

Supporting information for:

Stimulus-responsive non-ionic diblock copolymers: protonation of a tertiary amine end-group induces vesicle-to-worm or vesicle-to-sphere transitions

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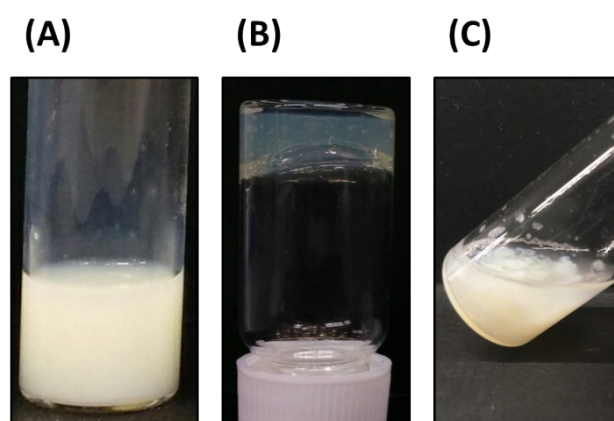


Figure S1. Digital photographs recorded for 10% w/w aqueous dispersions of MPETTC-PGMA₄₃-PHPMA₁₉₀ diblock copolymer nano-objects at 20 °C and (A) pH 7.0, (B) pH 3.0 and (C) after a pH switch from pH 7.0 to pH 3.0 and returning to pH 7.0.

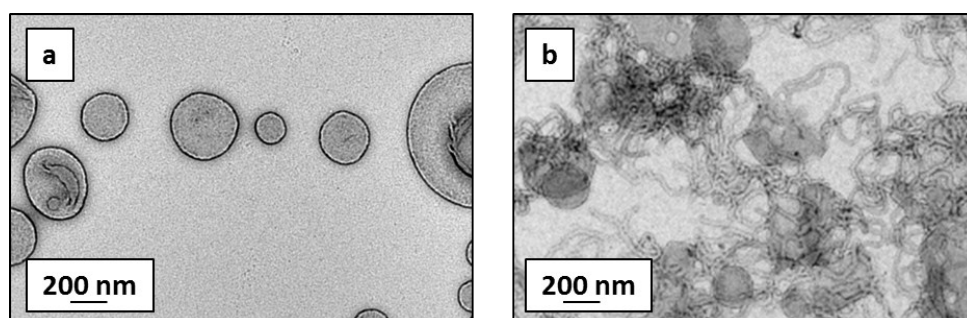
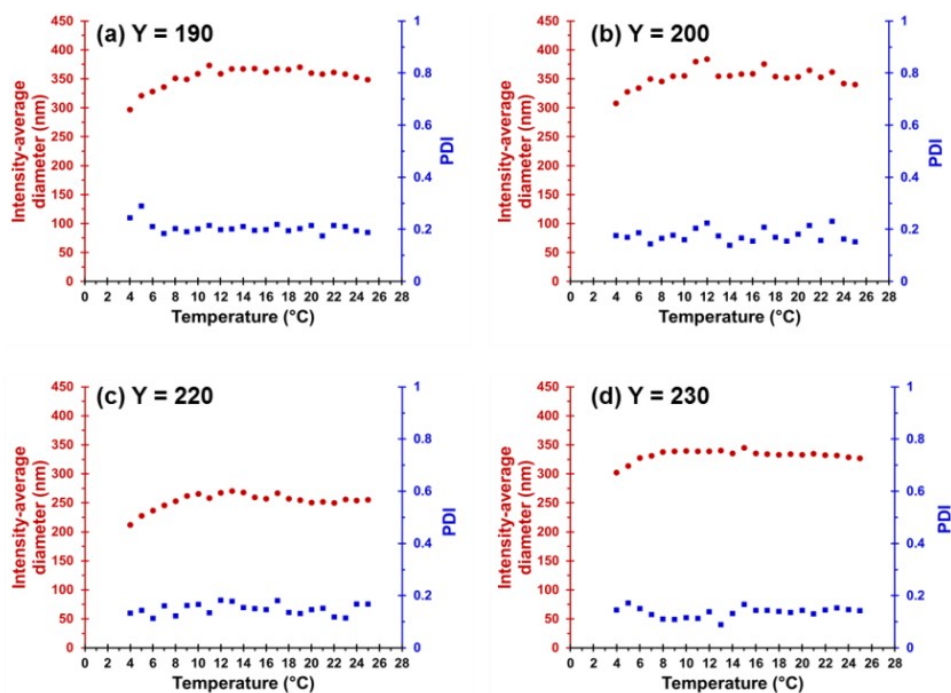


