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Titolo	Lessons in Environmental Microbiology
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ISBN	0-429-81047-4 0-429-44290-4 0-429-81048-2
Edizione	[1st ed.]
Descrizione fisica	1 online resource (791 pages)
Disciplina	579.17
Soggetti	Microbial ecology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction to environmental microbiology -- Oxidation and reduction: the energy reactions of life -- The chemistry of carbon (for the non-chemist in all of us) -- Life and energy: the principles of chemical and photo thermodynamics -- Metabolic and nutritional classifications -- The synthesis reactions of microbial life -- Thermodynamics and cell yield -- Historic moments in microbiology and public health -- The world of microbes (and a few related friends) -- Infectious diseases important to public health and sanitary practice -- Biochemistry and bioenergetics (the molecules of life) -- A brief history of life -- Kinetics and biodegradability -- The suspended growth bioreactor: basic concepts -- The suspended growth bioreactor: more concepts and some variations -- The suspended growth bioreactor: operational considerations -- Biological nutrient removal and recovery -- Anaerobic processes for methanogenesis -- Principles of biological composting -- Microbially induced corrosion -- Biological air pollution control -- Microbial ecology -- References -- Index.
Sommario/riassunto	Lessons in Environmental Microbiology provides an understanding of the microbial processes used in the environmental engineering and science fields. It examines both basic theory as well as the latest advancements in practical applications, including nutrient removal and recovery, methanogenesis, suspended growth bioreactors, and more. The information is presented in a very user-friendly manner; it is not

assumed that readers are already experts in the field. It also offers a brief history of how microbiology relates to sanitary practice, and examines the lessons learned from the great epidemics of the past. Numerous worked example problems are presented in every chapter.