

Jakob "SciFox" Lauth

## Physical Chemistry in a Nutshell

Basics for Engineers and Scientists

This book is based on a multimedia course for biological and chemical engineers, which is designed to trigger students' curiosity and initiative. A solid basic knowledge of thermodynamics and kinetics is necessary for understanding many technical, chemical, and biological processes.

The one-semester basic lecture course was divided into 12 workshops (chapters). Each chapter covers a practically relevant area of physical chemistry and contains the following didactic elements that make this book particularly exciting and understandable:

- Links to Videos at the start of each chapter as preparation for the workshop
- Comprehension questions and calculation exercises with solutions as learning checks
- Key illustrations as simple, easy-to-replicate blackboard pictures

Humorous cartoons for each workshop (by Faelis) additionally lighten up the text and facilitate the learning process as a mnemonic. To round out the book, the appendix includes a summary of the most popular experiments in basic physical chemistry courses, as well as suggestions for designing workshops with exhibits, experiments, and "questions of the day."

Suitable for students minoring in chemistry; chemistry majors are sure to find this slimmed-down, didactically valuable book helpful as well. The book is excellent for self-study.

Jakob "SciFox" Lauth has been fascinated by science, music and foxes since he was a child. He studied chemistry, worked in industrial research for several years, and now teaches at the Aachen University of Applied Sciences. He is co-author of several "big" physical chemistry textbooks (including a standard work on colloids) and has written several short textbooks for a distance learning chemistry course. His YouTube channel "Physical Chemistry by SciFox" was added to YouTube EDU back in 2013. In his spare time he works as a hobby DJ and is active in the furry fandom.

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