

## HPLC – High performance liquid chromatography

### Functional Principle:

High-performance/pressure liquid chromatography (HPLC), is a technique in analytical chemistry used to separate, identify, and quantify each component in a mixture. It relies on pumps to pass a pressurized liquid solvent containing the sample mixture through a column filled with a solid adsorbent material. Each component in the sample interacts slightly different with the adsorbent material, causing different flow rates for the different components and leading to the separation of the components as they flow out the column.

With HPLC non-volatile substances can be analyzed.

### Prominence LC 20A – Co. Shimadzu:

- temperature controlled column oven
- auto sampler (heating peltier)
- detectors: PDA (photo diode array) and RI (refractive index)
- columns: Supelcogel C610H, Supelcogel Pb; Rezex ROA
- all columns are used with guard columns

