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Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	From the Contents: Introduction -- 3D Force-Field Spectroscopy -- Simultaneous NC-AFM/STM Measurements of Atomic-Sized Contacts -- Spectroscopy and Manipulation Using AFM/STM at Room Temperature -- The Phantom Force - The Influence of a Tunnel Current on Force Microscopy -- Non-Contact Friction -- Magnetic Exchange Force Spectroscopy.
Sommario/riassunto	This book presents the latest developments in noncontact atomic force microscopy. It deals with the following outstanding functions and applications that have been obtained with atomic resolution after the publication of volume 2: (1) Pauli repulsive force imaging of molecular structure, (2) Applications of force spectroscopy and force mapping with atomic resolution, (3) Applications of tuning forks, (4) Applications

of atomic/molecular manipulation, (5) Applications of magnetic exchange force microscopy, (6) Applications of atomic and molecular imaging in liquids, (7) Applications of combined AFM/STM with atomic resolution, and (8) New technologies in dynamic force microscopy. These results and technologies are now expanding the capacity of the NC-AFM with imaging functions on an atomic scale toward making them characterization and manipulation tools of individual atoms/molecules and nanostructures, with outstanding capability at the level of molecular, atomic, and subatomic resolution. Since the publication of vol. 2 of the book Noncontact Atomic Force Microscopy in 2009 the noncontact atomic force microscope, which can image even insulators with atomic resolution, has achieved remarkable progress. The NC-AFM is now becoming crucial for nanoscience and nanotechnology.