

Electronic Supporting Information for

The effect of low temperature on poly(3-methyl-*N*-vinylcaprolactam)-*b*-poly(*N*-vinylpyrrolidone) diblock copolymer nanovesicles assembled from all-aqueous media

Veronika Kozlovskaya,^{1&} Yiming Yang,^{1&} Shuo Qian,² Eugenia Kharlampieva,^{1,3}*

¹ Chemistry Department, the University of Alabama at Birmingham, Birmingham, Alabama, 35294, United States

² Neutron Scattering Division, Neutron Sciences Directorate, Oak Ridge National Laboratory, Oak Ridge, Tennessee 37831, United States

³ Center for Nanoscale Materials and Biointegration, the University of Alabama at Birmingham, Birmingham, Alabama, United States, 35294

& The authors equally contributed to this work.

*Correspondence to be addressed: ekharlam@uab.edu

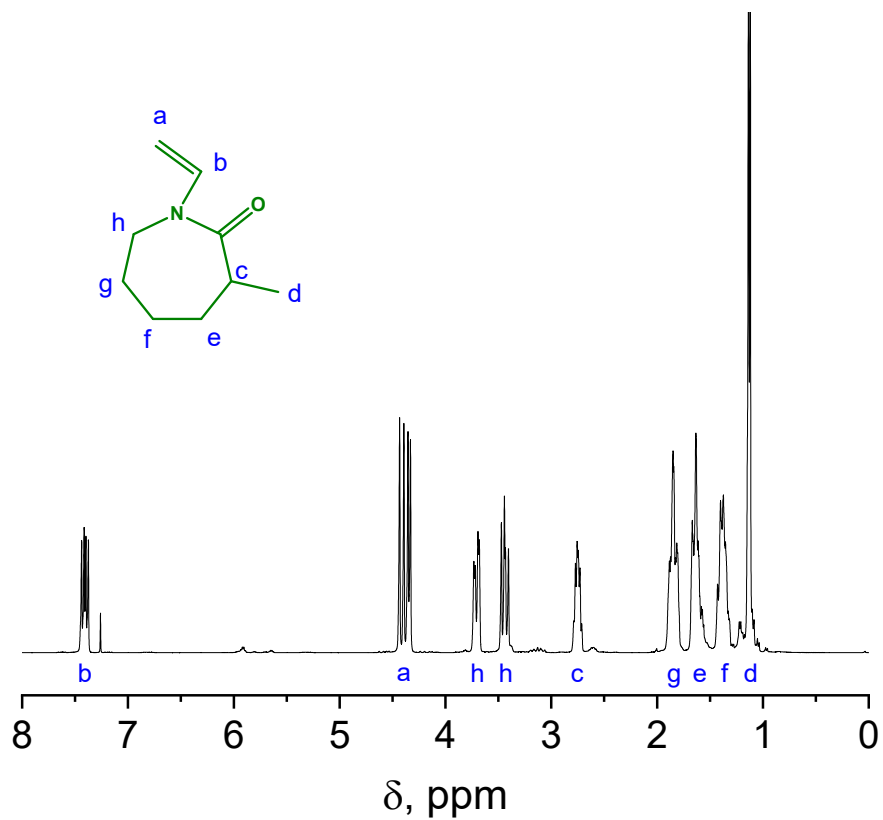


Fig. S1. ¹H NMR spectrum of 3-methyl-*N*-vinylcaprolactam monomer.

