



FSU-NMR Facility
Department of Chemistry & Biochemistry
The Florida State University



FSU-NMR Instrumentation & Locations

The Main Campus NMR Facility located in both DLC and CSL buildings of the Department of Chemistry and Biochemistry at FSU.



DLC Building



CSL Building

1. Bruker Avance III 700 MHz NMR (4 channel instrument): **CSL-1009**

Equipped with cryoprobe and high resolution magic angle spinning biosolids probe. This instrument is an outstanding flagship instrument that will place FSU's NMR facility back into a place of prestige. The spectrometer is also outfitted with an Auto-sample-changer



AVIII 700

2. Bruker Avance III 600 MHz NMR (2 channel instrument with infrastructure for easy third channel upgrade): CSL-1009

Equipped with a broadband probe for solution NMR and a 4-mm MAS probe for solid-state NMR. The instrument is outfitted with higher than normal amplifiers (500 W broadband) to ensure that a range of solids experiments is accessible. The spectrometer is also outfitted with an Auto-sample-changer.



AVIII 600

3. Bruker Avance III 500 MHz NMR (3 channel instrument): DLC-012

This spectrometer has a new Bruker Console and a Varian Magnet, which is dedicated to high resolution NMR. There are three indirect detection probes available which are capable of detecting all nuclei with resonance frequency between 15N and 31P.



AVIII 500

4. Bruker Avance III 400 MHz NMR (2 channel instrument): **CSL-5100**

This instrument serves our synthetic chemistry community. The instrument will come with a broadband probe with high proton sensitivity. The broadband probe and capacity to perform variable temperature experiments will greatly increase our performance. The spectrometer is also outfitted with an Auto-sample-changer.



AVIII 400

5. Bruker AVIII HD 500 MHz WB NMR (3 channel instrument): **DLC-012**

This spectrometer is primarily a solid state spectrometer with three 1 KW amplifiers, one on the proton/flourine channel and the others on the two broadband channels. There are three solid state CPMAS probes (1.3 mm, 2.5 mm and 4mm) and one 4mm-HR-MAS available. They are capable of detecting all nuclei with resonance frequency between 15N and 31P.



AVIII 500WB

6. Varian Mercury 300 MHz NMR (2 channel instrument): DLC-703

A Varian spectrometer with two proton/carbon switchable 5mm probes. This is a walk-on instrument used predominantly for small molecules characterization.



Mecurary 300

7. Varian Inova 300 MHz NMR (2 channel instrument): DLC-012

A Varian spectrometer dedicated to the undergraduate courses. It was purchased by funds from a National Science Foundation Department of Education grant (DUE-9972198) entitled "Nuclear Magnetic Resonance Instrumentation for Undergraduate Chemistry Laboratory: Development and Implementation." There is a broadband indirect detection probe capable of detecting all nuclei with frequencies between 15N and 31P.



Inova 300M