Supporting Information

Block polypeptoids: Synthesis, characterization, and response towards irradiation with UV light and temperature

Yao Li[1,4], *Jessica C. Tom*[2,3], *Philip Biehl*[2,3], *Jun Ling*[*,1], *Felix H. Schacher*[*,2,3]

[1] MOE Key Laboratory of Macromolecular Synthesis and Functionalization, Department of Polymer Science and Engineering, Zhejiang University, Hangzhou 310027, China.

[2] Institute of Organic Chemistry and Macromolecular Chemistry (IOMC), Friedrich-Schiller-University Jena, Lessingstraße 8, D-07743 Jena, Germany.

[3] Jena Center for Soft Matter (JCSM), Friedrich-Schiller-University Jena, Philosophenweg 7, D-07743 Jena, Germany.

[4] Zhejiang Key Laboratory of Alternative Technologies for Fine Chemicals Process, Shaoxing University, Shaoxing 312000, China.

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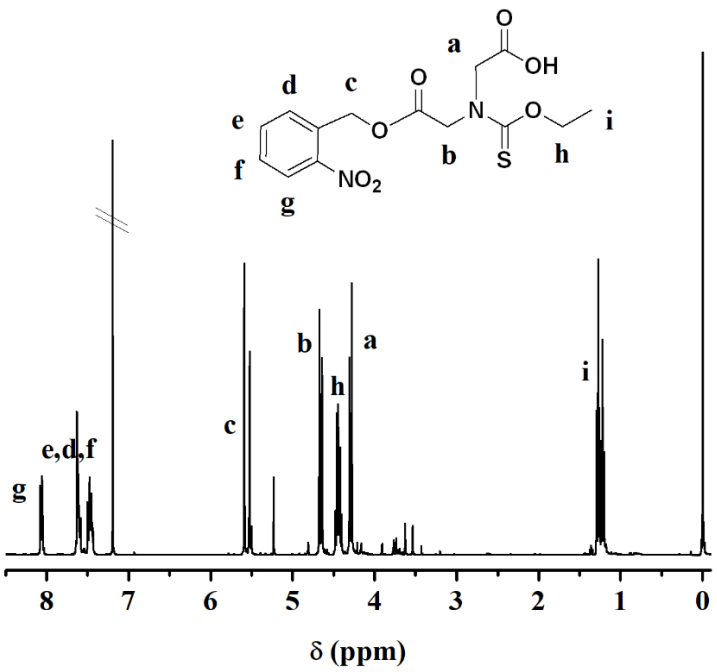

Figure S1. ^{1}H NMR characterization of the NB-NTA precursor in $CDCl_3$.

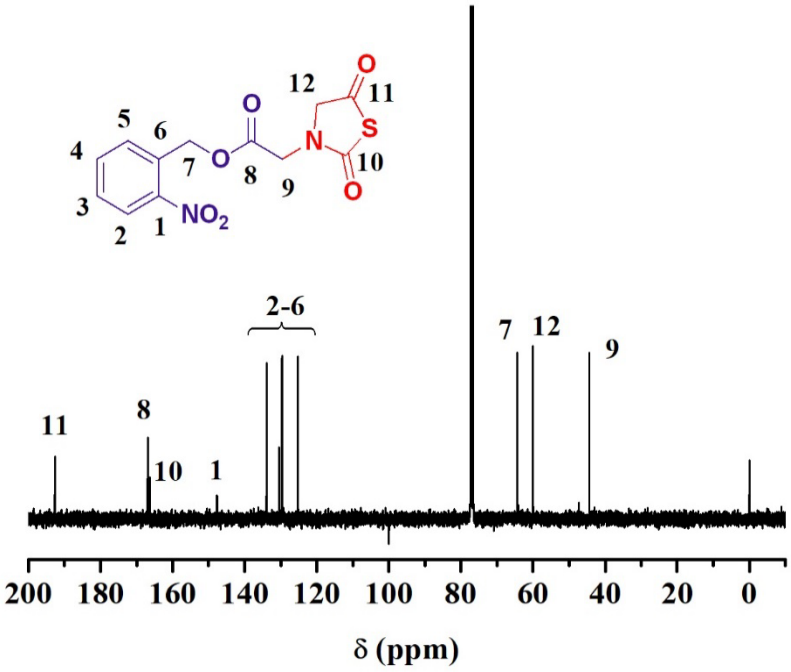

Figure S2. ^{13}C NMR characterization of NB-NTA in $CDCl_3$.

