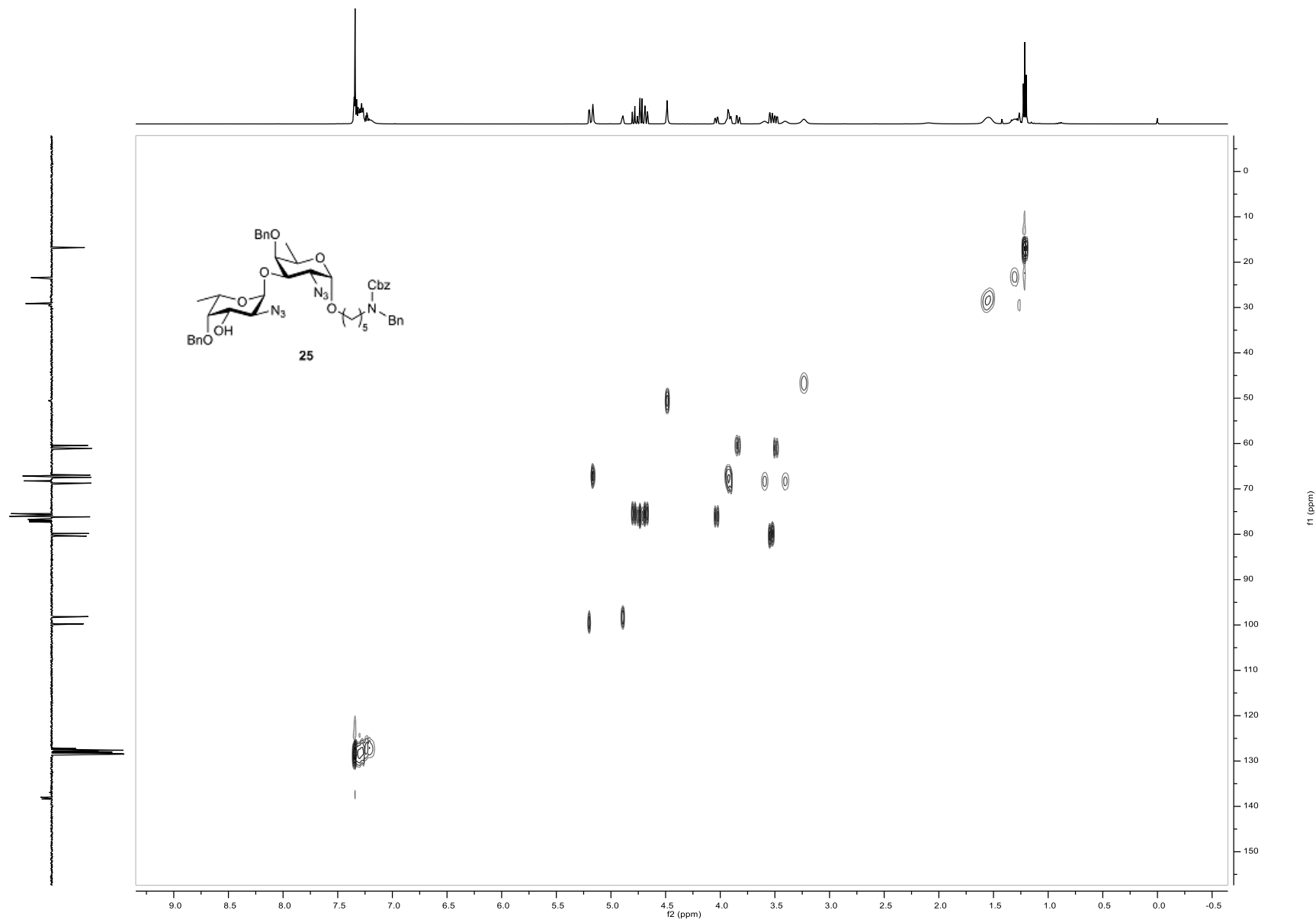
5.20  
5.20  
5.17  
4.90  
4.80  
4.80  
4.78  
4.76  
4.73  
4.72  
4.69  
4.67  
4.49  
4.05  
4.04  
4.03  
4.02  
4.02  
3.93  
3.93  
3.92  
3.92  
3.91  
3.90  
3.85  
3.85  
3.83  
3.83  
3.82  
3.69  
3.65  
3.64  
3.62  
3.62  
3.50  
3.50  
3.48  
3.48  
3.41  
3.41  
3.24  
3.24

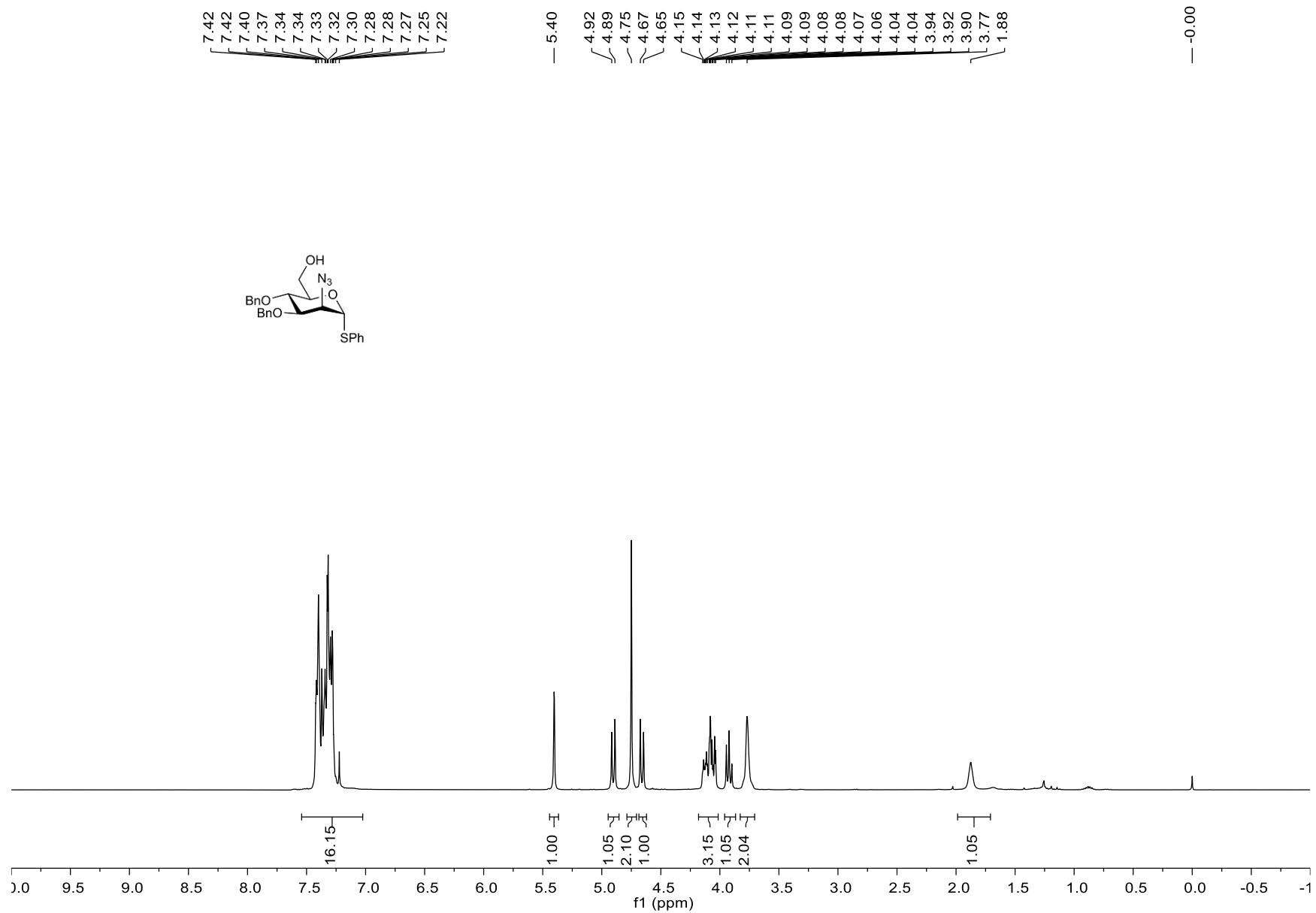
1.55  
1.54  
1.42  
1.42  
1.31  
1.29  
1.28  
1.28  
1.26  
1.23  
1.23  
1.20



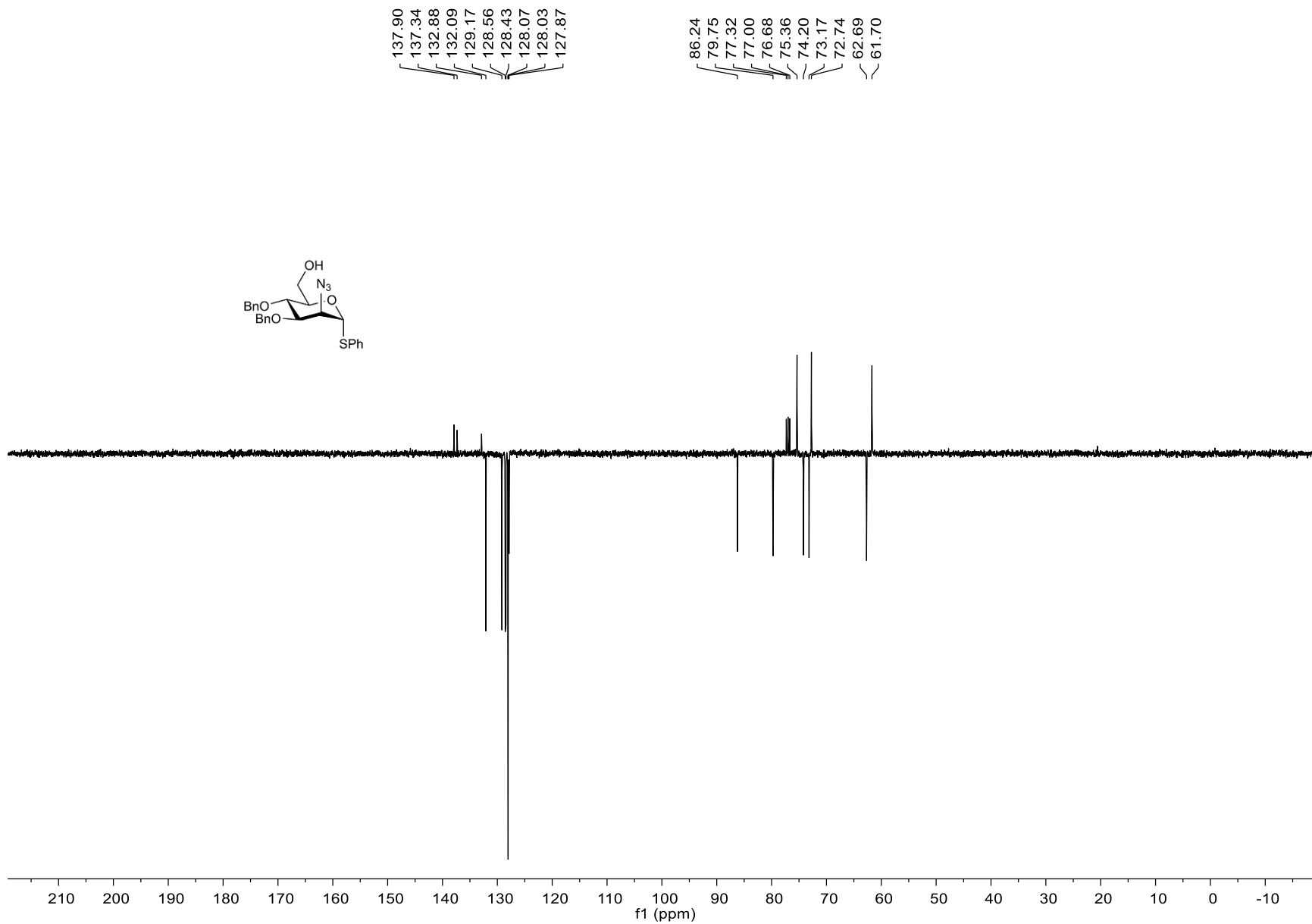
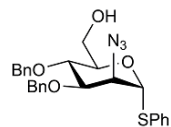


