

1. Record Nr.	UNINA9910299438903321
Titolo	Applied Environmental Biotechnology: Present Scenario and Future Trends [[electronic resource] /] / edited by Garima Kaushik
Pubbl/distr/stampa	New Delhi : , : Springer India : , : Imprint : Springer, , 2015
ISBN	81-322-2123-0
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (178 p.)
Disciplina	333.7 570 628 660.6
Soggetti	Environmental engineering Biotechnology Environmental management Environment Life sciences Environmental Engineering/Biotechnology Environmental Management Environment, general Life Sciences, general
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	Chapter 1 - Bioremediation Technology: A greener and sustainable approach for restoration of environmental pollution -- Chapter 2- Bioremediation of Distillery spent wash by microorganisms -- Chapter 3- In-silico approach to study the regulatory mechanisms and pathways of industrially important microorganisms -- Chapter 4- Microbial Diversity: Its Exploration and Need of Conservation -- Chapter 5 – Phytoremediation: A Biotechnological Intervention -- Chapter 6 - Ameliorative approaches for management of chromium phytotoxicity: Current promises and future directions -- Chapter 7 - Management of environmental phosphorus pollution using phytases: Current challenges and future prospects -- Chapter 8- Sustainable

production of biofuels from microalgae using a biorefinery approach --
Chapter 9- Oil Spill Clean-up: Role of Environmental Biotechnology --
Chapter 10- Bioelectrochemical Systems (BES) for Microbial
Electroremediation: An Advanced Wastewater Treatment Technology. .

Sommario/riassunto

Applied Environmental Biotechnology: Present Scenario and Future Trends is designed to serve as a reference book for students and researchers working in the area of applied environmental science. It presents various applications of environmental studies that involve the use of living organisms, bioprocesses engineering technology, and other fields in solving environmental problems like waste and waste waters. It includes not only the pure biological sciences such as genetics, microbiology, biochemistry and chemistry but also from outside the sphere of biology such as chemical engineering, bioprocess engineering, information technology, and biophysics. Starting with the fundamentals of bioremediation, the book introduces various environmental applications such as bioremediation, phytoremediation, microbial diversity in conservation and exploration, in-silico approach to study the regulatory mechanisms and pathways of industrially important microorganisms biological phosphorous removal, ameliorative approaches for management of chromium phytotoxicity, sustainable production of biofuels from microalgae using a biorefinery approach, bioelectrochemical systems (BES) for microbial electroremediation and oil spill remediation. The book has been designed to serve as comprehensive environmental biotechnology textbooks as well as wide-ranging reference books. Environmental remediation, pollution control, detection and monitoring are evaluated considering the achievement as well as the perspectives in the development of environmental biotechnology. Various relevant articles are chosen up to illustrate the main areas of environmental biotechnology: industrial waste water treatment, soil treatment, oil remediation, phytoremediation, microbial electro remediation and development of biofuels dealing with microbial and process engineering aspects. The distinct role of environmental biotechnology in future is emphasized considering the opportunities to contribute with new approached and directions in remediation of contaminated environment, minimising waste releases and development pollution prevention alternatives at before and end of pipe. .
