Electronic Supplementary Material (ESI) for RSC Advances

Supporting information for

Ionic Polymerization of Acrolein in Water using Harmless Catalysts

By Marco Delgado, Myriam Desroches, François Ganachaud

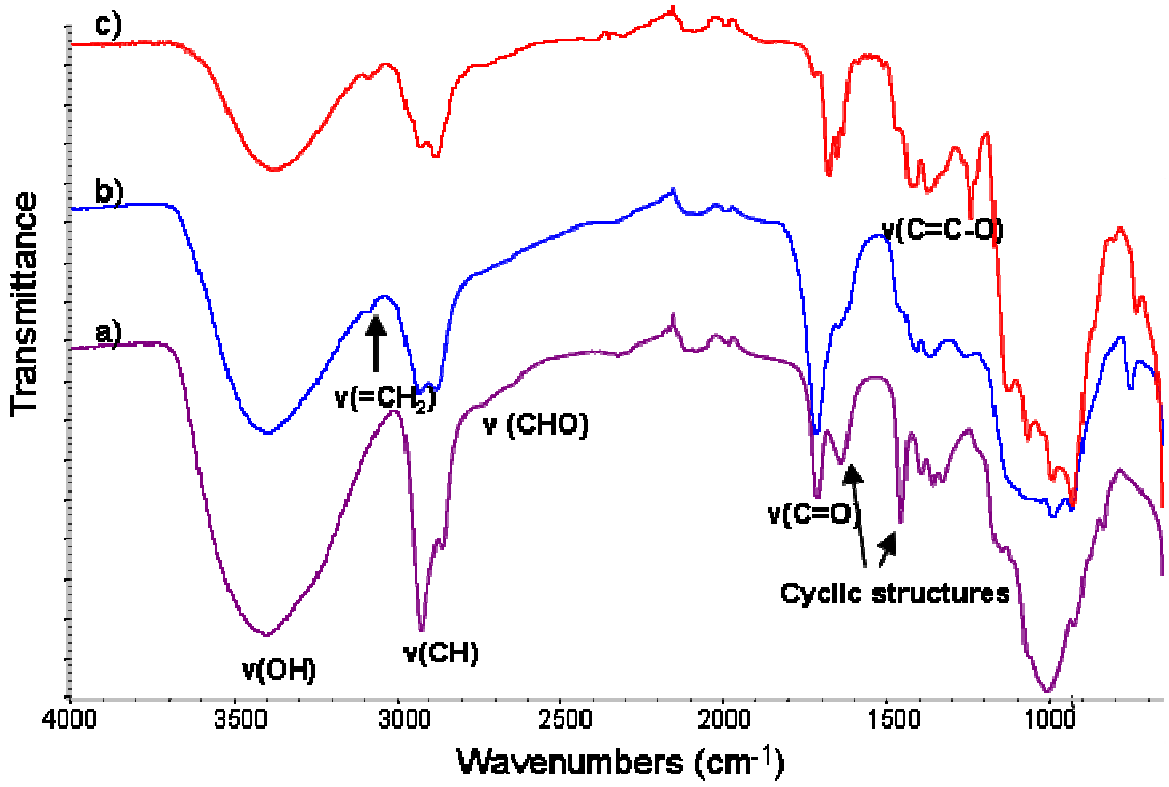

Figure S1: IR comparison of Acrolein polymers prepared with 0.5% of catalyst by a) radical; b) anionic and c) cationic polymerizations (see the main text for the nature of the catalysts used).

