

SAM-THE-030

Sample Preparation Part III. Extraction and purification

• Context

Target analytes contained in the analytical samples, as obtained after sample preparation (SAM-THE-020), are selectively extracted and purified from these samples.

• General objective(s)

The objective of this lecture is to review the main techniques available for residues and contaminants extraction and purification and to give some keys for their choice /combination according to the chemical properties of the target analyte. Classical extraction/purification protocols as well as up-to-date techniques will be exposed.

• Main items

Liquid-Liquid Extraction / Liquid-Liquid Partitioning / Automated Solvent Extraction / Microwave Assisted Extraction / Supercritical Fluid Extraction / SPE / IAC / MIP

• Pedagogical objectives

- ✓ To cite several extraction/purification techniques applicable for residues and contaminants analysis
- ✓ To cite the principles of the main extraction / purification protocols
- ✓ To discriminate in between selective and non-selective purification tools

• Pedagogical tools

- ✓ Slide show

• Duration

2,5 hours

• Pre-requisite

- ✓ Knowledge of the chemistry of residues and contaminants of interest (REG-THE-010)
- ✓ Knowledge of a global strategy to apply when faced with a target compound to be extracted and purified from a particular matrix (SAM-THE-010)