

# Bruker Avance 300 Instructions.

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## *Safety:*

The NMR lab is not a playground. There are certain rules to respect both for your own safety and for the instrument's. Read the safety rules that are distributed with attention.

Follow the lab instructions to the letter. **Report any problem** to your lab instructor or to Dr. Schneider.

## *Sample preparation:*

- Clean your tube with acetone or ethanol.
- Do not heat your tube in ovens: this will bend the tube. Bent tubes can severely damage the probe.
- Dissolve your sample in deuterated solvent to an appropriate concentration (5mg/ml for  $^1\text{H}$ , 20mg/ml for  $^{13}\text{C}$ ).
- Fill a clean, rinsed NMR tube with 700  $\mu\text{L}$  of solution (4 cm).
- Using a permanent pen, write your username and if you want your sample code on the top part of the NMR tube.

## *Auto sampler*

- Choose the first empty spinner available. Remember its position (slot number on the auto sampler).
- Place the spinner in the depth gauge.
- Clean your NMR tube with a KimWipe.
- Insert your tube in the spinner until it touches the bottom of the gauge.
- Remove the spinner from the gauge. Be careful not to move or touch the sample.
- Place the spinner/sample back into its original slot. **Remember that position!**

## *ICON NMR*

- Log in into ICON NMR. If the login window is not up, click on "change user" icon. Enter your password.
- In the upper part of the screen, choose the holder # corresponding to your sample's position.
- Enter the name of your sample, the solvent and the type of experiment you want to run. You should also enter a title. Other parameters can be adjusted. Check with Dr. Schneider first.
- Select the sample holder line and click submit.
- Log out by clicking the change user icon.

When your experiment is completed successfully, you'll receive an email with a PDF of your spectrum. You have **24hrs** to come and collect your sample. You must also login on ICON and **delete your entry**.

If your experiment failed, it will have black dots. **DO NOT** remove your sample and entry and **report the issue** immediately to Dr. Schneider