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Disciplina	578.1
Soggetti	Spectrum analysis Microscopy Materials—Surfaces Thin films Surfaces (Physics) Interfaces (Physical sciences) Nanotechnology Spectroscopy and Microscopy Surfaces and Interfaces, Thin Films Surface and Interface Science, Thin Films Nanotechnology and Microengineering
Lingua di pubblicazione	Inglese
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Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Sommario/riassunto	This book covers the fundamentals of Helium Ion Microscopy (HIM) including the Gas Field Ion Source (GFIS), column and contrast formation. It also provides first hand information on nanofabrication and high resolution imaging. Relevant theoretical models and the existing simulation approaches are discussed in an extra section. The structure of the book allows the novice to get acquainted with the specifics of the technique needed to understand the more applied chapters in the second half of the volume. The expert reader will find a complete reference of the technique covering all important applications

in several chapters written by the leading experts in the field. This includes imaging of biological samples, resist and precursor based nanofabrication, applications in semiconductor industry, using Helium as well as Neon and many more. The fundamental part allows the regular HIM user to deepen his understanding of the method. A final chapter by Bill Ward, one of the pioneers of HIM, covering the historical developments leading to the existing tool complements the content.