

GC basics course

1. Quality of a separation

Separation parameters in GC
Plate height equations
Peak width and peak broadening

2. Gas chromatography introduction

The GC system,
The GC oven
Detection principles/
Characteristics, operating range, linear range
Packed and capillary columns

3. Qualitative and quantitative analyses

Qualitative analyses: identification
Calibration

4. GC injection

Injection principles of capillary GC
Injection techniques
Comparison of injectors
Injection modes, Principles & Hardware>
Direct injection,
Split injection,
Splitless injection
Cold-on-column injection
Retention gap

5. GC Detectors

Detection en de onderliggende hoofdstukken:
Flame Ionization Detector,
Electron capture detector,
Thermal conductivity detector.
Other detectors (name and application)

6. Column selection in GC

Introduction
Analysis time and optimization
The stationary phase
Column choice and optimization