GEMaC
Groupe d'Étude
de la Matière Condensée

CONFOCAL MICROSCOPY

Three confocal microscopes allow the study of individual objects using photoluminescence in the visible and near-infrared range. Two of them are based on close-cycle helium cryostats and allow measurements at low temperature, down to 2.7 K.

An AttoDry1100 cryostat (Attocube) allows to apply a magnetic field up to 9 T.

An Optidry 200 cryostat (MyCryoFirm) allows free-space optical access to the cold chamber.

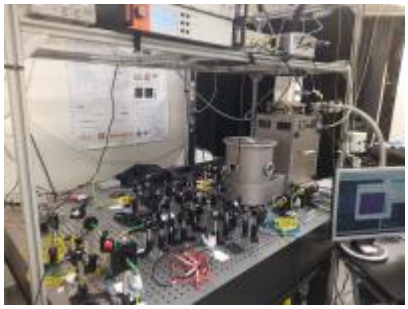
FInally, a room temperature confocal microscope (Olympus) completes the picture.
The laser sources performing the optical excitation of the systems we study include a tunable supercontinuum laser, a Ti:Sapphire femtosecond laser, an argon laser and various laser diodes, both pulsed and continuous wave, covering the whole visible range.

Single photon detectors (avalanche photodiodes) associated with time-tagged photon counting devices, and several spectrometers (Princeton Instruments Acton, Redback

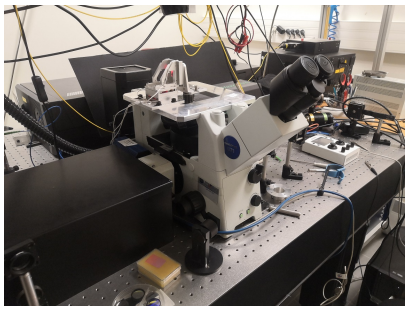
RS40K, Nireos Gemini) enable an exhaustive study of the emission properties of individual nanostructures.



Cryostat AttoDry1100



Cryostat Optidry 200



Room temperature confocal microscope