

## Orientation of Block Copolymer Thin Films on Self-assembled Monolayers

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Block copolymers can self-assemble into ordered phase with periodic nano-structure. Thin film of block copolymer possess a specific nano-structure because of additional substrate and surface influence. This usually induces a parallel orientation to the surface. However a perpendicular nano-structure to the substrate can be achieved by surface treatment. In this study, we investigated orientation of PS-*b*-PMMA block copolymer thin films on PETS and PUTS self-assembled monolayers(SAMs) with terminal phenyl and intermediate backbone length. For characterization of SAMs, AFM, surface energy measurement and NEXAFS were used. Also, contact angle measurements of homopolymer on the respective substrates were carried out in order to gain more information on the affinity of each microdomain for the substrate.