NANOIMPRINTING MASTER TEMPLATE AND METHOD FOR MAKING

ABSTRACT OF THE DISCLOSURE

A method for making a nanoimprinting master template uses a metallic etch stop layer for two etching steps. A layer of silicon dioxide is deposited on the etch stop layer and a first resist pattern of either concentric rings or radial spokes is formed on the silicon dioxide layer. The exposed silicon dioxide layer is etched down to the etch stop layer and the resist removed to expose a pattern of silicon dioxide rings or spokes on the etch stop layer. A second resist pattern of rings (if spokes were the first pattern) or spokes (if rings were the first pattern) is formed over the silicon dioxide rings or spokes and the etch stop layer. The exposed silicon dioxide is etched down to the etch stop layer and the resist removed to expose a pattern of silicon dioxide pillars on the etch stop layer.

Fig. 1