Multifunctional cellulose esters by olefin cross-metathesis and thiol-Michael addition

Supporting Information

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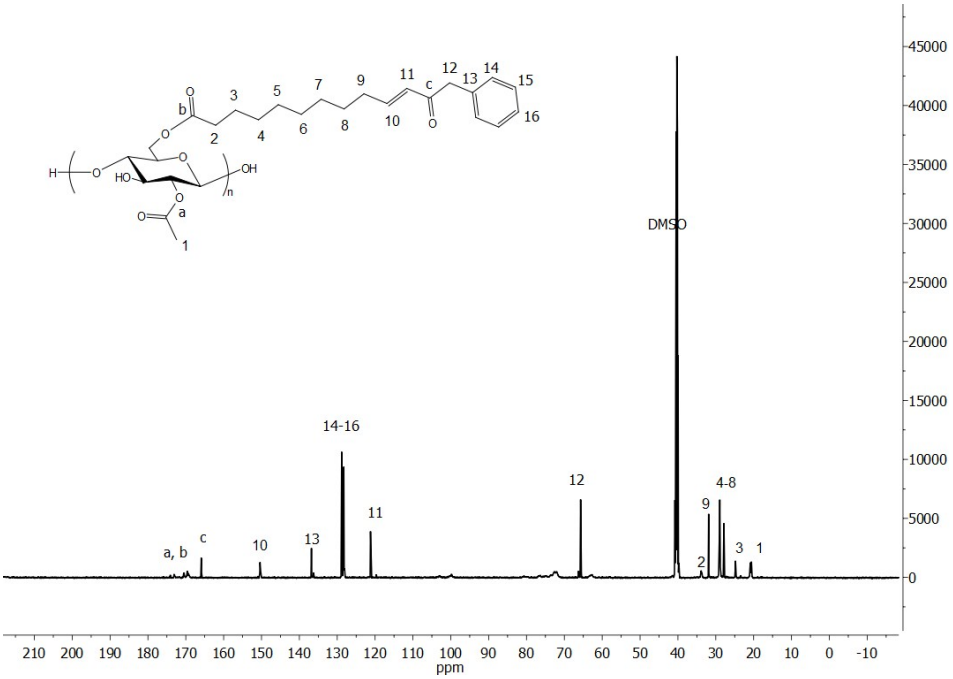
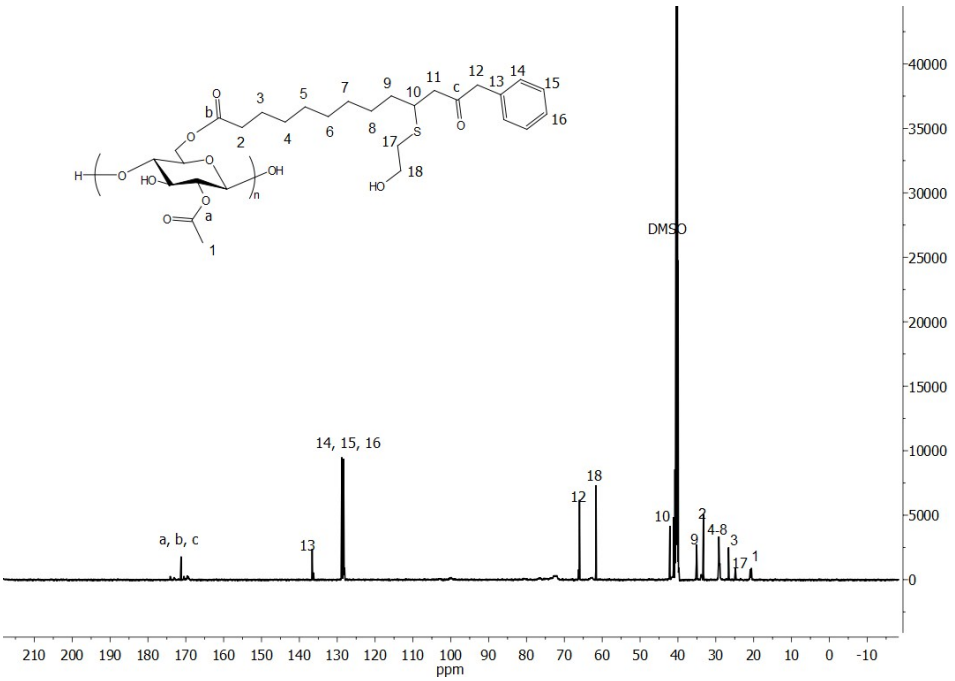
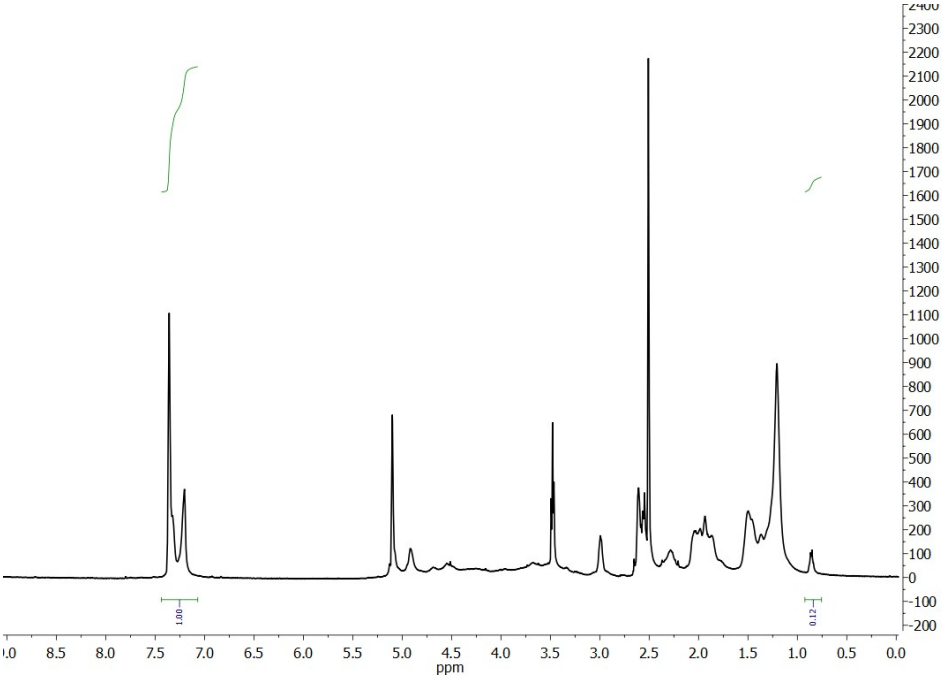


