

## **Physical Methods in Inorganic Chemistry**

Steady-state and time-resolved absorption spectroscopy – S. Bonnet

In this lecture a general overview will be given of absorption spectroscopy and how it can be used to characterize transition metal complexes. First, I will address which information can be extracted from steady-state absorption spectroscopy: from the symmetry of a metal complex, to its stability and ligand exchange reactions. I will also discuss the limits of the Beer-Lambert law. In a second part of the lecture, I will introduce transient absorption spectroscopy and discuss how this time-resolved technique can be used to characterize the excited states of photoactive and/or emissive metal compounds.