

1. Record Nr.	UNINA9910298613803321
Titolo	Food Nanoscience and Nanotechnology // edited by Humberto Hernández-Sánchez, Gustavo Fidel Gutiérrez-López
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2015
ISBN	3-319-13596-1
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (307 p.)
Collana	Food Engineering Series, , 2628-8095
Disciplina	664
Soggetti	Food science Nanochemistry Microtechnology Microelectromechanical systems Food Science Microsystems and MEMS
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	1. Introduction.- 2. Tools for the Study of Nanostructures.- 3. Development of Food Nanostructures by Electrospinning.- 4. Polysaccharide-Based Nanoparticles.- 5. Protein-Based Nanoparticles.- 6. Indentation Technique: Overview and Applications in Food Science -- 7. Lipid Matrices for Nanoencapsulation in Food: Liposomes and Lipid Nanoparticles -- 8. High Shear Methods to Produce Nano-Sized Food Related to Dispersed Systems.- 9. Hydrodynamic Characterization of the Formation of Alpha-Tocopherol Nanoemulsions in a Microfluidizer -- 10. Role of Surfactants and Their Applications in Structured Nanosized Systems.- 11. Food Nano and Micro Conjugated Systems: the Case of Albumin-Capsaicin -- 12. Polymer Nanocomposites for Food Packaging Applications -- 13. Nanobiosensors in Food Science and Technology -- 14. Carbon Nanotubes and Their Potential Applications in Developing Electrochemical Biosensors for Detection of Analytes in Food -- 15. Safety Studies of Metal Oxides Nanoparticles Used in the Food Industry -- 16. Multiscale and Nanostructural Approach to Fruits Stability -- 17.

Sommario/riassunto

Nanoscience and nanotechnology have had a great impact on the food industry. They have increased the nutritional and functional properties of a number of food products and have aided in food preservation through the addition of antimicrobials or the reduction of water activity. These and many other applications have emerged in recent years to transform food science and technology. This book proposes to look at some of these applications and their effect on food production and innovation. .
