Electronic Supplementary Information

New homopolymers and copolymers based on 5–succinyl cyclooctene and mono-substituted ethylene glycols

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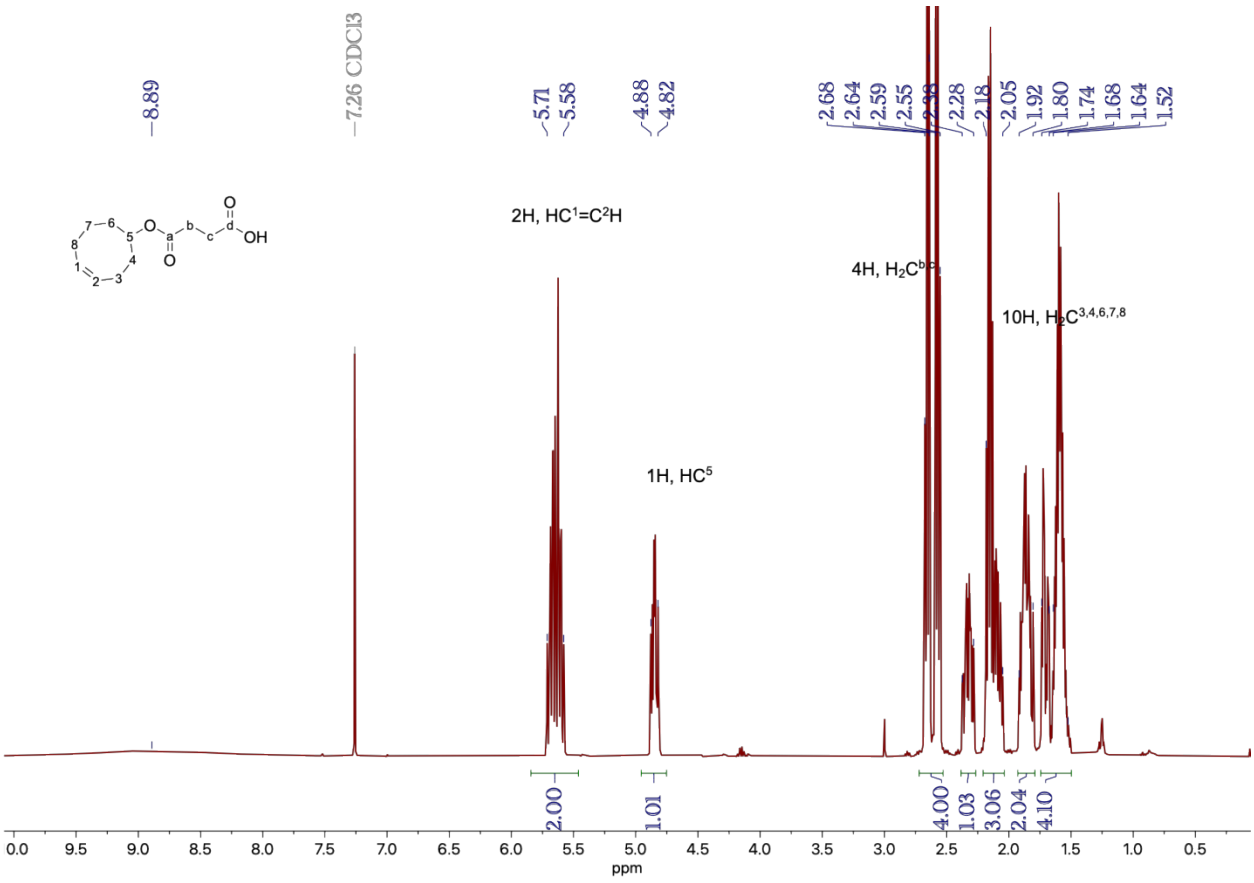


Figure S1 1H NMR spectrum of (Z)-4-(cyclooct-4-en-1-yloxy)-4-oxobutanoic acid (sCO)

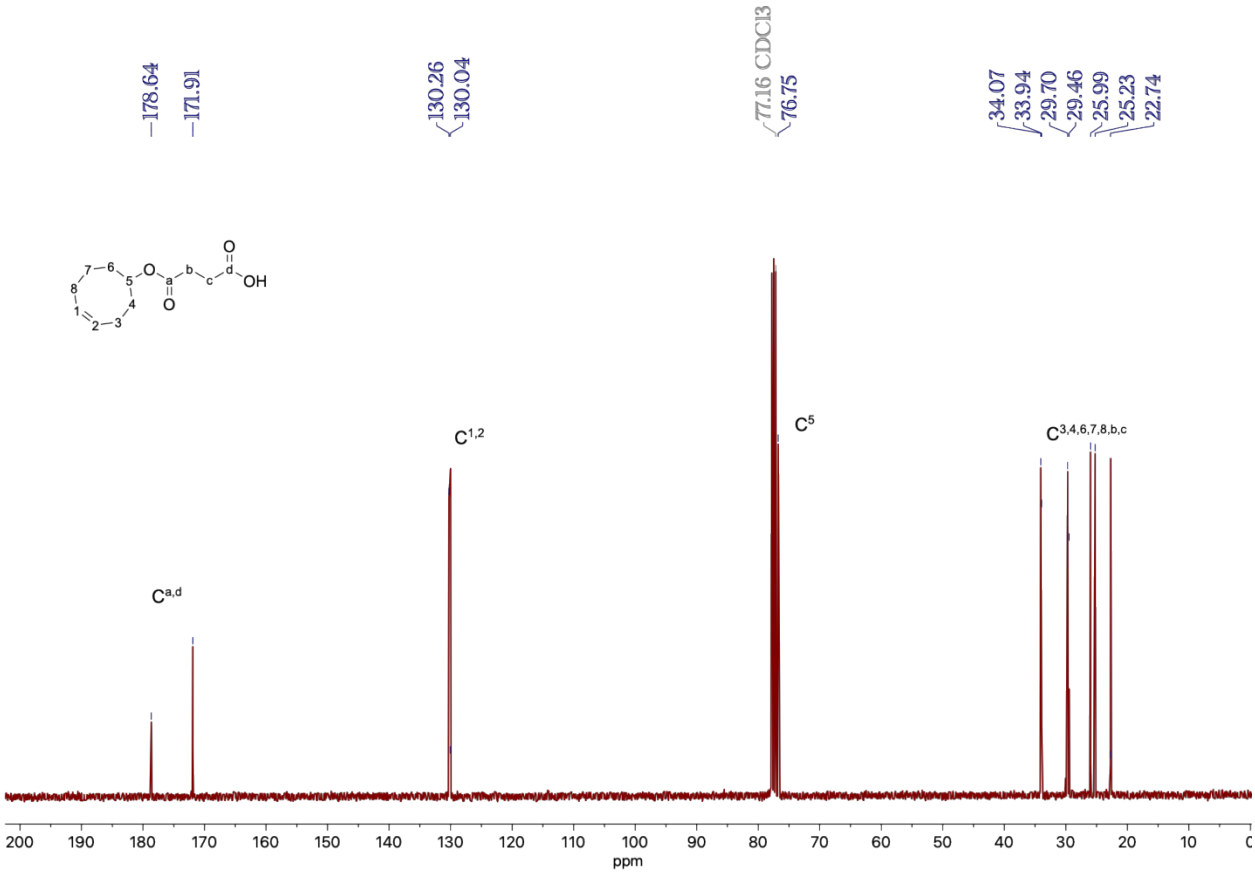


Figure S2 ^{13}C NMR spectrum of (Z)-4-(cyclooct-4-en-1-yloxy)-4-oxobutanoic acid (sCO)

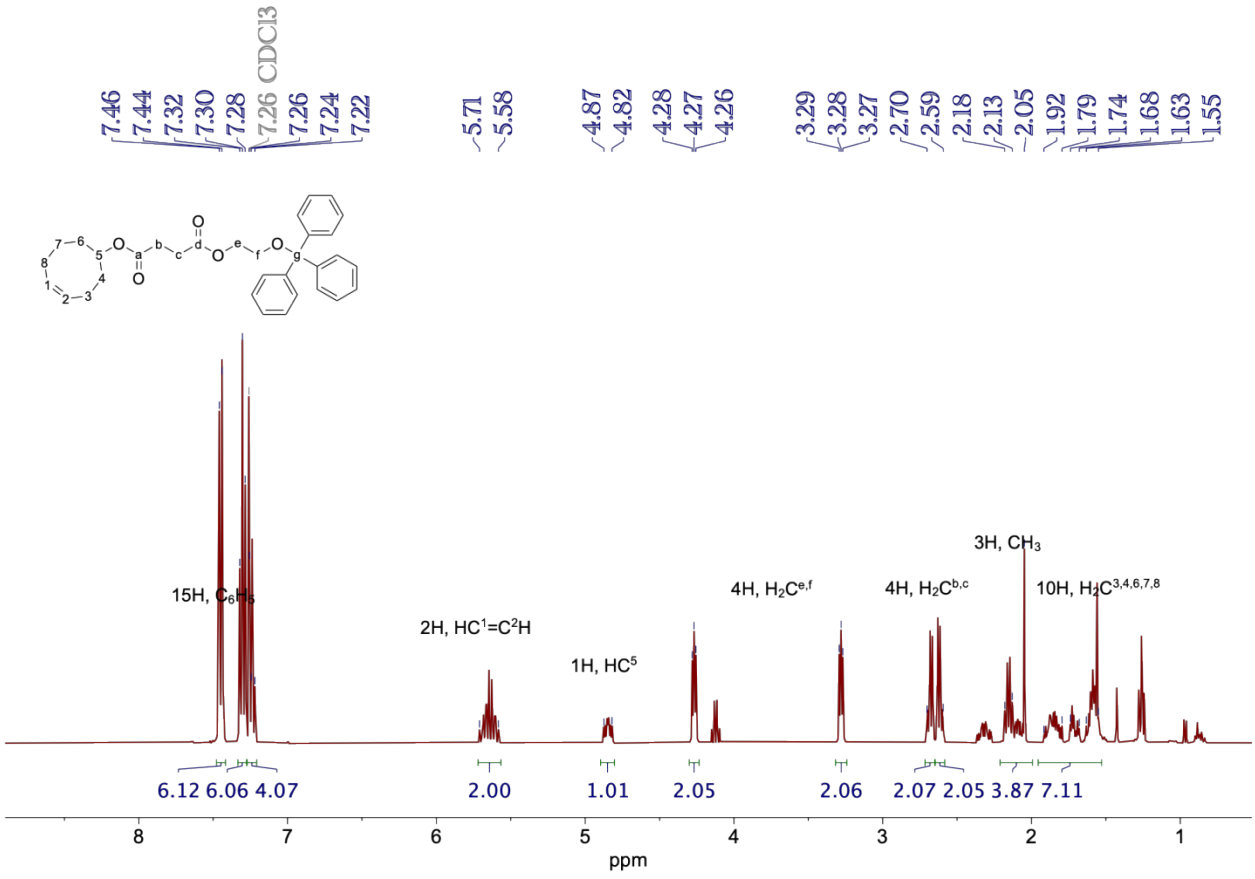


Figure S3 ^{1}H NMR spectrum of (Z)-cyclooct-4-en-1-yl (2-(trityloxy)ethyl) succinate (CO1)

