Electronic Supplementary Material (ESI) for Polymer Chemistry

Electronic Supplementary Information

One-step RAFT Synthesis of Well-Defined Amphiphilic Star Polymers and their Self-Assembly in Aqueous Solution

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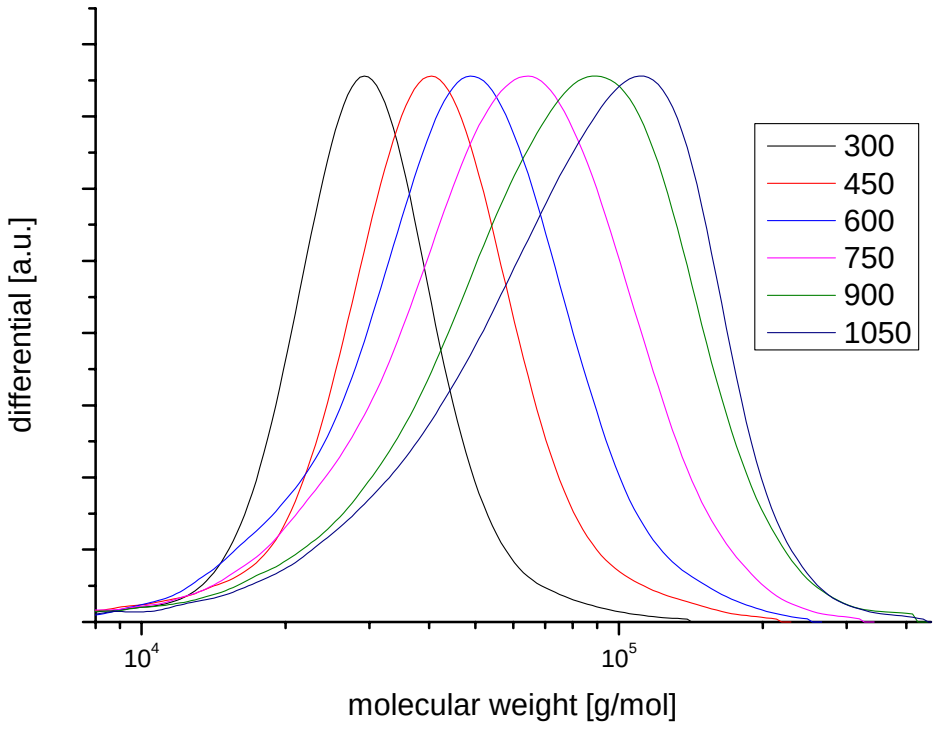

Figure S 1. SEC traces (DMF + 0.1% LiBr, calibrated with linear PS-standards) for 3C12 PDMA star polymers made with ratios of DMA : CTA of 300 → 1050 : 1 (from left to right).

