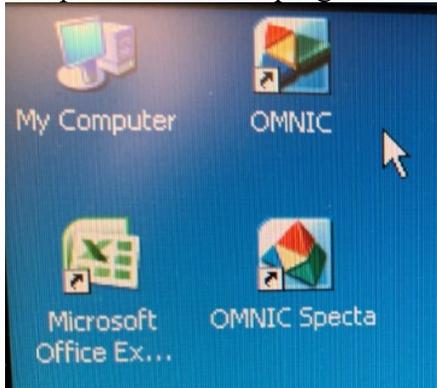


## IR Instruction with Pictures

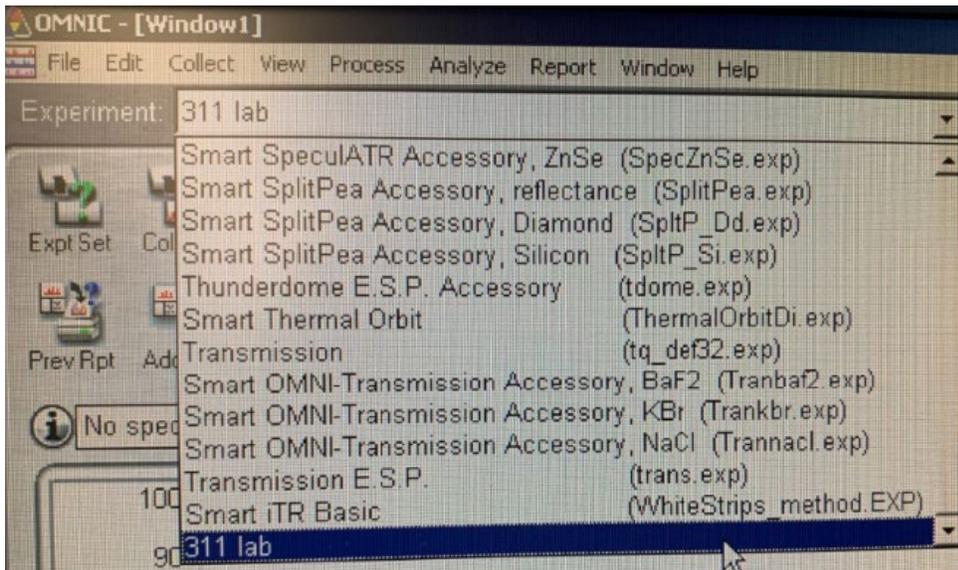
### 1. Open the OMNIC program

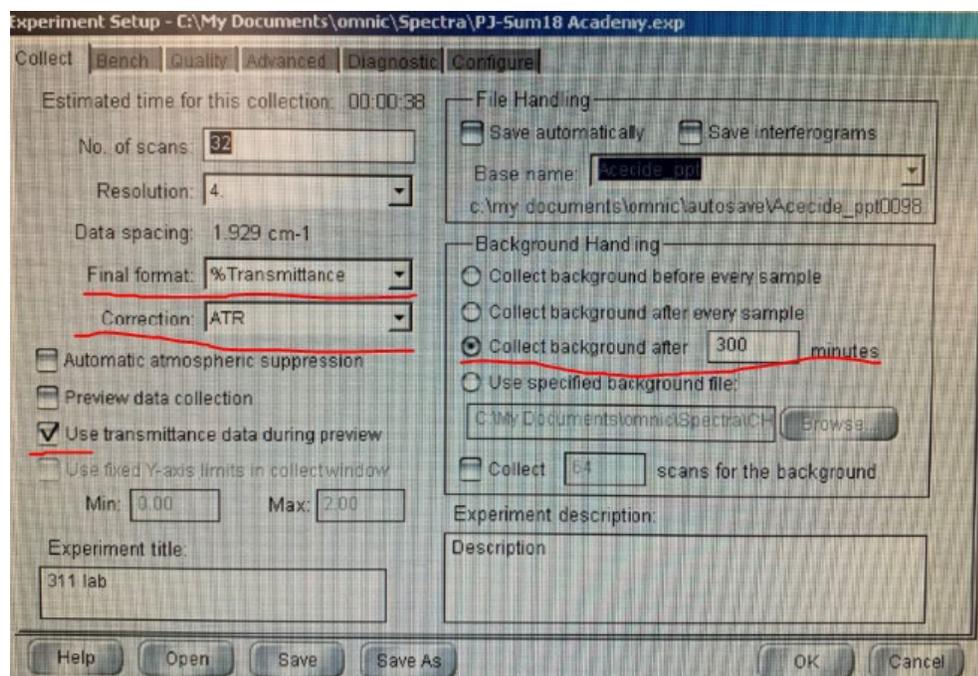


### 2. Under experiment, use the drop down menu to select **311 lab**.

### 3. Note: experiment setup for 311 lab.

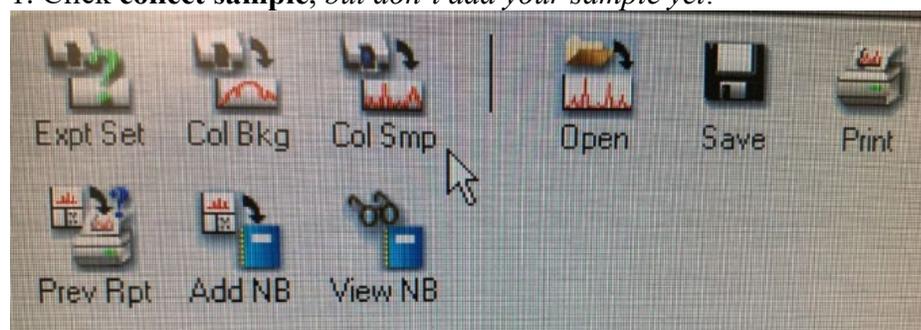
- Final format = %transmittance
- Correction = ATR
