INDUCTIVELY COUPLED PLASMA OPTICAL EMISSION SPECTROMETER

Model:
Optima 2100-DV PERKIN-ELMER

Features:

- **Measuring range: 160 - 900 nm**
- **Measurement resolution >0.009 nm - 200 nm.**
- **Allows the introduction of samples with aqueous or organic matrix.**
- **Nebulizer resistant to concentrated acids (50% HCl, 20% HF, etc.).**
- **Detection limit: 0.0001÷ 0.02 mg/L**

Investigations/Results:

- Quantitative determination of minority and majority elements in various matrices (inorganic, organic).
- Detected elements: all elements, except: actinides, H, O and elements from groups VIIA, VIIIA.

Opening hours: Mon-Fri between 9 am – 4 pm

Contact:

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Terms of use:

- In order to carry out the analyses, prior programming is required.The measurements will be performed taking into account the occupancy degree of the equipment. Analysis are performed in order of requests and are done only by qualified personnel, based on specific protocols.
- To keep the equipment in good working conditions, it is important to know the nature of the samples brought for analysis. Solid samples require additional solubilization operation.
- On request, based on the results, analysis bulletins are drawn up, more complex interpretations can be made that can be used for publication in journals. The results are sent by e-mail.

THERMOGRAVIMETER WITH SIMULTANEOUS SIGNAL MEASUREMENT OF DTA-1600 COUPLED WITH FTIR SPECTROMETER

Model:

* Thermogravimeter TGA/ SDTA851 (Mettler Toledo)

* DSC 827 cell (Mettler-Toledo)

* Connection interface to NICOLET 6700 FTIR Spectrometer (Thermo Scientific)

Particularități:

- Temperature range:
  $25 \div 1600^0$C (DTA); - $65 \div 600^0$C (DSC)
- Controlled atmosphere:
  inert gases (Ar, N2), reactive gas (air);
- FTIR spectral range: 4000-350 cm^{-1};
- The spectral library (>10000 spectra) also includes the gas phase processed through the TGA-IR module.

Investigations/Results: Glass transitions; Crystallinity; Melting behavior/temperature; Assessment of material purity; Phase transitions; Polymorphism; The study of reactions in the solid state; Kinetic; Specific calorific capacity; Composition; Stoichiometry of reactions; Thermal stability/decomposition; Adsorption/desorption processes; The influence of reactive gas; Structural information of materials (solid, liquid); Quantitative analysis; Purity of synthetic substances; Identification of polymorphic phases; Monitoring of chemical transformations; Analysis of released gases

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- To keep the equipment in good working order, it is important to know the nature of the samples brought for analysis. Solid samples must be in the form of a fine powder.
- On request, based on the results, analysis bulletins are drawn up, more complex interpretations can be made that can be used for publication in specialized magazines. The results are sent by e-mail.