

UHPLC – Ultra High Performance Liquid Chromatography

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System

Model: Thermo Fisher UltiMate 3000 RS



Objectives and Possibilities

Concentration analysis of liquid samples:

- reaction monitoring / kinetics
- Solubility and purity measurements

UHPLC: Rapid analysis using special high-pressure columns and respective methods possible

Equipment / Parameters

Gradient Pump

- Four channel low pressure gradient pump
- Pressure Range: 0 ... 1034 bar

Autosampler

- Injection volume: $V_{inj.} = 0.001 \dots 100 \mu\text{L}$
- Sample tempering and derivatization possible

Columns (selection)

- Various sizes of reversed phase RP-18 columns
- N-Capped columns
- Column for amino acid analysis

Substance Detection

- UV/Vis Diode Array Detector (DAD)
- Wave length ranging from: $\lambda = 190 \dots 840 \text{ nm}$

Chromatogram (Reaction analysis using a 14 minute gradient method)