- Check “Use Transmittance data during preview”
- Check “Collect background after 300 minutes”
- 





### Running the sample – done by student

1. Click **collect sample**, but don't add your sample yet!

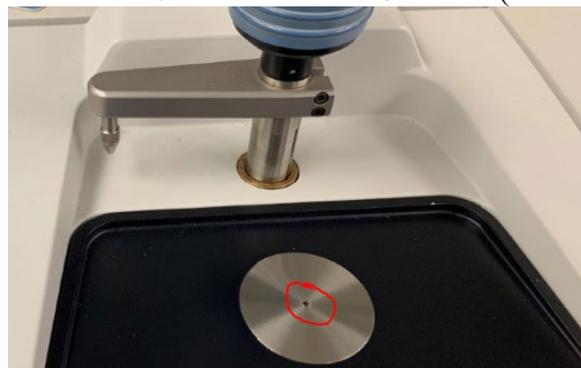


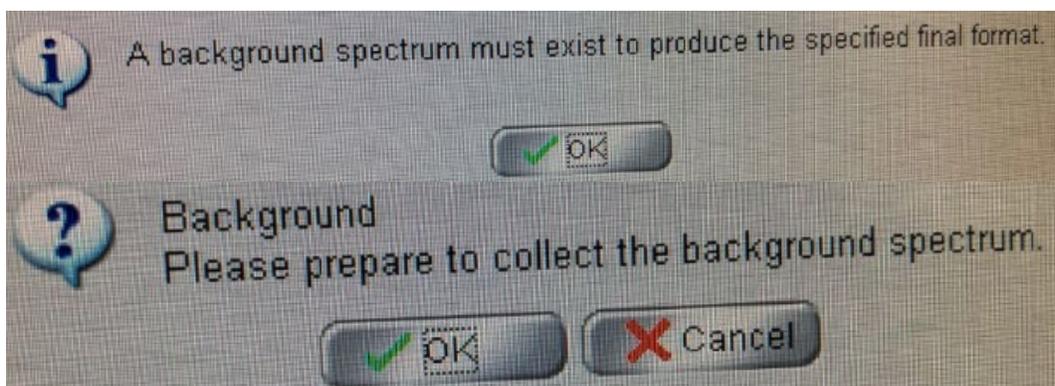
2. Enter the file name as the last names of all group members and the unknown number

- (e.g. onorato\_russell\_126)

