SUPPLEMENTARY INFORMATION

Interplay of Surface Chemical Composition and Film Thickness on Graphoepitaxial Assembly of Asymmetric Block Copolymers

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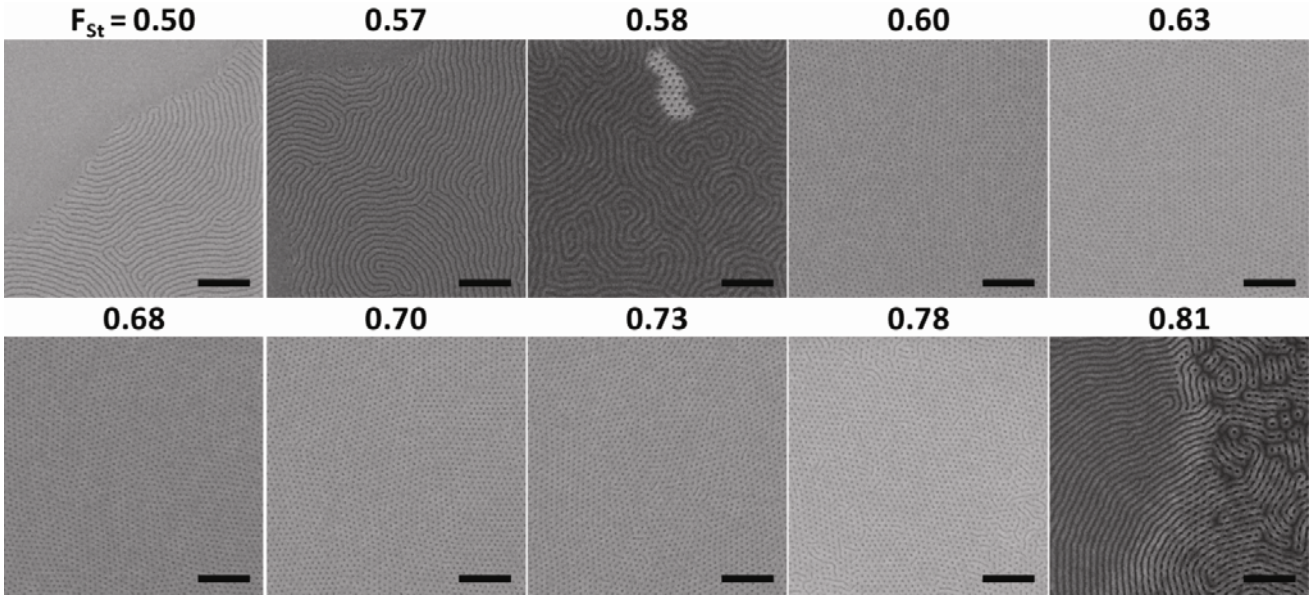

Fig. S1 Top-down SEM images of self-assembled block copolymer films on a P(S-*r*-MMA)-OH modified surfaces containing different styrene fractions in the random copolymer. For all cases, the thin films with the thickness of ~ $0.8d_0$ were annealed at 220 ^{o}C for 3 hrs under vacuum. (Scale bar = 300 nm)

