FAST GC-FID methods (fatty acid analysis)

The Central Laboratory for Chemical Analysis at GEOMAR uses so-called "fast gas chromatography" also called "Fast GC". Hydrogen is used as a carrier gas in combination with a capillary column with a small column diameter (e.g. 0.1 mm) to achieve a high separation performance with a short analysis time (< 15min).

Our Fast GC is a "TRACE GC Ultra" from Thermo Fisher Scientific. The gas chromatograph has a flame ionization detector and uses hydrogen as a carrier gas. The separation of the fatty acid methyl esters is carried out by a dynamic temperature program using a capillary column type "TR-FAME". The sample injection using the so-called "hot needle injection" technique. The sample volume is usually 1 µL.