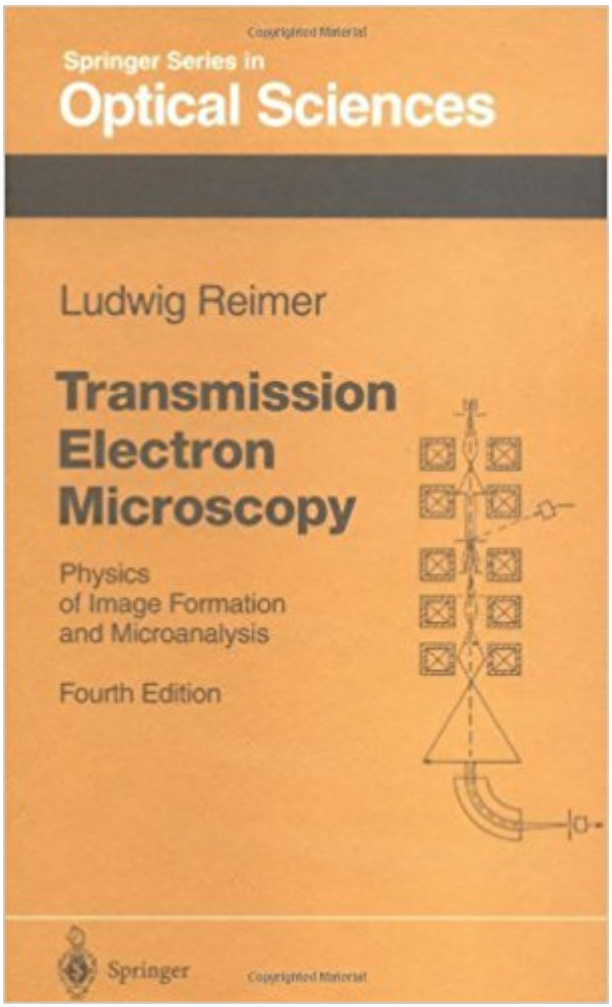
Transmission Electron Microscopy: Physics Of Image Formation And Microanalysis (Springer Series In Optical Sciences,)



Synopsis

Transmission Electron Microscopy presents the theory of image and contrast formation, and the analytical modes in transmission electron microscopy. The principles of particle and wave optics of electrons are described. Electron-specimen interactions are discussed for evaluating the theory of scattering and phase contrast. Also discussed are the kinematic and dynamical theories of electron diffraction and their applications for crystal-structure analysis and imaging of lattices and their defects. X-ray micronanalysis and electron energy-loss spectroscopy are treated as analytical methods. This fourth edition includes discussions of recent progress, especially in the area of Schottky emission guns, convergent-beam electron diffraction, electron tomography, holography and the high resolution of crystal lattices.

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Customer Reviews

Extremely thorough treatment of electron optics and image formation inside the TEM. Very valuable reference when combined with W&C, Egerton, or other texts.

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