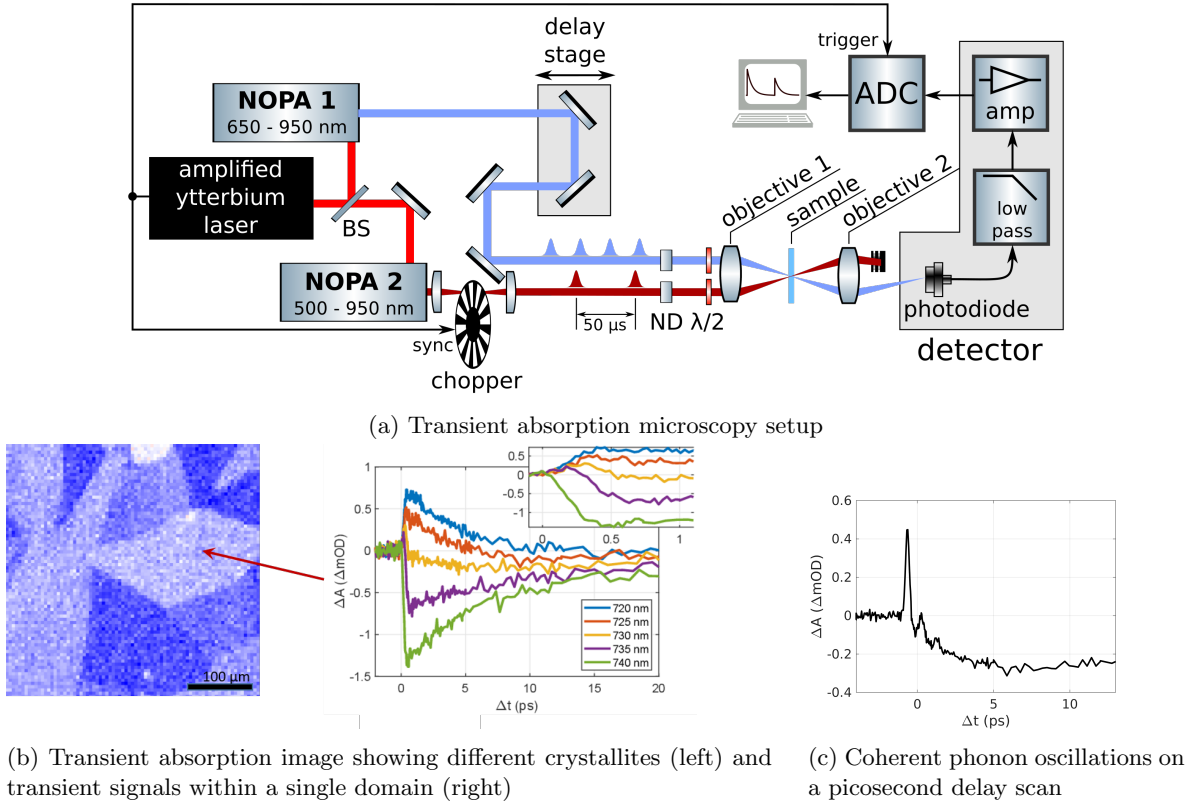


MASTER THESIS: REAL-TIME INVESTIGATION OF EXCITON DYNAMICS IN MOLECULAR CRYSTALS WITH ULTRAFAST MICROSCOPY

The Femtosecond Dynamics group led by Assoc.-Prof. Dr. Markus Koch is looking for a highly motivated Master student for a thesis at the ultrafast microscope. Together with PhD student DI Robert Schwarzl, the student will investigate the light-matter interaction of squaraine-based molecular crystals. In particular, the so-far unobserved dynamics of Frenkel excitons and charge-transfer excitons on their intrinsic time- and length scale are of interest. The state-of-the-art setup will achieve (sub-) micrometer spatial and femtosecond temporal resolution. These technologically important molecular crystals are promising for photovoltaic applications, bio-markers and sensors as they can be efficiently excited in the NIR-VIS spectrum.



General information

- start ideally on February 1st 2023
- experience in (laser) optics and programming capabilities in MATLAB are highly encouraged
- compensation: € 2640.-
- visit <https://www.tugraz.at/institute/iep/forschung/femtosecond-dynamics/ultrafast-microscope> for further information
- contact: markus.koch@tugraz.at