

Electrospray

Electrospray can be used for the analysis of medium to high mass organic compounds, but is equally useful for the analysis of biological molecules such as peptides, proteins, saccharides and oligonucleotides. Both positive and negative ionisation can be measured.

Electrospray is a soft ionisation technique so that usually only molecular ions are produced. It is also capable of producing molecular weight information on very small amounts of sample making it a very powerful technique in the drug industry. Our LCT instrument has high resolution capabilities so can achieve accurate mass analysis.

Samples are introduced into the instrument in a mobile phase such as methanol or a 50/50 mixture of water and acetonitrile, frequently samples are injected into the instrument using a rheodyne valve. A mixture of the mobile phase and sample is sprayed through a needle. A potential of 3-4 Kv is applied to the needle which causes a charge on the spray and as the running solvent is evaporated away the charge on the sample droplets increases. The ions then enter a quadrupole or 'Time of Flight' analyser.

Micromass LCT Z-Spray Ionisation Source