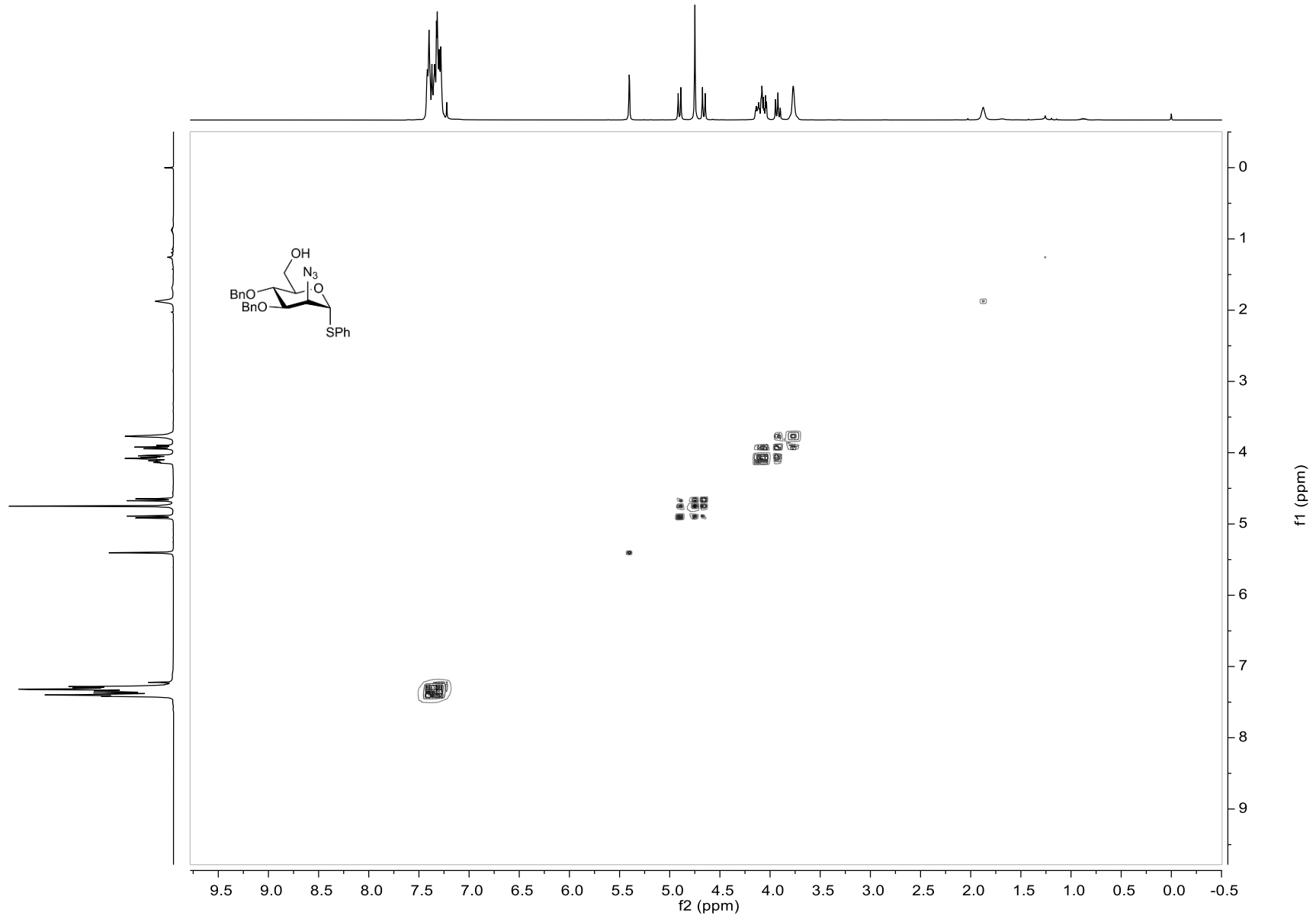




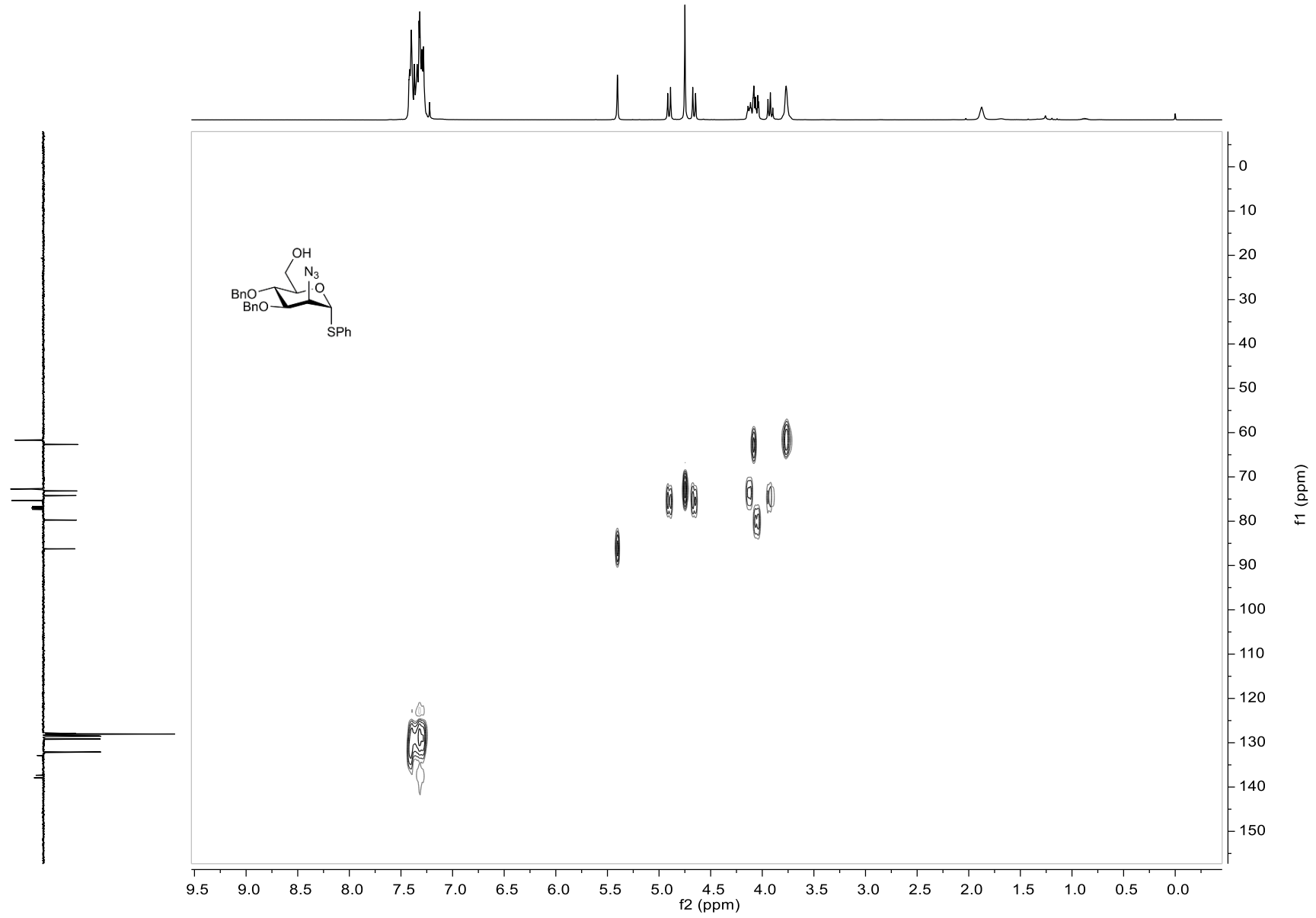


S225

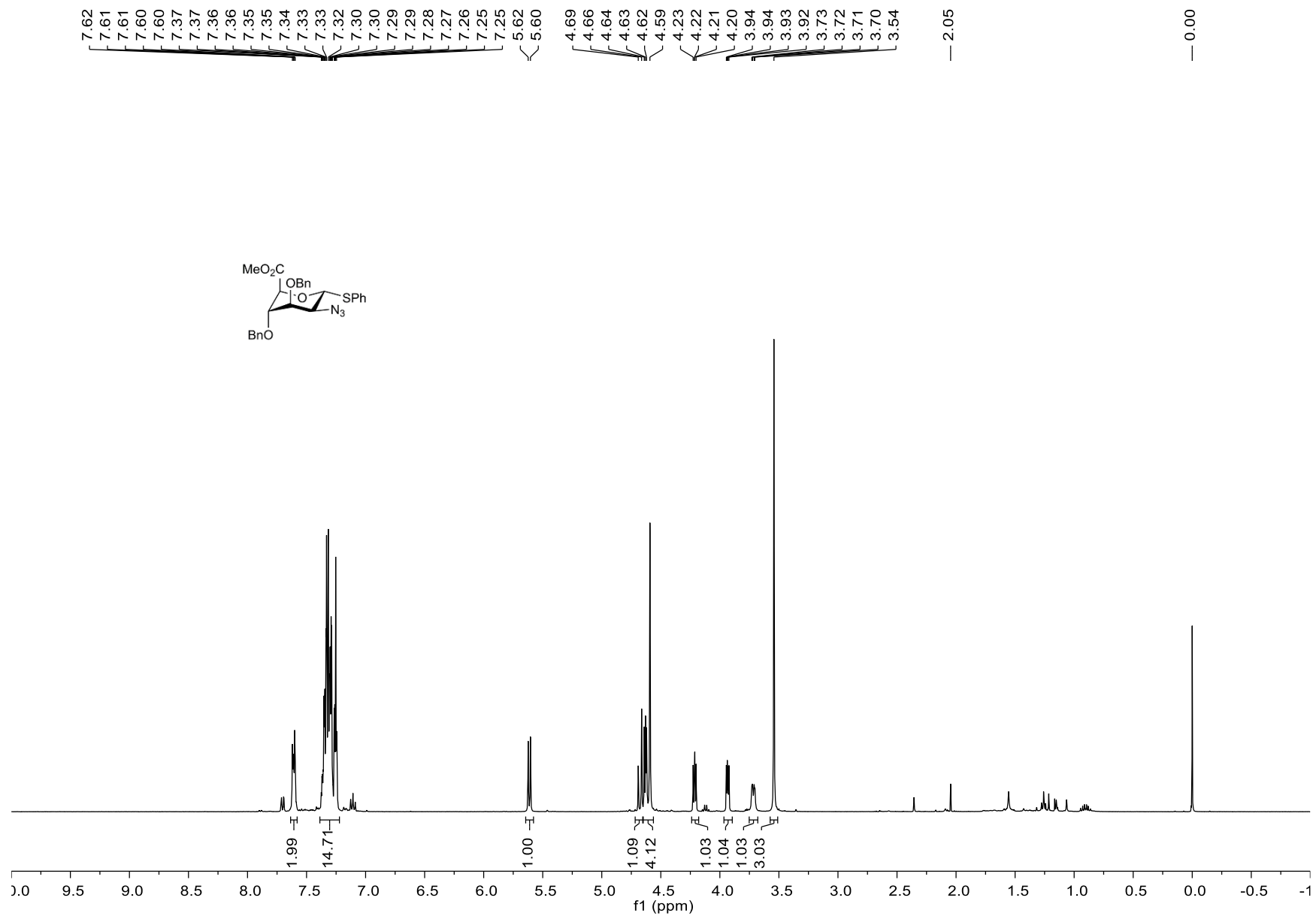


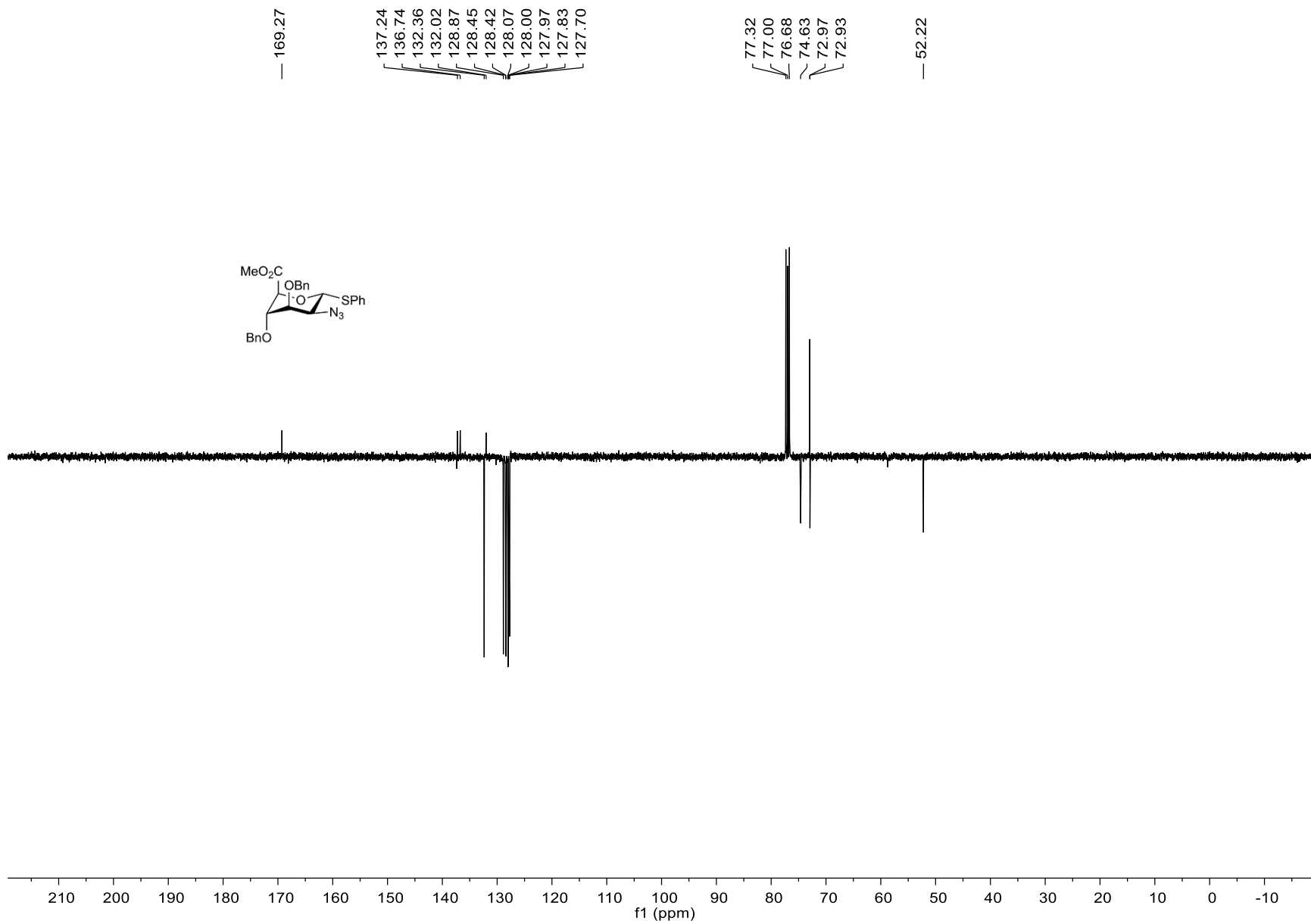


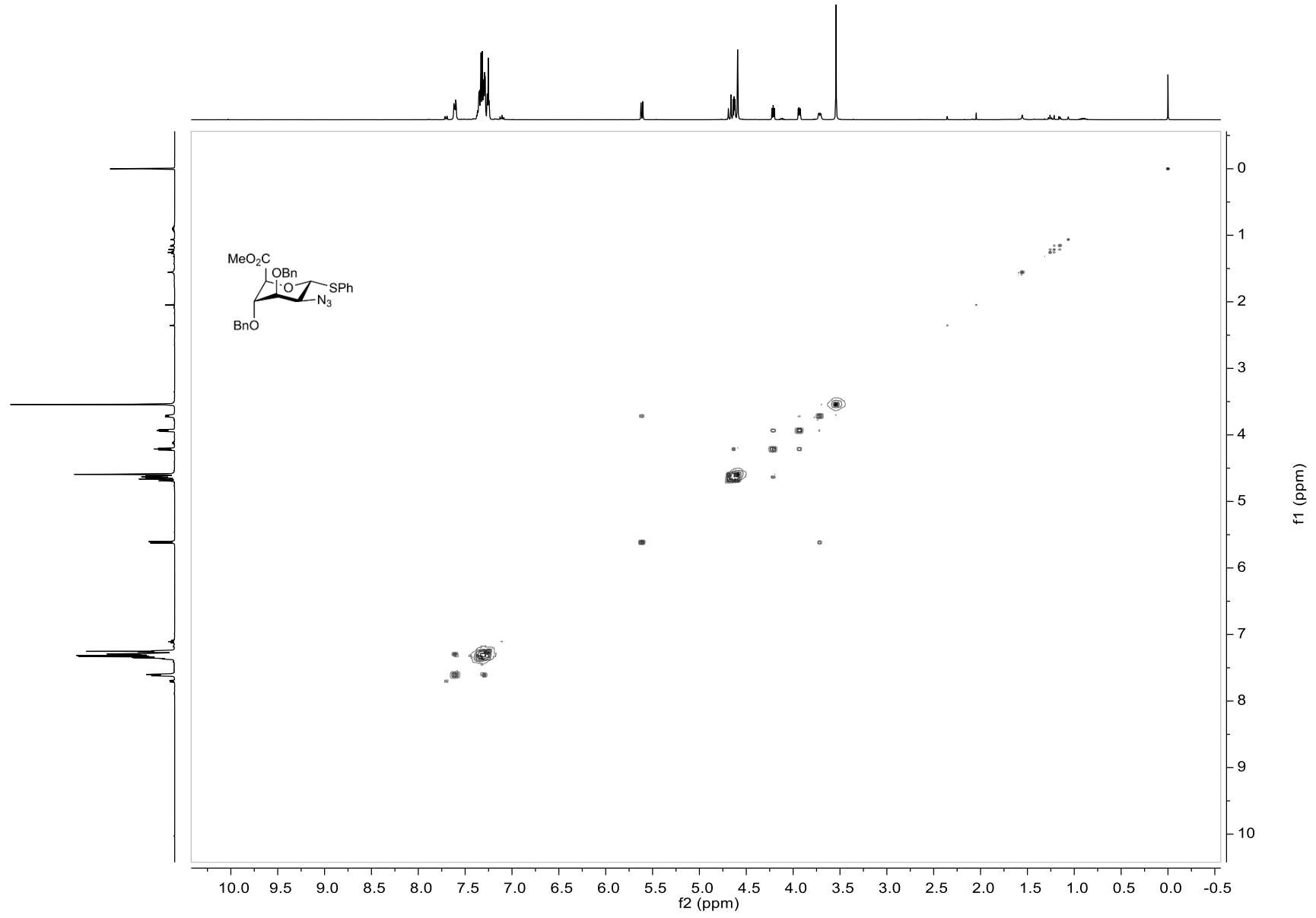
S227

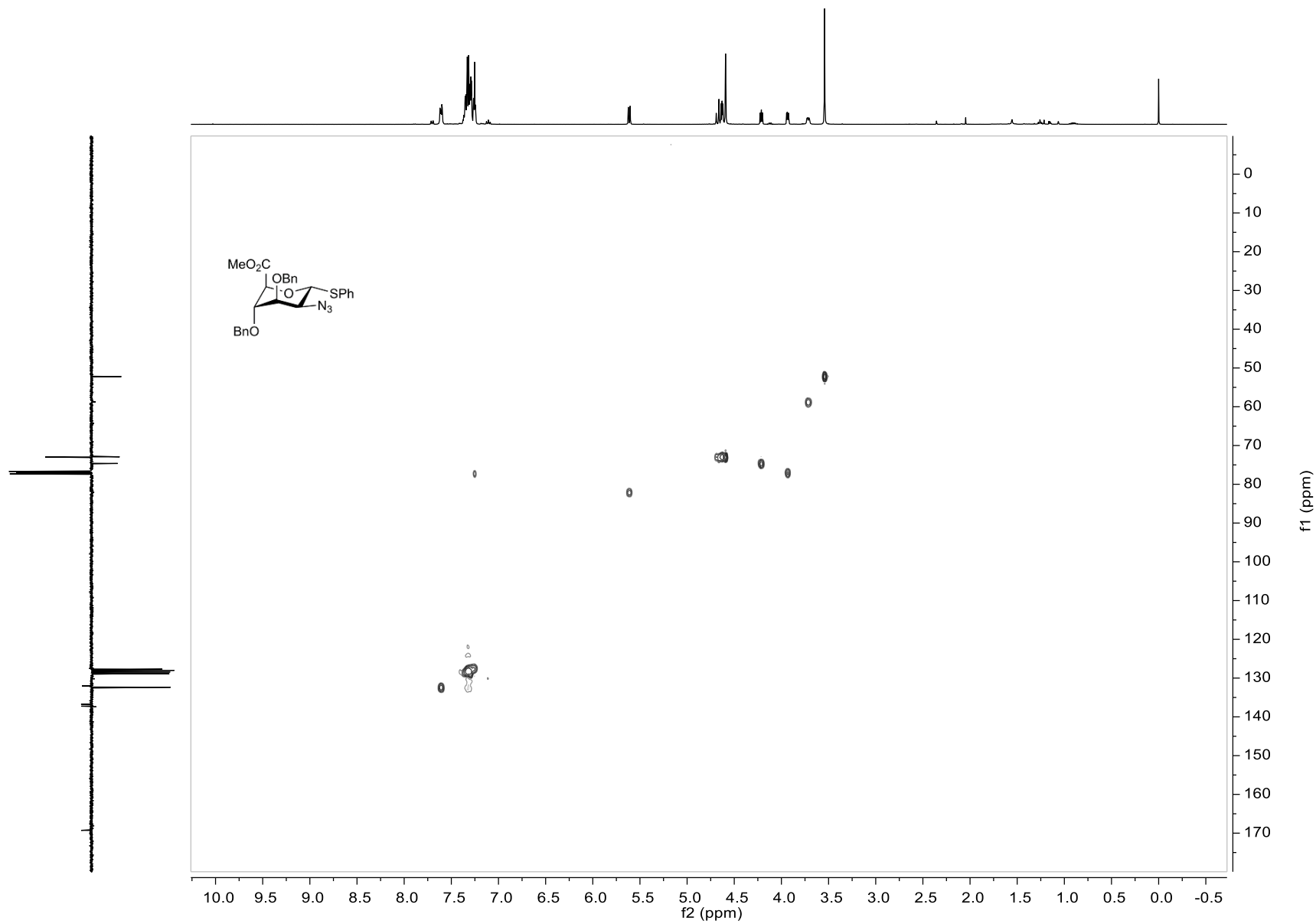


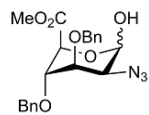










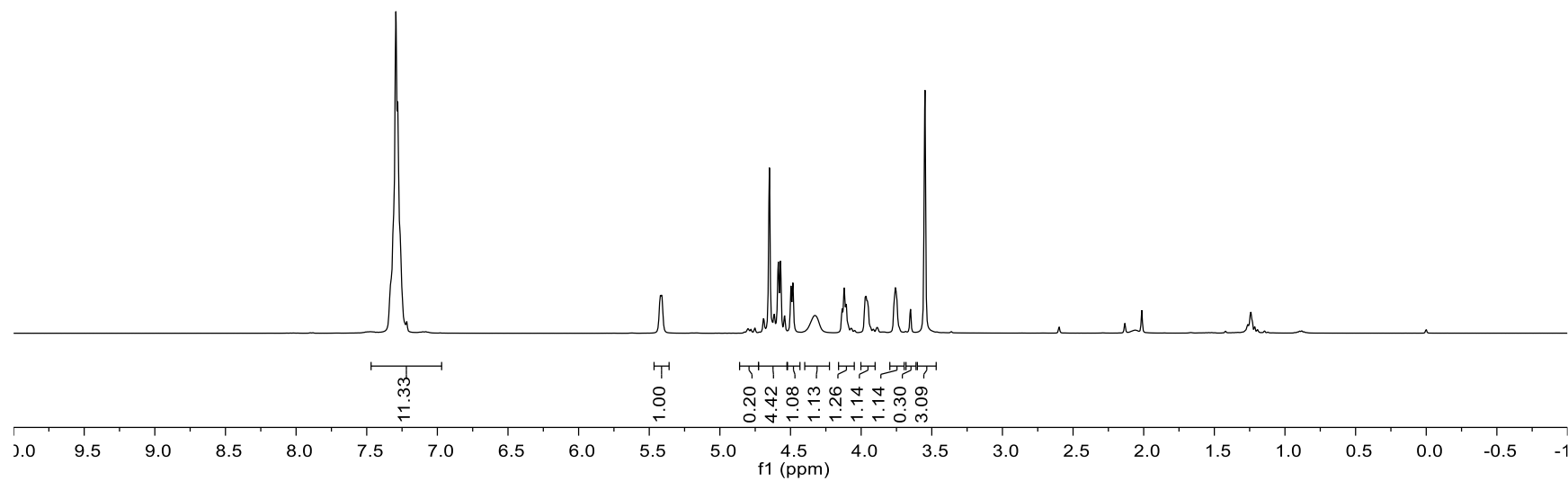


7.29  
7.28  
7.22

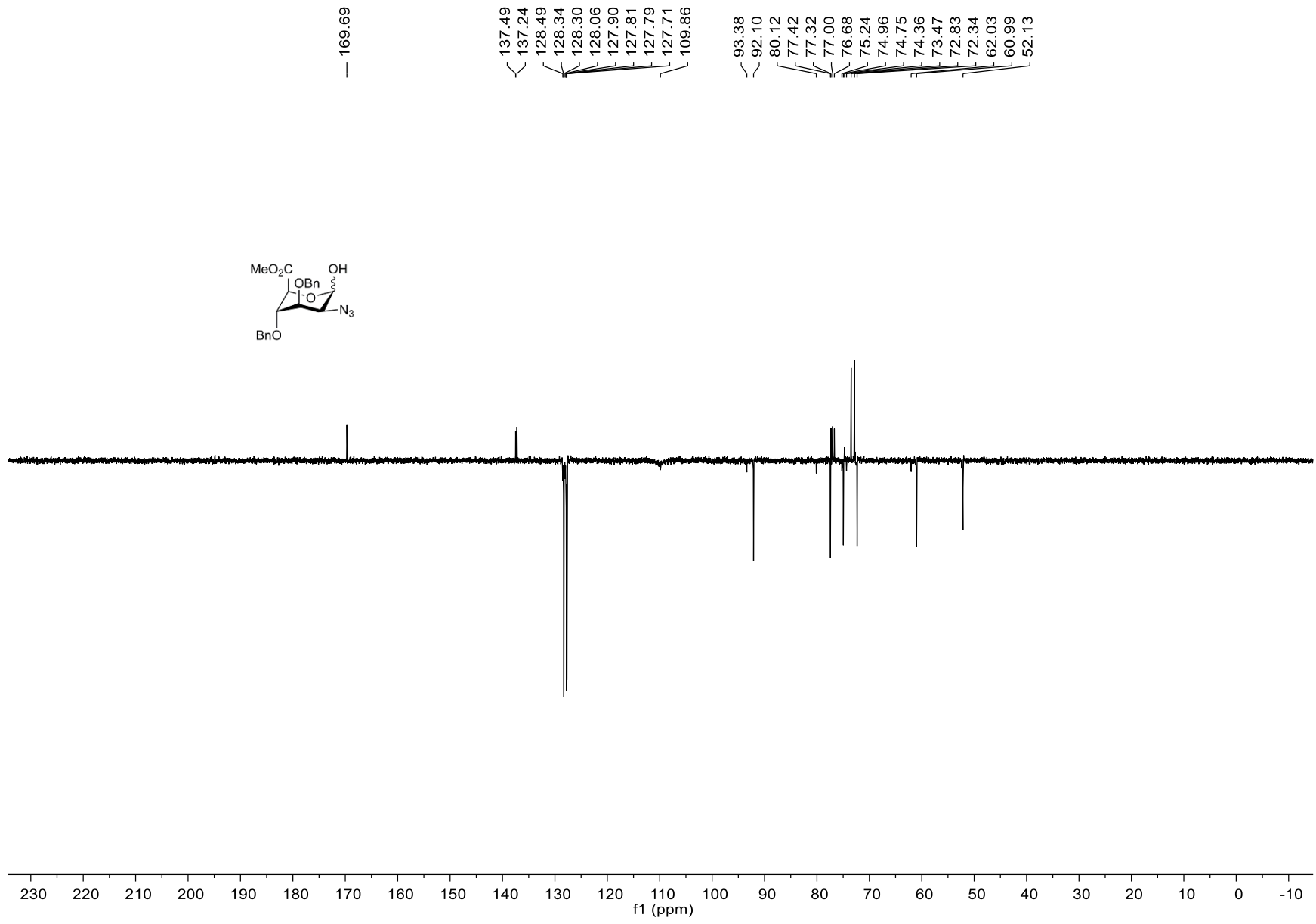
5.42  
5.41  
4.69  
4.65  
4.62  
4.59  
4.57  
4.54  
4.50  
4.48  
4.33  
4.13  
4.12  
4.11  
3.97  
3.96  
3.76  
3.65  
3.55

