Electronic Supplementary Material (ESI) for Polymer Chemistry.

Glycopeptides Derived from Glucosaminic Acid

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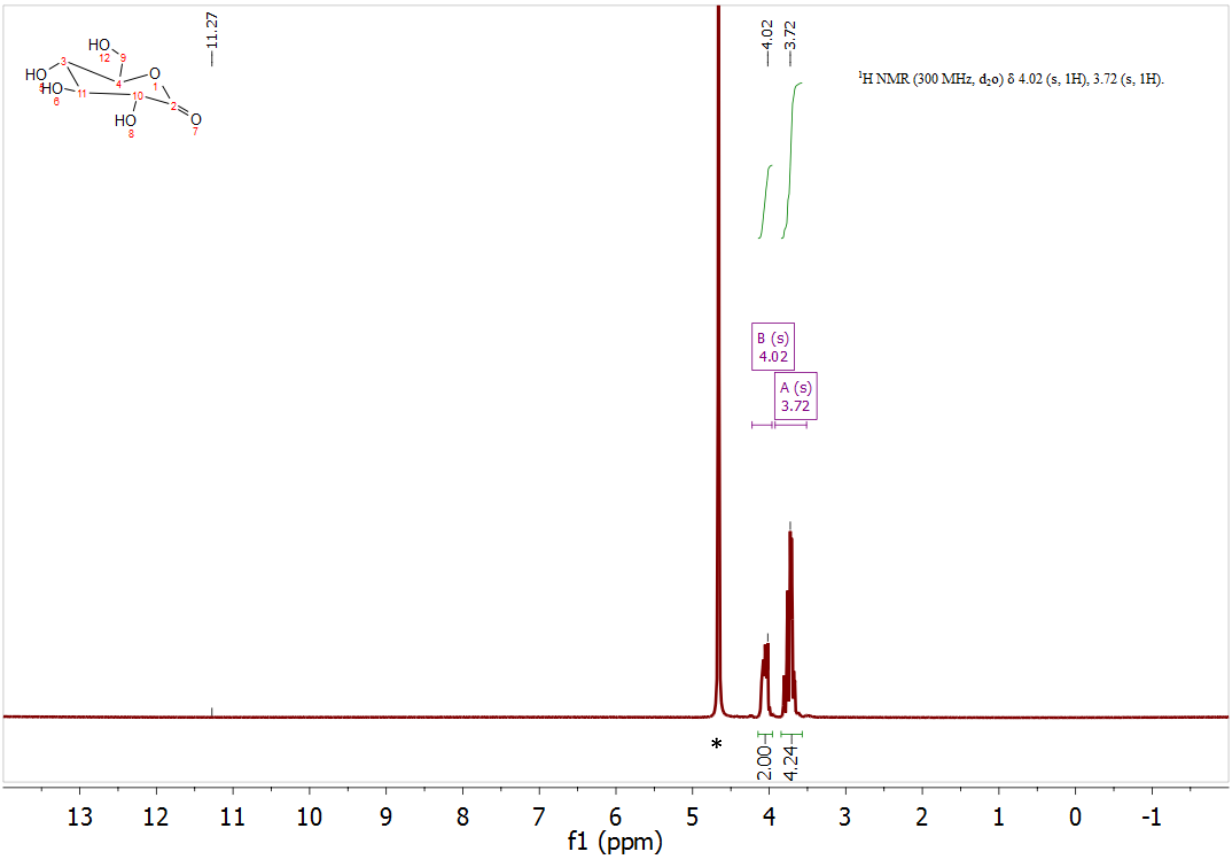


Figure 1. ^{1}H NMR of δ-gluconolactone (**1**).

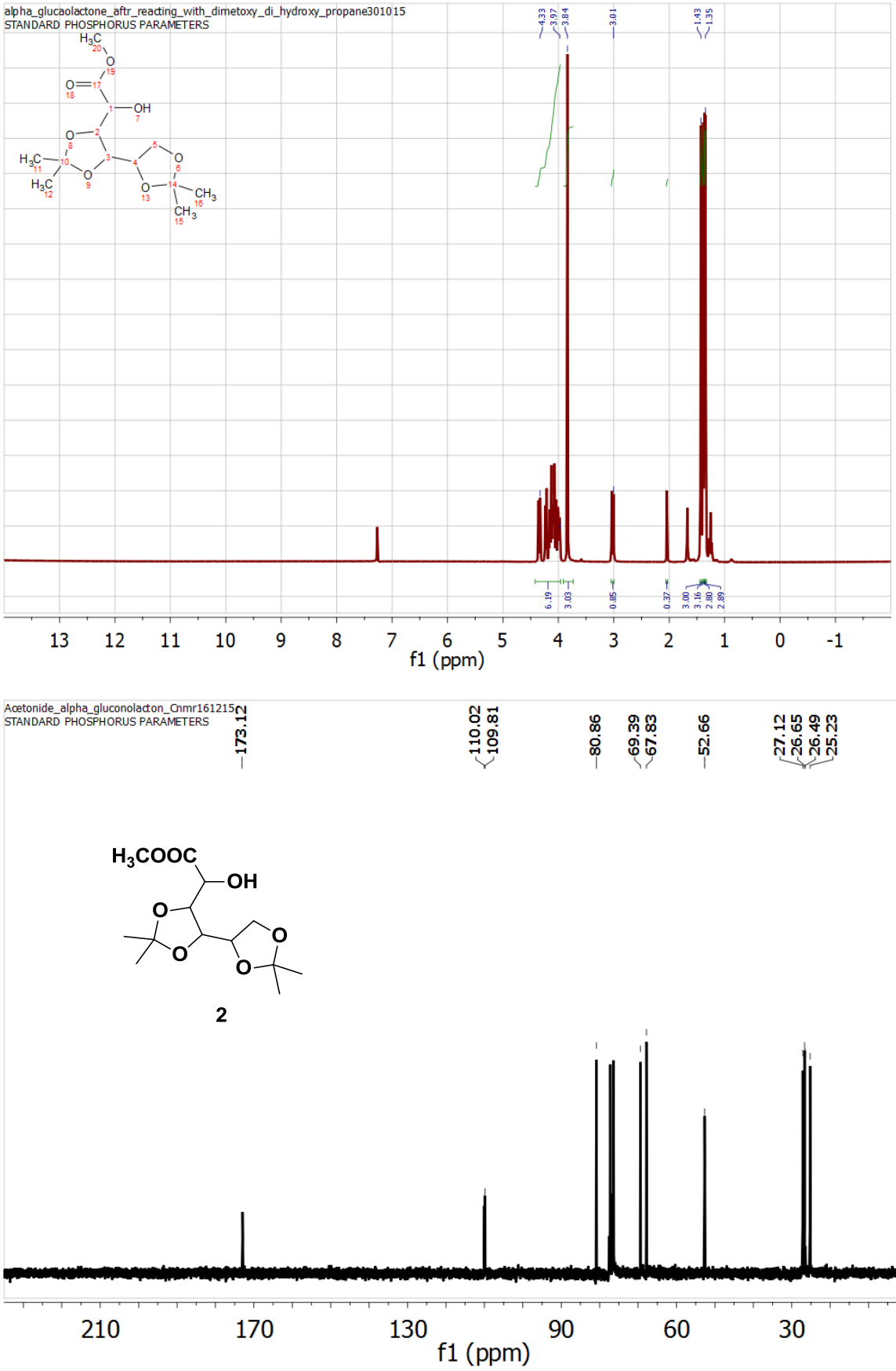


Figure 2. Top ^{1}H NMR and bottom ^{13} C NMR for methyl 3,4;5,6-di-O-isopropylidene-D-gluconate (**2**).

