DESCRIPTION

Besides its coverage of the four important aspects of synchrotron sources, materials and material processes, measuring techniques, and applications, this ready reference presents both important method types: diffraction and tomography.

Following an introduction, a general section leads on to methods, while further sections are devoted to emerging methods and industrial applications. In this way, the text provides new users of large-scale facilities with easy access to an understanding of both the methods and opportunities offered by different sources and instruments.

ABOUT THE AUTHOR

Born in 1954, Walter Reimers studied mineralogy at the universities of Heidelberg and Marburg, and was awarded his doctorate at the latter in 1980. In 1989 he gained his lecturing qualification at the University of Dortmund, and began work at the Hahn-Meitner Institute in Berlin the following year. The same year he started lecturing at the TU Berlin, where he was appointed professor in 1995. From 1998 to 2000, Professor Reimers was head of structural research at the Hahn-Meitner Institute, Berlin, and has held the chair for metallic materials at the TU Berlin since 2001.

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Born in 1957, Helmut Clemens studied materials science at the University of Leoben, Austria, gaining his doctorate in 1987. He joined Plansee AG, Austria, as head of the Advanced Materials R&D group in 1990, gaining his lecturing qualification in 1997. From 1998 to 2000 he was Professor for Metallic Materials at the Institute for Physical Metallurgy, University of Stuttgart, Germany, before moving to the Institute for Materials Research, GKSS Research Center, Geesthacht, in a joint appointment as Professor at the Christian-Albrechts University Kiel. Since July 2003 he is head of the Department of Physical Metallurgy and Materials Testing at the University of Leoben. Prof. Clemens has won several awards, including the Erich Schmid Prize of the Austrian Academy of Science.

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