<Supporting Information>

Understanding the Nanodomain Morphology Formation

in Dip-Coated PS-b-PEO Thin Films

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Figure S1. Representative AFM height images in larger scan size $(5 \times 5 \ \mu\text{m})$ of the BCP films shown in Figure 1: (a_1, b_1, b_4, c_1) dot patterns spanning the whole film, (d_1) mixtures of dot and stripe patterns spanning the whole film, (d_2) stripes patterns spanning the whole film, (a_2, a_4, b_3, c_3) islands containing dot patterns, (c_4) islands containing stripe patterns, (a_3, b_2, c_2, c_3)

 d_3 , d_4) featureless film. The light purple color corresponds to the featureless region.



Figure S2. The static contact angle of sessile drops of BCP solutions containing different amounts of water on cleaned Si substrates.



Figure S3. DLS data of the PS-*b*-PEO structure measured from different solutions. (a)
Autocorrelation functions of PS-*b*-PEO solutions with different water contents in THF: 0% (black square), 2% (red circle), 5% (blue upward triangle) and 10% (green downward triangle). (b) Size distribution by number of PS-b-PEO solutions with different water contents in THF: 0% (black line), 2% (red line), 5% (blue line) and 10% (green line). The continuous lines connecting the data points are for the sole purpose of visual guidance.