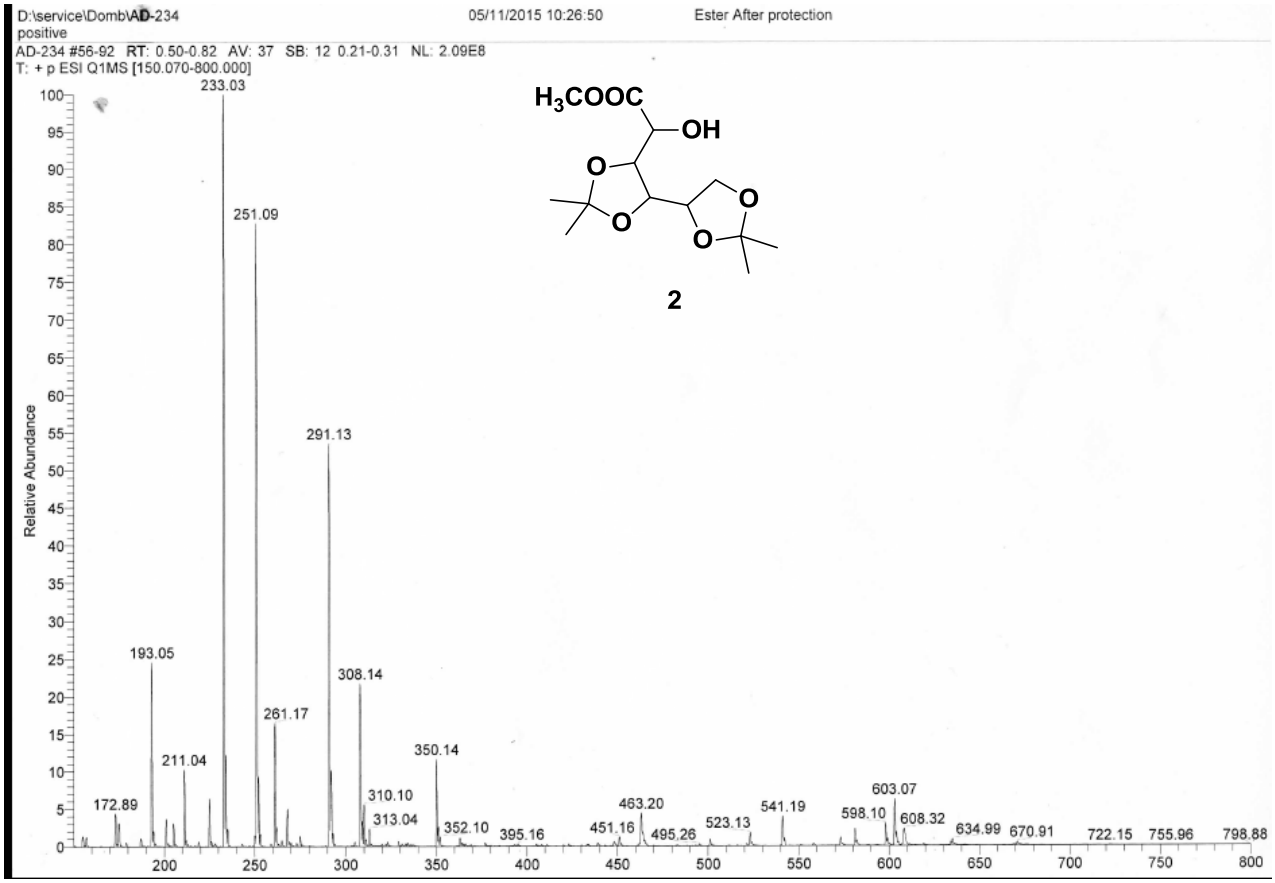


Figure 3. ESI MS (positive ionization mode) for methyl 3,4;5,6-di-O-isopropylidene-D-gluconate (**2**)

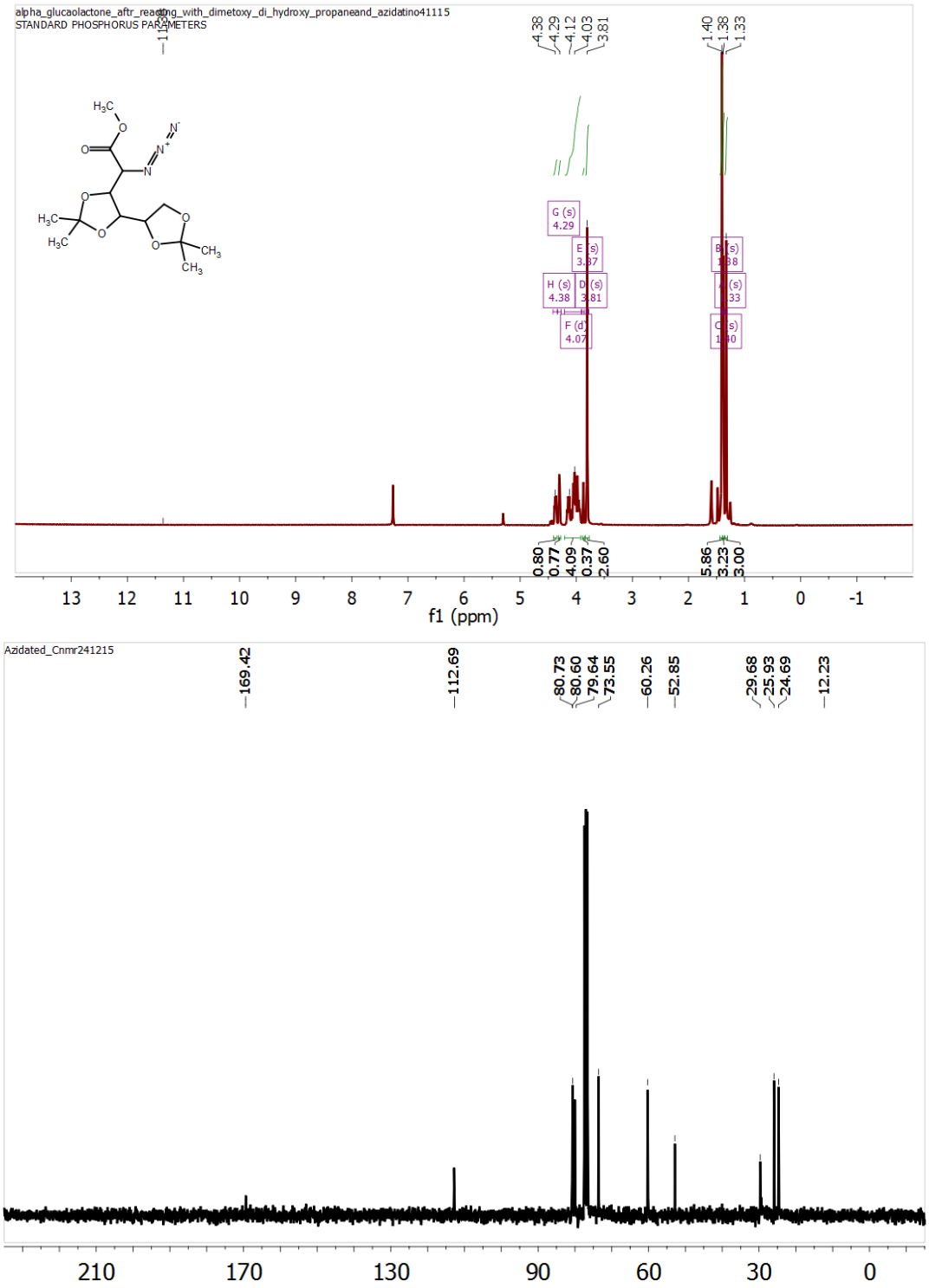


Figure 4. Top ^{1}H NMR and bottom ^{13}C NMR for methyl 3,4;5,6-di-O-isopropylidene-2-azido-2-deoxy-D-mannate **(3)**.

