1. Record Nr. UNINA9910137698703321 Autore Kazmiruk Viacheslav Titolo Scanning electron microscopy / / Viacheslav Kazmiruk Pubbl/distr/stampa IntechOpen, 2012 [Place of publication not identified]:,: IntechOpen,, 2012 ©2012 **ISBN** 953-51-4329-8 Edizione [1st ed.] 1 online resource (848 pages) Descrizione fisica Soggetti TECHNOLOGY & ENGINEERING / Electronics / Optoelectronics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Sommario/riassunto Today, an individual would be hard-pressed to find any science field that does not employ methods and instruments based on the use of fine focused electron and ion beams. Well instrumented and supplemented with advanced methods and techniques, SEMs provide possibilities not only of surface imaging but quantitative measurement of object topologies, local electrophysical characteristics of semiconductor structures and performing elemental analysis. Moreover, a fine focused e-beam is widely used for the creation of micro and nanostructures. The book's approach covers both theoretical and practical issues related to scanning electron microscopy. The book has 41 chapters, divided into six sections: Instrumentation, Methodology, Biology, Medicine, Material Science, Nanostructured Materials for Electronic Industry, Thin Films, Membranes, Ceramic, Geoscience, and Mineralogy. Each chapter, written by different authors, is a complete work which presupposes that readers have some background knowledge on the subject.