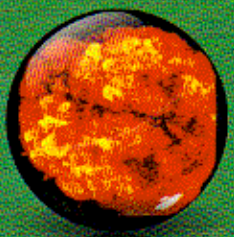
ENVIRONMENTAL SCIENCE

Second Edition

Environmental Microbiology for Engineers



"I really love the breadth of the topics covered in this book . . . it extends to other disciplines of engineering, which adds breadth to the topic of engineering microbiology. . . . And they can help attract students outside the area of environmental engineering."

—**Wen Zhang, University of Arkansas, Fayetteville**

Updated Edition Includes a New Chapter and Enhanced Study Material

The second edition of ***Environmental Microbiology for Engineers*** explores the role that microorganisms play in the engineered protection and enhancement of an environment. Offering a perfect balance of microbiological knowledge and environmental biotechnology principles, it provides a practical understanding of microorganisms and their functions in the environment and in the environmental engineering systems. The book also presents a quantitative description of applied microbiological processes and their engineering design. This updated edition adds a new chapter on construction biotechnology, as well as a new quiz, tutorial banks, and exam questions with solutions to aid readers with performing the design calculations needed and to enhance understanding of the material.

The book covers essential topics that include:

- Diversity and functions of microorganisms in environmental engineering systems
- Environmental bioengineering processes
- Applied microbial genetics and molecular biology
- Microbiology of water and wastewater treatment
- Biotreatment of solid waste and soil bioremediation
- Microbial monitoring of environmental engineering systems
- Biocorrosion and biodeterioration of materials
- Biocementation and bioclogging of soil
- Biopollution of indoor environment
- Biofouling of facilities, and more

Environmental Microbiology for Engineers provides a practical understanding of microorganisms in the civil engineering process and their functions in the environmental engineering systems, and is designed for practicing environmental engineers working in the areas of wastewater, solid waste treatment, soil remediation and ground improvement.

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711 Third Avenue
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