

Teaches everything about industrial microbiology - from the fundamentals to the current state of the art to future prospects.

This textbook brings together the insight and expertise of leading researchers and professionals from across the field of industrial microbiology to give students a handy, practice-oriented text that showcases the industry and the future potential of microbes for industrial processes. After a brief introduction to the technology of microbial processes, the twelve most important application areas for microbial technology are described, from crude bulk chemicals to highly refined biomolecules such as enzymes and antibodies, to the use of microbes in the leaching of minerals and for the treatment of municipal and industrial waste.

Aimed at students of biotechnology, bioengineering, microbiology, and related disciplines, *Industrial Microbiology* starts with a historic overview of the subject, as well as future perspectives on it. It then goes on to offer in-depth chapter coverage of topics such as: bioprocess engineering; food; industrial alcohols and ketones; organic acids; amino acids; vitamins, nucleotides, and carotenoids; and antibiotics and pharmacologically active compounds. There are also sections on pharmaceutical proteins; enzymes; polysaccharides; steroids; bioleaching; and wastewater treatment processes.

- Offers a modern approach to a key field in applied science
- Focuses on current and future uses of bacteria and fungi as production microorganisms, complementing traditional textbooks of microbiology and biotechnology
- Presents an application-oriented account of the topic, focusing on the translation of basic research into industrial processes while citing numerous successful examples
- Written by experts working or collaborating in industrial operations within the field
- Filled with case studies and examples

Filled with practical, user-friendly material, *Industrial Microbiology* is an excellent, accessible text for students of microbiology, biotechnology, biochemistry, bioengineering, and life sciences.

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