Supporting information

In-situ monitoring of cellulose etherification in solution: probing the impact of solvent composition on the synthesis of 3-allyloxy-2-hydroxypropyl-cellulose in aqueous hydroxide systems

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Figure 1. Anton Paar MCR 702 Twin Drive rheometer

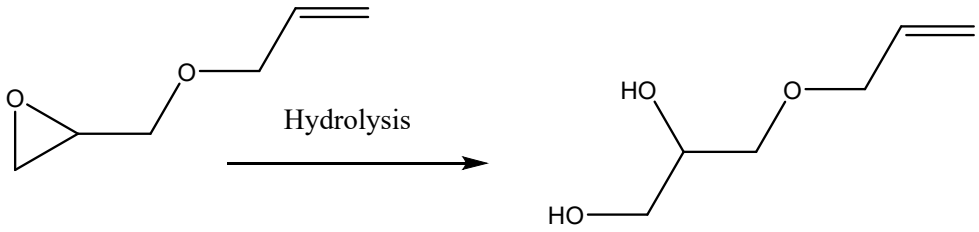

Figure 2. AGE hydrolysis

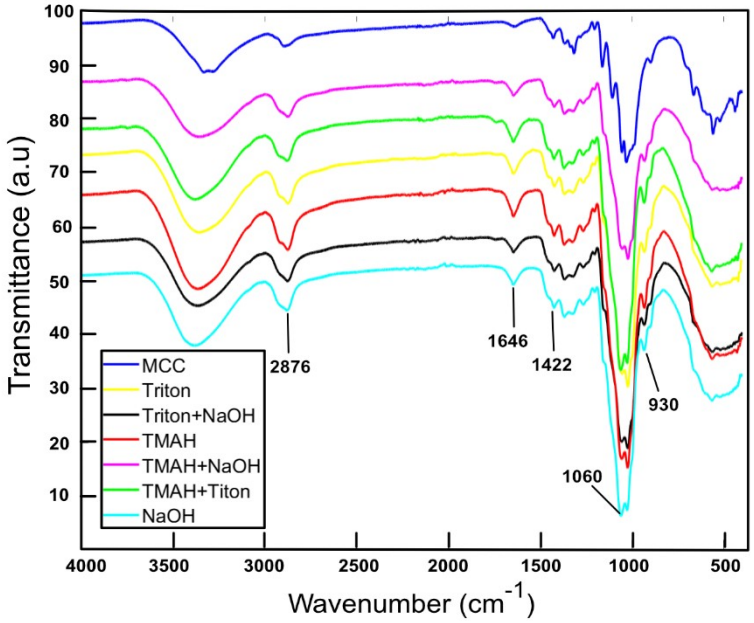

Figure 3. ATR-FTIR spectra of AHP-cellulose isolated form different solvents

ATR-FTIR (cm^{-1}): 3358 (OH), 3077 (=CH), 2921 (asymmetric CH_2), 2876 (symmetric CH_2) 1646 (C=C), 1422 (CH_2), 1367 (OH), 1060 (C-O), 930 (=CH)