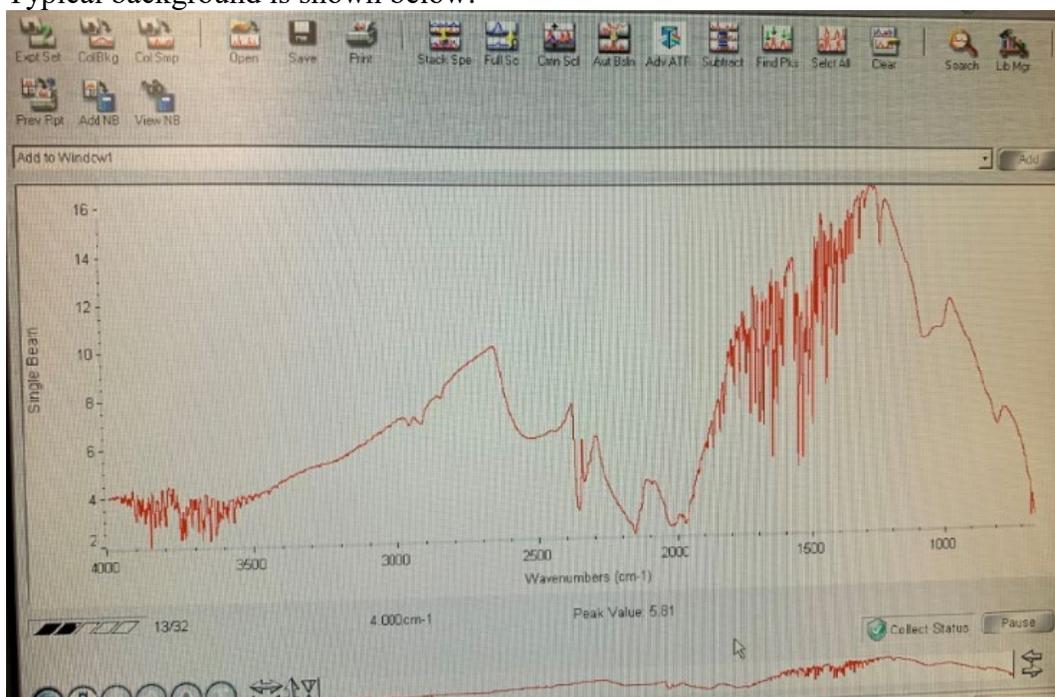
3. A window will pop up that says “need background”. Make sure **the IR crystal is clean** and click **ok**.

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





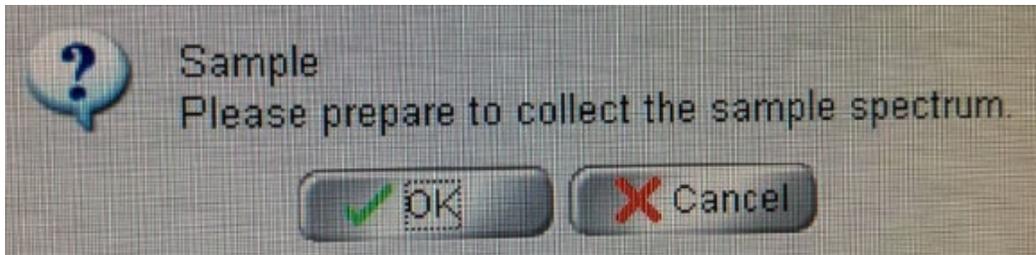
Typical background is shown below:



