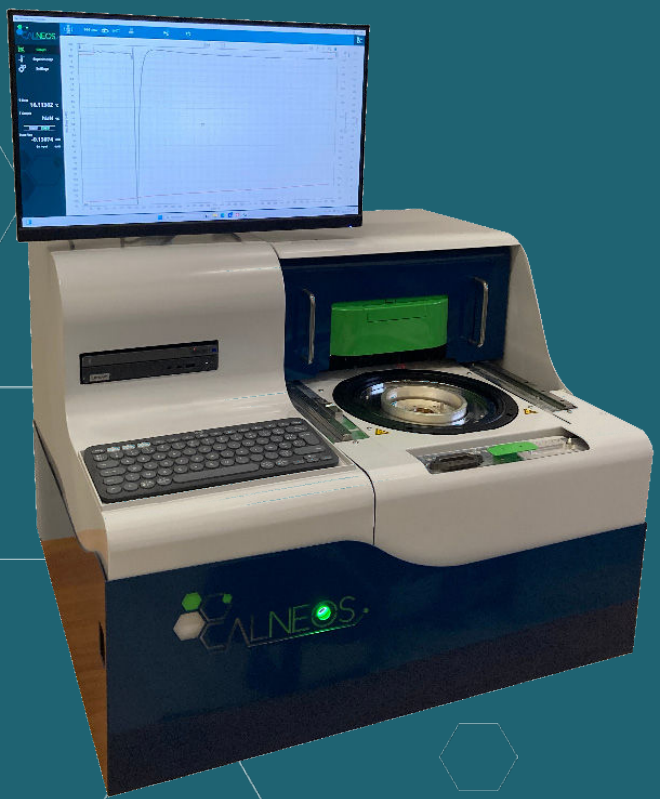
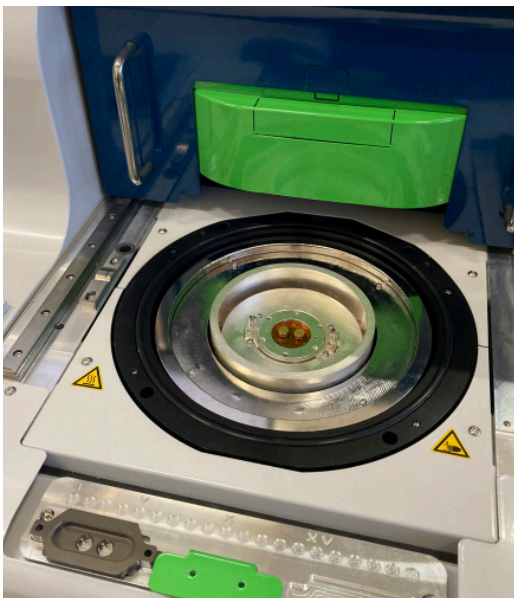
CALNEOS

