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Textbook of Diagnostic Microbiology
E. Book
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and Applications of Bioremediation to Biofilms
Infections in Biofilms
Biofilm Control and Antimicrobial Agents
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Second Edition
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and Applications of Biotechnological Processes
in Biotechnological Processes
in Environmental Biotechnology: Principles and Applications
Second Edition
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Microbial Biofilm Advances in Ceramics for Environmental, Functional, Structural, and Medical Uses
Fundamentals of Metabolic and Microbial Processes in Biocorrosion
Microbial Infections: Fundamentals of Biofilm Sciences
Annual reports on NMR Spectroscopy Advances in Ceramics for Environmental, Functional, Structural, and Medical Uses
and Energy Applications
Heterotrophic Plate Counts and Drinking Water Safety
The MBR Book
This book is designed for the engineering of many chronic bacterial biofilms has been seen since it was realized that less than 0.1% of the total microbial biomass lives in the planktonic mode of growth. The term was coined in 1978 by Costerton et al. who defined the term biofilm for the first time. In 1993 the American Society for Microbiology (ASM) recognized that the biofilm concept is important to many areas of microbiology. The implications of biofilm research have led to new insights into the mechanism of many diseases and the role of bacteria in the environment. The book provides an in-depth understanding of the role of bacteria in biofilms and their interactions with other microorganisms. It covers the biology and chemistry of biofilms, as well as their impact on human health. The book is divided into three sections: Biofilm: Microbiology and microbioelectrochemistry - Focuses on the microbiologic aspect of electrochemically active biofilms and details the key points of biofilm formation, including the mechanisms of biofilm attachment, growth, and detachment. This section also includes discussions on the role of biofilms in biotechnology and their impact on the environment. Biofilm: Bioremediation - The second section focuses on the use of biofilms in the environmental biotechnology field. It covers the principles of biofilm formation, development, and control, as well as the applications of biofilm in the remediation of contaminated environments. Biofilm: Biocorrosion - The third section deals with the role of biofilms in the corrosion of metals and other materials. It explains the mechanism of biofilm formation on metal surfaces, the role of biofilms in increasing corrosion rates, and the methods used to mitigate biofilm-related corrosion. The book also discusses the role of biofilms in the corrosion of other materials, such as concrete and wood. The book is a valuable resource for researchers and practitioners in the fields of microbiology, biotechnology, and environmental science. It provides a comprehensive understanding of the role of biofilms in a variety of applications, from the remediation of contaminated environments to the corrosion of materials.
metal, and the aqueous environment. It also addresses methods for monitoring, prevention, and control of biofilm. The first part of the book covers the fundamental aspects of microbial biofilms in industrial systems. The second part focuses on practical applications, case studies, and laboratory methods and formulations. The Manual of Biofilm is the book the industrial sector (water treatment plants, oil refineries, etc.) has been waiting for, providing the basics for implementing prevention, control, and mitigation procedures. In addition, it covers the latest industry trends with discussions of biocide selection, strategies for monitoring and controlling biofilm in the industrial sector, and the latest research on the development of new biocides and inhibitors. The book provides a comprehensive understanding of the complex processes involved in biofilm formation, highlighting the latest advancements in research and technology. It is an essential resource for engineers, scientists, and technicians working in the field of microbial biofilms, providing a practical guide to the latest research and best practices.