

Synthesis of abasic β -diol-C-nucleosides

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Supporting information

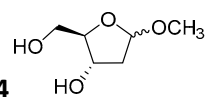
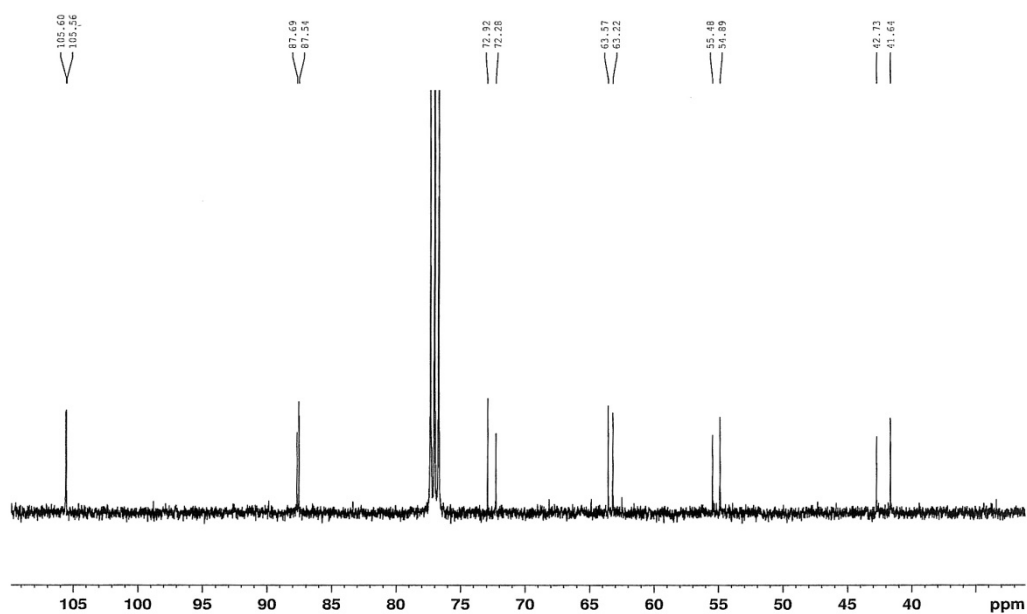
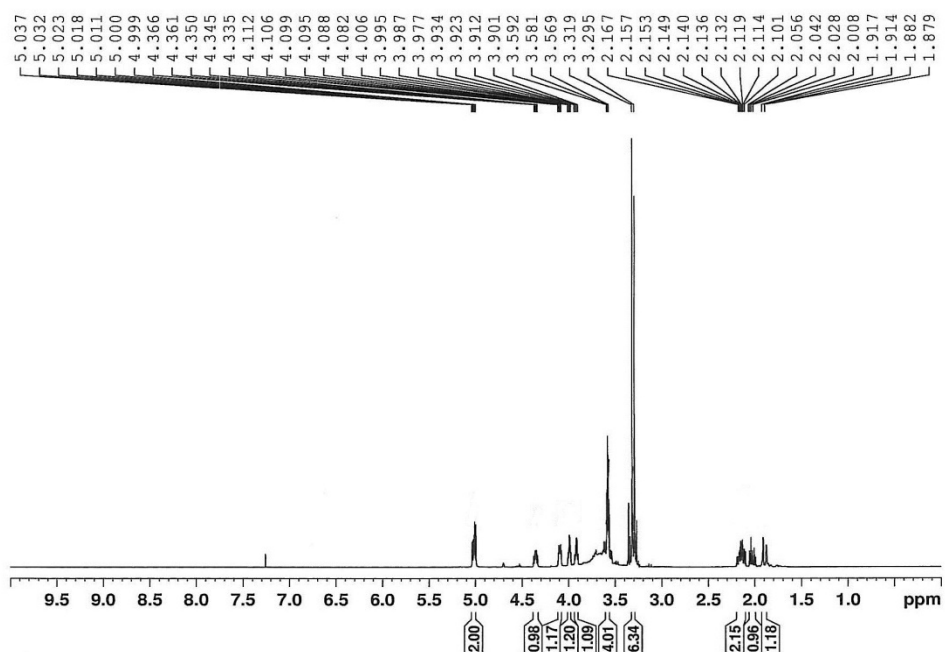


Figure S1: Compound 4



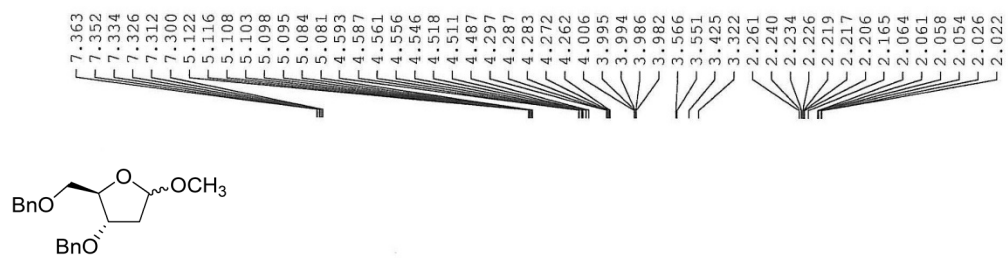
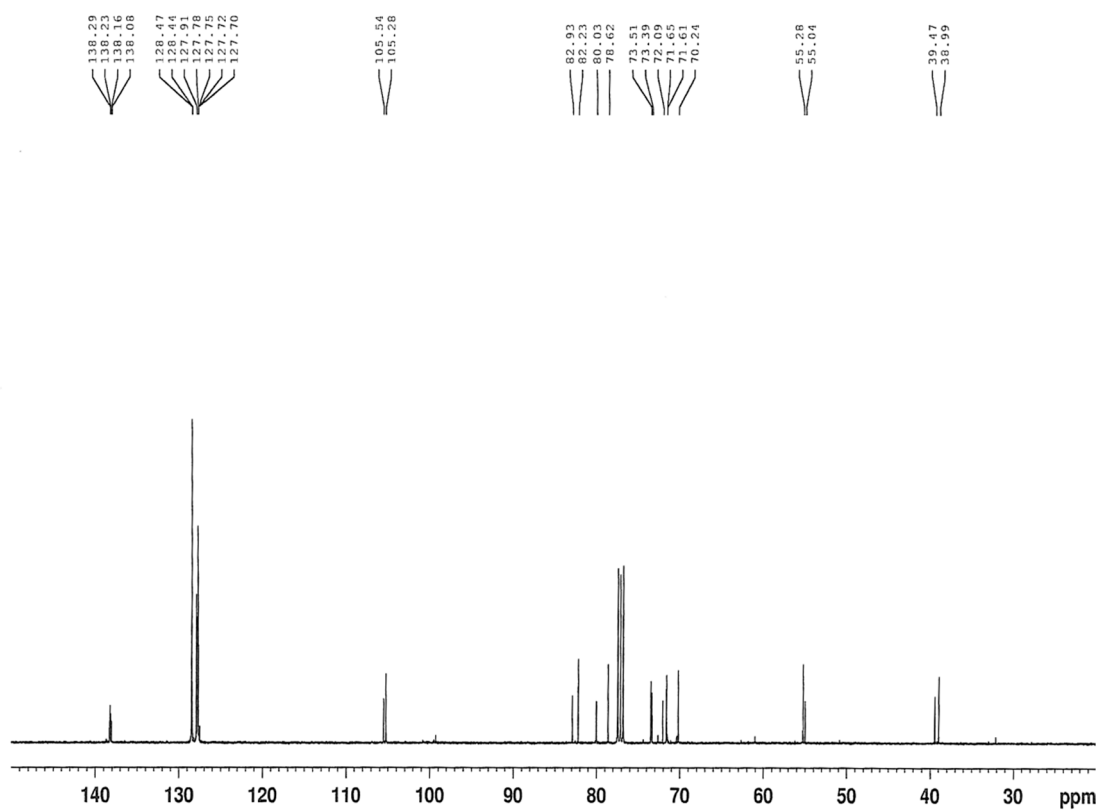
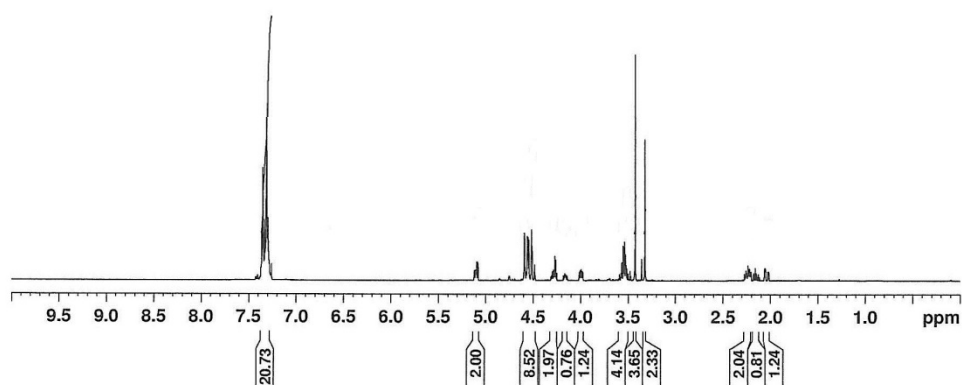


