

## Preface

Chemistry is the study of the structure and behavior of matter.

Chemistry is an old science. It goes back before history, with the control of fire, preparing and preserving food, and medicinal and mining operations. Thus it has a rich legacy with vestigial archaic terminology.

Chemistry is a new science. Although millions of man-made compounds have been manufactured by armies of researchers, chemistry is still developing a molecular engineering that can produce materials with desired properties on demand.

Chemistry is a physical science. Therefore it draws on the heritage of mathematics and physics for models and concepts.

Chemistry is a broad science. Although some principles have been discovered which apply to chemical phenomena ranging from stars to microbes, there is still much art in the science of chemistry.

Our journey through chemistry will take us from the simple to the complex. There will be conceptual signposts along the way, road maps to orient the traveler, brief encounters with great minds, explanations for the newcomer and a few puzzles to delight the curious.