Electronic Supplementary Material (ESI) for Reaction Chemistry & Engineering.

Supporting Information for

The RAFT Copolymerization of Oppositely Charged Monomers and Its Use to Tailor the Composition of Nonfouling Polyampholytes with an UCST Behaviour

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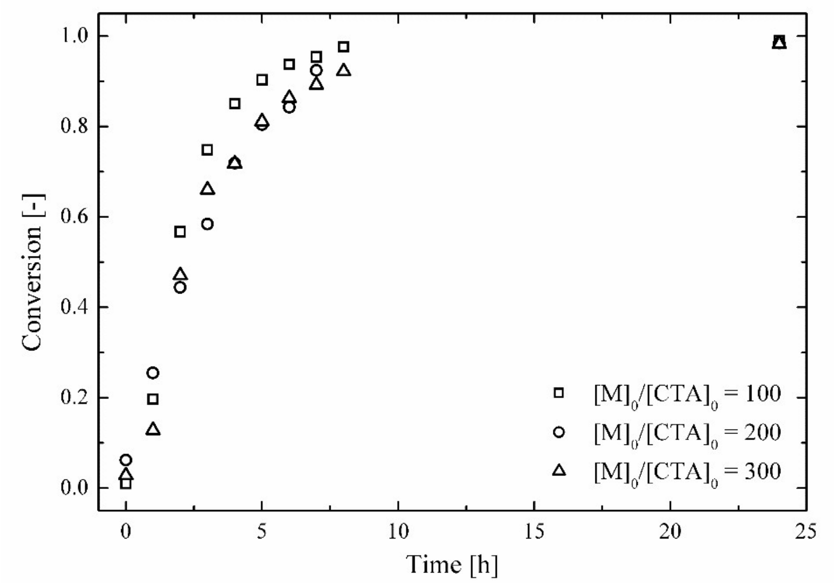

Figure S1. Overall monomer conversion as a function of time for the experimental data set at increasing $[M]_0/[CTA]_0$ (entries 1-3 in Table 1). The conversion was calculated from the ^{1}H NMR spectra recorded at increasing time according to Equation 4. The solvent was D_2O and the spectrometer a Bruker 500 MHz.

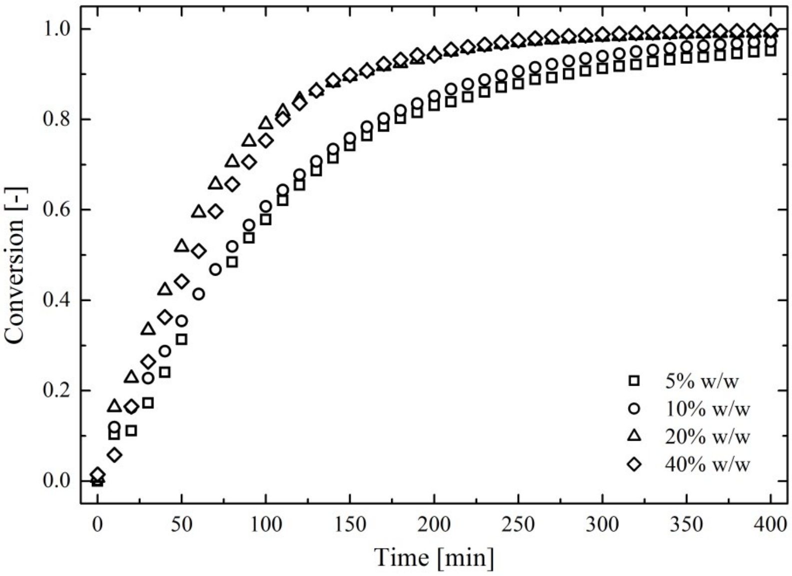

Figure S2. Overall monomer conversion as a function of time for the experimental data set at increasing monomer concentration and $[M]_0/[CTA]_0 = 200$ (entries 2, 4-6 in Table 1). The conversion was calculated from the ^1H NMR spectra recorded at increasing time according to Equation 4. The solvent was D_2O and the spectrometer a Bruker 500 MHz.

