

## Simultaneous thermal analysis (TGA/DSC) with autosampler and connection to FTIR cell

### Description/Parameters

The simultaneous thermal analyzer (TGA/DSC) equipped with an autosampler and connected to an FTIR cell enables comprehensive investigation of the thermal properties and decomposition processes of materials, including identification of evolved gases. The instrument is suitable for analyzing mass changes (TGA) and thermal effects (DSC), such as decomposition, oxidation, phase transitions, and determination of melting and glass transition temperatures.

Thanks to the coupling with FTIR spectroscopy, gases released during heating (e.g., CO<sub>2</sub>, H<sub>2</sub>O, organic compounds) can be qualitatively analyzed in real time, providing detailed insight into degradation mechanisms.

- Maximum temperature: 1500 °C
- Heating rate: 0.1 to 50 °C/min
- Atmosphere: N<sub>2</sub>, O<sub>2</sub>, He, and their mixtures
- Sample capacity: up to 200 mg
- Balance sensitivity: 0.2 µg
- Autosampler for 20 samples
- Interchangeable specialized furnace for operation with corrosive and reactive gases (HCl, H<sub>2</sub>S, H<sub>2</sub>)

### Utilization/Services

Material analysis.

