

Nitrification

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Over the past 15 years, the use of modern molecular biological approaches has radically advanced our understanding of nitrification processes. With chapters contributed by leading experts in the field, **Nitrification** fully reviews all the latest research findings on microbes involved in conventional aerobic nitrification, anaerobic ammonia oxidation, and related processes.

The book begins with an overview of the current state of the field. Next, the four principal groups of nitrifying microbes are examined in separate sections, covering conventional aerobic bacterial ammonia oxidizers, recently discovered aerobic archaeal ammonia oxidizers, anaerobic ammonia-oxidizing planctomycetes, and nitrite-oxidizing bacteria. Within each section, readers can gather current information on the ecology, phylogeny, biochemistry, molecular biology, and genomics of each group of microbes. The authors also discuss the latest industrial applications of nitrification and anammox processes.

The final section of the book explores the ecology of nitrification in marine, freshwater, soil, and wastewater environments.

By reviewing all aspects of nitrification in one place, **Nitrification** introduces novices to the field and brings experienced researchers up to date with all the latest perspectives. Extensive references at the end of each chapter guide readers to the field's growing body of primary research, making this book the ideal starting point for any investigation of nitrifying microbes.

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