Problems Concerning the Demolding Process of Nano Imprint Lithography

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Abstract. Nanoimprint lithography is one of the most promising technologies for nanofabrication as it can create nano- and micro-scale structures and devices in a cost effective manner, and combines the speed of optical lithography with the resolution of electron beam lithography. However, it suffers from tribological drawback in that the mold must make the physical contact with the resist to trasfer patterns. The adhesion and friction forces generated between the mold and resist can generate defects. To reduce these defects it is very important to know their origin.