



## Directed Assembly Of Block Copolymer Films Between A Chemically Patterned Surface And A Second Surface

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### The Invention

Provided are methods of fabricating thin film structures that involve assembling block copolymer materials in the presence of condensed phase surfaces on both sides of the thin film, at least one of which is a chemically patterned surface configured to direct the assembly of the block copolymer material. According to various embodiments, the other of the condensed phase surfaces can be a chemically homogenous surface or a chemically patterned surface. Also provided are structures, morphologies, and templates formed in the domain structure of block copolymer materials. In certain embodiments, complex 3-D morphologies and related structures not present in bulk block copolymer materials are provided.

### Tech Fields

- [Semiconductors & Integrated Circuits : Lithography.](#)

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