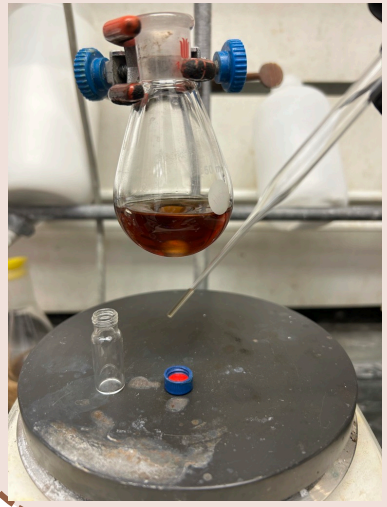
technique of the week

Running a GC Sample

The SARLAH Group

Step 1: Prepare your GC sample for the instrument.

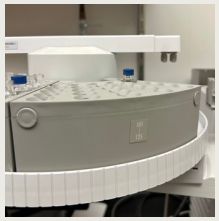


A. Obtain a clean GC vial, cap with seal, and a Pasteur pipette.

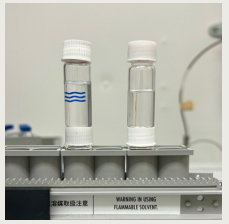
B. Fill the end of the Pasteur pipette with solvent. Large quantities are not needed to obtain an adequate GC trace.

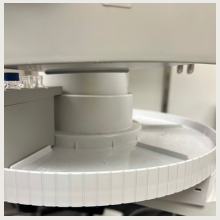
C. Dilute your aliquot with ethyl acetate.

Step 3: Load your sample.

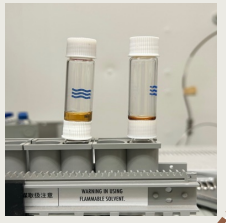


A. Add sample to an available well. Make sure you are aware of where the first sample tray is located relative to the instrument (do not follow the number on the tray).





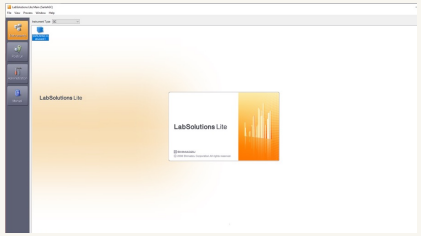
B. Check the waste and needle cleaning vials. The cleaning vials hold MeCN and iPrOH.

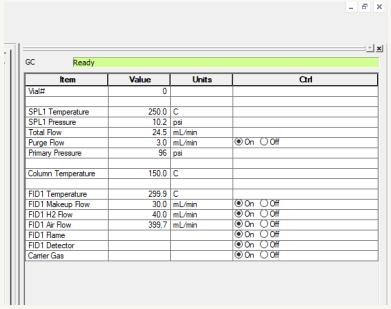


Step 2: Prepare the instrument for use.

A. Open the air and hydrogen gas tanks to the right of the instrument.

B. Turn on the instrument with the power button on the bottom right. The instrument is not ready for use until all three lights are turned on.





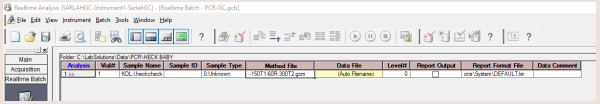
C. Click “SARLAHGC…” icon. The instrument will indicate when it’s ready in green in top right.

technique of the week

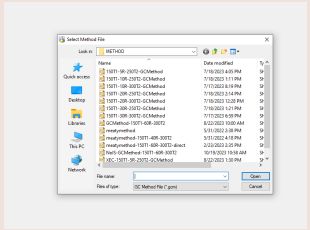
Running a GC Sample

The SARLAH Group

Step 4: Submit and run your sample.

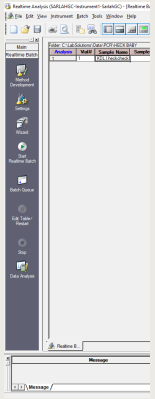


A. Indicate the vial number, name your sample, and choose your method.
(New methods can be chosen and developed to obtain maximum separation of peaks.)

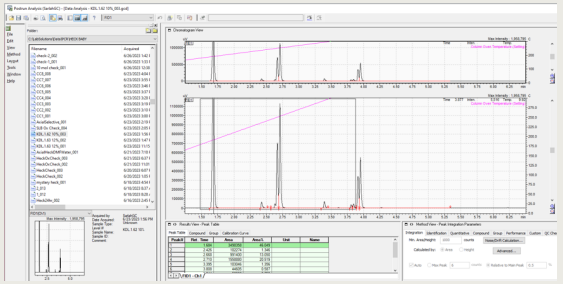


B. Click submit your sample and allow it to run.

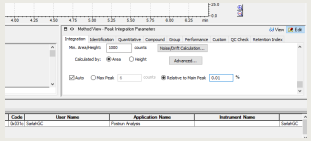
Step 5: Analyze your results.



A. Open the Data Analysis window. Click on the name of your sample. The chromatograph will show up on the right hand side of the screen. *Don't forget to turn off the GC and close the gas cylinders when analysis is complete.*

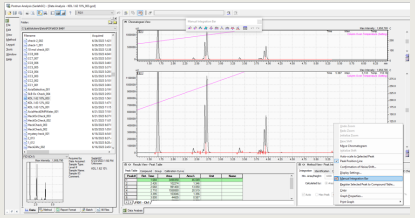


<u>If you want to analyze/compare areas under the curve…</u>

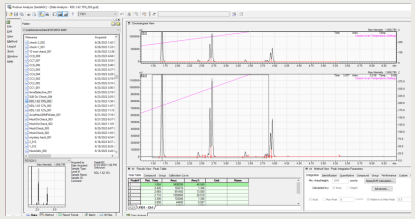


A. On the bottom right, click "Edit" and change the Relative To Main Peak % to 0.01.

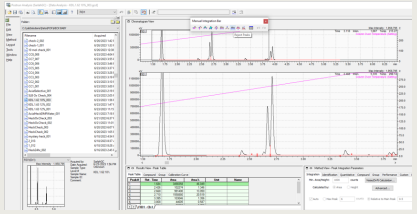
B. Right click the spectrum and click "Manual Integration Bar."



C. Zoom in on the spectra to peaks you are *not* interested in analyzing by forming a box around the relevant regions..



D. On the integration bar click "Reject Peaks" and click the cursor on either side of the relevant peaks.



E. After rejecting peaks the green box towards the bottom left on the screen will show a ratio of areas for the remaining peaks.