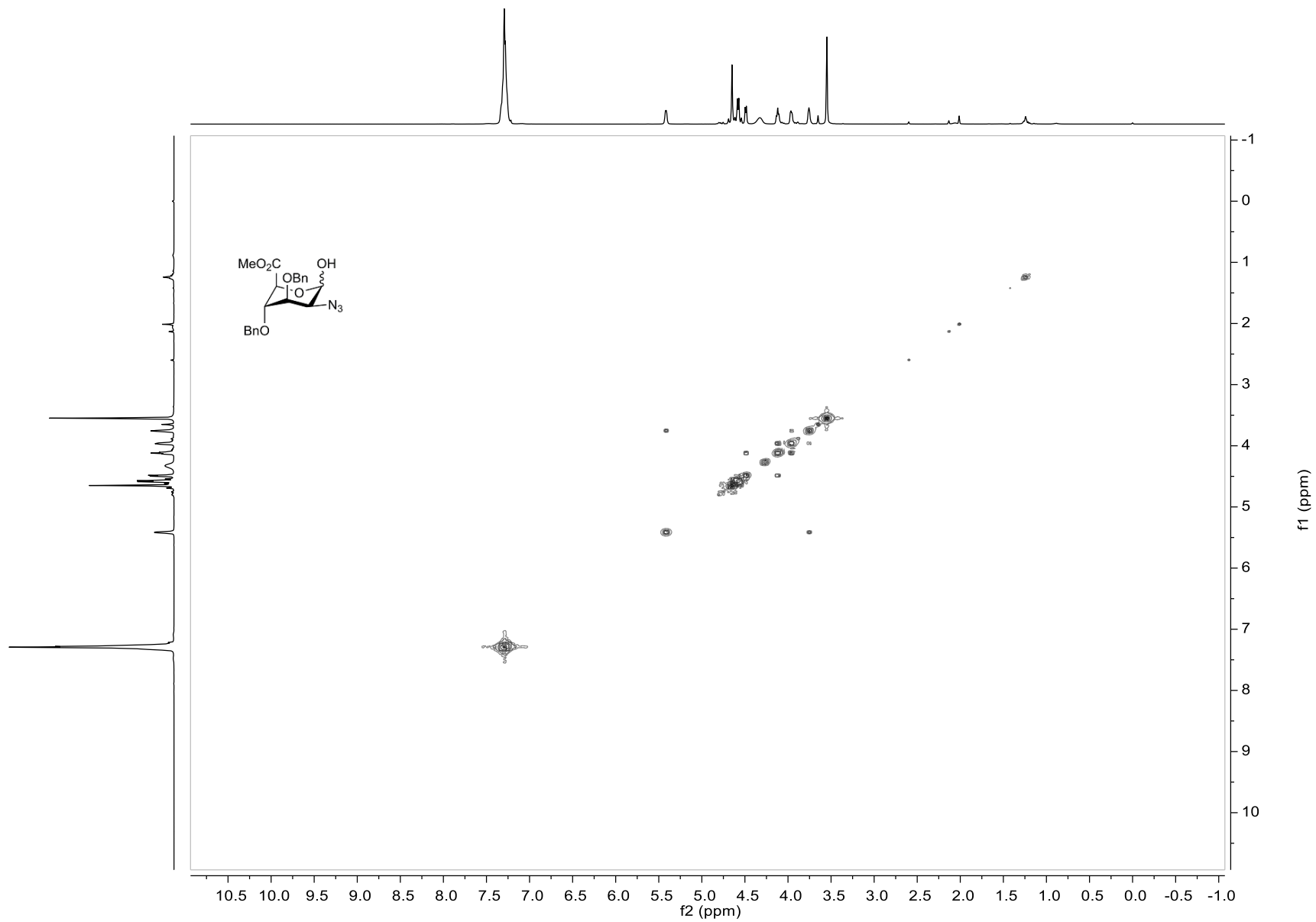
— 2.01

— 1.24

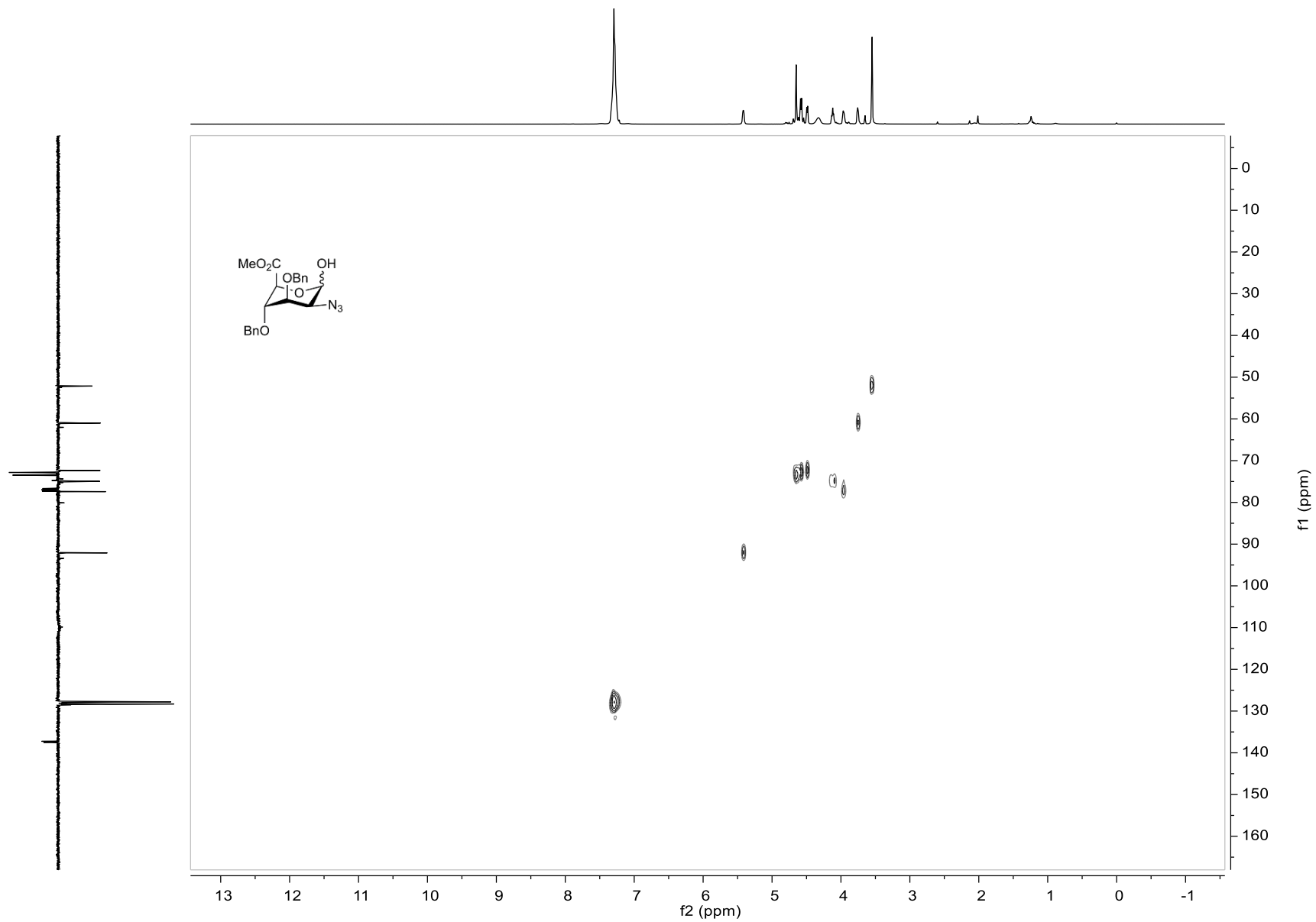


S233

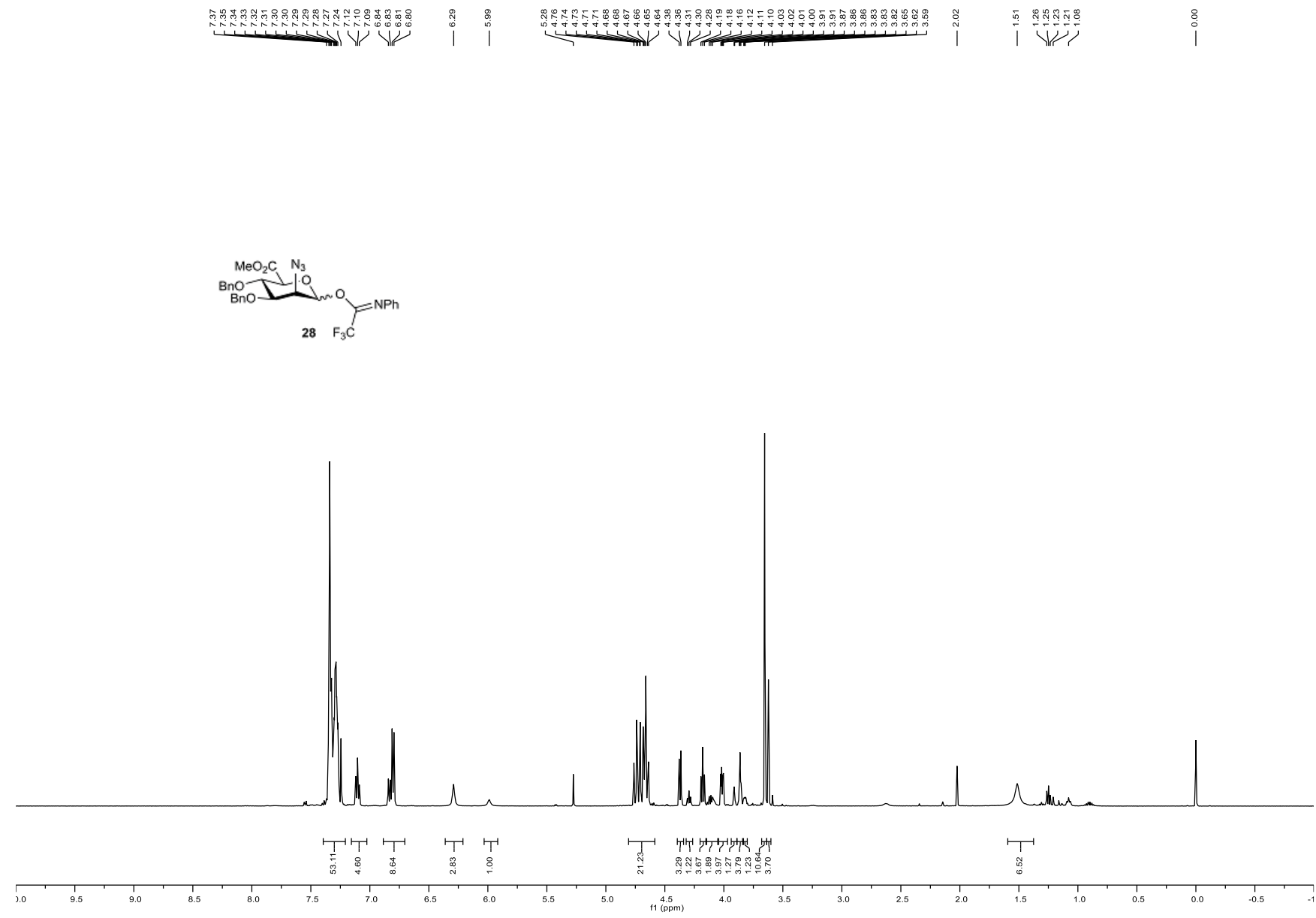
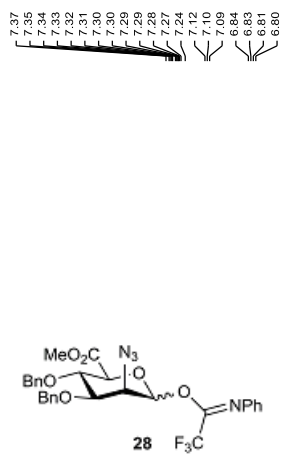


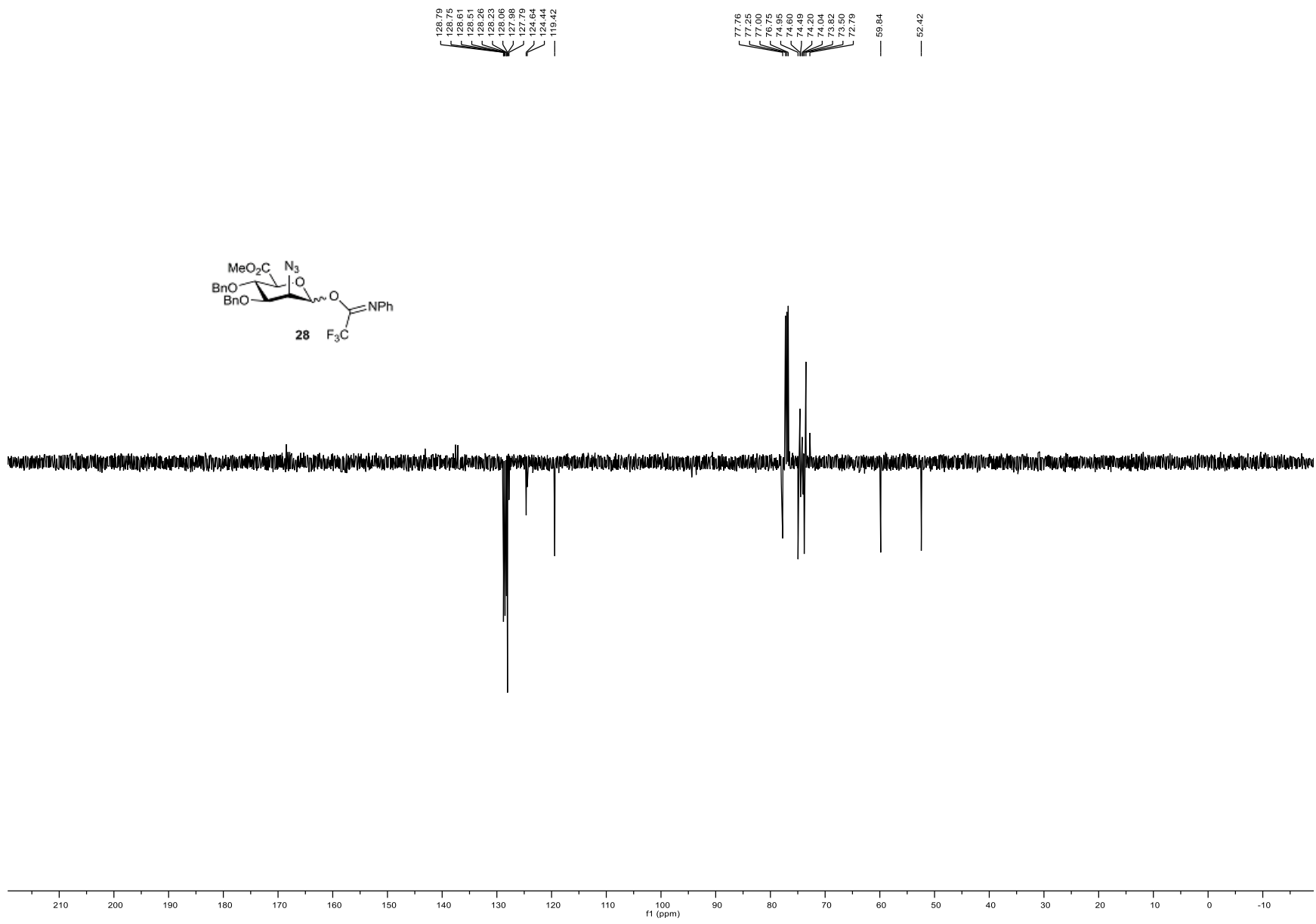


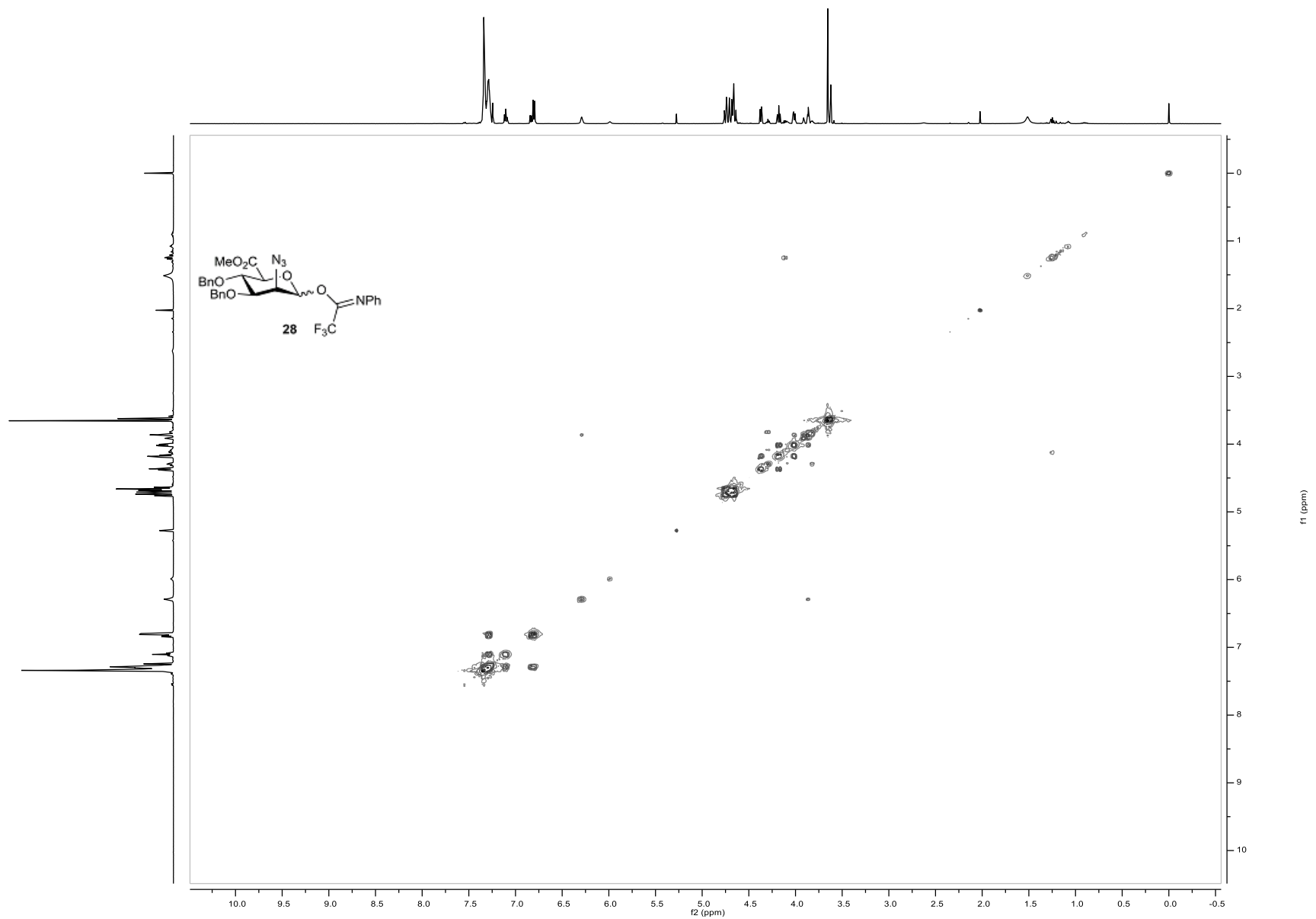
S235

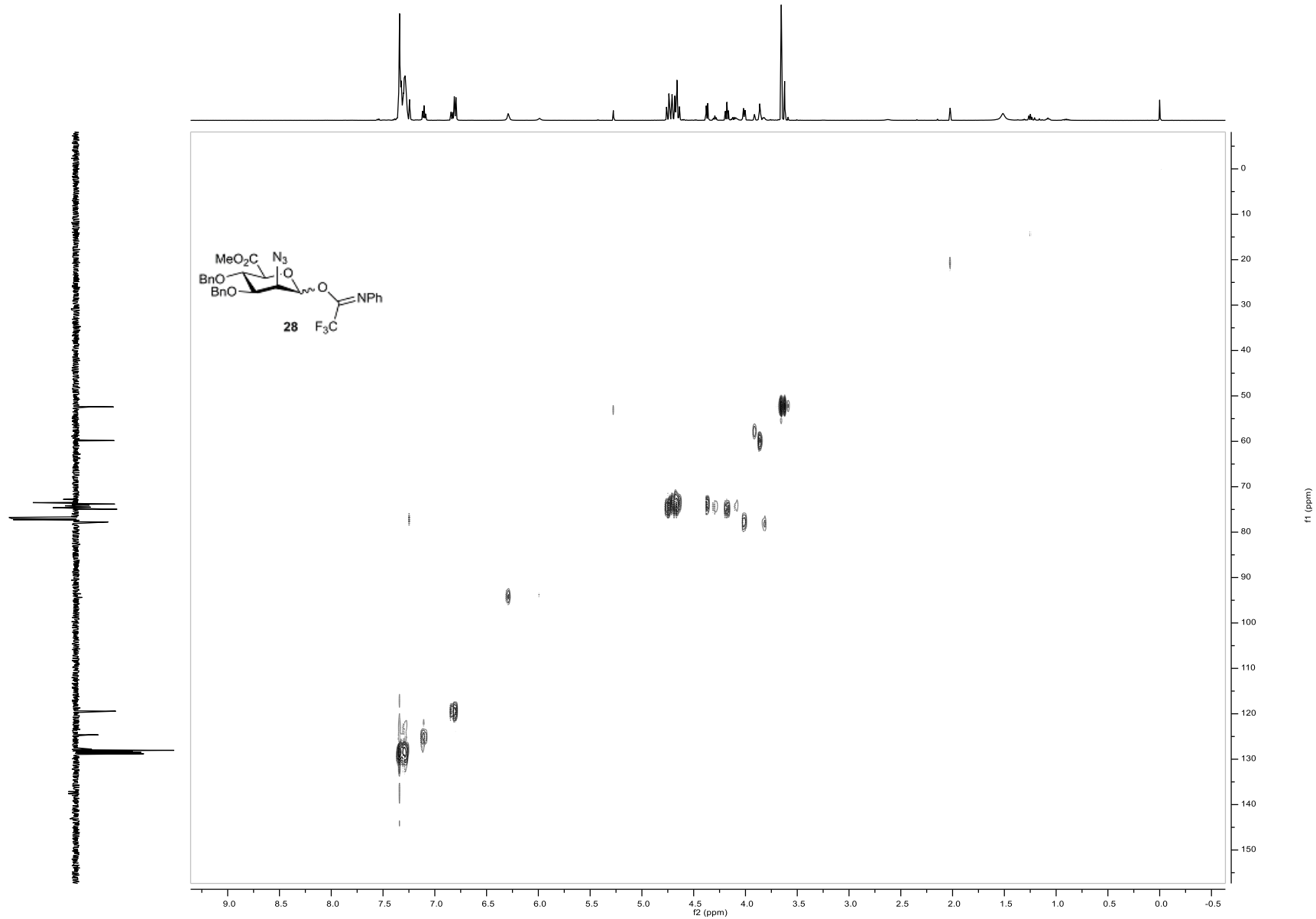










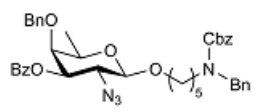


8.07  
8.05  
7.59  
7.57  
7.47  
7.46  
7.44  
7.30  
7.27  
7.27  
7.25  
7.23  
7.22  
7.20  
7.19  
7.17

