

# **$^2\text{H}$ (DEUTERIUM) NMR**

## **BRUKER 400**

LAST EDIT 3/31/11

SKILL LEVEL: **MEDIUM**

**Do not attempt unless you have extensive experience tuning the Bruker 400 probe and are familiar with the TopSpin software.**

You can lock and shim on a standard, if you want. Then insert your sample.

### **Software Setup**

BSMS : Lock Tab

- Turn off the lock and the sweep (button should not be lit).
- Set the lock power to -60.
- Set the lock gain to 75.

Make sure you have the **2H-dcif** parameter set loaded (**rpar** and, then **ii**).

### **Instrument Setup**

1. Disconnect the lock cable (2H) from the probe.
2. Disconnect the lock cable from the back of the preamplifier (The preamplifier is the grayish brown box on the floor next to the NMR. The lock cable is in the BOTTOM slice.)
3. Remove the lockstop (silver filter) from the X-Channel on the front of the preamplifier.

4. Open the **wobb** and tune the **X-Channel** for  $^2\text{H}$  (Tune at about 7852 and match at about 881).

### **When Finished**

1. Reconnect the lock cable to the probe.
2. Reconnect the lock cable to the back of the preamplifier.
3. Insert the lockstop in the X-Channel.
4. Open the **wobb** and tune the **X-Channel** for  $^{13}\text{C}$ .

*DO NOT FORGET TO TUNE BACK TO  $^{13}\text{C}$  WHEN FINISHED!*

5. Remove sample.

If you have any questions, don't hesitate to ask a DCIF staff member.

