Electronic Supplementary Material (ESI) for Nanoscale.

Terminal Groups Control Self-Assembly of Amphiphilic Block Copolymers In Solution

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Supplementary Information

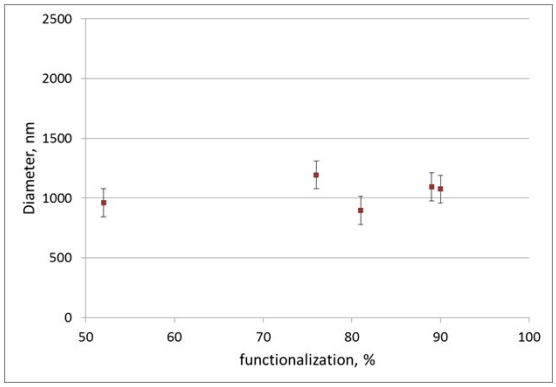


Figure S1. Particle diameters (after hydration, before extrusion) vs. functionalization degree for the NH_2-ABA-NH_2 polymer at pH 7.

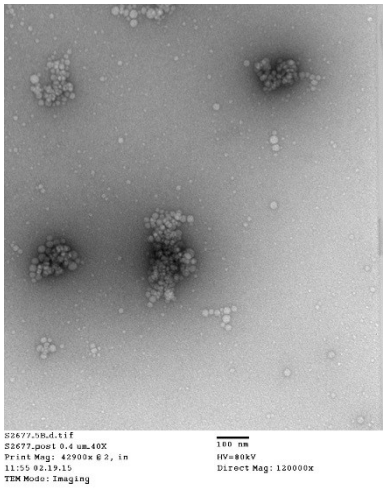
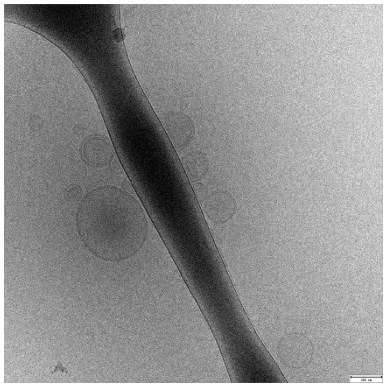


Figure S2. A TEM image of compound micelles from the BA-OH polymer, after extrusion through a 400 nm membrane. The scale bar is 100 nm.



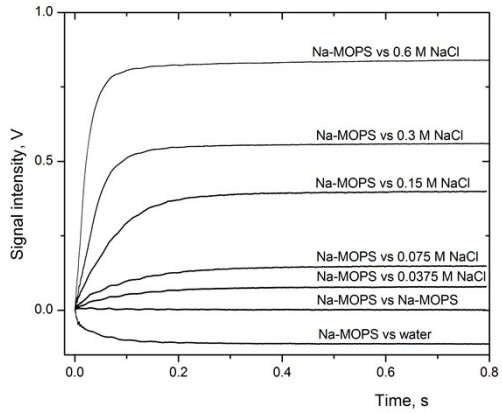


Figure S3. A cryo-TEM image of lipid vesicles (from *E. Coli* extract), scale bar 100 nm, top, and their corresponding stopped-flow traces, bottom, as a response to varied osmotic stress.