Figure S2: compound 5



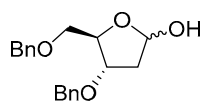
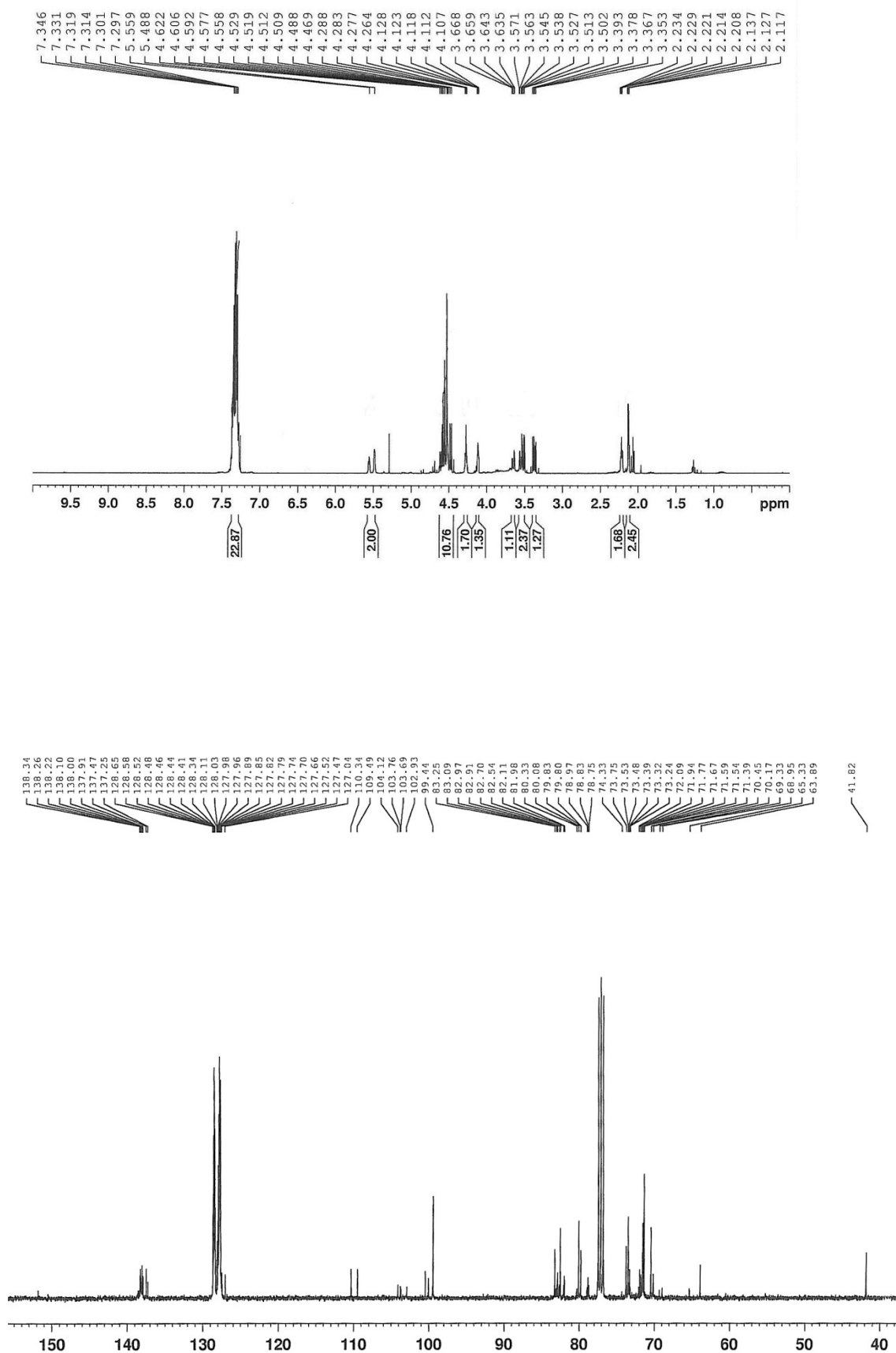


Figure S3: compound 6



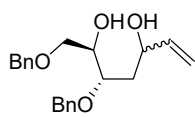
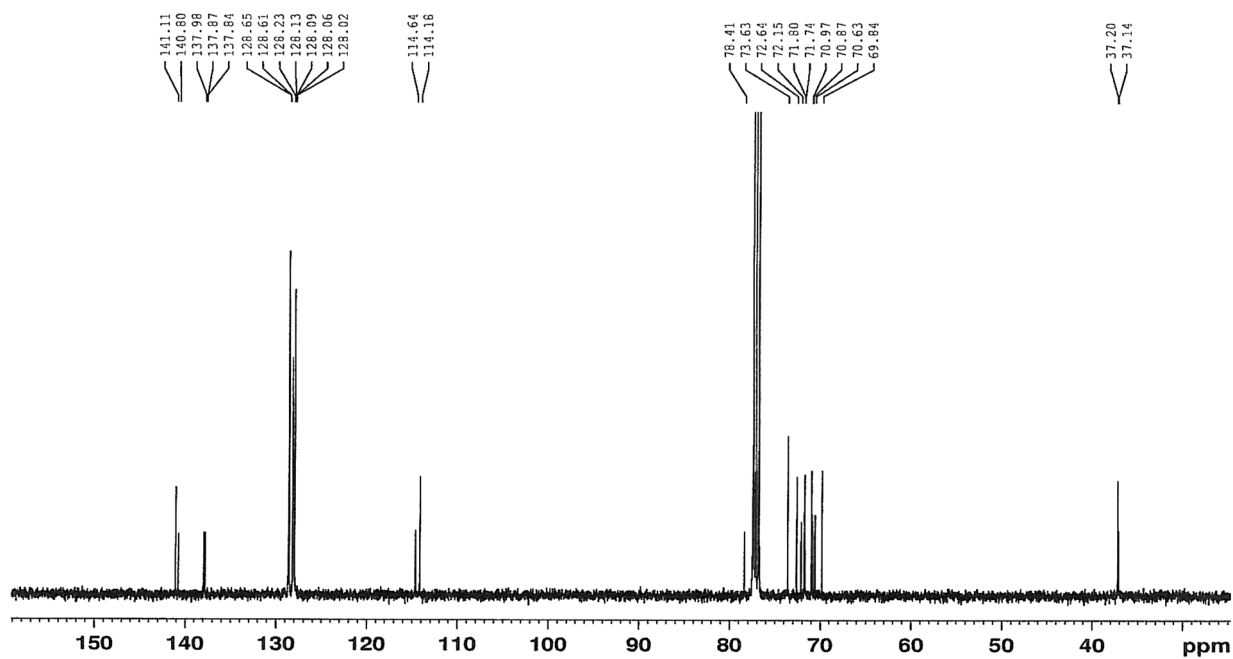
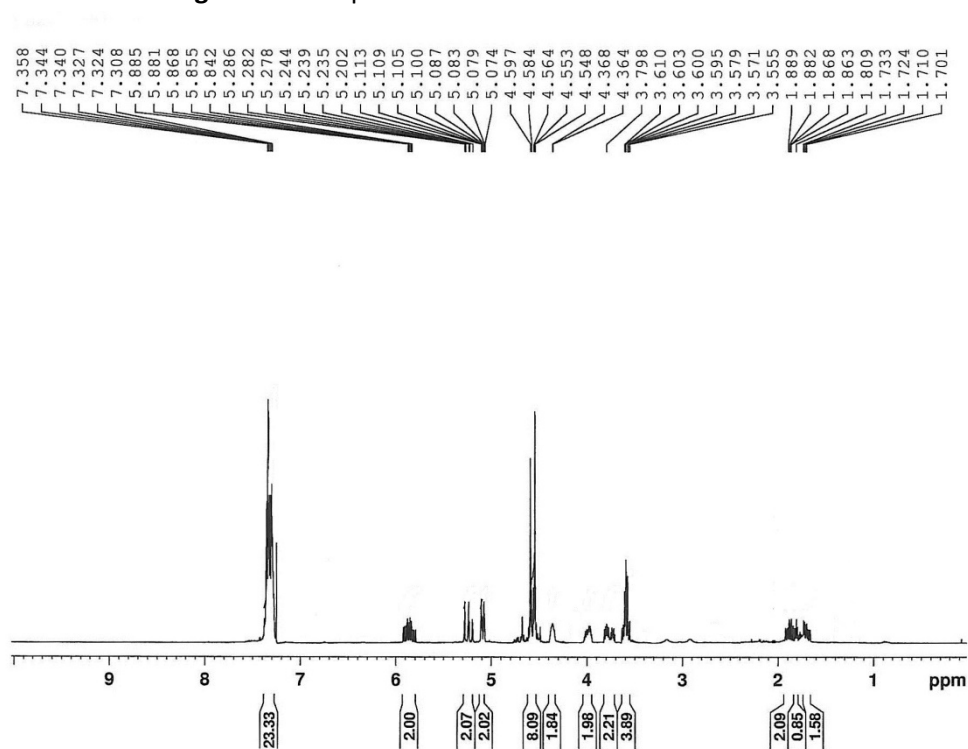


Figure S4: compound 7



7.340
7.324
7.322
7.307
7.292
5.975
5.253
5.251
5.247
5.210
5.208
5.110
5.108
5.104
5.085
5.083
5.081
4.651
4.621
4.586
4.580
4.556
4.552
4.522
4.426
4.396
4.352
4.334
4.170
4.161
4.158
4.154
4.149
4.146
4.143
4.054
4.042
4.038
4.030
4.026
3.859
3.847
3.834
3.822
3.768
3.752
3.743
2.331
2.312
2.297
1.915
1.907
1.898

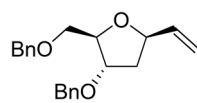
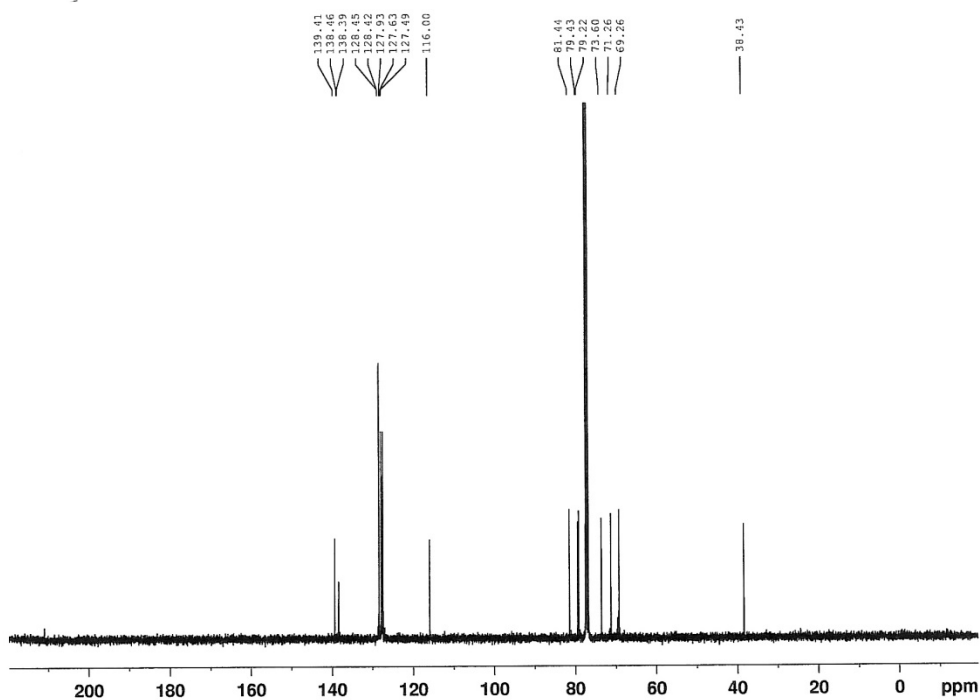
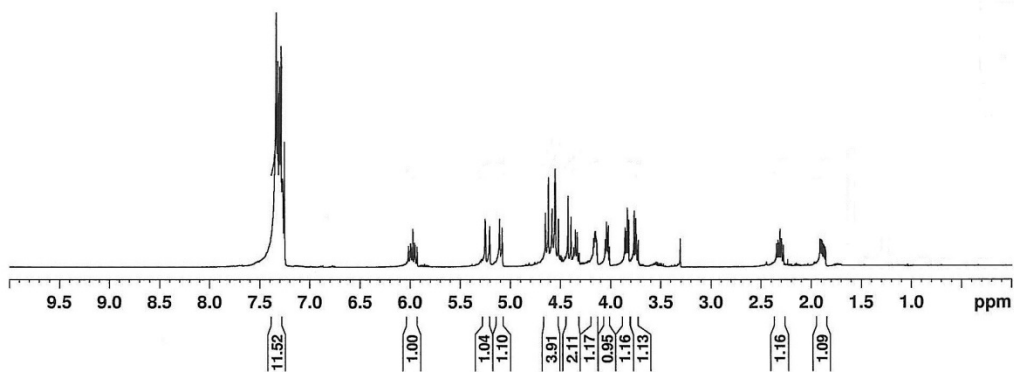


