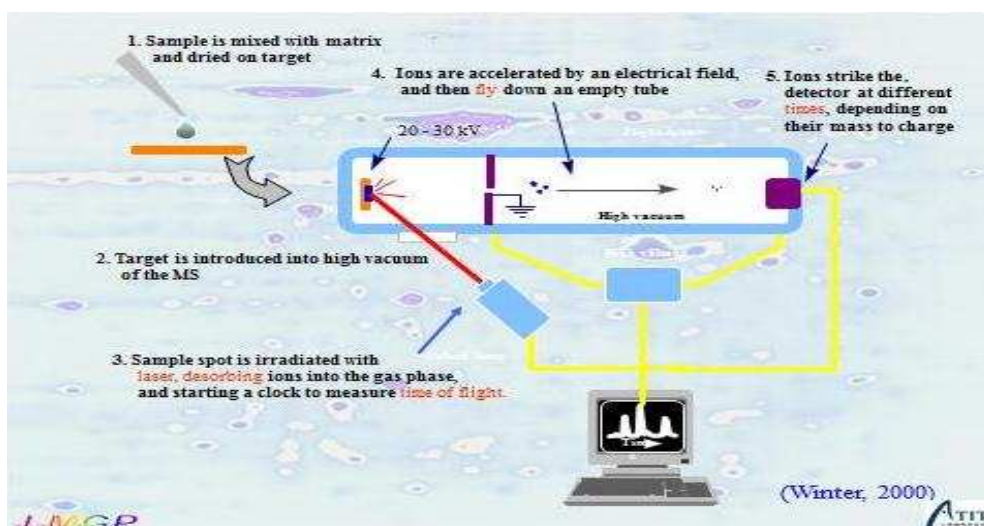


MALDI –TOF MASS SPECTROMETRY

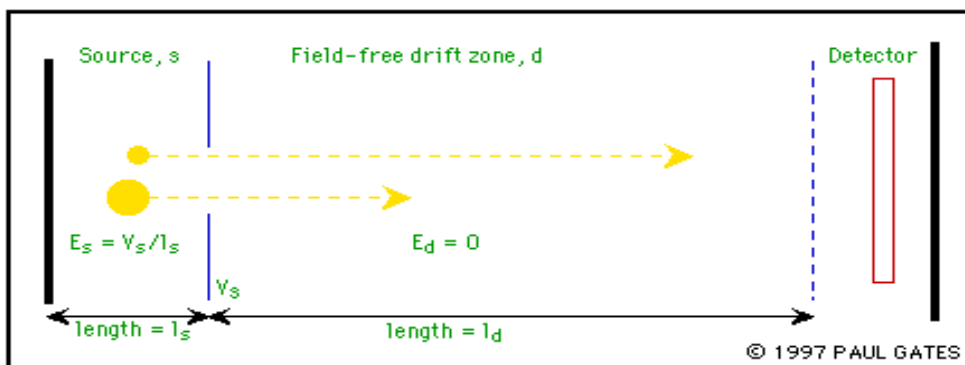
The basic processes associated with a mass spectrometry encompass the generation of gas-phase ions derived from analyte, and the measurement of mass-to-charge ratio (m/z).



In **MALDI** (**M**atrix **A**ssisted **L**aser **D**esorption **I**onization) the ionization is triggered by a laser beam. **MALDI** is soft ionization procedure.

TOF (Time Of Flight)

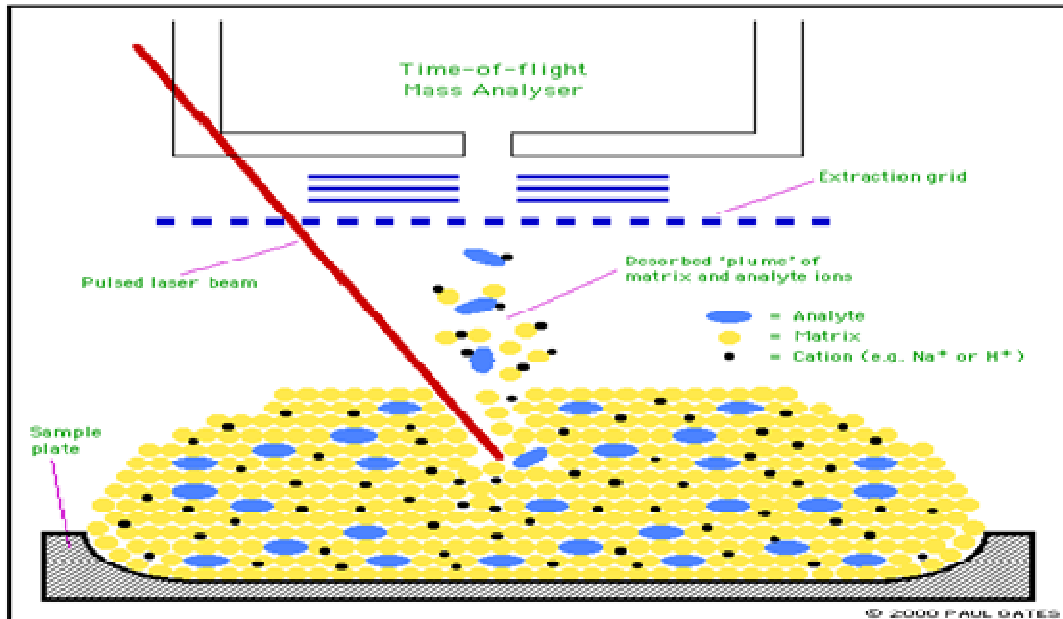
The basic processes associated with a mass spectrometry encompass the generation of gas-phase ions derived from analyte, and the measurement of mass-to-charge ratio (m/z). The time (t) required for the ion to travel the length of the field-free region (l_d) is measured and used to calculate the m/z of the ion ($m/z = 2V_s t^2 / l_d^2$).



The larger the ion, the slower its velocity and thus the longer it takes to traverse the field-free drift zone.

Matrix

Matrix is a small organic compound with certain properties such as high absorption at the laser beam wavelength and capability of crystallization with sample during code position (solid solution formation).



Reflectron and linear detectors