S1. Carbon NMR spectrum of polymer **1** CA-Un067-BA.

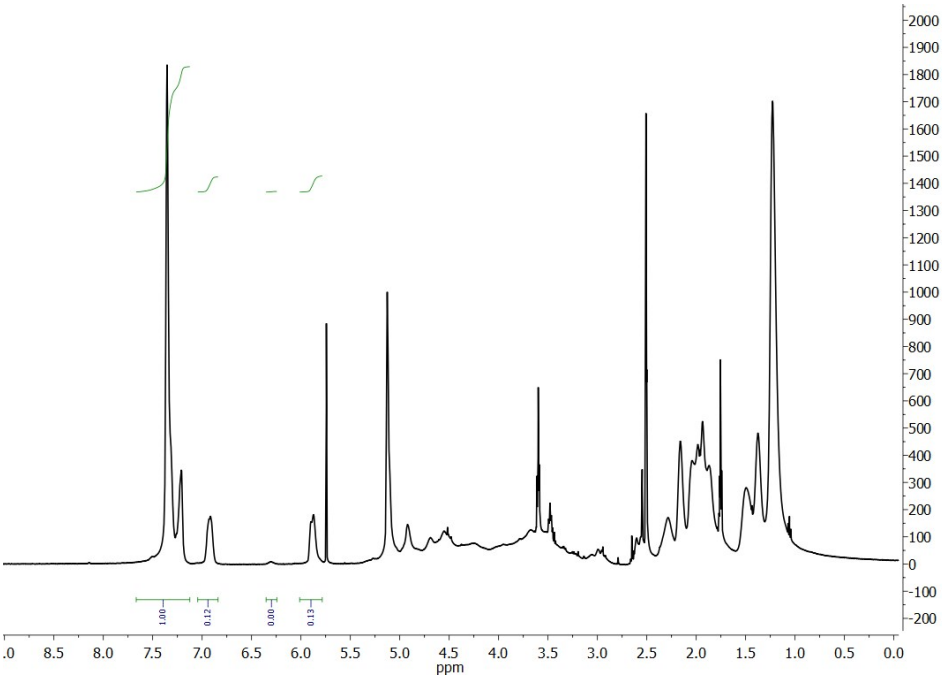


S2. Carbon NMR spectrum of polymer **7** CA-Un067-BA-ME

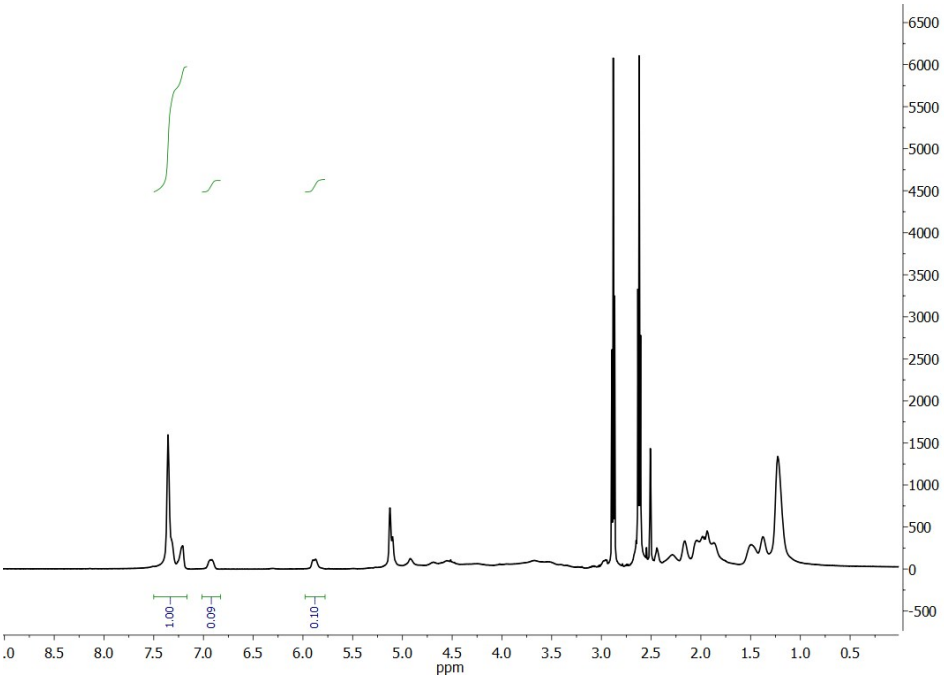
S3. 1H-13C HSQC spectrum of polymer 7 CA-Un067-BA-ME.