Figure S5: Compound 8β



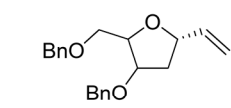
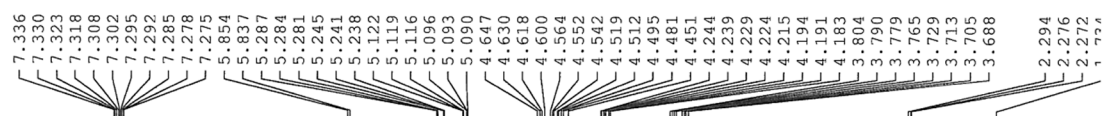
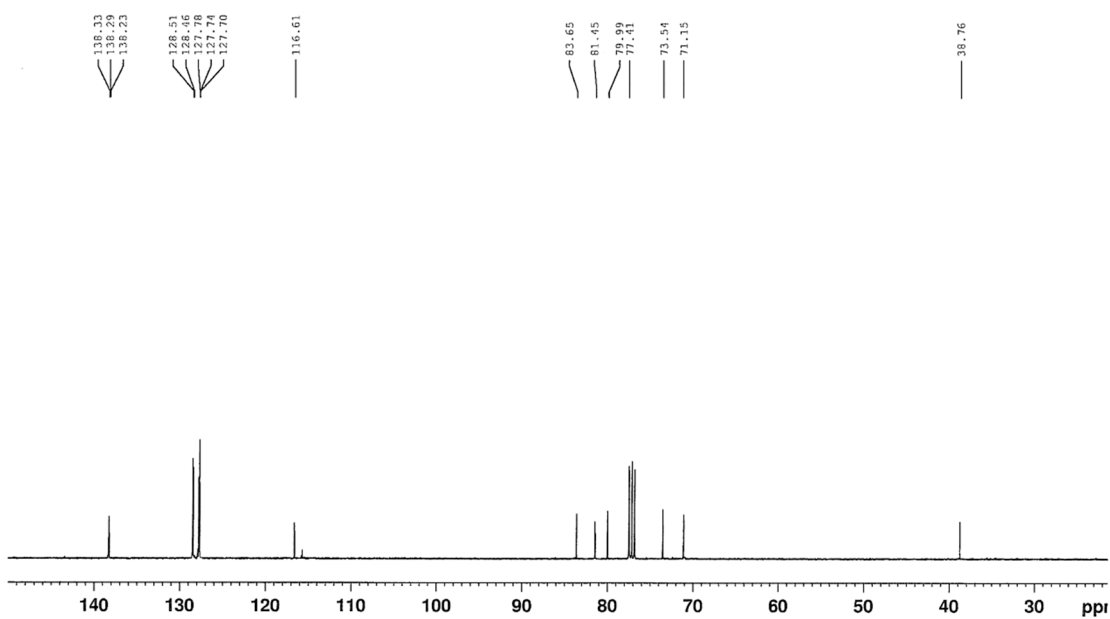
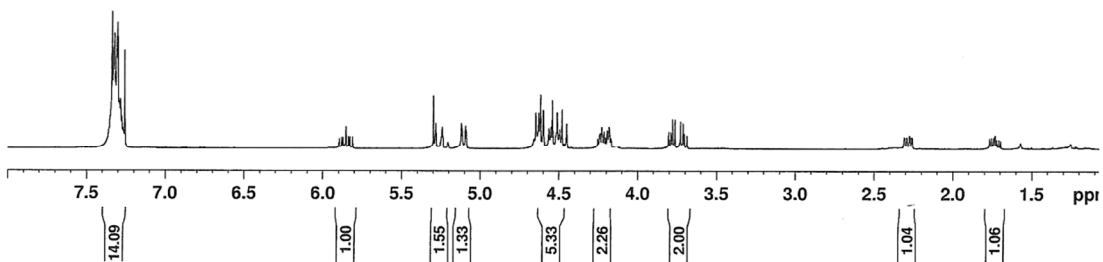
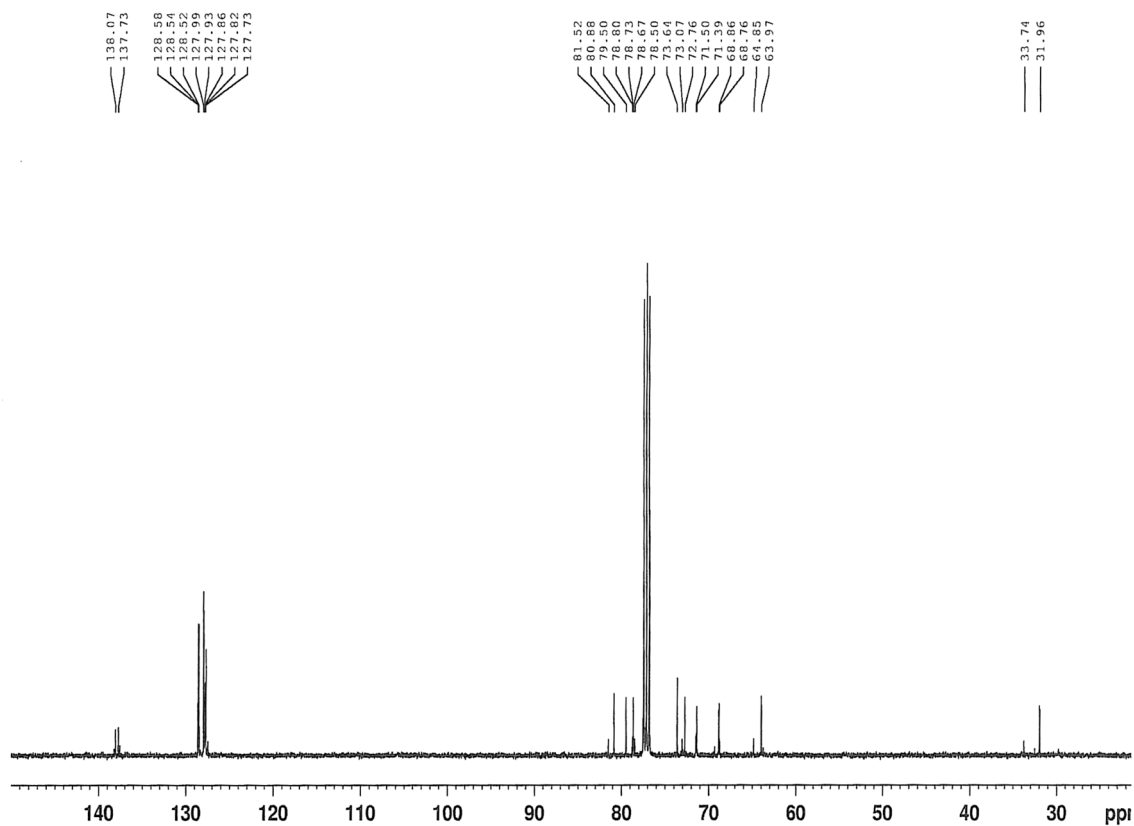
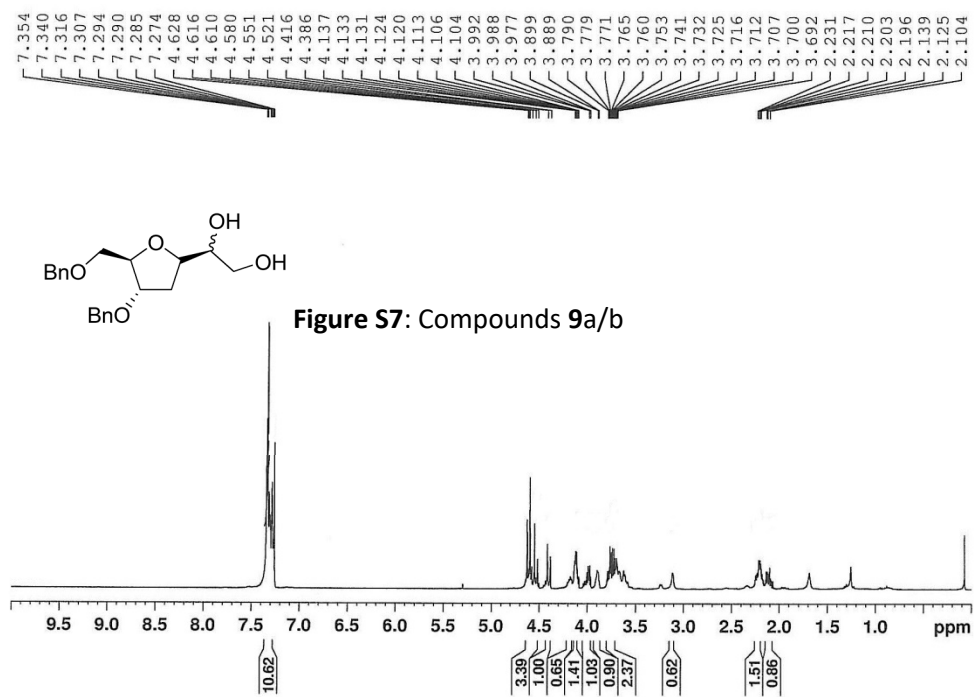


