Record Nr. UNINA9910743354603321 Autore Biswas Krishanu **Titolo** Electron Microscopy in Science and Engineering / / edited by Krishanu Biswas, Sri Sivakumar, Nilesh Gurao Singapore:,: Springer Nature Singapore:,: Imprint: Springer,, 2022 Pubbl/distr/stampa 981-16-5101-9 **ISBN** 981-16-5100-0 Edizione [1st ed. 2022.] Descrizione fisica 1 online resource (153 pages) IITK Directions, , 2509-6605;; 6 Collana Disciplina 502.825 Soggetti Materials Spectrum analysis **Building materials** Materials Engineering Spectroscopy Structural Materials Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Small scale deformation experiments inside an SEM -- In-situ Nota di contenuto Micromechanical Testing in Scanning Electron Microscopy -- Exploring Carbon Surface using Electron Microscopy: Applications to Energy, Environment and Health -- Electron Backscatter Diffraction Technique: Fundamentals to Applications -- Application of Electron backscatter diffraction (EBSD) method in Earth Sciences -- Electron Probe Micro-Analyser: An Equipment for Accurate and Precise Micro-Composition Analysis. This issue of Direction focuses on the rapid proliferation of electron Sommario/riassunto microscopy (EM) for scientific as well as technological research. The content written by leading experts is intended to provide the capabilities of EM facilities, set at Indian Institute of Technology (IIT) Kanpur to solve various problems and caters to the needs of both internal and external users. The book provides a detailed and comprehensive viewpoint of the basic features and advanced

capabilities of EM facilities to the scientific community. A large number of electron microscopes have been installed and utilized by researchers

across various engineering and science departments; hence, this volume provides both breadth as well as depth of various EM facilities available at the institute.