

ABSTRACT**MOLECULAR LAYER DEPOSITION OF AMORPHOUS CARBON FILMS**

Methods of forming carbon polymer films are disclosed. Some methods are advantageously performed at lower temperatures. The substrate is exposed to a first carbon precursor to form a substrate surface with terminations based on the reactive functional groups of the first carbon precursor and exposed to a second carbon precursor to react with the surface terminations and form a carbon polymer film. Processing tools and non-transitory memories to perform the process are also disclosed.

(fig. 1)