

Electronic Supplementary Information (ESI) for  
**Effect of Temperature on the Air-Water Surface Mechanical Behavior of Water-Spread  
Block Copolymer Micelles**

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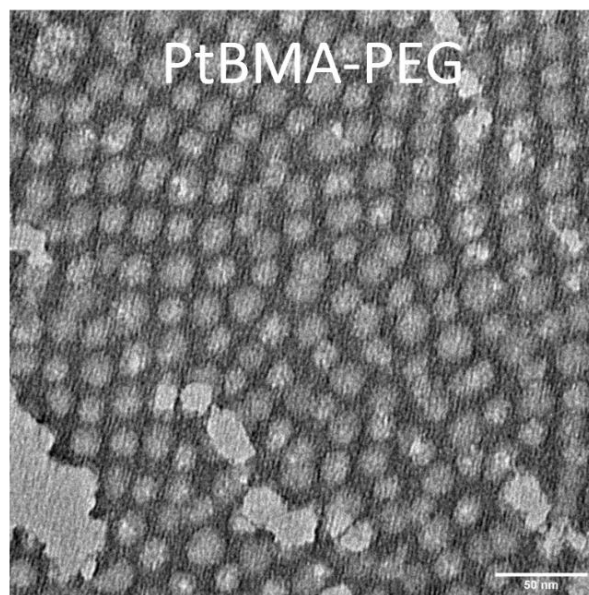
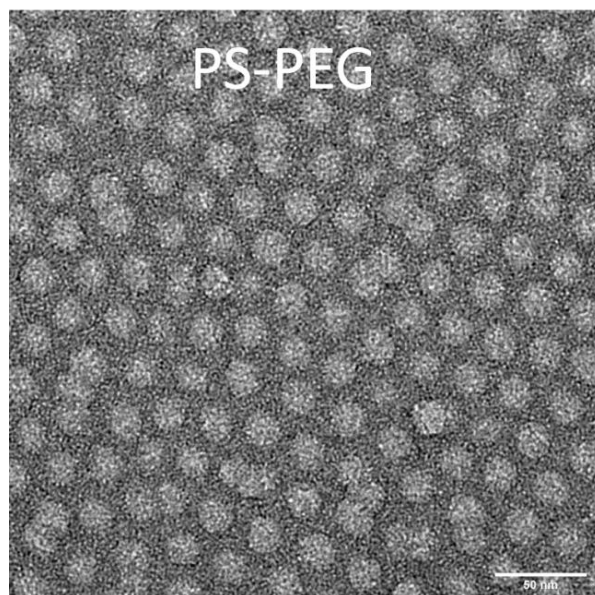
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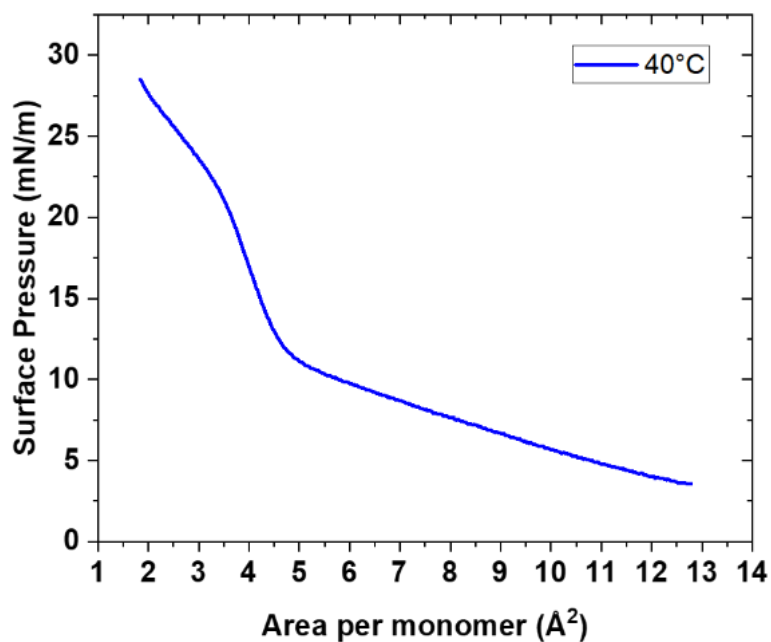
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**Keywords:** amphiphilic block copolymer micelle, Langmuir monolayer, surface pressure–area isotherm, poly(styrene)–poly(ethylene glycol), Brewster angle microscopy, glass transition

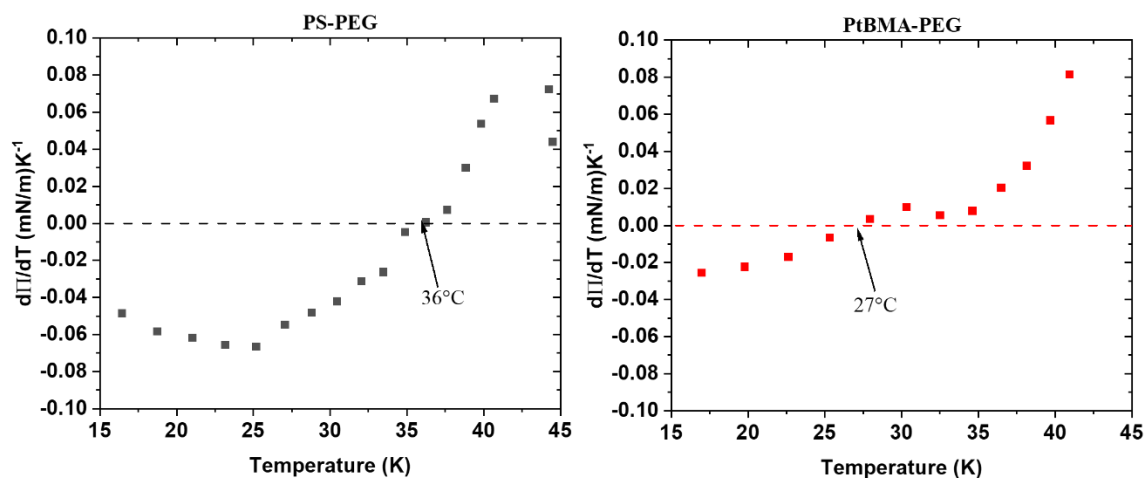
**Figure S1:** TEM images for PS-PEG and PtBMA-PEG micelles



**Figure S2:** Surface pressure-area isotherm plotted in terms of area per PtBMA monomer unit for isotherm conducted at 40°C. Spreading was done using 50  $\mu\text{L}$  of 5 mg/mL of PtBMA-PEG aqueous micelle solution and compression speed was 30 mm/min.



**Figure S3:** The first derivate of surface pressure with respect to temperature obtained from heating of monolayer compressed to 25 mN/m at constant area for water-spread PS-PEG and PtBMA-PEG micelle solutions shown in Figure 7 of the main text. The core  $T_{g,SP}$  is estimated by interpolation of the temperature at which the first derivative is equal to zero.



**Figure S4:** DLS hydrodynamic diameter as a function of temperature for PS-PEG and PtBMA-PEG micelles in water at 1 mg/mL.

