



Request for UBC Chemistry NMR Login

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Your Full Name: _____ (please print clearly)
E-mail: _____ (please print clearly)
Your ID Number: _____ (please print clearly)
Lab No.: _____ **Phone No.:** _____
Group: _____ **Date:** _____
Status with UBC: 449 student Graduate Student Postdoc Visitor Other
Your login ID: _____ (Your login is required to be the same as your chemistry E-mail login)

Spectrometers	Checked by:	Comments
AV300		(Group accounts only on auto-sampler)
SIF-AV300		
AV400inv		
AV400dir		
AV400sp		
ssAV400		(Service only, not accessible to public)
AV600		(Access with restrictions, talk to Paul)

Policies when sharing NMR facilities:

- The NMR facility operation is regulated with the policies laid out by the facility staff and users with the approval of the department NMR Committee. Carefully observing the facility operation policies to ensure an equal and fair access of every user is the responsibility of every NMR user in the Department.
- Abide by the safety rules (see back page) to work in an environment with strong magnetic fields, pressurized cylinders and cryogenic dewars.
- No tampering with the hardware or software of the spectrometer and accessories. Do not pull the power plug or turn off the power on the system under any condition without supervision. It could cause damage to either the hardware or software of the systems, particularly when experiments are in progress.
- You are not allowed to use spectrometers unsupervised before being checked out by the NMR facility staff. You can either get help from your group member or facility staff member to sit with you for your data collection prior to your checkout.
- You should use NMR tubes from a trusted source. You should only use NMR tubes with grades on spectrometers corresponding to their rated field strength. You should check your NMR tubes for minor mechanical damages (deformation, scratches, or cracks) before your experiments and discard them if you find any.
- Book your scheduled time and use the spectrometer time according to the schedules and release unused time to avoid waste of resources. Booked machine time not used, will be charged to the group for that booking.
- You are responsible for backing up your own data regularly to avoid loss of data and filling up the shared computer hard disks and crashing the spectrometers. The NMR facility is not responsible for any data loss.
- The group supervisor will be responsible for the cost of replacing or repairing components of the NMR systems damaged by any of their group's users due to careless or improper use.

Safety rules in the shared NMR lab

Magnetic Field Hazards:

The magnetic field present in the NMR lab is comprised of the very strong static magnetic field generated by the magnet, and the rapidly time varying magnetic field generated by the gradient coil. Magnetic objects in proximity to the magnet may be uncontrollably pulled towards the magnet by the attractive mechanic force. The closer to the magnet, the larger the force. The larger the mass, the larger the force. Small pieces of metallic tools may become flying objects of high speed when close to the magnet. Keys, wrenches, scissors, screwdrivers have been all documented to be safety hazards. Large equipment (gas cylinders, trolley...) could cause bodies or limbs to become trapped between the equipment and the magnet.

Medical Electronic implants:

The operation of medical implants may be affected by both the static and the changing fields. The magnetic field can exert a torque on the implants that may cause injuries or death. Additionally, an electric current can be induced on the medical implants when close to a rapidly changing field. This induced small current (Eddy current) may cause pace makers to incorrectly start pacing or even prevent pacing when it is actually needed. Induced currents can also cause local heating resulting in burns in local body areas. If you carry medical implants, you should not be in the vicinity of the NMR spectrometers.

Rules:

- You should not bring **any metallic object** close to the magnet. Please be aware of the gas cylinders in the NMR/SIF labs as those are heavy magnetic objects.
- Please keep your bankcards, smart phones, mechanic watches, or any device that may be damaged by the presence of the strong magnetic field in the designated area of the NMR lab. If you are not sure what you can bring to the magnet area, please ask the NMR staff.
- There hasn't been any conclusive evidence that suggests the stray magnetic field or RF in the NMR lab can hurt fetus. However pregnant women are discouraged to go under the magnet to perform manual tuning/matching.
- For variable low temperature experiments, you must only use the non-magnetic liquid nitrogen dewars that are available in the NMR lab as gas supply. You must only use the wood dolly available in the NMR to transport the dewars. Since the castors of the dolly are metal objects, they should be left outside the 5 gauss line of the magnet.
- No food and drink are allowed in the NMR lab.
- Please do not bring any chemicals other than your own NMR samples to the NMR room. The NMR lab is not equipped for wet chemistry. Sample preparations in the NMR lab is discouraged.
- Please do not wear gloves or lab coats in the NMR lab.
- It is your responsibility to report any accident to the NMR technical personnel immediately.

What to do when magnet quenches:

If you ever observe white fume coming out of the top of any of the NMR magnets in the NMR lab, please immediately stop what you are doing and exit the lab quickly and calmly. Please do not panic. The danger is the released helium gas can quickly replace the air in the NMR room, and you may not have enough oxygen to breathe. Please leave the lab calmly, leave both of the lab doors widely open, and call campus security immediately if it happens during off working hours.

I have read, understood and will abide by the policies and the safety rules.

Your name: _____
Your Signature: _____
Date: _____

Your Supervisor's name: _____
Your Supervisor's Signature: _____
Date: _____