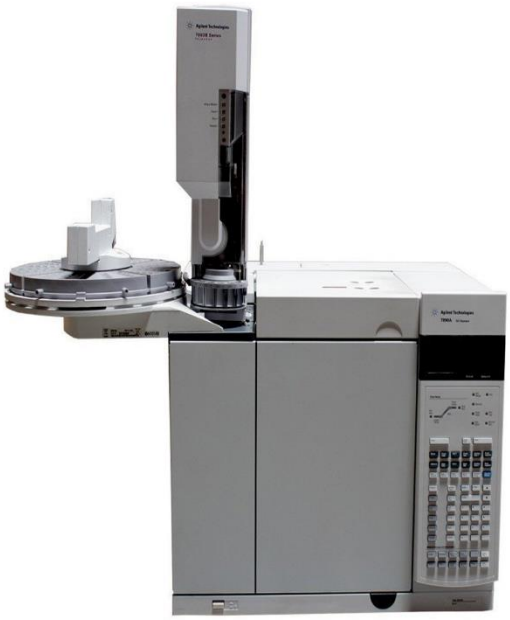
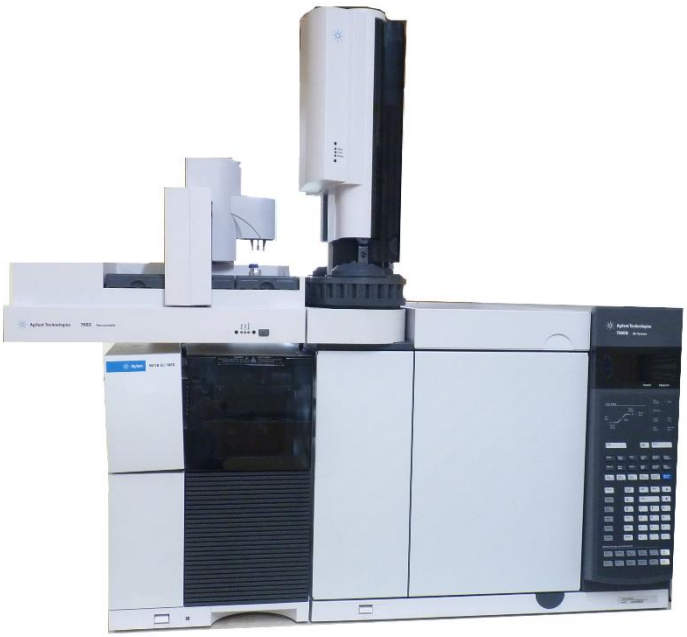
Gas Chromatograph



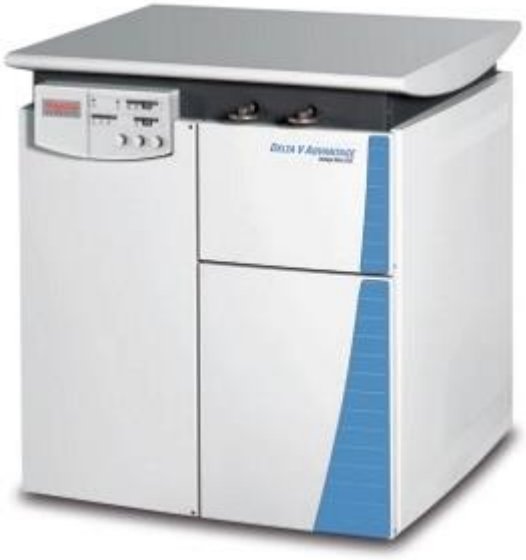
There are two Agilent Gas Chromatography machines, a 6890N and 7890B. Equipped with flame ionisation detection, it allows the fatty acid composition of specific fractions from cells, blood and tissues to be determined.

Gas Chromatography Mass Spectrometry



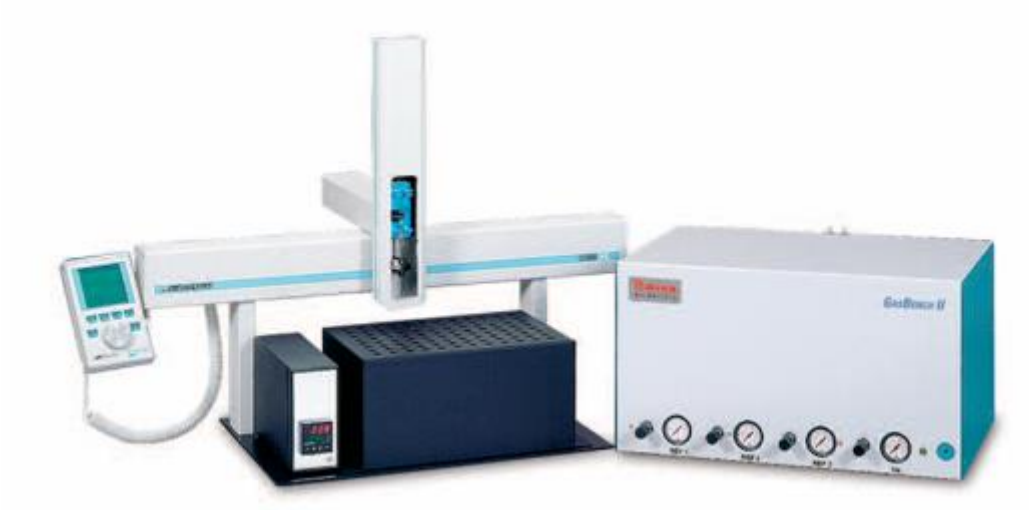
There are two Agilent quadrupole GCMS's, the 6890N GC with 5973 MS with Mass Selective detections and the 7890A GC with 5975C MS with a triple axis detector. These are perfect for the selected ion monitoring of stable-isotope tracer enrichment in any cell, blood or tissue fraction and currently used for labelled fatty acid and glucose analysis.

