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**Self-assembly Behavior of Poly(3-alkylthiophene)-*block*-poly(methyl methacrylate) Block Copolymers Prepared by Anionic Coupling Reaction** JIN KON KIM, HONG CHUL MOON [1], Pohang University of Science and Technology — We synthesized rod-coil block copolymers composed of regioregular poly(3-alkylthiopene) (P3AT) and poly(methyl methacrylate) (PMMA) via anionic coupling reaction. For poly(3-hexylthiopene)-b-PMMA, the morphology was mainly determined by self-crystallization of P3HT moieties due to strong rod-rod interaction. On the other hand, poly(3-dedecyl thiophene) (P3DDT)-b-PMMA, the self-crystallization was effectively suppressed. Detail phase behaviors were investigated at temperatures higher melting point ($T_m$) of P3DDT using small-angle x-ray scattering (SAXS), wide-angle x-ray scattering (WAXS) and transmission electron microscopy (TEM).

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