NMR Sign-up Policy and Rules

Introduction

This document specifies policies regarding the reservation of instrument time for the NMR facility in the department of chemistry at Wichita State University. The objective is to provide equitable access to the instruments in order to support the diverse research needs of the department. If you have any questions about the rules, or would like to receive training in use of NMR instruments, please contact Kevin Langenwalter at extension 3255 or e-mail at Kevin.langenwalter@wichita.edu.

Access to NMR Facility

1. Every person who wants to use a spectrometer must be explicitly authorized to do so by the NMR manager. This authorization will include a check-out test in which the person demonstrates that he/she can use the NMR spectrometer. Unauthorized use of the spectrometers will result in suspension of, or refusal to grant, user privileges.

2. Every NMR user must document their NMR usage by scheduling it on FACES. This must be done regardless of the length of time or the time of day the spectrometer is used. Undocumented use of the spectrometers will result in suspension of user privileges.

3. The probe can only be changed by the NMR manager. The default probe for the INOVA 400 will be the inverse-detection probe. The Mercury 300 has a broadband probe installed, but if you need to use the broadband probe on the INOVA 400, contact the NMR manager.

4. If you wish to use the NMR for other nuclei (e.g. ^{19}F), you must tune the probe back to ^{1}H when you are finished. If you need help in tuning the probe, contact the NMR manager.

5. If you run any variable temperature (VT) experiment, you must switch the gas from air to nitrogen. Normally this is only necessary at temperatures greater than 100 ^{o}C or less than 0 ^{o}C, but because of the humidity in the lab, we will use nitrogen for all VT studies. After completing the experiment, you must switch the gas back to air and turn off VT in VNMR. Please run all VT studies on the INOVA 400, unless it is for instruction.

6. Only Wilmad 507pp or better NMR tubes, or their equivalent, are approved for use in this facility. Tubes must be kept externally CLEAN! The “thrift” NMR tube is not allowed in either instrument. Probe damage and instrument downtime can result from the use of substandard NMR tubes. Therefore, the use of substandard and/or dirty NMR tubes in the spectrometers will result in suspension of user privileges.

7. The Mercury 300 is mainly for instructional use. The use of this instrument for research is permitted only when it is not being used for instruction. Long-term experiments should be done on the INOVA 400.

8. Before leaving an instrument, insert the standard reference sample and lock it.

9. Food and drink are not allowed in the NMR lab.

10. No one is allowed to wear lab gloves when operating the NMR.

Reservation of NMR Time

1. NMR users can reserve time by visiting http://faces.ccrc.uga.edu/ and using group name WSU_NMR. You can obtain a username and password from the NMR manager. You must have a WSU e-mail address in order to have access to the NMR schedule system.

2. The following sing-up rules are now in effect:

Mercury 300:

Time slots are 15 minutes each, with a limit of 4 appointments per day.
Maximum time allowed per appointment is 60 minutes.
Max time per appointment is 30 min. during primetime (1 – 5 PM, M-F).
Appointments can be made up to 3 days in advance.

INOVA 400:

Time slots are 30 minutes each, with a limit of 4 appointments per day.
Maximum time allowed per appointment is 12 hours.
Max time per appointment is 60 min. during primetime (1 – 5 PM, M-F)
Appointments can be made up to 6 days in advance.

4. NMR users must start work no later than ten minutes after the beginning of their reserved time; otherwise their entire reservation will revert to open time. NMR users may not run over more than ten minutes into another user's reservation. NMR users who repeatedly inconvenience others by running late and/or not using their reserved time will be denied use of the NMR facility.

NMR Training

1. Graduate students who wish to use the NMR spectrometers need to attend an NMR training session. The training session will last approximately 30-60 minutes depending on the previous experience of the user. After completing the training session, the user will be allowed to practice using the instruments under the supervision of authorized NMR users. In order to become an authorized user, the check-out test must be successfully completed.