Figure S6: Compound 8α





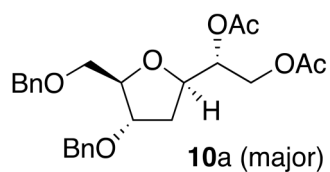
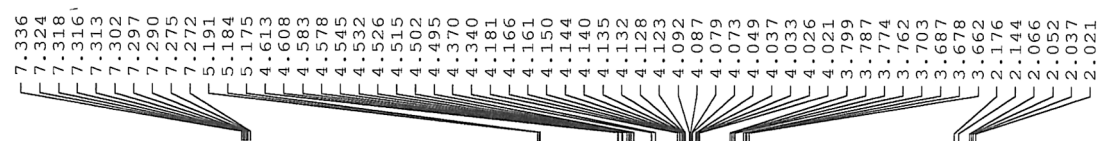
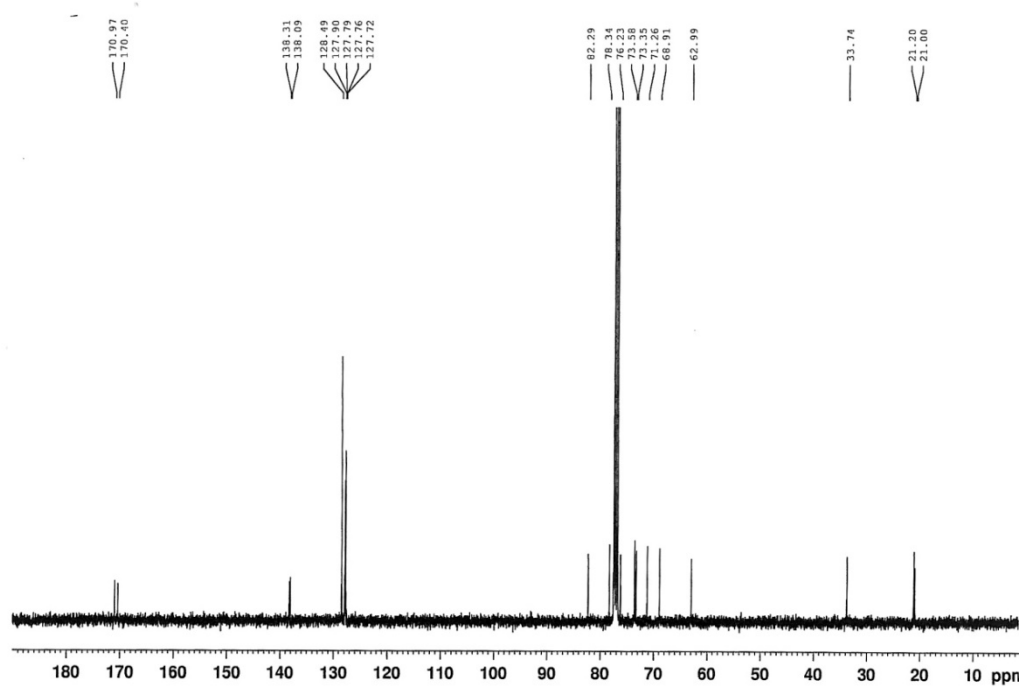
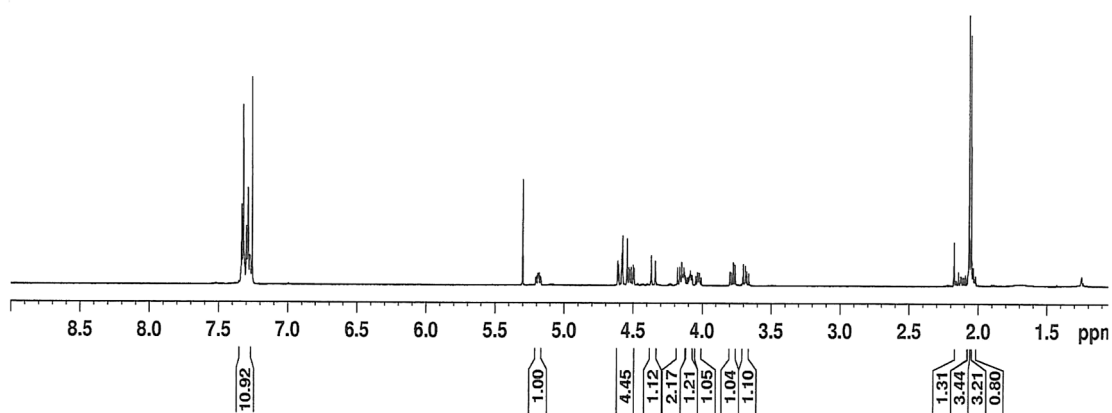
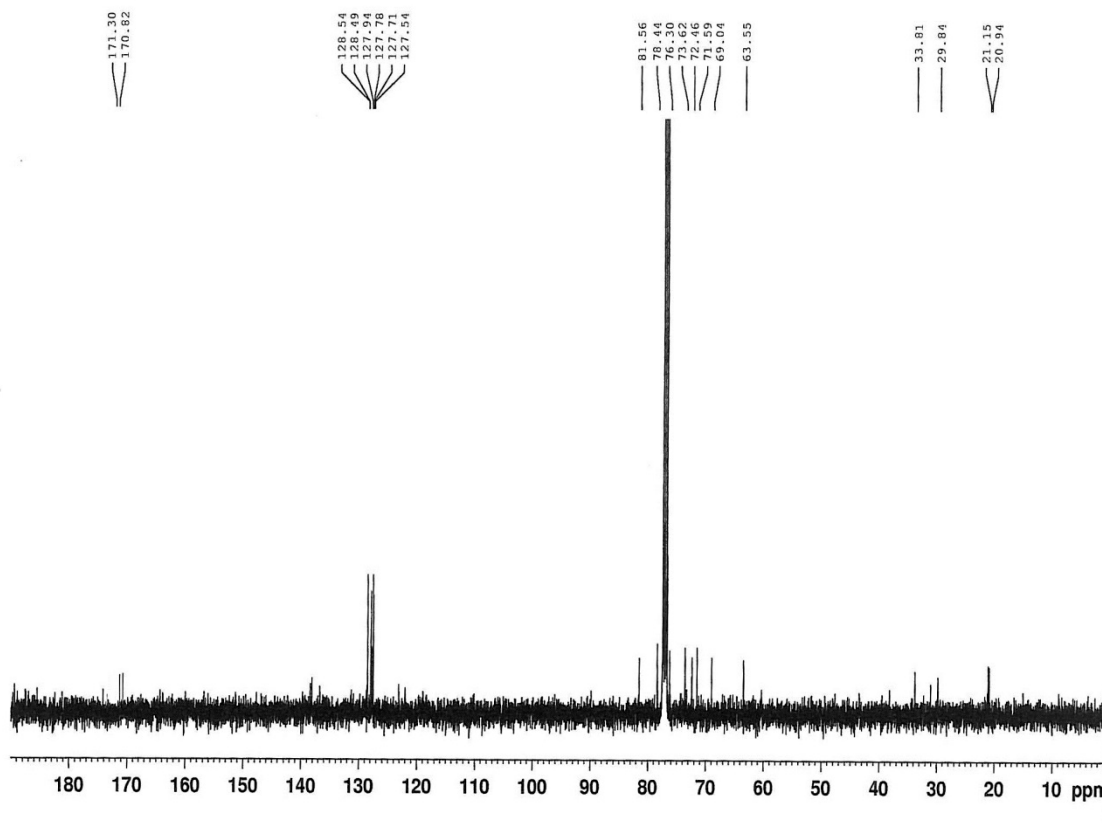
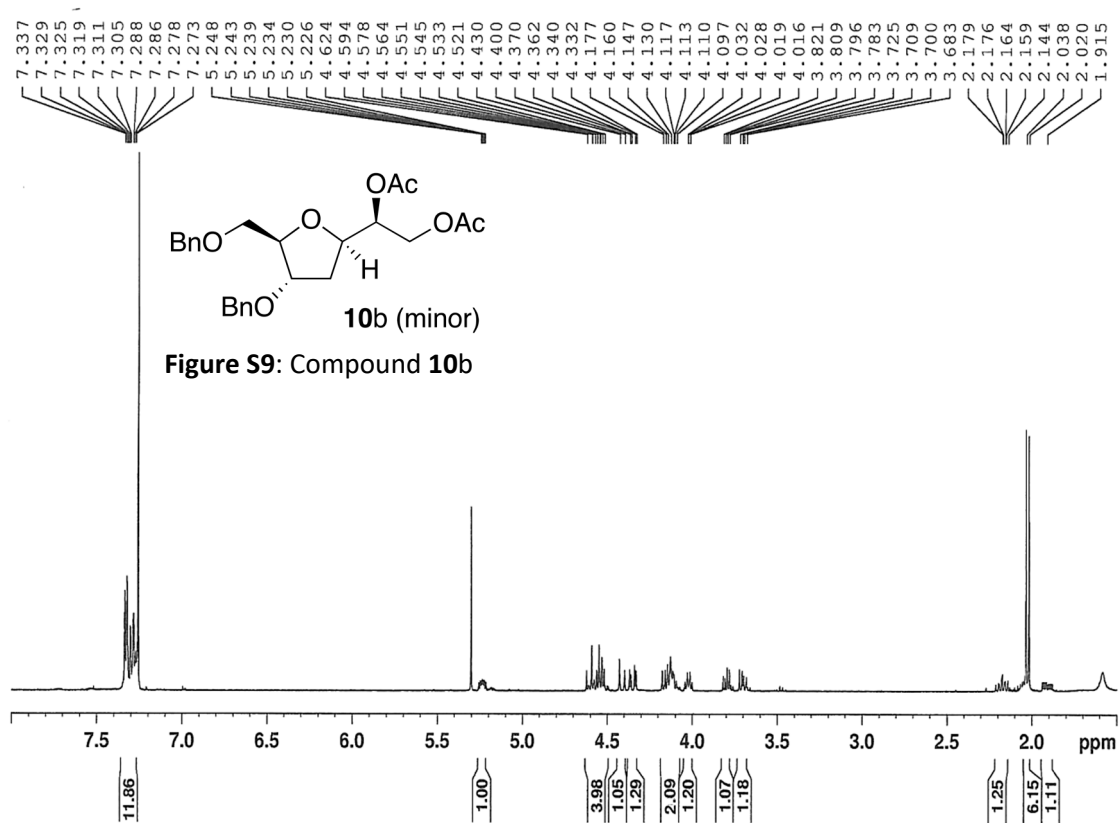


Figure S8: Compound 10a





Chemical structure of compound **12a** is shown. The structure is a bicyclic acetal derivative of a 1,3-diol and a ketone, with two benzyl (BnO) groups and a 3-phenylpropyl group attached to the ring system.

