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Collana	Toxins and biologically active compounds from microalgae ; ; Volume 1
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Nota di contenuto	Front Cover; Cover illustration; Preface; Contents; List of Contributors; Section 1 Toxic Microalgae and Cyanobacteria; Chapter 1 Harmful Algae and their Toxins: Progress, Paradoxes and Paradigm Shifts; Chapter 2 Micro-algal and Cyanobacterial Producers of Biotoxins; Chapter 3 Detection and Identification of Toxic Microalgae by the Use of Innovative Molecular Methods; Chapter 4 Factors Affecting Algal Toxicity; Section 2 Microalgal Toxins: Chemistry and Detection; Chapter 5 Chemistry and Detection of Okadaic Acid/Dinophysistoxins, Pectenotoxins and Yessotoxins Chapter 6 Chemistry of Brevetoxins Chapter 7 The Chemistry of Ciguatoxins: From the First Records to Current Challenges of Monitoring Programs; Chapter 8 Palytoxins: Chemistry and Detection; Chapter 9 Chemistry and Detection of Domoic Acid and Isomers; Chapter 10 Current Knowledge of Paralytic Shellfish Toxin Biosynthesis, Molecular Detection and Evolution; Chapter 11 Current Understanding and Hypotheses on the Biosynthesis of Microalgal Polyether Toxins; Chapter 12 Total Synthesis of Marine Polycyclic Ether Natural Products Chapter 13 Instrumental Methods for Determination of Marine Microalgal Toxins Chapter 14 Biological Assays for Toxin Detection: Characteristics, Potential, Critical Issues; Chapter 15 Marine Toxin Detection Methods in Regulation-From Validation to Implementation;

Sommario/riassunto

This book provides a structured account of the existing knowledge of toxic algae, the chemistry of the toxins they produce, the effects these substances exert in humans and wildlife, as well as the strategies envisaged to protect public health and the environment. It covers recent advances in the understanding of the biology of toxin producers and the factors involved in the appearance and dynamics of harmful algae blooms, the factors affecting toxin production, the synthesis of toxins both in natural producers and by chemical means in a lab, and the toxin groups posing continuing and novel
