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Principle

Ion chromatography, a form of liquid chromatography, measures concentrations of ionic species by separating them based on their interaction with a resin. Ionic species separate differently depending on species type and size. The ions in an eluent pass through a pressurised chromatographic column where ions are absorbed by column constituents, begin separating from the column. The retention time of different species and the continuous measurement of the eluent conductivity determines the ions and their concentrations in the sample.

Capabilities

- Determination of inorganic anions (F^- , Cl^- , SO_4^{2-} ...)
- Determination of inorganic cations (NH_4^+)
- Determination of anions of small organic acids (glycolate, formate, acetate...)
- Leachout tests for anions on ultrapure fluorinated polymers.
- Quantitative determination of total F, total Cl, in solid samples
- Study of HF and/or HCl released by thermal degradation of polymers

Assets

	Asset	Details
	Thermo Scientific Dionex Integrion HPIC INUVION	Double Ion Chromatography System with sample preparation
	Thermo Scientific Dionex AQUION ICS-1500	Double Ion Chromatography System with autosampler
	Heating furnace and reactor (out of order)	Equipment used in stream of nitrogen or air to study HF and/or HCl released by thermal degradation of polymers

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