

Supporting information

The Anionic Polymerization of a *tert*-Butyl Carboxylate Activated Aziridine

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NMR spectra.....	S2
GPC traces.....	S6
MALDI-TOF MS.....	S10

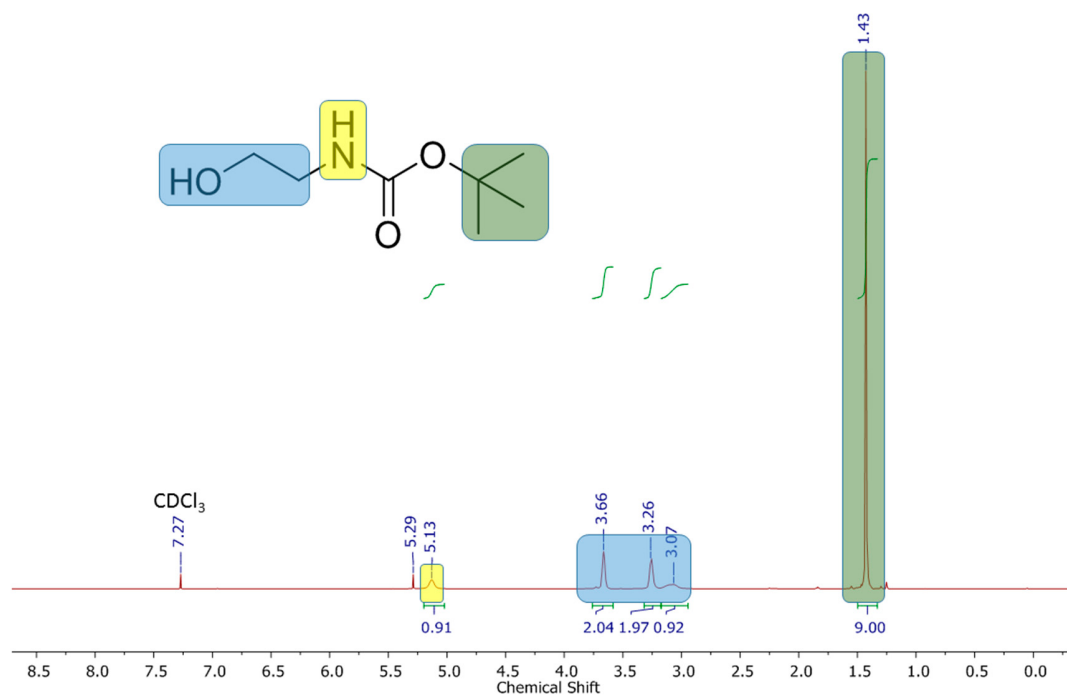


Figure S1. ¹H NMR spectrum (CDCl₃) of *tert*-butyl (2-hydroxyethyl)carbamate.

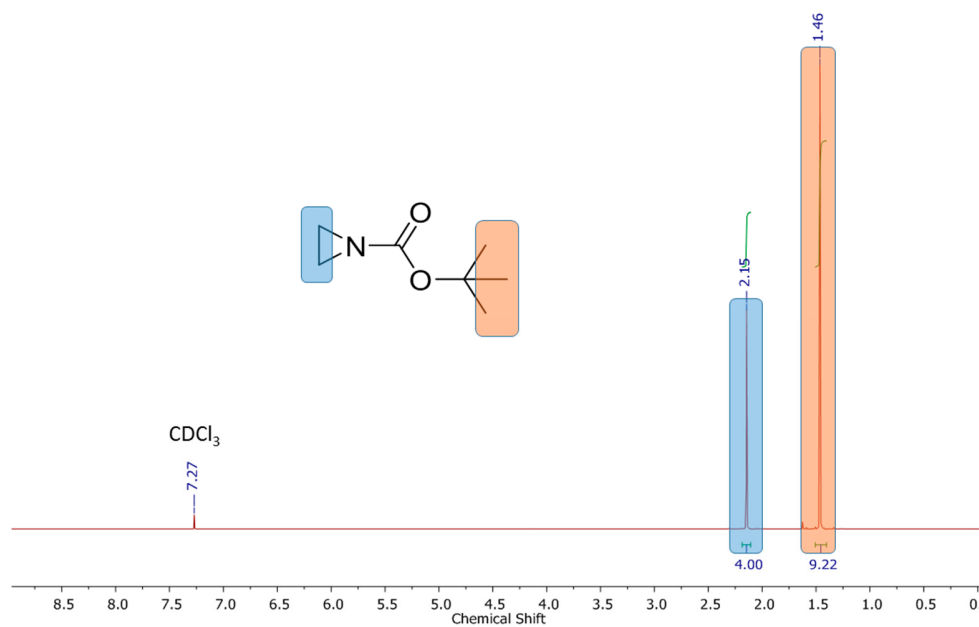


Figure S2. ¹H NMR spectrum (CDCl₃) of **BocAz**.

