NMR Training Booklet

Welcome to the School of Chemical Sciences NMR Lab

August 2026

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TRAINING PROCEDURE

- **Bring your signed authorization form to Nikki Duay in 146 RAL (nduay@illinois.edu).**
- **Register as a user in ChemFOM. ChemFOM is the software that manages instrument reservations, logons, logoffs, status, and user accounts.**
- **In ChemFOM, you must request the SUNDS1 instrument. This is the SUN Data Station practice computer. Details will be provided in an e-mail from the Director.**

Begin by doing the Plotting Practice on the SUNDS1. Keep your practice spectra, but don't plot. Exercises begin on page 52.

Proceed to work on the UI400 with your Group NMR Trainer. Perform two separate sit-down sessions with your trainer, about 40-min each, and you must have your trainer with you at all times while on the UI400. You will need to move to the U500 for carbon work. When you are practicing on a spectrometer, use your own data directory, NOT your trainer's. If you do not have a data directory, see Nikki.

When you have completed the instrument training, bring your completed NMR Basics Quiz, Crossword Puzzle, and actual practice spectra to Nikki to schedule a 40-min Checkout time.

Upon Checkout completion, you will be given access to the UI400, U500, VXR500, and UI500NB and only then can you work on your own.

The CB500 can be used once you are trained on the 4 core spectrometers; get about 10 spectra on each instrument. Get registered on the CB500 with Nikki, then have a group member show you how to use the CB500, which is automated. You can then use the B600 automated spectrometer after an introduction.

The UI500NB also offers separate training for PW90 and T1 determination procedures. This can be arranged after you use the above 4 spectrometers many times.

Variable Temperature (VT) control also requires separate training which can be arranged after you use the above 4 spectrometers many times.