FTIR Instructions

Getting Started

- Log into computer and Opus software
- Check to make sure the flow meter on the back of the instrument is showing that dry, clean air is purging the instrument (hissing noise).
- Load experiment file you need (MIR, NIR, FIR, etc.).
    - Check signal intensity under the check signal tab, click save peak position
- Choose file save location (e.g. C:\Users\Group\Yourname) in the ****** tab.
- If needed, change beamsplitter and detector for the wavelength range of interest. See wall charts for correct combinations and sensitivity ranges.
- Change experiment parameters to desired values.
- Open Basics tab
    - Run background
    - Run Sample Single Channel with sample in place

Using Opus

- Working with acquired data
    - For CO_2 or H_2O correction, click manipulate, then atmospheric compensation
        - Drag [$^{S}_{SC}$] block into single channel block and [$^{R}_{SC}$] block into single channel reference – select CO_2 and/or H_2O – click calculate.
    - For baseline correction, select [TR] block, click manipulate, then baseline correct, then correct.
    - For integration, select [TR] block, click evaluate, integration
        - Setup method if you want to save integration parameters and reuse for later. (save in your folder) After integration, right click on [report], and click show report.
        - Interactive method for single-time use. (note: zoom in/out works in interactive mode). Select parameters, move cursor for range, and note the integration displayed in the tabs column. (does not save once exited)
- Saving data
    - Select data block(s) to save, click file, save file as, type file name, then choose your folder. Before saving, select the mode tab, and save as opus format (.0) for opus software readable only, or select data point table (.DPT) for excel friendly format.

Exiting

Return all optics/accessories to original locations. Load Standby method, check signal, finish filling out *both* logbooks, exit program and log off computer.

Checking signal amplitude:

- Make sure all MID-IR optics are in place (KBr beamsplitter, MID-DTGS detector)

- Make sure all instrument doors are closed
- Open Measure->Advanced Measurement->Load Standby experiment file
- Open Check Signal tab
    - Note signal amplitude in logbook
    - Click *Save Peak Position*