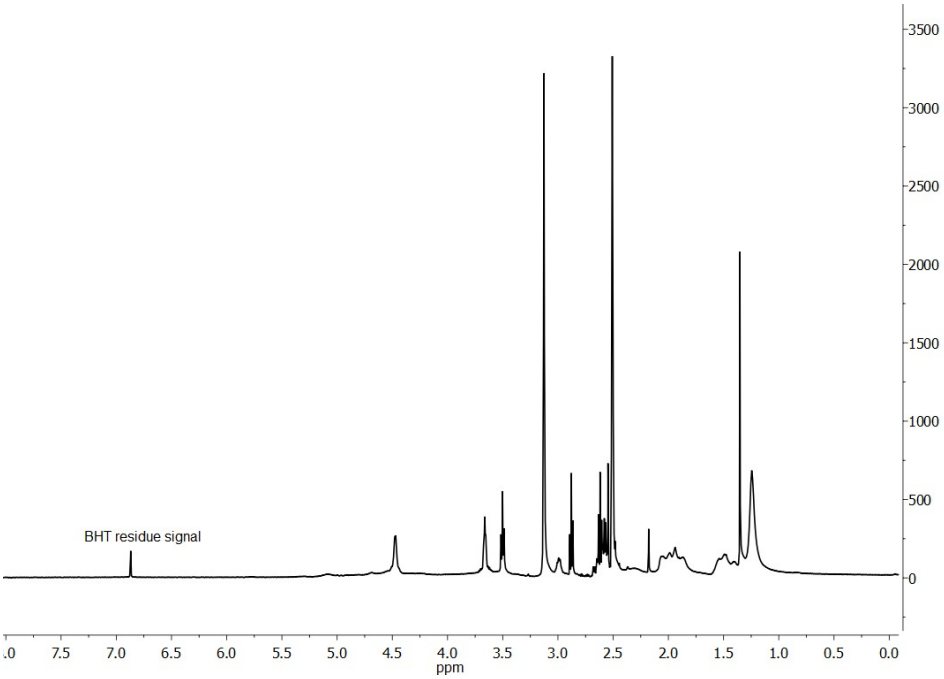
S4. Proton NMR spectrum of CA-Un067-BA-ME catalyzed by high amount of hexylamine (olefin/2-ME/HA ratio = 1/6/6).



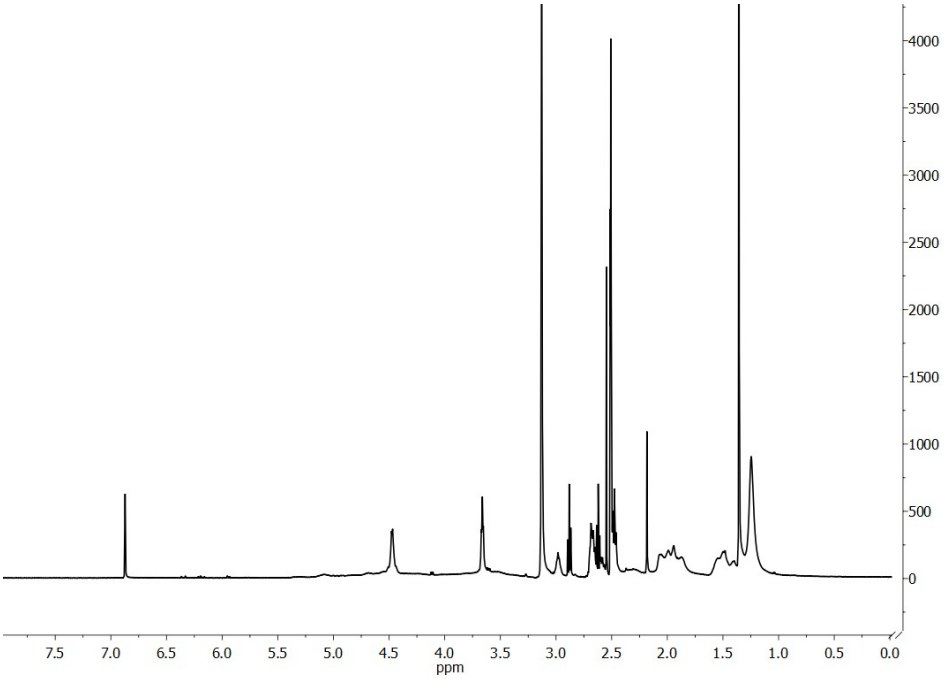
S5. Proton NMR of polymer 6 CA-Un067-BA-ME catalyzed by TEA. Calculated from integrations of NMR peaks, the conversion of the reaction is 35%.



