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Soggetti	Food science Food - Analysis Food - Sensory evaluation Food - Safety measures Food Science Food Analysis Sensory Evaluation Food Engineering Food Safety
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Nota di contenuto	Chapter 1 Introduction. -Chapter 2 Computer Vision Technologies in Food -- Chapter 3 Near Infrared Spectroscopy Analysis in Food -- Chapter 4 Spectral Imaging Technologies in Food -- Chapter 5 CSAs Array Technologies in Food -- Chapter 6 Acoustic and Vibrating Signal Analysis Technologies in Food -- Chapter 7 Bionic Sensors Technologies in Food -- Chapter 8 Multi-Sensors data fusion Technologies in Food External and Internal Quality Comprehensive Evaluation -- Chapter 9 Intelligent and Portable Equipments of Nondestructve Detection Technologies in Food -- Chapter 10 Nondestructive Deatection Technologies for Real-time Monitoring Food Processing.
Sommario/riassunto	This book comprehensively introduces non-destructive methods for food quality (i.e. external, internal, sensory, components, and microbiological indicators) detection, through optics, acoustics,

chemistry, imaging, and bionic sensing. It highlights in-situ detection of food quality and safety, including principles, signal processing, and analysis of data, non-destructive detection system, and application in the food industry for each method. First, this book introduces the principles and characteristics of various food non-destructive methods. As non-destructive measurements always involve obtaining big data for each testing, this book also describes in detail the signal and big data processing for each non-destructive method. The chapters also introduce the rapid portable detection equipment for food and agricultural products developed in recent years, as well as the intelligent monitoring equipment in the process of food processing. Relevant application cases are provided to help readers better understanding how to apply non-destructive technology for food quality detection. In the noninvasive measurement of food quality, this book has a systematic introduction of the detection principle, data processing, and rapid detection system, in-field detection case studies. This book is novel and practical and can be used as a professional textbook for undergraduates majoring in food science and engineering. It can also be used as a reference book for scientific research and technical personnel engaged in the field of food quality and safety detection. .