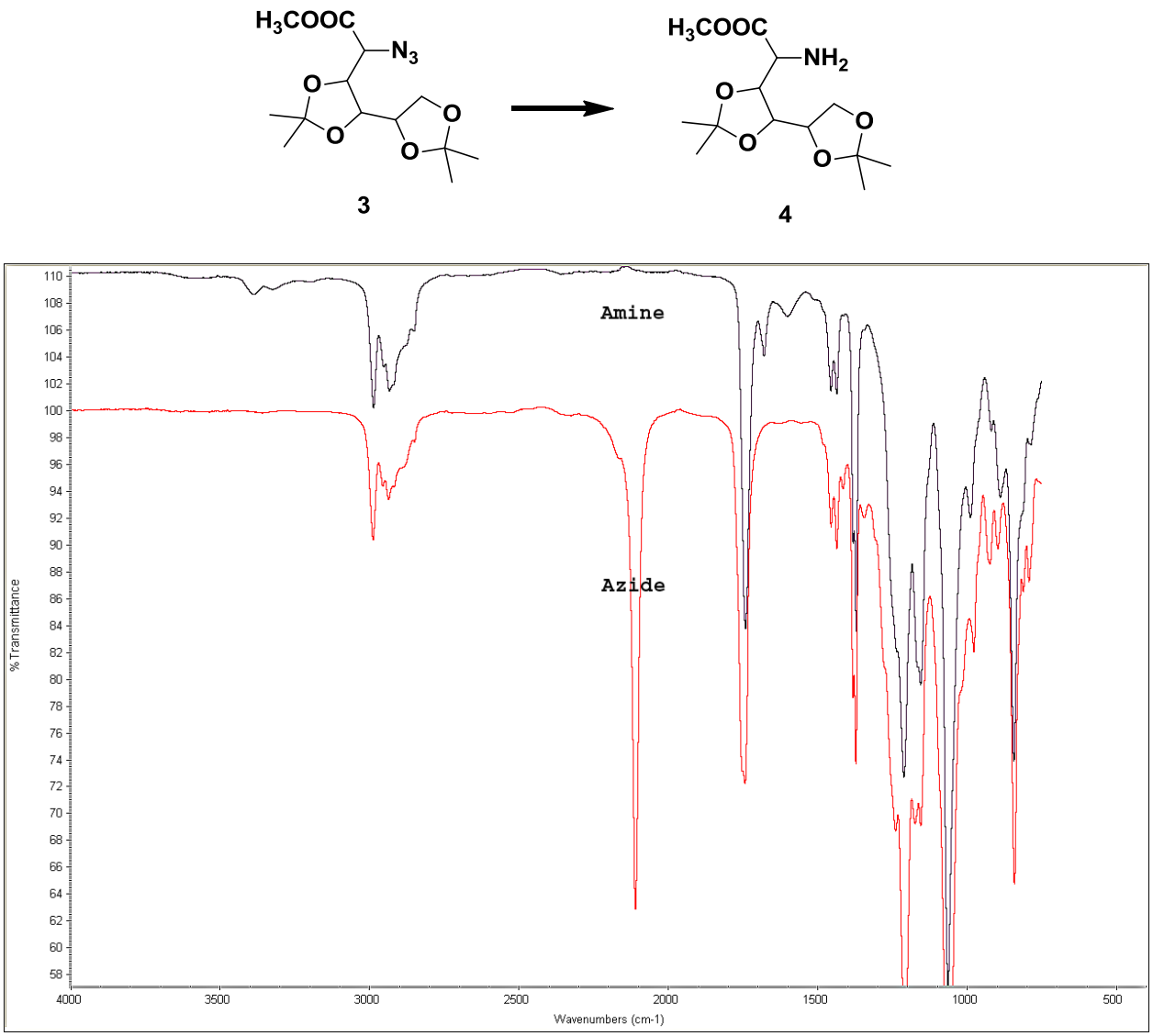


Figure 5. Overlay of FTIR spectra revealing the conversion of Azide (compound **3**, 2100 cm^{-1} correspond to azide) to amine (compound **4**).

