## 10/4/2017

Tasklist:

- Prepare NMR samples
- Run H-NMP on the samples with the help of Michael and Mackenzie

Prepare and run NMR samples

-Step 1: Obtain NMR tubes

-Step 2: Create the NMR samples. The first sample was created by adding arginine and  $H_2O$  together into a sample tube. A small amount of this solution was then added into the NMR tube. The second sample was created by adding ~1mg of arginine, 0.1mL of the prepared NaOH in D<sub>2</sub>O, and 0.9mL of D<sub>2</sub>O into a test tube that contained the dried gold sample. A small amount of this solution was then added into the NMR tube.

-Step 3: Give both tubes to Michael to run through the NMR machine. Figure 1 was obtained from the NMR machine for the second sample. Unfortunately, since H<sub>2</sub>O was added into one of the tubes, the NMR spectra could not be obtained for sample 1.

Figure 1: NMR of Arginine and D<sub>2</sub>O (sample 2)

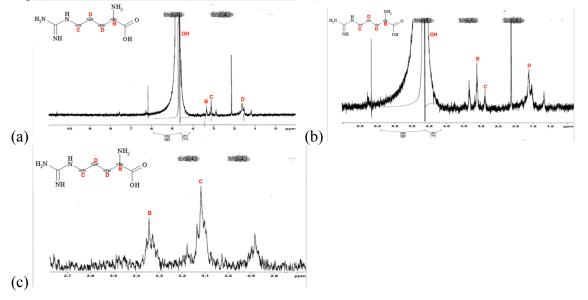


Figure 1 shows the NMR spectrum of arginine and  $D_2O$ . The image is broken down into three parts of the spectrum (a), (b), and (c), and all three regions have peaks labeled with carbon atoms located within arginine.