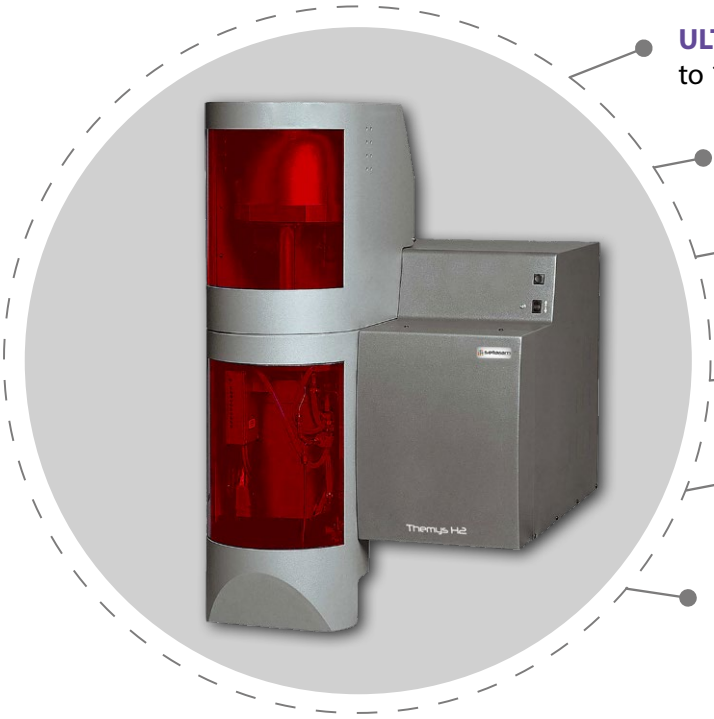
# THEMYS H2



**ULTRA-HIGH TEMPERATURE CAPABILITY**
to 1750°C with a single furnace

**MULTIPLE BUILT-IN SAFETY SYSTEMS**
for instrument and user's secured operations

**HIGH ACCURACY & VERSATILE**
hang-down symmetrical beam balance specifically designed for TGA applications

**EXTERNAL COUPLING CAPABILITY**
to 1000 °C with Mass Spectrometers

**ACCURATE AND SENSITIVE**
Tri- Couple DTA and DSC technologies up to 1000°C

**VERY HIGH TEMPERATURE DTA**
technology up to 1750°C

| GENERAL | DTA | DSC | TGA | TMA |
|---|---|---|---|---|
| **Temperature range (°C)** | Ambient to 1 750 | Ambient to 1 000 | Ambient to 1750 | Ambient to 1750 |
| **Programmable heating rate (°C/min)** | 0.01 to 100 | | | |
| **Crucibles volumes or maximum sample size** | 30 to 300 µl | 80 to 100 µl | 55 to 2 500 µl or Height: 20 Diam: 14mm without crucible | Height : 20 mm Diam : 10 mm |
| **Gas flow** | 1 carrier gas flow among 3 connected including a specific H2 line + 1 auxiliary gas flow, 2 MFC, safety system including O2 and H2 detectors | | | |
| **Vacuum** | Forced primary (< 5.10-2 mbar), hydrogen resistant vacuum pump | | | |
| **MEASUREMENTS** | **DTA** | **DSC** | **TGA** | **TMA** |
| **Measuring range** | | | +/- 20 mg<br>+/- 200 mg | +/- 2 mm |
| **Maximum loading capacity** | 35 g | | | |
| **Resolution** | 0.4µW | 1µW | 0.002 µg<br>0.02µg | 0.2 nm |
| **Measurement precision** | Enthalpy 1.4%[b,c] | Enthalpy 0.9%[b] | +/-0.06%[d] | +/-0.08 $10^{-6}$/°C[e] |
| **Temperature precision** | 0.35°C[b,c] | 0.7°C[b] | | |

*[a]µV=microvolts, values in mW depend on the type of rod used; [b]based on metal standard melting; [c]if calibrated; [d]based on standard material decomposition; [e]based on thermal expansion measurement of sapphire standard.*