ULTIMATE DSC – LT

The only low–temperature DSC without cooling



ULTIMATE DSC– LT : THE NEW ERA OF LOW–TEMPERATURE DSC STARTS HERE



Ultra–sensitive

High performance

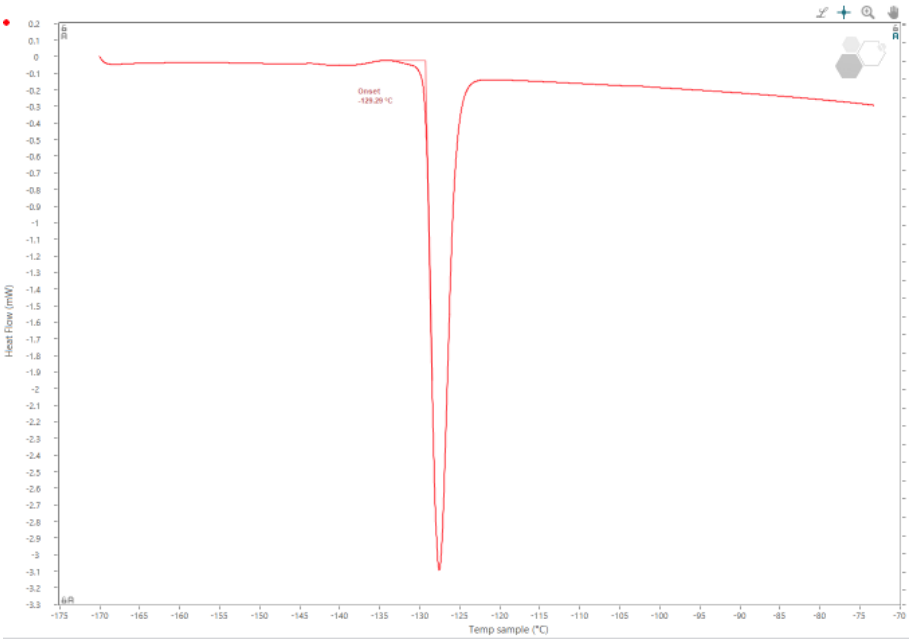
Ultra simple

The revolutionary Ultimate DSC - LT sensor is the result of patents from one of the most prestigious DSC sensor research laboratory. Its remarkable, unrivalled performance makes it the most sensitive device on the market.

Thanks to its exclusive cooling system, unique on the market, the Ultimate DSC pushes back the limits of science. Now you can start your tests at temperatures as low as -170°C, without the use of liquid nitrogen.

A technological breakthrough that opens the door to a new world of experiments and possibilities.

MELTING OF METHYLCYCLOHEXANE



WORKING PRINCIPLE

AN INNOVATIVE SYSTEM FOR SUB-AMBIENT TEMPERATURES: STIRLING CRYOCOOLER.

To reach temperatures of -170°C without consuming liquid nitrogen, the Ultimate DSC-LT uses a Stirling cryocooler device. This type of device uses mechanical oscillation to produce sufficient cold power to cool the Ultimate DSC-LT temperature control system.

The Ultimate DSC-LT is cooled down to -170°C without LN2.

The Stirling cryocooler device delivers cooling power to a cooling plate specifically designed to cool the oven volume of the Ultimate DSC-LT. Thanks to this device, the Ultimate DSC-LT can regulate the temperature from -170°C without any time constraints (it can work both in isothermal or in ramp mode).

APPLICATIONS

The Ultimate DSC-LT offers revolutionary performance for materials characterisation.

In many materials characterisation applications, reaching sub-ambient temperatures is essential, particularly for :

- Determining glass transitions in **amorphous materials.**
- The analysis of **solid-solid phase transitions**, particularly popular in pharmaceutical applications.

These studies often require restrictive cooling systems, with an almost systematic dependence on liquid nitrogen to go below -90°C, a limit imposed by the cooling units of conventional DSCs.

With its **innovative cooling system**, the UDSC-LT is revolutionizing the field by overcoming this limit and completely eliminating the need for liquid nitrogen. Give your research unprecedented precision and simplicity.

SPECIFICATION

Temperature range _____ from -170 up to +50°C

Scanning ramp _____ 0,001 up to 3°C/min

Precision of regulation _____ 100µ°C

Sample volume _____ 10 to 100µL

Capteur sensor _____ high sensitive patented sensor

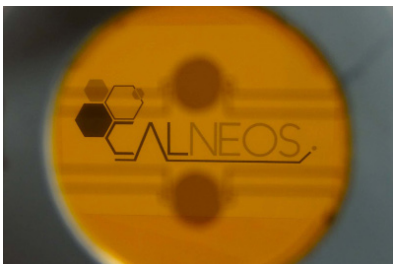
Sensitivity _____ at 0°C, 700 µV/mW
at -150°C, 300 µV/mW

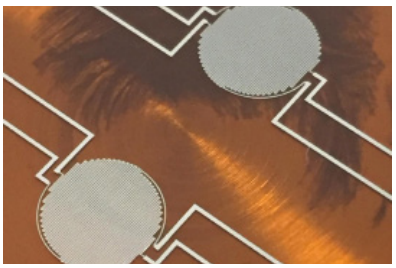
Dimensions _____ L*d*h = 710*650*550 mm

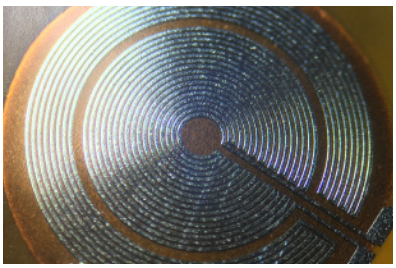
ULTIMATE DSC – LT

Unique advantages

Exceptional sensitivity at very low temperatures :
up to 300 µV/mW.
- Isothermal down to -170°C possible
- Simplified operation : **no need for LN2.**
- high throughput with autosampler capability.







CONTACT

There's nothing like a trial to convince you: send us your samples!!

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