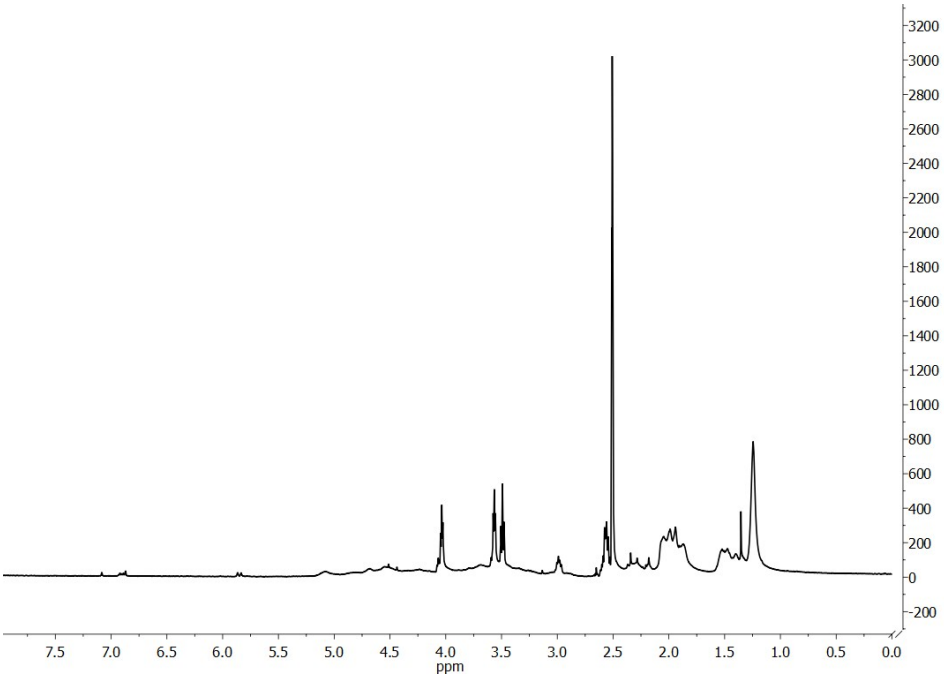
S6. Proton NMR spectrum of polymer 8 CA-Un067-BA-3MPA catalyzed by TEA. Calculated from integrations of NMR peaks, the conversion of the reaction is 50%.



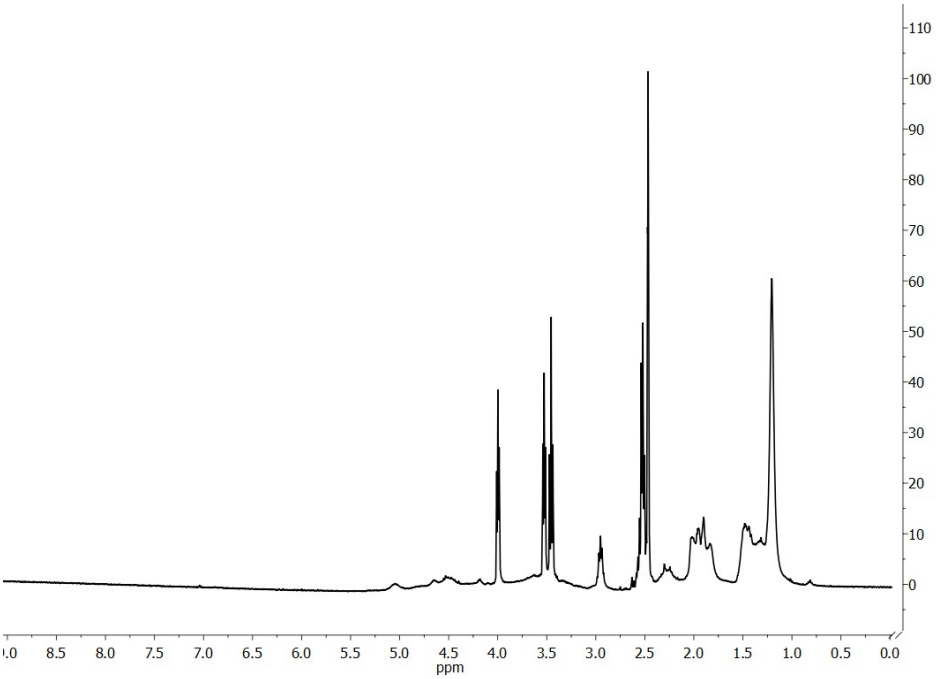
S7. Proton NMR spectrum of polymer 12 CA-Un067-TMA-2ME.