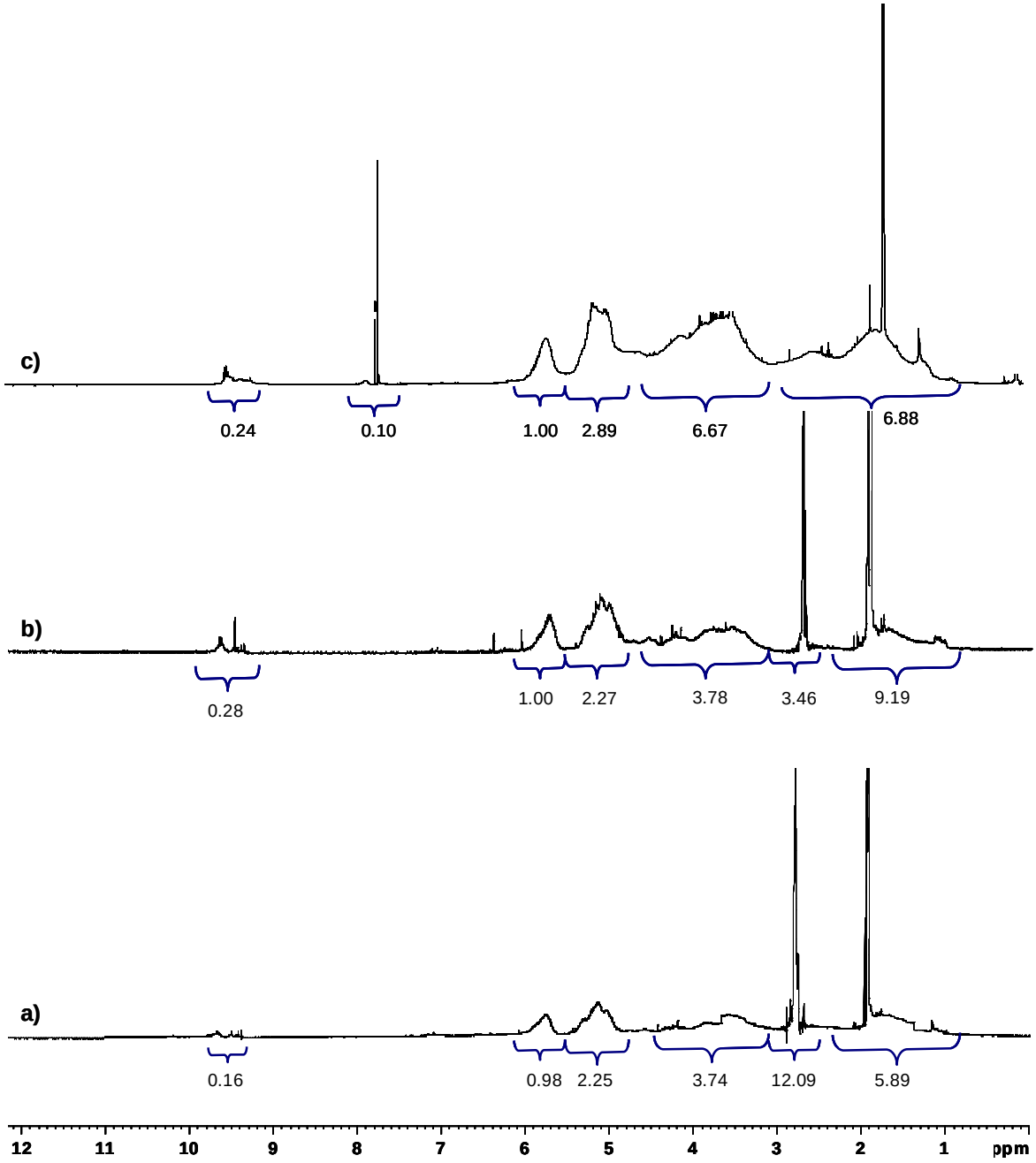

Figure S2: ^{1}H NMR spectra of acrolein polymers obtained using 0.5% of anionic catalysts: a) LiOH; b) NaOH and c) KOH. Polymer prepared with BPPCl + NaOH is not soluble in common NMR solvents.

