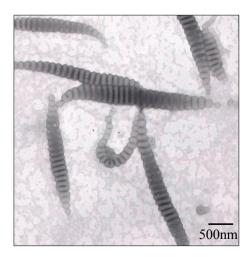
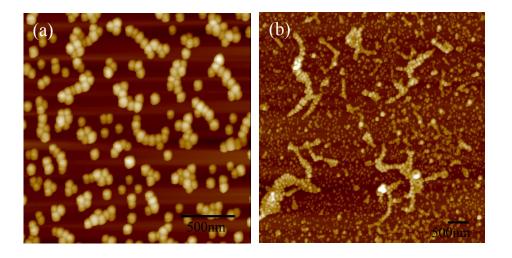
Supporting Information for:

## Self- and dis-assembly behavior of segmented wormlike nanostructures from ABC triblock copolymer

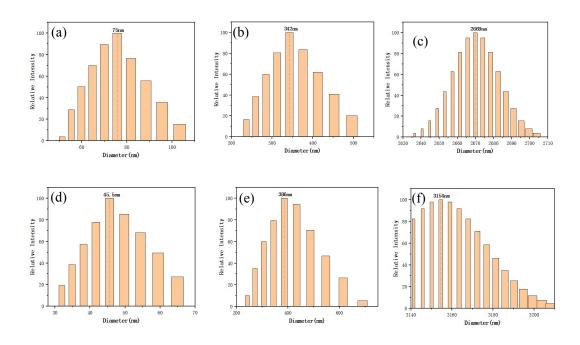
## **Supporting figures**



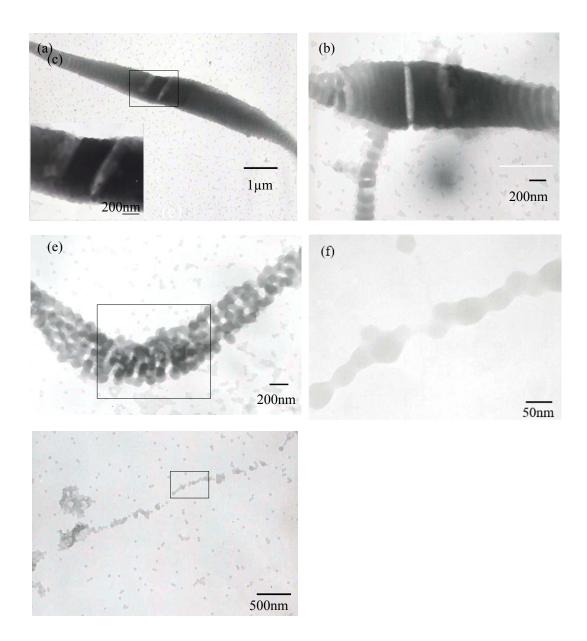
**Figure S1.** Segmented wormlike nanostructures prepared from  $PS_{720}$ -b- $P2VP_{200}$ -b- $PEO_{363}$  in THF/water after stirred for four days. The initial copolymer concentration is 1.0 wt %, water concentration is 13 wt %.



**Figure S2.** (a) Spherical micelles prepared from  $PS_{432}$ -b-P2VP<sub>152</sub>-b-PEO<sub>193</sub> in THF/water solutions. All the systems have an initial copolymer concentration of 1.0 wt %, and a water concentration of 13 wt %; (b) Giant aggregates formed from 1.0 wt %  $PS_{720}$ -b-P2VP<sub>200</sub>-b-PEO<sub>375</sub> in THF/water.



**Figure S3.** Dynamic light scattering results of the self-assembled structures from  $PS_{720}$ -b- $P2VP_{200}$ -b- $PEO_{363}$  for (a) 24 h; (b) 48 h; (c) 96 h; and from  $PS_{768}$ - $P2VP_{133}$ - $PEO_{95}$  for (d) 20 h; (e) 50 h; (f) 96 h at room temperature (20°C), in THF/H<sub>2</sub>O mixtures (water content: 13 wt %).



**Figure S4.** Intermediate structures captured at different temperatures from the  $PS_{720}$ -b- $P2VP_{200}$ -b- $PEO_{363}$  in THF/water: (a) and (b) 30°C, insert picture is the local magnification; (c) 40°C; (d) is the local magnification of (c); (e) 55°C; (f) is the local magnification of (e). The initial copolymer concentration is 1.0 wt %, water concentration is 13 wt %.