Title of the course: Electrostatic interactions in colloid systems

Credits: 2

Coordinator: Gilányi, Tibor

Department: Department of Physical Chemistry

Pre-requisites: Basic knowledge in colloid and surface chemistry

Topics covered by the course:
Electric structure of interfaces. Helmholtz model. Gouy-Chapman theory. Discrete and continous descriptions of the interfaces. Electrokinetic phenomena. Theory of the zetapotential. Problems of pH determinations in colloid and biological systems. The suspension potential. Different interpretations of the Donnan equilibrium. Adsorption of ions. Adsorption isotherm equations. Interactions in ionic micellar systems, micelle formation, mixed micelle formation, polymer-surfactant complexes.

Literature
Suggested: R. J. Hunter: Foundation of Colloid Science, Clarendron Press, Oxford, 1993