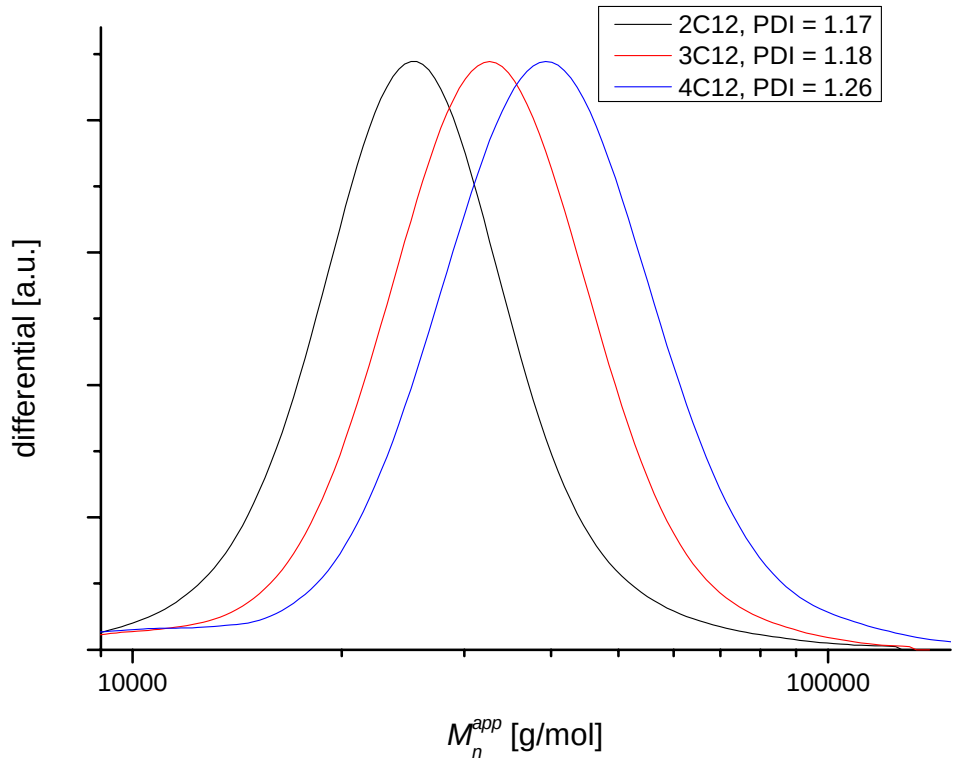

Figure S 2. SEC traces (DMF + 0.1% LiBr, PS-standards) for 2C12-, 3C12- and 4C12-PDMA (from left to right) with arm lengths of $DP_n = 125$.

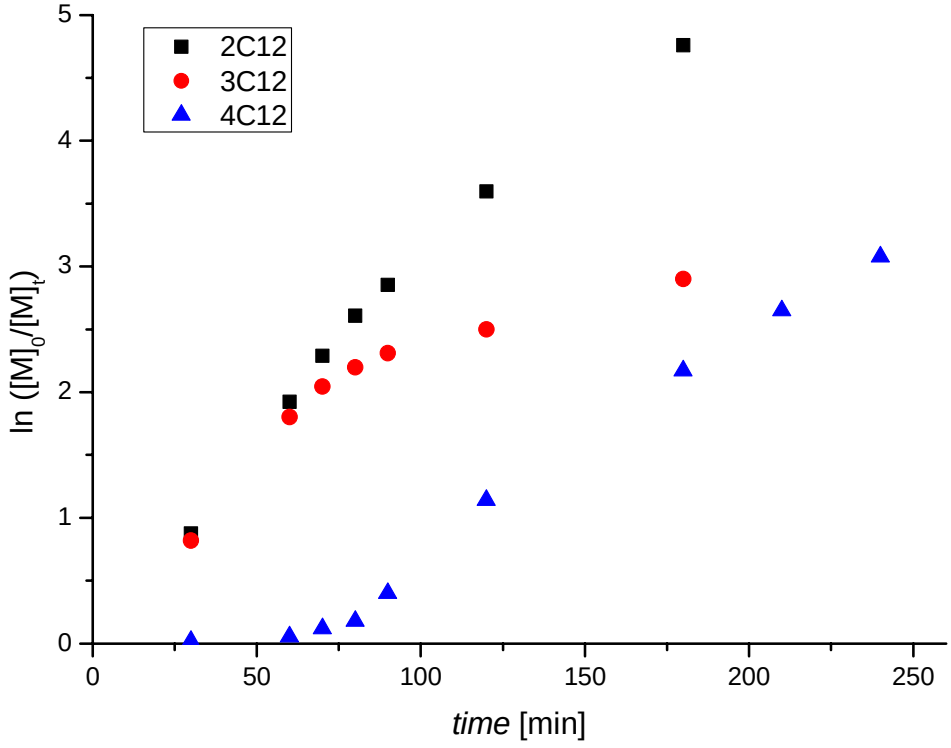

Figure S 3. Evolution of $\ln([M]_0/[M]_t)$ over time for the polymerization of DMA using 2C12- (■), 3C12- (●) and 4C12-CTA (▲).

