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Titolo	Chitin and chitosan : properties and applications / / edited by Lambertus A. M. van den Broek, Carmen G. Boeriu
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ISBN	1-119-45047-0 1-5231-3285-X 1-119-45049-7 1-119-45046-2
Descrizione fisica	1 online resource (537 pages)
Collana	Wiley series in renewable resources
Disciplina	573.774
Soggetti	Chitin - Industrial applications
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Sources of chitin and chitosan and their isolation -- Methods of isolating chitin from sponges (Porifera) -- Physicochemical properties of chitosan and its degradation products -- New developments in the analysis of partially acetylated chitosan polymers and oligomers -- Chitosan-based hydrogels -- Beneficial health effects of chitin and chitosan -- Antimicrobial properties of chitin and chitosan -- Enzymes for modification of chitin and chitosan -- Chitin and chitosan as source of biobased building blocks and chemicals -- Chemical and enzymatic modification of chitosan to produce new functional materials with improved properties -- Chitosan-based drug delivery systems -- The application of chitin and its derivatives for the design of advanced medical devices -- Food applications of chitosan and derivatives -- Potential of chitosans in the development of edible food packaging -- The use of chitosan based nanoformulations for controlling fungi during storage of horticultural commodities -- Chitosan application in textile processing and fabric coating -- Chitin and chitosan for water purification -- Chitosan for sensors and electrochemical applications -- Marketing and regulations of chitin and chitosan from insects.
Sommario/riassunto	*Provides a comprehensive assessment of the isolation, properties and

applications of chitin and chitosan. \*Chitin and chitosan are promising biomaterials with broad applications and a growing market due to their material properties and biological functionalities. \*Fields of application for these biopolymers include: medical and pharmaceutical applications like drug and gene delivery, implants and tissue engineering, wound dressing and building blocks; packaging; food and feed; agricultural; textile; cosmetics; nanoparticles; nanofibers; membranes and water treatment. \*Part of the successful Wiley Series in Renewable Resources"

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