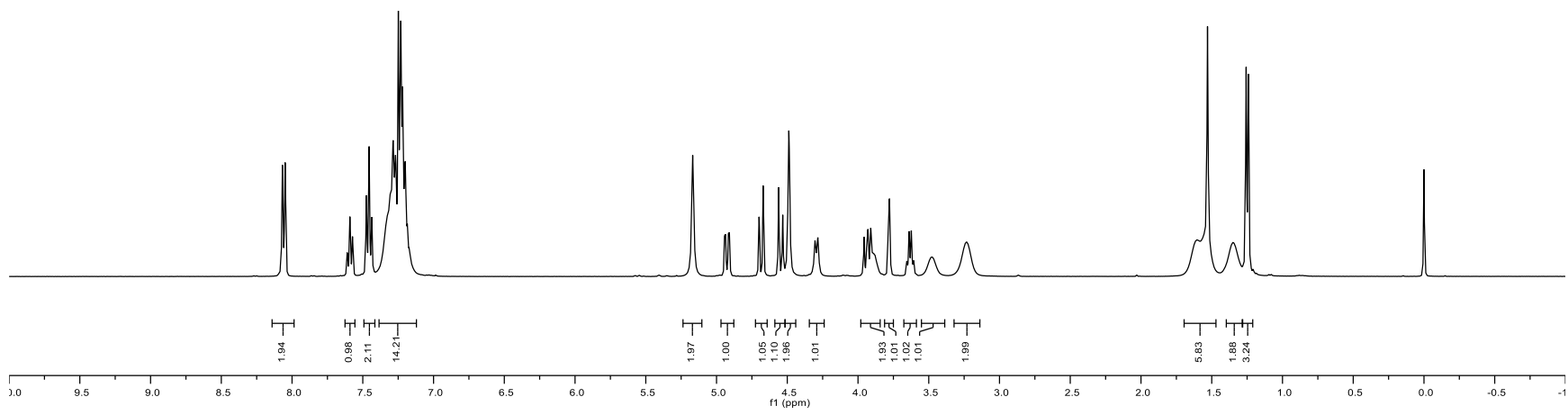
5.17  
4.94  
4.94  
4.82  
4.91  
4.77  
4.67  
4.56  
4.53  
4.49  
4.30  
4.28  
3.96  
3.93  
3.93  
3.91  
3.78  
3.78  
3.65  
3.64  
3.62  
3.61  
3.48  
3.23

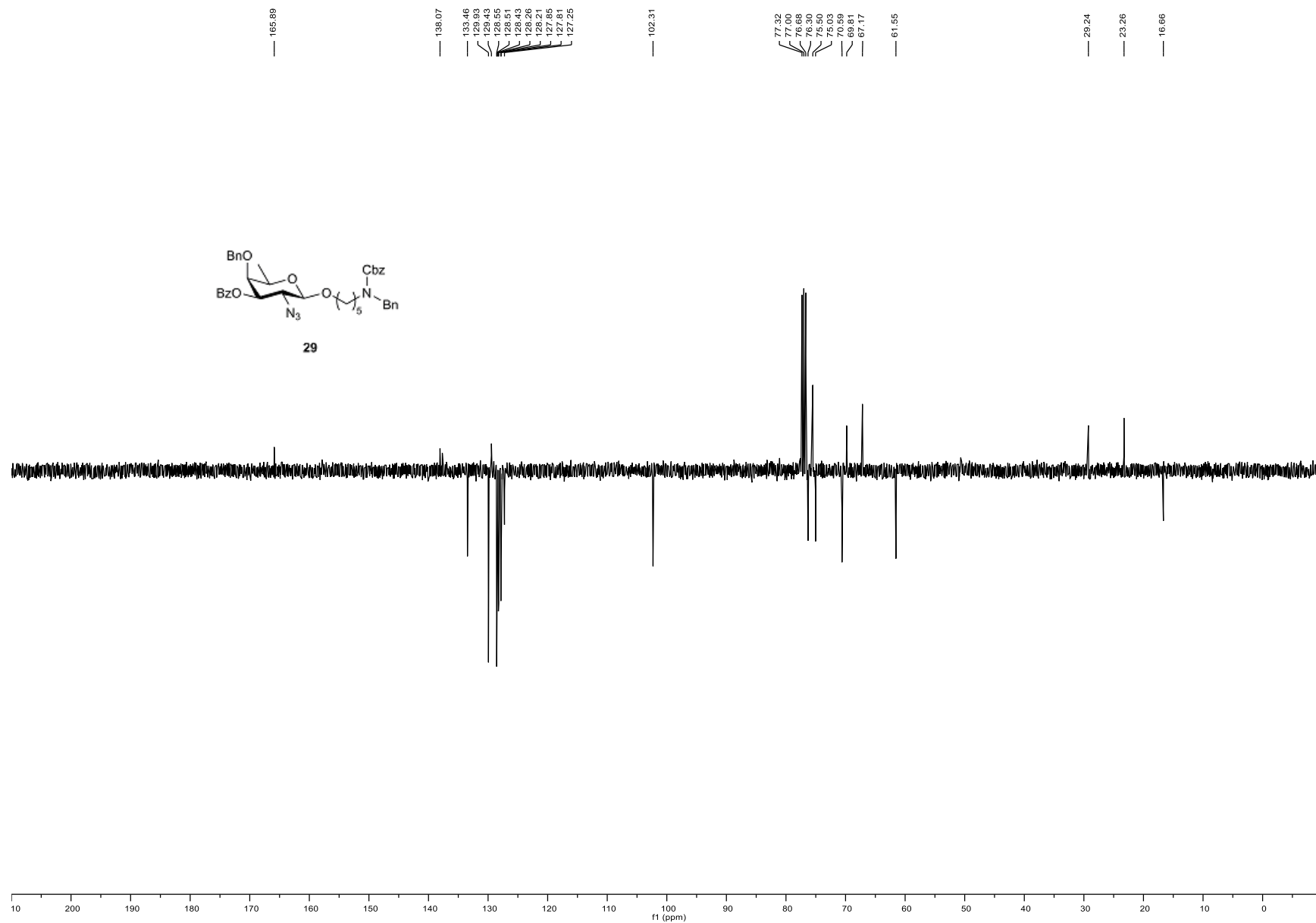
1.60  
1.53  
1.56  
1.24

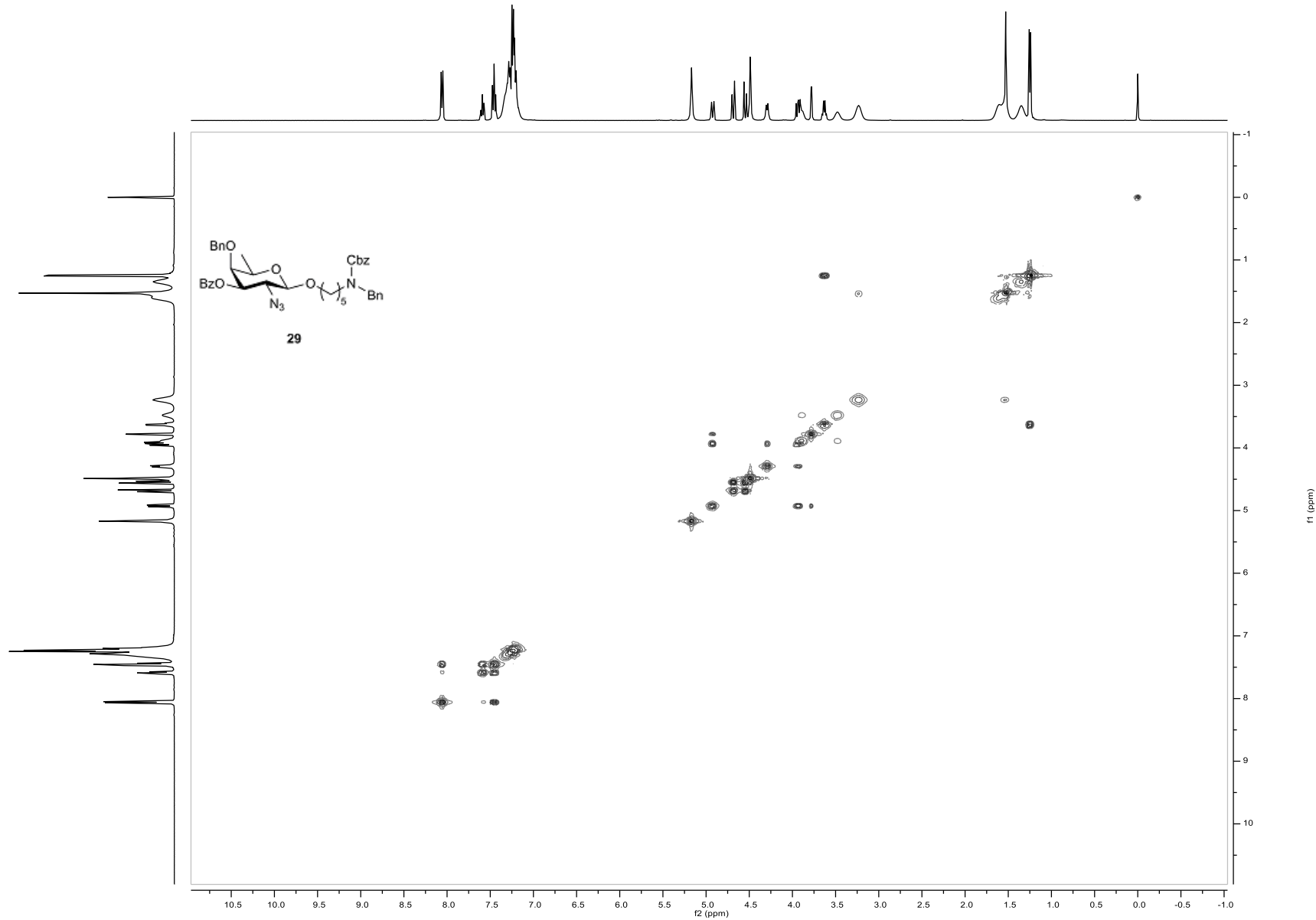
0.00

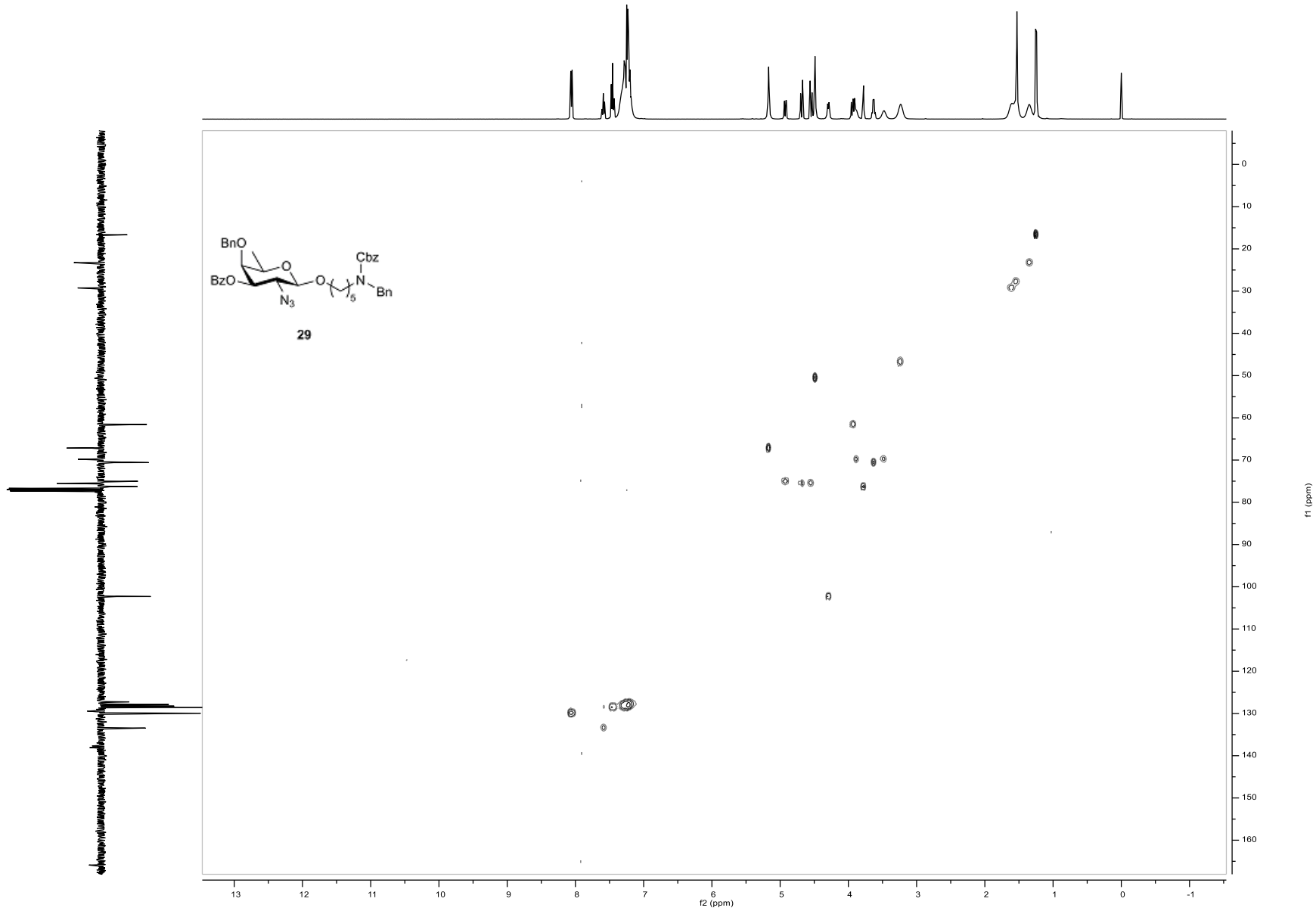


29

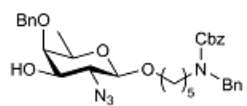












30

7.36  
7.35  
7.33  
7.31  
7.29  
7.27  
7.26  
7.23  
7.22

5.17

4.81  
4.78  
4.74  
4.71

4.48

4.17  
4.15

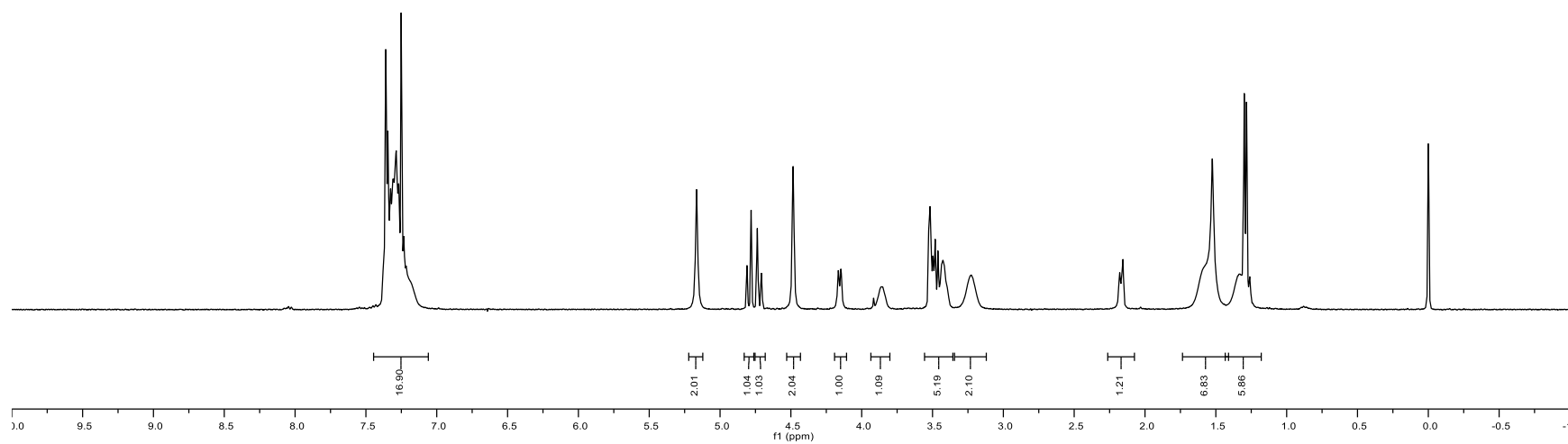
3.85  
3.53  
3.52  
3.50  
3.48  
3.46  
3.43  
3.23

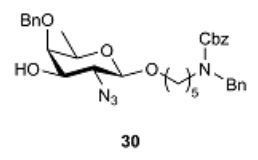
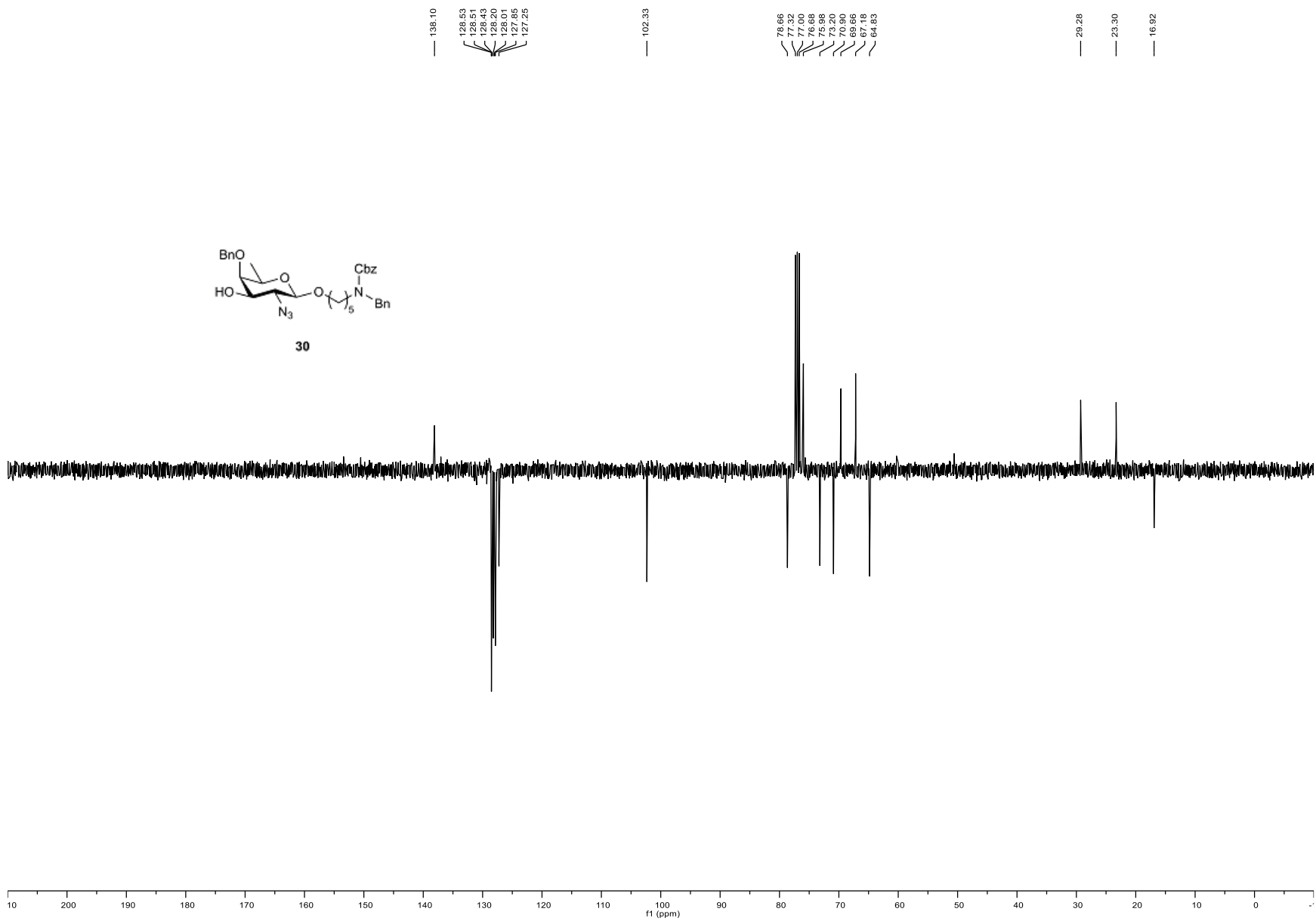
2.18  
2.16

