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SOP for setting up a queued scan on 500 and 600 NMR

SAMPLE SET UP

Start entry in the logbook

Log in

Eject standard

Insert sample

Change the solvent selection to the deuterated solvent used in the sample

Select lock tab

Press find Z0, wait for completion

Press gradient shim, wait for completion. RMS should be less than 1% with a good shim

With lock on adjust the phase to maximize the lock level, number can change with shifts in the magnet

STUDY SET UP

Press New Study

Enter Sample Name

Change lock selection to No (alock=n)

Uncheck Shim, make sure Tune is unchecked (but only if you don't need the probe to retune between experiments, i.e., using more than one nucleus on the highband or lowband channel)

In Tools menu bar select Probe Tuning/Tune probe

Select the nuclei that are going to be used to tune the probe, *e.g.,* C13, H1 – wait for tune to complete before the next selection

Close the GUI

Select PROTON from the Common tab

Double click on the PROTON Sequence in the Queue

Press the Submit button

When the preliminary scan is completed double click on the scan name in the Study Queue

In the acquire tab (Default H1) set a new ppm range that encompasses the spectrum

Set any other parameters that you would like to adjust like Number of scans or Relaxation Delay – this can be in any tab.

Press the green Acquire button

When scan is completed press the Continue Study button

Select the next scan from the Experiment Selector

Double click on the Sequence in the Study Queue and set the needed parameters

Select the next Sequence from the Experiment Selector until all sequences have been enter and parameters set.

Press Submit to launch the queued sequences

STUDY COMPLETION

When done remove sample and return standard to the magnet

Close VnmrJ software

Log out

Enter time used in the logbook, experiments and any problems