Ionchromatography

Schedule:

Week 1: The Principles of Chromatography, an introduction to Ion Chromatographic Analysis

Week 2: Theory of IC: Theoretical foundations and implementation possibilities of ion chromatography (IC).

Week 3: Column interactions. Stationary phases and their role in ion chromatography separation. Ion exchangers and their types. Cation and anion separation mechanisms.

Week 4: Mobile phases (eluents) and their role in ion chromatography separation

Week 5: Ion chromatographic detectors: types of applied detectors and their principles (conductometric, electroanalytical, MS and other detectors. The importance of suppression.

Week 6: Sample preparation skills

Week 7: Technical implementation of the IC

Week 8: Separation of anions and cations in one system, knowledge of dual apparatus

Week 9: Evaluation methods and their importance

Week 10: Practical examples: Determinations of anions and cations of natural water samples.

Week 11: Practical examples: Determinations of anions and cations of wastewater samples.

Week 12: Practical examples: Determinations of anions and cations of leachate samples.

Week 13: Practical examples: Evaluation of chromatograms.