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Nota di contenuto	Chapter 1. ALGINATEBASED MATRIX TABLET FOR DRUG DELIVERY -- Chapter 2. Alginate based micro particulate systems for drug delivery -- Chapter 3. Alginate based nanocarriers for controlled drug delivery applications -- Chapter 4. Alginate based carriers for topical drug delivery -- Chapter 5. Alginate based Hydrogel in drug delivery and biomedical applications -- Chapter 6. Alginate based interpenetrating polymer network (IPN) in drug delivery and biomedical applications -- Chapter 7. Alginate based micelle in biomedical applications -- Chapter 8. Alginate based polyelectrolyte complexes for drug delivery and biomedical applications -- Chapter 9. Alginate-Based Inhalable Particles for Controlled Pulmonary Drug Delivery -- Chapter 10. Biomedical Applications of Alginate in the Delivery System for Natural

Products -- Chapter 11. Alginate in cancer therapy -- Chapter 12. Alginate carriers in wound healing applications -- Chapter 13. Alginate as support material in enzyme Immobilization -- Chapter14. Alginate in Gene and Vaccine Delivery -- Chapter 15. Alginate based scaffolds in Tissue engineering and Regenerative Medicine.

Sommario/riassunto

This book focuses on recent trends of research on alginate-based biomaterials in Drug Delivery strategies and biomedical engineering. It contains the widely used alginate-based biomaterials as micro to nano-controlled drug delivery (oral, ocular delivery, topical delivery, etc.) and its fabrication technology, characterization, and biomedical aspects (such as cancer therapy, tissue engineering, gene delivery, vaccine delivery, enzyme immobilization, wound healing, dental applications, etc.) in a single book. The chapters cover updated information, current research trends, informatics, and all aspects of applications. Alginate is a U.S. Food and Drug Administration (FDA)-approved natural biomaterial and has diverse biomedical applications. In recent years, researchers and scientists are working on the alginate-based drug delivery systems that have been designed and characterized as a matrix, micro to nanocarriers, fibers, composite/scaffolds, etc. Alginate has versatile properties such as biodegradable, biocompatible, nontoxic, and easily available. This book especially highlights both the drug delivery strategies and biomedical engineering aspects such as controlled drug delivery, drug targeting to the site of action, cancer therapy, gene and vaccine delivery, enzyme immobilization, tissue engineering, and regenerative medicine. .