¹H NMR spectrum (CDCl₃) of compound **12a** is displayed. The x-axis represents the chemical shift in ppm, ranging from 1.6 to 8.6. The spectrum shows several multiplets and singlets, with integration values provided below the peaks.

Integration values (from left to right): 2.01, 1.15, 2.20, 0.45, 5.31, 4.26, 6.62, 1.00, 3.81, 2.07, 2.51, 1.76, 2.23, 0.99, 1.33, 1.44, 1.95, 0.60, 0.83.

Chemical shift values (from left to right): 8.539, 8.435, 7.940, 7.920, 7.438, 7.434, 7.422, 7.418, 7.412, 7.400, 7.396, 7.392, 7.389, 7.376, 7.372, 7.355, 7.321, 7.305, 7.287, 7.281, 7.263, 7.253, 7.239, 7.234, 7.226, 7.220, 7.191, 7.051, 5.231, 4.612, 4.582, 4.549, 4.543, 4.519, 4.417, 4.406, 4.402, 4.388, 4.357, 4.350, 4.332, 4.320, 4.263, 4.238, 4.093, 4.084, 4.072, 3.838, 3.813, 3.751, 3.736, 2.199, 2.187, 2.104, 1.631, 1.608.



Figure S11: Compound 12b

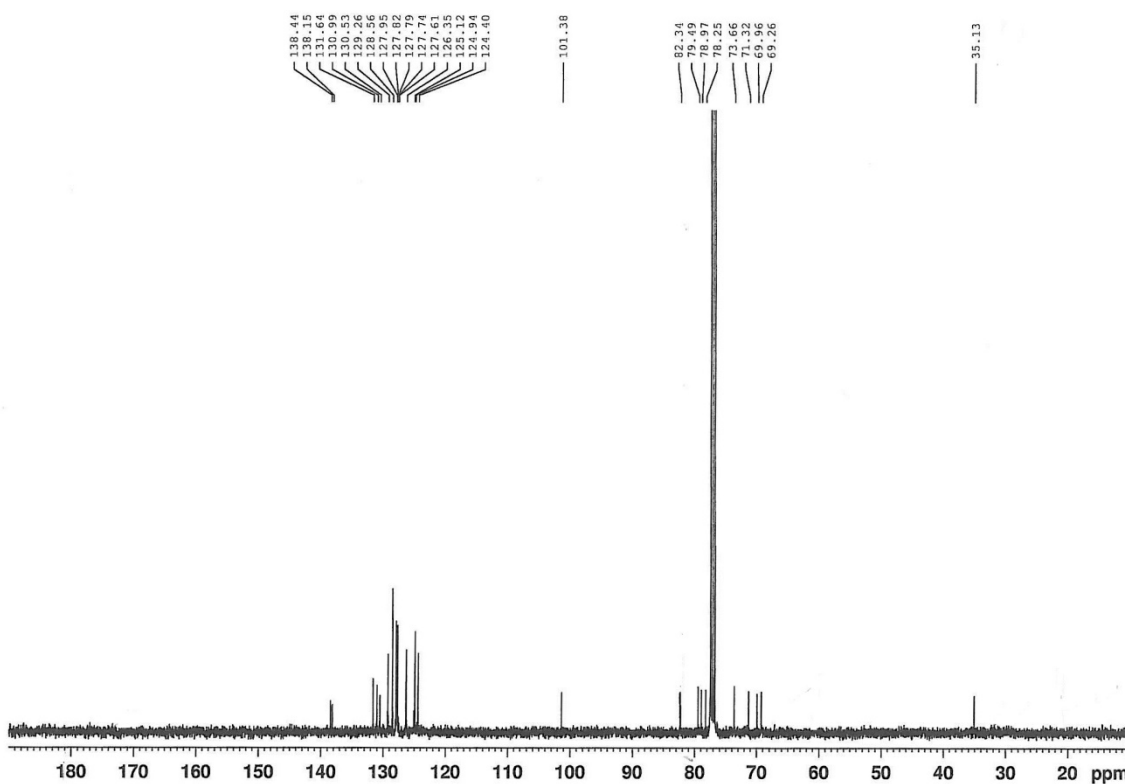
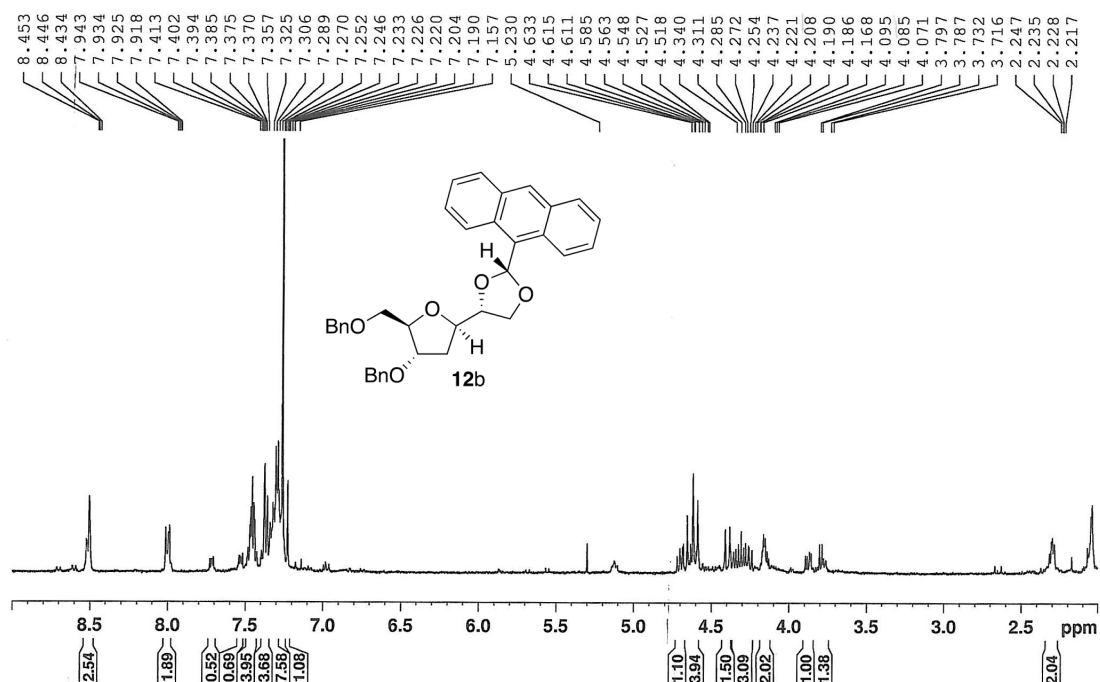