NMR spectra

***For detailed peak assignmnets the reader is refered to the main text in the paper.**

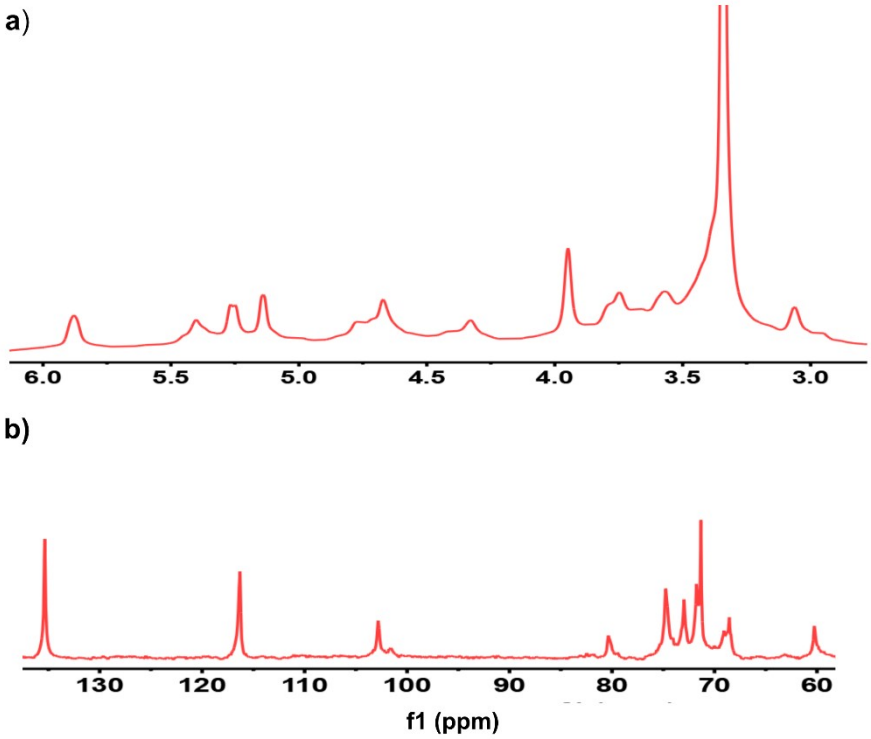

Figure 4. a) ^{1}H NMR b) ^{13}C NMR of AHP-cellulose isolated from NaOH

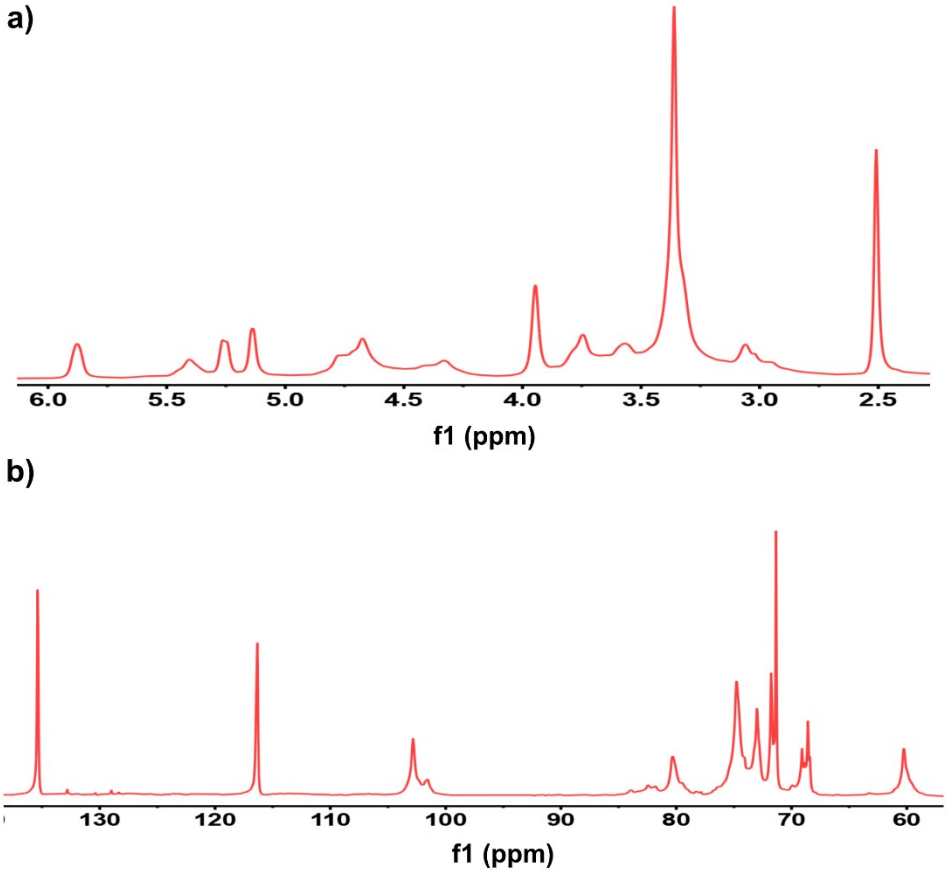

Figure 5. a) ^{1}H NMR b) ^{13}C NMR of AHP-cellulose isolated from NaOH/Triton B

