

# Biotechnology Handbook

**Author:** NIIR Board

**Format:** Paperback

**ISBN:** 8178330709

**Code:** NI82

**Pages:** 682

**Price:** Rs. 1,100.00    **US\$** 29.73

**Publisher:** Asia Pacific Business Press Inc.

Usually ships within **5** days

Biotechnology is a field of applied biology that involves the use of living organisms and bioprocesses in engineering, technology, medicine and other fields requiring bio products. Biotechnology also utilizes these products for manufacturing purpose. Modern use of similar terms includes genetic engineering as well as cell and tissue culture technologies. Biotechnology draws on the pure biological sciences and in many instances is also dependent on knowledge and methods from outside the sphere of biology. Conversely, modern biological sciences are intimately entwined and dependent on the methods developed through biotechnology and what is commonly thought of as the life sciences industry. It has a major application in modern brewing technology which includes the production of whisky, traditional fermented soybean foods bacterial biomass, cheese starters, cheese technology, L glutamic acid fermentation etc. Biotechnology and cell molecular biology have developed and emerged in to a major discipline during last two decades. Biotechnology is also used to recycle, treat waste, microbial treatment and utilization a waste. The growing global demand for biotechnology products, India has rich biodiversity that drives its clinical trials industry and forms a strong base for pharmaceutical research. In recent years, the worldwide biotechnology based products market has grown at an annual average rate of 15%.

This book majorly deals with introduction to basic biotechnology, downstream processing in biotechnology, modern brewing technology, industrial chemicals, biochemical and fuels, microbial flavours and fragrances, biodegradation of non cellulosic wastes for environmental conservation and fuel production, landfills for treatment of solid wastes etc. This book also consists of addresses of machinery suppliers, addresses of chemical suppliers, list of universities, conducting Biotechnology courses in the directory section.

This is a unique book, concise, up to date resource offering an innovative, adoptive and valuable presentation of the subject. It covers all important biotechnological topics of industrial and academic interests. This book will be very use full for industry people, students, and libraries and for those who want to venture in to manufacturing of biotechnological products.

## Contents

1. Introduction to basic bio-technology
2. Downstream processing in bio-technology
3. Modern Brewing Technology
  1. Whisky
  2. Traditional fermented soybean foods
  3. Bacterial Biomass
  4. Cheese starters
  5. Cheese Technology
  6. L-Glutamic acid fermentation

7. Lyine
8. Tryptophan
9. Aspartic Acid
10. Threonine
11. 5-Guanosine mono phosphate
12. Phenylalanine
4. Industrial Chemicals, Biochemical and Fuels
  1. Citric Acid
  2. Gluconic and Itaconic Acids
  3. Acetic Acid
  4. Propionic and Butyric Acids
  5. Lactic Acid
  6. Starch Conversion Process
  7. Proteolytic Enzymes
  8. Hydrolytic Enzymes
  9. Glucose Isomerase
  - 10 Ethanol
  11. Acetone and Butanol
  12. 2,3-Butanediol
  13. Microbial Insecticides
  14. Microbial Flavours and Fragrances
  15. Fats and Oils
  16. Microbial Polysaccharides
  17. Enzymes in Food Technology
  18. Production of Antibiotics
  19. Microbial Gums
  20. Tea Fermentation
  21. Microbial Treatment and utilization a waste
  22. Coffee Fermentation
5. Biogas and waste treatment
  1. Cold condition biogas
  2. Biogas for organic wastes diluted with seawater
  3. Optimization of bioconversion of solids and liquid residues
  4. Biodegradation of non-cellulosic wastes for environmental conservation and fuel production
  5. Landfills for treatment of solid wastes
  6. Composting
6. Glossary of Terms
7. Directory section
7. Addresses of Machinery suppliers
8. Addresses of Chemical suppliers
8. List of Universities, conducting 'Bio-Technology' Courses

## About NIIR

**NIIR PROJECT CONSULTANCY SERVICES (NPCS)** is a reliable name in the industrial world for offering integrated technical consultancy services. NPCS is manned by engineers, planners, specialists, financial experts, economic analysts and design specialists with extensive experience in the related industries.

Our various services are: Detailed Project Report, Business Plan for Manufacturing Plant, Start-up Ideas, Business Ideas for Entrepreneurs, Start up Business Opportunities, entrepreneurship projects, Successful Business Plan, Industry Trends, Market Research, Manufacturing Process, Machinery,

Raw Materials, project report, Cost and Revenue, Pre-feasibility study for Profitable Manufacturing Business, Project Identification, Project Feasibility and Market Study, Identification of Profitable Industrial Project Opportunities, Business Opportunities, Investment Opportunities for Most Profitable Business in India, Manufacturing Business Ideas, Preparation of Project Profile, Pre-Investment and Pre-Feasibility Study, Market Research Study, Preparation of Techno-Economic Feasibility Report, Identification and Section of Plant, Process, Equipment, General Guidance, Startup Help, Technical and Commercial Counseling for setting up new industrial project and Most Profitable Small Scale Business.

NPCS also publishes various process technology, technical, reference, self employment and startup books, directory, business and industry database, bankable detailed project report, market research report on various industries, small scale industry and profit making business. Besides being used by manufacturers, industrialists and entrepreneurs, our publications are also used by professionals including project engineers, information services bureau, consultants and project consultancy firms as one of the input in their research.

Our Detailed Project report aims at providing all the critical data required by any entrepreneur vying to venture into Project. While expanding a current business or while venturing into new business, entrepreneurs are often faced with the dilemma of zeroing in on a suitable product/line.

---

**NIIR PROJECT CONSULTANCY SERVICES** , 106-E, Kamla Nagar, New Delhi-110007, India. **Email:** [npcs.india@gmail.com](mailto:npcs.india@gmail.com) **Website:** [NIIR.org](http://NIIR.org)

Sat, 27 Apr 2024 17:54:08 +0530