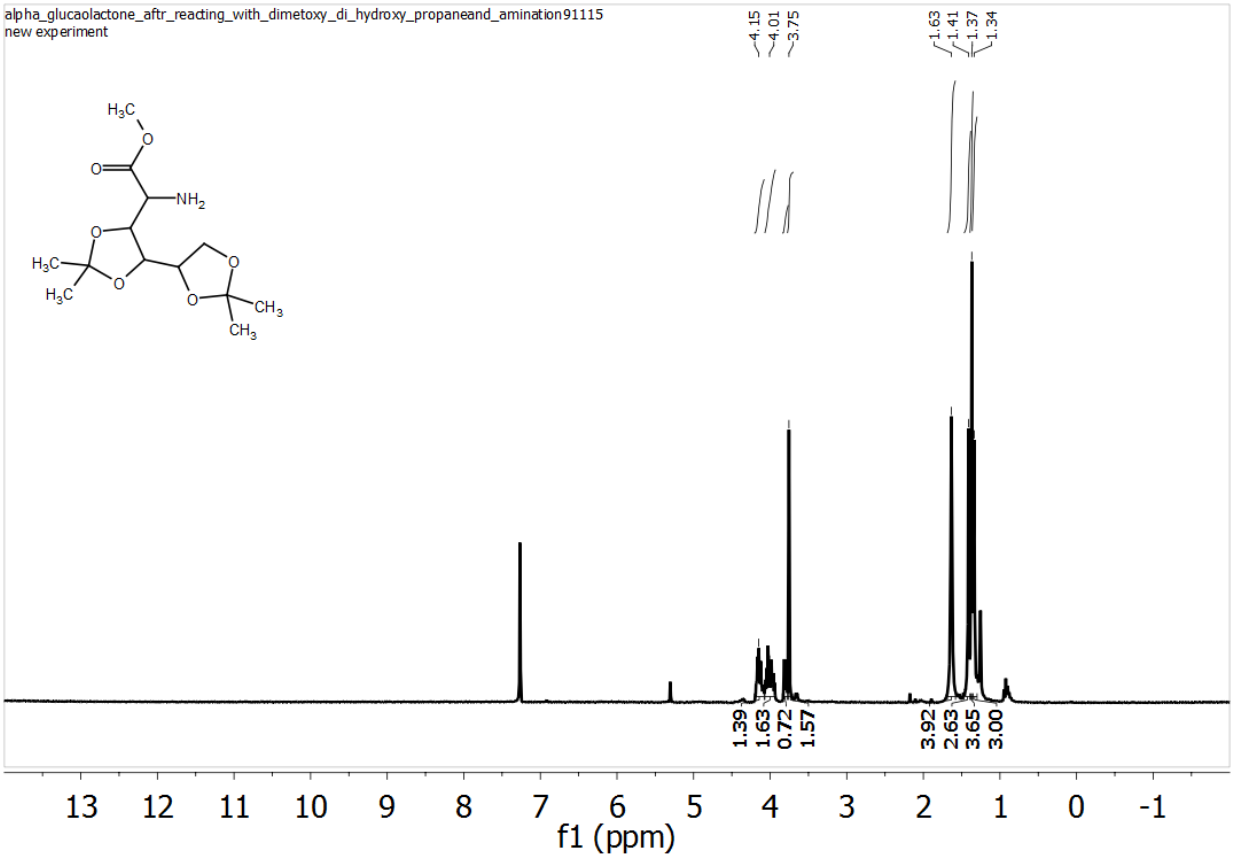
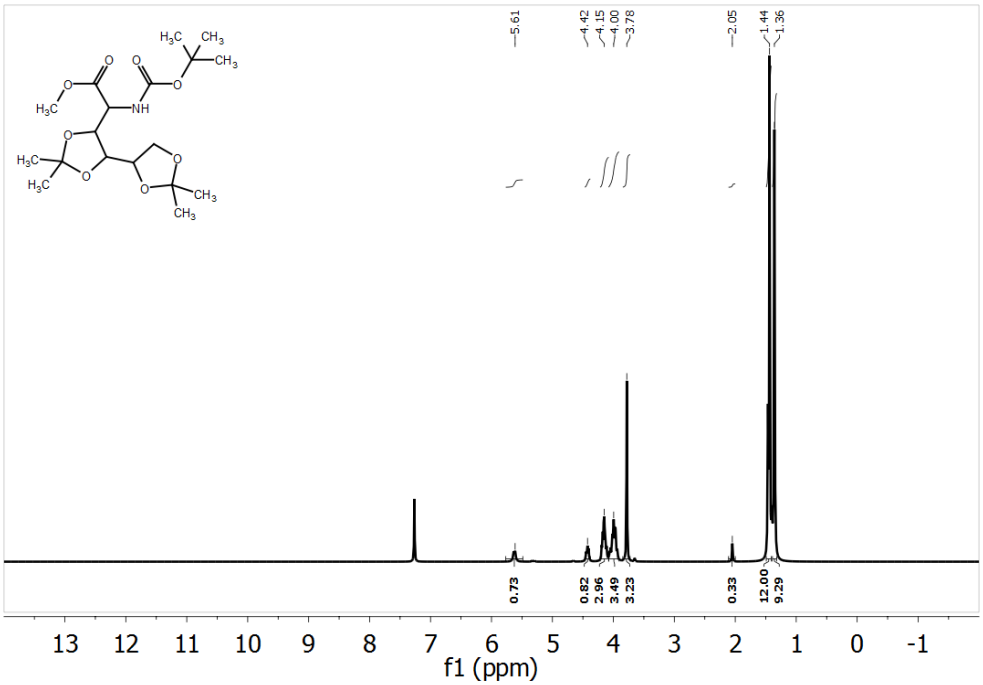


Figure 6. ^{1}H NMR spectra of methyl 3,4;5,6-di-O-isopropylidene-2-amino-2-deoxy-D-mannate **(4).**



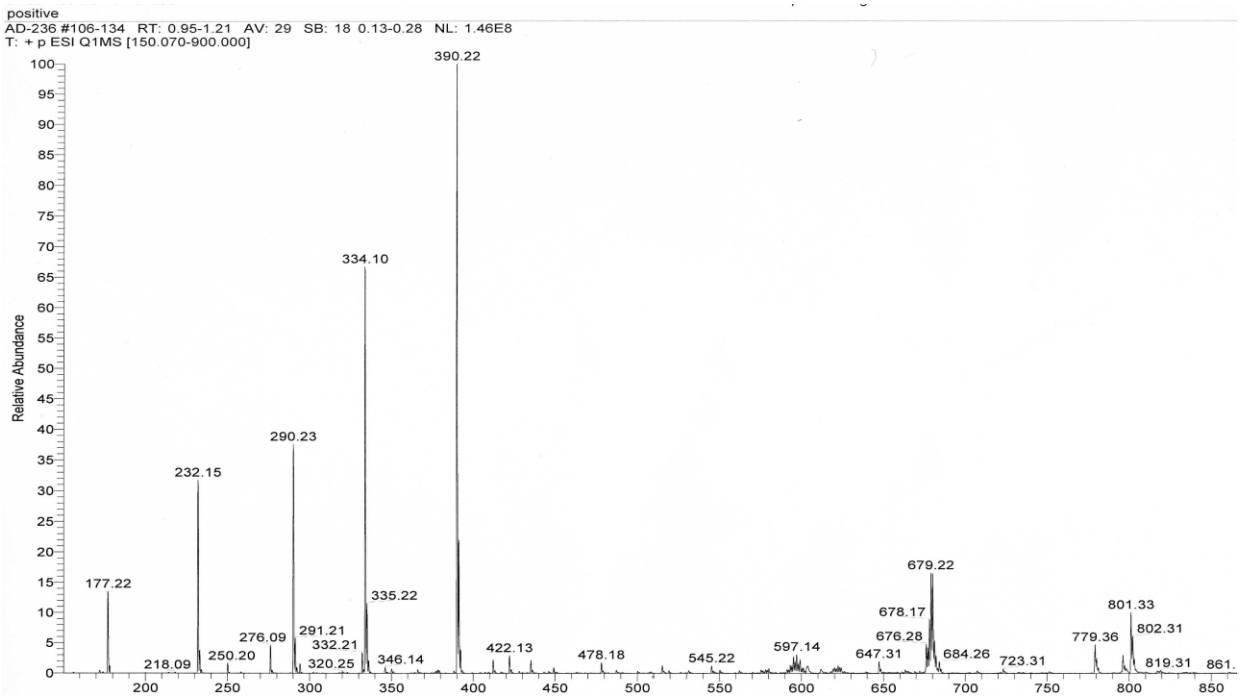
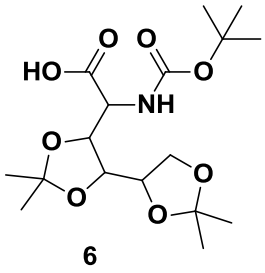


Figure 7. Top [1]H NMR and bottom ESI MS (positive ionization mode) for methyl 3,4;5,6-di-O-isopropylidene-2-(Boc-amino)-2-deoxy-D-mannate**(5).**