Figure S12: Compound 13

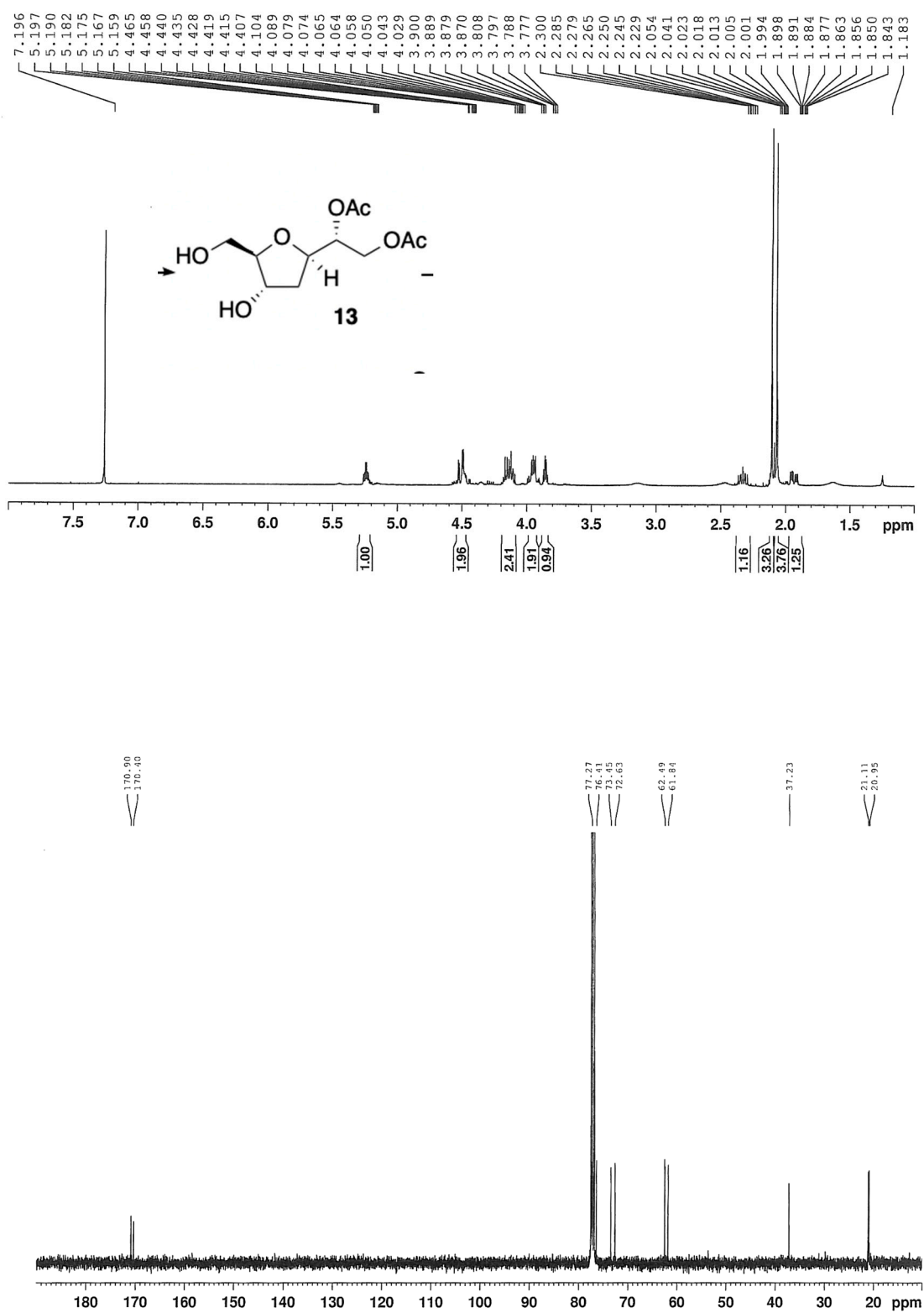


Figure S13: Compound 14

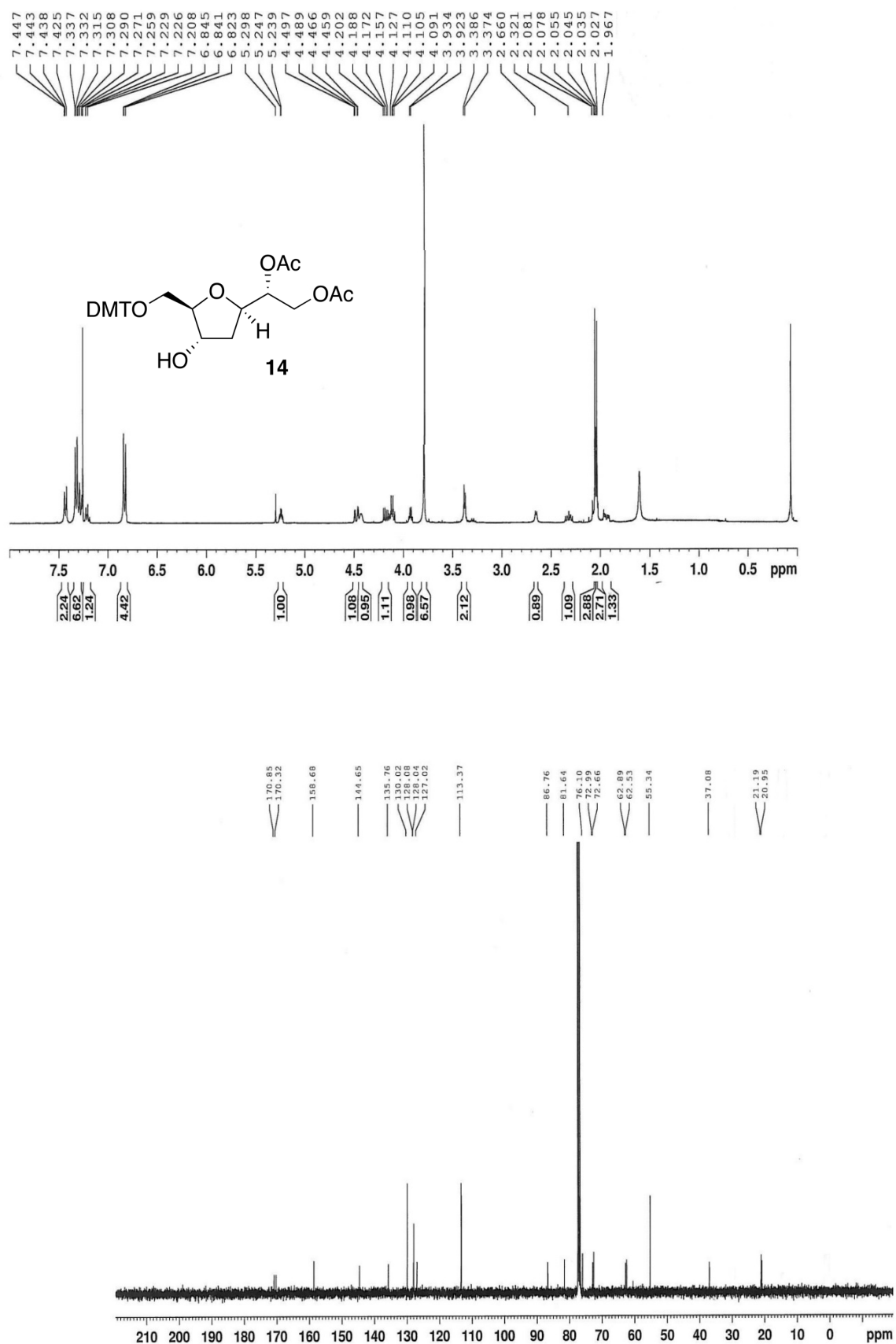


Figure S14: Compound 15

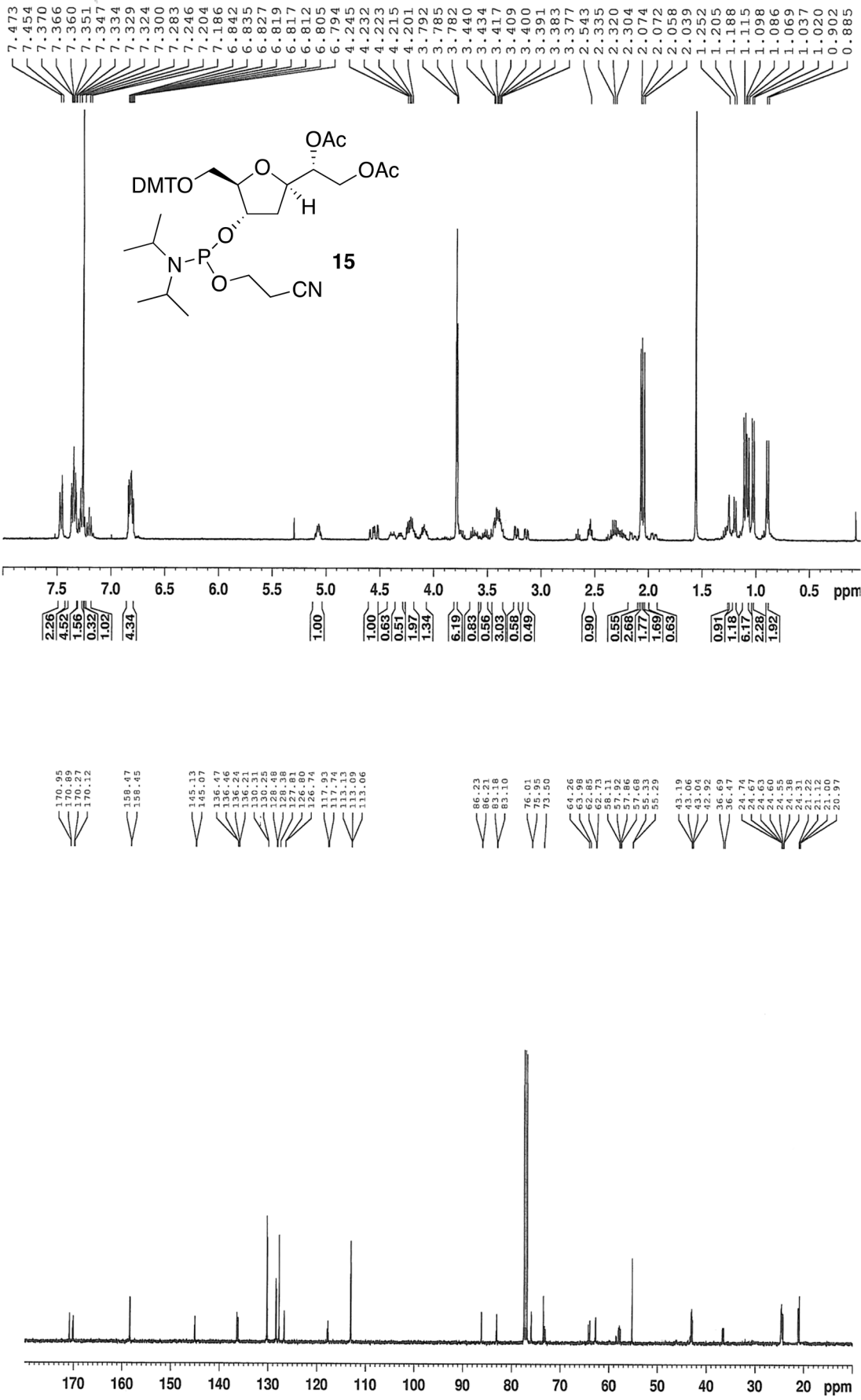


Figure S15: Compound 16

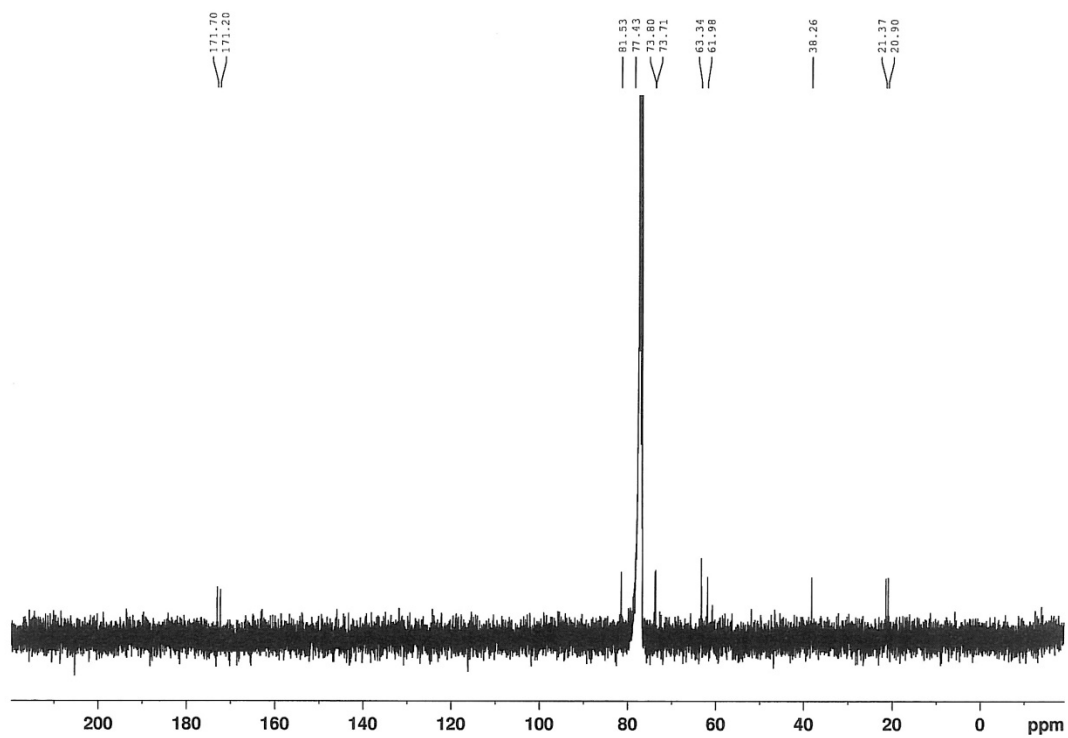
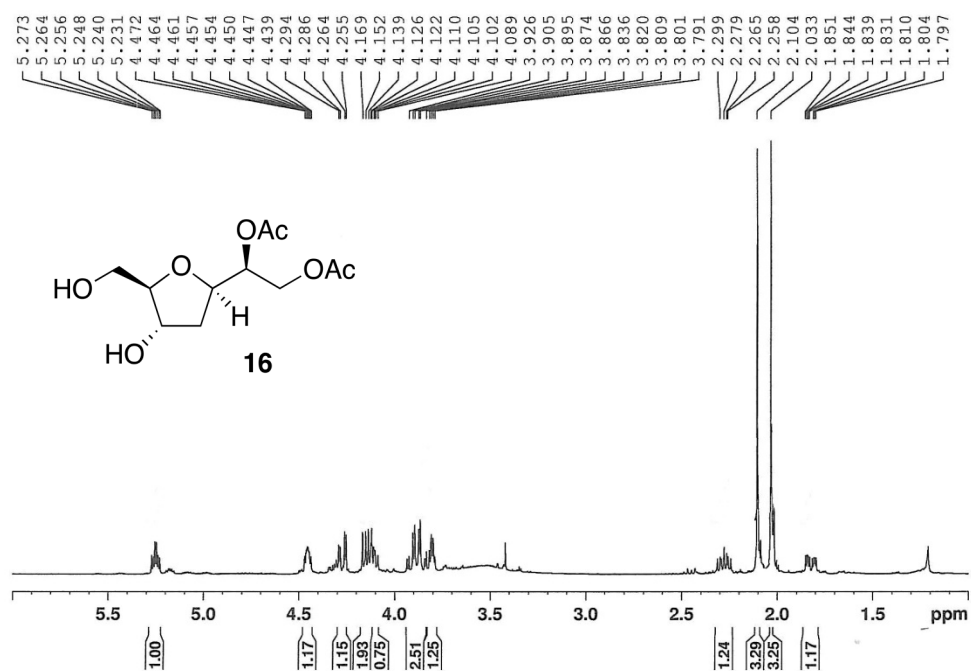


