Abstract Submitted
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Consideration in the Reconstruction of 3D atomic Structure from X-Ray[1] YUHAO WANG, New Jersey Institute of Technology, J. BAI, University of Tennessee, T.A. TYSON, New Jersey Institute of Technology, P. SIDDONS, G. DE GERONIMO, Brookhaven National Laboratory — X-Ray Holography is a promising technique for recovery of the three dimensional structure of materials. With the advent of high flux sources and fast x-ray detectors this method is under serious consideration as main stream technique. Simulations based on spherical atomic scattering factors method are performed to estimate the effects of wave front curvature by application to specific systems. An assessment is made of the distortions which arise if artifacts such as errors in the position of the origin exists. Simulations are performed to determine the influence of counting rates on the image reconstruction.

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