CALVET

HIGHEST HEAT MEASUREMENT ACCURACY
Calvet 3D sensor based on thermocouples with Joule effect calibration

ISOTHERMAL OR TEMPERATURE SCANNING MODES
for increased flexibility and replication of real life conditions

CONVENIENT INTERCHANGEABLE CRUCIBLES AND CELLS
to perform even the most demanding experiments using one instrument :
- high pressure (up to 1000 bar) and high vacuum
- pressure measurement and control
- mixing/stirring experiments

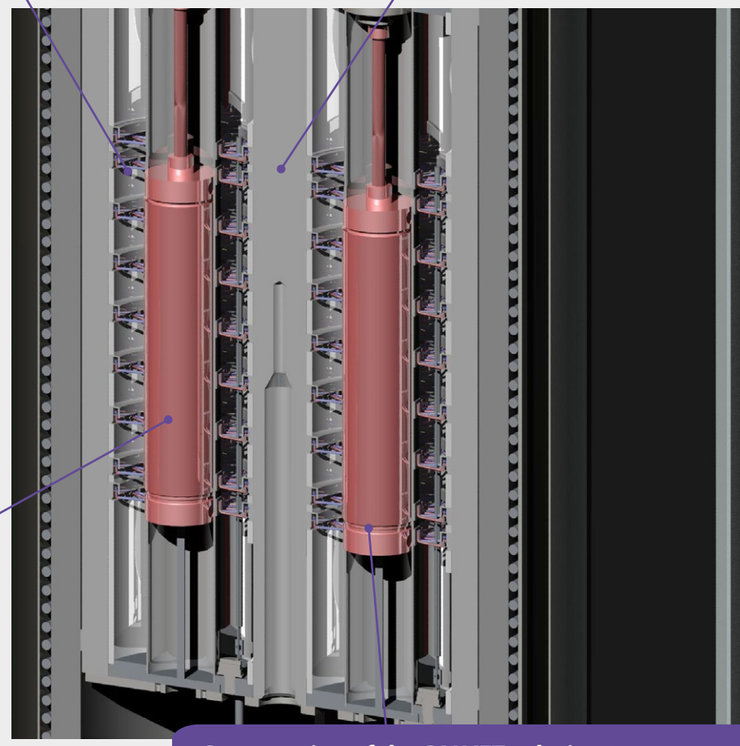
EXTERNAL COUPLING CAPABILITY
designed to increase your research options including manometry, BET instrumentation, gas analyzers, humidity controllers and gas panels

TEMPERATURE	CALVET
Temperature range (°C)	Ambient to 300
Temperature accuracy (°C)	+/- 0.3*
Temperature precision (°C)	+/- 0.15*
Programmable temperature scanning rate (°C/min)	0.001 to 2
HEAT & HEAT FLOW	
Enthalpy accuracy (%)	+/- 0.4*
Calorimetric precision (%)	+/- 0.4*
RMS noise (µW)	1
Resolution (µW)	0.1
Dynamic Range (mW)	+/- 660; +/- 2 000
GENERAL	
Cells volume (ml)	Up to 12.5 (standard cell)
Pressure measured and controlled (bar [psi])	350 [5,075]; 600 [8,700]; 1000 [14,600]
Weight (kg)	30
Dimensions (Height/Width/Depth)	60/25/31 cm 23.6/9.8/12.2 inch
Power requirements	230V-50/60 Hz

** Based on indium melting tests*

The 3D sensor of CALVET is composed of 2 cylindrical thermopiles: each has 9 concentric rings, and each ring contains 19 thermocouples (171 in total). Each thermopile totally surrounds either the sample or the reference zone to **measure heat in all directions**.

CALVET is based on a highly robust calorimetric block, controlling the measurement zone at **a constant temperature or heating rate,** between room temperature and 300 °C.



Cross section of the CALVET calorimeter

The sample, within a measurement cell, is placed directly into the center of the measurement zone.

The cell can be a simply closed cylinder, or equipped with tools for mixing and stirring, pressure measurement and gas or liquid flow.

Cells and tools are made of temperature and corrosion resistant metals and polymers.

New cells can be designed and configured to suit your application.

Specific cells are designed **to couple CALVET with other analytical tools like sorption analysis instruments (Sievert's, BET), or atmosphere control systems** (FLEXI-WET humid gas controller, FLEXI HP).