### IR Instruction with Pictures

## 1. Open the OMNIC program



- 2. Under experiment, use the drop down menu to select 311 lab.
- 3. Note: experiment setup for 311 lab.
  - Final format = %transmittance
  - $\circ$  Correction = ATR
  - Check "Use Transmittance data during preview"
  - Check "Collect background after 300 minutes"

0		
🖲 OMNIC - [Wi	indow1]	
File Edit (	Collect View Process Analyze Report	Window Help
Experiment:	311 lab	
Expt Set Col Expt Set Col Prev Rpt Ad	Smart SpeculATR Accessory, ZnSe Smart SplitPea Accessory, reflectar Smart SplitPea Accessory, Diamon Smart SplitPea Accessory, Silicon Thunderdome E.S.P. Accessory Smart Thermal Orbit Transmission Smart OMNI-Transmission Accesso Smart OMNI-Transmission Accesso Smart OMNI-Transmission Accesso Transmission E.S.P. Smart iTR Basic	e (SpecZnSe.exp) hce (SplitPea.exp) d (SplitP_Dd.exp) (SplitP_Si.exp) (tdome.exp) (ThermalOrbitDi.exp) (tq_def32.exp) bry, BaF2 (Tranbaf2.exp) bry, KBr (Trankbr.exp) bry, NaCl (Trannacl.exp) (trans.exp) (WhiteStrips_method.EXP)
90	311 lab	

t background before every sample t background after every sample t background after 300 minutes becified background file: dumentstomniciSpectra/CH (Browss.) t 64 scans for the background
nt description:
lec ner tior

Running the sample – *done by student* 1. Click collect sample, *but don't add your sample yet!* 



2. Enter the file name as the last names of all group members and the unknown number

• (e.g. onorato\_russell\_126)

3. A window will pop up that says "need background". Make sure the IR crystal is clean and click **ok**.

• This will take 32 scans (the count is in the bottom left hand corner)





#### Typical background is shown below:



4. Once the background is done, add 1 drop of the unknown to the IR crystal, cover with a cap and click **ok**.



• This will also take 32 scans



5. Once the spectrum is collected, a window will pop up saying "add to window". Click yes





# 6. Click **Process → % Transmittance**



7. Click **find peaks** and adjust the threshold so that the major peaks are identified with their corresponding wavenumber.





8. Click replace original spectrum button and say yes.



#### 9. Go to file and print spectrum.

Add Printer Microsoft Office Document Image Writer Microsoft XPS Document Writer	SC422A_1Q on PHAROSSERV1
Status: Ready Location: Comment:	Print to file Preferences Find Printer
Page Range All Selection Current Page Pages:	Number of copies: 1 = Collate
	Print Cancel

10. Click the **clear** button above the spectrum to remove your spectrum for the next group (*make sure it prints first*)



11. Clean the IR crystal – <u>Gently</u> wipe off the liquid sample and <u>gently</u> wipe it down with acetone or ethanol and a Kim wipe. Allow the acetone/ethanol to evaporate off. Once clean, screw the liquid sample top back into place.

12. The following samples do not need to collect background. Once click **collect sample**, it will ask to confirm sample preparation. Add 1 drop of the unknown to the IR crystal, cover with a cap and click **ok**.