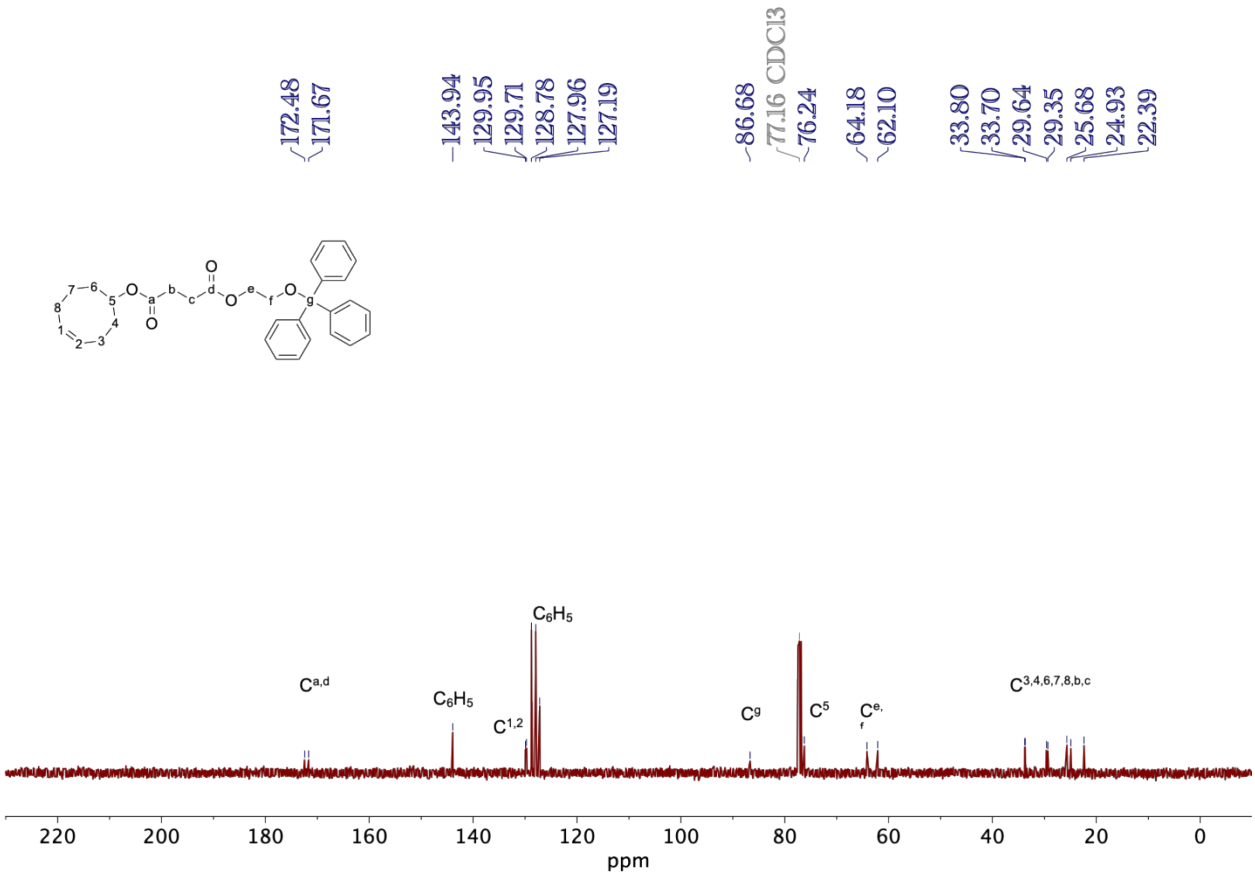


Figure S4 ^{13}C NMR spectrum of (Z)-cyclooct-4-en-1-yl (2-(trityloxy)ethyl) succinate (CO1)

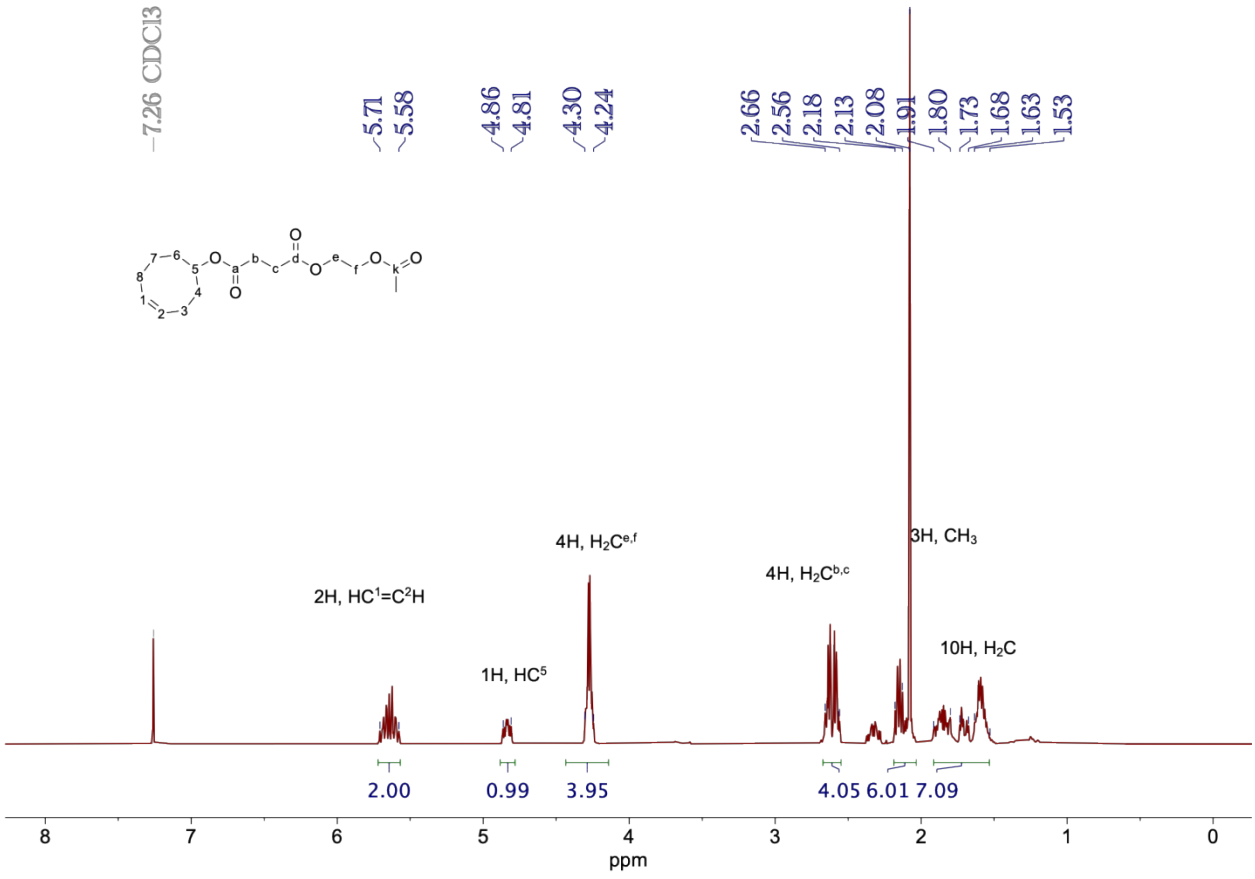


Figure S5 ^{1}H NMR spectrum of (*Z*)-2-acetoxyethyl cyclooct-4-en-1-yl succinate (CO2)

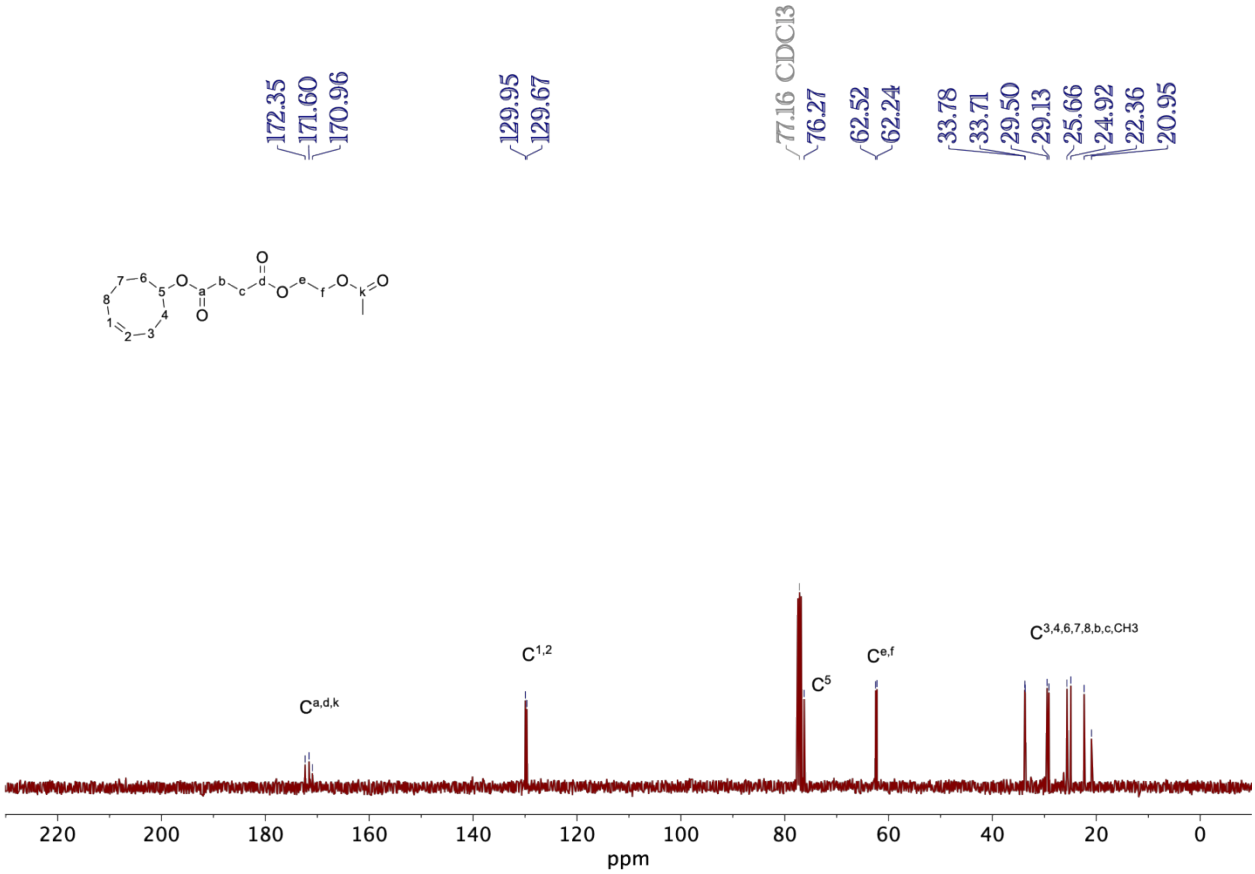


Figure S6 ^{13}C NMR spectrum of (*Z*)-2-acetoxyethyl cyclooct-4-en-1-yl succinate (CO2)