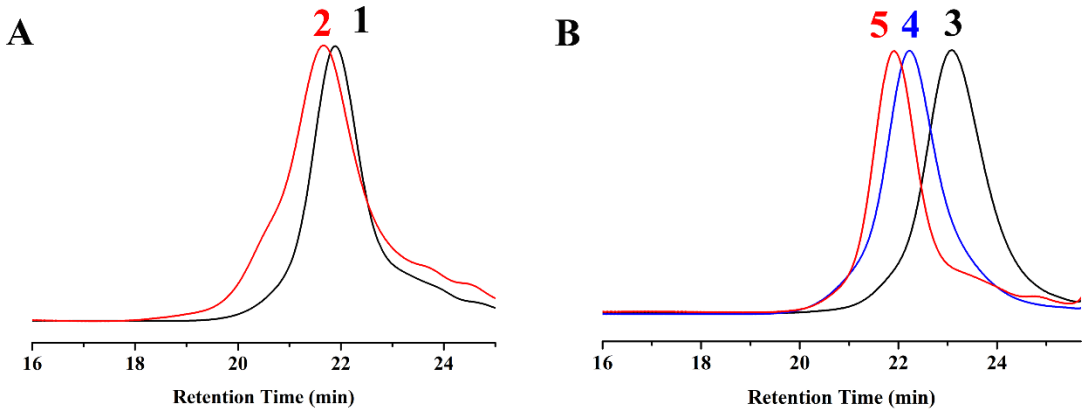

Figure S3. (A) SEC elution traces of P(Sar-*r*-NBG) ($Đ$ = 1.18) (1) and P(Sar-*r*-NBG)-*b*-PNB (2) ($Đ$ = 1.20) in DMF (Sample 2 in Table 1). (B) SEC elution traces of PSar, ($Đ$ = 1.11) (3) PSar-*b*-PNBG (4) ($Đ$ = 1.12) and PSar-*b*-PNBG-*b*-PNB ($Đ$ = 1.12) (5) in DMF (Sample 8 in Table 1).

