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Nota di contenuto	Preface -- Site-Directed Mutagenesis on Plasmid Using Polymerase Chain Reaction -- Isolation of Halophilic Bacteria -- Construction of Metagenomic DNA Libraries and Enrichment Strategies -- Thermotolerant Bacteria Producing Fibrinolytic Enzyme -- Chemical Mutation Method for High CO2-Requiring –Mutants of the Cyanobacterium Synechococcus sp. PCC 7002 -- Identification of Fatty Acid Methyl Ester in Palm Oil Using Gas Chromatography-Mass Spectrometer -- Procedure to Develop Binodal Curve and Phase Diagram for Aqueous Two-Phase System -- Technique to Produce Catalyst From Egg Shell and Coconut Waste for Biodiesel Production -- Carrier-free Enzyme Immobilization by Cross-Linked Enzyme Aggregates (CLEA) Technology -- Isolation of Microfibrillated Cellulose (MFC) Via Fungal Cellulases Hydrolysis Combined with Ultrasonication -- Characterization of Electrochemical Transducers for Biosensor Applications -- Polymerization Methods and Characterizations for Poly (Lactic Acid) Based Polymers -- Characterization of Conformational and Oligomeric States of Proteins -- Skim Latex Serum as an Alternative Nutrition for Microbial Growth -- Method for Isolation of Bacteria Strain from Contaminated Soil for Biodegradation of Polycyclic Aromatic Hydrocarbons (PHAs) -- Monitoring the Growth of Plant Cells in Suspension Culture -- Culturing and Maintaining Mammalian Cell Culture -- Integrated Data Analysis Model for Screening Cell Line Producer -- Index.

Sommario/riassunto

This edited work presents useful methods in experimenting in the area of Bioprocessing and Biotechnology. The four sections cover the area of Bioprocess, Whole Cells & Isolated Biocatalyst, Characterization of Biochemical Products and Cell Isolation & Culture. Its enable researchers to choose a suitable method and plan their experiments in details. The main focus of this book is to provide step by step method to young researchers, especially in the new research areas. Among the latest areas are the isolation of novel strain or enzyme by metagenomic approaches and taming procedure in the laboratories, development of novel, the cheap and non-toxic catalyst for biodiesel production, and production of micro-fibrillated cellulose. An updated method for well-known areas such as immobilization technology, biosensor, and polymerization was also presented. The book also covers in-silico methods such as MATLAB platform to ease researchers. Not to forget, the method in animal and plant culture is also discussed in detail. The book is written by chapter authors with much expertise in their fields. They have published multiple articles in the index listed journals. The topic of this book is particularly relevant to young researchers who are struggling to fine-tune their research and do not want to waste their time in optimizing the experiment set up.