Conductive Atomic Force Microscopy: Applications in Nanomaterials
Mario Lanza (Editor)

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DESCRIPTION

The first book to summarize the applications of CAFM as the most important method in the study of electronic properties of materials and devices at the nanoscale.

To provide a global perspective, the chapters are written by leading researchers and application scientists from all over the world and cover novel strategies, configurations and setups where new information will be obtained with the help of CAFM.

With its substantial content and logical structure, this is a valuable reference for researchers working with CAFM or planning to use it in their own fields of research.

ABOUT THE AUTHOR

Dr. Mario Lanza is a Young 1000 Talent Professor and group leader at the Institute of Functional Nano & Soft Materials, in Soochow University, China. He obtained his PhD in 2010 at the Electronic Engineering Department of Universitat Autonoma de Barcelona. In 2010 and 2011 he was postdoctoral scholar at Peking University in China, where he used the technique of conductive atomic force microscopy to characterize a wide range of two dimensional materials and nanowires. In 2012 and 2013 he was Marie Curie postdoctoral fellow at Stanford University, USA, where he used CAFM to study local defects in photoelectrodes for water-splitting solar cells.
Dr. Lanza has published more than 60 publications, most of them using the CAFM to study the nanoelectronic properties of different materials and devices. Furthermore, he developed different setups to enhance the capabilities of the CAFM, including an environmental chamber and ultra durable graphene-coated probe tips. Currently his research group is focused on the nanoscale electrical characterization of different devices, including field effect transistors, non-volatile memories and solar cells.

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