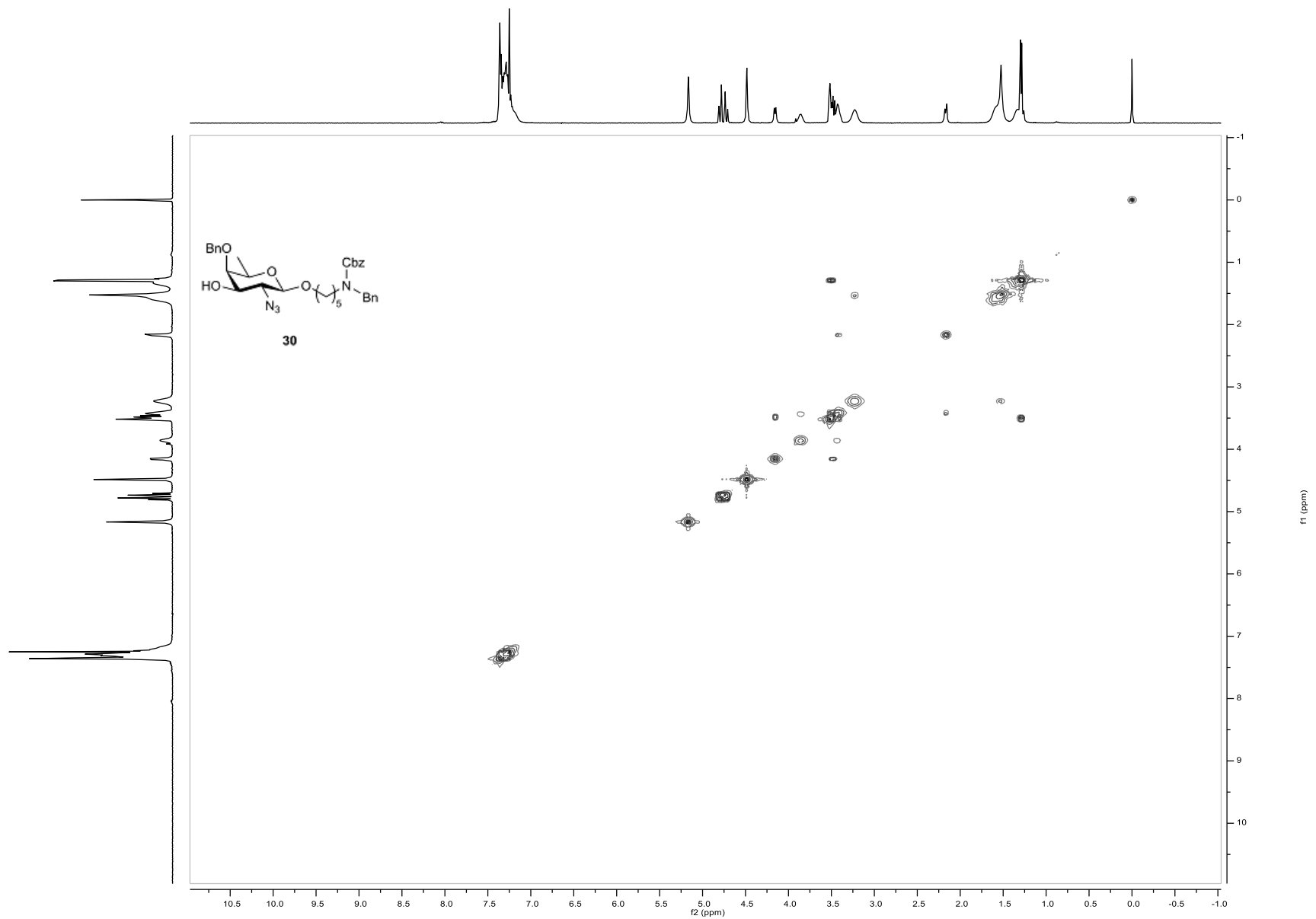
1.52

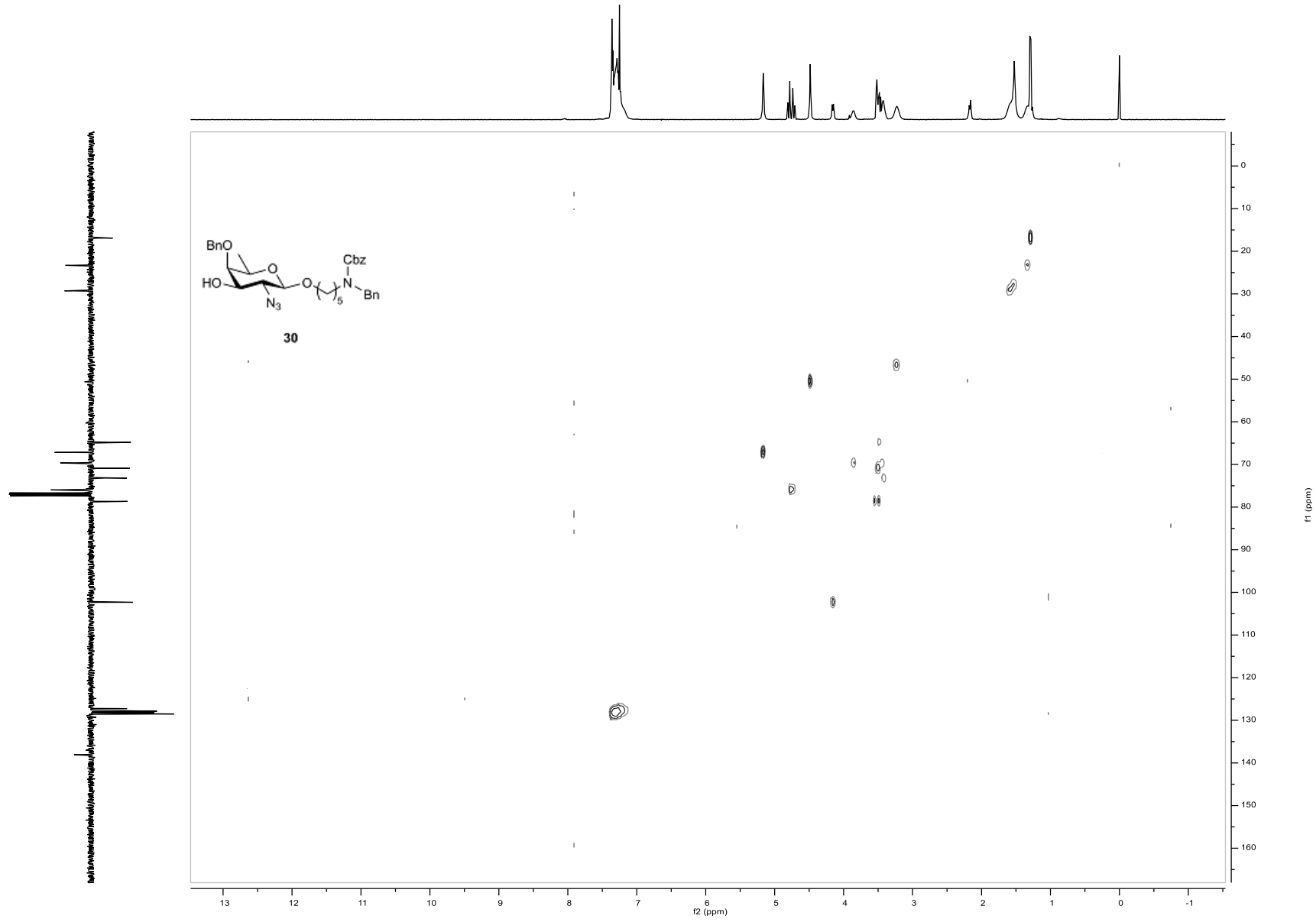
1.30  
1.28  
1.26

0.00

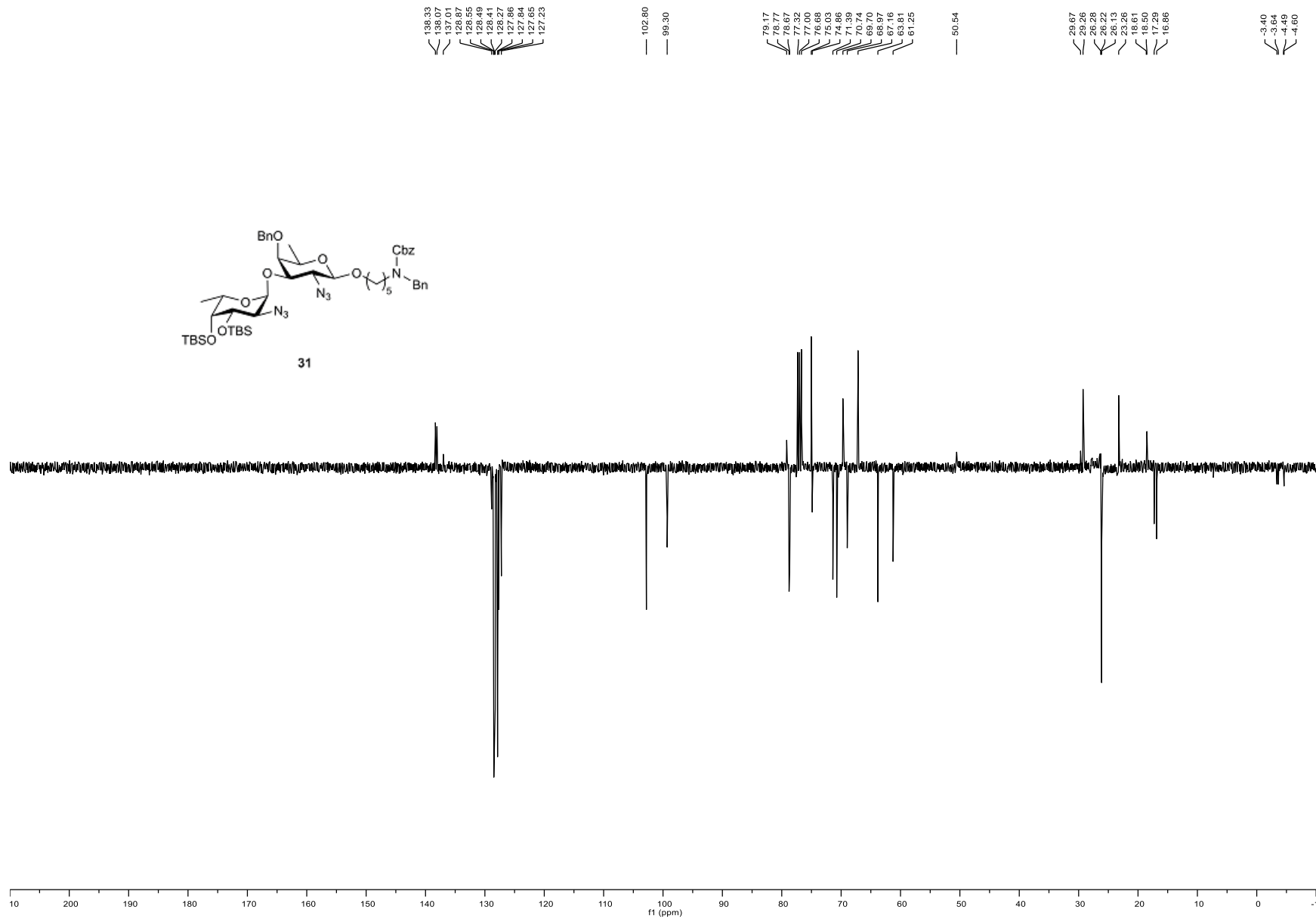
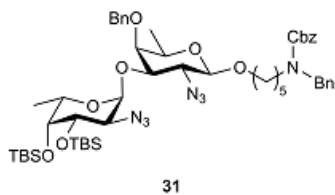


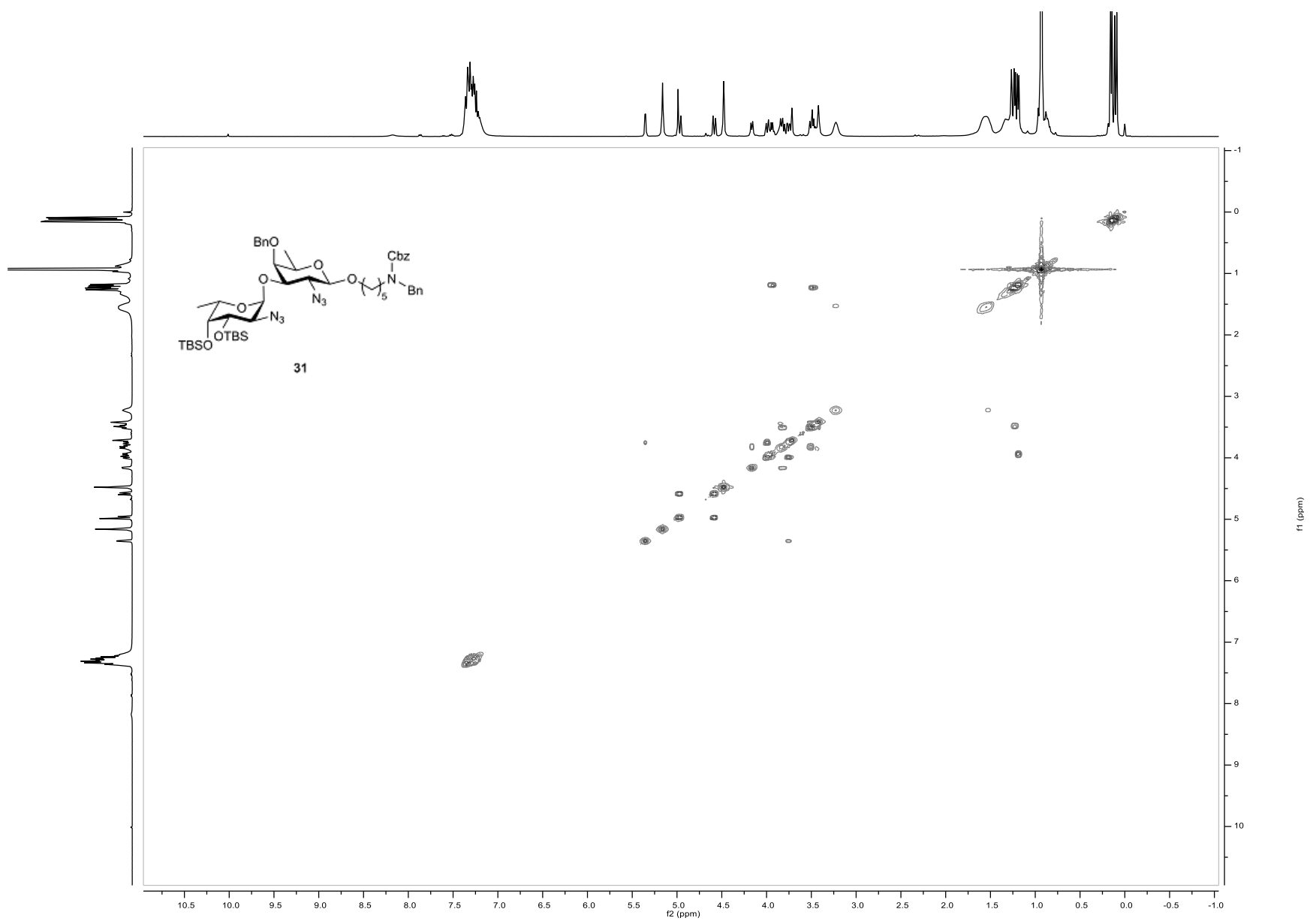




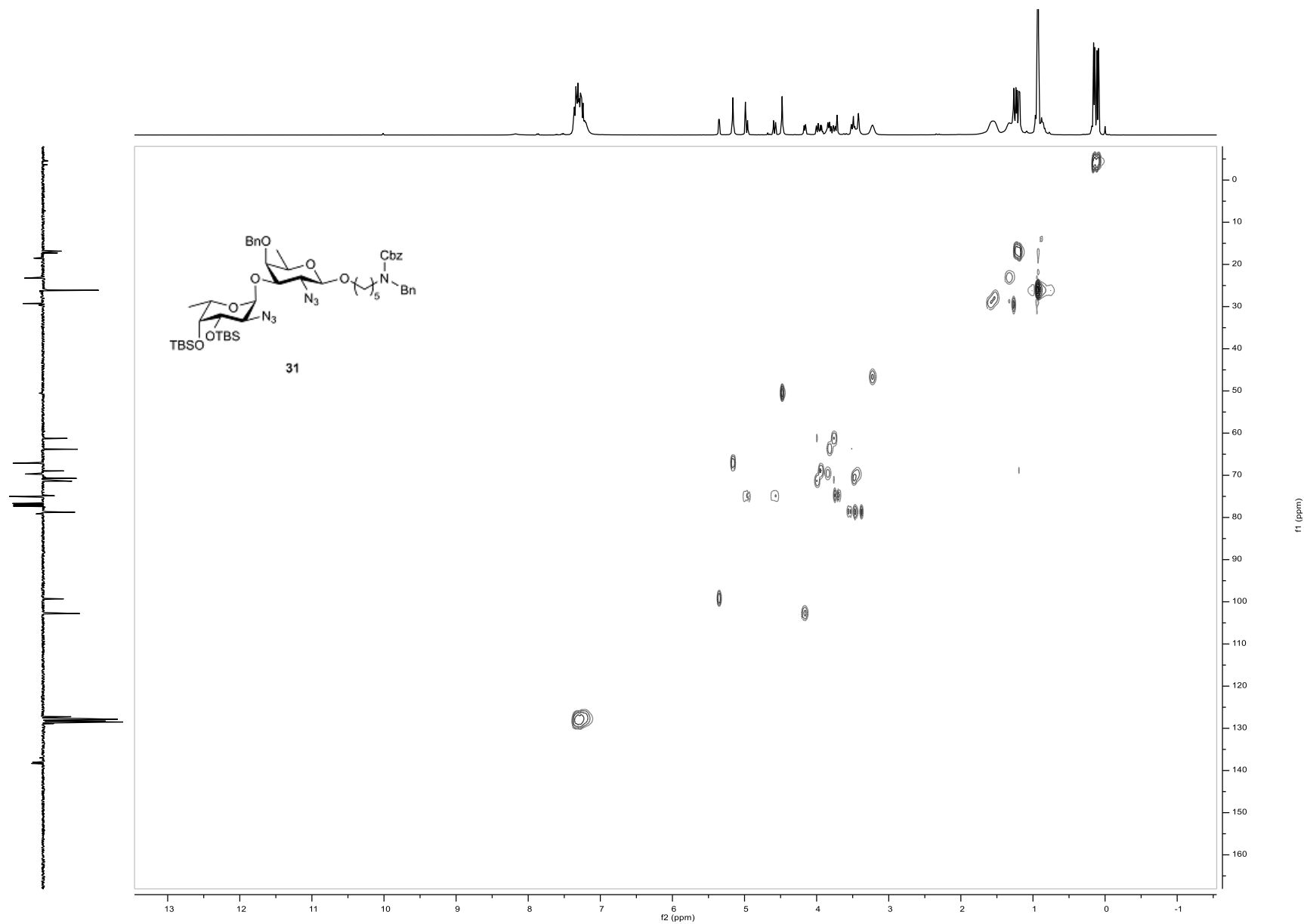








S251





8.10  
8.09  
8.08  
7.61  
7.59  
7.58  
7.48  
7.47  
7.45  
7.44  
7.42  
7.39  
7.37  
7.36  
7.31  
7.29  
7.27  
7.25  
7.24  
7.22  
7.21

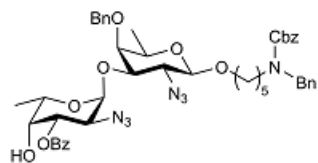
5.48  
5.47  
5.46  
5.45  
5.42  
5.41  
5.16  
4.94  
4.92  
4.79  
4.76

4.48

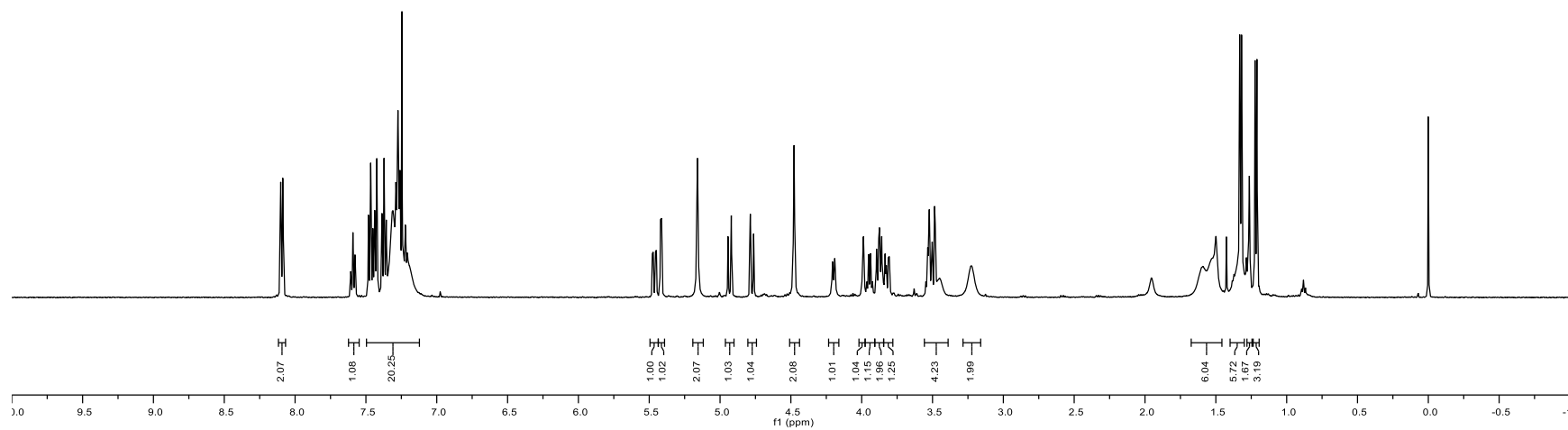
4.21  
4.19  
3.99  
3.95  
3.94  
3.90  
3.88  
3.86  
3.83  
3.83  
3.81  
3.81  
3.53  
3.52  
3.52  
3.51  
3.50  
3.49  
3.48  
3.45  
3.22

