

Instructions for Sample Submission

Mass Spectrometry Facility

Cleveland State University

Download the sample submission form: <http://www.csuohio.edu/chemistry/msfacility/sampleform.pdf>

Download these instructions: <http://www.csuohio.edu/chemistry/msfacility/sampleinstructions.pdf>

Overall Cleveland State Mass Spectrometry Facility provides analytical service to academic, medical, and industrial institutes in the northeastern Ohio and beyond using electro spray ionization mass spectrometry (ESI-MS). Please fill in a Mass Spectrometry Analysis Request Form for each sample and read the instructions carefully before submission of your samples.

Types of analysis We perform normal scan and daughter scan mass spec analysis (MS and MS/MS) using triple quadrupole or ion trap mass spectrometer with positive or negative electro spray ionization. Normal scan MS is usually used for molecular mass determination and daughter scan MS/MS can be used to characterize molecular structure. We do not provide high resolution mass spec analysis for accurate mass determination.

Types of samples accepted and not accepted The analytes must contain functional groups that donate or accept protons, which are required by electro spray ionization. The compounds can be small molecules or biomolecules (e.g. peptides and proteins).

The samples should not contain non-volatile salts / butters, such as phosphates, sulfates, various metals, etc. Such salts / butters can completely suppress the analyte signals and badly contaminate mass spectrometers.

We do not accept organometallic compounds and polymers.

Amount of samples: For solid samples, 1 mg or even less is sufficient. However, we prefer to have more if the availability is not an issue. For liquid samples, 100 uL with a concentration of uM level is the minimum. If you provide higher concentration, which is preferred, we can dilute to suitable concentration easily.

Information about samples It is beneficial to you if the molecular weights, chemical formulas, and structures of your analytes are provided. Such information will help us design the experimental conditions, and give you a better chance to get good data. For a sample in solution, please provide estimated concentration and tell us the solvent and buffer.

Questions If you need advice on sample preparation or have technical questions, please contact Dr. Xiang Zhou, the Manager of Cleveland State Mass Spectrometry Facility.

Locations for sample submission Refer to Mass Spectrometry Analysis Request Form