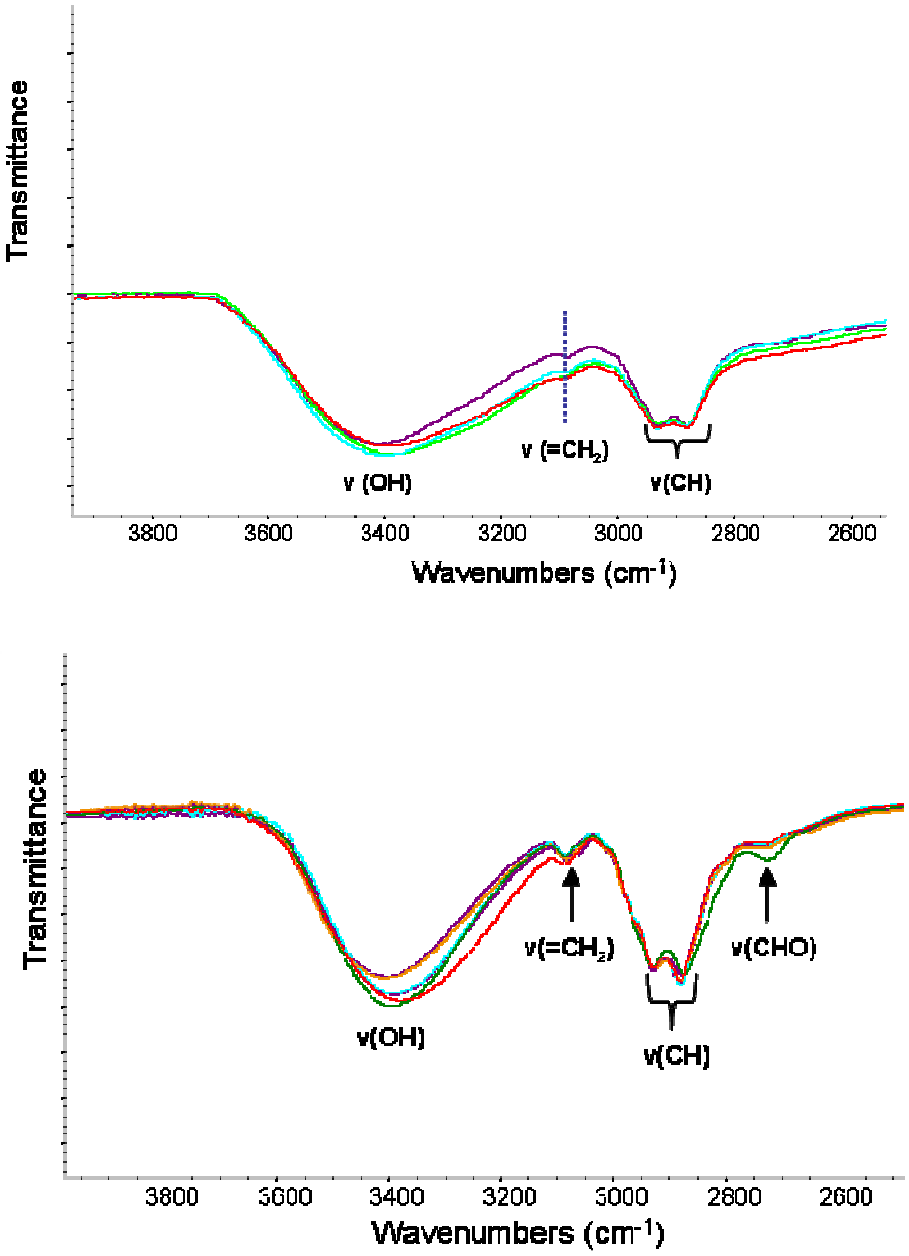

Figure S3: Zoom on FTIR spectra of anionically (top) and cationically (bottom) prepared oligoacroleins. The color code is the same as in the main text. Note the slight band appearing at 2700 cm^{-1}, typical of aldehyde functions.

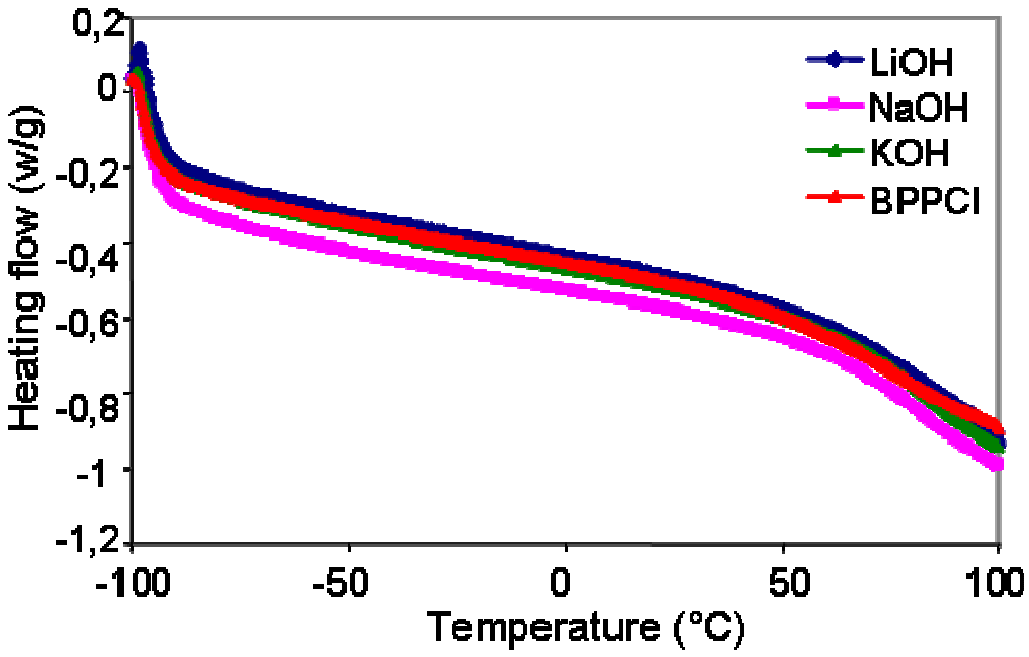

Figure S4: DSC thermograms of anionically prepared oligoacroleins, showing no T_g transitions in the range of temperature studied.