1.95  
1.59  
1.50  
1.43  
1.38  
1.37  
1.33  
1.28  
1.26  
1.22  
1.21

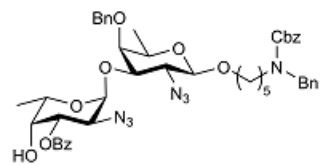
0.00



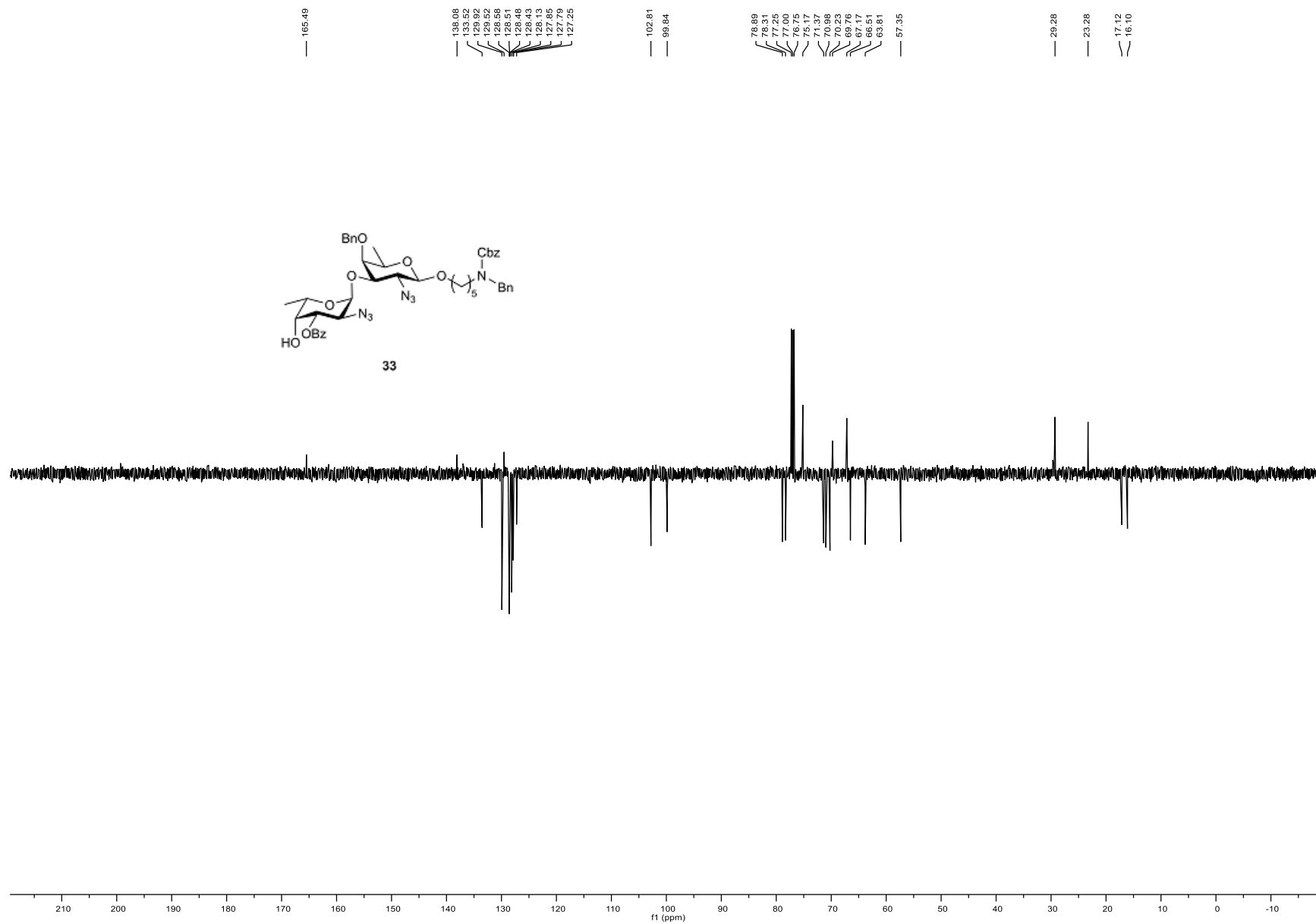
33

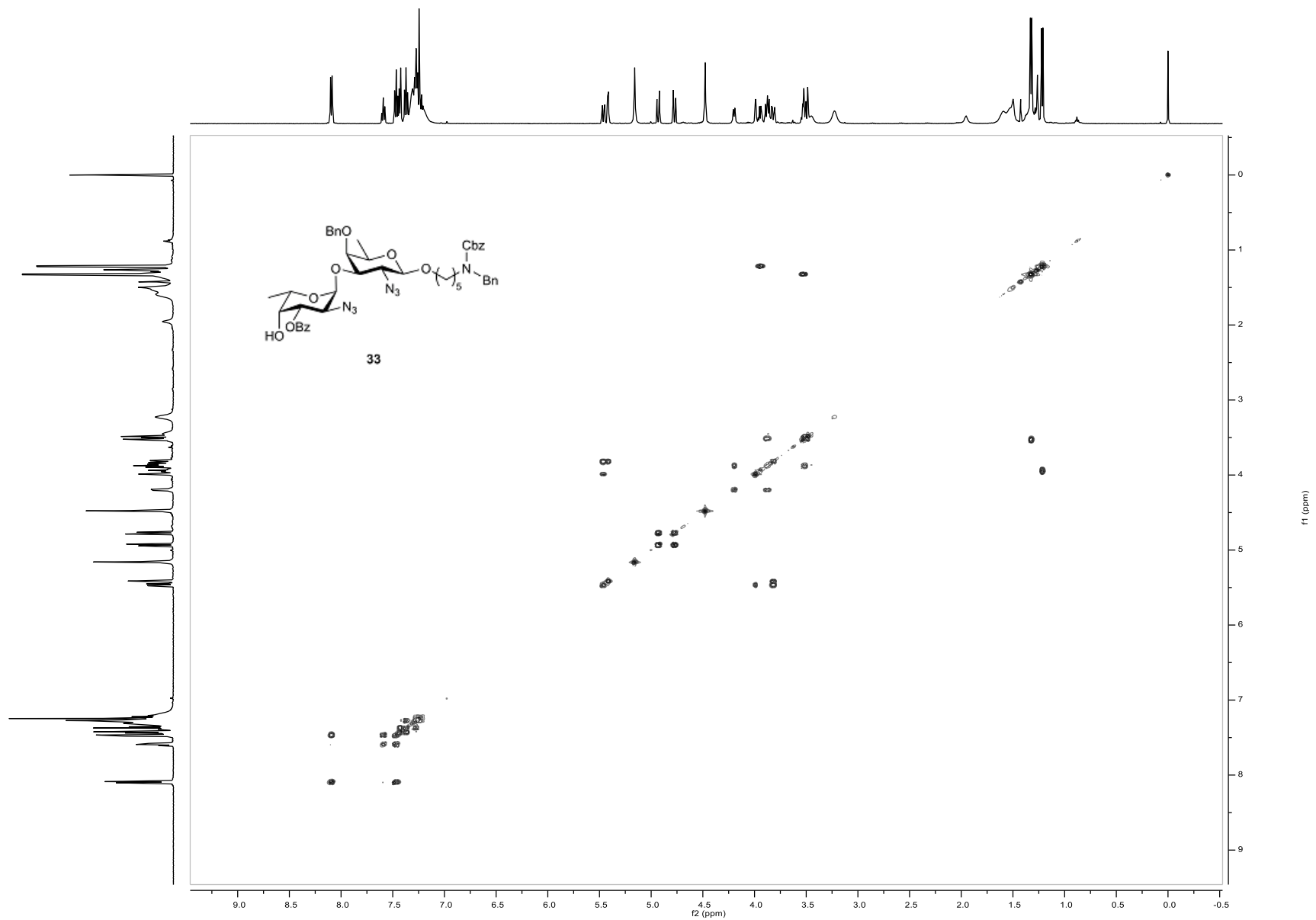


S253

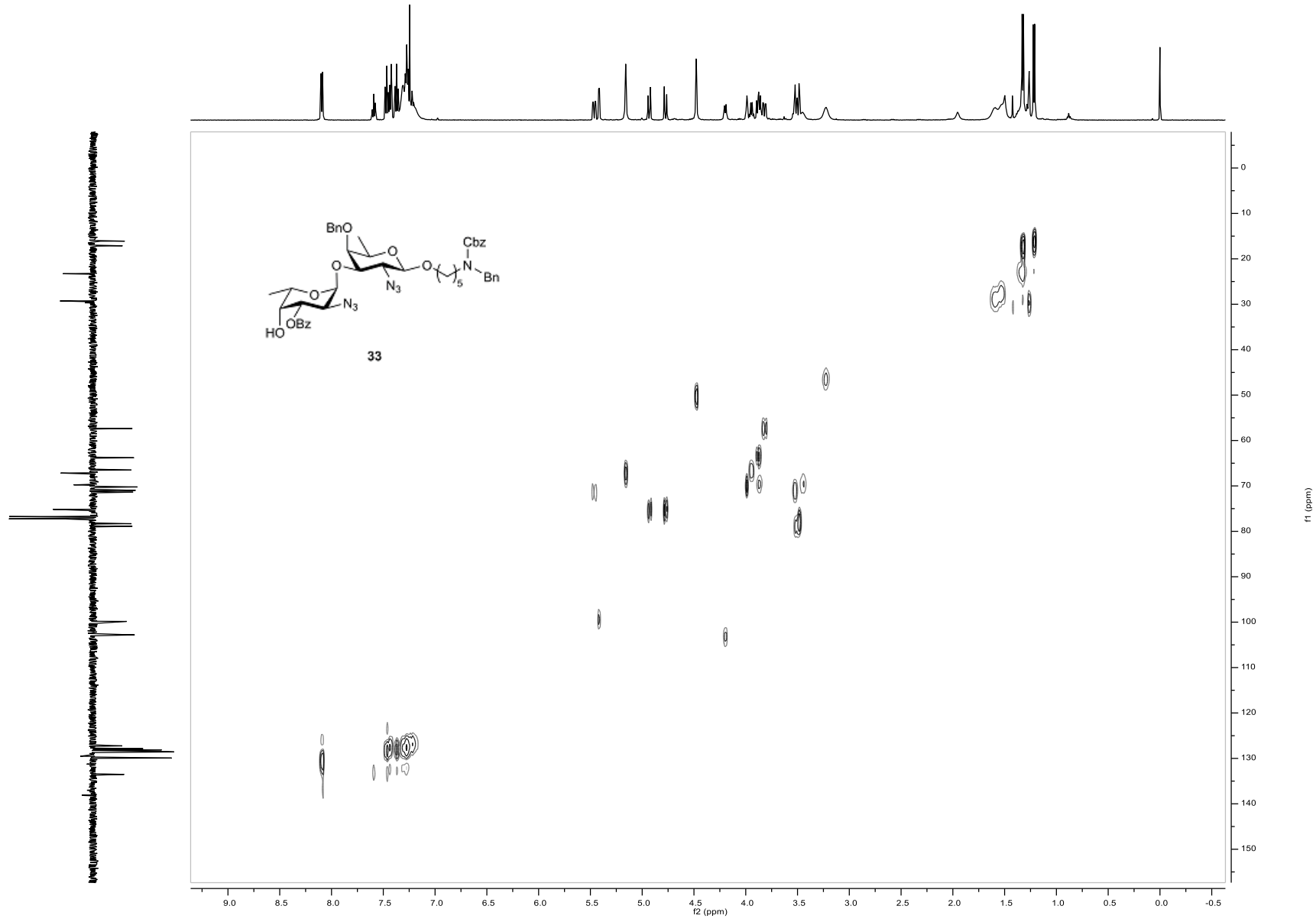


33

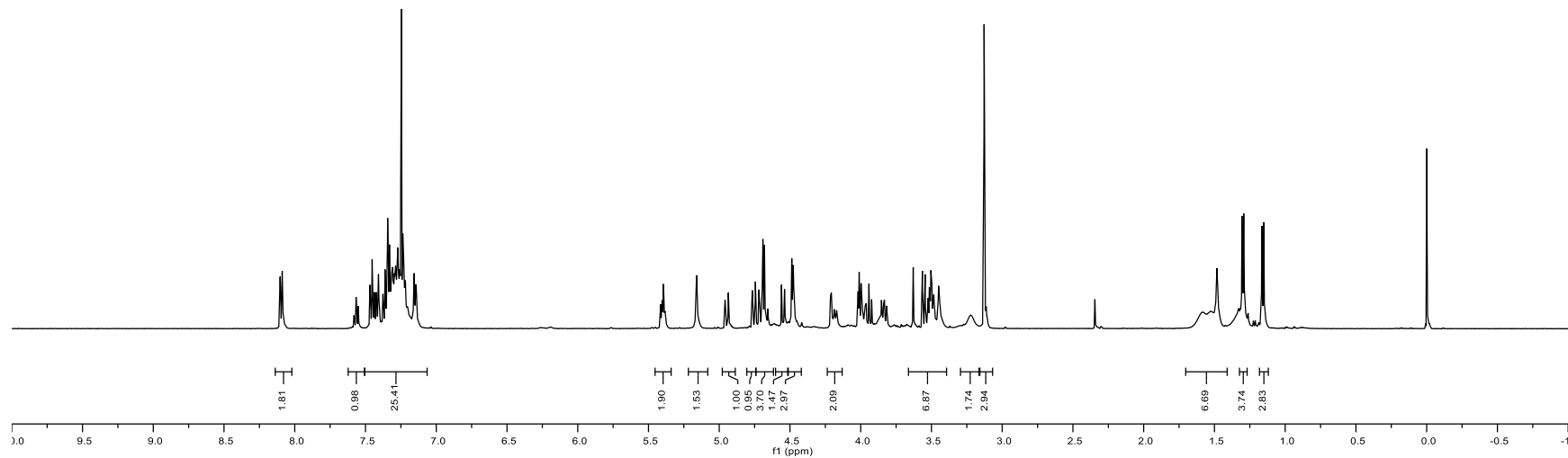
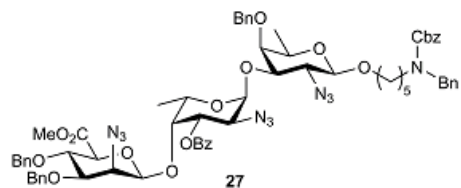




