PITTCHEM NMR facility

SAFETY ISSUES

1. The magnetic field can erase information from credit cards, electronic access/ID cards and magnetic storage media. Set aside these items; do not take them near the magnet. Analog watches can also be significantly slowed down once they are magnetized.
2. Samples containing radioactive nuclides are not allowed in the NMR facility.
3. Toxic or compounds with offensive smell should be taken utmost care responsibly according to their nature. In case of any spill please report immediately.
4. Gloves should never be worn while operating the computer / spectrometer.
5. For VT control, users are responsible to know the temperature limitations of their NMR samples and to know how to use the spectrometer safely within these limitations.
6. The Bruker 500 and 600 MHz spectrometer is equipped with pneumatic anti-vibration legs. While this improves data quality, it makes the magnet very vulnerable to damage due to rocking. Never lean against the magnet.

DOs & DON'Ts RUNNING NMR EXPERIMENTS

1. No one is to use the NMRs without training by Damodaran or Macduff. This includes changing nuclei, probe tuning, temperature experiments, etc. Carefully follow all written instructions. If in doubt ask!
2. Do not change pulse power levels or the lock power level.
3. Follow the signup rules posted on FACES website.
4. Never stop or remove the sample when another person's experiment is running.
5. Use only good quality NMR tubes. Use 507-PP and higher for the 300. Use 528-PP or 535-PP tubes for 500/600. If you seal an NMR tube, make sure it is symmetric and doesn't wobble.
6. Make absolutely sure that the outside of the NMR tube is clean with no dirt, oil, crud, etc. Make sure you wipe the lower part of the tube with a Kimwipe before inserting in the magnet.
7. Promptly report any instrument problems, including warning messages, to Damodaran, or Macduff. Do not attempt any repairs on your own and do not contact the instrument shop for repairs.

8. Immediately report any accidents, such as breaking a tube in the magnet, or spills to Damodaran or Macduff. Accidents happen and will usually be excused; however, failure to report accidents or repeated careless accidents will result in loss of NMR privileges.
9. Place the standard sample back into the magnet when you have finished your experiments. After observing an X nucleus other than 13C, change back to 13C.
10. Accurately record your instrument use including date(s), "am" or "pm", total time used, type of experiment, and comments in the logbook.
11. Keep the lab clean. Throw out used Kimwipes, chemical gloves, scraps of paper, and labels into the trash can. Remove your samples and any glassware.

Requisition for authorization to use the PittChem NMR Facility

I request authorization to become a 500/600 MHz user of the PittChem NMR Facility. I read and I agree to follow the "Safety issues" and "Dos and Don'ts running NMR experiments". I have attached my ^{1}H COSY and ^{1}H-^{13}C HMQC spectra plotted as required.

Time spent Training and Practicing ≈ _____ hours

Spectrometer Used:

Pitt Email: Lab Phone: Room #: Date:

User Name Trainer Name Advisor Name

Signature Signature Signature