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| ISBN | 9789819950454 9819950457 |
| Edizione | [1st ed. 2023.] |
| Descrizione fisica | 1 online resource (330 pages) |
| Disciplina | 620.5 664 |
| Soggetti | Nanotechnology Food science Agronomy Nanochemistry Nanobiotechnology Agriculture Food - Analysis Chemistry Food Nanotechnology Food Chemistry |
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| Nota di contenuto | Overview of Nanomaterial Application in Food and Agriculture Sector -- Nanomaterials: Plethora of Opportunities as Smart Packaging, Preserving and Processing Agent in Food Industry -- Major Applications of Nanotechnology in Food Industry -- Intelligent Nano-based Sensor for Quality Detection of Food Products -- Nano-fertilizers and Nano-pesticides -- Nanomaterials based Nutraceuticals, Nutrigenomics and Functional Food -- Nanocarriers as a Novel Approach for Phytochemical Delivery in food -- Regulatory and Safety Concern Regarding the Use of Active Nanomaterials in Food Industry. . |
| Sommario/riassunto | This book provides a comprehensive insight into the growth of nanotechnology in the agri-food industry. Currently, nanotechnology |

serves as the most promising means to resolve the issues encountered in the food sector, as it enables the production of high-quality food with exceptional characteristics such as extended shelf life, flavor, freshness, and high nutritional content. This book focuses on the applications of nanotechnology in various fields such as smart packaging, processing, and preservation of food. It also emphasizes the role of nanomaterials in strategic design of nutraceuticals and functional foods. Along with providing an overview of the innovations and application, this book also describes future perspectives, and offers insights to ensure consumer confidence in terms of safe use. In this context the application of nanomaterials as nanosensors is additional covered. The book provides readers with a deep knowledge regarding nanomaterials-based biosensors (colorimetric, electrochemical, fiber-based) for detection of pathogens in contaminated food. Factors affecting risk assessment regulations and safety concerns regarding the use of nanomaterials in food industry have also been discussed in detail. Given its scope, this book appeals to a wider readership, especially for researchers and students who work in food agronomy and nanomaterials and nanotechnology related fields.