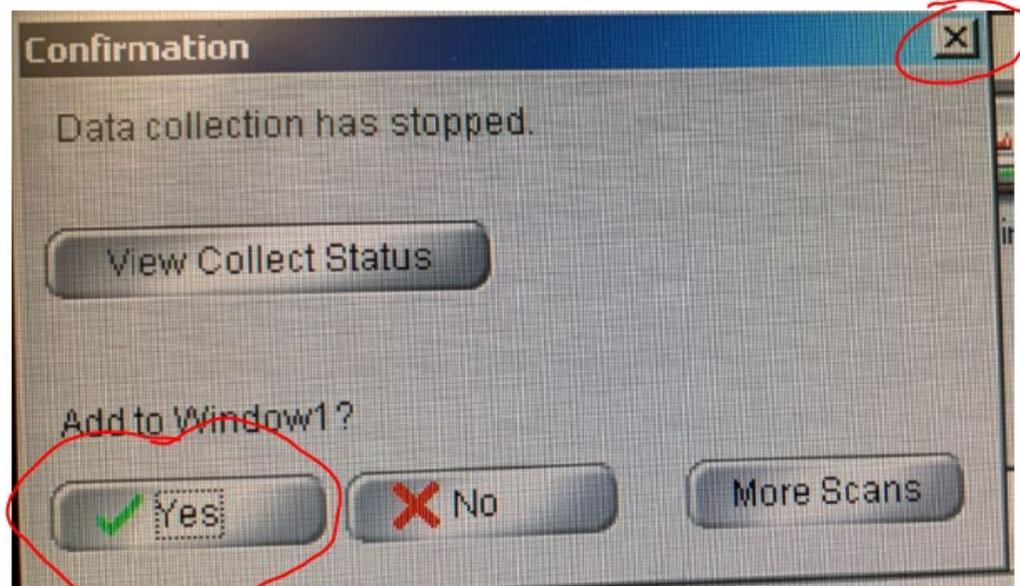
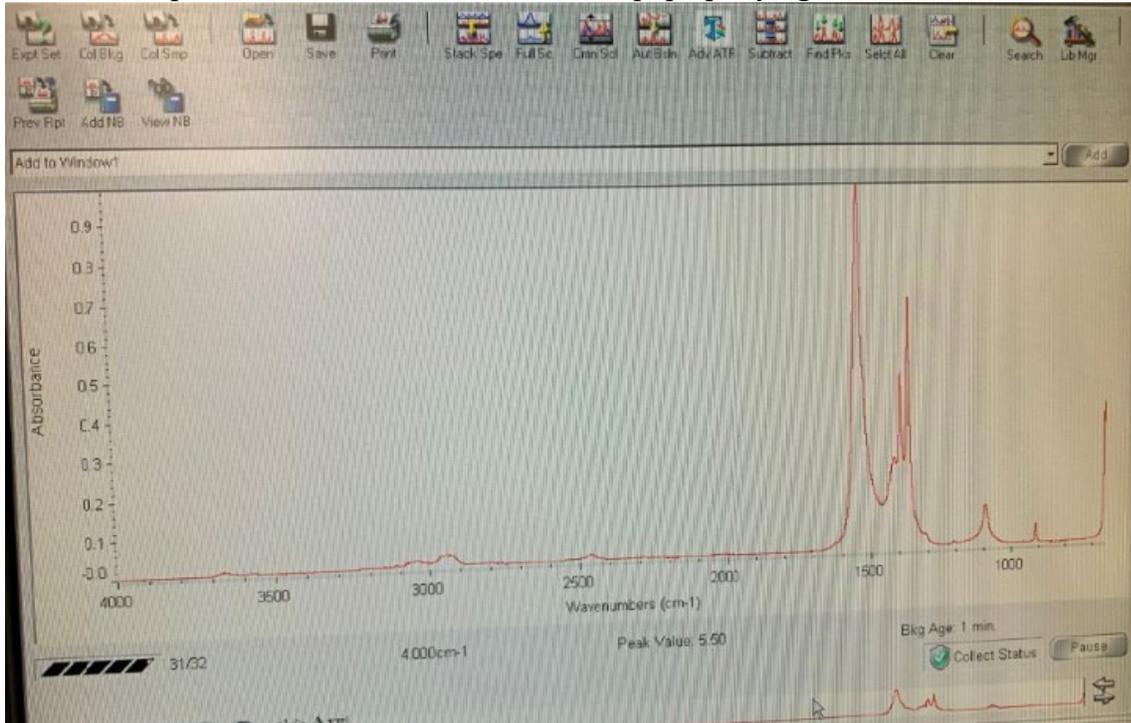
4. Once the background is done, add 1 drop of the unknown to the IR crystal, **cover with a cap** and click **ok**.

