

Marine Microorganisms

Extraction and Analysis of Bioactive Compounds

The marine environment covers 70% of the earth's surface and accounts for 98% of the potentially habitable space. The bioactives from marine microorganisms include antibiotic compounds, polysaccharides, inhibitors, enzymes, peptides, and pigments. These are used in various fields of biology that range from nutraceuticals to cosmeceuticals. Recent scientific investigations have revealed that marine microbial compounds exhibit various beneficial biological effects, such as anti-inflammatory, anticancer, anti-HIV, antihypertensive, and antidiabetic properties.

Marine Microorganisms: Extraction and Analysis of Bioactive Compounds sheds light on the extraction, cleanup, and detection methods of major bioactive compounds from marine organisms. The book includes information on the different classes of marine microorganisms and the different bioactives that can be extracted from bacteria, fungi, and microalgae.

KEY FEATURES

- Focuses on the isolation and screening of bioactives from marine microorganisms
- Explains the importance of marine algae and their biomedical and food applications
- Covers industrial applications of peptides, polysaccharides, polyunsaturated fatty acids, pigments, bioactive compounds, and probiotics from marine microbes
- Describes the potential and biological applications of marine microbes and their bioactives, such as antioxidative, anti-inflammatory, anticancer, anticoagulatory, antiviral, antimetastatic, antifouling, and antimicrobial activities

Divided into seven chapters, the book covers bioactive marine natural products, such as marine microbes, seaweeds, and marine sponges as potential sources of drug discovery, and focuses on analysis methods of the biocomponents from marine microorganisms. A useful reference tool for researchers and students, this book provides current knowledge about the isolation and analysis methods of bioactives and provides insight into the various bioactives of marine microbes toward nutraceutical and pharmaceutical development.

Also available in the Food Analysis & Properties Series:

Flow Injection Analysis of Food Additives, edited by Claudia Ruiz-Capillas and Leo M. L. Nollet (ISBN 9781482218190)

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