

Abstract Submitted
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Sub-100 nm interferometric lithography realized with table top extreme ultraviolet lasers MARIO MARCONI, PRZEMYSŁAW WACHULAK, DINESHCHANDRA PATEL, Department of Electrical and Computer Engineering, Colorado State University, Fort Collins, CO 80523, USA, MARIA GABRIELA CAPELUTO, Departamento de Física, Facultad de Ciencias Exactas y Naturales, Ciudad Universitaria, Buenos Aires, C1428EHA, Argentina, CARMEN MENONI, JORGE ROCCA, Department of Electrical and Computer Engineering, Colorado State University, Fort Collins, CO 80523, USA, NSF ENGINEERING RESEARCH CENTER FOR EXTREME ULTRAVIOLET SCIENCE & TECHNOLOGY TEAM — We demonstrated patterning of arrays of nano-dots with feature sizes below 100 nm by interferometric lithography using a table top extreme ultraviolet 46.9 nm wavelength laser. The interferometric lithography setup was based on a Lloyd's mirror interferometer and multiple exposures. That allowed the patterning of arrays of nano-dots over areas of $500 \times 500 \mu\text{m}^2$ on commercial photoresists with different motifs. This new technique demonstrates the printing capability of nano-scale patterns with a compact table-top set up at extreme ultraviolet wavelengths.

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