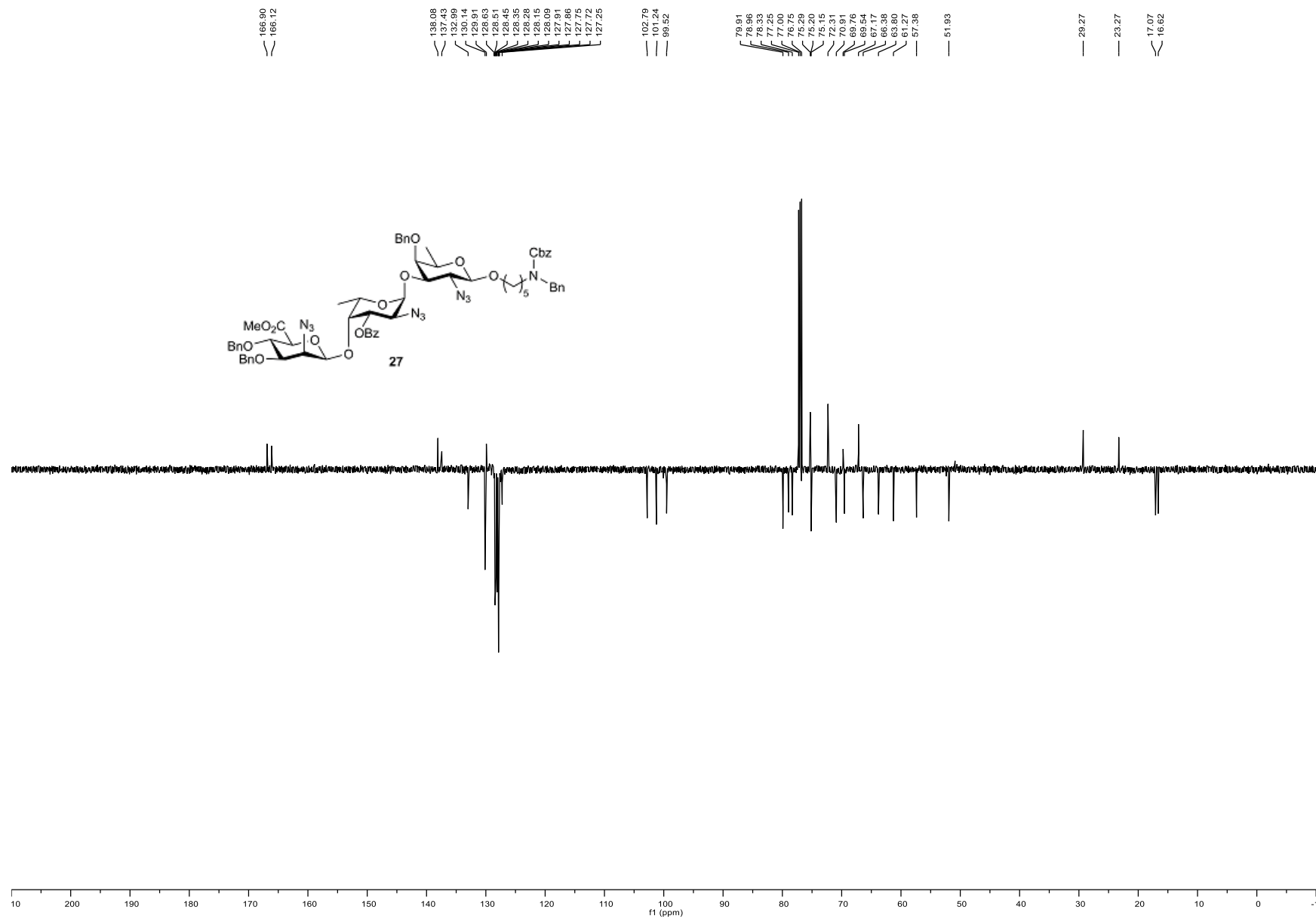
S255

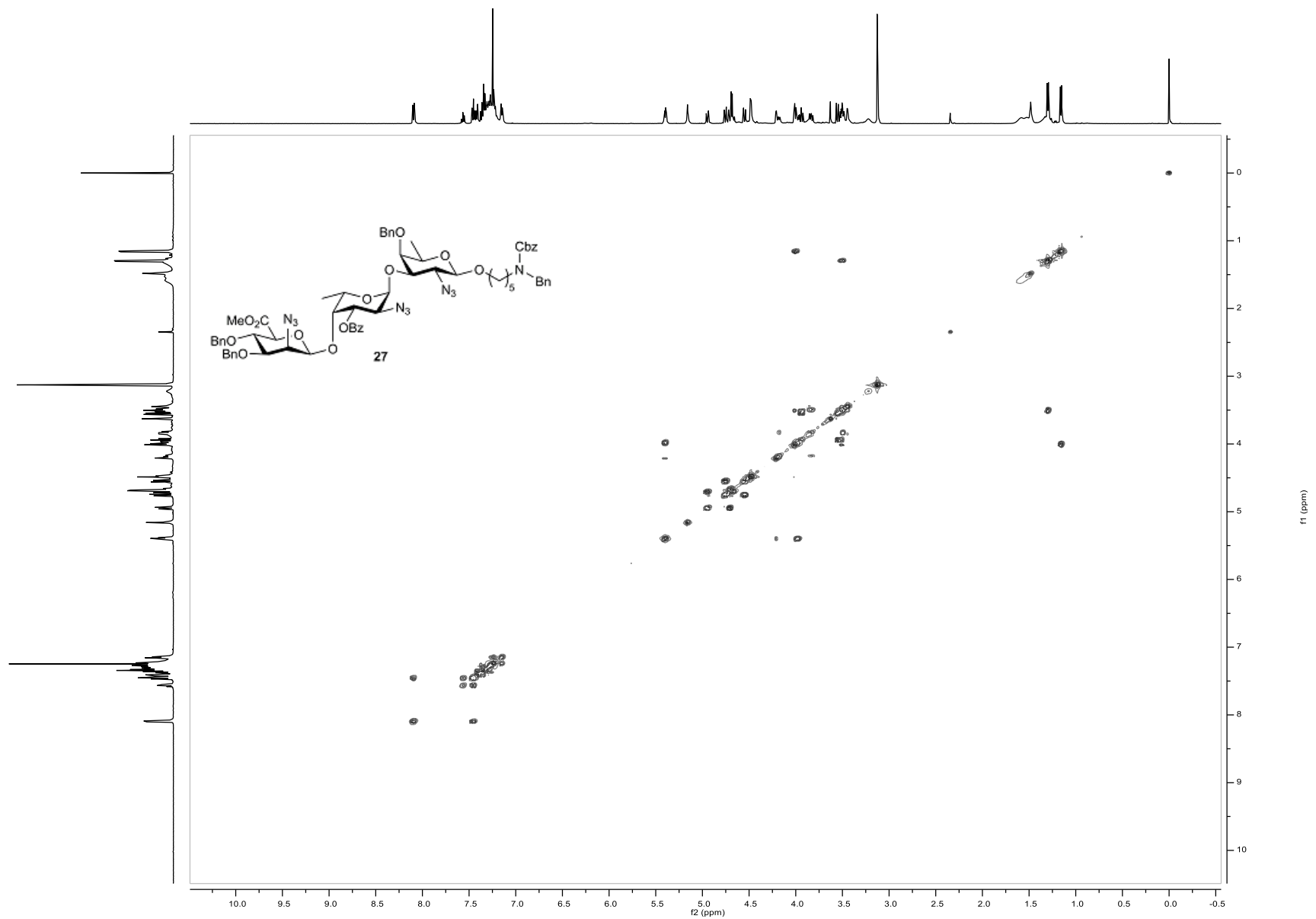


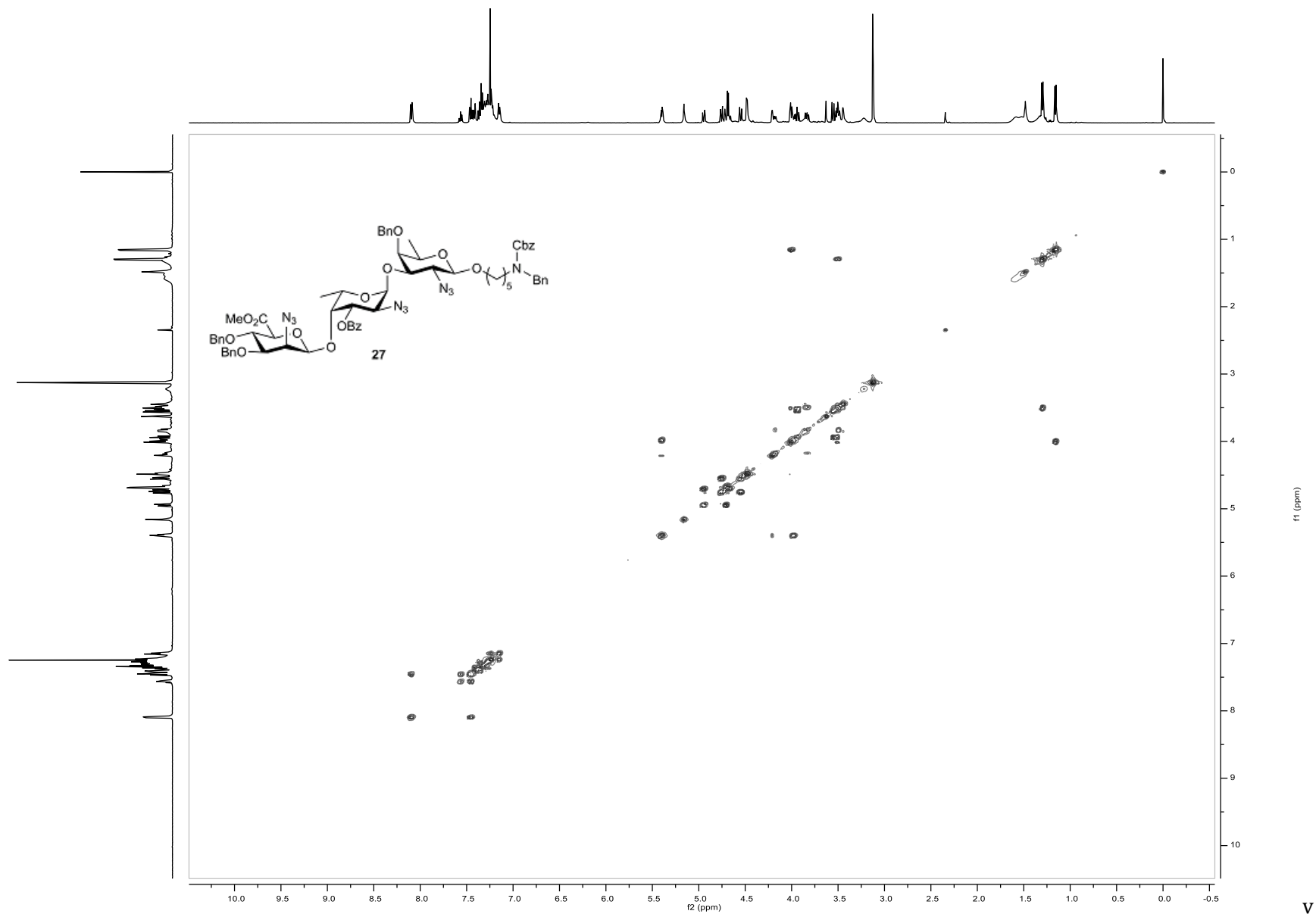
8.10  
8.09  
8.09  
7.58  
7.57  
7.55  
7.55  
7.47  
7.45  
7.44  
7.41  
7.41  
7.38  
7.36  
7.34  
7.34  
7.33  
7.33  
7.32  
7.32  
7.31  
7.31  
7.30  
7.30  
7.29  
7.29  
7.26  
7.26  
7.26  
7.25  
7.25  
7.24  
7.24  
7.24  
7.23  
7.23  
7.22  
7.22  
7.21  
7.21  
7.16  
7.16  
7.16  
5.41  
5.41  
5.40  
5.39  
5.38  
5.38  
5.06  
4.94  
4.94  
4.77  
4.74  
4.72  
4.72  
4.71  
4.69  
4.69  
4.68  
4.68  
4.66  
4.56  
4.54  
4.54  
4.49  
4.49  
4.40  
4.40  
4.21  
4.21  
4.19  
4.17  
4.17  
4.02  
4.02  
4.01  
4.01  
3.99  
3.99  
3.97  
3.96  
3.94  
3.94  
3.92  
3.92  
3.88  
3.84  
3.84  
3.83  
3.82  
3.63  
3.56  
3.54  
3.54  
3.51  
3.51  
3.51  
3.50  
3.50  
3.50  
3.49  
3.48  
3.44  
3.44  
3.22  
3.13  
3.11  
3.11  
2.34  
2.34  
1.58  
1.58  
1.48  
1.48  
1.33  
1.32  
1.31  
1.29  
1.28  
1.15  
1.15  
0.00  
-0.01



S257







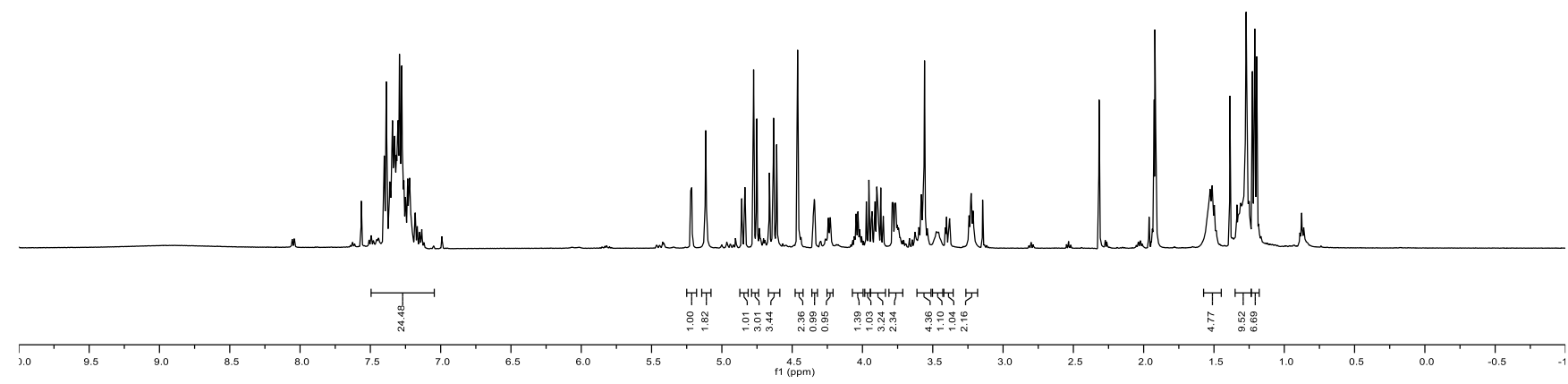
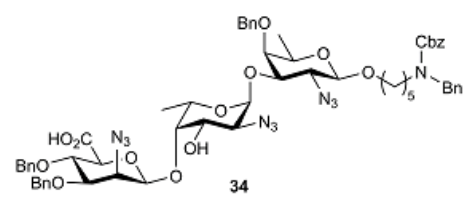
V



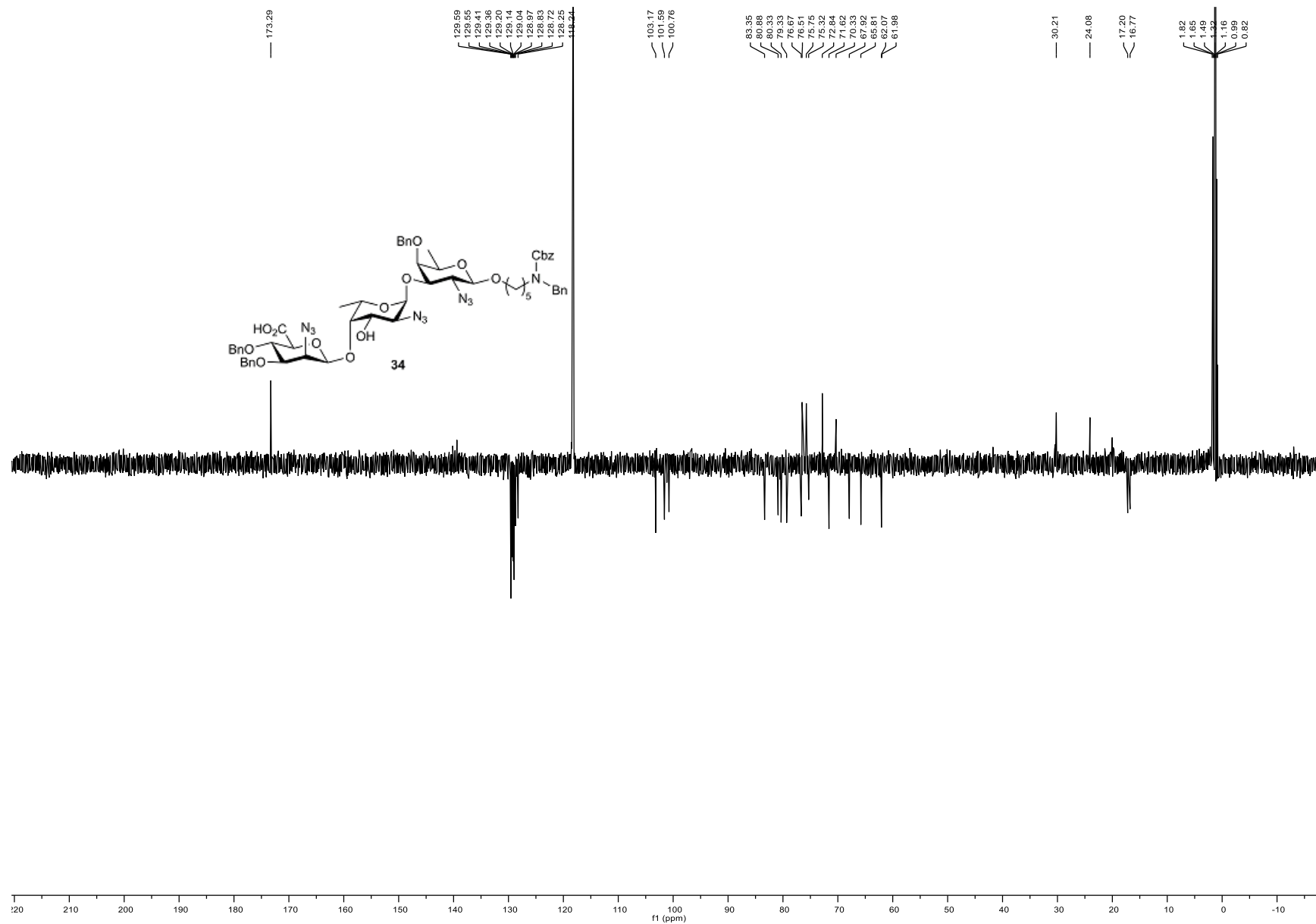
7.66  
7.64  
7.49  
7.36  
7.36  
7.36  
7.35  
7.34  
7.33  
7.33  
7.31  
7.30  
7.29  
7.27  
7.27  
7.26  
7.23  
7.22  
7.18  
7.17  
7.15  
7.15

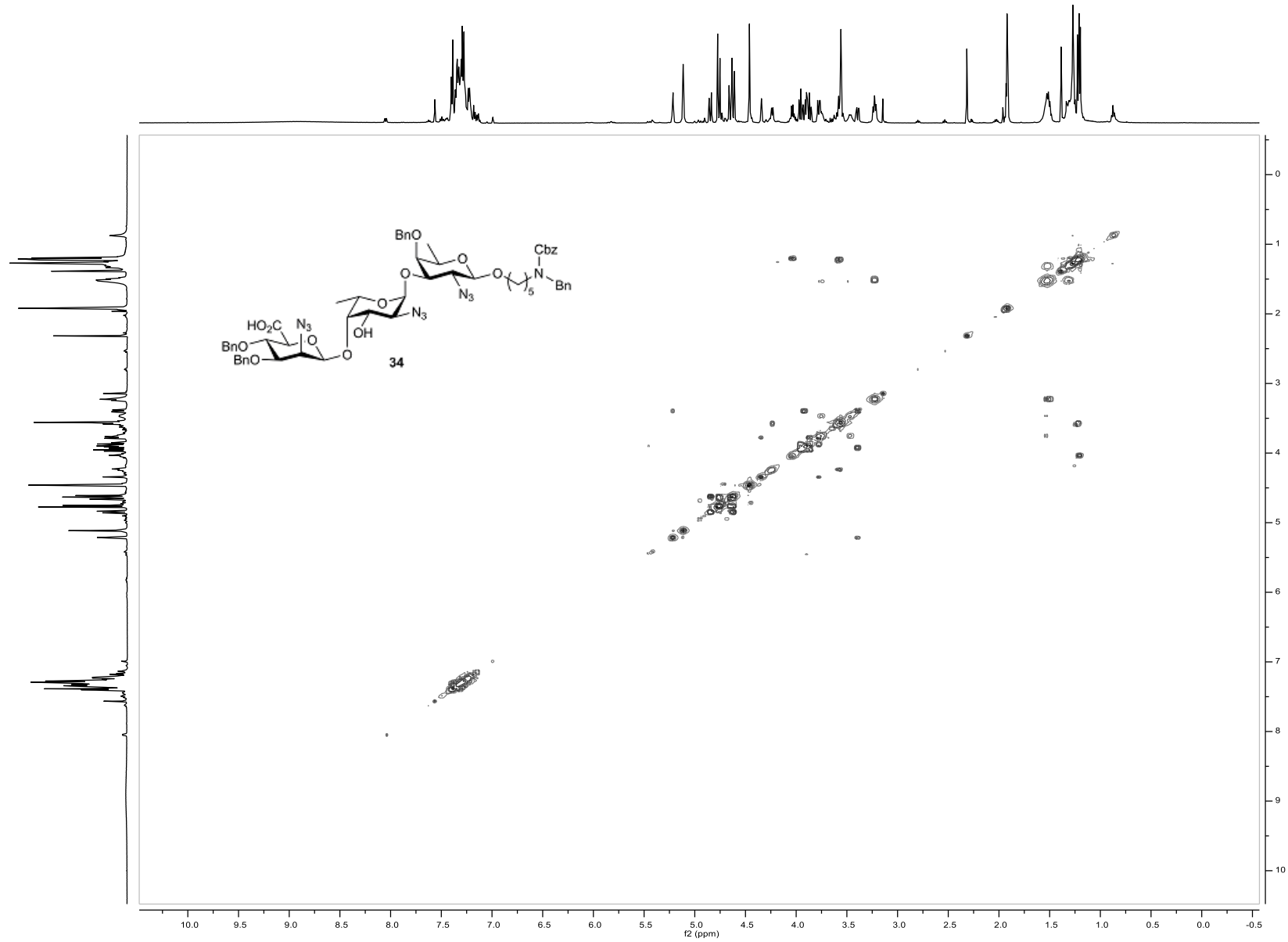
5.22  
5.21  
4.86  
4.84  
4.77  
4.75  
4.72  
4.66  
4.64  
4.63  
4.61  
4.46  
4.35  
4.34  
4.24  
4.23

4.05  
4.03  
3.97  
3.95  
3.94  
3.84  
3.82  
3.91  
3.90  
3.89  
3.89  
3.86  
3.85  
3.79  
3.77  
3.76  
3.75  
3.74  
3.60  
3.58  
3.57  
3.56  
3.54  
3.41  
3.40  
3.39  
3.38  
3.24  
3.23  
3.21  
3.15  
3.15  
2.96  
1.93  
1.92  
1.92  
1.91  
1.89  
1.87  
1.84  
1.50  
1.39  
1.34  
1.33  
1.31  
1.29  
1.27  
1.25  
1.24  
1.23  
1.21  
1.21  
1.18  
1.18  
0.88  
0.88

