

Preface

Understanding natural sciences consists of introducing basically unallowed simplifications, but this technique is highly useful. Physical chemistry does not make an exception. Sometimes, the simplifications go either too far or in a direction so that the goal of more easy understanding will be obscured.

Some 30 years ago, I was introduced into physical chemistry. Meanwhile I studied a lot of new textbooks that appeared to find out whether they provide an easier understanding of the matter presented, to some extent with success. However, some of the issues still remained obscure to me. For this reason, I have revisited some of the topics presented in the textbooks and I try to explain with my own words, what caused and still causes problems for me to understand satisfactorily believing that the text presented here will be helpful also for at least some of the readers.

The material dealt with here is not treated strictly, but presented in a way that the path to a deeper understanding should be opened. There is always the danger that a simplification of the matter for the sake of didactic reasons is appraised as a wrong depiction. Actually, the borders are blurred.

Mostly, textbooks of physical chemistry exhibit a certain unique disposition, they start with thermodynamics, turn to kinetics, etc. This is also true for the material presented here. However, the text presented here is rather a supplement, not a standalone textbook. For this reason, some topics to which I was never pervasively engaged are not dealt with, or only marginally. On the other hand, I have included some topics that should be present in a textbook of physical chemistry.

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