Table of contents provided by Syndetics

- Basics
- 1 The Transmission Electron Microscope
- 2 Scattering and Diffraction
- 3 Elastic Scattering
- 4 Inelastic Scattering and Beam Damage
- 5 Electron Sources
- 6 Lenses, Apertures, and Resolution
- 7 How to `See' Electrons
- 8 Pumps and Holders
- 9 The Instrument
- 10 Specimen Preparation. Diffraction
- 11 Diffraction Patterns
- 12 Thinking in Reciprocal Space
- 13 Diffracted Beams
- 14 Bloch Waves
- 15 Dispersion Surfaces
- 16 Diffraction from Crystals
- 17 Diffraction from Small Volumes
- 18 Indexing Diffraction Patterns
- 19 Kikuchi Diffraction
- 20 Obtaining CBED Patterns
- 21 Using Covergent-Beam Technologies. Imaging
- 22 Imaging in the TEM
- 23 Thickness and Bending Effects
- 24 Planar Defects
- 25 Strain Fields
- 26 WeakBeam Dark-Field Microscopy
- 27 Phase-Contrast Images
- 28 High-Resolution TEM
- 29 Image Simulation
- 30 Quantifying and Processing HRTEM Images
- 31 Other Imaging Techniques. Spectrometry
- 32 Xray Spectrometry
- 33 The XEDS-TEM Interface
- 34 Qualitative Xray Analysis
- 35 Quantitative Xray Microanalysis
- 36 Spatial Resolution and Minimum Detectability
- 37 Electron EnergyLoss Spectrometers
- 38 The EnergyLoss Spectrum
- 39 Microanalysis with Ionization-Loss Electrons
- 40 Everything Else in the Spectrum
- Index