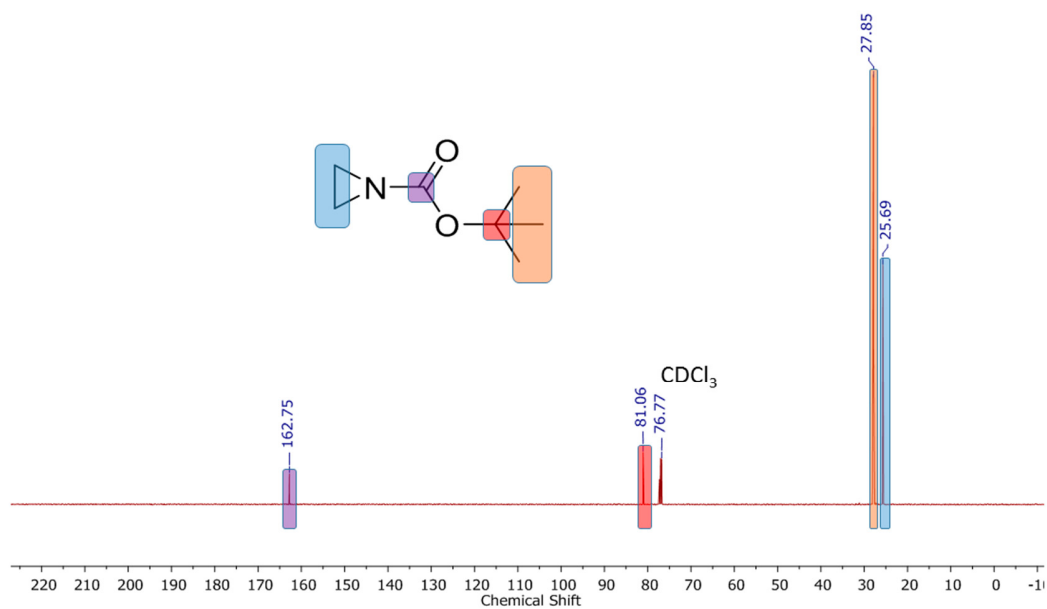


Figure S3. ^{13}C NMR (CDCl_3) spectrum of **BocAz**.

