

Mass spectrometer / QTrap 5500

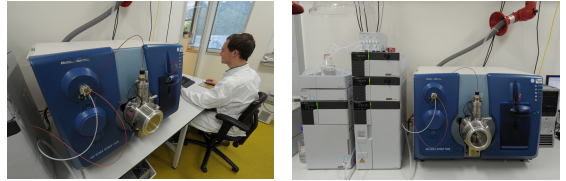
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Brand

Applied Biosystems SCIEX

Type

QTRAP 5500-LCMS



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Description

(UP)LC-MS/MS is a chemistry technique that combines the physical separation capabilities of liquid chromatography with the mass analysis capabilities of mass spectrometry. (UP)LC-MS/MS is a powerful technique used for many applications which has very high sensitivity and selectivity. Generally its application is oriented towards the general detection and potential identification of chemicals in the presence of other chemicals (in a complex mixture).

Technical Details

The technique has both qualitative and quantitative uses. These include identifying unknown compounds, determining the isotopic composition of elements in a molecule, and determining the structure of a compound by observing its fragmentation. Other uses include quantifying the amount of a compound in a sample.

Shared Research Facilities has the following ULPC-MS/MS systems:

- AB Sciex QTRAP 5500
- AB Sciex QTRAP 6500 (with SelexION for effective ion mobility spectrometry)
- Waters Quattro Premier XE (including sample tower)
- Waters Xevo TQS

Applications

These instruments can be used for different type of research, for example:

Analysis of residues of:

- hormones in animal matrices, feed and forensic samples
- veterinary drugs in animal matrices and feed
- pesticides in vegetables and fruit toxins in vegetables, fruit and cereals
- marine toxins in fish and shellfish

But also think about:

- Pharmacokinetics
- Toxicology screening and confirmation
- Contaminants
- Forensic research

Presently, the Qtrap 5500 is used for analysis of coccidiostats and mycotoxins.