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Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Brief Introduction to the Biotechnology of Lignocellulose -- Chemical Composition and Structure of Natural Lignocellulose -- Biological Fundamentals for Biotechnology of Lignocellulose -- Pretreatment and Primary Refining of Lignocelluloses -- Applications of Lingocellulose Biotechnology in Ecological Agriculture -- Applications of Lingocellulose Biotechnology in Bioenergy -- Applications of Lingocellulose Biotechnology in Chemical Industry -- Applications of Lingocellulose Biotechnology in Chemical Industry -- Applications of Lingocellulose Biotechnology in Other Industries -- Ecological Industry Model for Biotechnology of Lignocellulose -- Research Methods for the Biotechnology of Lignocellulose.

Sommario/riassunto

This book presents and summarizes the new thoughts, new methods and new achievements that have emerged in the biotechnology of lignocellulose in recent years. It proposes new concepts including the primary refining, fractionation, multi-level utilization and selective structural separation of lignocellulose, etc. By approaching lignocellulose as a multi-level resource, biotechnology could have a significant effect on ecological agriculture, bio-energy, the chemical and paper making industries, etc., ultimately establishing distinctive eco-industrial parks for lignocellulose. Additionally, this book provides systematic research methods for the biotechnology of lignocellulose including investigation methods for the primary refining of lignocellulose, for microbial degradation and enzymatic hydrolysis, for cellulose fermentation and for lignocellulose conversion processes. It offers an excellent reference work and guide for scientists engaging in research on lignocellulose. Dr. Hongzhang Chen is a Professor at the Institute of Process Engineering of the Chinese Academy of Sciences, Beijing, China. .