

## Atmospheric Pressure Photo-ionisation

APPI uses photons energy to excite and ionise molecules, to minimise concurrent ionization of solvents and ion source gases. (Cappiello, A. *et al.*, 2000).

## Mass Analysers

### Quadrupole Analysers

The quadrupole analyser consists of a set of four parallel metal rods. Quadrupole analysers, comes single or triple quadrupole Configuration.

### Time-of-flight Analysers

The time-of-flight (TOF) analyser ionize the molecules by high voltage. The velocity of the ions, and the time required to travel down a flight tube to reach the detector depends on their  $m/z$  values. The TOF analyser is usfull for small molecules.

### Ion Trap Analysers

Ion trap analysers use three hyperbolic electrodes to trap ions using static and radio frequency voltages. The ejection of Ions depends on  $m/z$  values to create a mass spectrum.

### Hybrid Analysers

mass spectrometers that use combinations of different

mass analysers. Two configurations

that are particularly useful for LC-MS. The

third quadrupole of a triple quadrupole MS can be replaced by