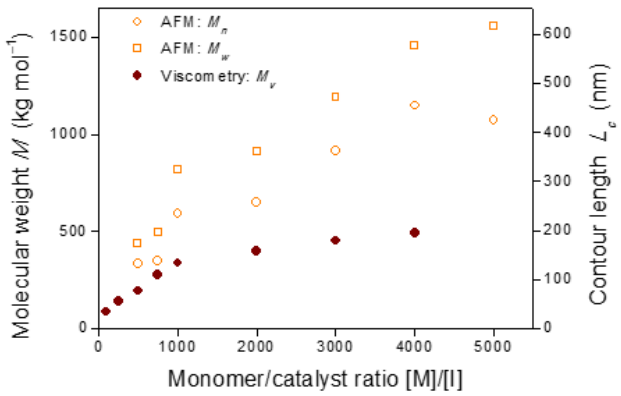
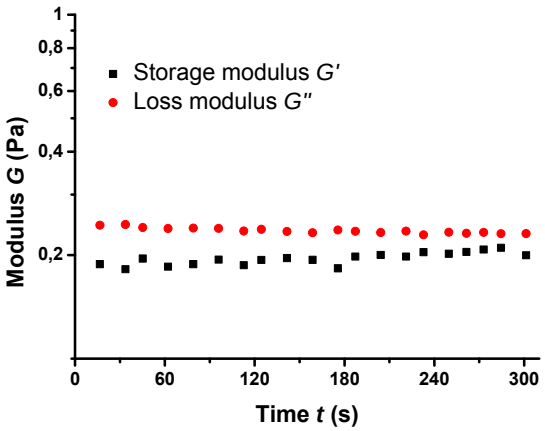
SUPPLEMENTARY MATERIAL

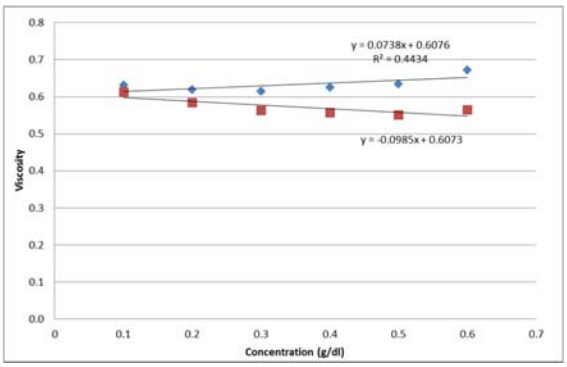


Supplementary Figure 1 | Molecular weight of the polymers as a function of the monomer/catalyst ratio used during the polymerization reaction. Solid dots correspond to M_v, determined by viscometry, open dots and squares correspond to M_n and M_w respectively, determined by AFM imaging.

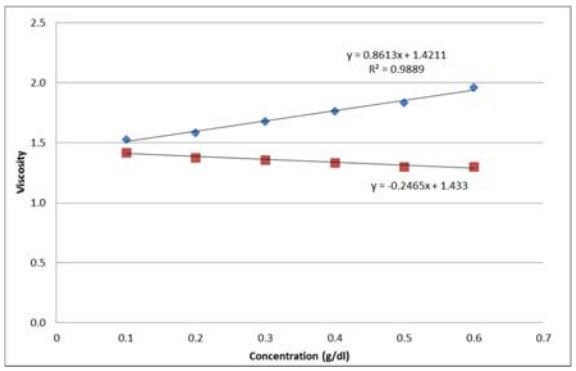


Supplementary Figure 2 | Linear regime of a 1f hydrogel at T = 17 °C. Recorded at a frequency of 1 Hz and a strain of 4%.