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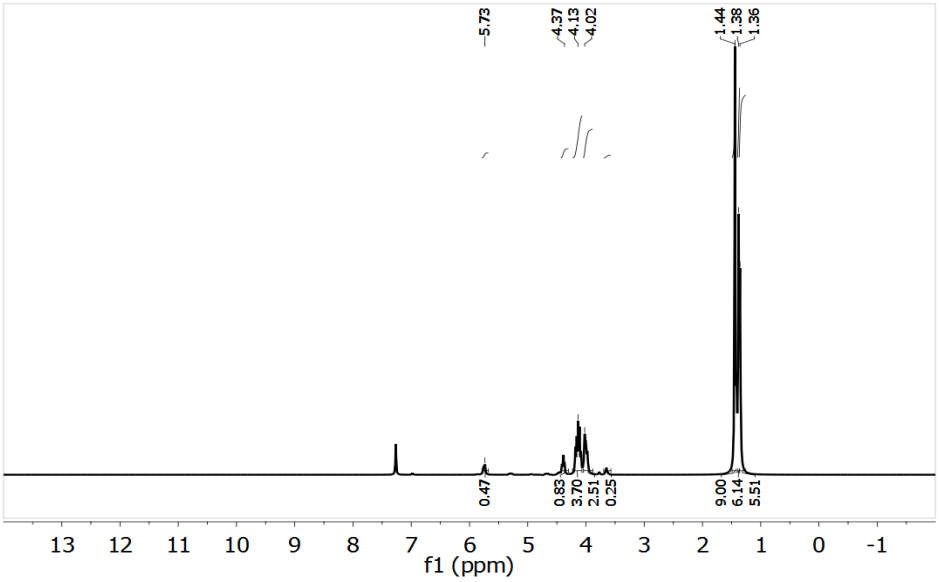


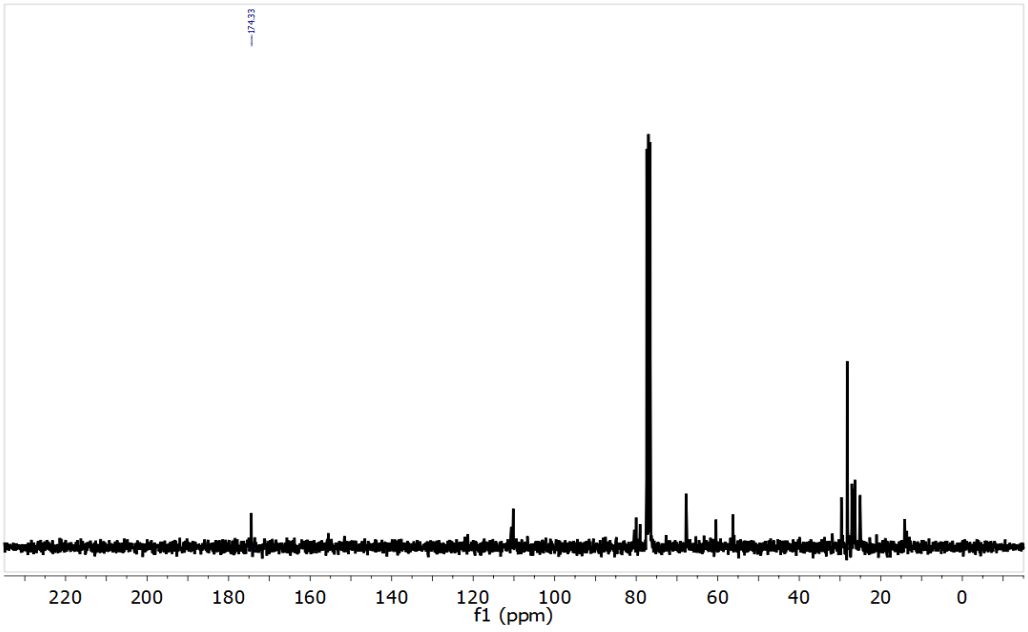


Figure 8. Top [1]H NMR and bottom [13] C NMR for methyl 3,4;5,6-di-O-isopropylidene-2-azido-2-deoxy-D-mannate **(3)**.

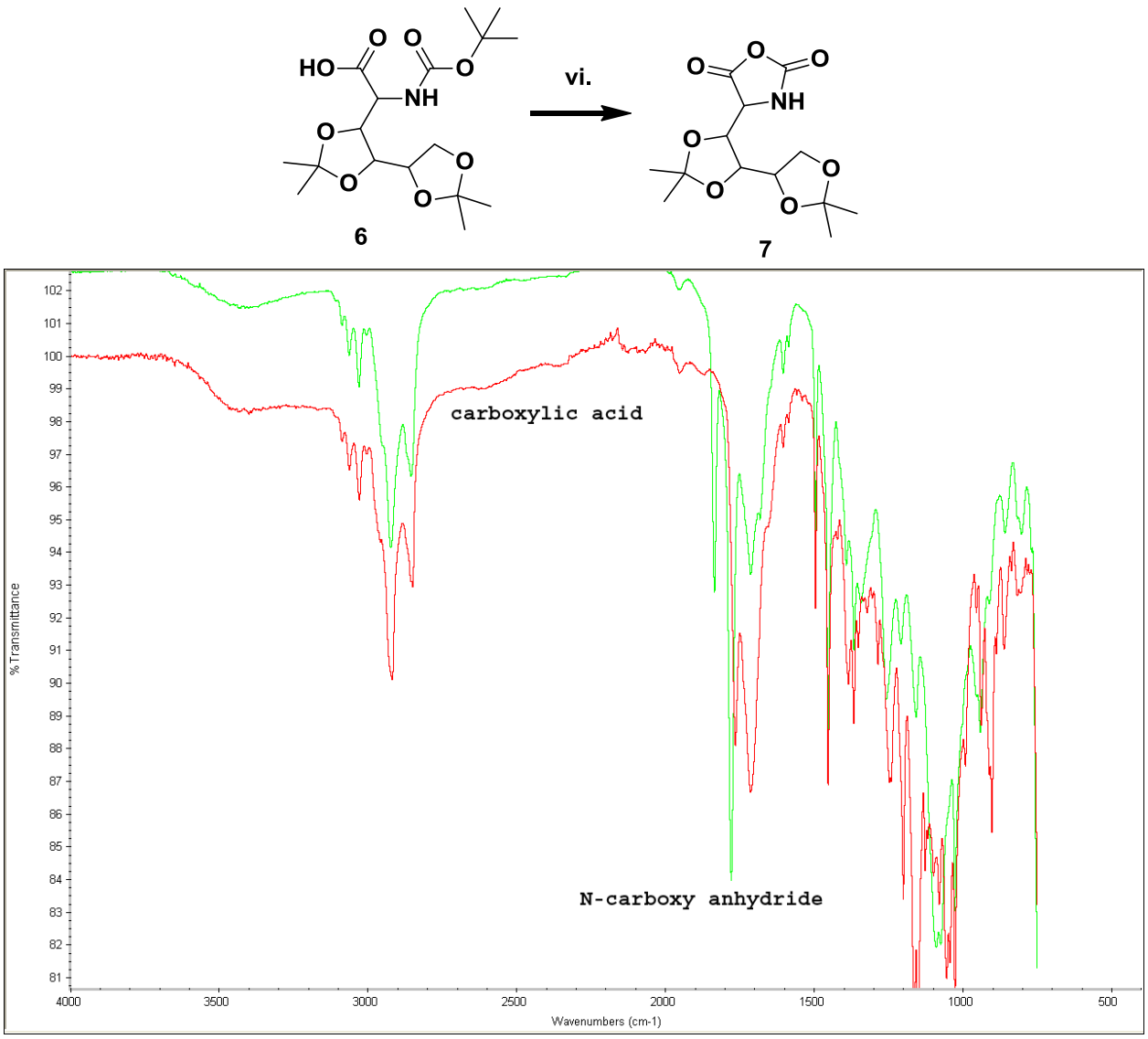


Figure 9. Overlay of FTIR spectra revealing the conversion to N-carboxyanhydride -compound **6** to compound **7** (1790 and 1820 cm^{-1}, correspond to -C=O, oxazolidine-2,5-dione).

