

Some important notes concerning the use of the new FT-MS services.

The new Bruker FTMS is currently capable of Electron Impact and Chemical Ionization (EI/CI), Electron Spray Ionization (ESI), and Matrix Assisted Laser Desorption Ionization (MALDI).

Please fill out one of the new sample submission forms available either here or in the DCIF lab. Please take a little time to review some of the new options involved with the new instrument.

- 1) Unit Mass: This is equivalent to low-resolution spectra with a mass accuracy of ± 0.5 mass units. The spectrum will only display the peaks from your sample.
- 2) Exact Mass: This is equivalent to hi-resolution spectra with a mass deviation of less than 5ppm from the theoretical value. The spectrum will be a mixture of both the sample and the internal standard.
- 3) MS/MS or MS/MS/MS: This is a second or third dissociation, respectively, of the parent ion to better confirm or determine the correct structural conformation based upon multiple fragmentation steps. This technique requires a previously acquired unit or exact mass measurement.
- 4) The mass range for the FT-MS is 50 to 5000 m/z. If you have a sample with a molecular weight greater than ~ 3000 to ~ 4000 amu, most likely the spectrum will show product from multiply charged species.
- 5) ESI/FT-MS: If your sample were previously analyzed using the Fast Atom Bombardment (FAB) technique, this is most likely your technique of choice.
- 6) MALDI/TOF (MALDI w/ time-of-flight): This mass analysis is still available and is typically used for high (> 5000 amu) molecular weight polymers. The technique will only give you unit mass (low-resolution) information.
- 7) Please specify all appropriate solvents suitable for your sample. This will help to expedite the analysis.
- 8) For either the MALDI or ESI techniques, a negative ion analysis is available. These samples **MUST** be salt free (i.e. no Na^+ , K^+ , Ag^+ , etc.) as these tend to suppress the signal.