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Nota di contenuto	Chapter 1. Historical Landmarks in the Discovery of Chitin -- Chapter 2. Fundamentals and Applications of Chitosan -- Chapter 3. Biocatalytic Production of Hetero-Chitosan Oligosaccharides as Anti-Oxidants -- Chapter 4. Enzyme Immobilization on Chitin and Chitosan-Based Supports for Potential Biotechnological Applications -- Chapter 5. Chitin and Chitosan Derivative Membranes in Resources, Energy, Environmental and Medical Field -- Chapter 6. Utility of Chitosan for 3D Printing and Bioprinting -- Chapter 7. The Contribution of D-Glucosamine to cell Membrane Stability: Mechanisms and Applications in Regenerative Medicine -- Chapter 8. Manufacture Techniques of Chitosan Based Microcapsules to Enhance Functional Properties of Textiles.

Sommario/riassunto

This book reviews recent research and applications of chitin and chitosan, as natural alternatives of fossil fuel products, in green chemistry, energy, biotechnology, bioprinting, medicine, water treatment, agriculture and food science. Chitin and chitosan products are polysaccharides derived from food waste of crustaceans and fungi, and thus are cheap, abundant, sustainable, non-toxic, recyclable and biocompatible.