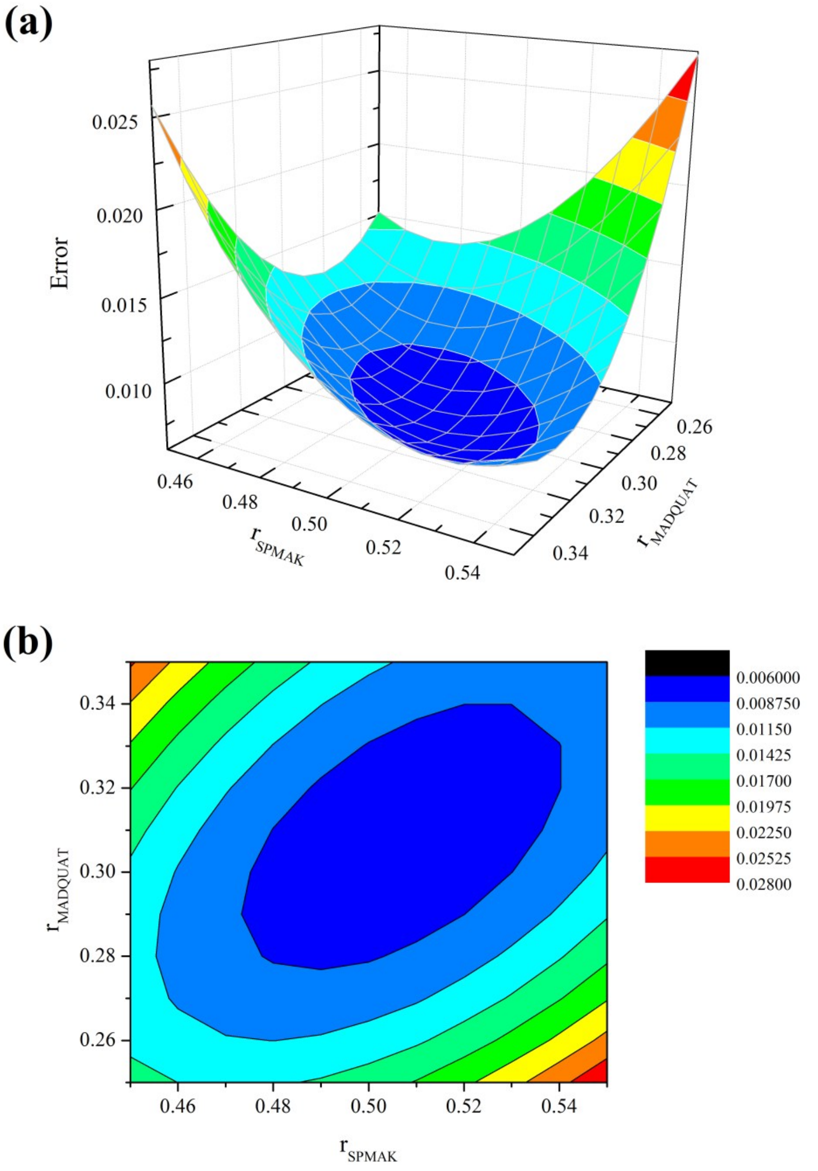

Figure S3. (a) 3D plot of the error between the fitting of the integrated Skeist's equation and the experimental data, recorded at increasing mole fraction of SPMAK in the starting monomer mixture (i.e. f^0_{SPMAK}, entries 2, 7-10 in Table 1) at different reactivity ratios. (b) Contour of the same series of data, highlighting the interval for the optimized reactivity ratios.

