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Titolo	Handbook of full-field optical coherence microscopy : technology and applications // edited by Arnaud Dubois
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Descrizione fisica	1 online resource (790 pages) : illustrations
Disciplina	616.0758
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Lingua di pubblicazione	Inglese
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Note generali	Includes index.
Nota di contenuto	part 1. Theoretical aspects -- part 2. Technological developments -- part 3. Additional imaging modalities -- part 4. Applications.
Sommario/riassunto	Full-field optical coherence microscopy (FF-OCM) is an imaging technique that provides cross-sectional views of the subsurface microstructure of semitransparent objects. The technology is based on low-coherence interference microscopy, which uses an area camera for en face imaging of the full-field illuminated object. FF-OCM benefits from the lateral imaging resolution of optical microscopy along with the capacity of optical axial sectioning at micrometer-scale resolution. The technique can be employed in diverse applications, in particular for non-invasive examination of biological tissues. This handbook is the first to be entirely devoted to FF-OCM. It is organized into four parts with a total of 21 chapters written by recognized experts and major contributors to the field. After a general introduction to FF-OCM, the fundamental characteristics of the technology are analyzed and discussed theoretically. The main technological developments of FF-OCM for improving the image acquisition speed and for endoscopic imaging are presented in part II. Extensions of FF-OCM for image contrast enhancement or functional imaging are reported in part III.

The last part of the book provides an overview of possible applications of FF-OCM in medicine, biology, and materials science. A comprehensive compilation of self-contained chapters written by leading experts, this handbook is a definitive guide to the theoretical analyses, technological developments, and applications of FF-OCM. Using the rich information the book is replete with, a wide range of readers, from scientists and physicists to engineers as well as clinicians and biomedical researchers, can get a handle on the latest major advances in FF-OCM.