DELTA™ V Advantage Isotope Ratio Mass Spectrometer



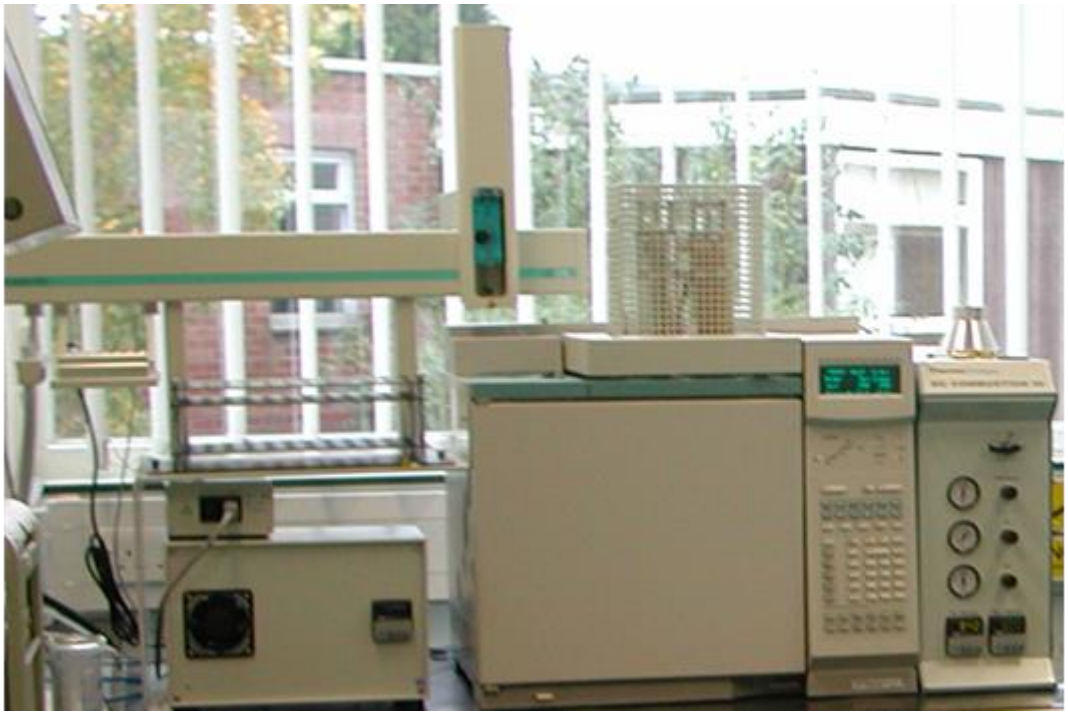
The DELTA V isotope ratio mass spectrometer is characterised by combining highest sensitivity with excellent linearity and stability to measure accurately small differences in the abundance of stable isotopes such as $^{13}C/^{12}C$. Inside the small-footprint design is a novel monolithic analyzer with fixed alignment of all ion optical components, including the electro magnet. This unique concept is a major step forward for achieving unprecedented reliability and robustness. It has a wide range of peripheral configurations.

Peripheral: GasBench II System



The Thermo Scientific™ GasBench II universal on-line gas preparation and introduction system facilitates high-precision on-line isotope and molecular ratio determination of headspace samples, and is used for allows for water equilibration. It is used for measurement of deuterium enrichment in plasma, urine, saliva and cell media.

Peripheral: Thermo Finnigan GC Combustion/Interface III



The Finnigan GC-C/TC III interface is a state-of-the-art GC interface and is used for the analysis of $^{13}C/^{12}C$. Organic compounds elute from a GC6890N column and are then converted into simple gases when traversing a capillary micro-reactor. Accordingly, all compound specific isotope ratios can be analysed in the IRMS. This is utilised for analysing the enrichment in breath, blood and tissue samples after consumption of a 13C stable-isotope tracer.