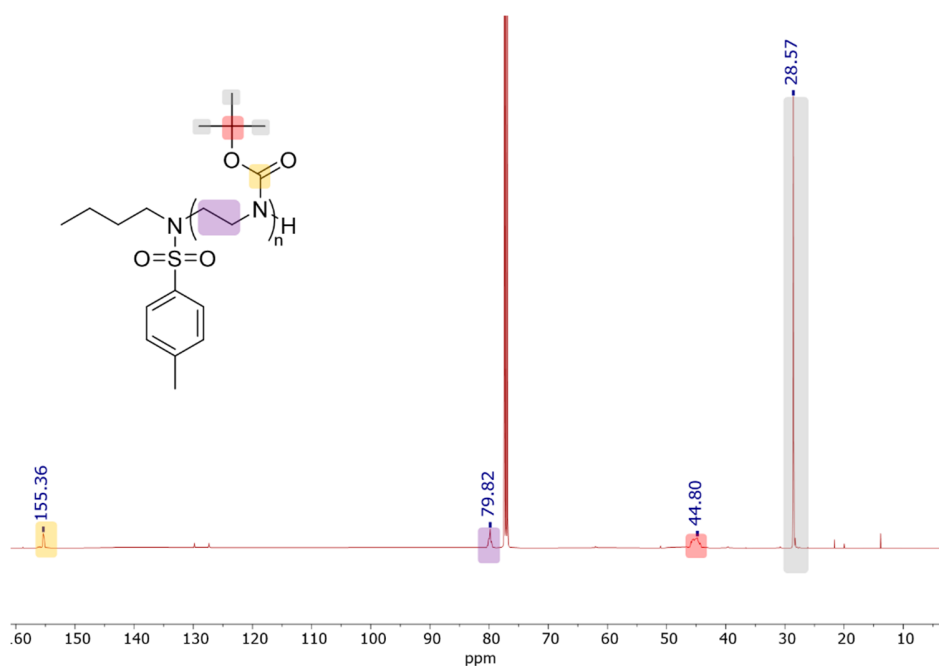


Figure S4. ^{13}C NMR spectrum (CDCl_3) of poly(BocAz). The unlabeled, low intensity, sharp signals between 10 and 25 ppm as well as those near 130 ppm are believed to arise from the initiator.

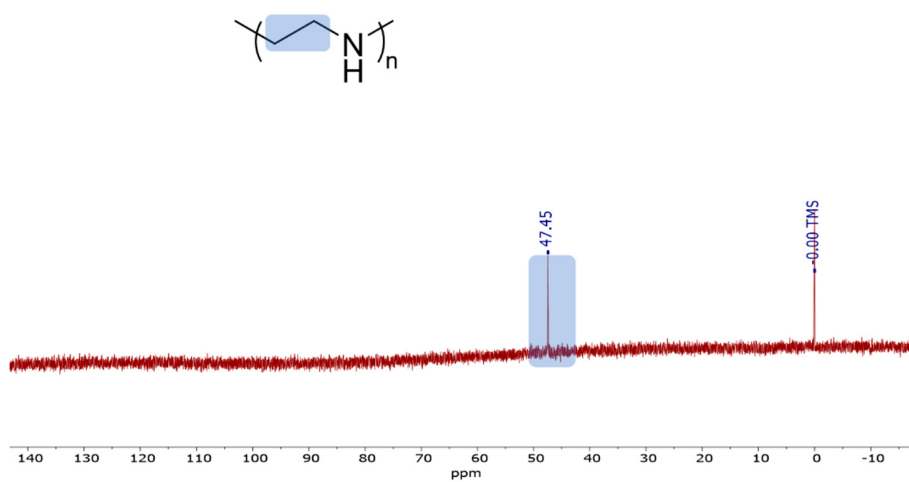


Figure S5. ^{13}C NMR (D_2O) spectrum of linear PEI from the deprotection of poly(BOCAz).

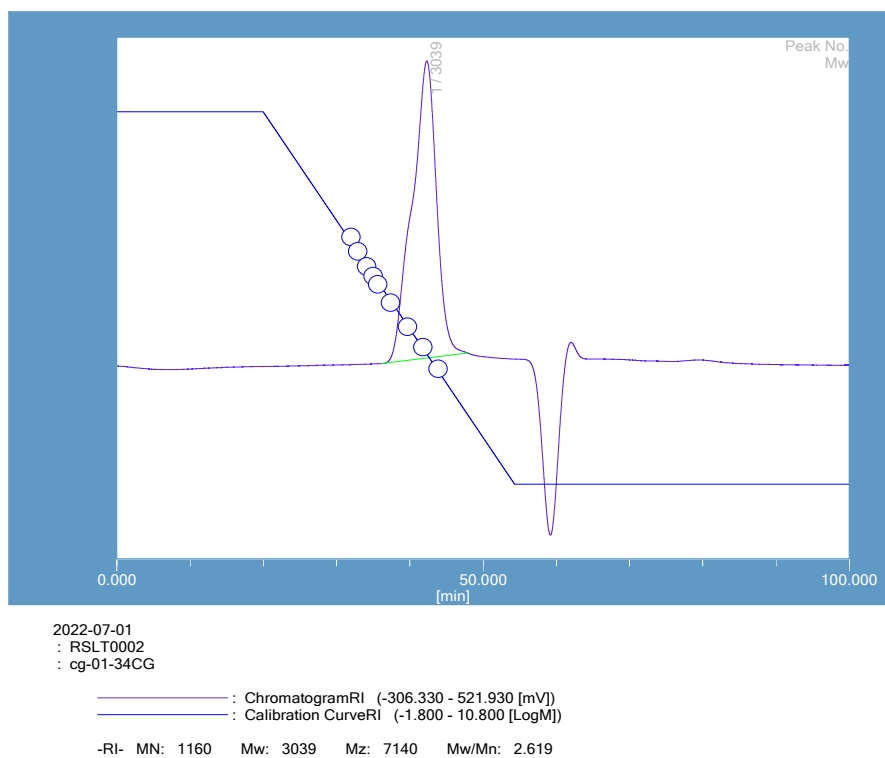


Figure S6. GPC trace (RI detection, HFIP and 3.0 mg/mL CF_3COOK mobile phase) of poly(BocAz) synthesized from a polymerization performed with a **BocAz**:BuN(K)Ts ratio of 20:1.

