

SOP FTIR

Our FTIR instrument has three different accessories.

- FTIR
- ATR
- VariGT

Turn on the instrument via this address:

<http://imxinstruments1.epfl.ch/cae/cae.html> with your Gaspar credentials.

For each accessory the instrument detects it automatically with the correct method.

1. Open the Omnic software. Check that the system status (on the top right) is green.
2. The software detects automatically the different instruments: OK.
3. Collect > Experiment Setup -> Information about parameter.
 - ATR: Collect: define wavenumbers: min 32
Bench: define range. Gain must be autogain: OK
 - FTIR: Collect: define wavenumbers: min 32
Bench: define range. Gain must be autogain: OK
 - VariGT: Before the analysis put liquid nitrogen in the correct place (please be aware to use security rules using liquid nitrogen).
Install the accessory and select the 60° angle (on the wheel).
Connect the tubing for the nitrogen purge.
Collect: define wavenumbers: min 128.
Bench: define range. Gain must be autogain: OK
4. Collect > Collect Background. After autogaining, press: start collection.
5. Prepare your sample at the right place.
6. Collect sample > Give a name. (*Collect Status, on the bottom right, has to be green. If it's not the case press pause and contact the responsible*). After autogaining press: start collection.
7. Data Analysis:
 - Process: Automatic Baseline correction
 - Icon *Find Pks*: You can press at the bottom of the spectra to get the peaks that you want and then play with the sensitivity to have the information that you need.
8. File > Save (CSV Text, Spectra, Tif...)
9. Cleaning: use only water or ethanol to clean the accessories. Do not use acetone which is too corrosive...

More information

- Peaks around 2200 correspond to CO₂.
- For solid sample. Put the plane surface against the crystal and use the arm of the instrument.

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