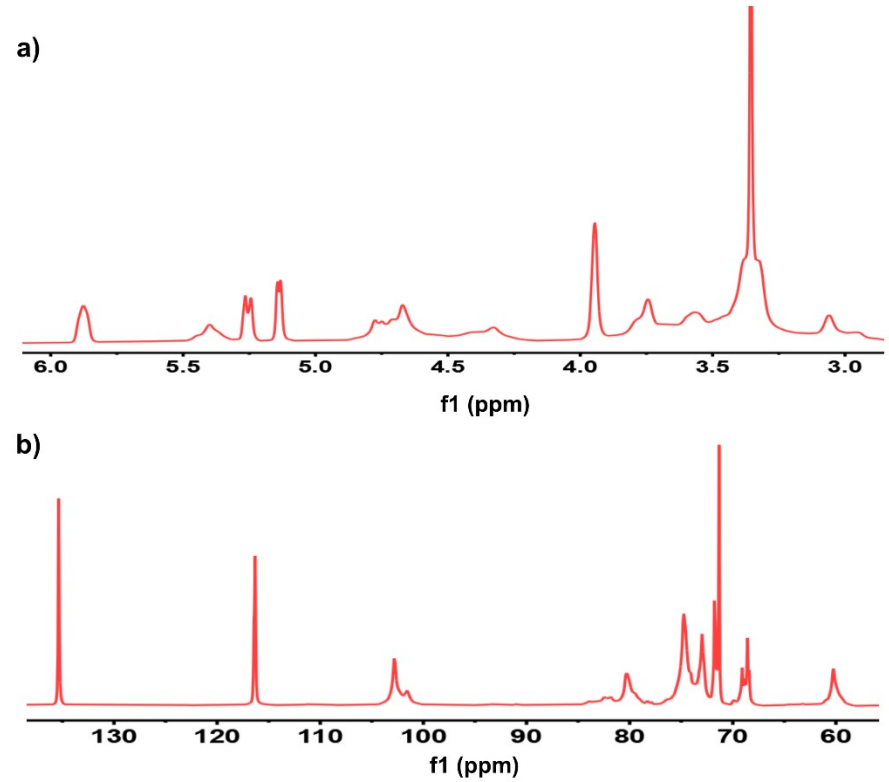

Figure 6. a) ^{1}H NMR b) ^{13}C NMR of AHP-cellulose isolated from NaOH/TMAH

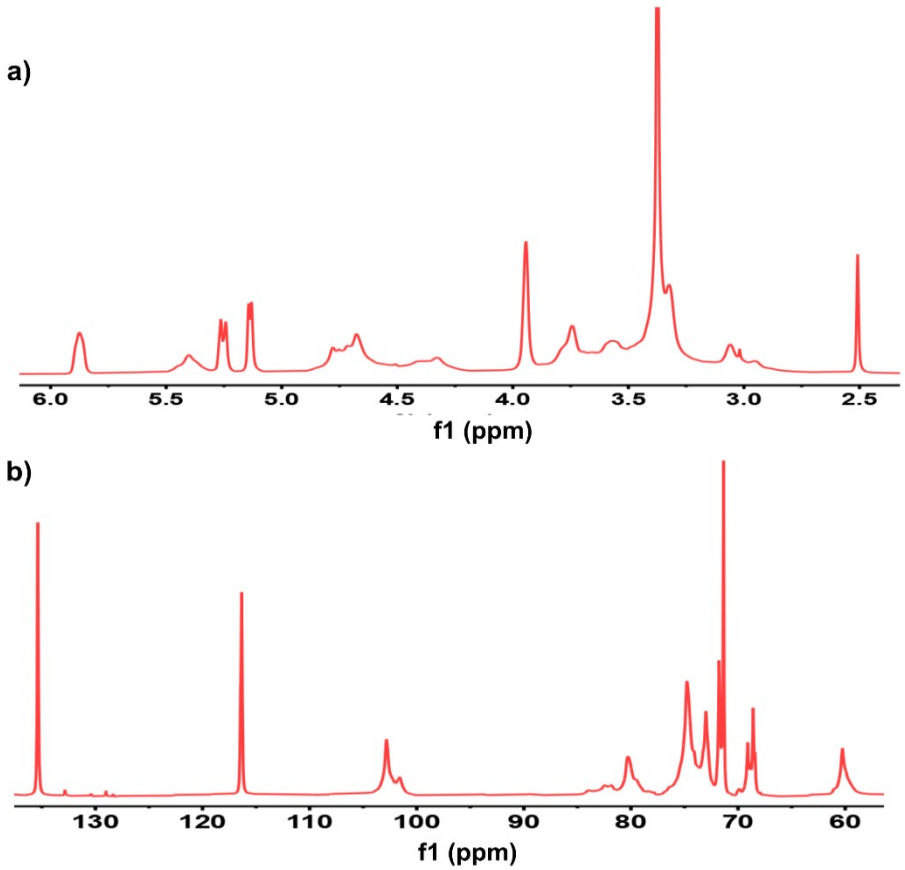

