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Nota di contenuto	Contents; 1 Preliminaries; 2 Electron Optics; 3 Wave Optics; 4 Coherence and Fourier Optics; 5 High-Resolution Images of Crystals and their Defects; 6 HREM in Biology, Organic Crystals, and Radiation Damage; 7 Image Processing and Super-Resolution Schemes; 8 STEM and Z-contrast; 9 Electron Sources and Detectors; 10 Measurement of Electron-Optical Parameters; 11 Instabilities and the Microscope Environment; 12 Experimental Methods; 13 Associated Techniques; Appendices; Index
Sommario/riassunto	This book describes how to see atoms using electron microscopes. This new edition includes updated sections on applications and new uses of atomic-resolution transmission electron microscopy. Several new chapters and sources of software for image interpretation and electron-optical design have also been added. - ;The discovery of the Nanotube in 1991 by electron microscopy has ushered in the era of Nanoscience. The atomic-resolution electron microscope has been a crucial tool in this effort. This book gives the basic theoretical background needed to understand how electron microscopes allow us