

# ULTRA PERFORMANCE LIQUID CHROMATOGRAPHY

WATERS GMBH, ACQUITY UPLC

Ultra performance liquid chromatograph serves for efficient separation of mixtures including very complex samples. Separation is based on different distribution of mixture components between liquid mobile and solid stationary phase. Method is used for the separation of wide spectrum of compounds with different molecular mass and polarity. The liquid chromatograph is equipped with a diode array UV/VIS spectrophotometric detector (DAD). Connection with high resolution tandem mass spectrometer Q-TOF Premier is routinely performed for identification purposes.

## ACQUIRED INFORMATION

- > Retention times for identification
- > UV/VIS spectra for peak purity evaluation and identification
- > Determination of content of samples in analyzed mixture
- > Determination of ratio of enantiomers using chiral stationary phases

## SAMPLE TYPES

- > Solutions of samples
- > Extracts of solid materials

## MODES, CONDITIONS AND PRECISION

Chromatographic pump:

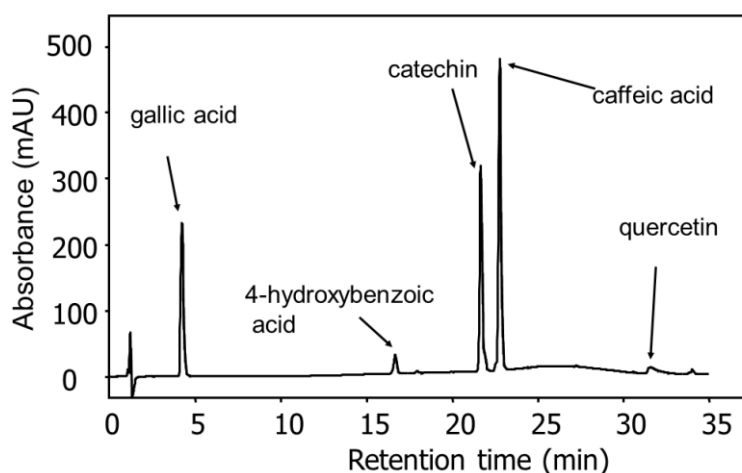
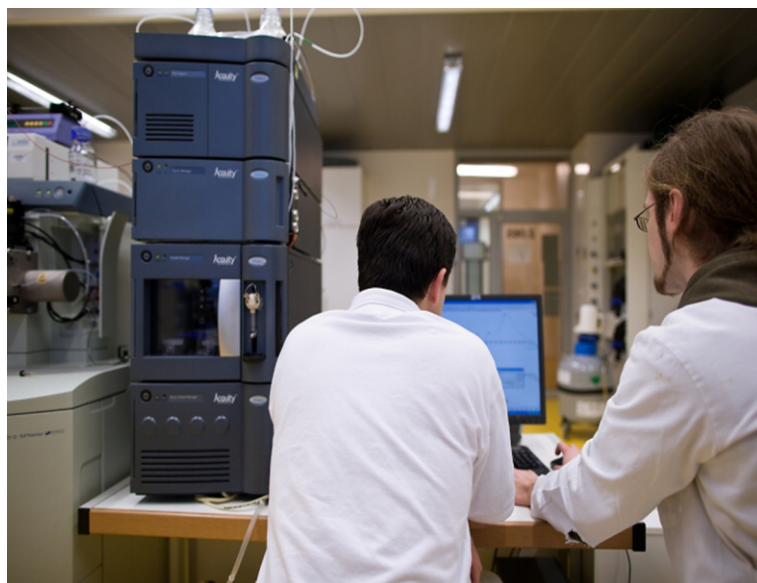
- > Flow rate: 0.001 – 2 ml/min
- > Operational pressure: up to 1000 bar
- > Allows to work with sub 2 mm particles packed columns

Autosampler:

- > Injected volume 0.1 – 10 mL
- > Temperature: 4 – 40°C

Detectors:

- > Diode array detector (wavelength range: 200-500 nm)
- > Mass spectrometer Q-TOF Premier (electrospray ionization)



Chromatogram of separation of selected polyphenols.

DETAILED INFORMATION ON REQUEST



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