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REPORT



High-Resolution Imaging by Fourier Transform X-ray Holography

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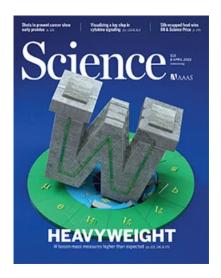
Abstract

Fourier transform x-ray holography has been used to image gold test objects with submicrometer structure, resolving small as 60 nanometers. The hologram-recording in uses coherent 3.4-nanometer radiation from the sof later beamline X1A at the National Synchrotron Light The specimen to be imaged is placed near the first-computed by a Fresnel zone plate; the other ord the zeroth, illuminate the specimen. The wave scatt specimen interferes with the spherical reference was focal spot, forming a hologram with fringes of low specimen. The hologram is recorded in digital form by computed device camera, and the specimen image is obtained by numerical reconstruction.

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