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**Line and Dot Dual Nanopatterns by using Miktoarm Block Copolymer with Photocleavable Linker** CHUNGRYONG CHOI, JICHOEL PARK, K. L. VINCENT JOSEPH, JAE YONG LEE, SEONGHYEON AHN, JONGHEON KWAK, JIN KON KIM, Pohang Univ of Sci Tech — Block copolymers capable of various nanodomains with size of 10∼100 nm, for instance, spheres, cylinders, and lamellae, have received great attention because of their applicability to nanolithography. However, a nanodomain having a single shape (or size) is only achieved at a given block copolymer, because the volume fraction of one of the block in a block copolymer thermodynamically controls nanodomain. However, nano-patterns with multiple shapes and sizes are required for the next-generation of nanolithography. In this study, we synthesize a miktoarm block copolymer of which microdomains are transformed from cylinders to lamellae by UV irradiation. We fabricate dot and line patterns on a single substrate.

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