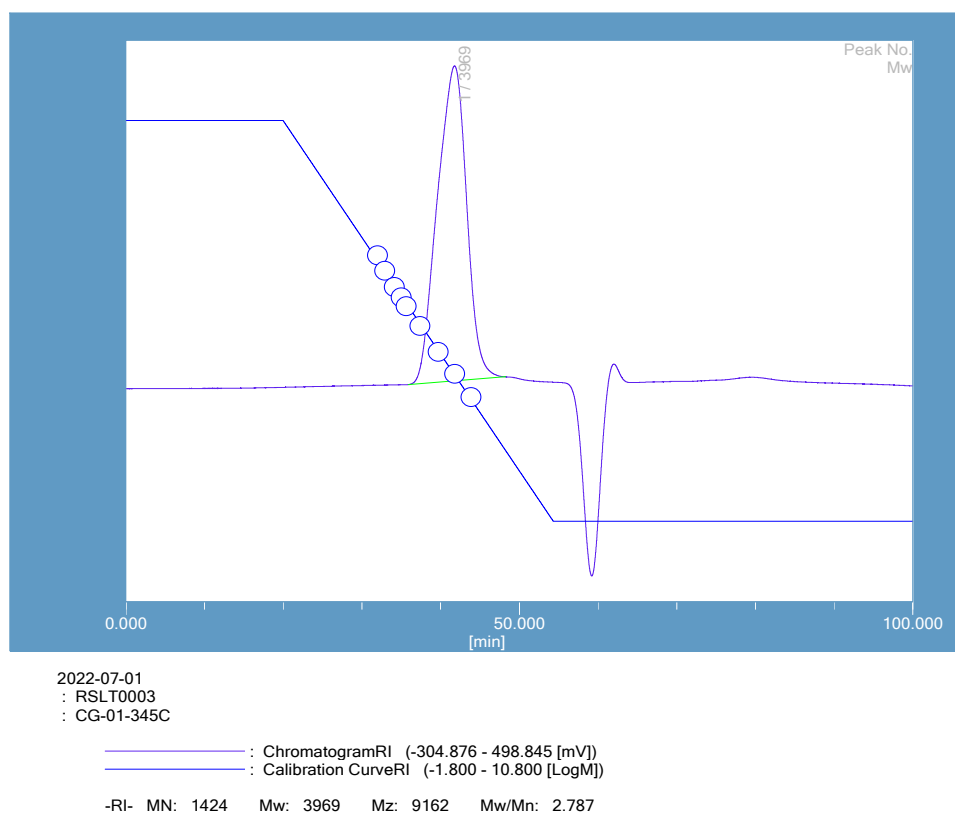


Figure S7. GPC trace (RI detection, HFIP and 3.0 mg/mL CF₃COOK mobile phase) of poly(BocAz) synthesized from a polymerization performed with a **BocAz**:BuN(K)Ts ratio of 40:1.

