

Safe care and transport of FTIR Spectrometer

Written by Chloe Sage IH, Jessica Bridgeman IH and Sam Tobias BCCSU 2021

FTIR care tips

- When setting up, make sure your area/table is clean before you take the FTIR out of the case.
- When plugging in the instrument plug in all chords then let warm up for 20 min before opening OPUS. This will help you get a pass on the PQ test.
- Whenever possible, the FTIR should be left plugged in when not in use.
- Always keep the plate clean. After each test, clean with alcohol wipes 2xs.
 - If the back ground measurement (blue line) starts to look messy the plate may not have been cleaned thoroughly.
- If a yellow dot in the lower right corner of the screen is showing, click on it and open dialogue box. The test may be expired because you haven't used the instrument in awhile. Click on 'expired' to run through tests.
- If OPUS is failing tests regularly;
 - Avoid opening the spectrometer as much as possible. Check the relative humidity via OPUS first and confirm that it's below 40. To do that, when the FTIR is connected to OPUS, click the status light, then interferometer. The relative humidity score should be there. If it's high, then consider changing the desiccant.
- Changing the desiccant in the back
 - Open with the star screw driver and pull out the desiccant.
 - If it is pink change it and leave it plugged in for a few hours.
 - If it is blue the relative humidity is at an acceptable level. Don't change the desiccant.

Transport

- **Try not to bump the FTIR, it can throw it off alignment.**
- Have a carry case designed for the FTIR. Only use the wheeled case if going over even ground. Pick up the case if going over bumpy ground to avoid jostling.
- Never put it in fragile luggage on a plane. Fragile luggage is not fragile. Always carry it and place under the seat.
- When taking the instrument apart, do so slowly and gently. **DO NOT TOUCH THE INSIDE of the instrument.** Especially the circular lenses in the center.



- **Minimize the amount of time the instrument is apart and in open air.** Dust, dirt, and humidity can get in there.
- When setting up a testing area make sure your surface is clean before opening the case up and pulling the instrument out and putting it together. Have the carry case open and ready to receive the instrument before you pull it apart when finished testing.
- Keep all the cords for the FTIR and laptop with the instrument and laptop. Make sure the power cord, LAN optic cable and power cord for the laptop with the instrument before transporting. Have all work station supplies packed in a separate container to go with the FTIR. Check instrument parts and pieces checklist before transporting.

Security

- Take the security precautions you would when having valuables in a vehicle (e.g., do not leave in plain sight, store in trunk or under a cover).

Storage

- **Do not store FTIR in a humid environment.** Do not let the instrument get wet.

Questions please contact Chloe.Sage@interiorhealth.ca