

## Ion chromatography

### Functional Principle:

Ion exchange chromatography, (IC) often just ion chromatography, is an analytical method in chemistry and biology.

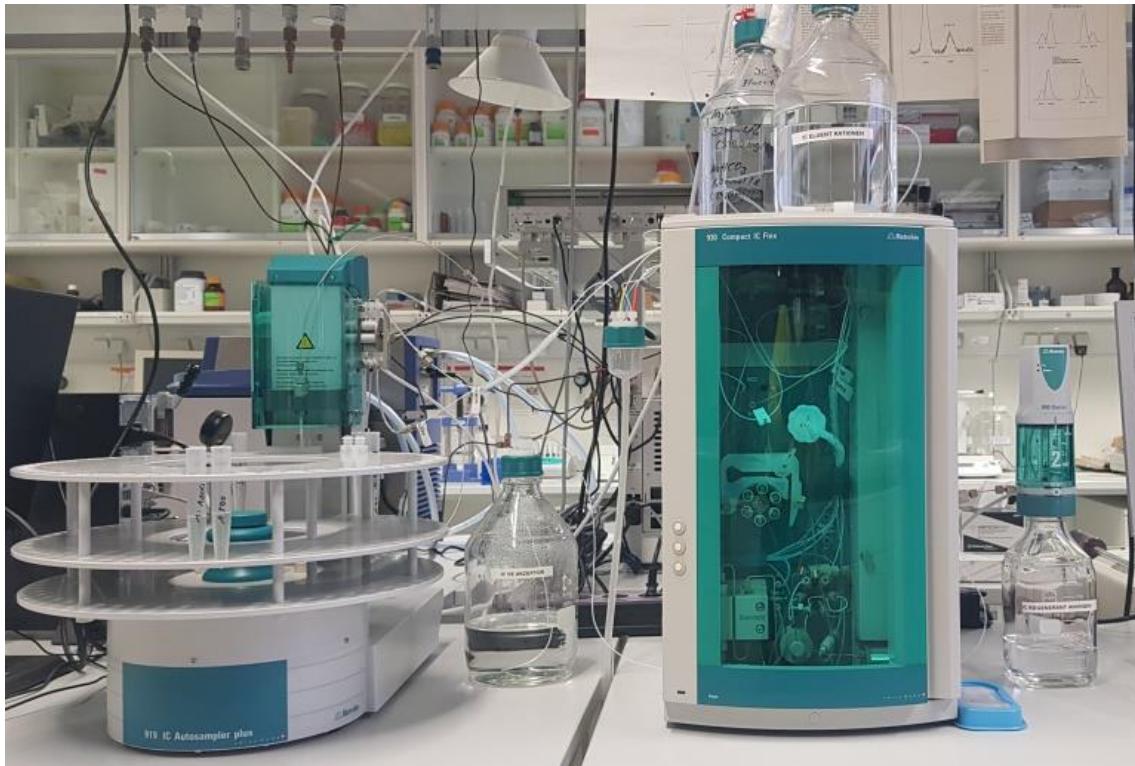
With the help of this chromatographic process, substances can be separated based on their charge. There are charged functional groups on a polymer matrix that have reversibly bound counterions (cations in the case of cation exchangers and anions in the case of anion exchangers). Anions, cations and organic acids can be determined in a wide variety of matrices

A detector is used for the qualitative and quantitative detection of the analytes. The conductivity detector is used most frequently.

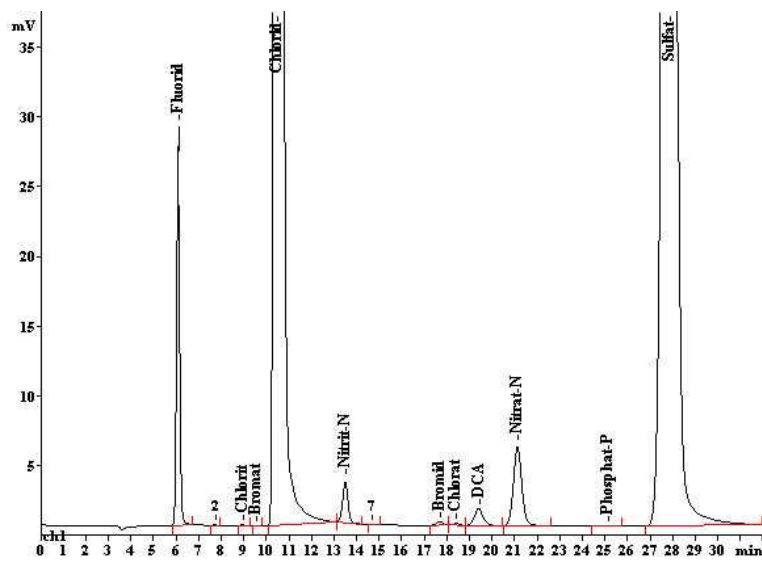
Since this is a relative method, a calibration must be carried out for quantification. The evaluation is usually carried out using special chromatography software, which also controls pumps, valves and suppressors.

### Equipment:

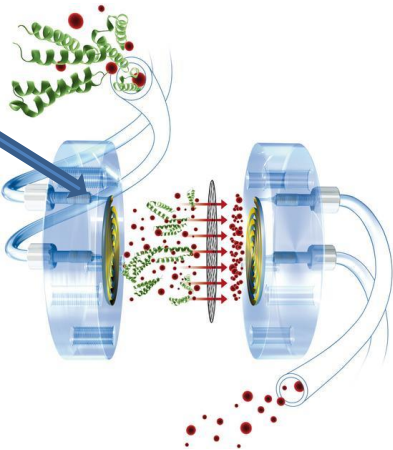
- 930 Compact IC Flex with sequential suppression
- Conductivity detector, column oven, vacuum degasser
- IC autosampler (flexible sample volume)
- IC equipment for inline dialysis with small volumes
- IC separation columns for anions (Metrosep ASupp5-250 plus guard column) and cations (MetrosepA Supp5-250 plus guard column)



930 Compact IC Flex / IC autosampler



chromatogram – anions



**Inline dialysis**