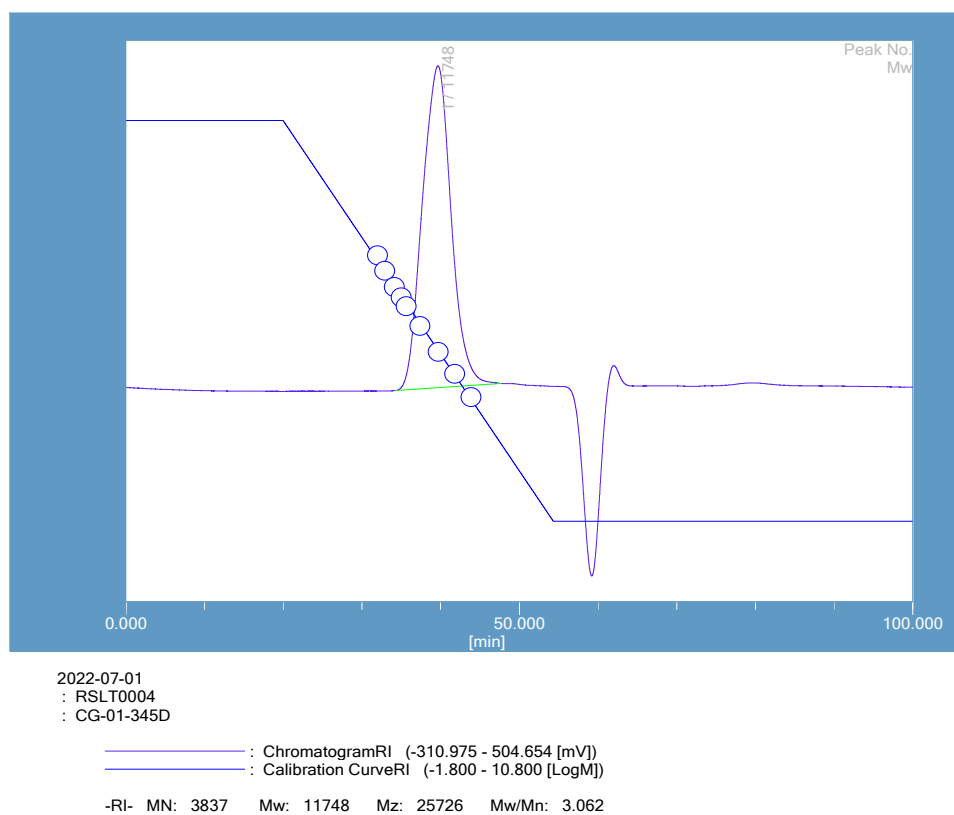


Figure S8. GPC trace (RI detection, HFIP and 3.0 mg/mL CF₃COOK mobile phase) of poly(BocAz) synthesized from a polymerization performed with a **BocAz**:BuN(K)Ts ratio of 80:1.

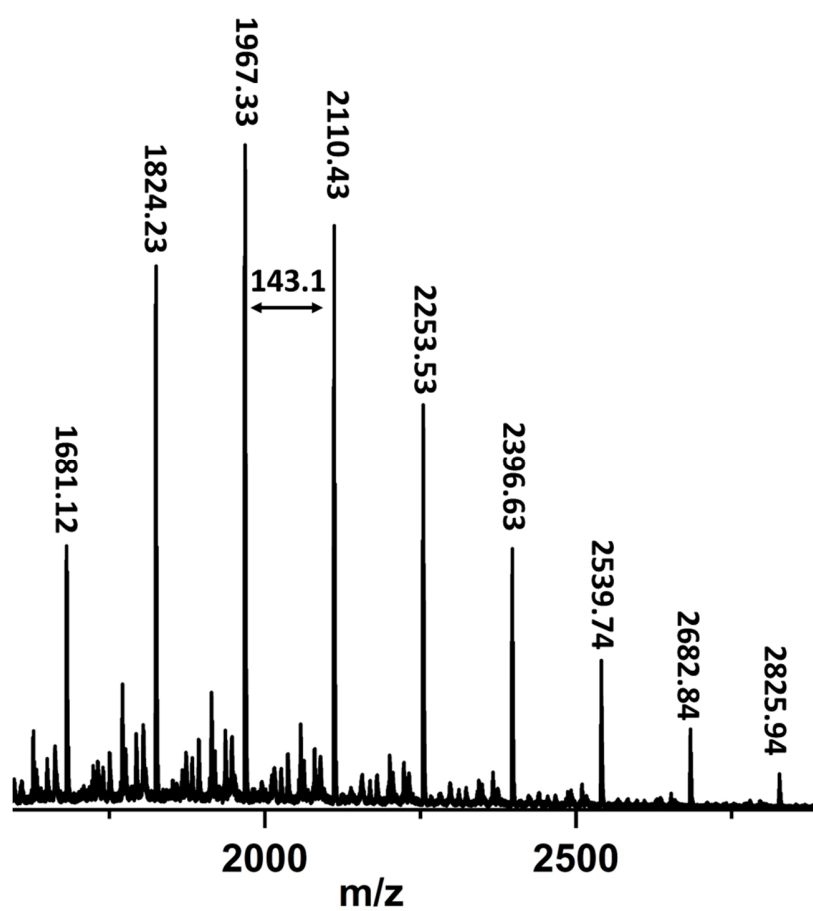


Figure S9. MALDI-ToF MS of the poly(BocAz). The signal at 2110 m/z matches a polymer chain with this formula $(C_{11}H_{16}NSO_2)(C_7H_{13}NO_2)_{13}H+Na^+$.

