Thermo Nicolet iS10 Infrared Spectrometer

 *Sign the logbook*. Turn on the computer, start the Omnic program, and maximize the program window.

With no sample (the ATR anvil can be up), click on the *Collect Background* icon. Add to window: *No*. Every 100 minutes the program will ask to have the background run again.



Put the sample in the instrument. For solid ATR turn the knob just until you hear a click. Click on the *Collect Sample Spectrum* icon. Title is part of the printed report. The spectrum will be displayed after collection. Add to window: Yes.

Normally you would click on *Find peaks*, adjust the threshold, click on *Replace*, click on *Full scale* and then click on the *Print* icon.

To delete a spectrum, click on the spectrum, then click on *Clear Selected Spectrum*.

Click on the *Save* icon to save your data in the class folder. Your name or initials should be part of the filename.

To clean the ATR plate, put a drop of isopropanol on a small tissue and wipe off the plate. Please do not squirt liquid onto or into the instrument or push solid to the edge of the almunium disk.

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|  To *label peaks*, click on the *Find Peaks* icon. Click on the spectrum at the height you wish to define as a peak. All peaks larger than that height will be labeled. Click again to pick a different height. Be sure to click on *Replace* (upper right corner) when finished adjusting peak height. Do not click on the button labeled “print” in this window. If necessary in the main window, click on the *Full Scale* icon to make the labels fit on the screen.zoom2 To display only a portion of the spectrum, use the zoom arrows or drag on the edges of the white box at the bottom right or click on the *Display Limits* icon to numerically set the plotted range. | findzoom1 |

 When comparing spectra, overlay works better in color and stacked works better in black and white. You can switch between them using the toggle icon.



 You can *search for a spectral match* in a library. (If some peaks are offscale you can select only a portion of the spectrum for matching by clicking on the Select a Region tool and dragging on the spectrum.) Click on the *Search for Spectral Match* icon for a list of possible compound identifications. To create a new library use menu Analyze/Library Manager/Create Library with type equal to search. To add spectra to a library click on the Add to Library icon.

 To correct a *sloping baseline* (especially for samples ground in KBr and pressed into a pellet), click on *Absorbance*, click on *Auto Baseline Correct Absorbance*, and then click on *% Transmittance*. The original and the corrected spectrum will both be displayed. Click on one of them with the Select tool, then click on the *Clear Selected Spectrum* icon.