

Preface

When I initiated my appointment in 1978 at the University of São Paulo, one of my first assignments was to teach Chemistry II for physics undergraduate students. It was a very difficult task. For topics such as the electronic structure of atoms, there was a good dialogue with the students; but other subjects, as for instance chemical thermodynamics or kinetics, were of little interest to the audience. I did my best, with the aid of seminars and discussion of articles.

Some 30 years later, I decided to undertake the same challenge with an optimistic approach. I proposed a new programme for Chemistry II for the physics students, which was approved by the Undergraduate Teaching Committee. The strategy was to cover some subjects of the old programme with some of the less appealing subjects approached in a round-about way. I also taught some more chemistry through every-day phenomena such as energy sources, pollution, cracking, chemical structures and processes in living beings.

The semester was a success, the students made very enthusiastic comments at several instances and almost everybody passed with good marks.

In this book, I have left aside the jargon used to attract the attention of physics students. My hope is to make some basic notions of chemistry palatable for readers with main interests in subjects other than chemistry. At the same time, the purpose of the book is to show some examples of how chemistry is strongly related to our experiences, needs, and life itself.

I was halfway through writing the book, when I started to become slightly nervous about the approaching due date for delivery of the manuscript. At that time Evelyn Jeniffer de Lima Toledo became my MSc student. I invited her to join me in the endeavour and she brought much enthusiasm and basic knowledge. I shall add that Jennifer ended her Bachelor degree as co-author of four articles in journals of reasonable circulation. One of these papers contains results from her Graduate Research Assignment.

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