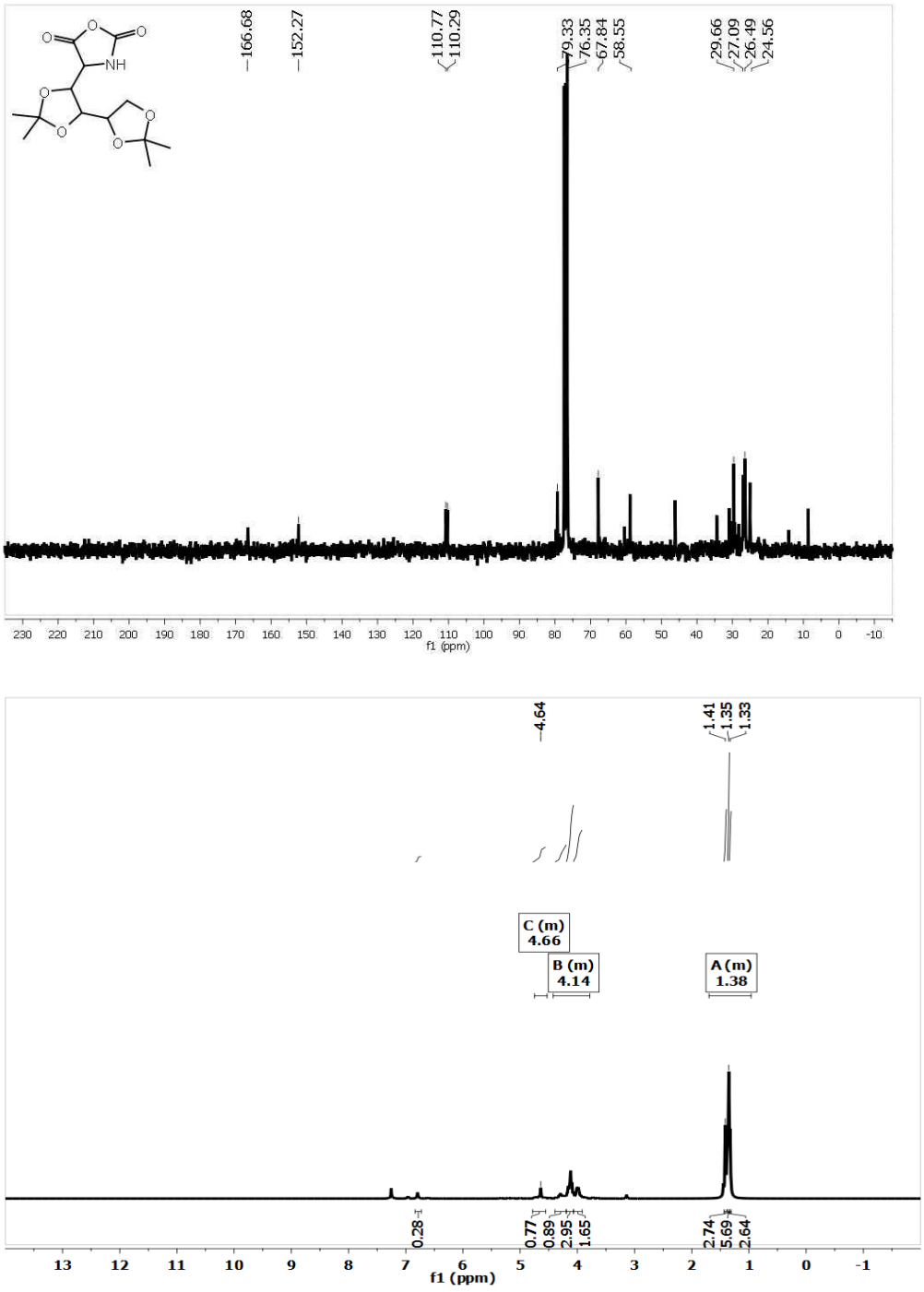
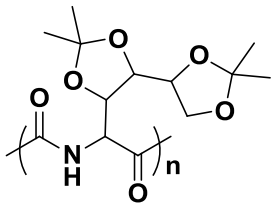


Figure 10. Top ^{13} C NMR and bottom ^{1}H NMR for 4-(2,2,6,6-tetramethyltetrahydro-[1,3]dioxino[5,4-d][1,3]dioxin-4-yl)oxazolidine-2,5-dione **(7)**.



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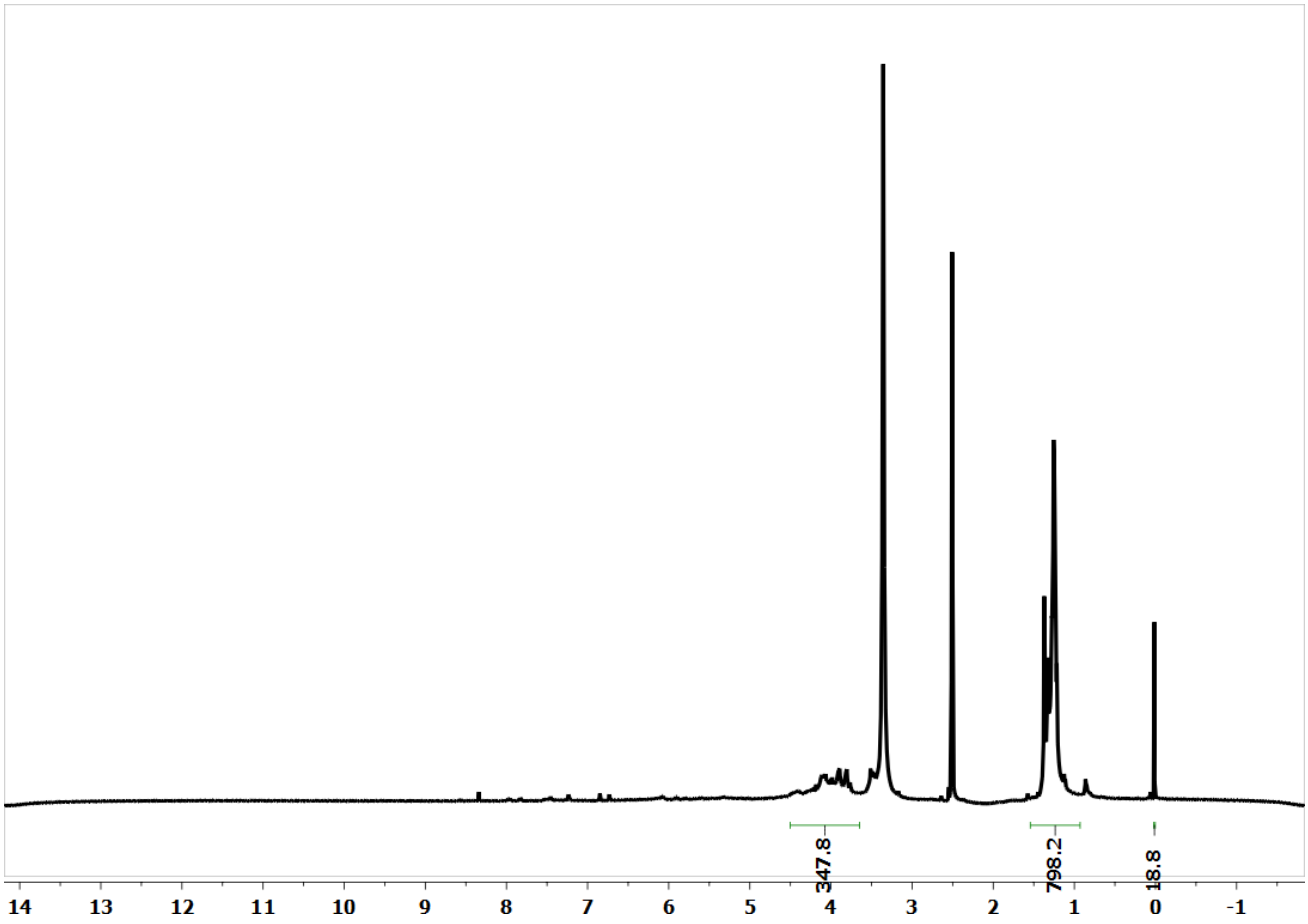


