

AV800 NMR Use Approval Form

A member of your research group has requested permission to use the Chemistry department's AV800 NMR spectrometer. Your signature on this form is required before permission will be granted.

Please be aware that this instrument is more susceptible to damage, and more difficult to repair, than our other departmental NMR spectrometers. Because the AV800 is equipped with a cryoprobe, accidents involving broken or jammed samples are at best difficult and time-consuming to clean up and at worst may result in very substantial instrument downtime and expense. With this in mind, please make certain that your research group member is familiar with the precautions detailed below.

I approve _____ for use of the AV800 NMR.
(Name of group member)

(PI Name) (PI Signature) (Date)

AV800 Precautions

- 1) Use extreme caution with samples whose physical properties (such as low boiling point) might cause the sample tube to over-pressurize and burst while in the probe.
- 2) Do NOT spin the sample. You can get an excellent line shape without spinning, and spinning an unbalanced tube can result in a broken sample
- 3) Avoid the use of "J. Young" tubes whenever possible. Because of their awkward geometry, these tubes have a well-deserved reputation for jamming and/or breaking in NMR probes. If the sample necessitates the use of a "J. Young" tube, then use a commercially manufactured tube. Some of the local glass blower products are excessively long and/or not straight. Users MUST get explicit approval from the facility staff before inserting a "J. Young" tube in the AV800 probe.
- 4) Incorrect pulse width/power level can seriously damage the probe. Please only use the standard library parameter sets. If special pulse programs/parameters need to be tried, they MUST be vetted by facility staff before use. Please send the details and your needs to Rajan/Paul well ahead of time for verification or alternate recommendations.