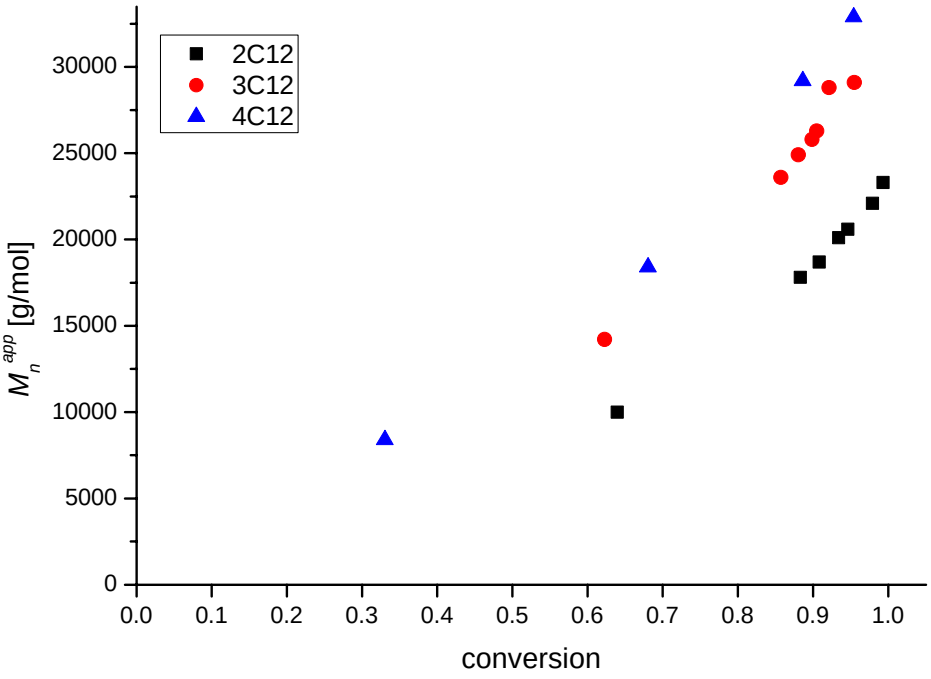

Figure S 4. M_n^{app} from SEC in DMF + 0.1% LiBr over conversion for the polymerisation of DMA using 2C12- (■), 3C12- (●) and 4C12-CTA (▲).

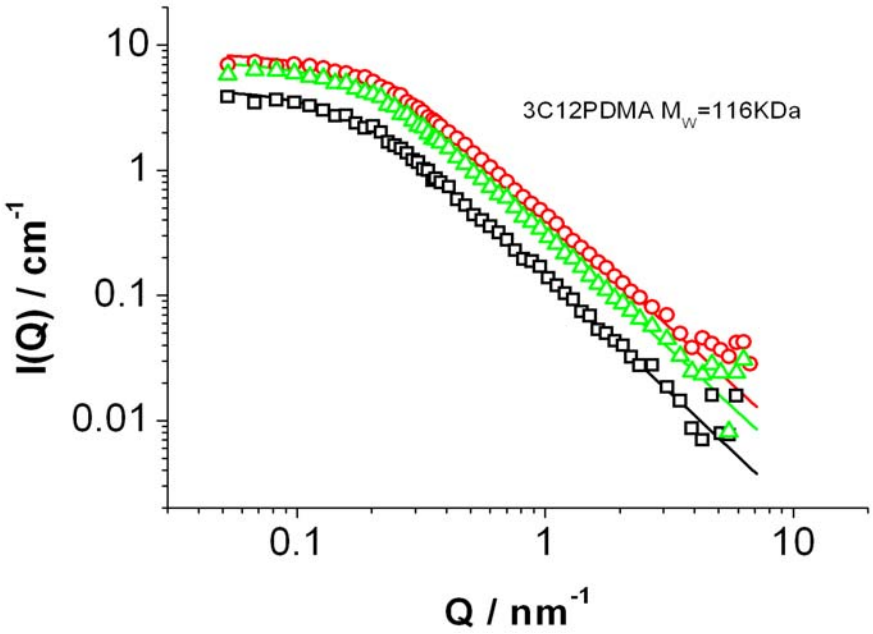

Figure S 5. SANS patterns of the aggregates of 3C12-PDMA (sample 10) in d8-THF at concentrations of 1 (□), 2 (△) and 3 wt% (○).

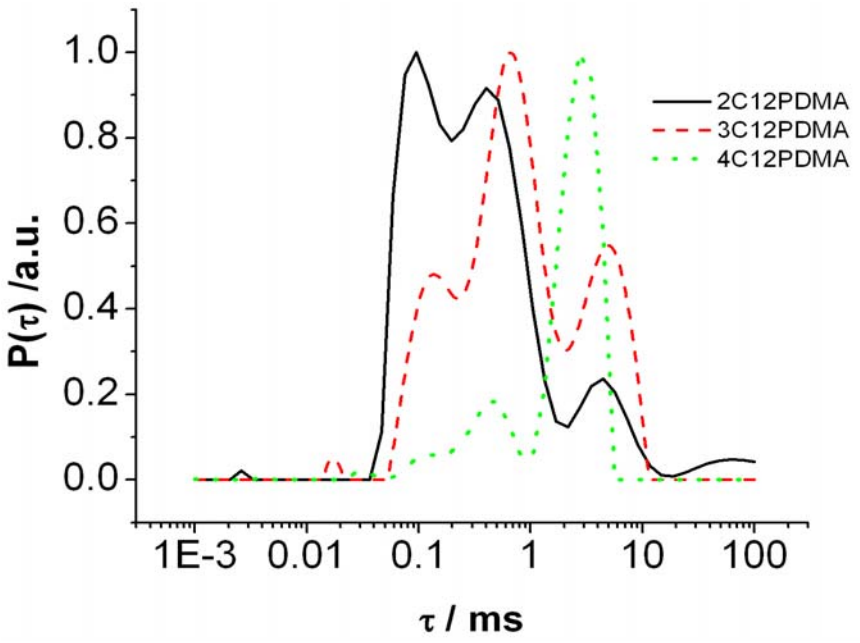

Figure S 6. Distribution function of the decay times as obtained from inverse Laplace transform analysis for the corrrelation functions of 1 wt% solutions of 2C12-, 3C12- and 4C12-PDMA in water.

