Gas Chromatography

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Gas cylinders

Sample tray

Control panel

Console

- All samples must be soluble in the elution solvent that you will use previously passed through a syringe filter or short plug of silica. (Crude reaction mixtures are not allowed for GC runs.
- Don't run amine samples. It will ruin the column inside the GC.

- Turn on the regulators on all four cylinders. Also make sure the flow controllers are open.

  1. DO NOT adjust the pressure on the regulators. They should be as follows:

     - N_2: 110 psi

     - Air: 70 psi

     - He: 110 psi

     - H_2: 70 psi

  2. If the tanks register below 200 psi, let the person in charge know so they can get new tanks!
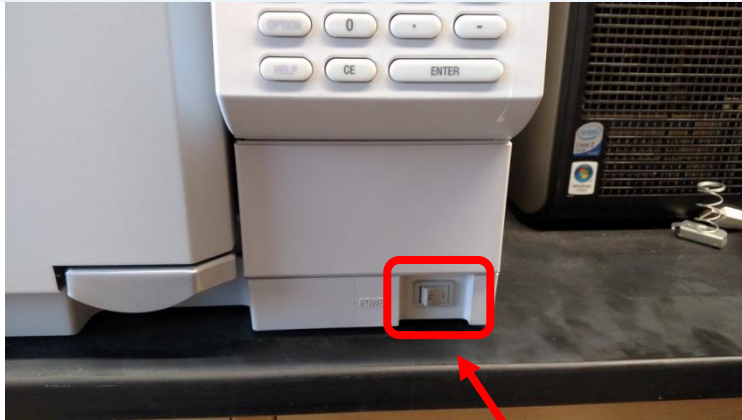

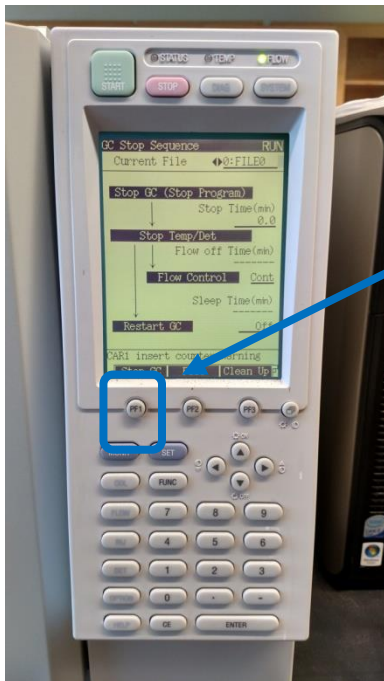From left to right: N_2, Air, He, H_2

Don't adjust

Read gas flow here!

Read amount of gas here!

Instrument Startup

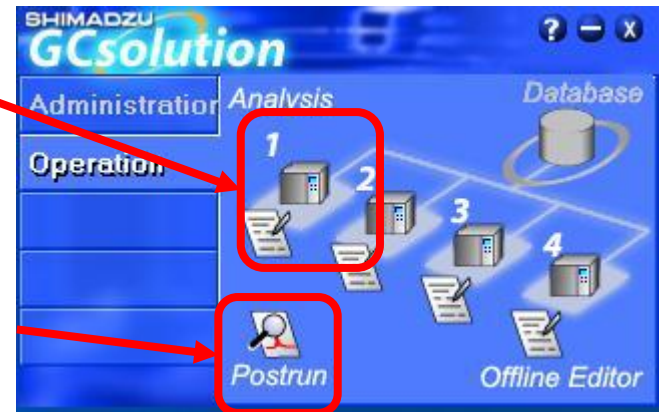Power switch

PF1

Rinse Vials

1. Power on the GC

2. After a brief initialization time, hit the button "PF1". This will activate the heaters and automatic flow controllers.

   • If you're getting an error message, please let those in charge know!

3. Make sure that you fill the solvent rinse vials! The first is acetone, second is empty, third is toluene, fourth is empty, fifth is acetone.

Software Startup

Click here to start →

1) Open GC solution by clicking the icon. Log in with your user name/password.

2) From the "File" menu, select "Open". Select the appropriate method (more on this later), then select "Download"

3) Wait until all indicator lights above the panel turn green. Then you can start your analysis.
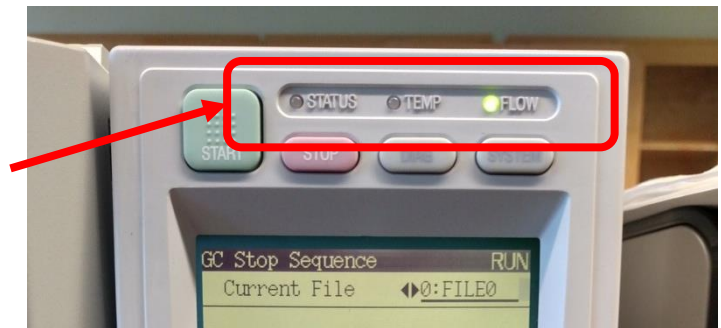
Click here to start instrument software!

Click here to look at collected data!

These guys should all be green!

Upload Your Method

Select the desired method file from the "File" Menu

Then, once the method file is selected, hit the "Download" button to send the commands to the instrument

Starting a Batch Process

- Start by clicking "Batch Processing" from the main window.
- Then select "Batch Table Wizard" (above)
- Check whether this is a new batch or if you're appending.
- Select Line 1.
- Find the appropriate method file to use.

Shutting Down

- Select File-> Bakeout after running -> shutdown method.
  (Run bakeout method first)

- Wait until temperature cool down to the setting temperature

- Close the program window and GC solutions window.

- Power off the GC

- Turn off all regulators and flow controllers

- Fill out the log book

Reminders

- If you have several samples need to run, please schedule a date in advance

- Please make sure that you are in the lab or around when you are running GC samples

- For additional details about the GC and related software, please see the detailed group hand out or receive instrument training