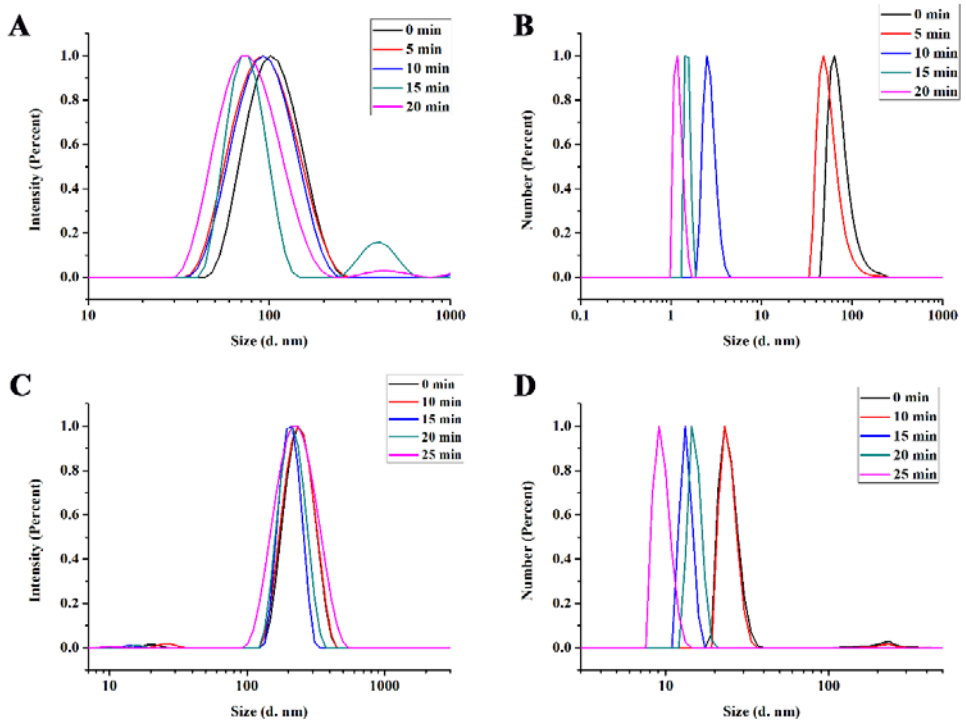

Figure S4. (A) Intensity-weighted and (B) number-weighted DLS CONTIN plots of micellar solutions formed by P($Sar_{0.51}$-*r*-$NBG_{0.49}$)$_{52}$-*b*-PNB_7 (Sample 2 in Table 1) before and after UV irradiation (254 nm, intensity: 166.7 mW cm^{-2}) for different times. (C) Intensity-weighted and (D) Number-weighted DLS CONTIN plots of micellar solutions formed by $PSar_{23}$-*b*-$PNBG_{17}$-*b*-PNB_7 (Sample 8 in Table 1) before and after UV irradiation (254 nm, intensity: 166.7 mW cm^{-2}) for different times.

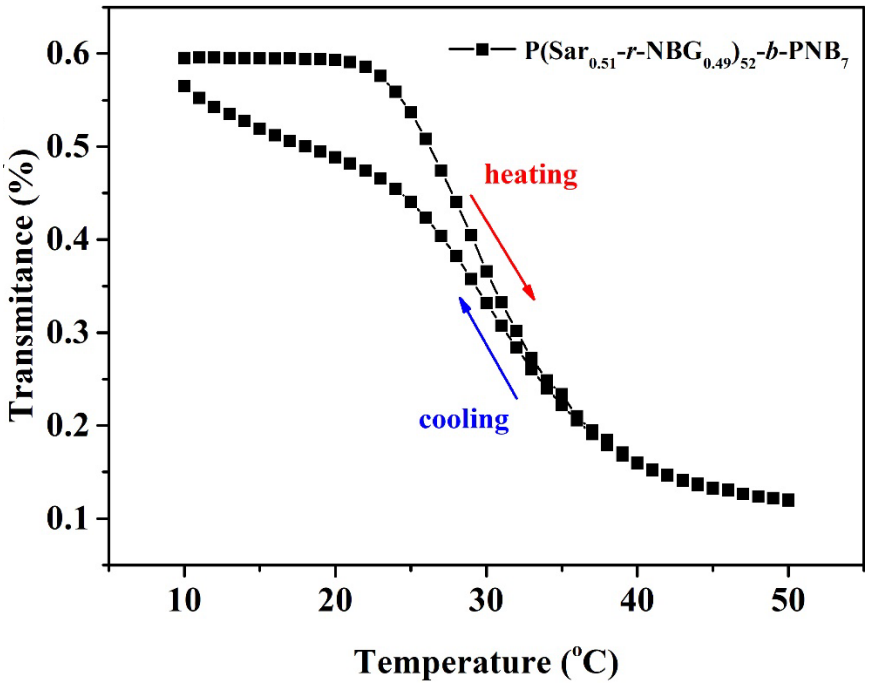

Figure S5 Transmittance changes at λ = 450 nm as a function of temperature for a diblock polypeptoids micellar solution (3 mg mL^{-1}) during one heating and cooling cycle.

