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Nota di contenuto	Chapter 1. Renewable Resource based Polymers -- Chapter 2. Fillers and reinforcements for advanced nanocomposites -- Chapter 3. Cellulose Nanocrystals based Nanocomposites -- Chapter 4. Nanofibrillated cellulose based nanocomposites -- Chapter 5. Bacterial Cellulose Nanocomposites -- Chapter 6. Properties of nanocomposites based on different clays and polyamide 6/acrylonitrile butadiene styrene blends -- Chapter 7. Nanotube/Biopolymer

Nanocomposites -- Chapter 8. Starch-based Nanocomposites: Types and Industrial Applications -- Chapter 9. Recent Developments in Chitosan Based Nanocomposites -- Chapter 10. Structural properties of protein and their role in Polymer Nanocomposites -- Chapter 11. Polylactic acid(PLA) Based Nanocomposites -- Chapter 12. Biopolymers Based Nanocomposites: Properties and Applications.

Sommario/riassunto

This book highlights the various types of polymer and nanocomposites that can be derived from biorenewable resources. It covers various aspects of biobased polymers and nanocomposites, including preparation, processing, properties, and performance, and the latest advances in these materials. It also includes recent findings from leading researchers in academia and industry, government, and private research laboratories around the globe, providing the latest information on biobased polymers and nanocomposites. Offering an overview of the entire production process, it guides readers through all stages, from the raw source materials, processing and property characterization to application performance. This book is suitable for professionals and researchers seeking in-depth practical information as well as the fundamental science behind this. It also serves as a point of reference for undergraduate and graduate students, as well as postdoctoral researchers working in the area of polymer and composites with a special emphasis on biobased materials.