Figure S2. Representative TEM images obtained for an MPETTC-PGMA₄₃-PHPMA₂₁₀ diblock copolymer at (a) pH 7.0 and (b) pH 3.0.

(A)



(B)

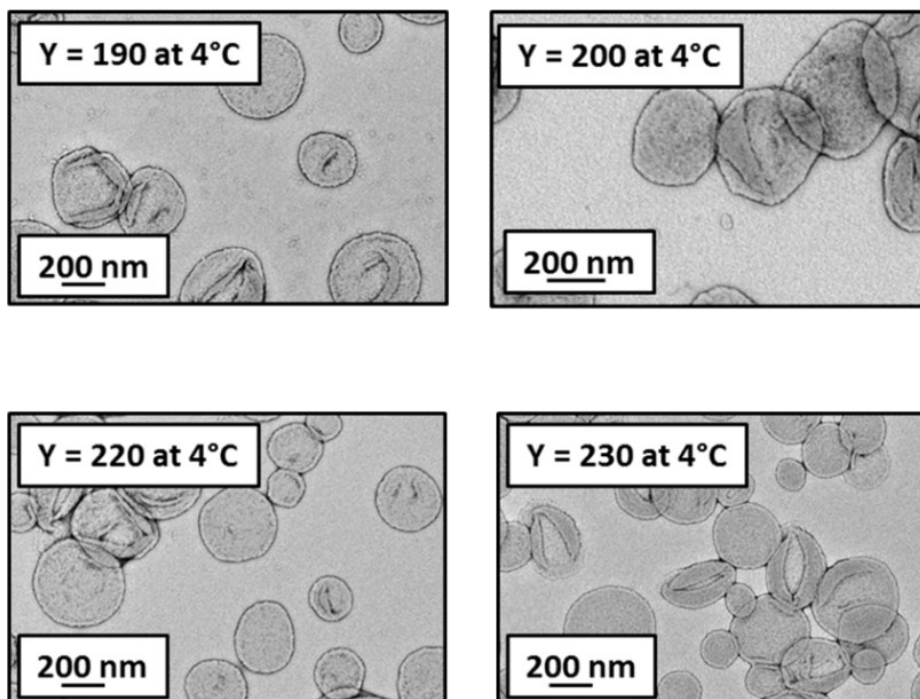


Figure S3. (A) Variation of intensity-average diameter (and polydispersity index) with temperature on cooling a 0.1% w/w dispersion of MPETTC-PGMA₄₃-PHPMA _{y} diblock copolymer vesicles at pH 7.0 from 20 °C to 4 °C and (B) the corresponding TEM images obtained after this temperature sweep for y values of 190, 200, 220 and 230.

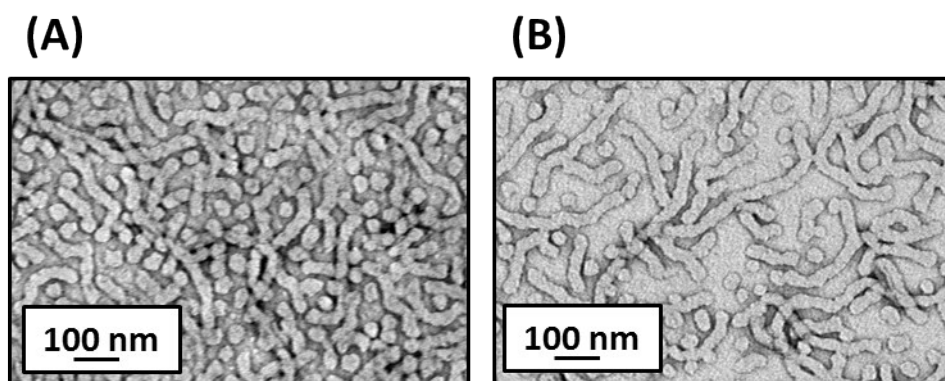


Figure S4. Representative TEM images obtained for MPETTC-PGMA₄₃-PPHMA₂₃₀ diblock copolymer nano-objects at pH 3 after being stored in a 4 °C fridge for 24 h at (A) 0.1% w/w or (B) 10% w/w.