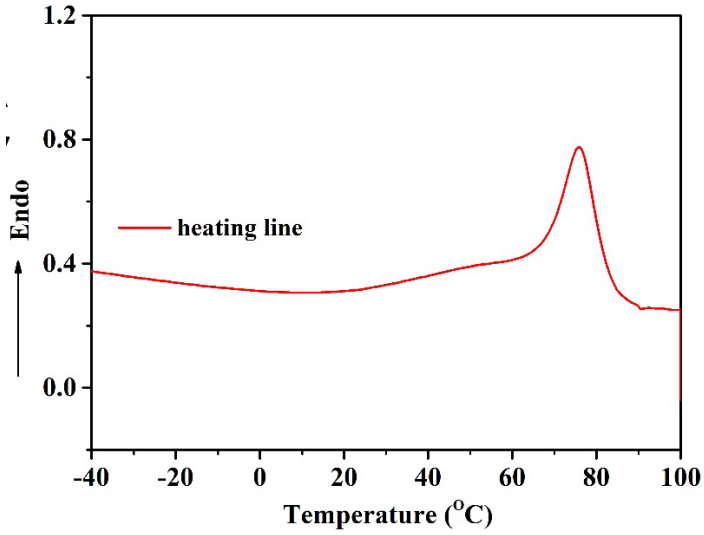

Figure S6. DSC heating trace of one exemplary diblock polypeptoid sample (heating rate was 5 °C / min).

