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Titolo	Analytical Transmission Electron Microscopy : An Introduction for Operators / / by Jürgen Thomas, Thomas Gemming
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Descrizione fisica	1 online resource (XVII, 348 p. 238 illus., 33 illus. in color.)
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Soggetti	Materials science Spectrum analysis Microscopy Nanotechnology Characterization and Evaluation of Materials Spectroscopy and Microscopy Spectroscopy/Spectrometry Nanotechnology and Microengineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"This book is the revised and slightly expanded translation of the German book edition by Jurgen Thomas and Thomas Gemming: "Analytische Transmissionselektronenmikroskopie-- Eine Einführung für den Praktiker", Springer-Verlag, Wien 2013."
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	From the Contents: Why this effort? -- What should we know about electron optics and the construction of an electron microscope -- We prepare electron-transparent samples -- Let us start with the work -- Let us switch to electron diffraction -- Why do we see any contrasts in the images? -- We increase the magnification -- Let us switch to scanning transmission electron microscopy -- Let us use the analytical possibilities -- Basics explained in more detail (a little bit more mathematics).
Sommario/riassunto	This work is based on experiences acquired by the authors regarding often asked questions and problems during manifold education of beginners in analytical transmission electron microscopy. These experiences are summarised illustratively in this textbook. Explanations based on simple models and hints for the practical work are the focal

points. This practically- oriented textbook represents a clear and comprehensible introduction for all persons who want to use a transmission electron microscope in practice but who are not specially qualified electron microscopists up to now.

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