

## IMSERC NMR MANUAL: A600 topspin3

- 0) **Log in**
  - a. On NUCore log into NMR-A600 you reserved
  - b. On computer, login as walkon if need to; make sure spectrometer status is Idle
- 1) **Change sample**
  - a. **Eject** the sample from the BSMS panel by clicking “LIFT” (wait for 5 seconds)
  - b. Carefully **replace** the dummy sample by yours; make sure it floats on the eject air
  - c. **Insert** your sample by clicking “LIFT” on the BSMS panel
- 2) Set up a new data set
  - a. Type a command “**edc**” or click icon of blank page; it will pop up edc panel
  - b. Change file name, and/or expt#, and/or DIR path, and/or USER name
  - c. Click OK
- 3) Lock
  - a. Type a command “**lock**”; it will pop up a lock panel
  - b. Select your **solvent** in pull-down menu
  - c. Click OK
- 4) Retrieve the standard shims
  - a. Type a command “**rsh**”; it will pop up a shim file panel
  - b. Select “**shim\_bbi**”
  - c. Click OK; you may see lock level changed a bit; adjust it by LockGain
- 5) Set up PROTON experiment (for example)
  - a. Type a command “**rpar**”; it will pop up an experiment panel
  - b. Select “**1H**”
  - c. Click OK
- 6) Get standard probe parameter values
  - a. Type a command “**getprosol**”
  - b. Or Click “AcquPar”, then click an icon of sample tube
- 7) Tuning (optional)
  - a. Type a command “**atmm**” or “**atma**”
  - b. Adjust tune dip position as low as possible (Match), and to the center (Tune)
- 8) Shimming
  - a. Click button “**Topshim**” in the up-right corner; it pop up topshim panel
  - b. Select “1D” option (z1-z5)
  - c. Click “Start”; it takes about 30 seconds; then, close shim panel
  - d. Manual shim X1, Y1, XZ, YZ in BSMS panel (optional)
  - e. Make sure your sample is locked and that the **lock level** is between ~65 and 90
- 9) Acquiring
  - a. Change number of scans or/and other parameter values (optional)
  - b. Type a command “**rga**” – receiver gain adjust
  - c. Type a command “**zg**” – wait for finishing; data will be auto-saved
- 10) Quick Processing
  - a. efp;apk
- 11) When you are done, switch standard sample into magnet, and lock it
- 12) Sign out from the pen-and-paper **logbook**, noting if any instrument problem
- 13) Sign out from the **NUCore**