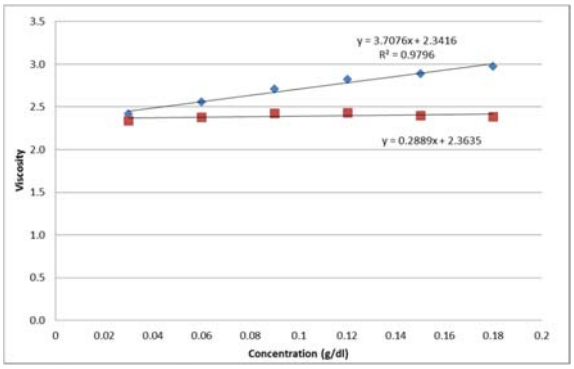
P1a:



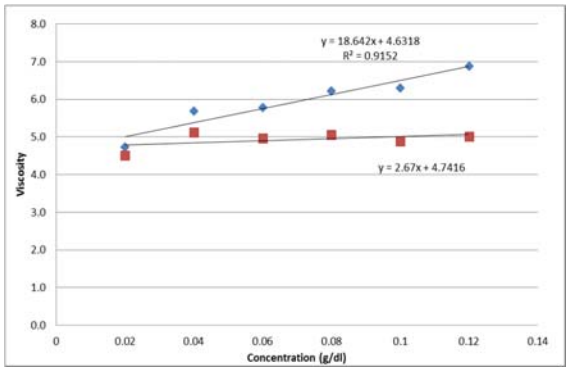
P1b:



P1c:



P1d:



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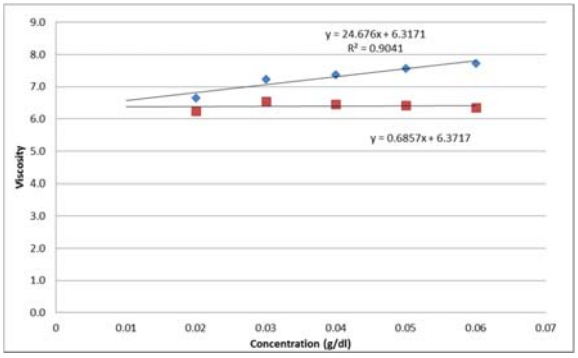
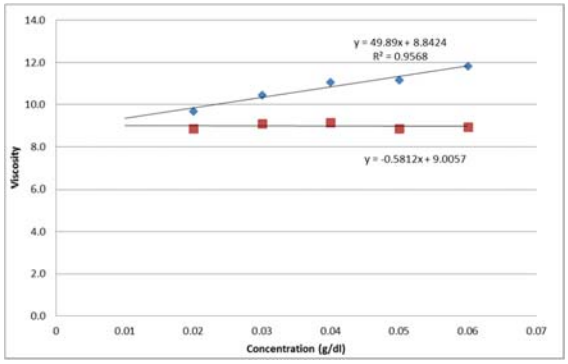
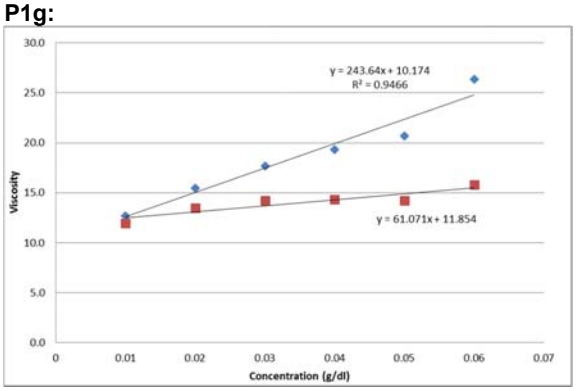


P1f:



P1g:



Supplementary Figure 3 | Viscometry data of P1a-P1g. Blue diamonds represent the reduced viscosity and red squares represent the inherent viscosity. The intrinsic viscosity was obtained from extrapolation to c = 0 g/dL. From the intrinsic viscosity, M_v was calculated using the Mark-Houwink equation with K and a values of $1.4 \cdot 10^{-9}$ and 1.75, respectively.