Figure 7. a) ^{1}H NMR b) ^{13}C NMR of AHP-cellulose isolated from Triton B

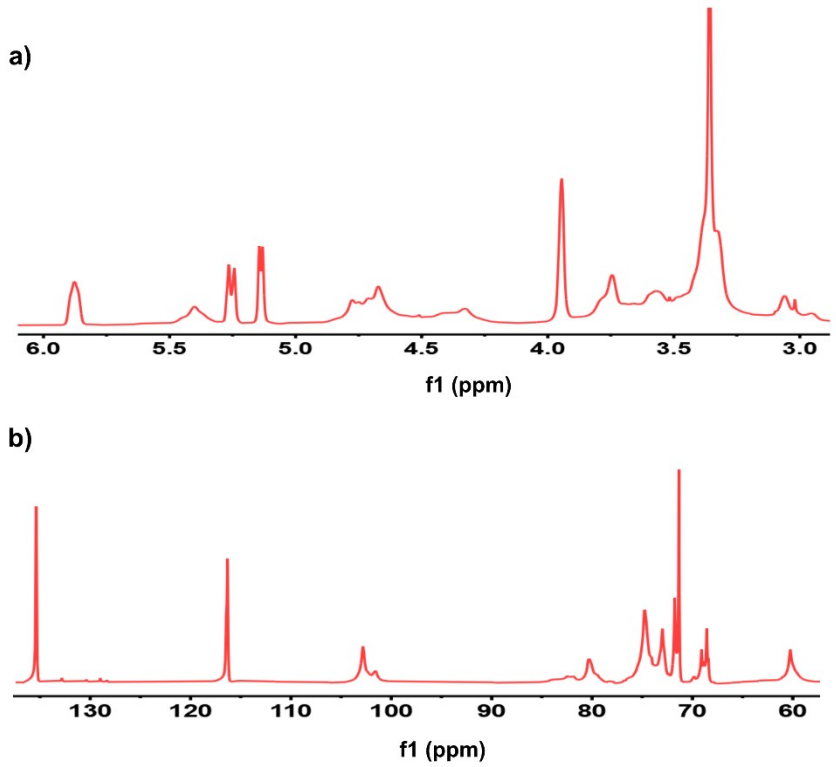

Figure 8. a) ^{1}H NMR b) ^{13}C NMR of AHP-cellulose isolated from TMAH/Triton B

