

## FTIR Standard Operating Procedure

1. Start the software "Omnic"
2. Click "Collect" → "Experiment Setup" → "Collect" tab
  - This tab has the settings for how the data will be collected.
  - Set the parameters, though the default settings work fine and are recommended.
3. Clean the stage, diamond, and arm
  - This can be done with most solvents, just not strong acids or strong oxidizers. You should be able to find methanol, acetone, etc. nearby.
4. Click "Collect Sample"
  - With default settings, the software will first collect the background. Make sure the stage, diamond, and arm are clean, then continue.
  - Now it will be ready to collect the sample data. It will say "Please prepare to collect the sample spectrum." Do not click "OK" yet.
5. Place your sample onto the diamond, making sure to cover it entirely. Only a thin layer is needed.
  - If the sample is solid, place it onto the diamond, and then the arm must be used to ensure best contact with the diamond. Turn the top until it clicks.
    - If the sample is a powder, the black tip should be used.
    - Other tips are provided for different types of samples; however, the black tip is the most commonly used.
  - If the sample is liquid, the arm is not needed.
    - If the liquid is volatile, the white Teflon cover can be used to keep the sample from evaporating while you collect your data.
6. Now click "OK" and wait for the instrument to finish collecting the data.
7. On the next window, enter the spectrum title if you want.
8. The next window will read, "Data collection has stopped. Add to Window1?" Click "Yes"
9. Click "File" → "Save As"
  - Use the file type "CSV Text (\*.CSV)"
10. Choose a file name and save. A \*.CSV file can be processed with any sort of data graphing program.
11. Close Omnic and clean the instrument, which can be left on.

### Troubleshooting:

For a better signal or if the instrument is behaving strangely

Click "Collect" → "Experiment Setup" → "Diagnostic" → "Align" and "Reset Bench"