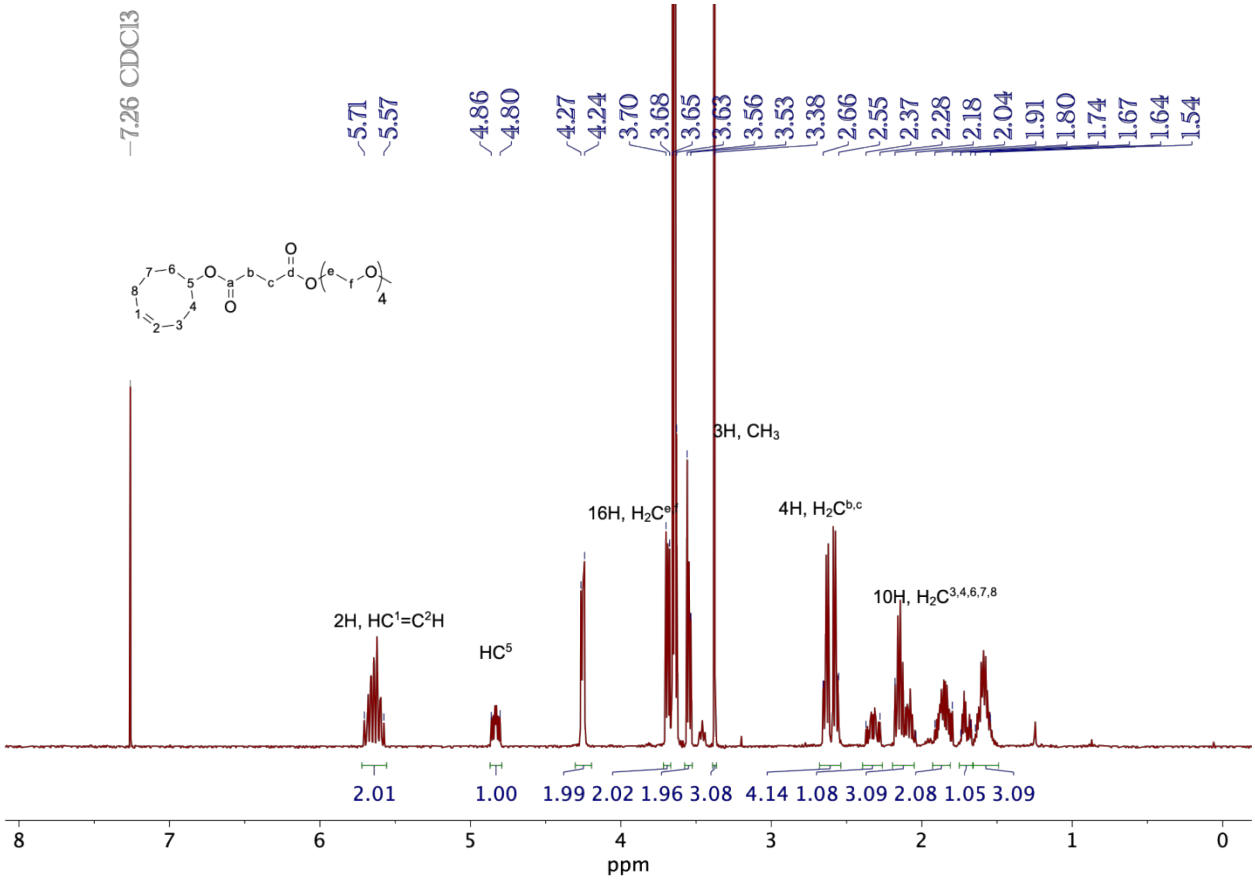


Figure S7 ^{1}H NMR spectrum of (Z)-cyclooct-4-en-1-yl (2,5,8,11-tetraoxatridecan-13-yl) succinate (CO3)

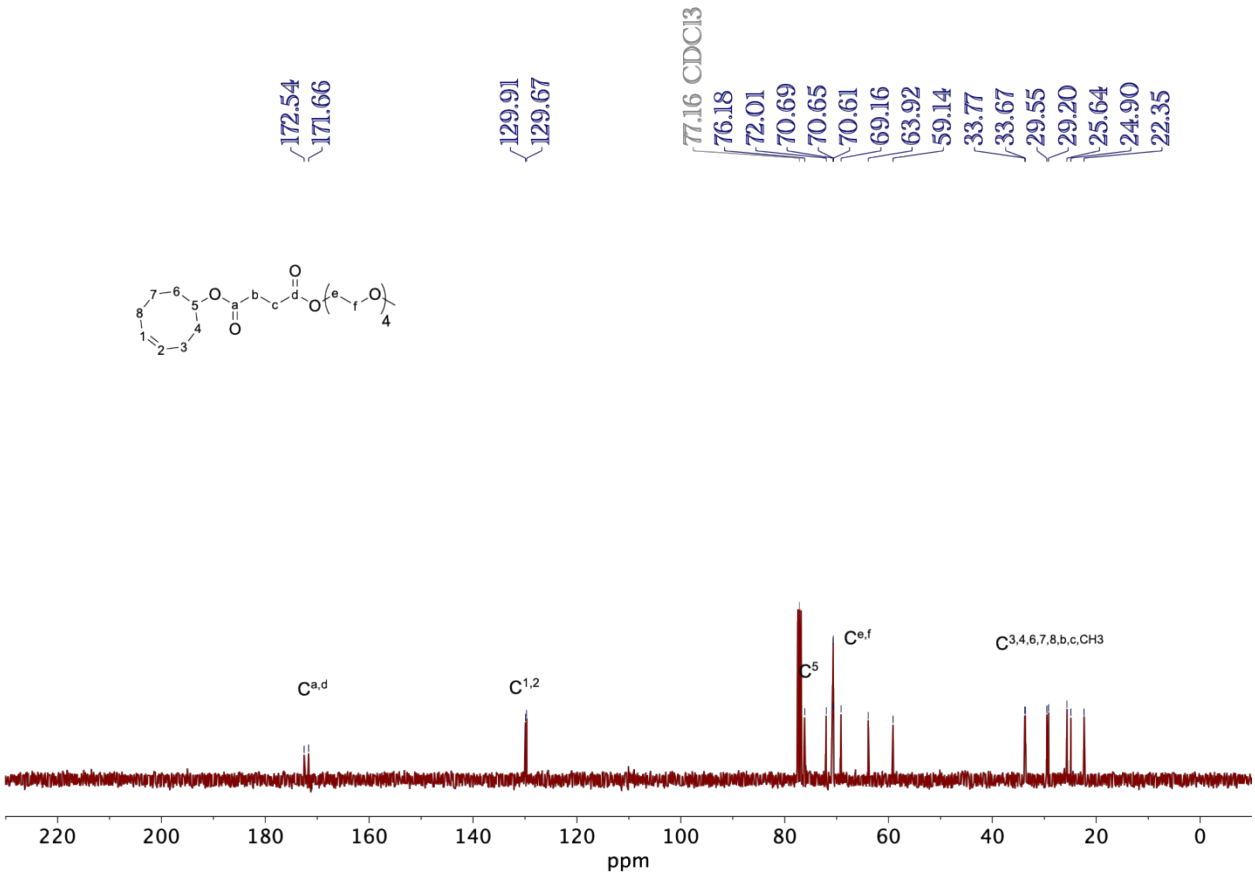


Figure S8 ^{13}C NMR spectrum of (Z)-cyclooct-4-en-1-yl (2,5,8,11-tetraoxatridecan-13-yl) succinate (CO3)

