

Preface

This book treats the influence of bacterial activity on the chemical environment of the biosphere. Our approach is primarily one based on physiological properties of prokaryotic organisms. The book is the 3rd edition – the previous ones being Fenchel, Blackburn, 1979 and Fenchel, King, Blackburn, 1998. There are no radical changes with respect to the basic structure of the book relative to the 2nd edition, but most chapters have been rewritten and brought up-to-date in the light of the many advances and discoveries that have taken place during the last decade.

The topics treated in the book are central to many aspects of environmental science and to aquatic and terrestrial ecology. The book presupposes some basic knowledge of general microbiology, biological energetics and chemistry. We hope it will serve as a general text for university courses in microbial ecology and environmental sciences and also that the book, or parts of it, will prove useful for professional workers within aquatic and soil sciences, general microbiology, and geochemistry.