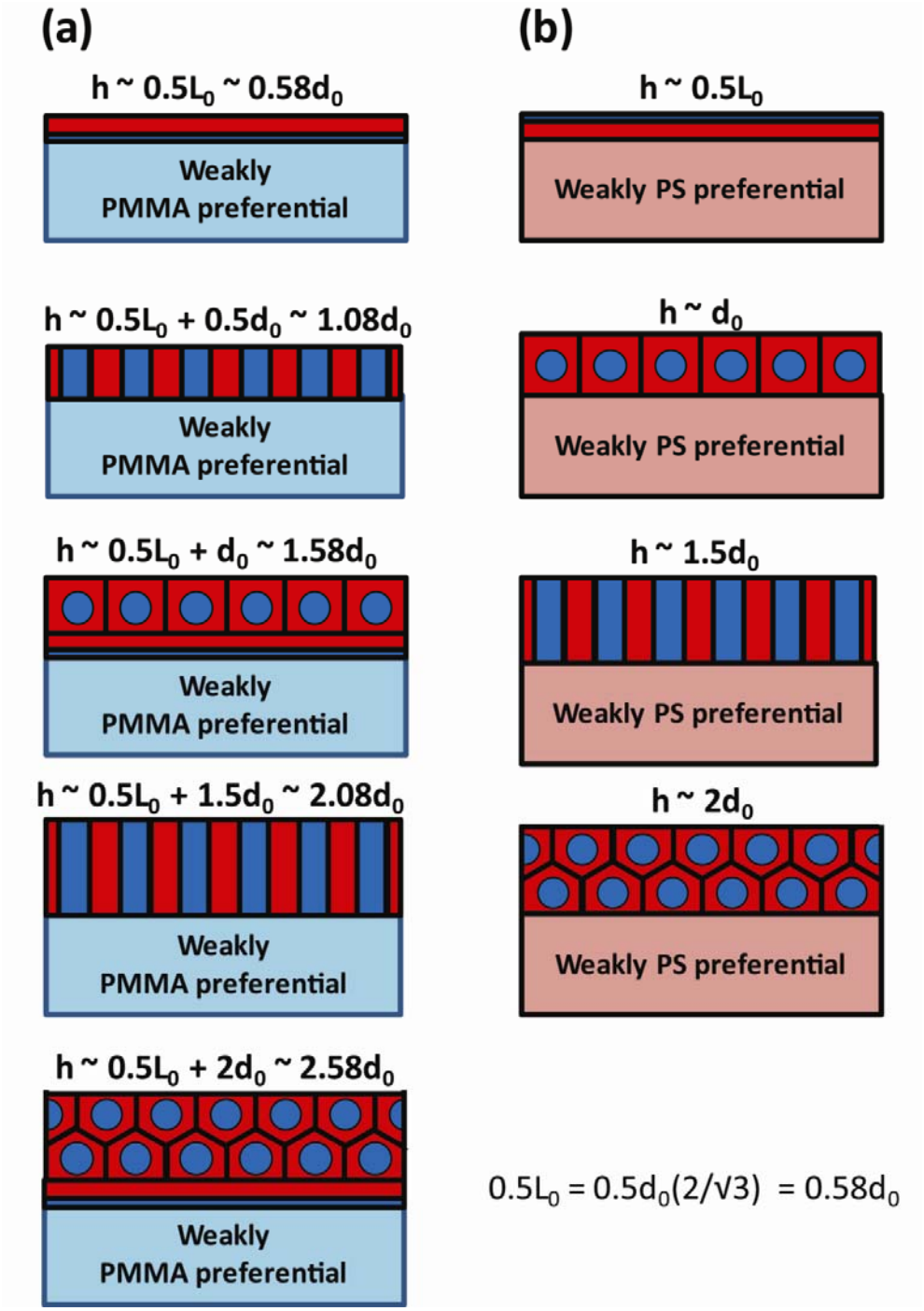

Fig. S2 Schematic depicting possible domain orientation on weakly PS or PMMA preferential surfaces as a function of film thickness (h) based on the commensurability of the film thickness. L_0 and d_0 represent periodicity and row-to-row distance, respectively.

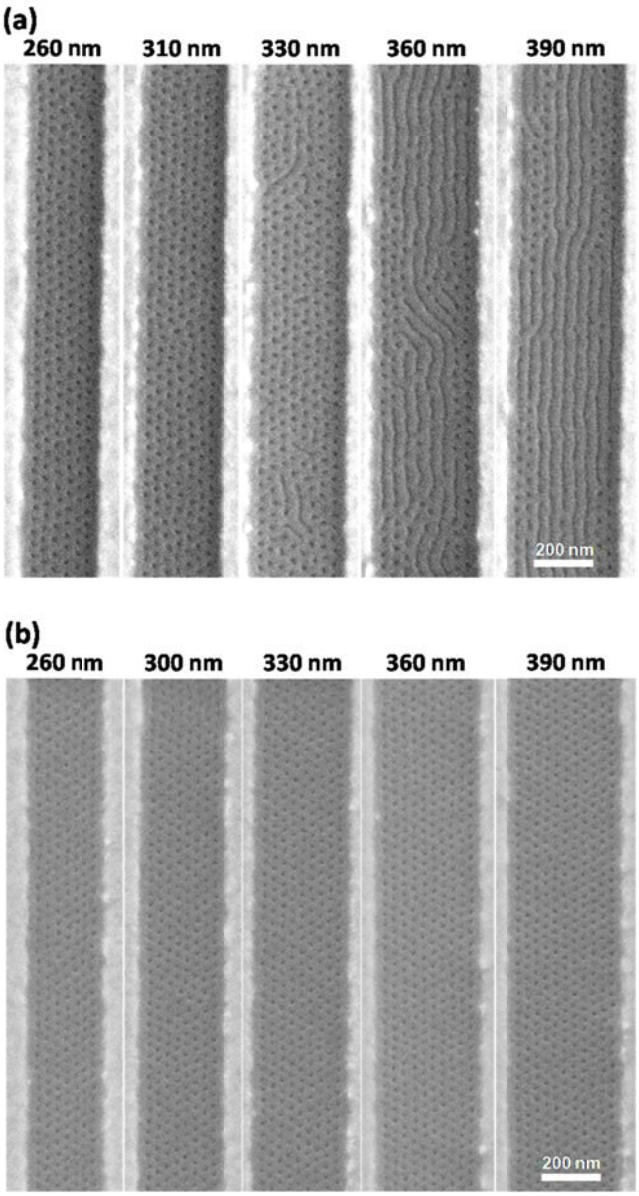

Fig. S3 Top-down SEM images showing the assembly behavior of PS-*b*-PMMA, (a) **OH58**-modified bottom with varied trench width from 260 nm to 390 nm, and (b) **OH70**-modified bottom with varied trench width from 260 nm to 390 nm.