

Preface

Chemistry is a rather broad and complex field. At one end, there is theoretical chemistry that borders on physics, and on the other end there is organic chemistry that borders on biology. The problems that chemists work on are multifaceted and reflect this broad range. Despite the apparent variety of these investigations, however, chemistry is united by a relatively small number of basic principles. In all areas of chemistry, there has been a continued trend toward the building of a series of theoretical concepts in terms of which it is possible to correlate the results of manifold observations of our physical surrounding with a consistent picture of the atomic structure of the material world.

I recall the excitement with which I first discovered that the apparent very complex and confusing world of matter and energy is invested with a magnificent order and simplicity. In this book, I attempt to introduce you to that simplicity by laying the groundwork for understanding chemistry. I hope that this will serve not only to help you with the course, but will be your basis for understanding other aspects of life where an understanding of basic chemistry concepts is essential. After all, each new discovery is not just a mere addition to our knowledge, but is also a challenge to our beliefs which forces us to reappraise our dogmas.

In chemistry, it is essential that you understand the basic concepts and principles, and this book will help you to do so. My goal is to teach you what you need in a way that makes sense, that does not involve a lot of memorization and that is not time consuming. The book was prepared with the guidance and assistance of many professors and students to produce maximum results. It will serve to build capacity within you not only to understand the chemical concepts, but also to apply them to your everyday experiences.

Regardless of your purpose in choosing to study chemistry, it is my sincere hope that you will find chemistry an exciting and enjoyable experience, and that you will grow from this experience. Welcome to the wonderful and thrilling world of chemistry.



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