Figure 11. ^{1}H NMR of the acetonide protected polymer compound **(8).**

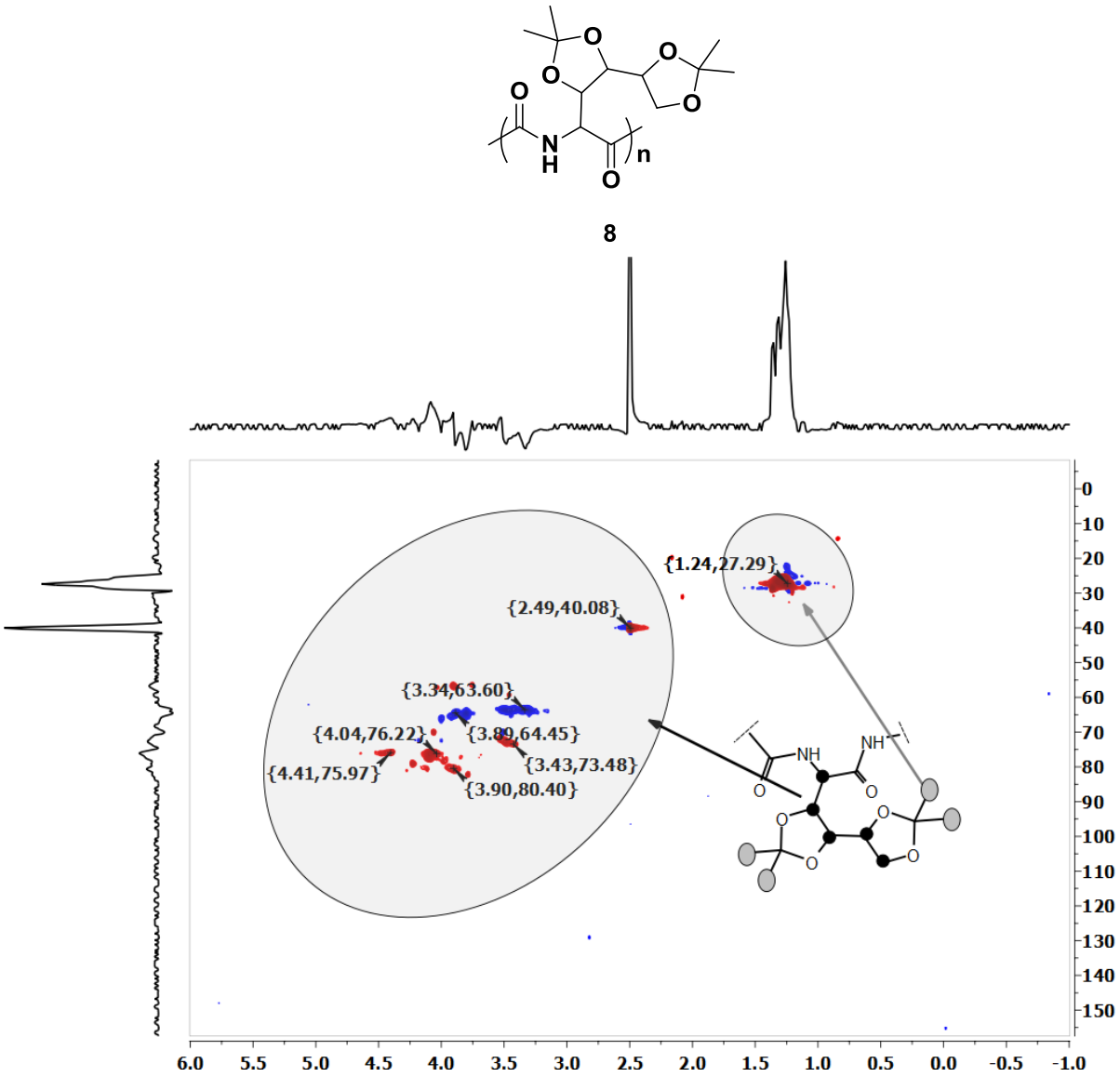
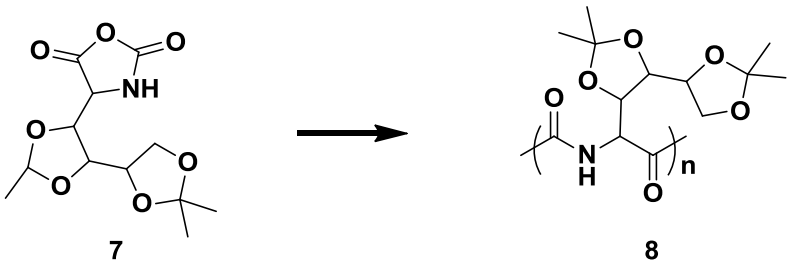