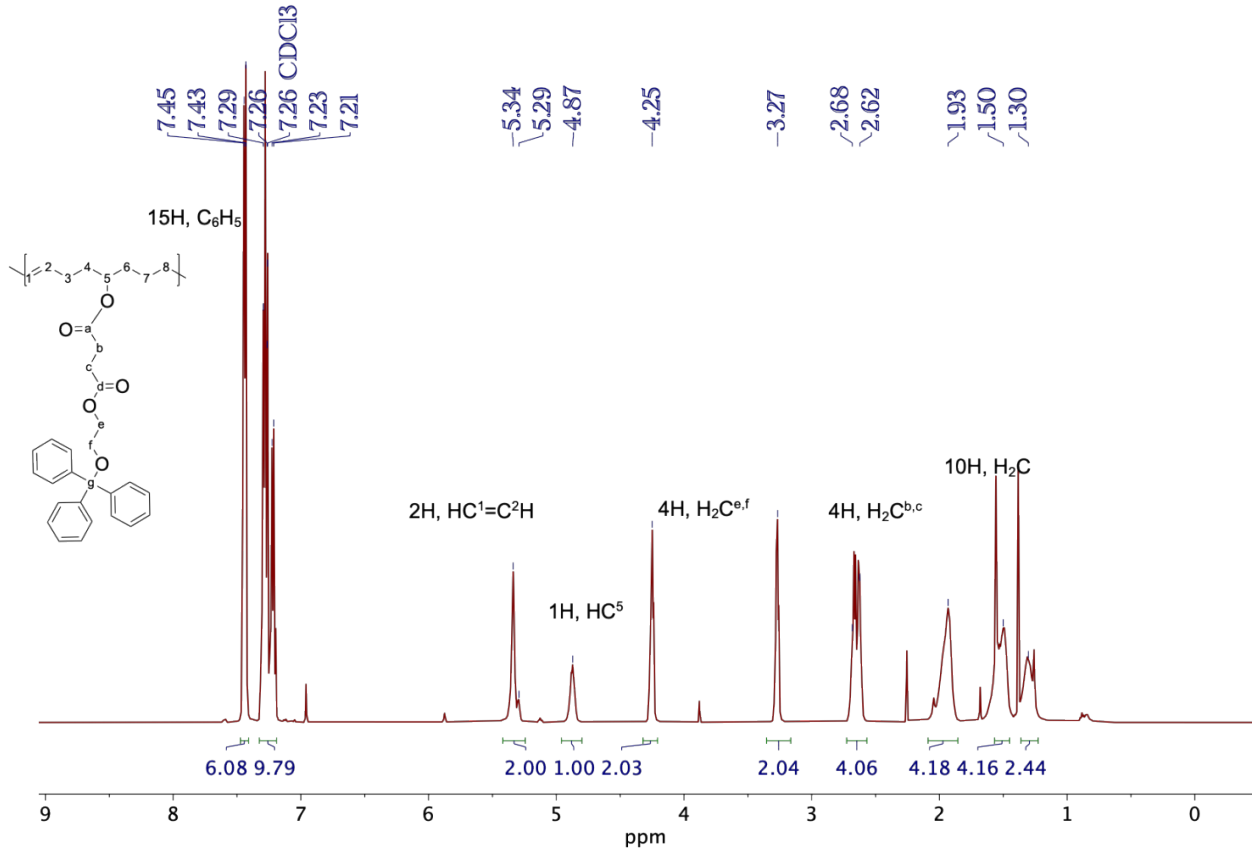


Figure S9 ^{1}H NMR spectrum of PCO1

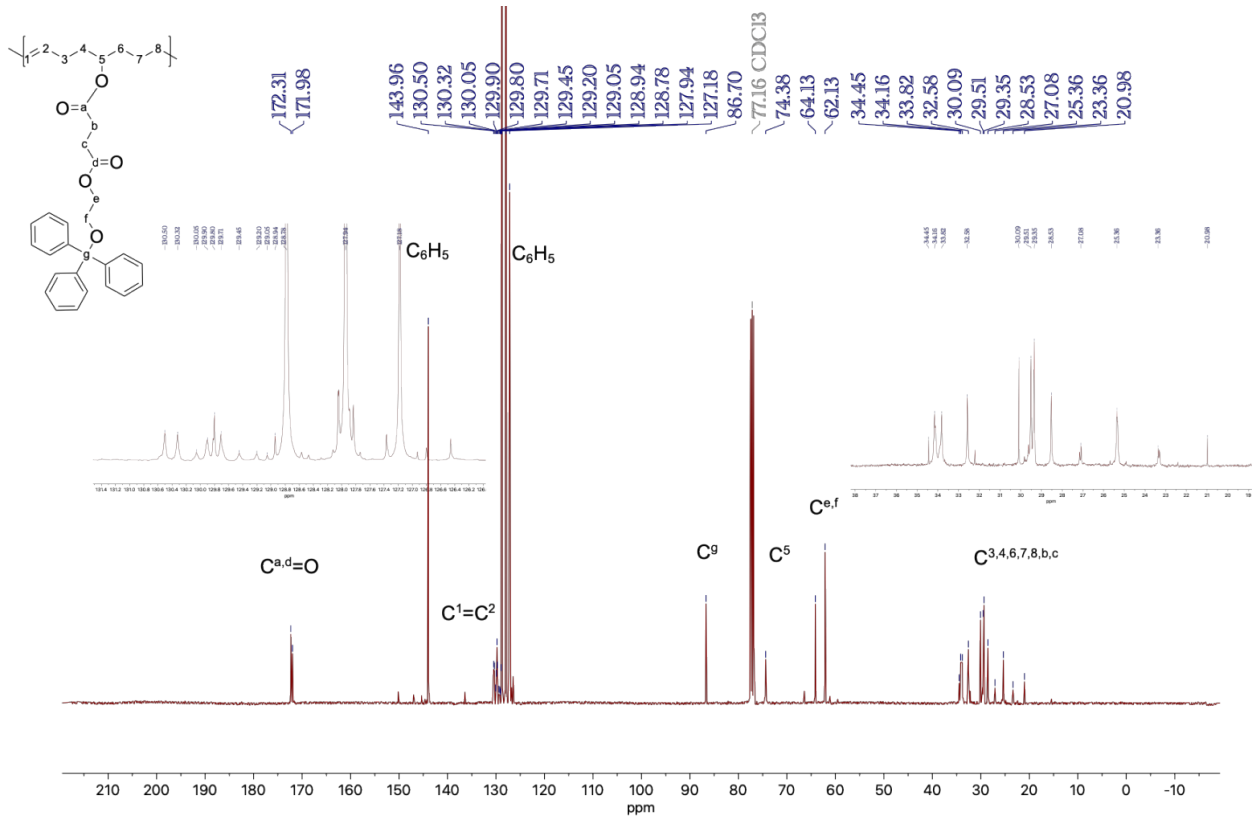


Figure S10 ^{13}C NMR spectrum of PCO1

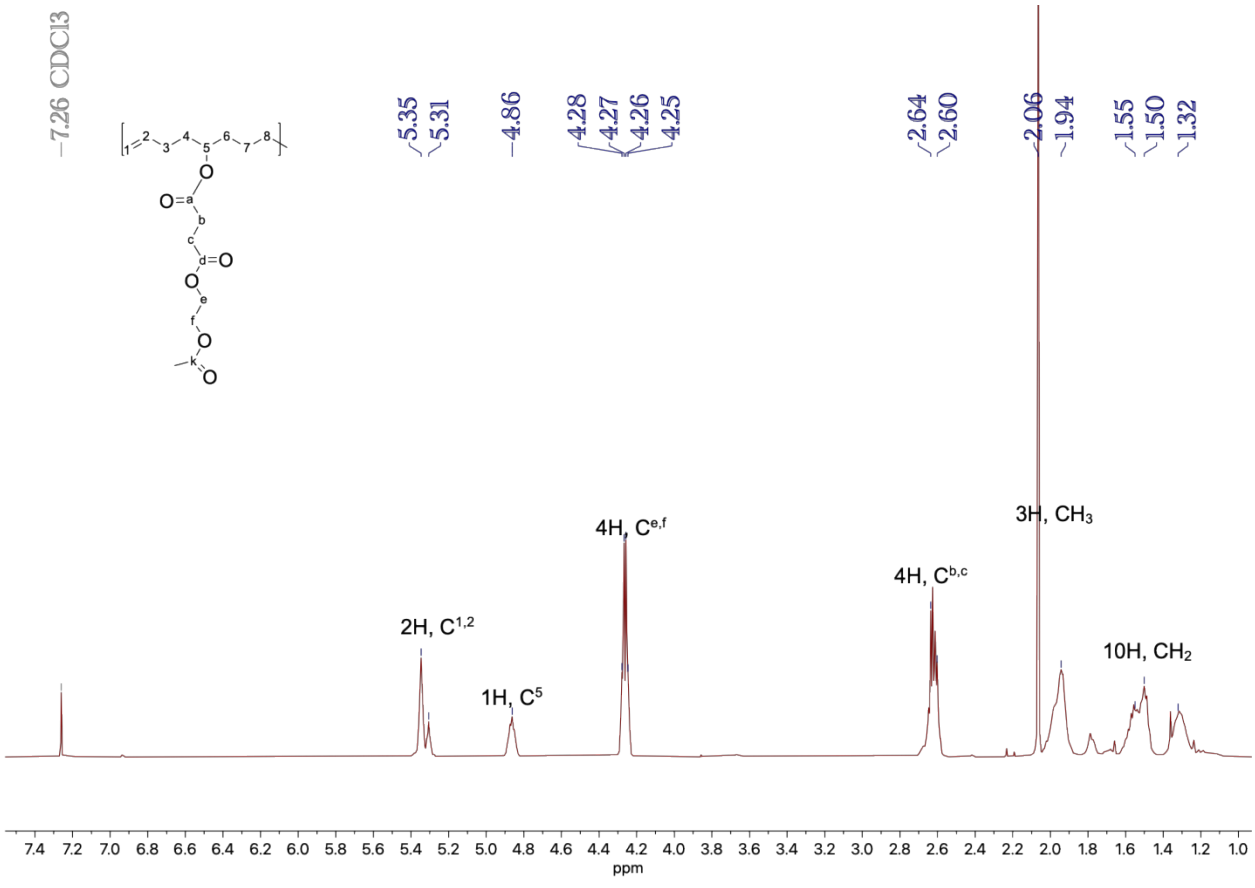


Figure S11 ^{1}H NMR spectrum of PCO2

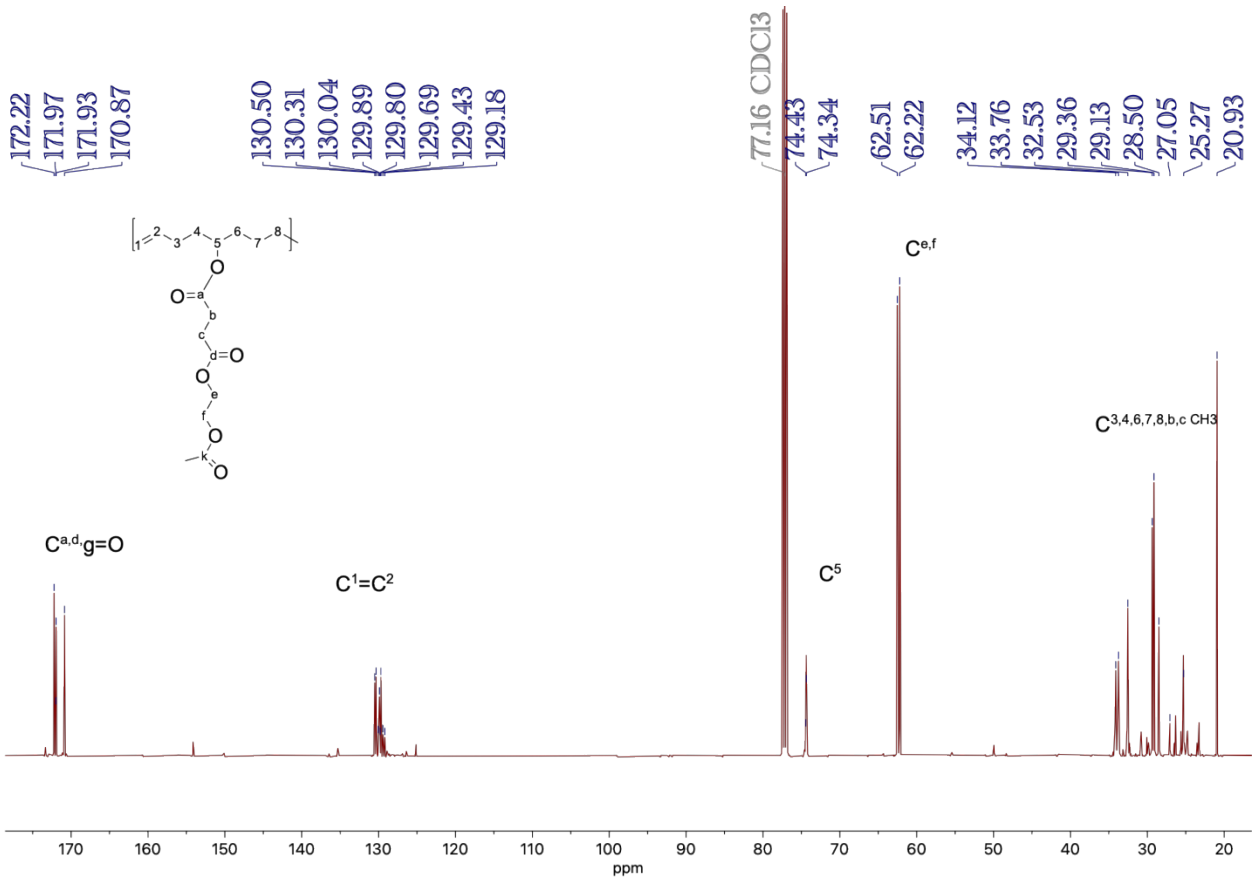


