

Title:

Negative tone imaging with EUV exposure

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Abstract:

Negative tone imaging with EUV exposure (EUV-NTI) has some advantages with respect to line-width roughness (LWR) due in part to polymer swelling and favorable dissolution mechanics. Design characteristics that improve LWR must be balanced with respect to both sensitivity and film thickness loss. We report herein novel chemically amplified resist materials, for EUV-NTI, with improved LWR and the resulting impact that improvement has on both sensitivity and film thickness loss.