Record Nr. UNINA9910823596403321 Chitin, chitosan, oligosaccharides and their derivatives : biological **Titolo** activities and applications / / edited by Se-Kwon Kim Pubbl/distr/stampa Boca Raton, FL,: Taylor & Francis, 2010 **ISBN** 1-4398-5882-9 0-429-16593-5 1-4398-1604-2 Edizione [1st ed.] Descrizione fisica 1 online resource (668 p.) Altri autori (Persone) KimSe-Kwon Disciplina 573.7/74 Soggetti Chitin Chitosan 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 and index. Front cover; Contents; Preface; Editor; About the Book; Contributors; Nota di contenuto Part I: The Sources and Production of Chitin and Chitosan Derivatives: Chapter 1: Chitin and Chitosanfrom Terrestrial Organisms; Chapter 2: Chitin and Chitosan from Marine Organisms; Chapter 3: Chitin and Chitosanfrom Microorganisms; Chapter 4: Enzymatic Production of Chitin from Crustacean Shell Waste; Chapter 5: Continuous Production of Chitooligosaccharides by Enzymatic Hydrolysis; Chapter 6: Biosynthesis of Cellulose-Chitosan Composite; Part II: Physical and Chemical Aspectsof Chitin and Chitosan Derivatives Chapter 7: Chemical Derivatization of Chitosan for Plasmid DNADelivery: Present and FutureChapter 8: X-Ray Diffraction Studies of Chitin, Chitosan, and Their Derivatives; Chapter 9: Mechanical Properties of Chitosan and Chitosan-Poly(Vinyl Alcohol) Blend Films; Chapter 10: Electrostatic Properties of Chitosan; Chapter 11: Applications of MassSpectrometry to AnalyzeStructure and Bioactivityof Chitooligosaccharides; Chapter 12: The Use of Various Typesof NMR and IR Spectroscopyfor Structural Characterization of Chitin and

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Sommario/riassunto

Biopolymers found in marine animals and plants offer tremendous, largely untapped pharmaceutical potential. Research shows that these biopolymers can be used to combat various infectious as well as inflammatory, oxidative, and carcinogenic factors. Chitin, Chitosan, Oligosaccharides and Their Derivatives: Biological Activities and Applications covers the key aspects of these therapeutically valuable biopolymers and their derivatives, namely, their properties, sources, production, and applications in food science and technology as well as biological, biomedical, ind