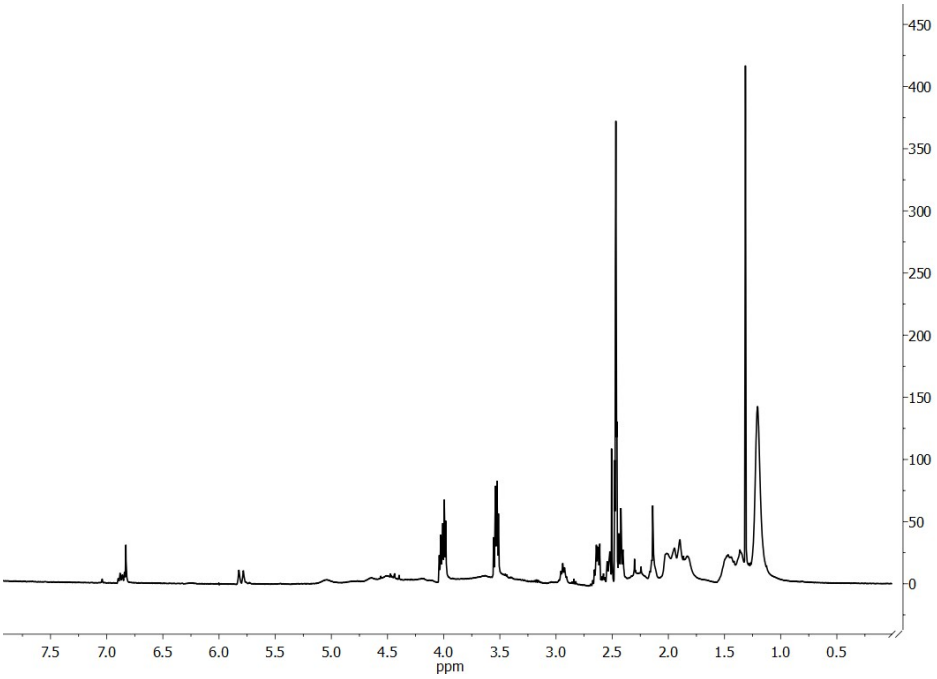
S8. Proton NMR spectrum of polymer 13 CA-Un067-TMA-3MPA.



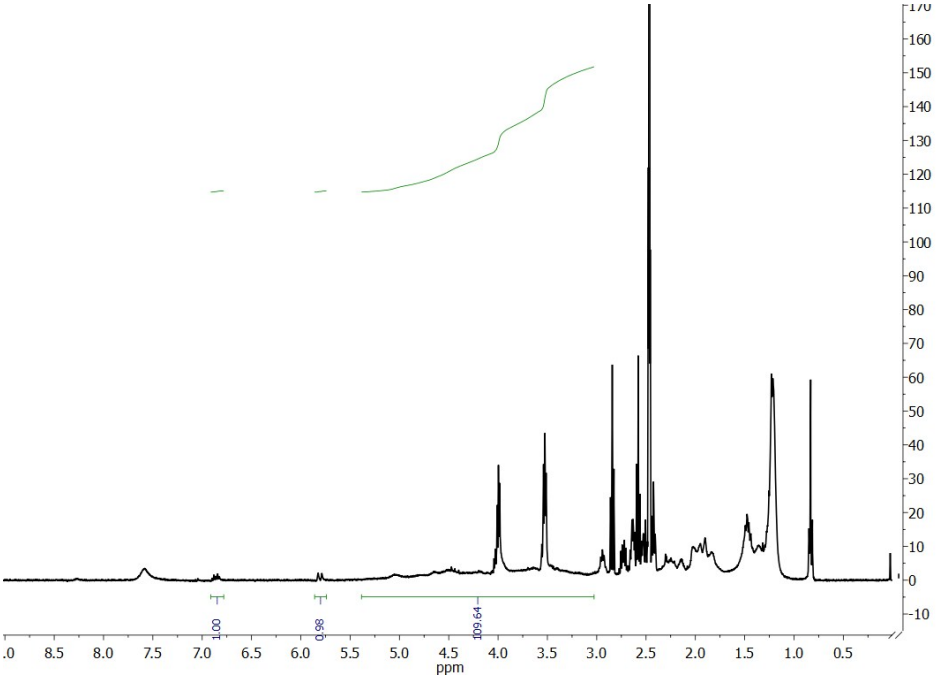
S9. Proton NMR spectrum of polymer 14 CA-Un067-HEA-2ME using TEA as catalyst.



