

## 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÷1600<sup>0</sup>C (DTA); - 65÷ 600<sup>0</sup>C (DSC)
- Controlled atmosphere:  
inert gases (Ar, N<sub>2</sub>), reactive gas (air);
- FTIR spectral range: 4000-350 cm<sup>-1</sup>;
- 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

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

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### Terms of use:

- In order to carry out the analyses, prior programming is required that will take into account the degree of occupancy of the devices. Analyzes are performed in order of requests only by qualified personnel, based on specific protocols.
- 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.