- This will also take 32 scans

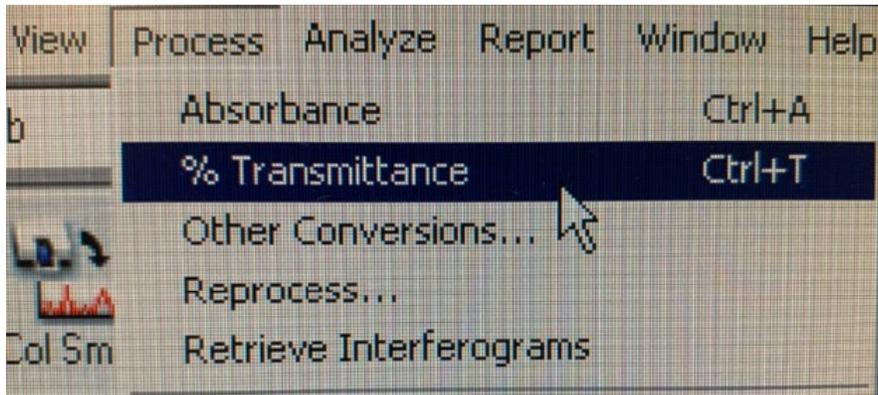




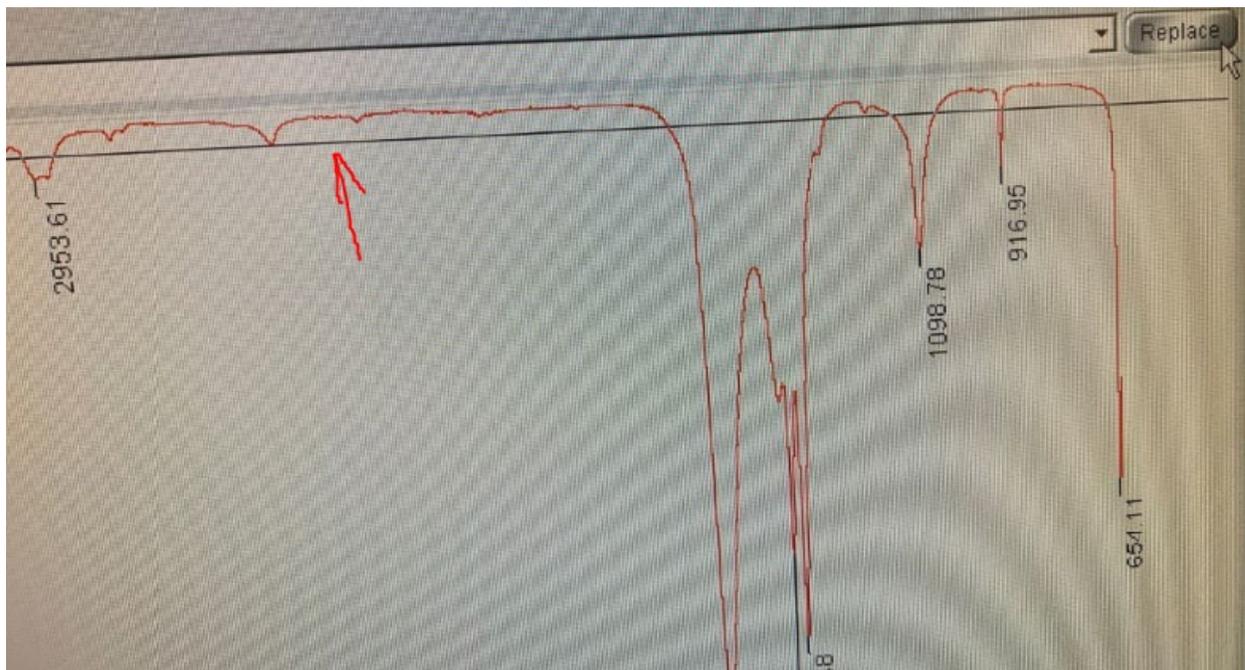
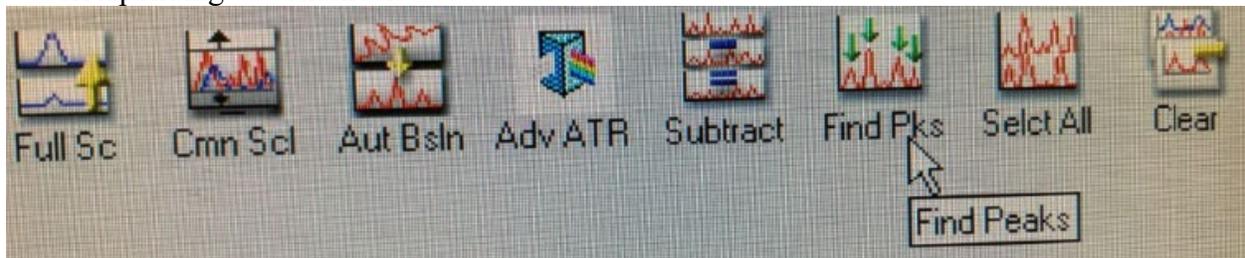
5. Once the spectrum is collected, a window will pop up saying "add to window". Click yes



