**Physical Methods in Inorganic Chemistry**

*Advanced Electrochemistry* – Dr. K.J. (Kate) Vannoy and Dr. S. (Steffen) Hardt (UL)

This part of the course covers the following topics of electrochemistry:
- Small background on history and application of electrochemistry
- Theory of electron-transfer reactions, fermi levels, tunneling
- bulk electrolysis
- cyclic voltammetry (measuring principle, understanding of plot shape)
- homogeneous electrocatalysis (EC-mechanisms)
- rotation methods RDE (Koutecky-Levich Analysis)
- ultramicroelectrodes
- small introduction into heterogeneous electrocatalysis (Volcano plot, Butler-Volmer equation, Tafel plot).