

1. Record Nr.	UNINA9910462868703321
Titolo	Marine biomaterials : characterization, isolation, and applications // edited by Se-Kwon Kim
Pubbl/distr/stampa	Boca Raton : , : Taylor & Francis, , 2013
ISBN	0-429-08673-3 1-138-07638-4 1-4665-0565-6
Descrizione fisica	1 online resource (821 p.)
Altri autori (Persone)	KimSe-Kwon
Disciplina	578.76
Soggetti	Aquatic organisms Biomedical materials Electronic books.
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.
Nota di contenuto	Front Cover; Contents; Preface; Acknowledgments; Editor; Contributors; Chapter 1 - Introduction to Marine Biomaterials; Chapter 2 - Hydroxyapatite from Marine Fish Bone: Isolation and Characterization Techniques; Chapter 3 - Hydroxyapatite and Calcium Phosphates from Marine Sources: Extraction and Characterization; Chapter 4 - Isolation and Characterization of Chitin and Chitosan as Potential Biomaterials; Chapter 5 - Structure Elucidation and Biological Effects of Carrageenans from Red Algae; Chapter 6 - Study of Marine-Derived Fatty Acids and Their Therapeutic Importance Chapter 7 - Marine Toxins for Natural Products Drug Discovery Chapter 8 - Conotoxins: A Source of Biomaterial for Pharmacology and Neuroscience; Chapter 9 - Pigmented Marine Heterotrophic Bacteria: Occurrence, Diversity, and Characterization of Pigmentation; Chapter 10 - Antitumor Pigments from Marine Bacteria; Chapter 11 - Structural Characteristics of Bioactive Marine Natural Products; Chapter 12 - Environmental and Human Impact on Marine Microorganism-Synthesized Nanoparticles Chapter 13 - Biosynthesis and Characterization of Different Nanoparticles and Its Larvicidal Activity against Human Disease

VectorsChapter 14 - Mussel-Derived Adhesive Biomaterials; Chapter 15 - Biological Applications of Marine Biomaterials; Chapter 16 - Health Benefits of Sulfated Polysaccharides from Marine Algae; Chapter 17 - Biological Activities and Potential Applications of Marine Biotoxins; Chapter 18 - Compounds from Marine Organisms with Antiviral Activity; Chapter 19 - Biological Activities of Marine-Derived Bioactive Peptides  
Chapter 20 - Health Beneficial Effects of Docosahexaenoic Acid: A Marine TreasureChapter 21 - Treatment of Obesity and Diabetes with Marine-Derived Biomaterials; Chapter 22 - Potential Anticoagulant Effect of Seaweed-Derived Biomaterials; Chapter 23 - Microbial Biomaterials and Their Applications; Chapter 24 - Marine Biomaterials for Antiallergic Therapeutics; Chapter 25 - Biomedical Potential of Unchlorinated Briarane Diterpenes from Gorgonians and Sea Pens; Chapter 26 - Application of Marine Collagen-Based Scaffolds in Bone Tissue Engineering  
Chapter 27 - Biocomposites Containing Chitosan for Bone Tissue EngineeringChapter 28 - Marine Plants and Algae as Promising 3D Scaffolds for Tissue Engineering; Chapter 29 - Application of Marine Biomaterials in Orthopedic and Soft Tissue Surgical Challenges; Chapter 30 - Marine Materials in Drug Delivery and Tissue Engineering: From Natural Role Models to Bone Regeneration and Repair and Slow Delivery of Therapeutic Drugs, Proteins, and Genes; Chapter 31 - Polysaccharides from Seaweeds: Modification and Potential Application in Drug Delivery  
Chapter 32 - Marine Biomaterials: Role in Drug Delivery and Tissue Engineering toward Biomedical Applications

---

### Sommario/riassunto

Oceans are an abundant source of diverse biomaterials with potential for an array of uses. *Marine Biomaterials: Characterization, Isolation and Applications* brings together the wide range of research in this important area, including the latest developments and applications, from preliminary research to clinical trials. The book is divided into four parts, with chapters written by experts from around the world. Biomaterials described come from a variety of marine sources, such as fish, algae, microorganisms, crustaceans, and mollusks. Part I covers the isolation and characterization of marine

---