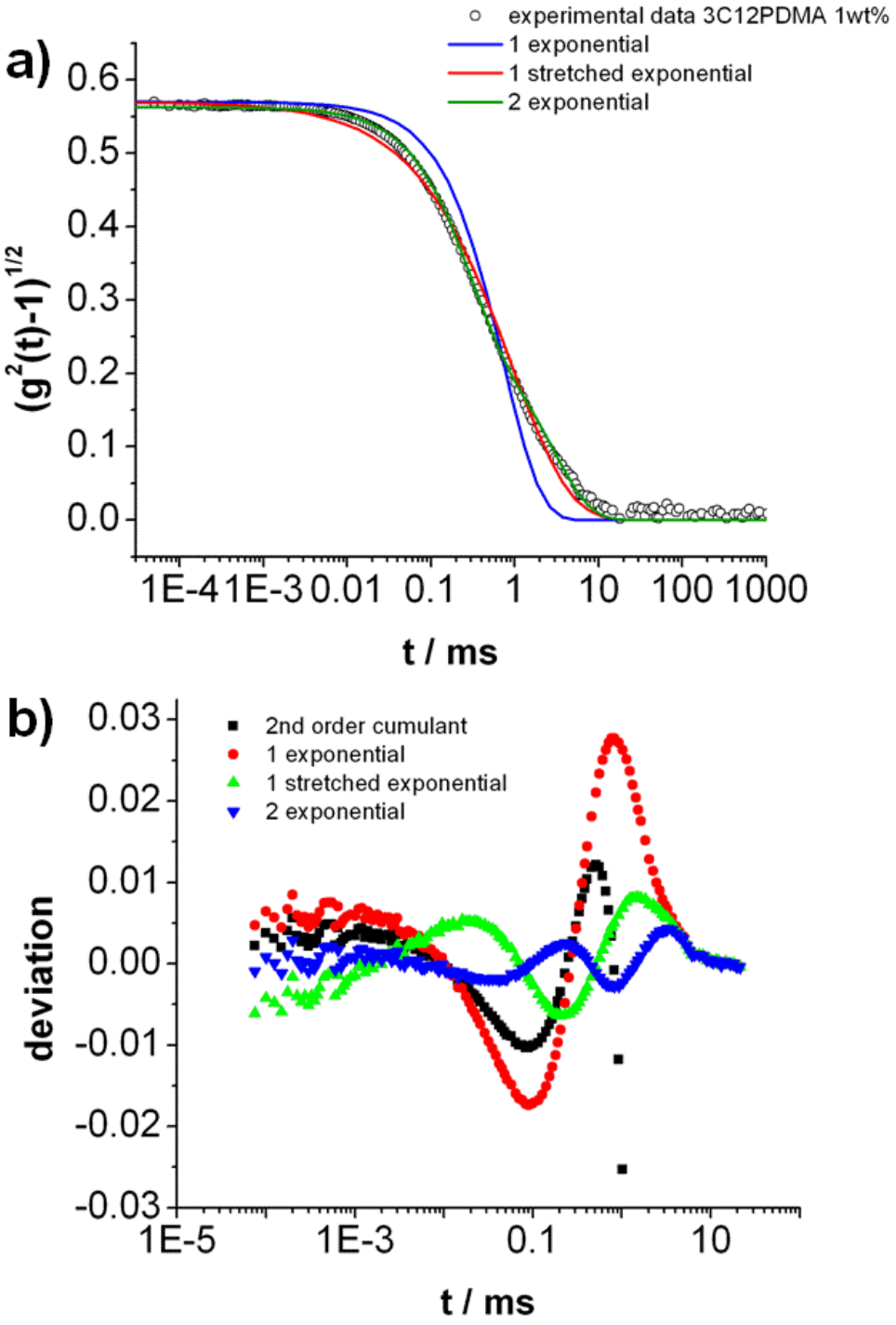

Figure S 7. a) Electric field correlation function of 3C12-PDMA 1wt% in water with the corresponding mono-exponential decay, one stretched exponential decay and bi-exponential decay fits. **b)** Residuals of the second order cumulant analysis, mono-exponential decay, one stretched exponential decay and bi-exponential decay fits.