Figure S12 ^{13}C NMR spectrum of PCO2

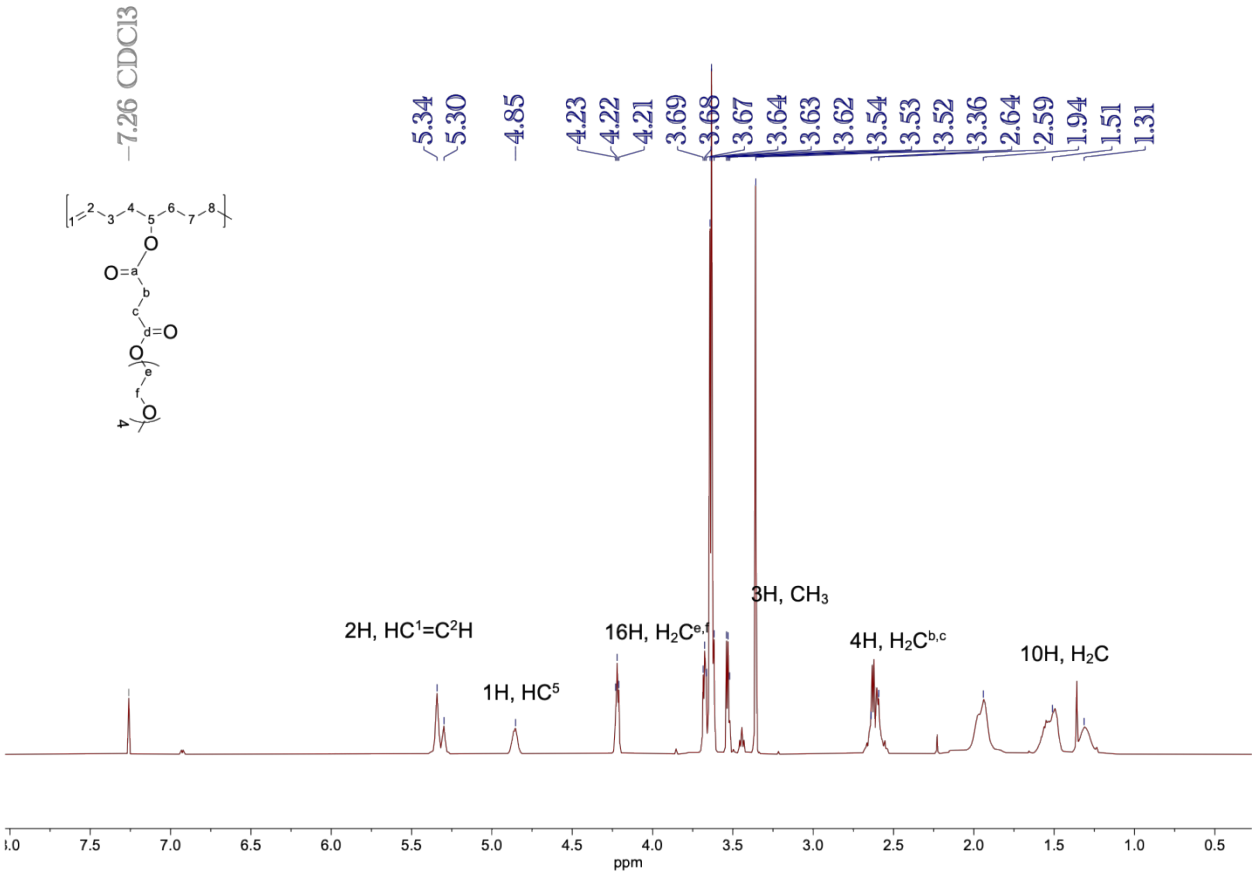


Figure S13 ^{1}H NMR spectrum of PCO3

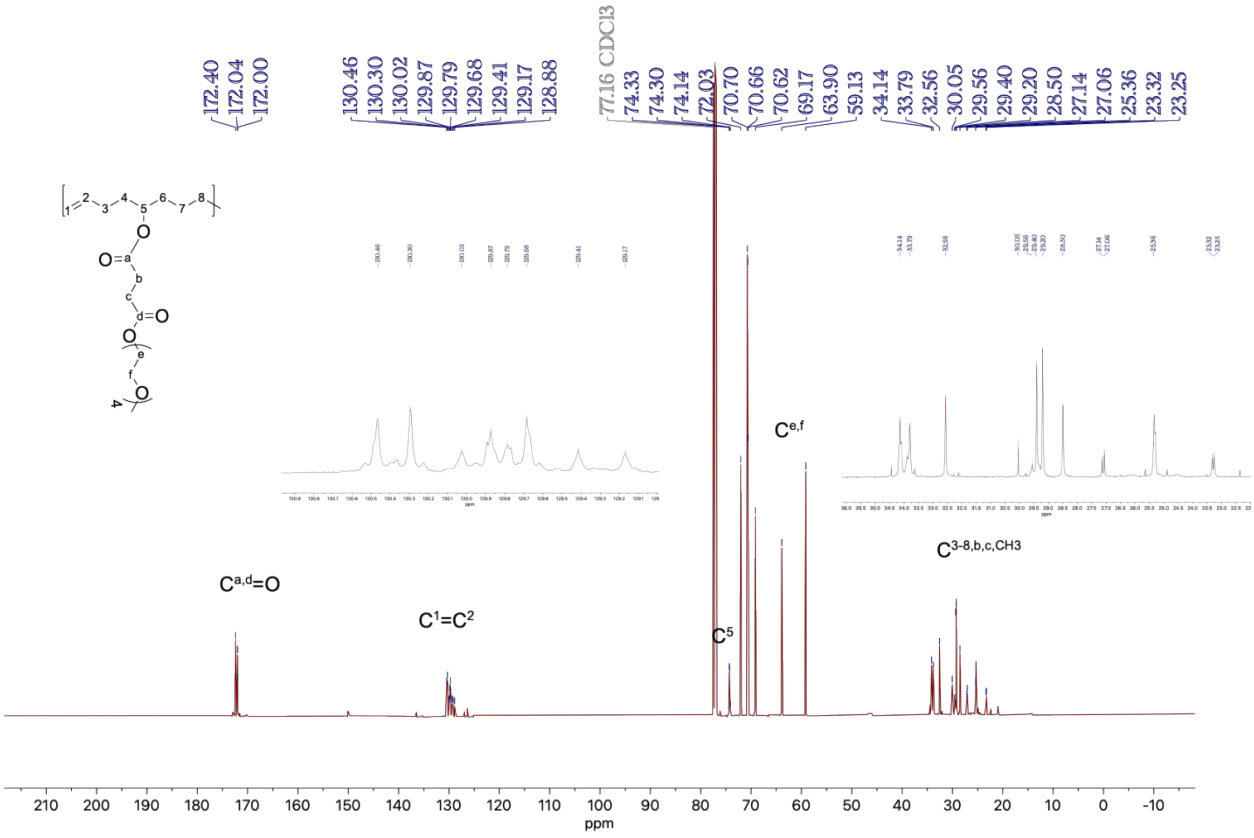


Figure S14 ^{13}C NMR spectrum of PCO3

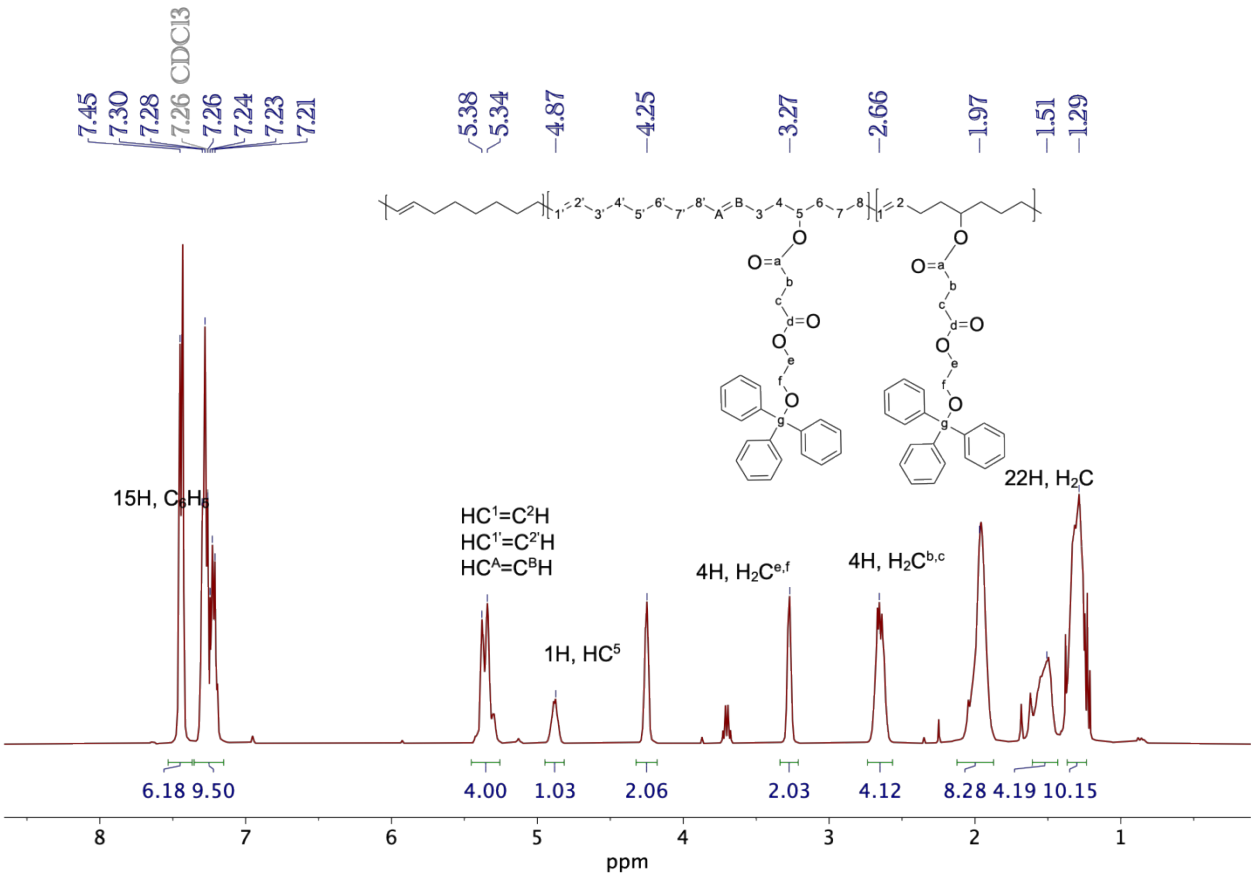


Figure S15 ^{1}H NMR spectrum of P(CO–CO1) copolymer

