Contents

5 ■ Electron Sources

6 ■ Lenses, Apertures, and Resolution

7 ■ How to "See" Electrons

8 ■ Pumps and Holders

III Imaging

24 Planar Defects

25 ■ Strain Fields

26 ■ Weak-Beam Dark-Field Microscopy

27 ■ Phase-Contrast Images

28 ■ High-Resolution TEM

29 ■ Image Simulation

30 Quantifying and Processing HRTEM Images

31 ■ Other Imaging Techniques

IV Spectrometry

32 X-ray Spectrometry

33 ■ The XEDS-TEM Interface

34 Qualitative X-ray Analysis

35 ■ Quantitative X-ray Microanalysis

36 ■ Spatial Resolution and Minimum Detectability

37 ■ Electron Energy-Loss Spectrometers

38 The Energy-Loss Spectrum

39 ■ Microanalysis with Ionization-Loss Electrons

40 Everything Else in the Spectrum