

## NMR Sample Requirements and Preparation

1. **Sample Concentration** Guidance NMR Measurements:
  - 5-10 mM is preferred for  $^1\text{H}$  NMR as long as solution viscosity does not increase significantly.
  - 10 mM is preferred for  $^{13}\text{C}$  NMR.
2. **Sample volume** should be a minimum of 0.5 mL (0.6-0.7 mL is preferred).
3. The NMR sample should be **homogeneous**, free of air bubbles and insoluble substances. High salt concentration and paramagnetic ions should be avoided if possible
4. **High quality NMR tubes** should be used at NMR facility.
5. For volatile organic solvent, or long term use sample, **sealing the sample NMR tube**.
6. **Labeling the NMR tube**. All samples should be labeled with brief sample information using a labeling tape. Do not write directly on the NMR tube since the ink can easily be erased by mistake. The labeling tape should be wrapped around the NMR tube, not in the shape of a flag.