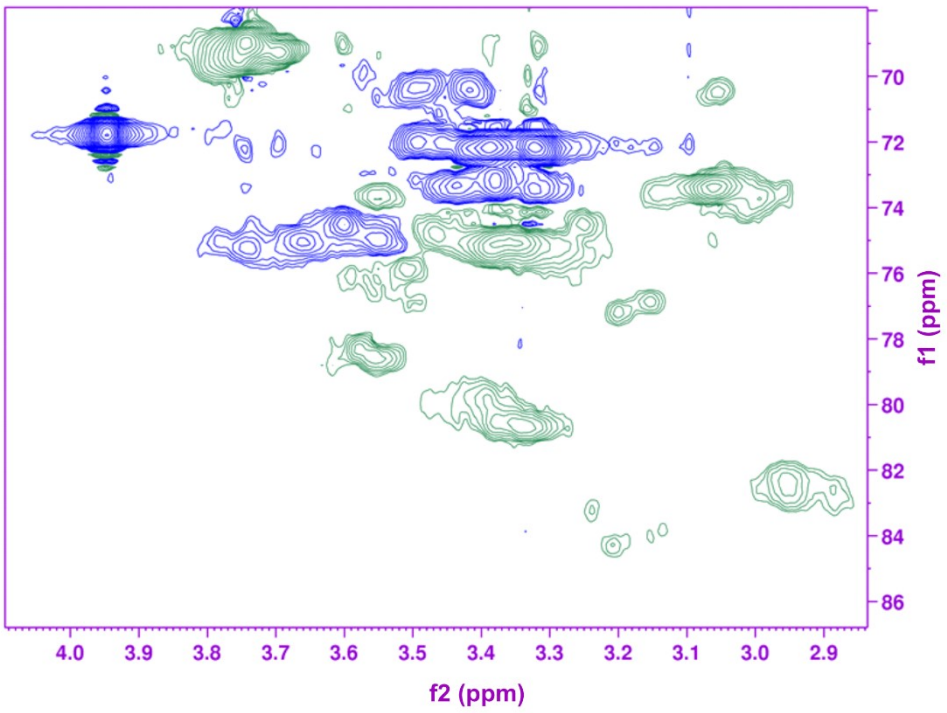

Figure 9. HSQC spectrum of AHP-cellulose isolated form TMAH

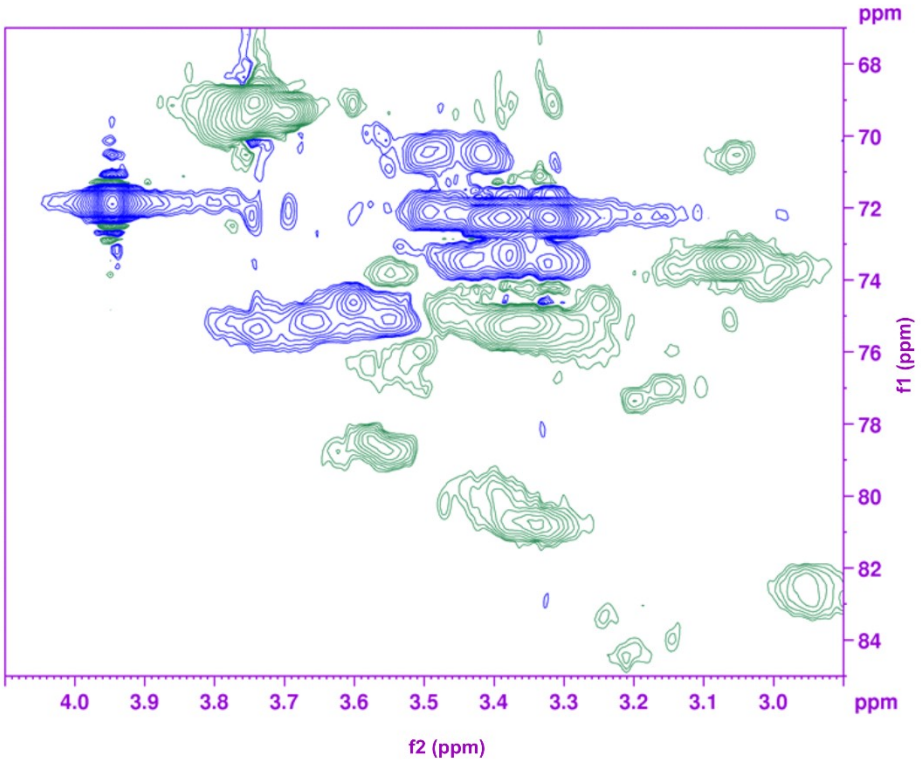

Figure 10. HSQC spectrum of AHP-cellulose isolated form TMAH/Triton B