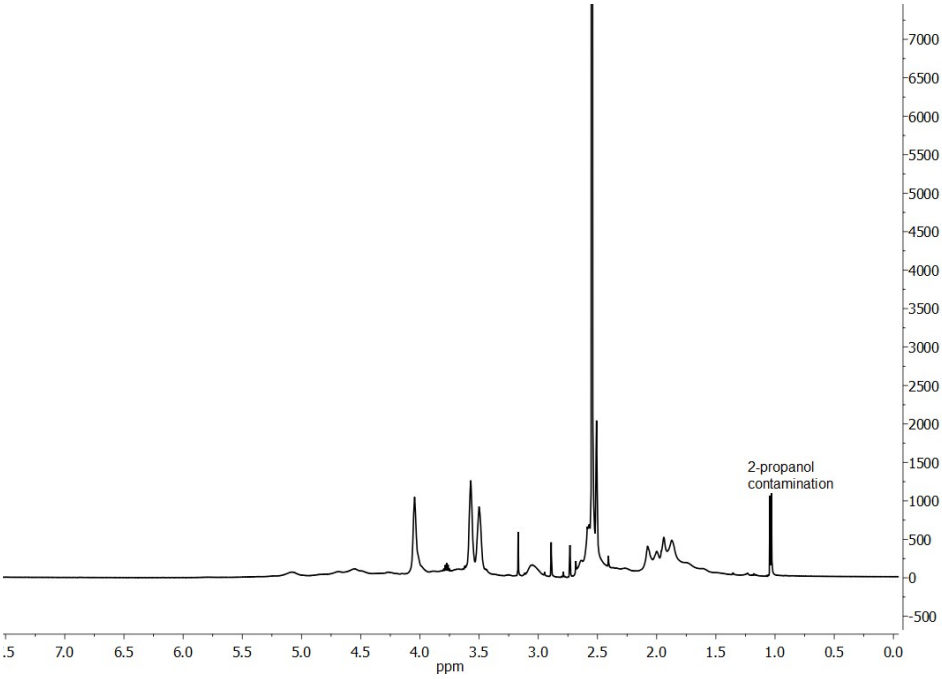
S10. Proton NMR spectrum of polymer 15 CA-Un067-HEA-2ME using HA as catalyst.



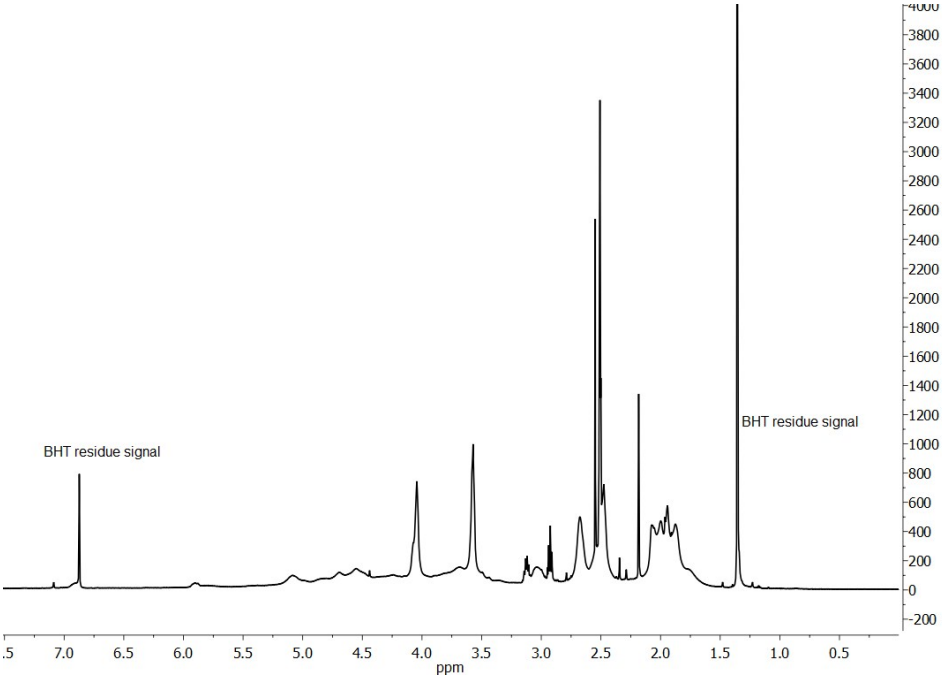
S11. Proton NMR spectrum of polymer 16 CA-Un067-HEA-3MPA using TEA as catalyst.



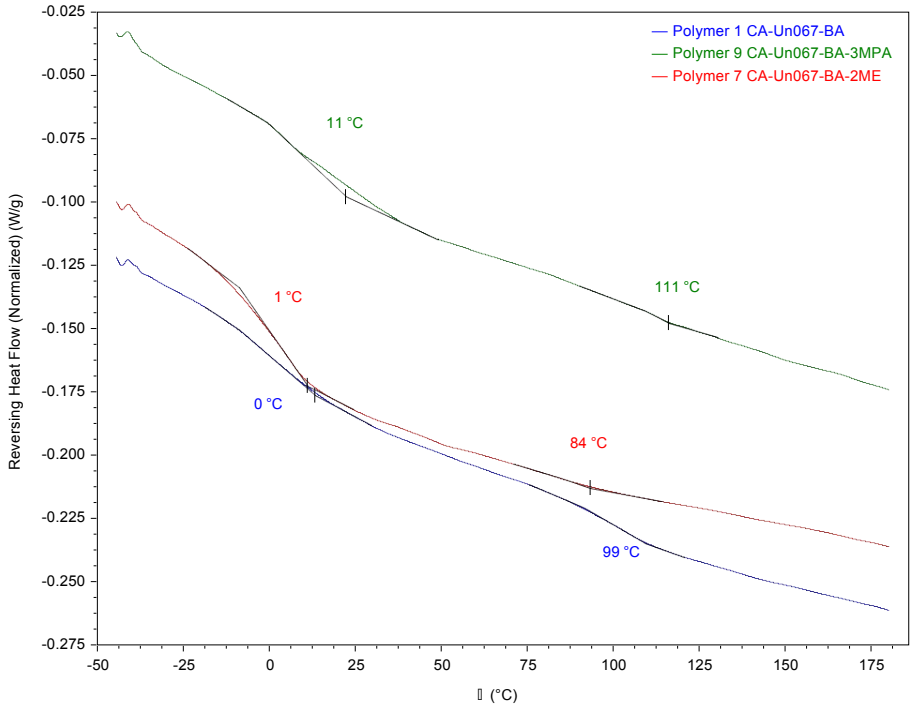
S12. Proton NMR spectrum of polymer 17 CA-Un067-HEA-3MPA using HA as catalyst.