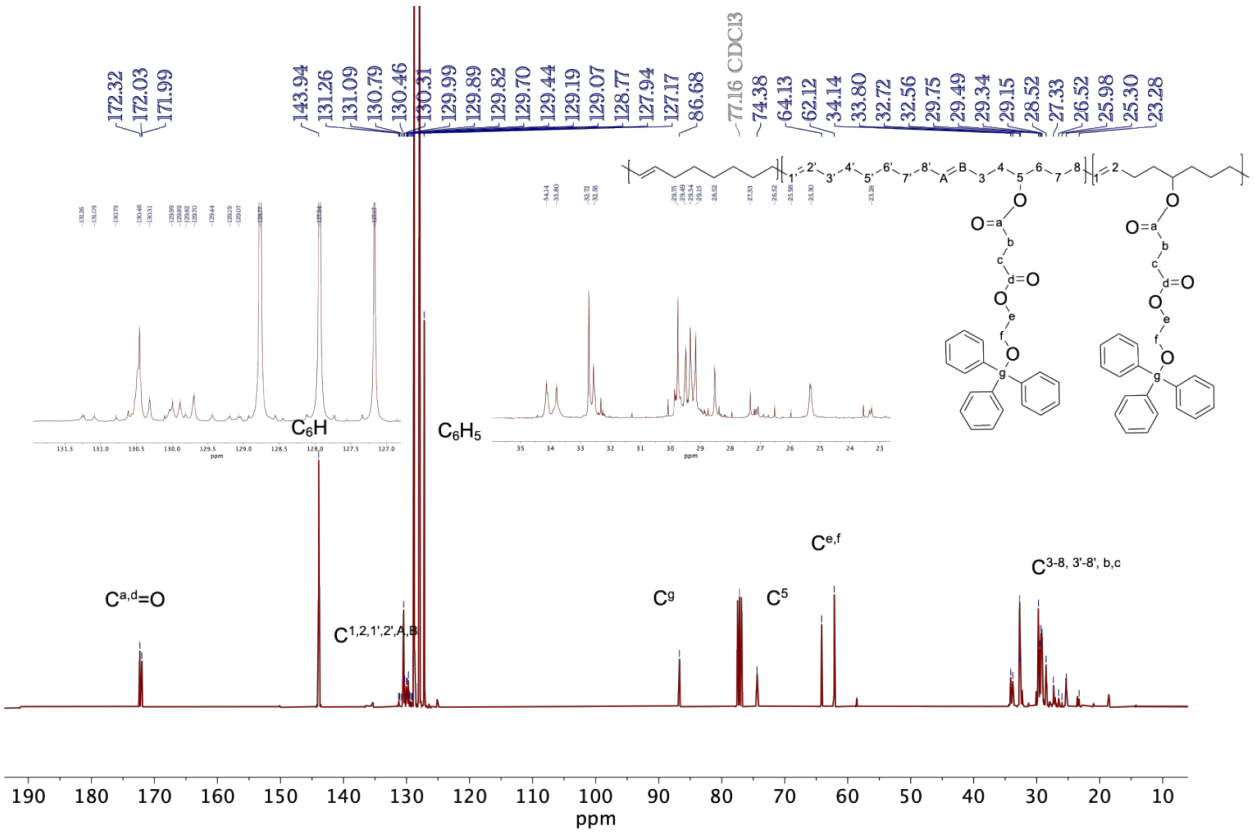


Figure S16 ^{13}C NMR spectrum of P(CO–CO1) copolymer

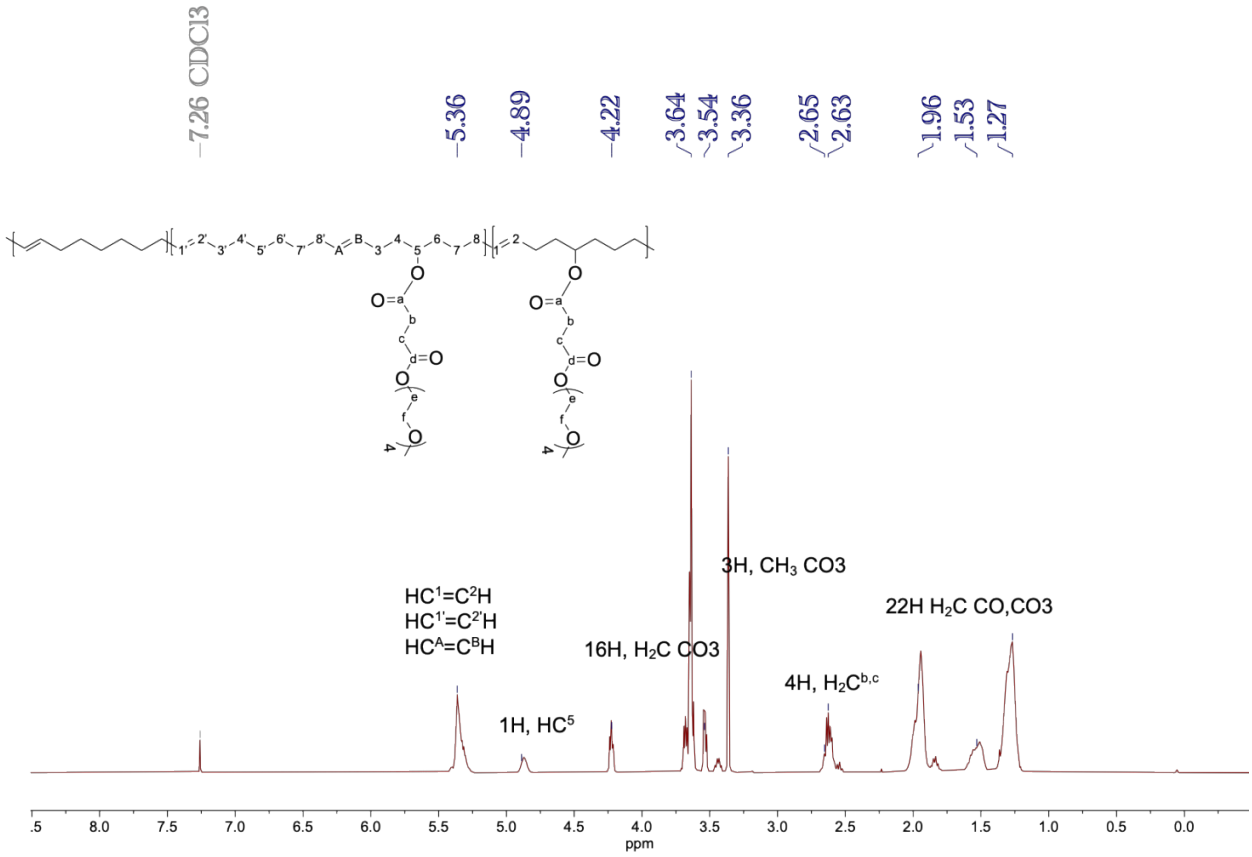


Figure S17 ^{1}H NMR spectrum of P(CO–CO3) copolymer

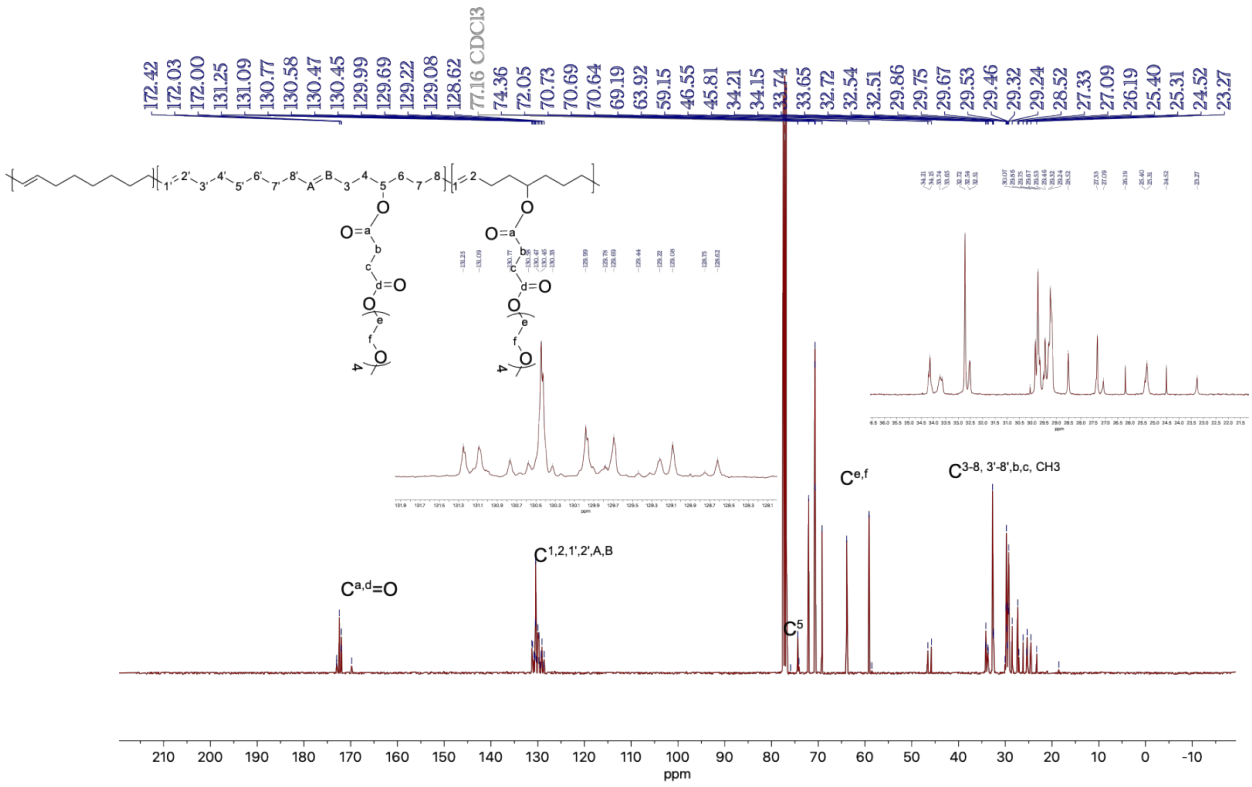
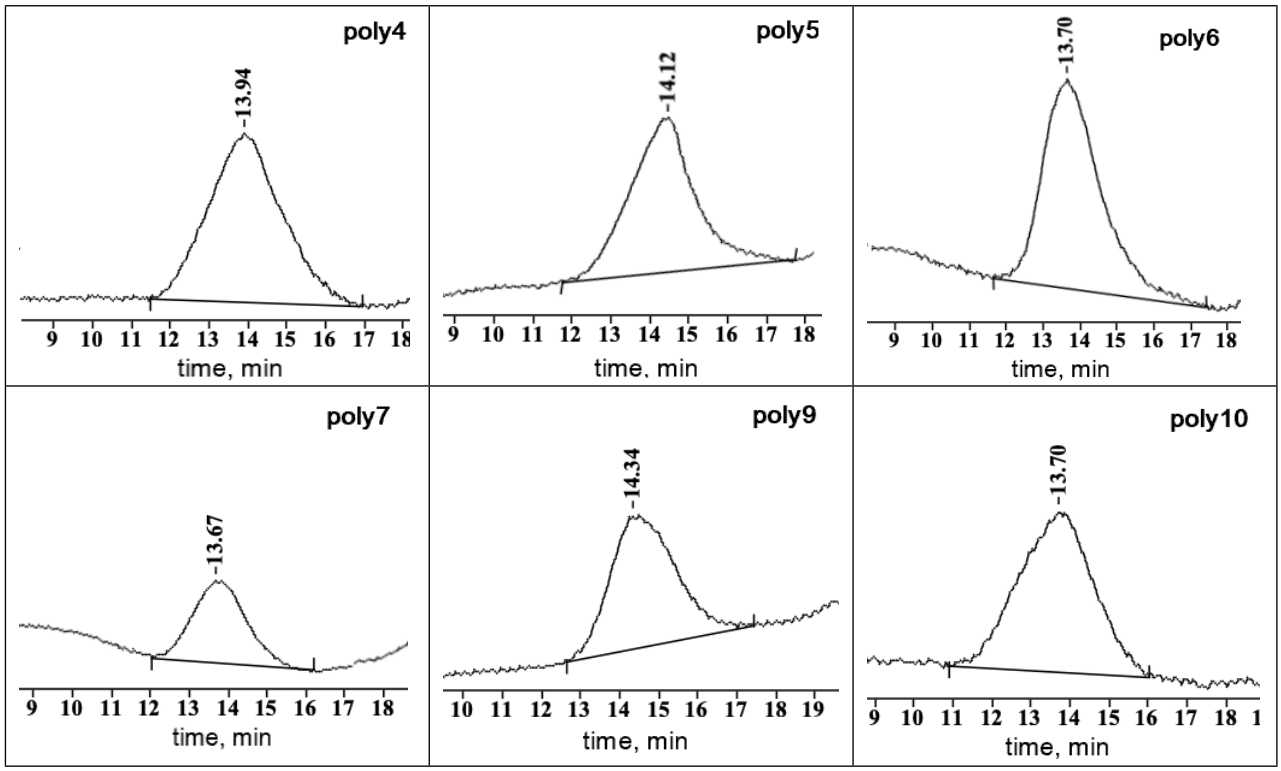


