Record Nr. UNINA9910140805303321 **Titolo** Raman, infrared, and near-infrared chemical imaging [[electronic resource] /] / edited by Slobodan Sasic, Yukihiro Ozaki Pubbl/distr/stampa Hoboken, N.J., : Wiley, 2010 **ISBN** 1-118-05825-9 1-282-77324-0 9786612773242 0-470-76815-0 0-470-76813-4 Descrizione fisica 1 online resource (338 p.) Altri autori (Persone) SasicSlobodan OzakiY (Yukihiro) Disciplina 543/.57 Soggetti Raman spectroscopy Infrared imaging Imaging systems in chemistry Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Includes bibliographical references and index. Nota di bibliografia Nota di contenuto RAMAN, INFRARED, AND NEAR-INFRARED CHEMICAL IMAGING: CONTENTS: PREFACE: CONTRIBUTORS: 1 SPECTROSCOPIC THEORY FOR CHEMICAL IMAGING; PART I: HARDWARE; 2 RAMAN IMAGING INSTRUMENTATION; 3 FT-IR IMAGING HARDWARE; 4 TECHNOLOGIES AND PRACTICAL CONSIDERATIONS FOR IMPLEMENTING NEAR-INFRARED CHEMICAL IMAGING; 5 DATA ANALYSIS AND CHEMOMETRICS FOR HYPERSPECTRAL IMAGING; PART II: BIOMEDICAL APPLICATIONS; 6 BIOMEDICAL APPLICATIONS OF RAMAN IMAGING: 7 SKIN PHARMACOLOGY AND COSMETIC SCIENCE APPLICATIONS OF IR SPECTROSCOPY, MICROSCOPY, AND IMAGING 8 NEAR-INFRARED IN VIVO SPECTROSCOPIC IMAGING: BIOMEDICAL RESEARCH AND CLINICAL APPLICATIONSPART III: PHARMACEUTICAL APPLICATIONS; 9 PHARMACEUTICAL APPLICATIONS OF RAMAN CHEMICAL IMAGING; 10 APPLICATIONS OF FTIR SPECTROSCOPIC

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## Sommario/riassunto

An all-inclusive guide on the analytical methods of Raman, infrared, and near-infrared chemical imaging An underutilized technology, chemical imaging through Raman, infrared (IR), and near-infrared (NIR) is beginning to gain recognition for its non-destructive method of permitting visualization of spatially resolved chemical information. This type of analysis is triggering a groundswell of demand as manufactured materials become more complex and the need for greater scrutiny and less damaging research practices is at a premium. Concentrating on the applications of chemical imaging, th