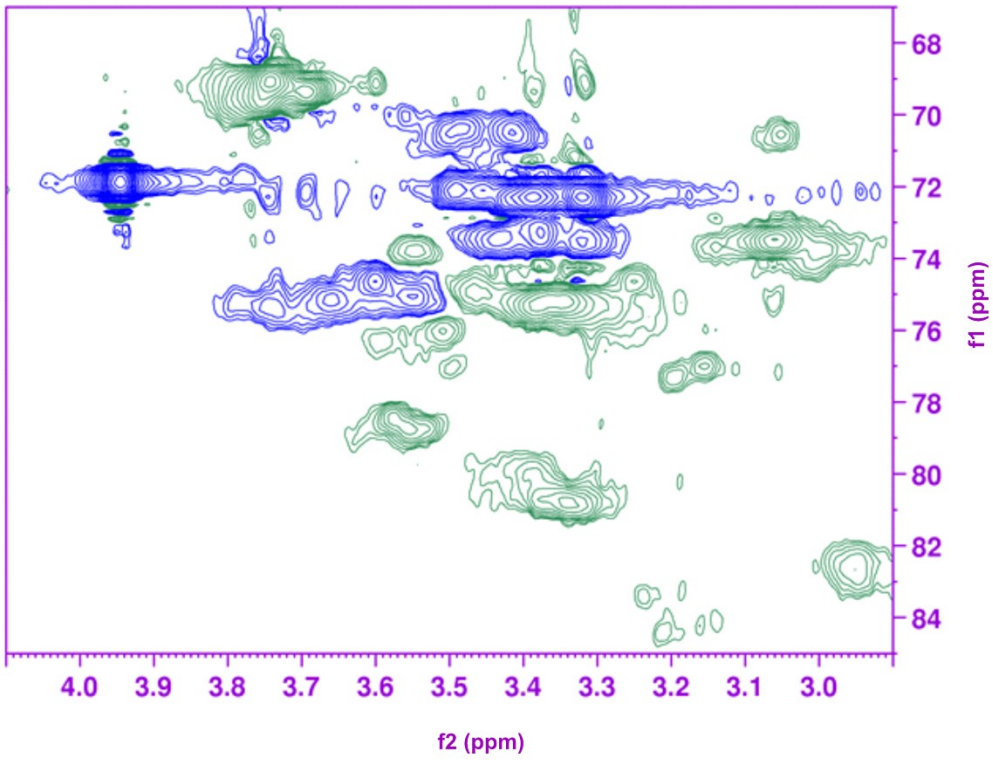

Figure 11. HSQC spectrum of AHP-cellulose isolated form TMAH/NaOH

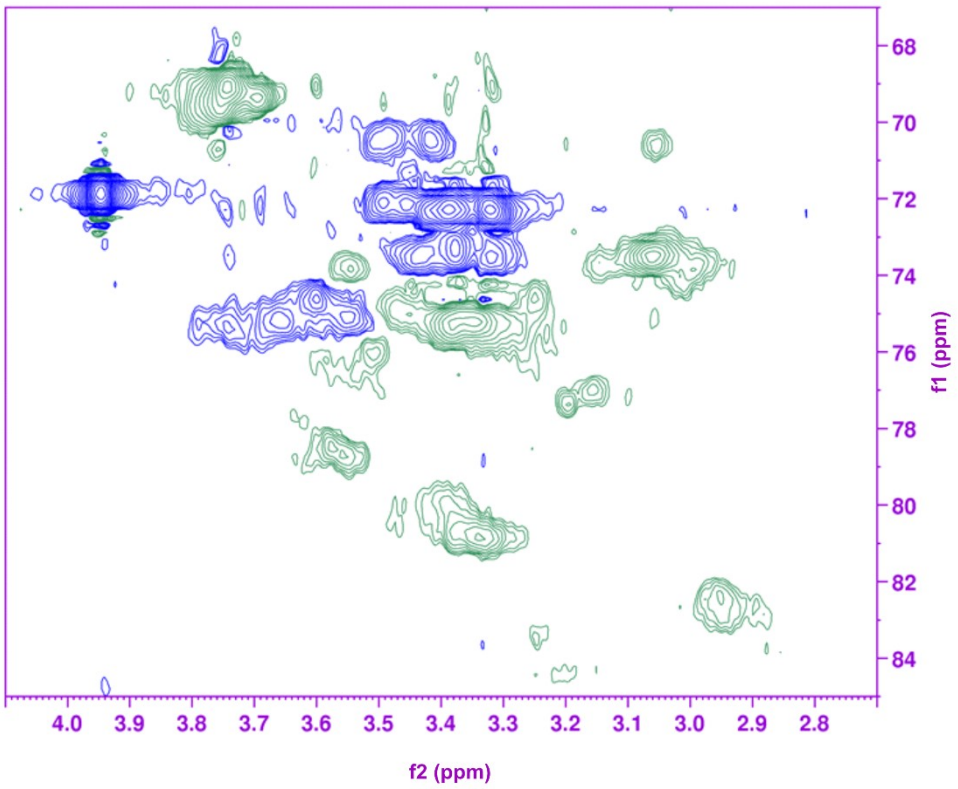

Figure 12. HSQC spectrum of AHP-cellulose