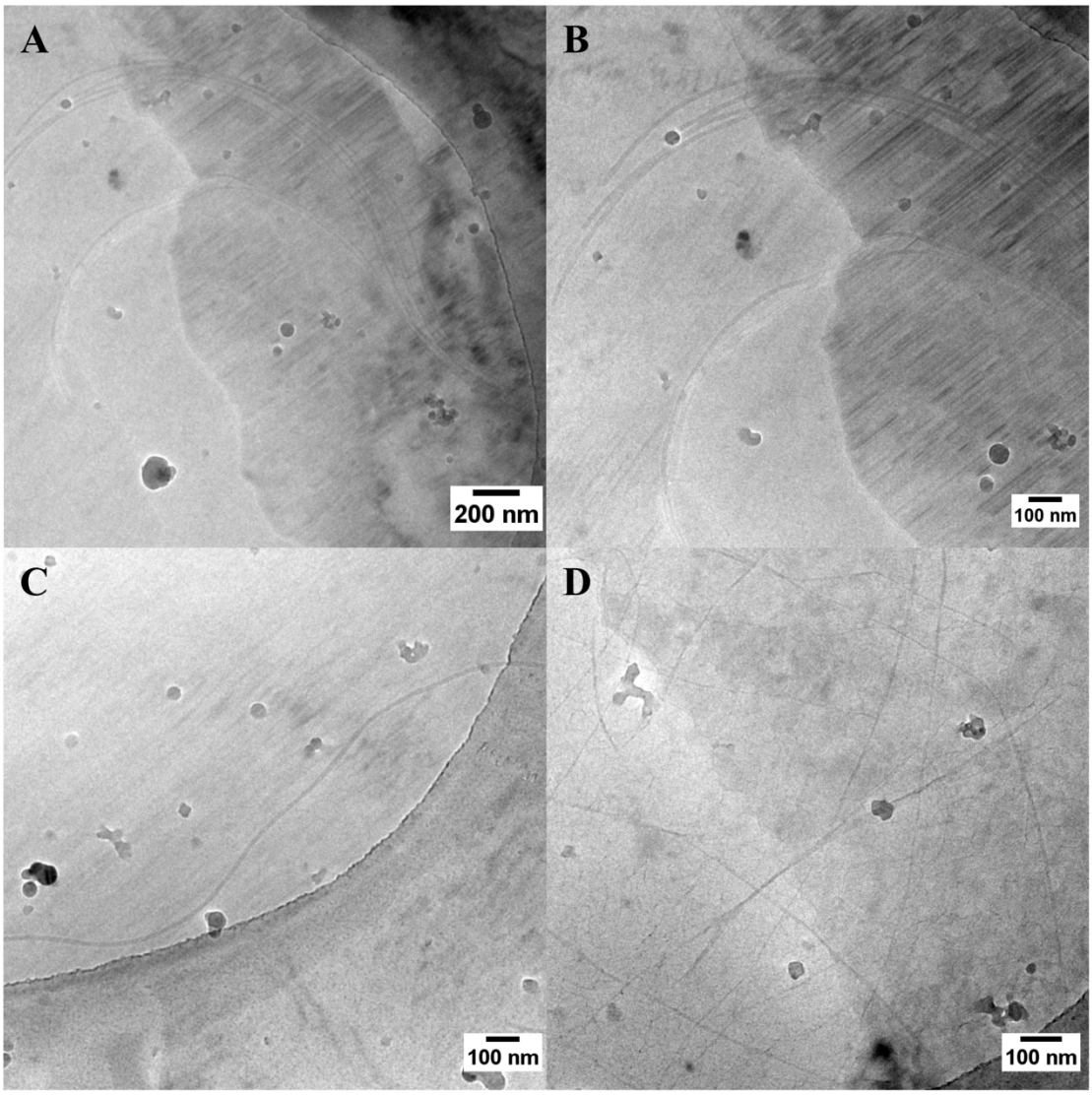

Figure S7. (A-D) Cyro-TEM micrographs of anisotropic nanostructures formed by P($Sar_{0.51}$-*r*-$NBG_{0.49}$)$_{52}$-*b*-PNB_7 (Sample 2 in Table 1) in concentrated aqueous solution (5 mg mL^{-1}) after thermal annealing.

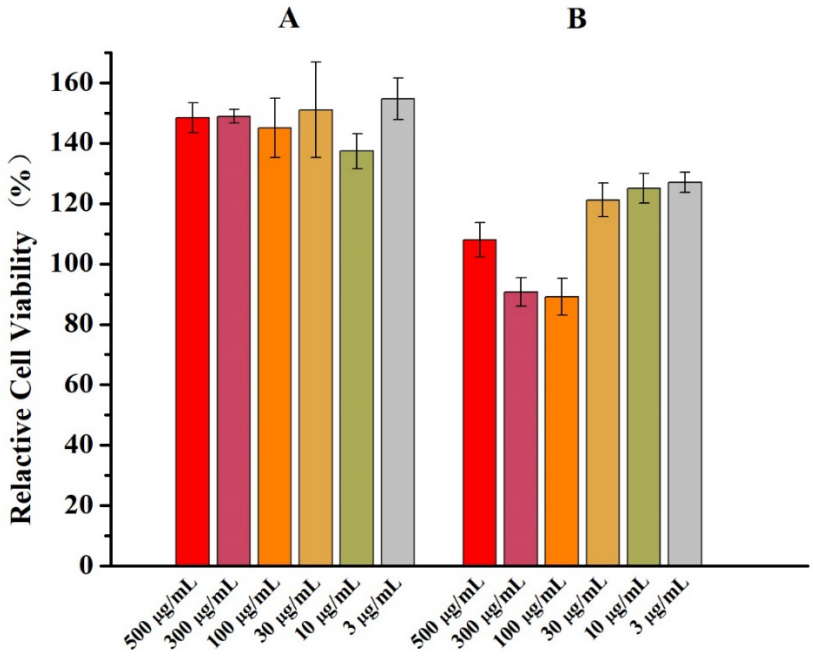

Figure S8. Relative cell viability after exposure to aqueous micellar solutions from P(Sar$_{0.51}$-*r*-NBG$_{0.49}$)$_{52}$-*b*-PNB$_{7}$ (Sample 2 in Table 1) before (A) and after UV irradiation (B) for 3T3 cells at different concentrations.