Record Nr. UNINA9910777360903321 Autore Goodhew Peter J. Titolo Electron Microscopy and Analysis, Third Edition / / Peter J. Goodhew, John Humphreys, Richard Beanland Boca Raton, FL:,: CRC Press,, 2014 Pubbl/distr/stampa 0-429-17625-2 **ISBN** 1-4822-8934-2 1-4200-1725-X 1-282-77797-1 9786612777974 0-203-18425-4 Edizione [3rd edition.] Descrizione fisica 1 online resource (262 p.) Disciplina 502.825 502/.8/25 Soggetti Electron microscopy Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Book Cover; Title; Contents; Acronyms; Preface; Microscopy with light and electrons; Methods of image formation; Pixels; The light-optical microscope; Magnification; Resolution; Depth of field and depth of focus; Aberrations in optical systems; Electrons versus light; Questions; Electrons and their interaction with the specimen; Generating a beam of electrons; Deflection of electrons magnetic lenses; The scattering of electrons by atoms; Elastic scattering; Inelastic scattering; Secondary effects: The family of electron microscopes: Questions: Electron diffraction The geometry of electron diffraction Diffraction spot patterns; Use of the reciprocal lattice in diffraction analysis; Other types of diffraction pattern; Questions; The transmission electron microscope; Contrast mechanisms; High voltage electron microscopy (HVEM); Scanning transmission electron microscopy (STEM); Questions; The scanning electron microscope; Obtaining a signal in the SEM; The optics of the

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