Physical Methods in Inorganic Chemistry

Photoluminescence Measurements – Prof. dr. A.M. (Fred) Brouwer (UvA)

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Expected knowledge: Basic knowledge of electronic spectroscopy, in particular UV/Vis absorption, and its relation to electronic structure.

Course description: An introduction to luminescence spectroscopy in the UV/Visible spectral range will be given. Some applications of photoluminescence will be presented, including fluorescence microscopy. The main topic will be experimental techniques for measurements of spectra and quantum yields, and methods for measuring excited state lifetimes using fluorescence. Fitting of the time profiles will be practiced on participants' laptops (windows or mac). Attention will be given to common practical pitfalls. After this short course the participants will (in principle) be able to perform correct measurements of photoluminescence.

Lab tour:
Spectrometers, microscopes, TCSPC, fsTA