

Abstract Submitted
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Extreme Ultraviolet Fourier Transform Holography ERIK MALM, CHRIS BROWN, Colorado State University, GANESH BALAKRISHNAN COLLABORATION, VAKHTANG PUTKARADZE COLLABORATION — Fourier transform holography has been demonstrated with the use of a 46.9nm table-top plasma discharge laser. A zone plate is used to form the reference and plane wave. The scattered light off the object interferes with the spherical reference wave and recorded on a charge-coupled device. A prefocusing algorithm has been implemented to reconstruct different planes of the object. The resolution is limited by the focal spot size of the zone plate which is approximately 120 nanometers. This particular laser and approach should allow for nanoscale dynamics to be imaged.

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