IR spectroscopy

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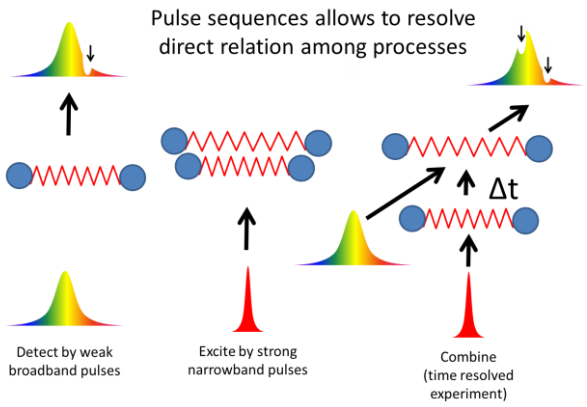
Brief description of the available set ups

Femtosecond mid IR spectroscopy is a tool for study of bond structure of molecular and solid state systems. Vibrations spectra are recorded with fs time resolutions. That allows following conformational changes such as isomerization, bond braking, bond formation, solvent dynamics etc.…



Probe pulse:

Time resolution	~100fs
Spectral resolution	~0.1 cm^{-1}
Observed spectral window	2600 nm – 10000 nm

Triggering pulse pump:

Time resolutions	~ 30fs
Spectrum	~ 50 nm
Available wavelengths	266 nm, 400 nm, 800 nm (being extended to 230-2600 nm)
Pump-probe delay	0 – 6 ns, 10 fs resolution

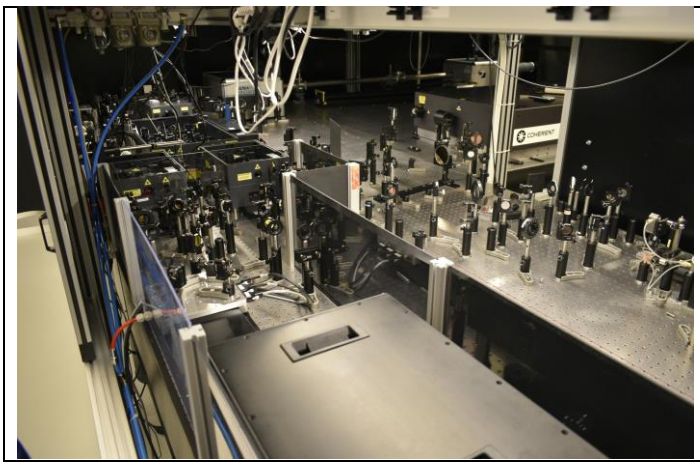


Fig: Sample and detection area of the set up for IR spectroscopy (with parts of the enclosure removed) in the E1 experimental hall.