

1. Record Nr.	UNINA9910734859303321
Titolo	Cyanobacterial Biotechnology in the 21st Century / / edited by Brett Neilan, Michel Rodrigo Zambrano Passarini, Prashant Kumar Singh, Ajay Kumar
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2023
ISBN	981-9901-81-2
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (318 pages) : illustrations (black and white, and color)
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Disciplina	579.3
Soggetti	Bacteria Microbial ecology Microbiology Environmental Microbiology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	1 Cyanobacteria and Cyanotoxins in Underground Water and the New Perspectives in a Climate Breakdown Scenario -- 2 On the pigment profile of 12 cyanobacteria isolated from unpolluted and polluted habitats of Southwest India -- 3 Cyanobacterial Stress and its OMICS Perspective -- 4 Spirulina: From ancient food to innovative super nutrition of the future and its market scenario as a source of neutraceutical -- 5 Response of cyanobacteria during abiotic stress with special reference to membrane biology: an overview -- 6 Microalgal Biopigments: Production and enhancement strategies to enrich microalgae-derived pigments -- 7 Bioprospecting and mechanisms of cyanobacterial hydrogen production and recent development for its enhancement as a clean energy -- 8 Molecular Biology of non-ribosomal peptides (NRPS) and Polyketide (PKs) biosynthesis in Cyanobacteria -- 9 Cyanobacteria as bioindicator of water pollution -- 10 Degradation of xenobiotics by cyanobacteria -- 11 Impact of pesticides on cyanobacteria in aquatic ecosystems -- 12

International environmental standards for the regulation of freshwater cyanobacterial blooms and their biotoxins -- 13 Therapeutic potential of cyanobacteria as a producer of novel bioactive compounds -- 14 Bioactivity potential of cyanobacterial species inhabitant of southwestern India -- 15 Cyanobacteria Mediated Heavy Metal and Xenobiotics Bioremediation.

Sommario/riassunto

This book covers recent advances in cyanobacterial research. It deals with diversity, evolutionary biology, stress physiology, molecular biology of stress responses, and biotechnology of this group of prokaryotes. Cyanobacteria are ubiquitous and, undoubtedly, agriculturally microorganisms in terms of carbon and nitrogen fixation. In addition, cyanobacteria have long been used to fertilize crops and are a source of protein for humans. In parallel with the advances in cyanobacterial research in the 21st century, the development and application of innovative techniques in molecular biotechnology has widened the spectrum of commercial applications and potential exploitation of cyanobacteria. This book will be of interest to both new and experienced researchers involved in cyanobacterial molecular biology, ecology, and industrial biotechnology. This collection of chapters from experts also serves as essential reading for undergraduate and graduate students of to understand the importance of cyanobacteria in agriculture, ecology, microbial physiology, and environmental sciences.