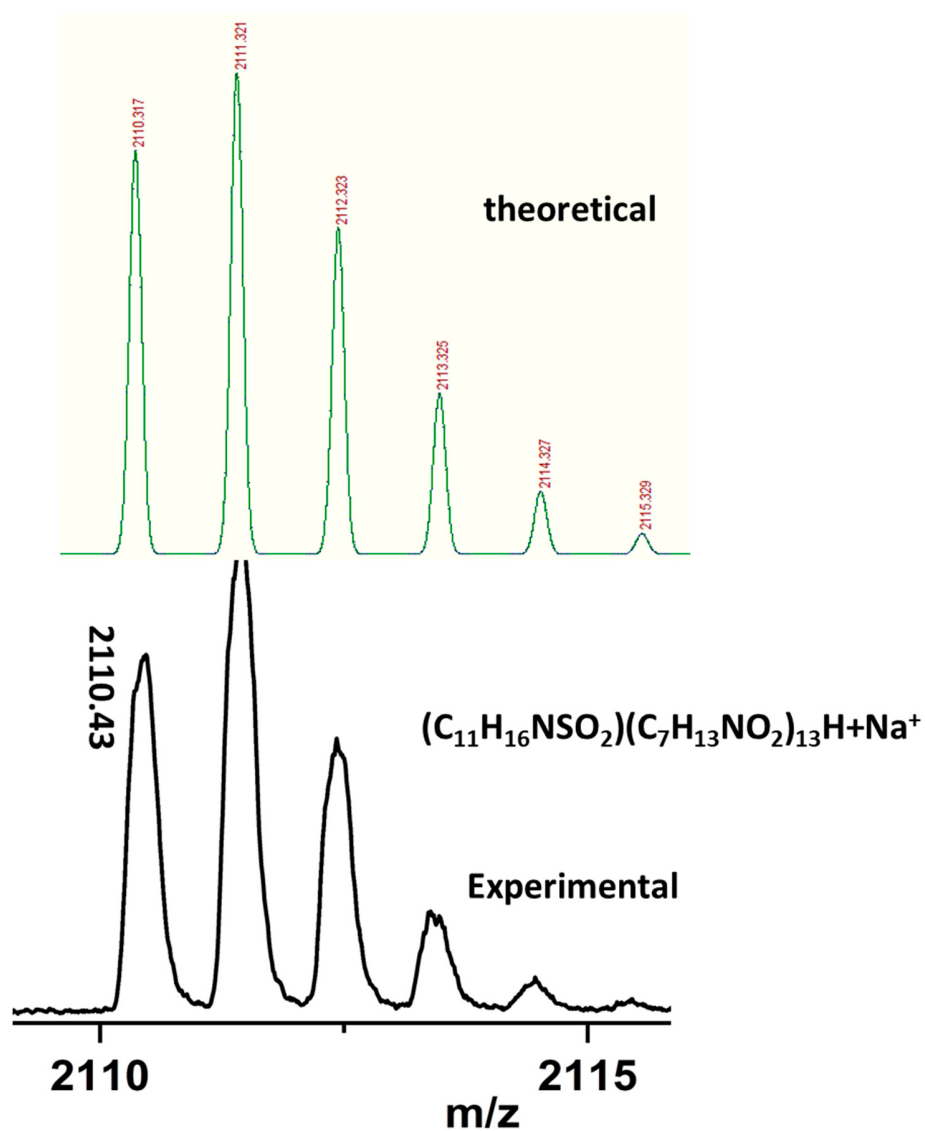


Figure S10. Comparison of the isotopic pattern from a MALDI-ToF MS of the poly(BocAz) (bottom) to theoretical(top). The signal at 2210 m/z matched a polymer chain with this formula: $(C_{11}H_{16}NSO_2)(C_7H_{13}NO_2)_{13}H+Na^+$.