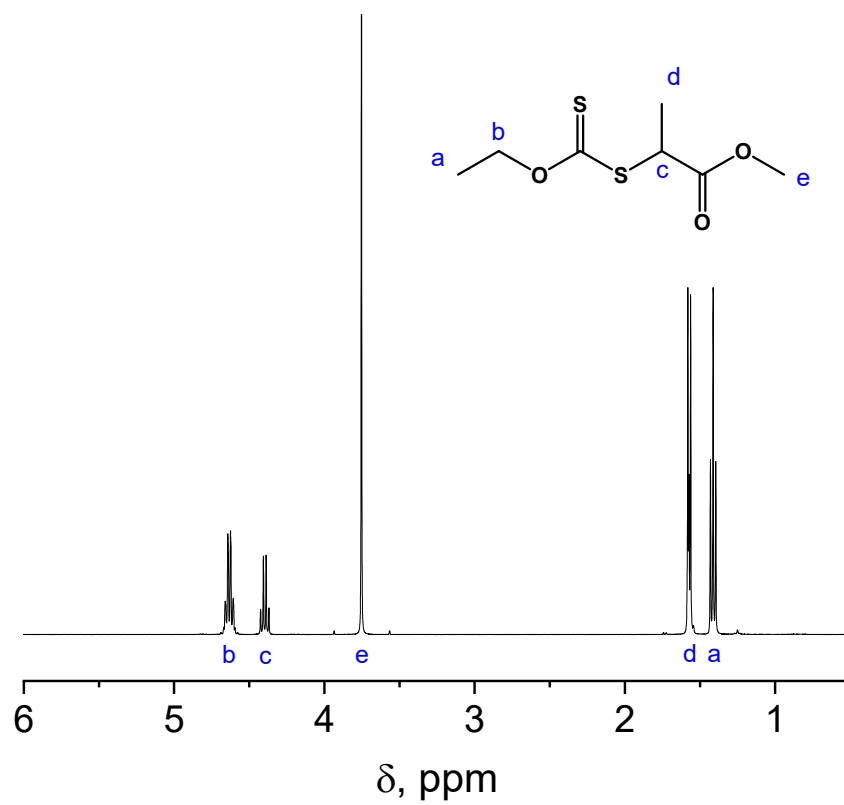


Fig. S2. ¹H NMR spectrum of RAFT chain transfer agent used for RAFT polymerization in this work.

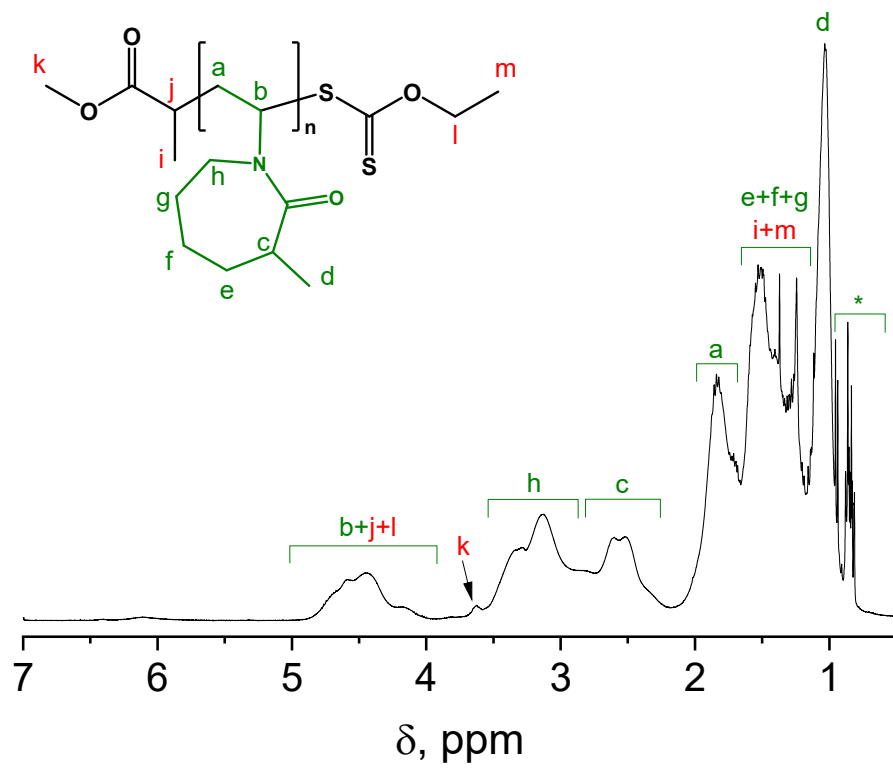


Fig. S3. Representative ¹H NMR spectrum of PMVC-CTA in CDCl₃.