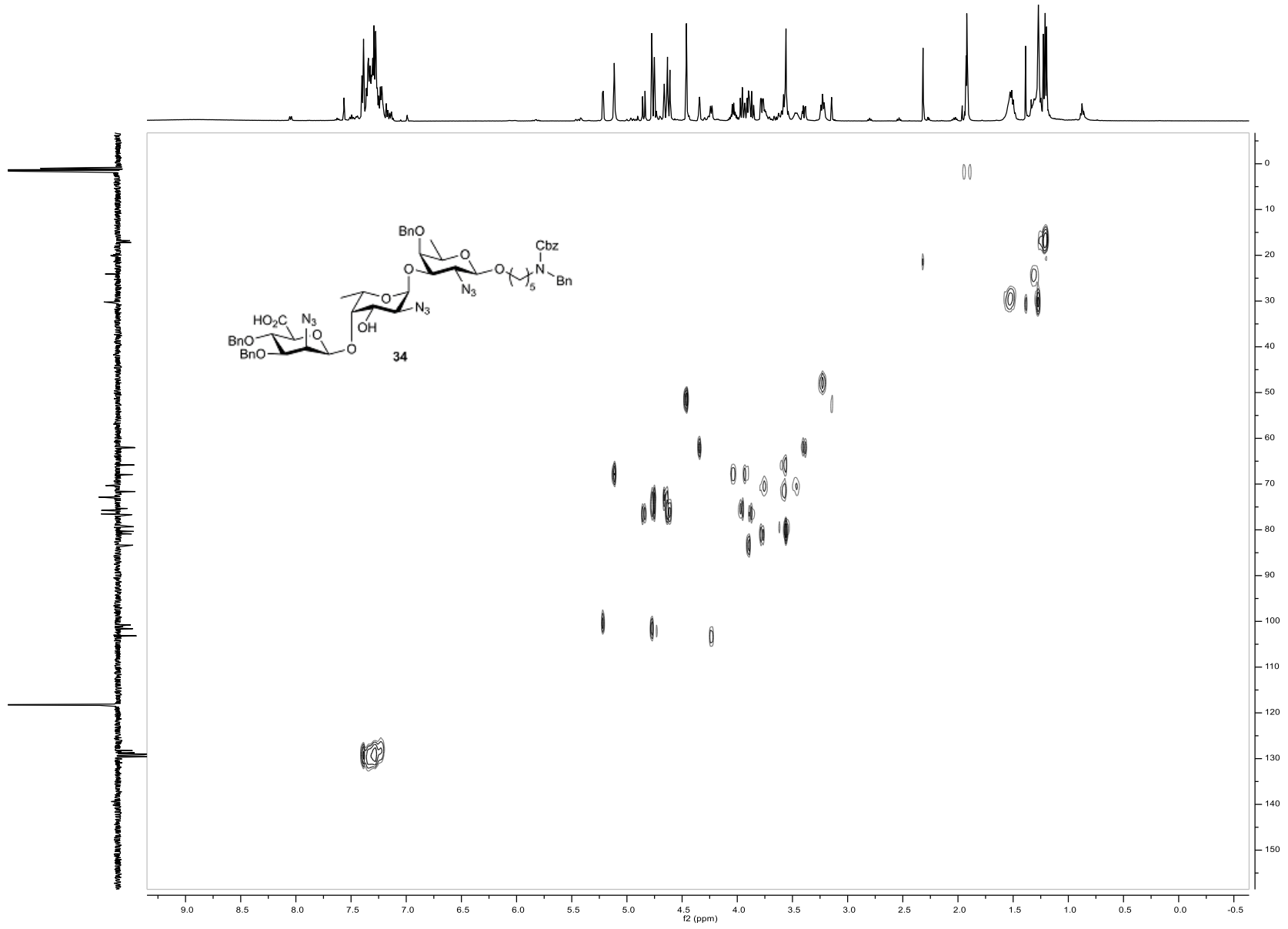


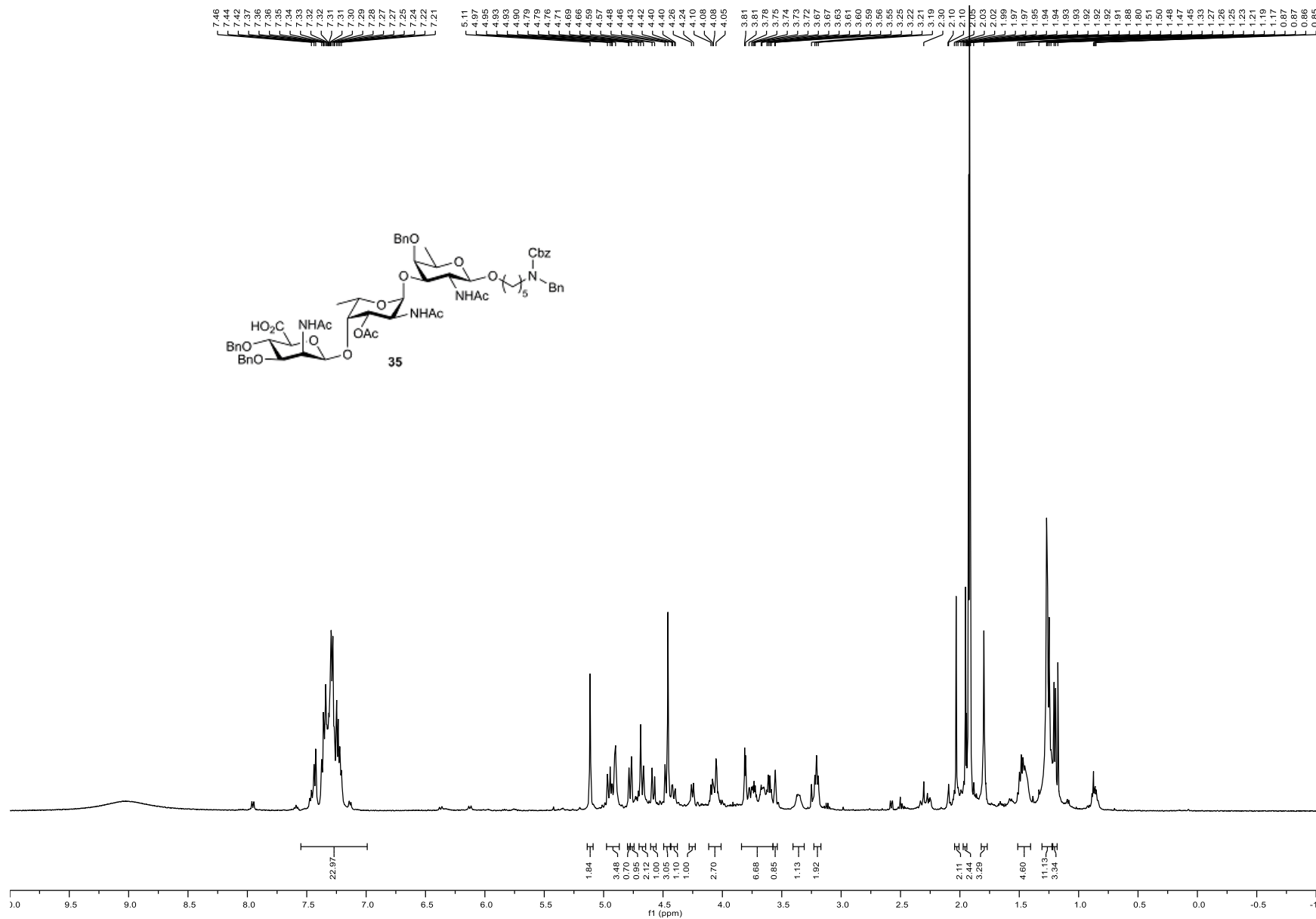
S261

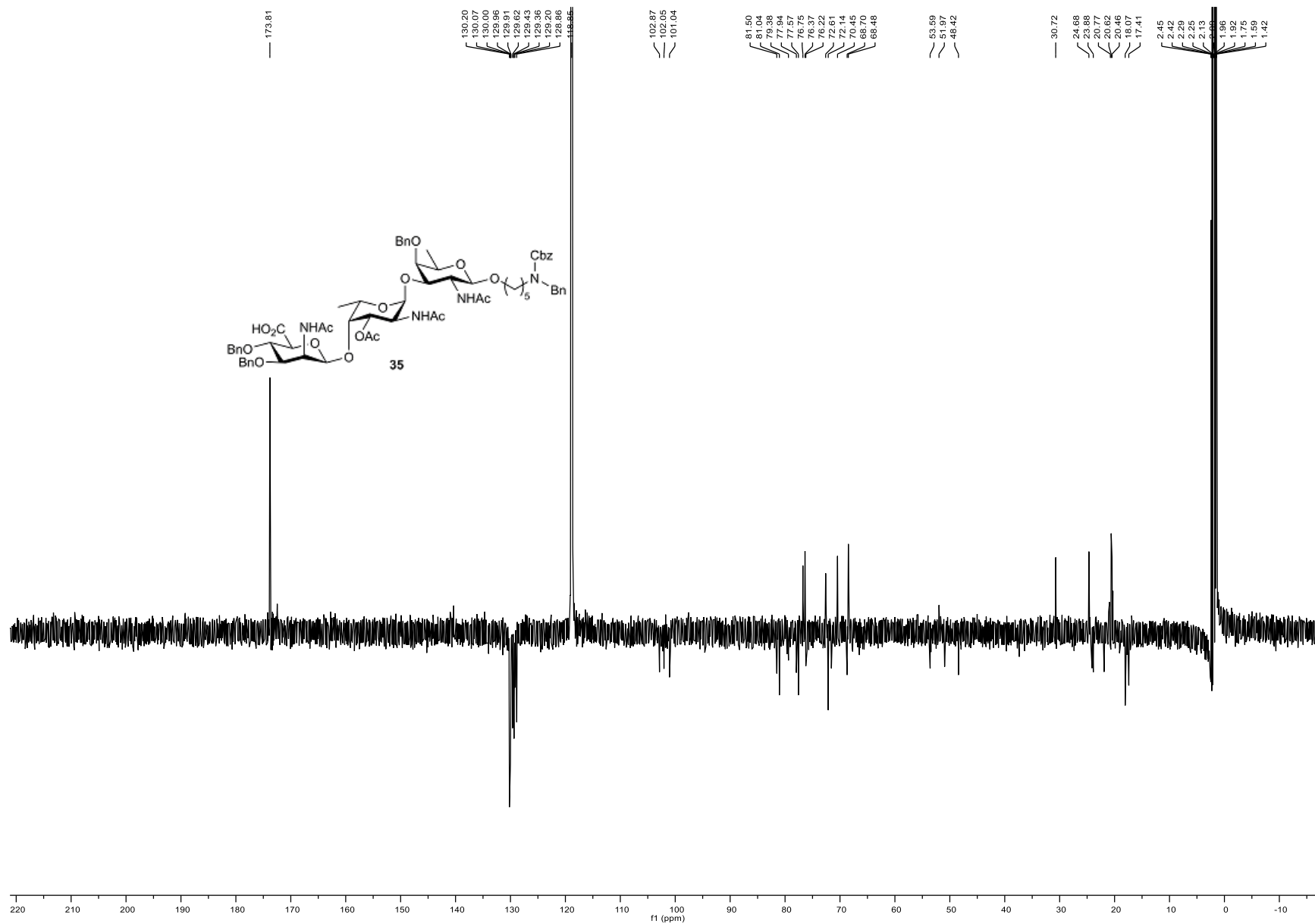


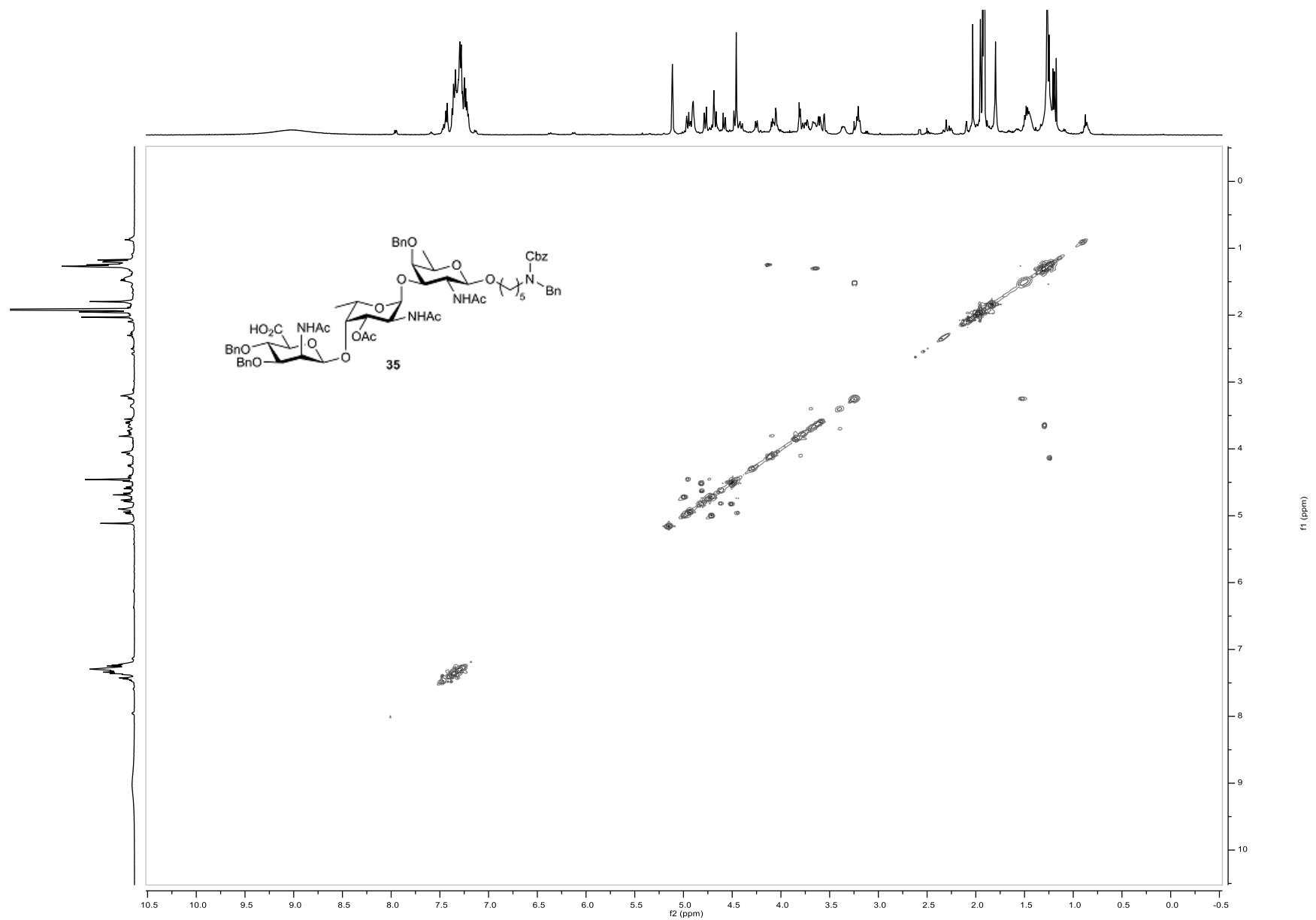


S263

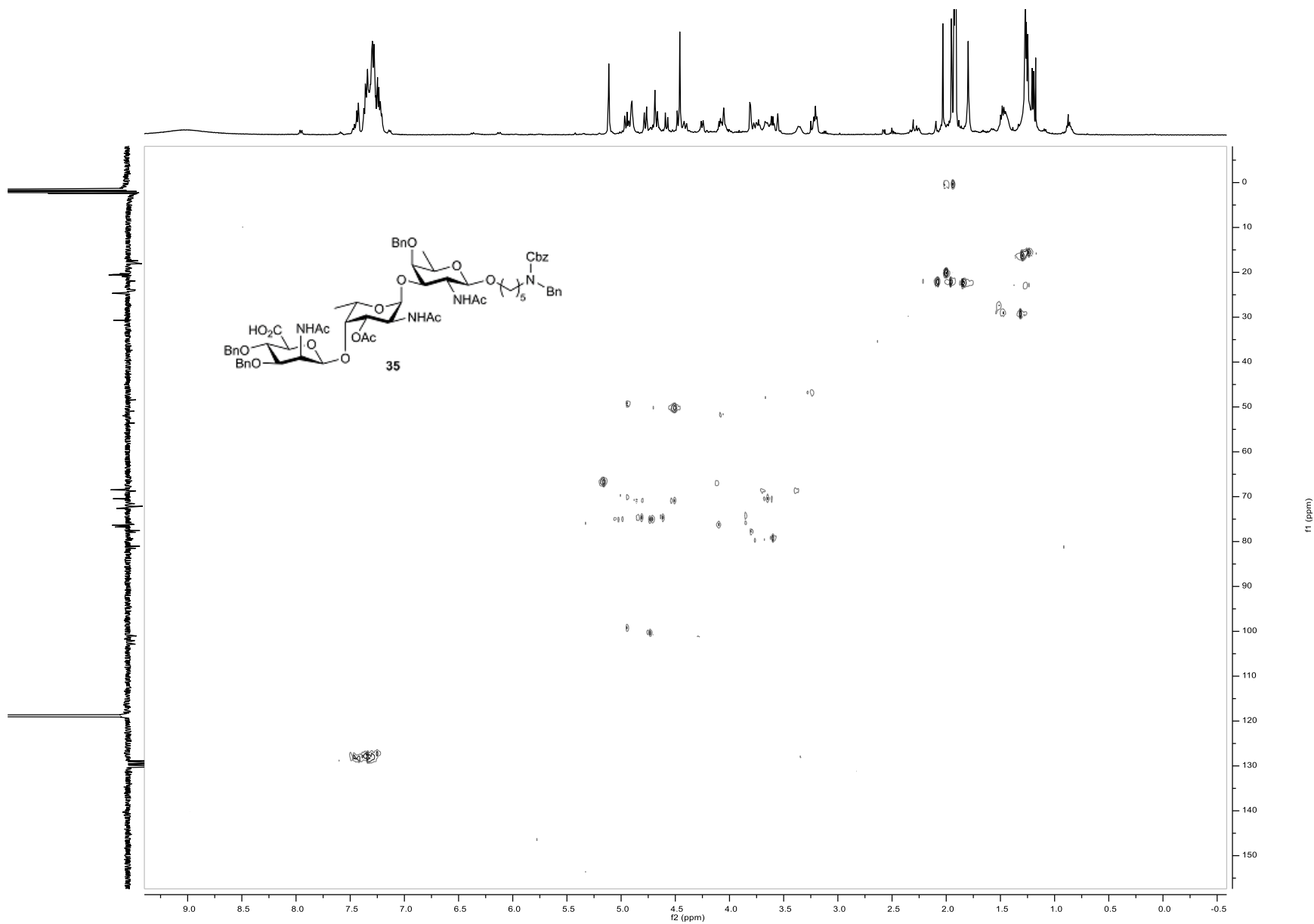




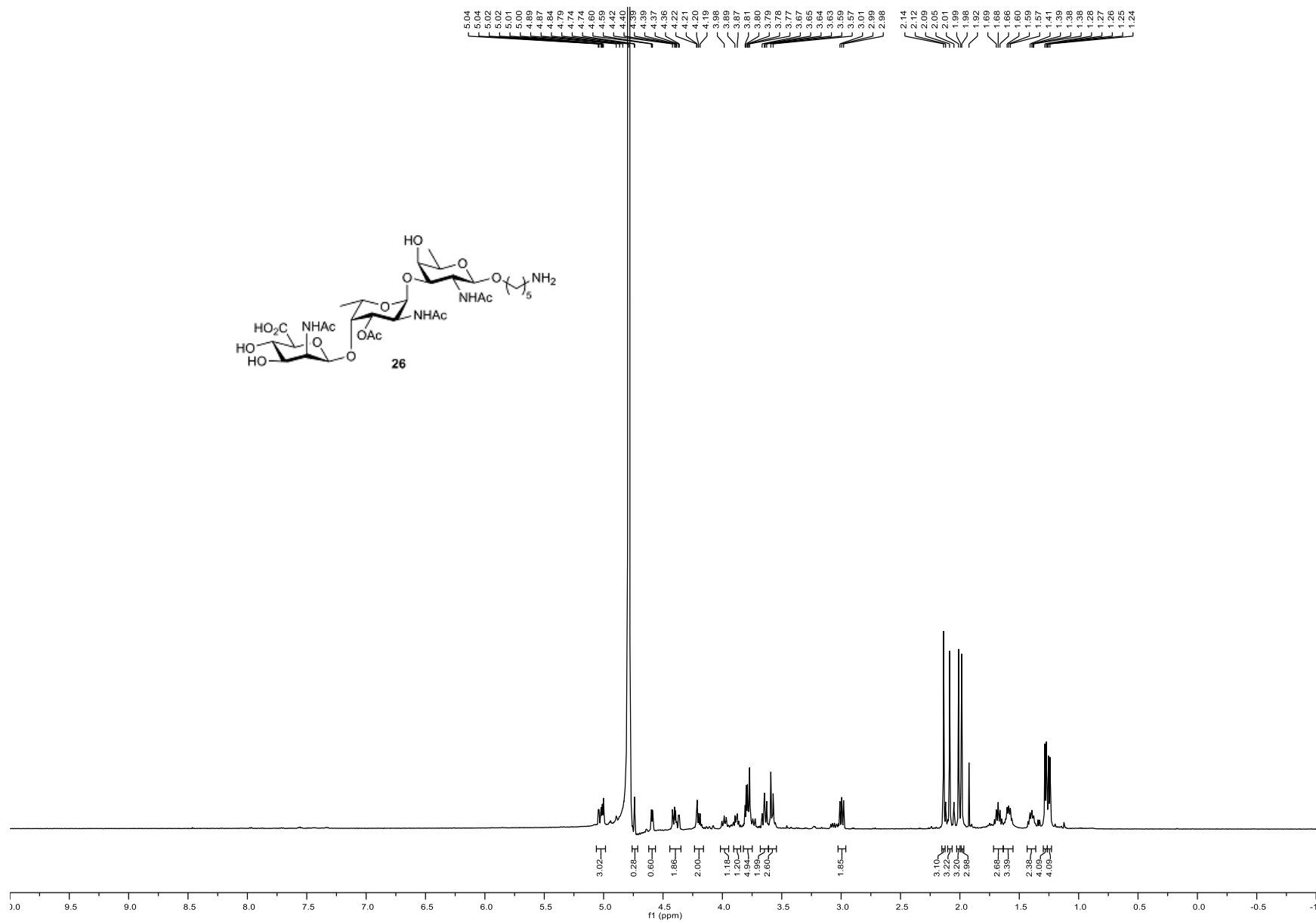


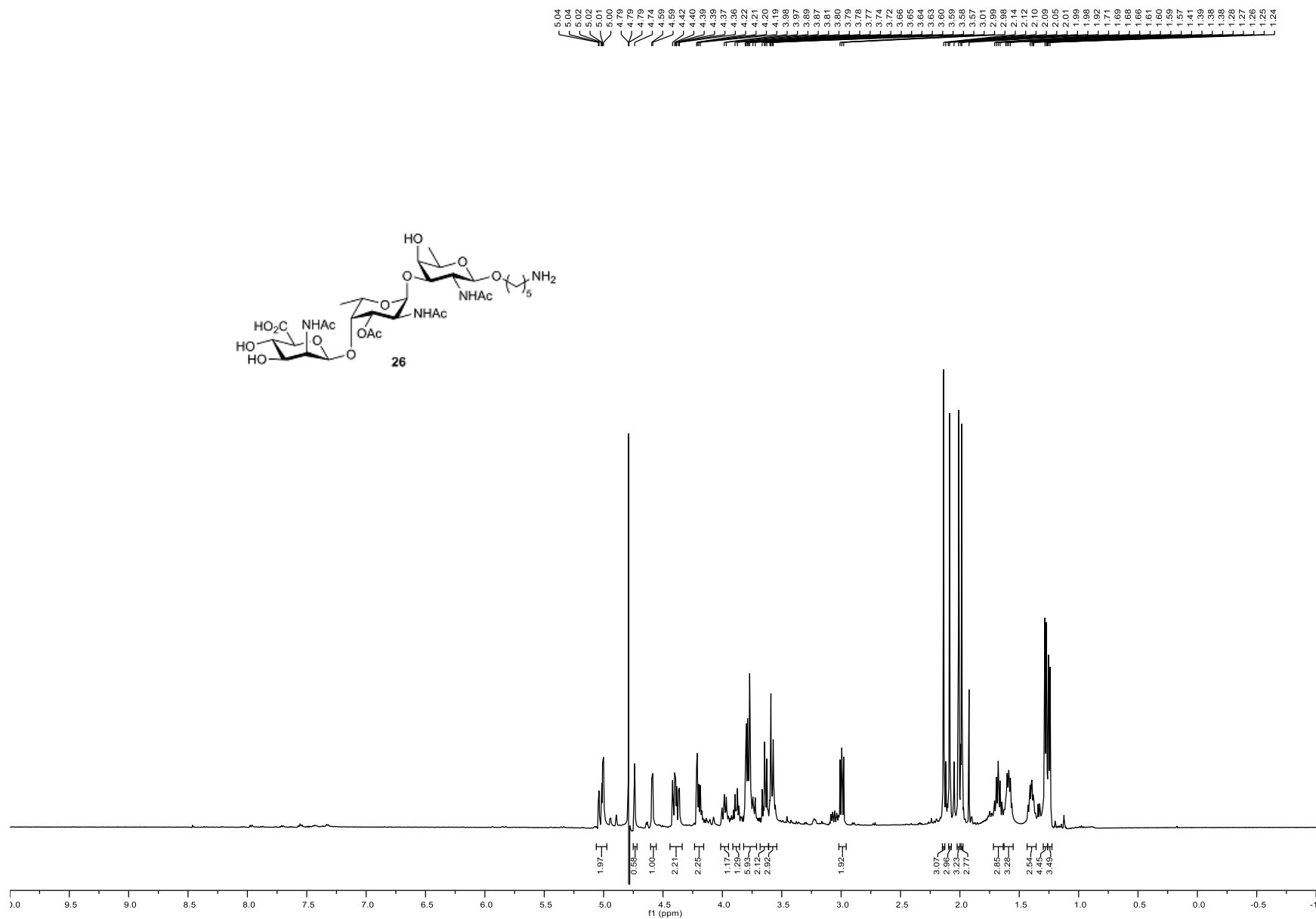
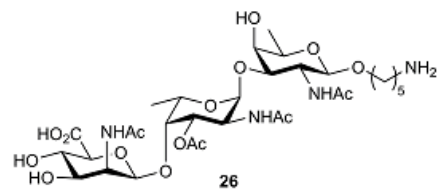


S267









175.65  
174.30  
174.30  
174.13  
173.87

101.57  
99.88  
99.07

76.66  
77.15  
76.09  
71.71  
70.75  
70.48  
69.87  
69.87  
66.87

53.09  
51.36  
47.18

39.39

28.21  
27.46  
22.20  
22.20  
22.08  
22.03  
20.38  
15.41  
15.31

