

**Bilayer Reversal Imprint Lithography:
Direct Metal-Polymer Transfer**

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We present a simple pattern transfer technique that involves transferring to a substrate a bilayer of polymer and metal on ultraviolet curable mold. The mold is rigid enough for transferring nanostructures and yet flexible enough for wide area applications. The flexibility also enables one to accomplish the transfer at a low pressure around 0.8 MPa. With the transferred metal as the etch resist, a high aspect ratio can be attained in transferring the bilayer pattern to the underlying substrate by etching, which has been difficult to accomplish for small feature sizes. Step and repeat is also possible with a proper choice of the polymer. Since the technique relies on a difference in adhesion strength, it is suitable for transferring a wide spectrum of materials.