Highly corrected submicrometer grid patterning on curved surfaces.

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Abstract
A compact holographic projector system was built and tested. This projection system offers a practical approach for making a highly corrected mesh or grid pattern on curved surfaces. The pattern can range in size from multimicrometer to submicrometer dimensions and be recorded in either positive or negative photoresist. Standing-wave interference patterns in the form of a diverging close-packed lattice of either hexagonal or square rodlike intensity maxima extending outward from a point or a locus of points are produced by multiple-beam holography that involves the combination of a holographic diffraction grating and a hypercomatic focusing objective.

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