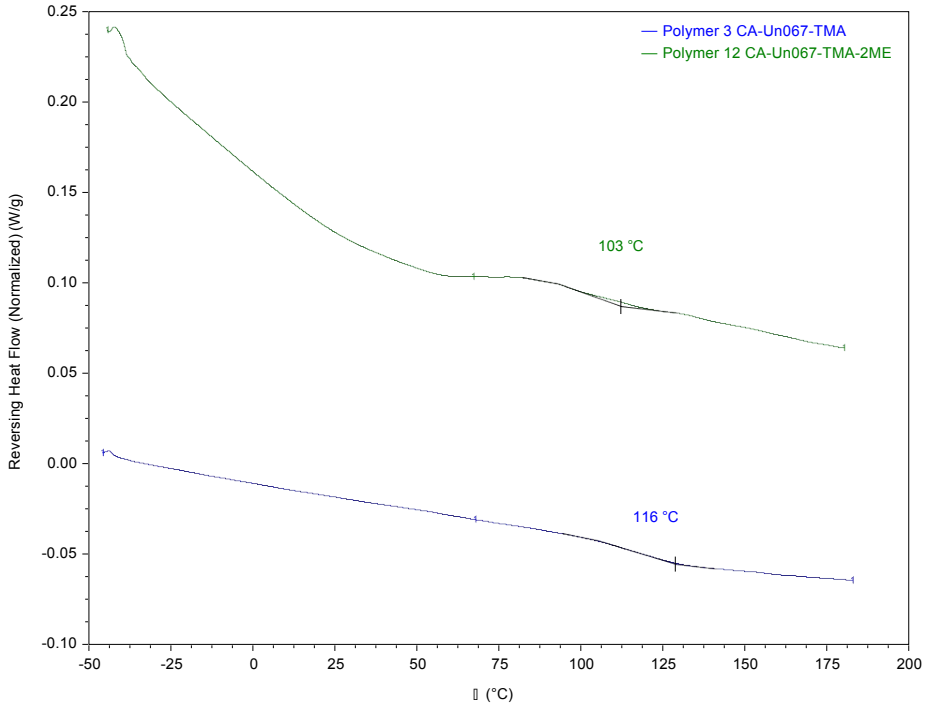
S13. Proton NMR spectrum of polymer 18 CA-Pen079-HEA-2ME using TEA as catalyst.



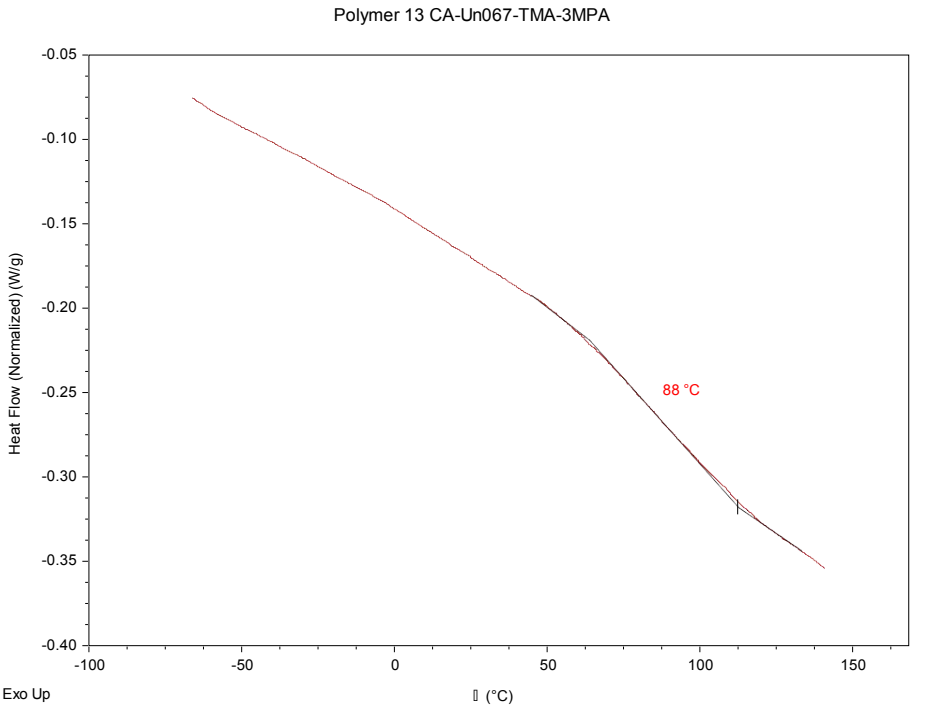
S14. Proton NMR spectrum of polymer 19 CA-Pen079-HEA-3MPA using TEA as catalyst.



