1. Record Nr. UNINA9910739463603321

Titolo	Biotechnology for environmental management and resource recovery / / Ramesh Chander Kuhad, Ajay Singh, editors
Pubbl/distr/stampa	New Delhi ; ; New York, : Springer, c2013
ISBN	81-322-0876-5
Edizione	[1st ed. 2013.]
Descrizione fisica	1 online resource (324 p.)
Altri autori (Persone)	KuhadRamesh Chander SinghAjay <1963->
Disciplina	660.6
Soggetti	Biotechnology Refuse and refuse disposal - Biodegradation Recycling (Waste, etc.)
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	1.Microorganisms and enzymes involved in lignin degradation vis-à-vis production of nutritionally rich animal feed: An Overview -- 2.Solid-state bioconversion and animal feed production – present status and future prospects -- 3.Rhizobacteria in Management of Agro-ecosystem.-4.Sustainable enzyme technology for environment: biosensors for monitoring of pollutants and toxic compounds -- 5. Enzymatic retting: A revolution in the handmade papermaking from Calotropis procera -- 6.Cellulases and their biotechnogical applications -- 7.Microbial pectinases and their applications -- 8.Biofuels: the environment friendly energy carriers -- 9.The Interface Between Applied Biocatalysis And Environmental Management -- 10. Metagenomics- Mining Environmental Genomes -- 11.Genetically Modified Microorganisms (GMOs) For Bioremediation -- 12.Ligninolytic enzymes in environmental management -- 13.Microbial phytases in skirmishing and management of environmental phosphorus pollution -- 14.Bioremediation Concepts for Treatment of Distillery Effluent -- 15.Application of natural dyes: An emerging environment friendly solution to handmade paper industry -- 16.Patenting trends in bioremediation technologies for oil contaminated sites.
Sommario/riassunto	Various types of secondary agriculture and forestry wastes represent

valuable resource materials for developing alternate energy as biofuels and other value added products such as sugars, phenols, furans, organic acids, enzymes and digestible animal feed etc. However, if not managed properly, waste material and environmental contaminants generated by various industries such as food and feed, pulp and paper and textile may lead to severe environmental pollution. The energy, food and feed demand necessitate developing simple and economically viable technologies for environmental management and resource recovery. Microorganisms and their enzymes contribute significantly in utilization of plant residues, resource recovery and eventually in pollution mitigation. “Biotechnology for Environmental Management and Resource Recovery” presents a comprehensive review of selected research topics in a compendium of 16 chapters related to environmental pollution control and developing biotechnologies in agro-ecosystem management and bioconversion of agro-residues (lignocellulosics) into biofuels, animal feed and paper etc. This book provides a valuable resource for reference and text material to graduate and postgraduate students, researchers, scientists working in the area of microbiology, biotechnology, and environmental science and engineering.