

Ma 9 - PLE

Physics:

- Band structure of semiconductors
- Confinement effects in low dimensions and density of states
- Hybridization of carbon and conjugation in sp^2 extended systems
- Franck–Condon principle

Technical:

- Reflection grating monochromators and the relevance of blazing
- Signal collection in scattering vs. transparent media
- Calibrating rotatory stages of monochromators
- Excitation photoluminescence

Data analysis:

- Data calibration to account for the pump spectral profile
- Identification of peaks in PLE maps
- Three-dimensional fitting
- Error sources in the data analysis