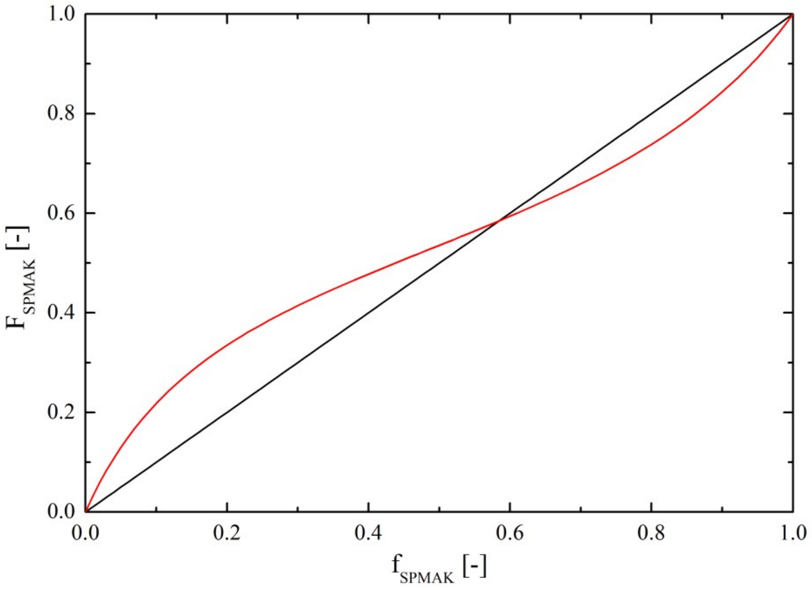

Figure S.4. Mayo-Lewis plot for the system SPMAK-MADQUAT with reactivity ratios equal to 0.51 and 0.31, respectively.

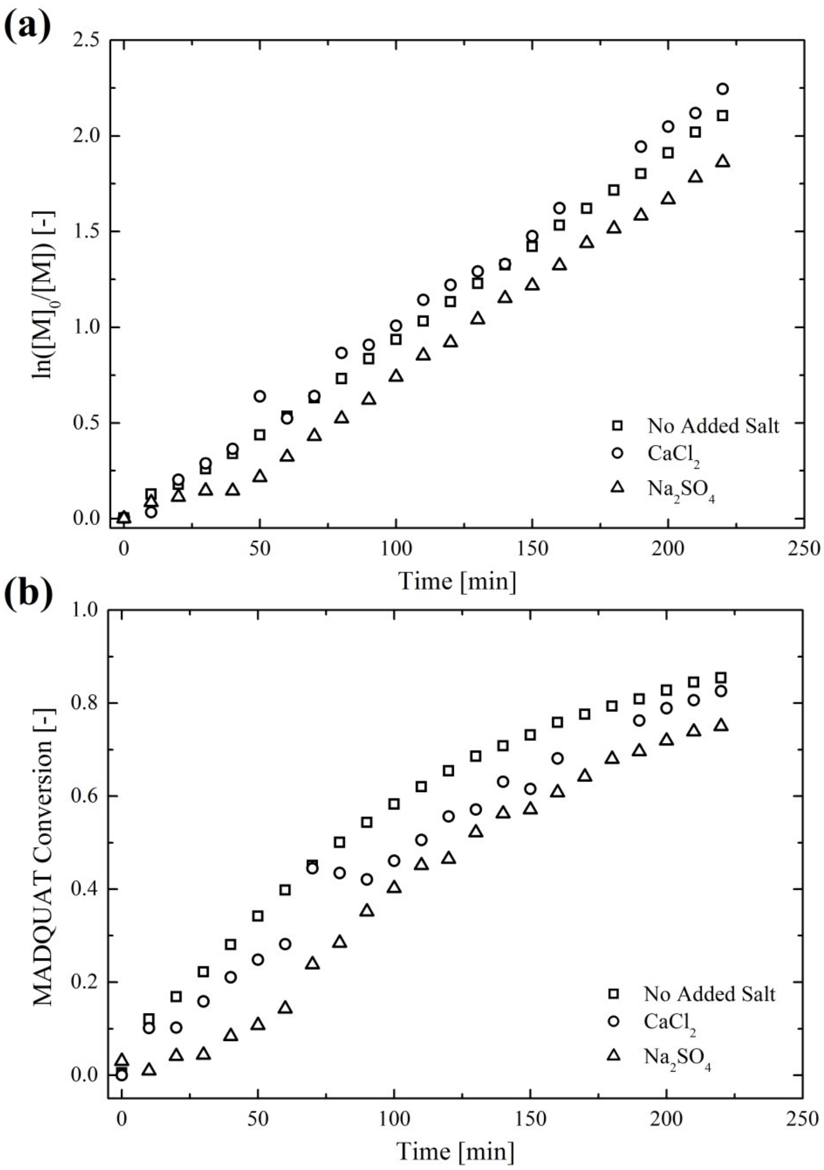

Figure S5. (a) Overall monomer consumption expressed as ln($[M]_0$/[M]) as a function of time in the case of no added salt and $CaCl_2$ and Na_2SO_4 1.1 M (i.e. [salt]/[M] = 2.5). (b) MADQUAT conversion during time for the same experimental data set (i.e. entries 2,16,17 in Table 1).