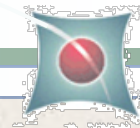


Orbitrap High Resolution Mass Spectrometer



Maker & Model : LTQ Orbitrap XL (Thermo Fisher Scientific, Bremen, Germany)

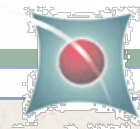
Attached equipment :

- ◆ Electrospray Ionization (ESI)
- ◆ Atmospheric Pressure Chemical Ionization (APCI)
- ◆ Atmospheric Pressure Photoionization (APPI)
- ◆ Thermo scientific Accela Pump
- ◆ Thermo scientific Accela Autosampler

The Orbitrap is an ion trap mass analyzer that consists of two outer electrodes and a central electrode, which enable it to act as both an analyzer and detector. Ions entering the Orbitrap are captured through "electrodynamic squeezing," after which they oscillate around the central electrode and in between the two outer electrodes. Different ions oscillate at different frequencies, resulting in their separation. By measuring the oscillation frequencies induced by ions on the outer electrodes, the mass spectra of the ions are acquired using image current detection.



Orbitrap High Resolution Mass Spectrometer



Maker & Model : LTQ Orbitrap XL (Thermo Fisher Scientific, Bremen, Germany)

Attached equipment :

- ◆ Electrospray Ionization (ESI)
- ◆ Atmospheric Pressure Chemical Ionization (APCI)
- ◆ Atmospheric Pressure Photoionization (APPI)
- ◆ Thermo scientific Accela Pump
- ◆ Thermo scientific Accela Autosampler

Orbitrap mass spectrometers deliver a total possible maximum resolution (FWHM) of 1,000,000 at m/z 200 and a sub-1 ppm mass accuracy in a single compact and easy-to-use instrument. These high-resolution accurate-mass systems detect a wide range of compounds and small molecules during both targeted and untargeted analyses, without losing selectivity or sensitivity.

Orbitrap application :

Metabolites

Food safety analysis

Proteins

Drugs of abuse

Clinical research

Sports doping

Orbitrap service :

HR-ESI

HR-APCI

HR-APPI