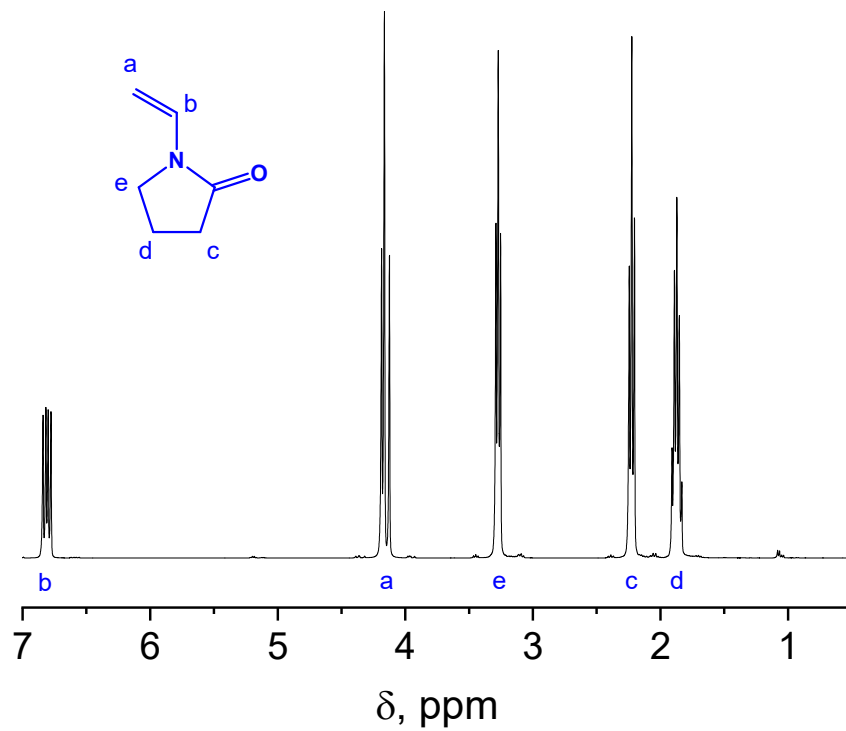


Fig. S4. ^1H NMR spectrum of *N*-vinylpyrrolidone monomer.

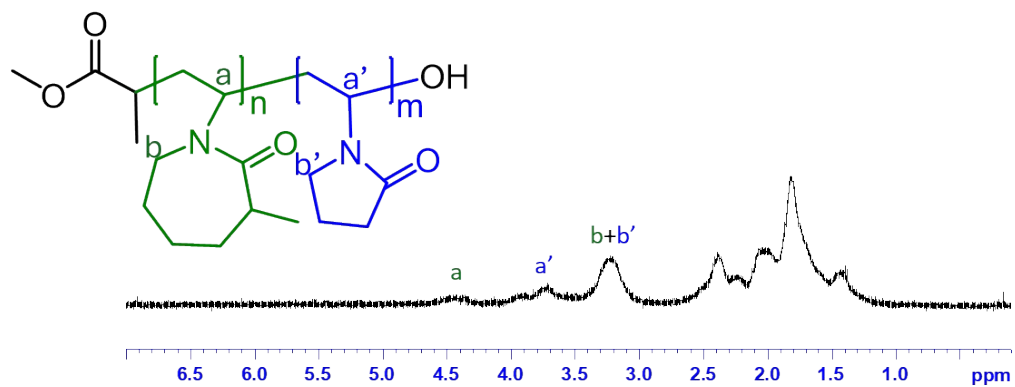


Fig. S5. ^1H NMR spectrum of $\text{PMVC}_{58}\text{-}b\text{-PVPON}_{65}$ diblock copolymer in CDCl_3 at concentration of 1 mg mL^{-1} .

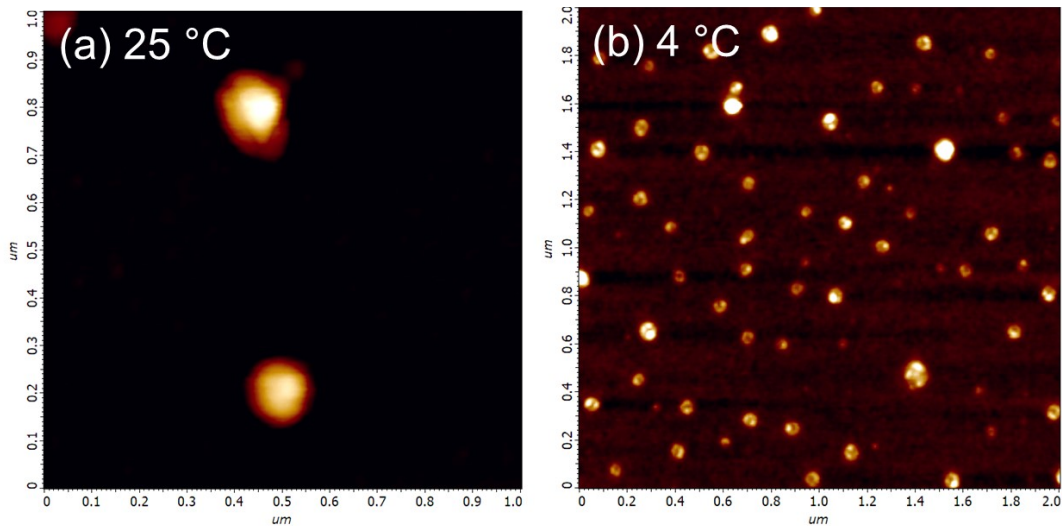


Fig. S6. AFM topography images of PMVC₅₈-*b*-PVPON₆₅ diblock copolymer vesicles exposed to (a) 25 °C and (b) 4 °C for 12 hours and then adsorbed on TEM grid surfaces at the corresponding temperatures. The height (*z*)-scale is 36 nm in (a) and 5 nm in (b).