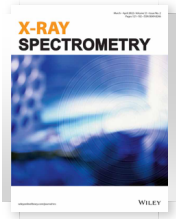
X-RAY SPECTROMETRY



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Review

Ten years of x-ray holography†

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Abstract

With the appearance of nano-science the role of local methods has become more and more important. Hard x-ray holography based on the inside reference point concept is a local probe of the atomic order in solids. It gives the 3D real space image of atoms without the phase ambiguity inherent to diffraction methods. In this paper a brief description of the basics of hard x-ray holography is given. The last ten years' experimental and evaluation-related developments are reviewed. We also introduce different variants of the method, such as bremsstrahlung and gamma ray holography (GRH). The power of the method is illustrated by examples. We outline new directions and future possibilities. Copyright © 2006 John Wiley & Sons, Ltd.

Citing Literature

holography of Cu(100) surface using laboratory-level X-ray sources

A. Hashimoto, A. Suzuki, Y. Kisaka, S. Miyasaka, M. Nojima, M. Owari, Y. Nihei

Surface and Interface Analysis

Progress in X-ray microbeam spectroscopy

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