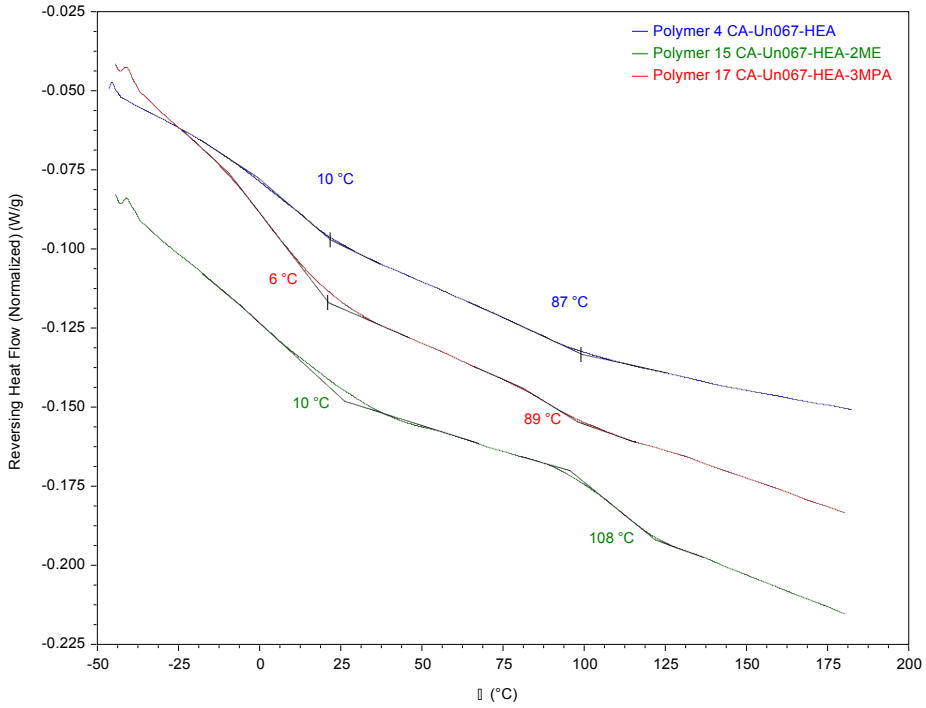
S15. DSC traces of polymers 1, 7 and 9.



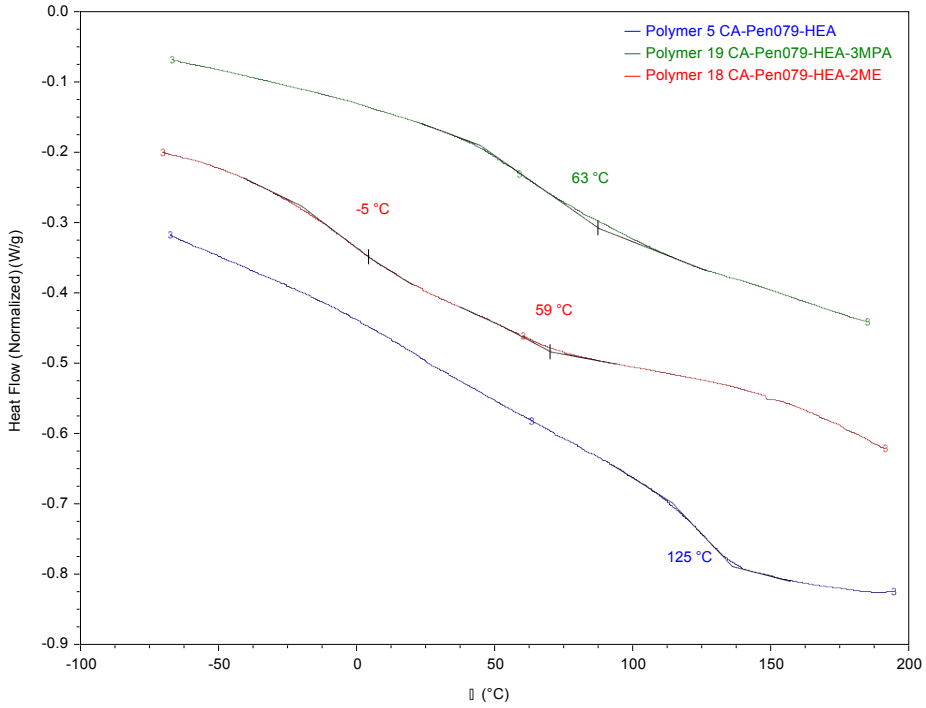
S16. DSC traces of polymers 3 and 12.



S17. DSC trace of polymer 13.



S18. DSC traces of polymers 4, 15 and 17.



S19. DSC traces of polymers 5, 18 and 19.