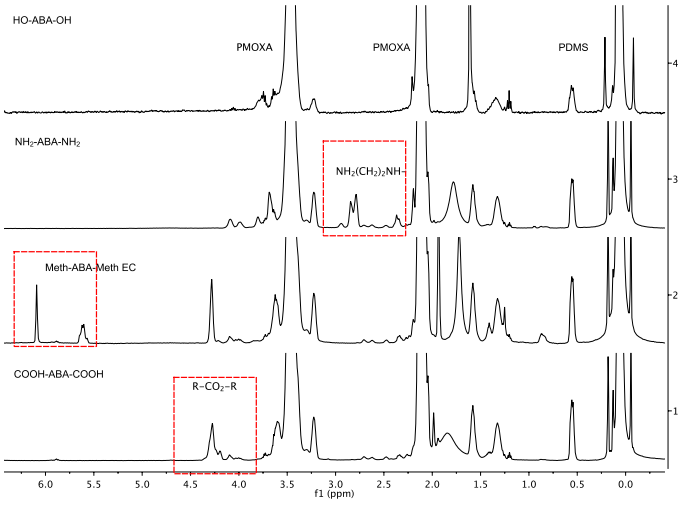


Figure S4. Proton (^{1}H) NMR of ABA polymers. PDMS: CH_3-Si – 0 ppm, Si-$\underline{CH_2}$-CH_2 - 0.5 ppm , Si-CH_2-$\underline{CH_2}$ - 1.4 ppm, PMOXA -N-CH_2-CH_2 - 3.6 ppm, -CO-CH_3 - 2.1 ppm. End groups: -NH-CH_2-CH_2-NH_2 - 2.8 ppm, methacrylate - 5.5, 6.0 ppm, R-CO_2-R - 4.2 ppm.

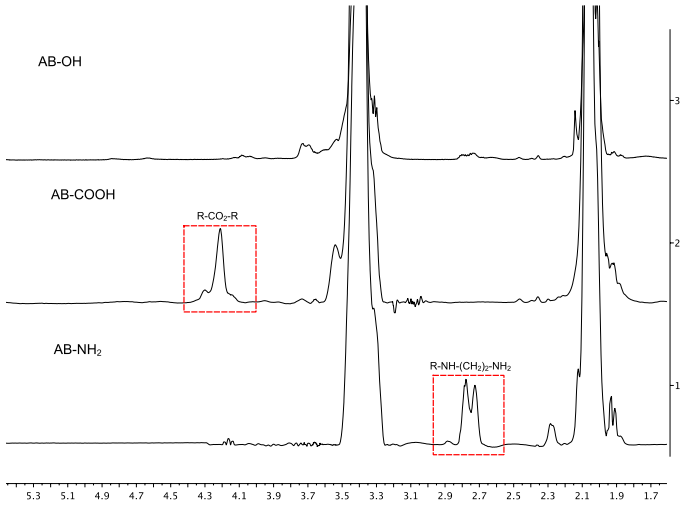


Figure S5. Proton (^{1}H) NMR of AB polymers. PDMS: CH_3-Si – 0 ppm, Si-$\underline{CH_2}$-CH_2 - 0.5 ppm , Si-CH_2-$\underline{CH_2}$ - 1.4 ppm, PMOXA -N-CH_2-CH_2 - 3.6 ppm, -CO-CH_3 - 2.1 ppm. End groups: -NH-CH_2-CH_2-NH_2 - 2.8 ppm, R-CO_2-R - 4.2 ppm.

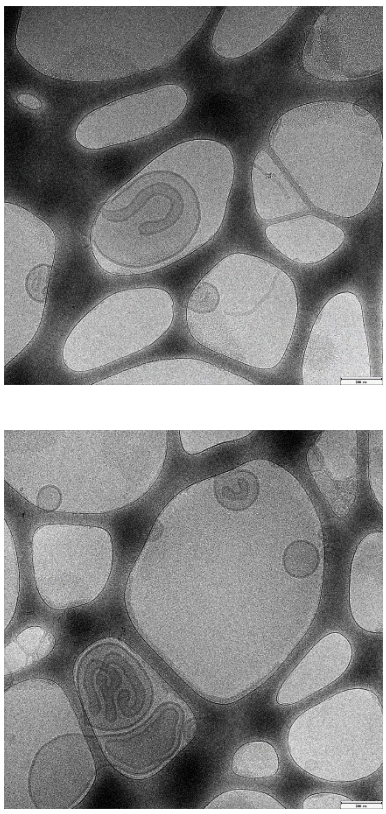


Figure S6. cryo-TEM images of carboxylated ABA polymer. Top: before extrusion, bottom: after extrusion through an 800 nm membrane. Both images show the membranes folding over on themselves due to the large size of aggregates and the measurement conditions of cryo-TEM (scale bars: 200 nm).