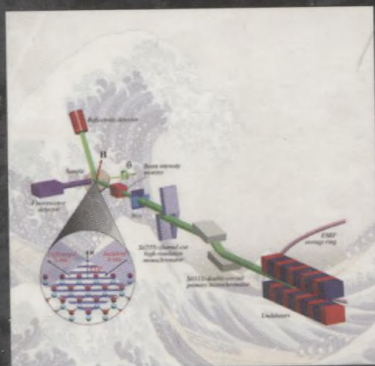




THE X-RAY STANDING WAVE TECHNIQUE

Principles and Applications

The X-ray standing wave (XSW) technique is an X-ray interferometric method combining diffraction with a multitude of spectroscopic techniques. It is extremely powerful for obtaining information about virtually all properties of surfaces and interfaces on the atomic scale. However, as with any other technique, it has strengths and limitations. The proper use and necessary understanding of this method requires knowledge in quite different fields of physics and technology. This volume presents comprehensively the theoretical background, technical requirements and distinguished experimental highlights of the technique. Containing contributions from the most prominent experts of the technique, such as Andre Authier, Boris Batterman, Michael J Bedzyk, Jene Golovchenko, Victor Kohn, Michail Kovalchuk, Gerhard Materlik and D Phil Woodruff, the book equips scientists with all the necessary information and knowledge to understand and use the XSW technique in practically all applications.

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