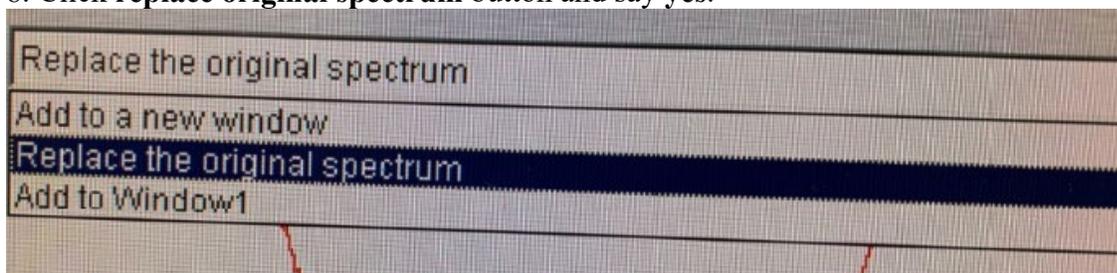
6. Click **Process** → % Transmittance



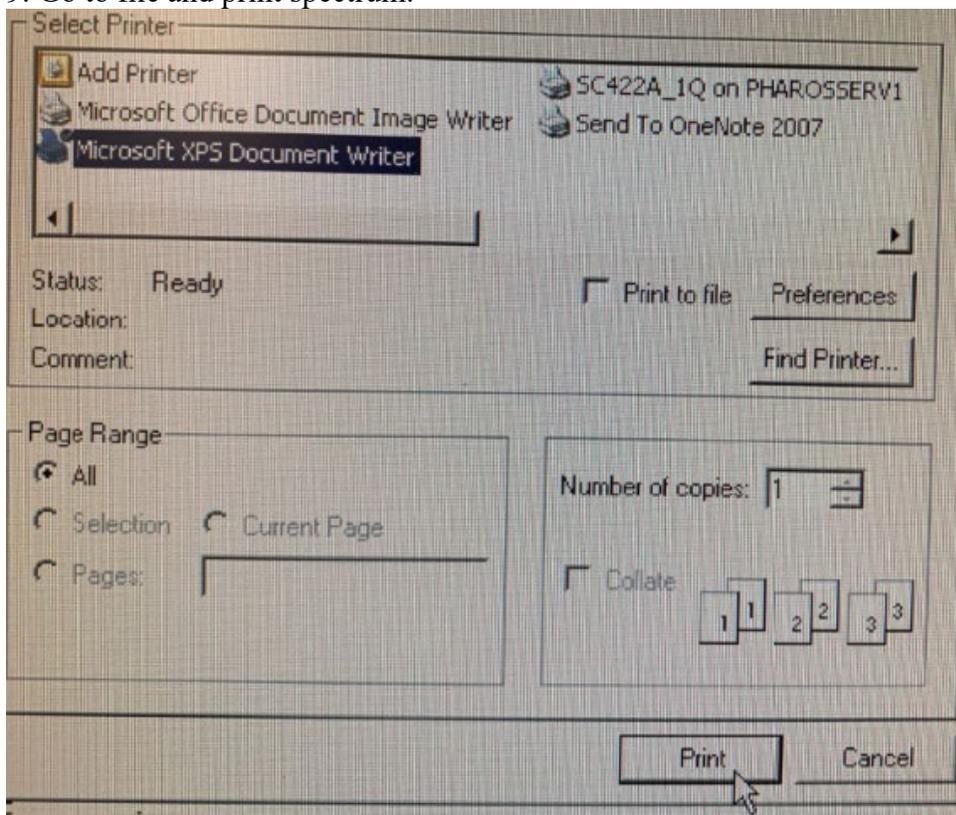
7. Click **find peaks** and adjust the threshold so that the major peaks are identified with their corresponding wavenumber.



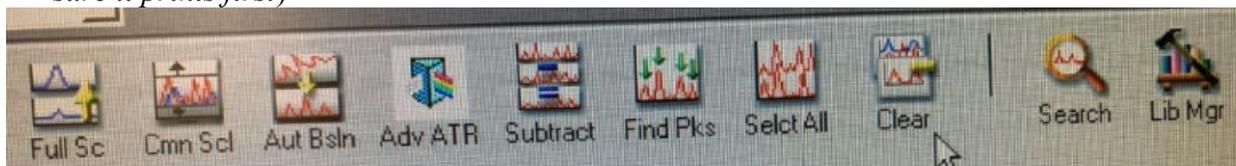
8. Click **replace original spectrum** button and say yes.



9. Go to file and print spectrum.



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 – *Gently wipe off* the liquid sample and *gently* 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**.

