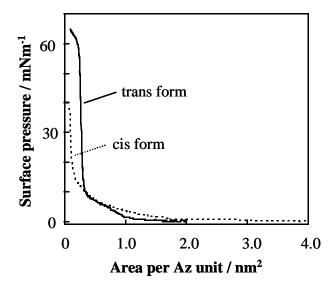
## **Supporting Information**

"Photocontrolled Microphase Separation of Block Copolymer in Two Dimensions" Sohei Kadota et al.

<Surface pressure *vs* area ( $\pi$ -A) isotherms>



Surface pressure vs area ( $\pi$ -A) isotherms of the triblock copolymer spread from a chloroform solution onto the water surface at 20°C. Data taken in the trans and cis form are represented by solid and dot line, respectively. The features of the curves can be basically regarded as a superposition of those for Az homopolymer and PEO, indicating that this ABA block copolymers are spread as "pure" 2D monolayers on water without 3D coil formation. Lift-off areas per Az unit of trans form and cis form were 1.4, and 2.2 nm², respectively, indicating an expansion in the cis form at low pressures below 5 mN m⁻¹. Limiting areas per Az unit of trans form was 0.31 nm².