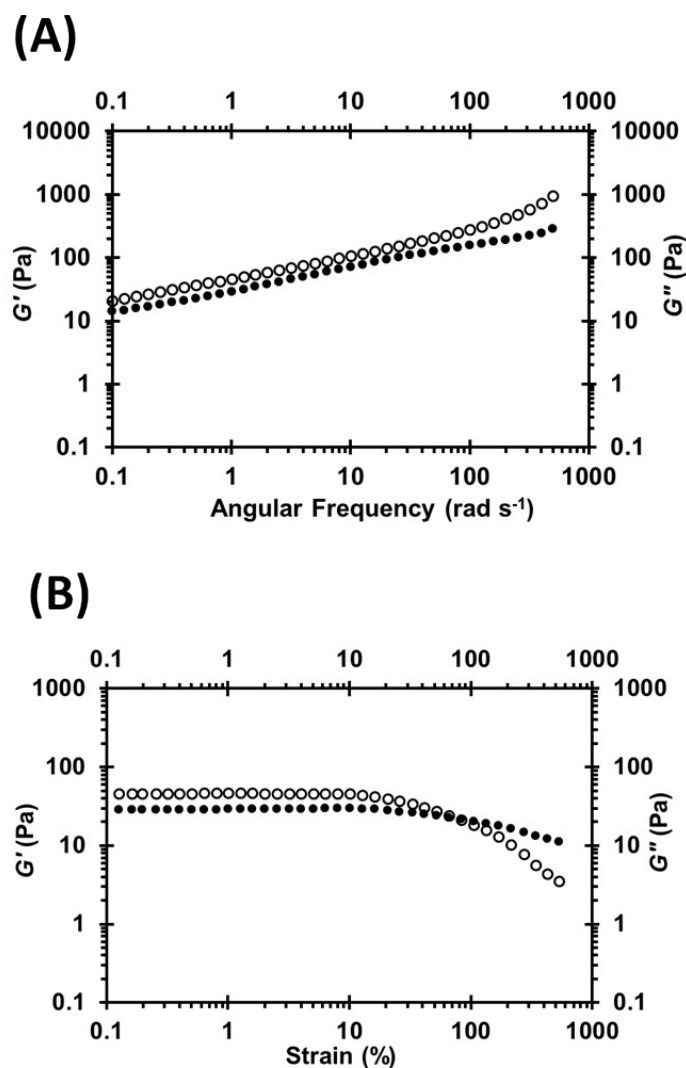


Figure S5. (A) Angular frequency sweeps conducted at 1.0% strain and (B) percentage strain sweeps conducted at 1.0 rad s⁻¹ for MPETTC-PGMA₄₃-PPHMA₁₉₀ diblock copolymer worm gels at pH 3 and 20 °C. The open circles represent G' and the closed circles represent G''.

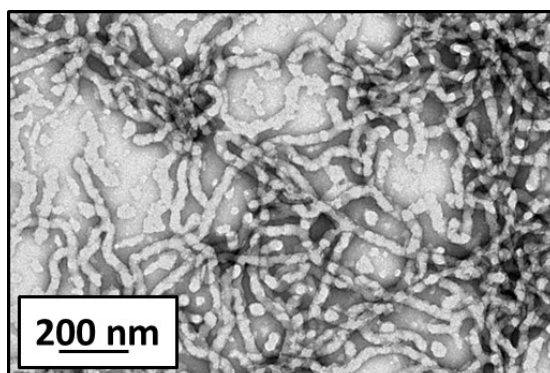


Figure S6. TEM image obtained for MPETTC-PGMA₄₃-PPMA₂₃₀ diblock copolymer worms at pH 3 after a temperature cycle from 20 °C to 4 °C to 20 °C.