Figure S16: Compound 17

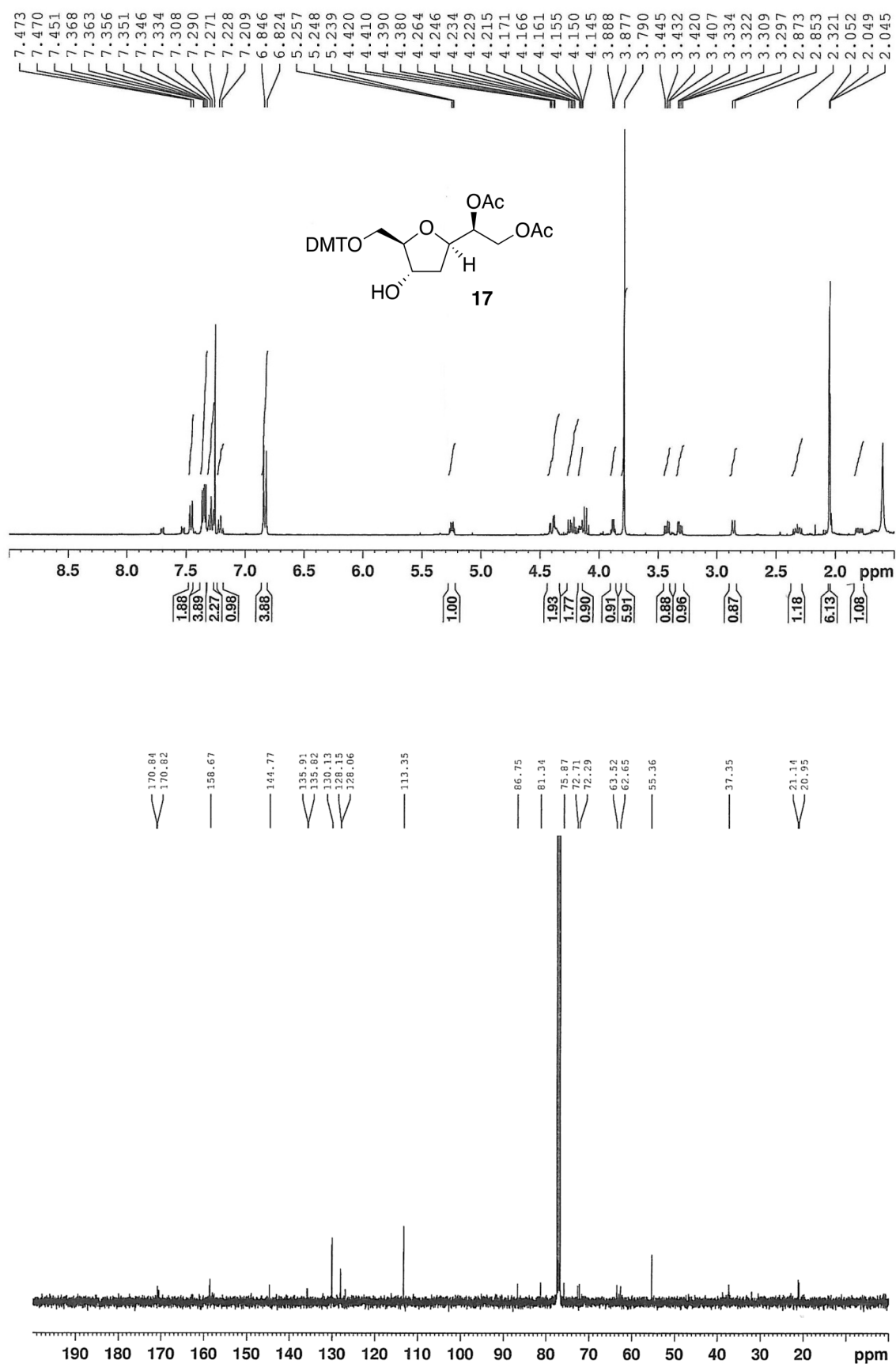


Figure S17: Compound 18

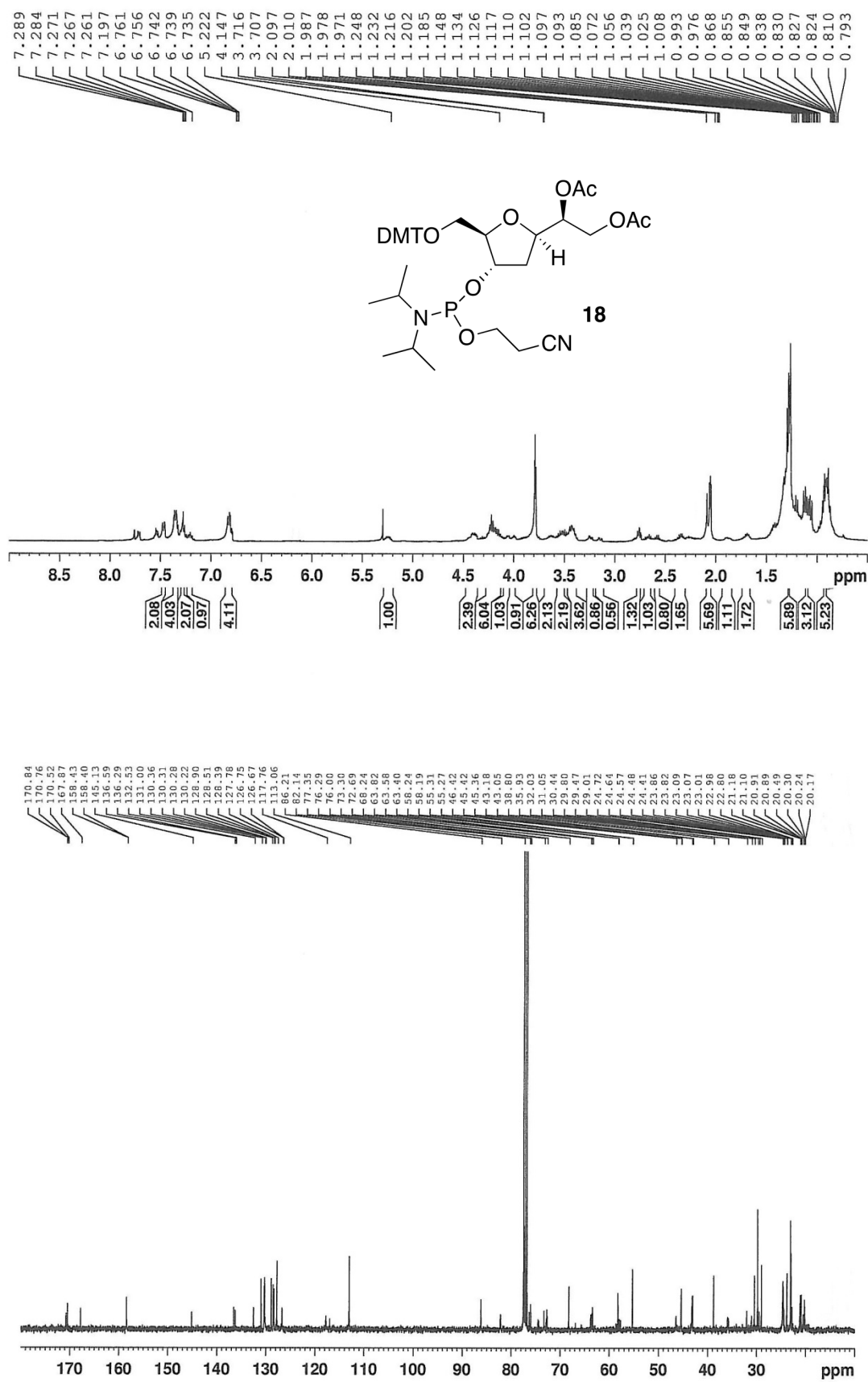


Figure S18: Mass Spec of oligomer A

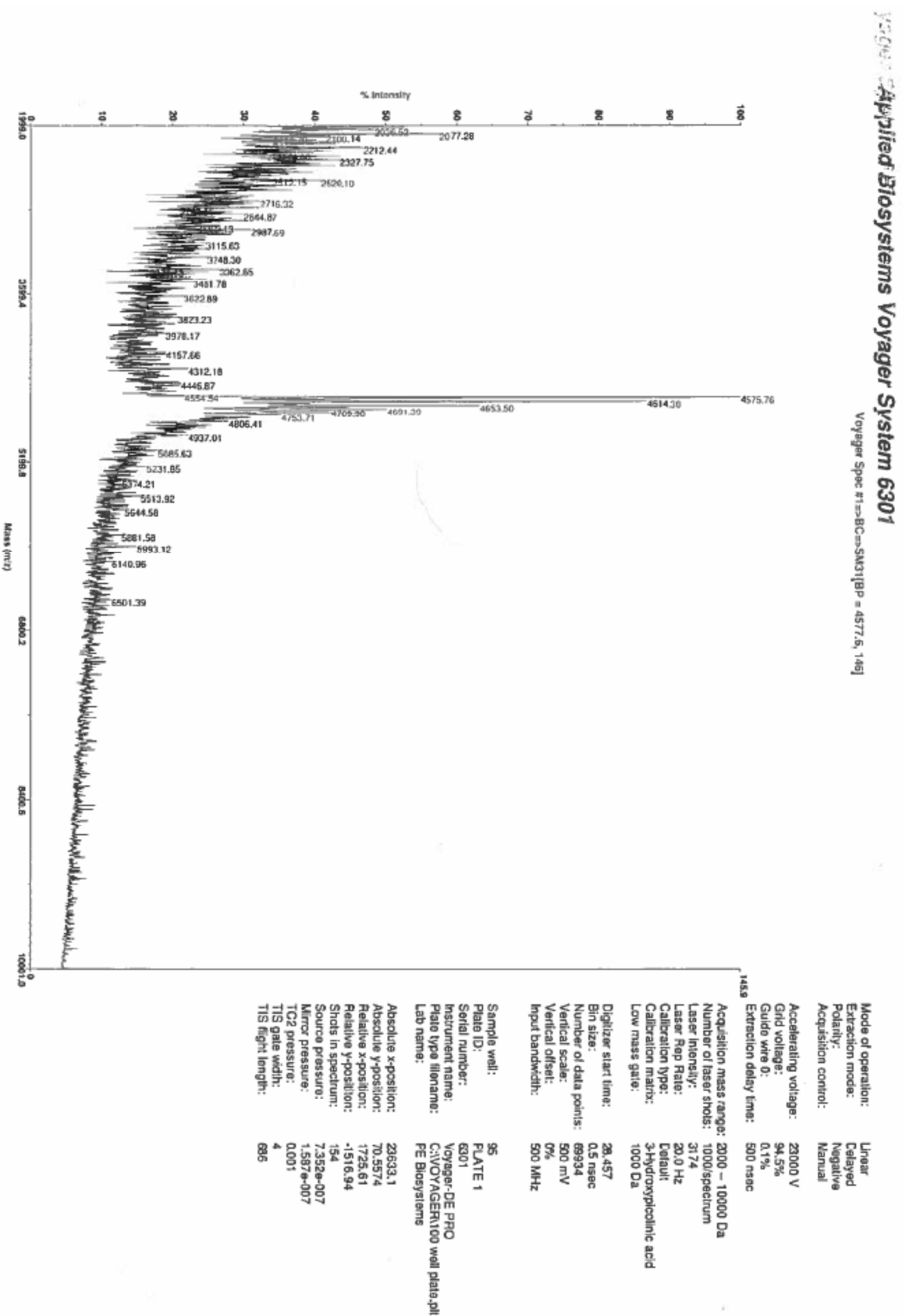


Figure S19: Mass Spec of oligomer B

