

Supporting Information for

**Extraordinary Boundary Morphologies of Large-Scale
Ordered Domains of Spheres in Thin Films of a
Narrowly Dispersed Diblock Copolymer via
Thermodynamic Control**

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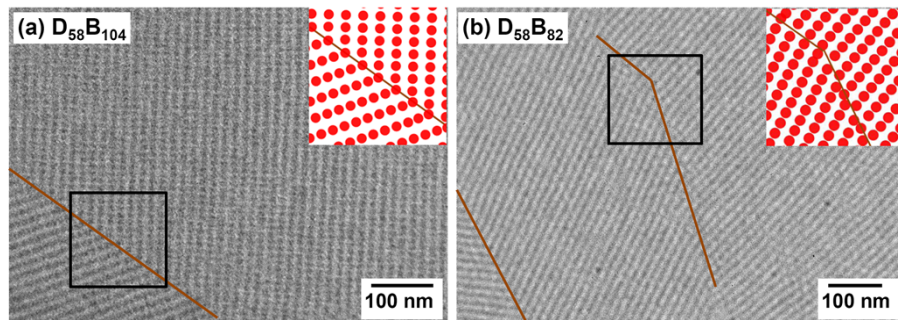


Fig. S1 TEM micrographs with high magnifications of the thin films of D₅₈B₁₀₄ (a) and D₅₈B₈₂ (b) with well-matched [110]-oriented BCC domains and the inset of each micrograph is the model of the arrangements of the PDMS dots in the indicated black box on the TEM micrographs.

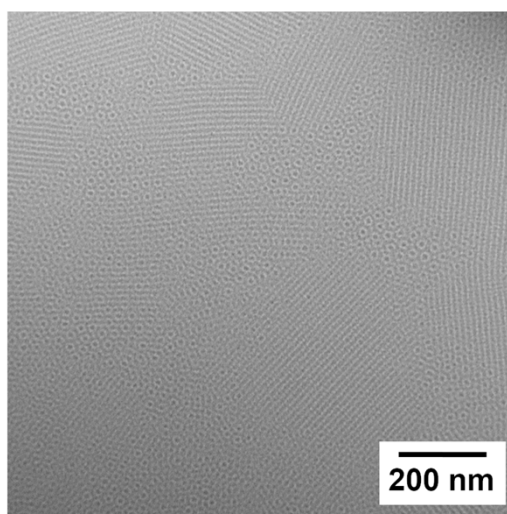


Fig. S2 TEM micrograph of the thin film of D₅₈B₄₀ with several domains having defects.

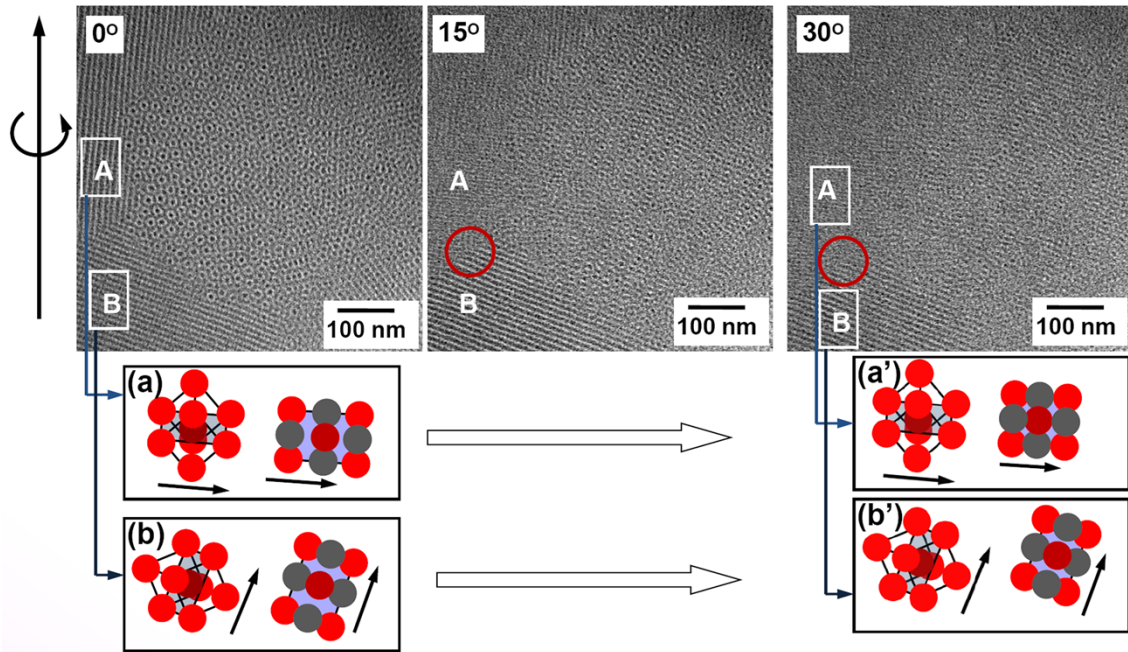


Fig. S3 Models of orientation of BCC structure and the pattern observed by TEM along the $[110]$ direction of the BCC structure in the indicated A (a) and B (b) domains on TEM micrographs of $D_{58}B_{40}$, and the corresponding results after tilting 30° (a' and b'). The corresponding to TEM micrographs are results in Fig 8 a, d, f, respectively. The morphologies in the tilting TEM micrograph in domain A and B are consistent with theoretical patterns for the corresponding $[110]$ -oriented domain with ordered BCC structures after the same tilting.