Figure S18 ^{13}C NMR spectrum of P(CO–CO3) copolymer



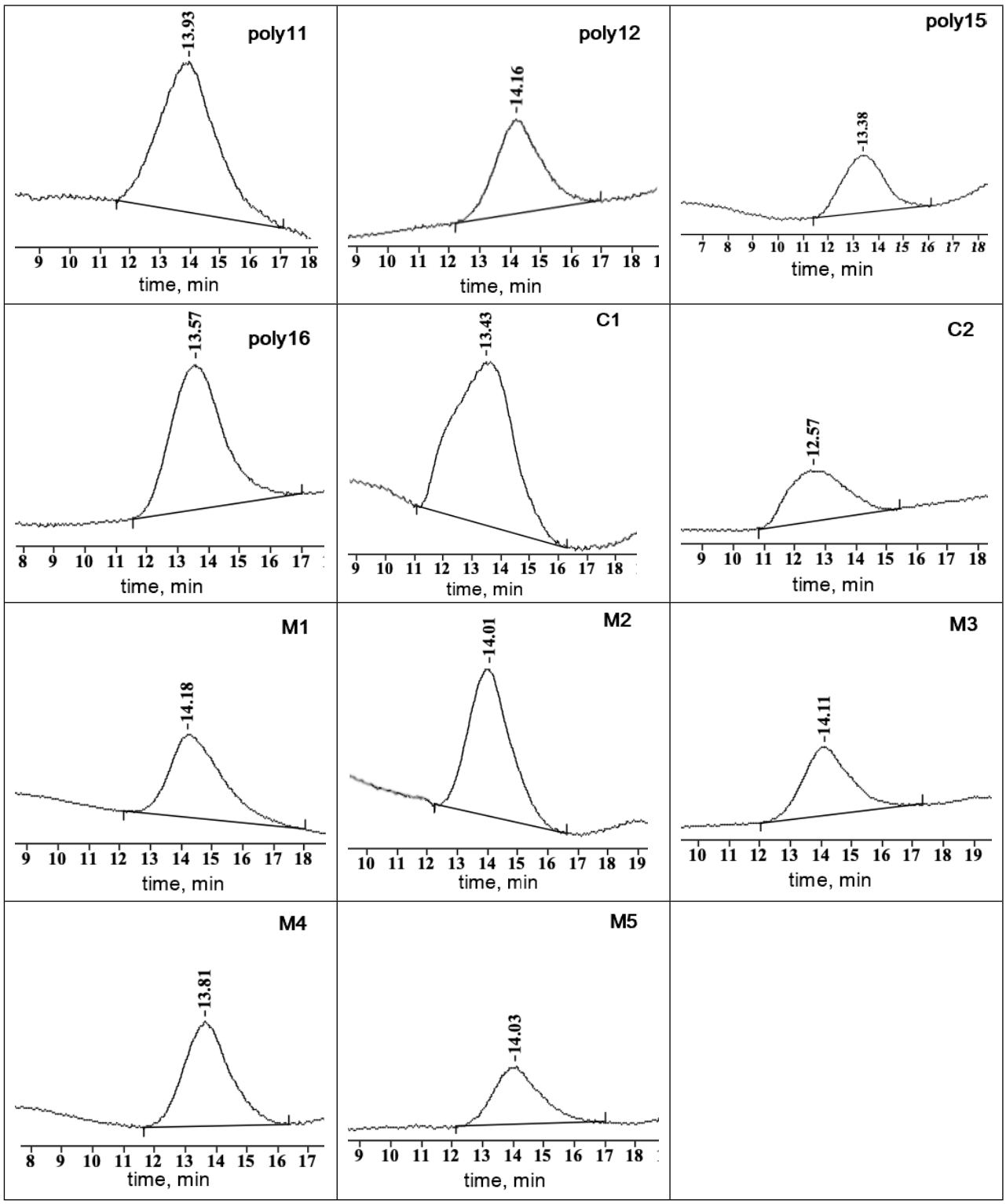


Figure S19 GPC traces of the homopolymers from Table 1 and copolymers from Table 2 of the main text

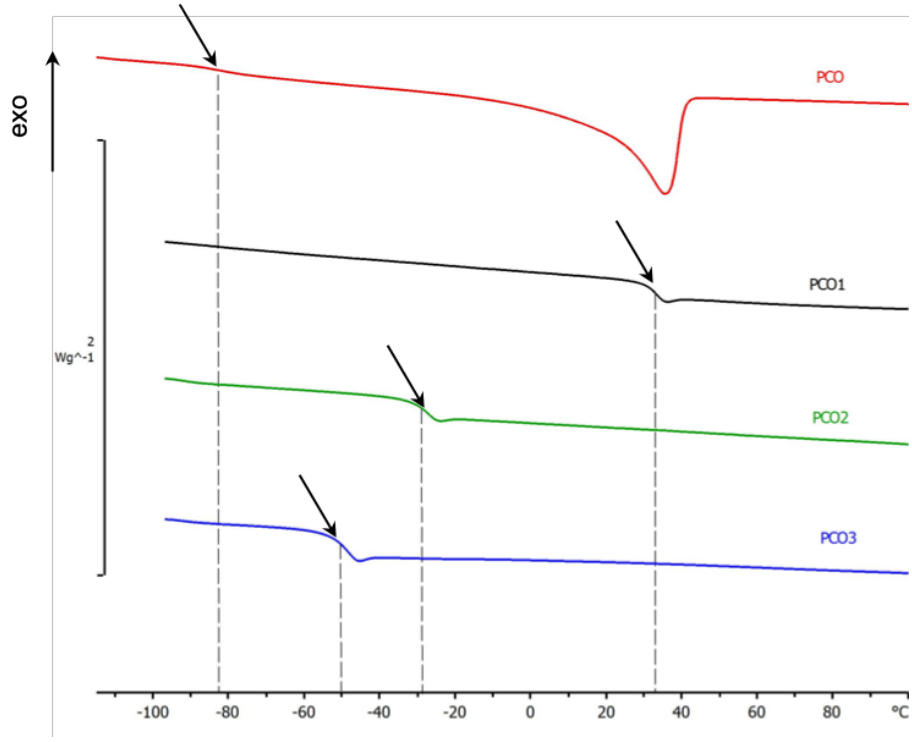


Figure S20 2nd heating DSC thermograms of homopolymers PCO, PCO1, PCO2, and PCO3

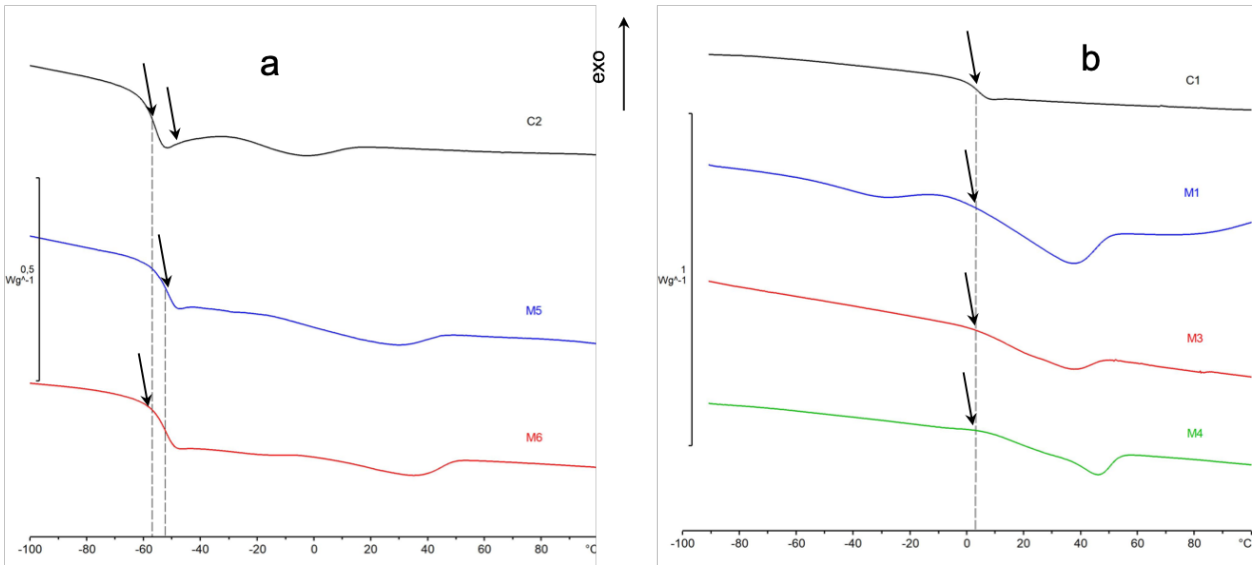


Figure S21 2nd heating DSC thermograms of (a) P(CO–CO1) and (b) P(CO–CO3) copolymers

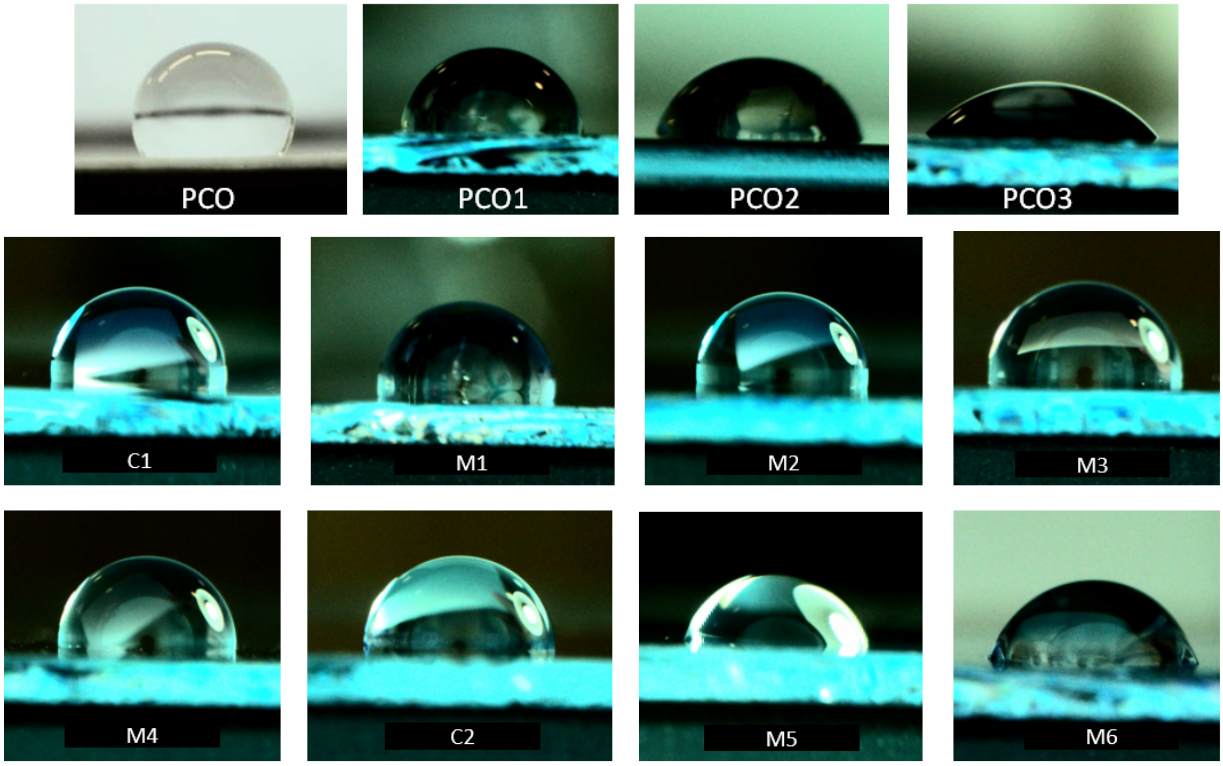


Figure S22 Water contact angle images of the homopolymers and copolymers from Table 3 of the main text

