



Universität Regensburg

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Physical Chemistry Lecture for Pharmacy Students

Lecture-Nr.: 53742

Type: lecture

Duration: 2 hours per week (winter)

Method of Assessment: written examination (in combination with corresponding lab course)

ECTS Credit Points: 2

Topics:

An introduction into basic ideas and principles of physical chemistry, with particular focus on the background of the experiments in the accompanying lab course. In part 1 (~10 % of the content) general principles for planning and evaluating physico-chemical experiments are introduced (selection of experimental method, data processing, error analysis) The second part (~75 %) is devoted to equilibrium properties (states of matter; interfaces; energy and first law of thermodynamics; phase equilibria of one- and multi-component systems; colligative properties of solutions; chemical equilibria and equilibrium constant; acid-base and redox equilibria). In part 3 (~15 %) dynamical processes are treated, in particular the kinetics of chemical reactions (reaction rate and rate constant, differential and integral rate law, activation energy, catalysis).

Literature:

1. Ross: Physikalische Chemie für Pharmazeuten und Naturwissenschaftler. WVG, Stuttgart.
2. Atkins: Physical Chemistry. Freeman, New York.
3. Stricker: Physikalische Pharmazie., WVG, Stuttgart.

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