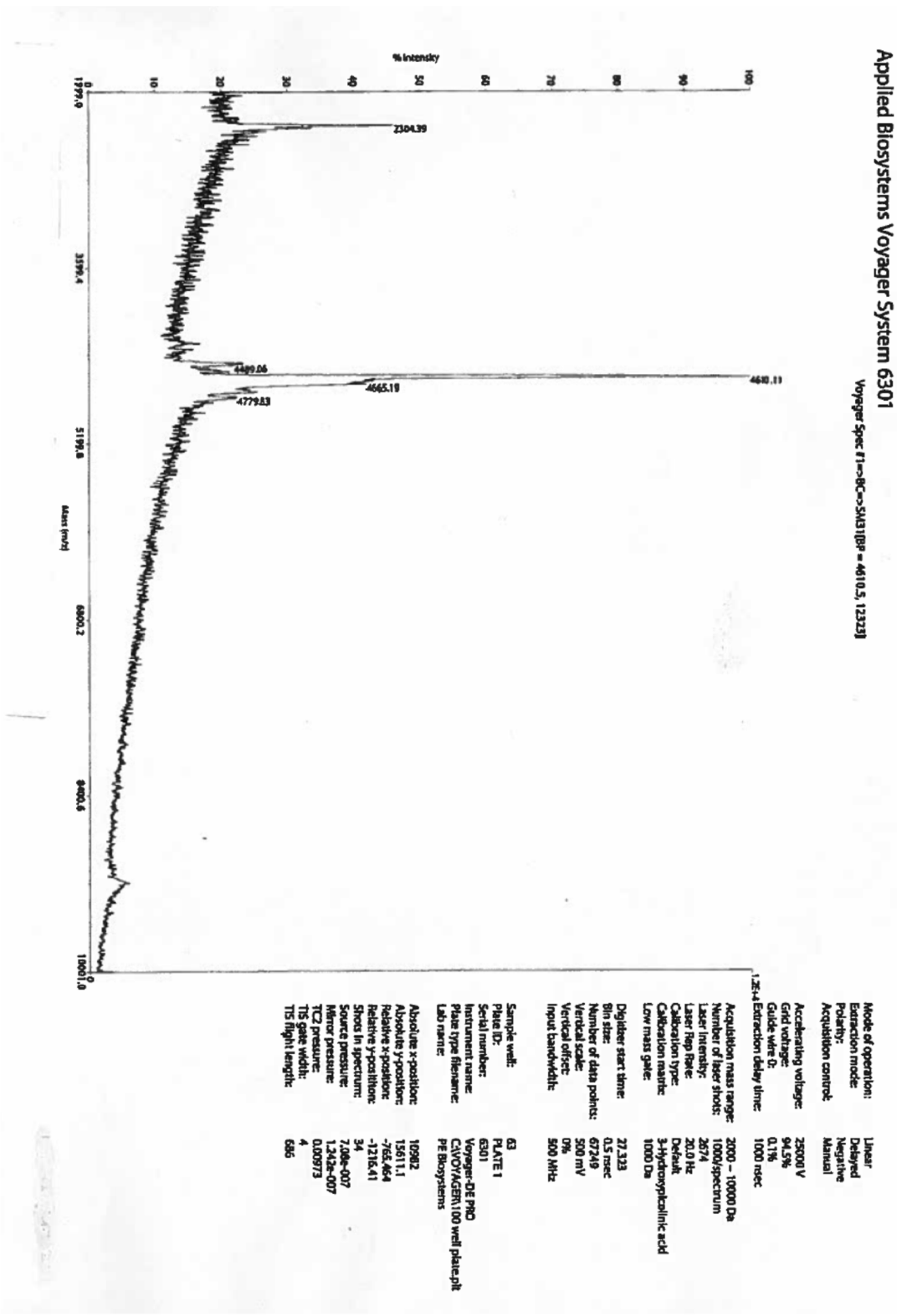


Figure S20: HPLC profile of oligomer A after Poli-Pak II purification

Sample Info : mm DNA5 50 ul, 5-20-20

Current Chromatogram(s)

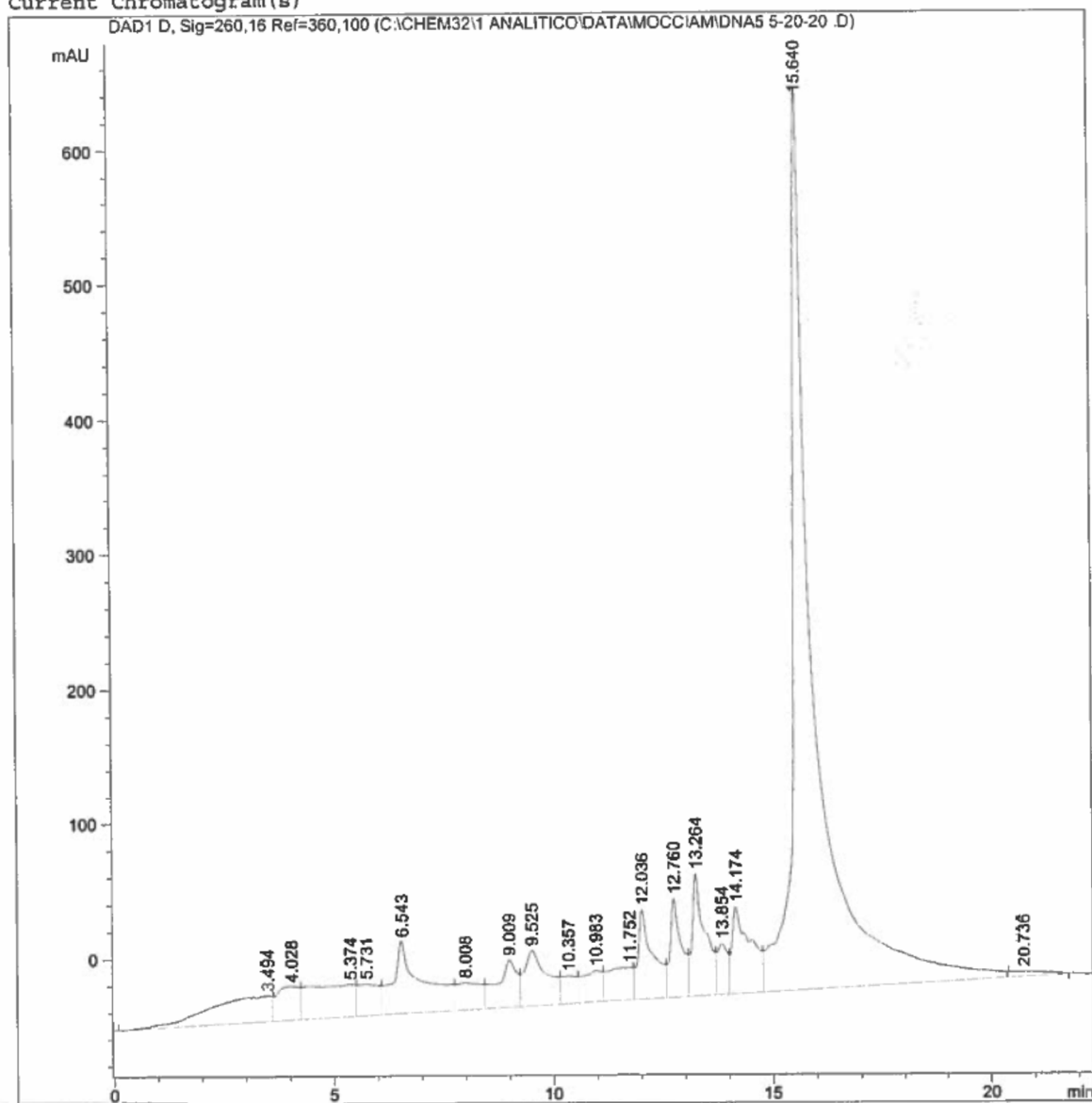


Figure S21: HPLC profile **oligomer B** after Poli-Pak II purification;

