Record Nr. UNINA9910688368103321 Infrared Spectroscopy: perspectives and applications / / Ahmed S. El-Titolo Shafie, Khalid Al-Saad, Marwa El-Azazy, editor Pubbl/distr/stampa London:,:IntechOpen,, 2023 Descrizione fisica 1 online resource Disciplina 543.08583 Soggetti Infrared spectroscopy Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Preface -- Chapter 1 Introductory Chapter: Infrared Spectroscopy --Nota di contenuto Principles and Applications by Marwa El-Azazy, Ahmed S. El-Shafie and Khalid Al-Saad -- Chapter 2 Attenuated Total Reflectance Mode for Transport through Membranes by Daniel T. Hallinan Jr -- Chapter 3 Continuous Scan and Repetitive Mode FT-IR Spectroscopy and Its Application in Isomeric Identification, Conformational Analysis and Photochemistry by Prasanta Das -- Chapter 4 IR Spectroscopy in Qualitative and Quantitative Analysis by Nabeel Othman -- Chapter 5 Applications of Near-Infrared Spectroscopy (NIRS) in Fish Value Chain by Sonia Nieto-Ortega, Rebeca Lara, Giuseppe Foti, Angela Melado-Herreros and Idoia Olabarrieta -- Chapter 6 Monitoring Brain Activities Using fNIRS to Avoid Stroke by Yun-Hsuan Chen and Mohamad Sawan -- Chapter 7 Application of Infrared Techniques for Characterisation of Vector-Borne Disease Vectors by Maggy Sikulu-Lord and Rafael Macielde-Freitas -- Chapter 8 Application of Infrared Spectroscopy in the Characterization of Lignocellulosic Biomasses Utilized in Wastewater Treatment by Marwa El-Azazy, Ahmed S. El-Shafie and Khalid Al-Saad -- Chapter 9 Infrared Spectroscopy for Detecting Adulterants in Food and Traditional Indonesian Herbal Medicine by Aulia M.T. Nasution and Hery Suyanto -- Chapter 10 Application of Raman Spectroscopy for Dental Enamel Surface Characterization by Cecilia Carlota Barrera-

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Sommario/riassunto

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Infrared Spectroscopy - Perspectives and Applications is a compendium

of contributions from experts in the field of infrared (IR) spectroscopy. This assembly of investigations and reviews provides a comprehensive overview of the fundamentals as well as the groundbreaking applications in the field. Chapters discuss IR spectroscopy applications in the food and biomedicine sectors and for measuring transport through polymer membranes, characterizing lignocellulosic biomasses, detecting adulterants, and characterizing enamel surface advancements. This book is an invaluable resource and reference for students, researchers, and other interested readers.