isolated form Triton B/NaOH

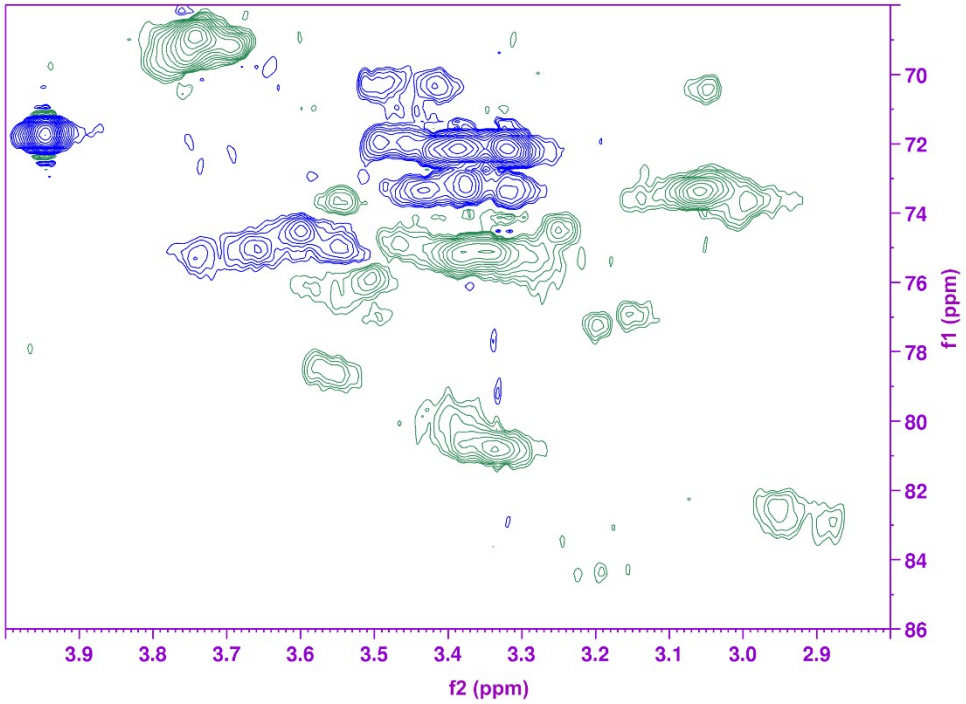

Figure 13. HSQC spectrum of AHP-cellulose isolated form NaOH

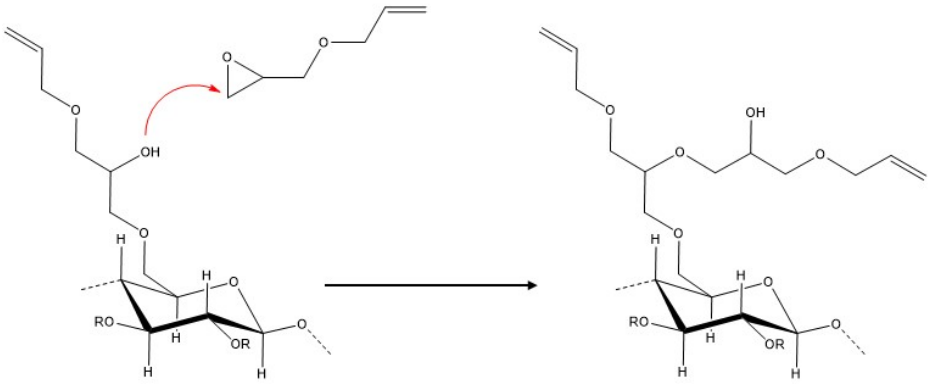

Figure 14. Cascade reaction