Figure 12. HSQC NMR spectrum of the acetonide protected polymer compound **(8)**



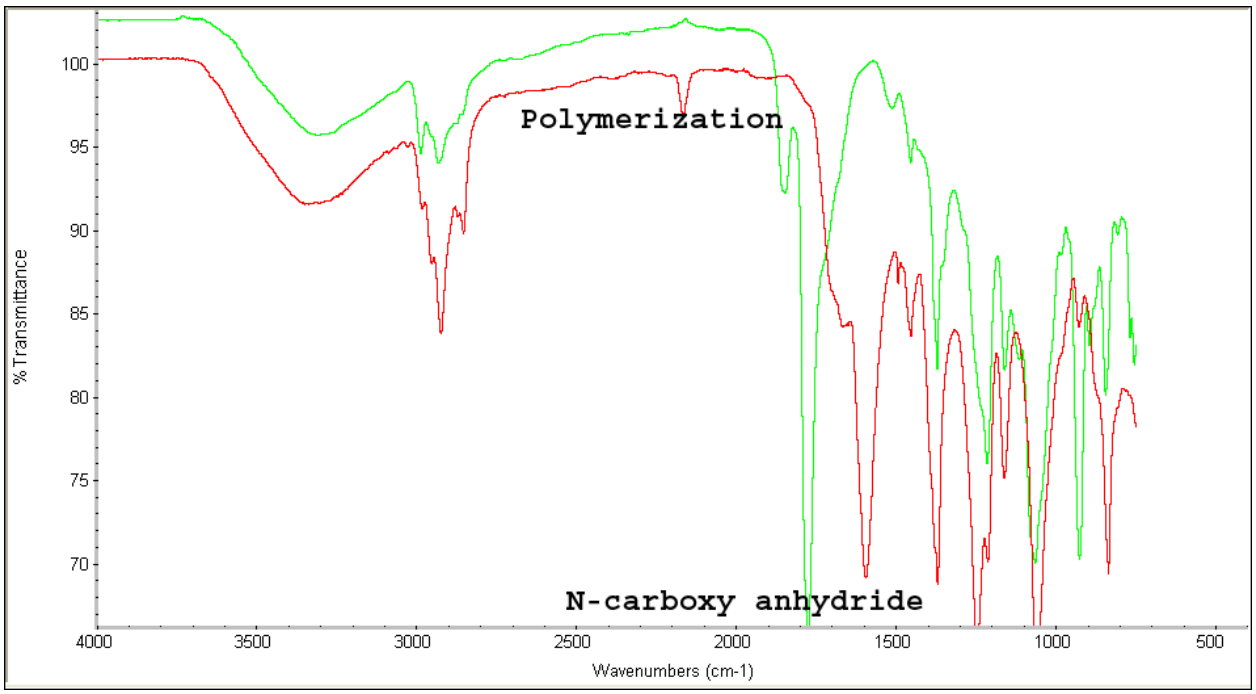
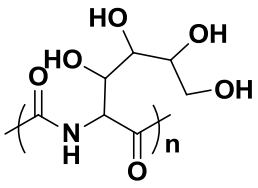


Figure 13. Overlay of FTIR spectra revealing the conversion of N-carboxyanhydride -compound 7 to the acetonide protected polymer compound **8** (1600, 1620 cm^{-1} (-CONH-, polyamide).



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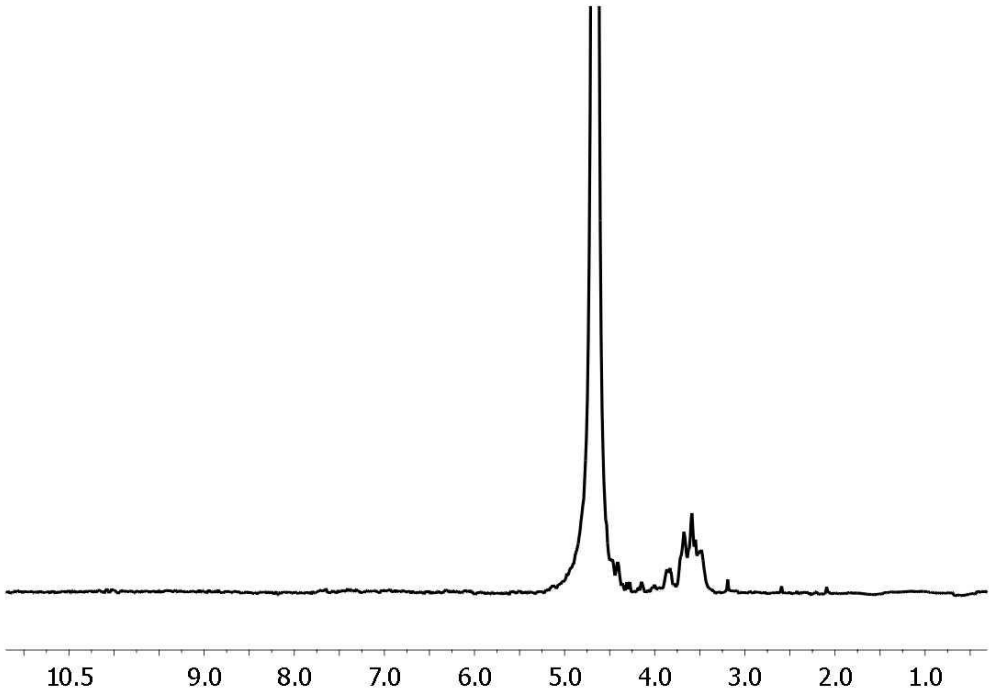

Figure 14. 1H NMR of the de-protected polymer compound (9).

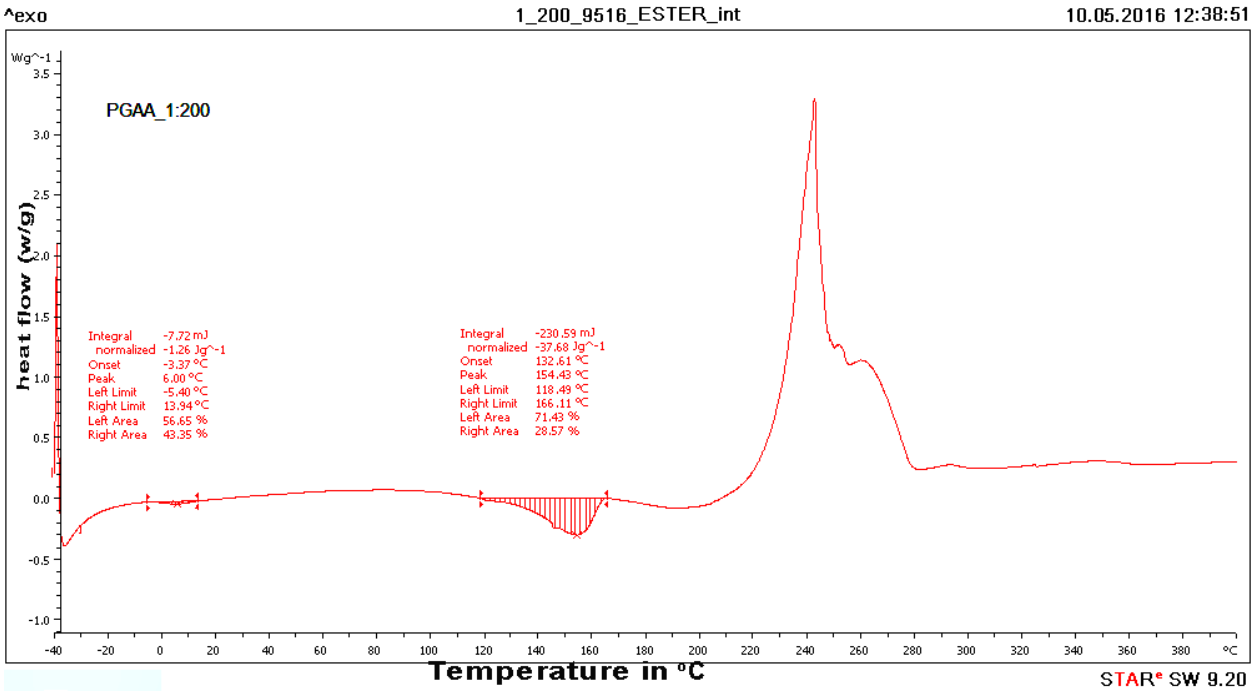

Figure 15. Representative DSC thermograph of poly glucosaminic acid.