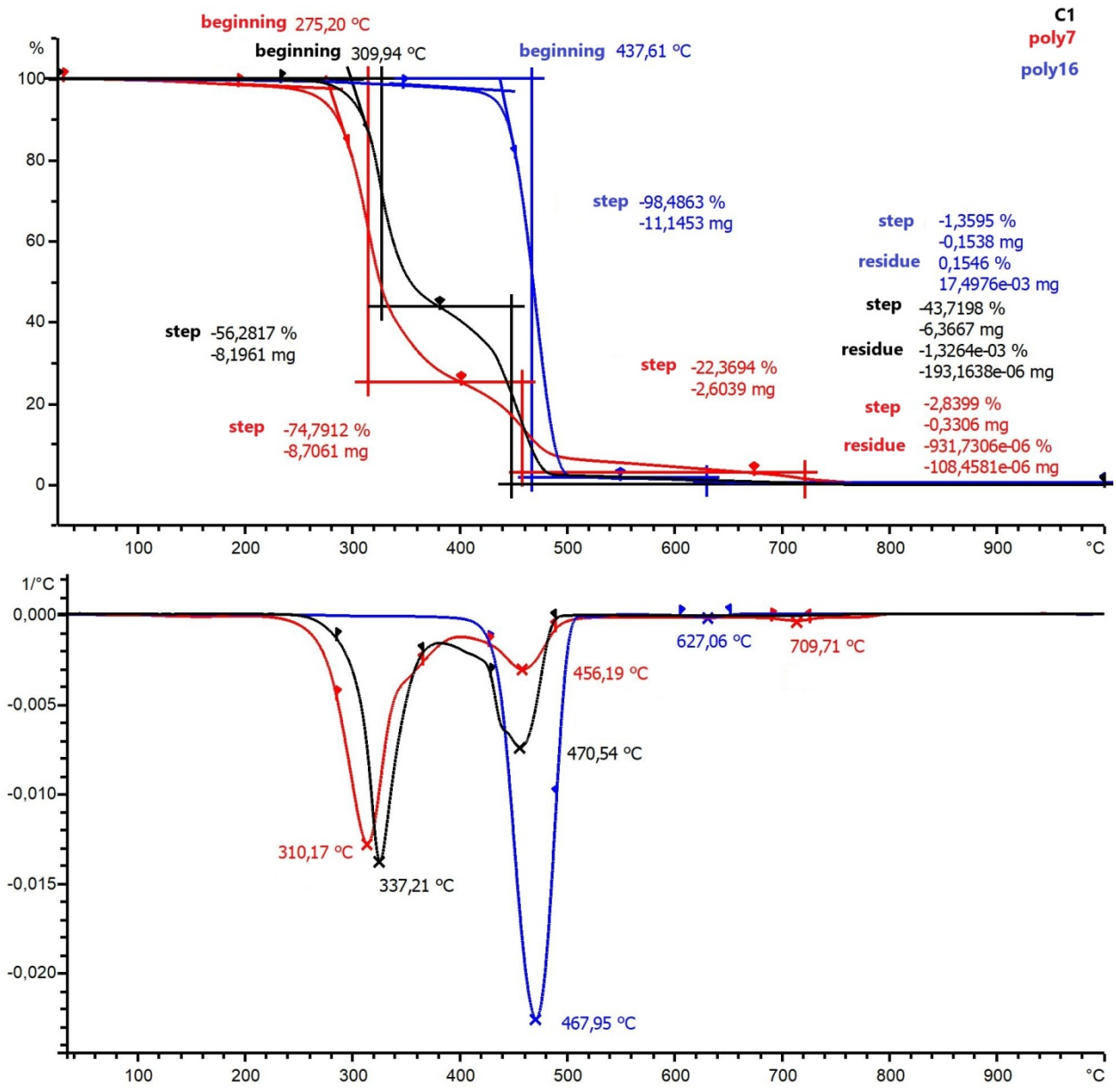


Figure S23 DTGA curves demonstrating (top) mass loss and (bottom) differential mass loss of PCO (sample 16 in Table 1), PCO1 (sample 7 in Table 1) and P(CO–CO1) copolymer (sample C1 in Table 2).

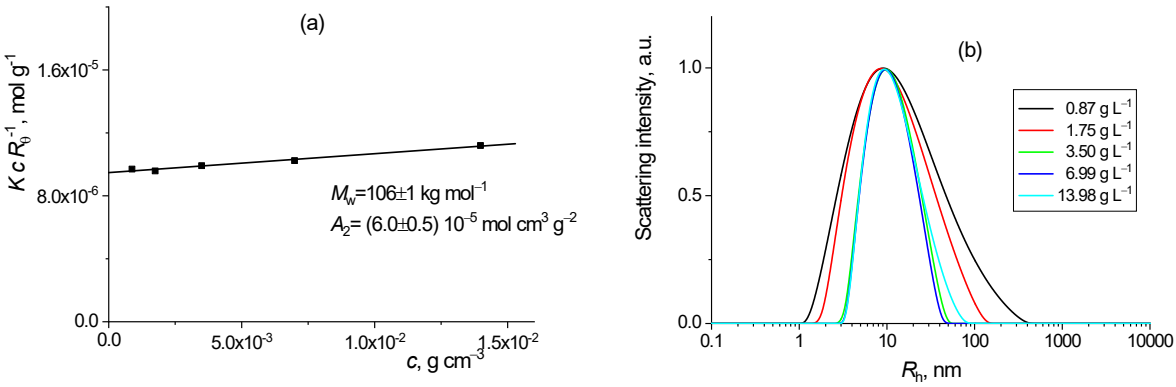


Figure S24 (a) Debye plot and (b) hydrodynamic radii (R_h) distributions for PCO1 in ethyl acetate measured by SLS and DLS, respectively

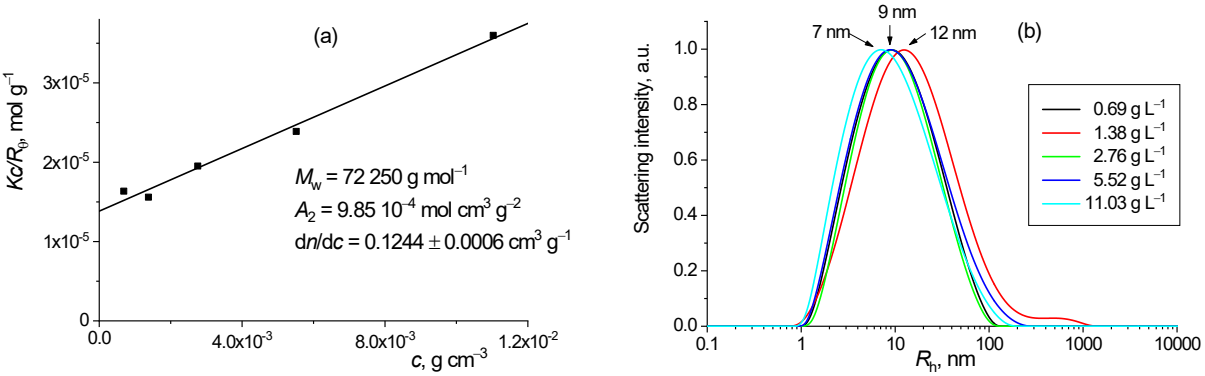


Figure S25 (a) Debye plot and (b) hydrodynamic radii (R_h) distributions for PCO1 in chloroform measured by SLS and DLS, respectively

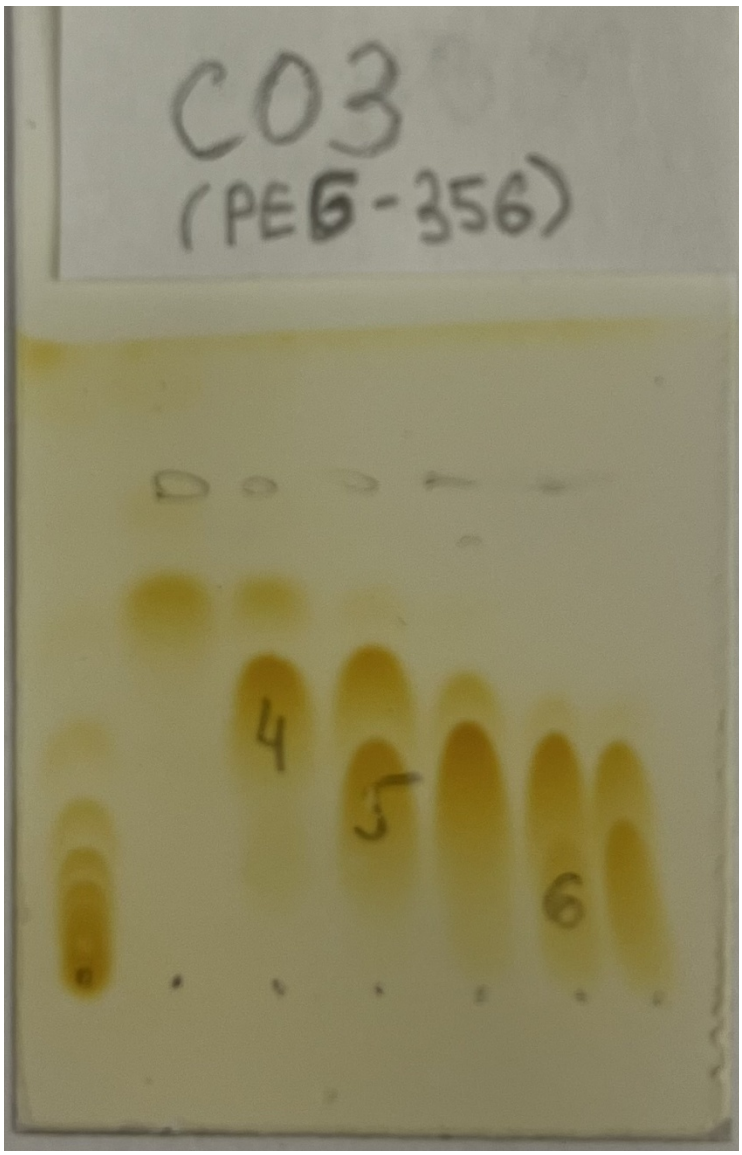


Figure S26 Thin-layer chromatography spots of CO3 (PEG356) fractionated on a chromatography column