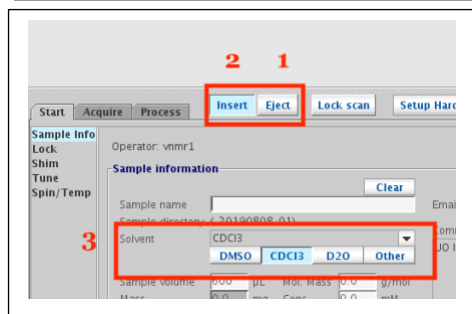


Routine 1D NMR: Varian Inova-500

Log on to the spectrometer computer with your NMR username & password. Launch the VnmrJ software.



1. **Eject** the standard sample.

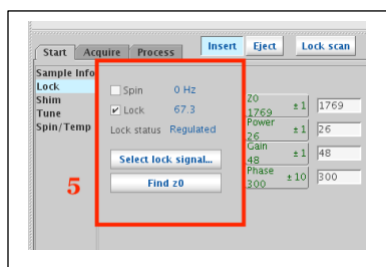
2a. Use the sample depth gauge to insert your sample into the spinner at the proper depth. Varian hardware is designed for an optimal 5 cm of solution (~ 3 fingers) in your NMR tube. If you have 5 cm, push your sample all the way to the bottom of the depth gauge. If your sample is shorter, center your sample volume around the little box in the depth gauge (~42.5 mm).

2b. **Insert** your sample

3. Select your **Solvent**. If your solvent is not DMSO, CDC13, or D2O, select **Solvent** from the drop down menu.



4. Select the **Experiment** you want to run.

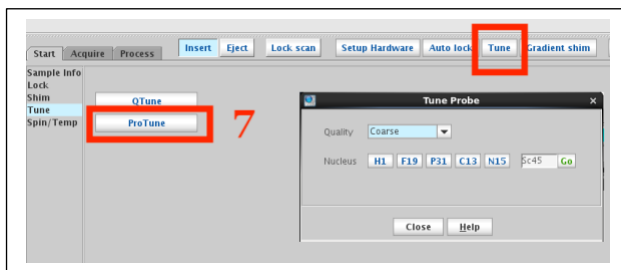


5. Hit **find z0** to lock on to your deuterated solvent. A properly locked solvent will have **Lock status Regulated** and a √.



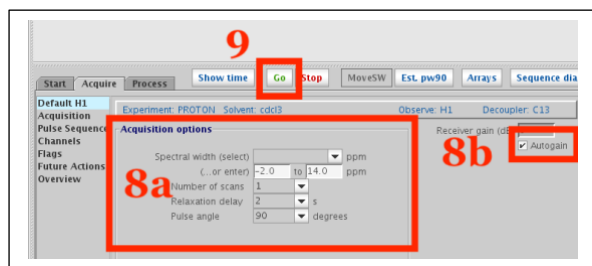
6a. Before you shim, it is helpful to hit the **Read default shims** button. This gives the software a good starting point.

6b. Hit **Gradient Shim**.



7. Either hit the **Tune** button or under the Start menu, hit Tune then **ProTune**. Select the Nucleus you wish to tune to. For routine experiments, you can use **Coarse** Quality, as this is fastest. If you are running a proton-decoupled phosphorus, carbon, or other heteronuclear experiment, make sure to tune the heteronucleus first and also tune proton! e.g. for 31P{1H}, tune P31 and then H1.

Please DO NOT spin samples.



8a. In the **Acquire** Tab, you can adjust any acquisition parameters you want. You can type "time" into the command line to see how long the acquisition will take. Do not adjust any parameters you do not understand!

8b. If you are running anything EXCEPT a C13 experiment, make sure Autogain is selected.

9. Hit **Go** to acquire data.

10. When the acquisition is complete, save your data to data/people/*yourname*/vnmrdata. This will save your data automatically to the server computer.

11. Eject your sample and replace with the standard sample. If you ran F19, please be courteous and load a PROTON parameter set and hit the Tune button before you log out.

12. **CTRL + ALT + BACKSPACE** will log off your account.