

By Setaram

New parts and options for TGA, STA and TMA

SETSYS Evolution

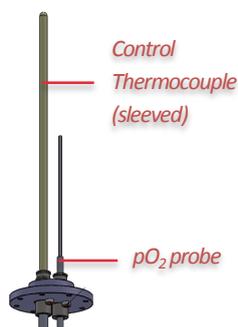
SETSYS Vapor Sorption

A new SETSYS Evolution TGA or STA version is available for studying the sorption behavior of materials with vapors (including volatile organic compounds). This allows for sorption isotherm or sorption kinetics experiments.

Find out more by downloading TN707 from our application documents library at www.setaram.com.

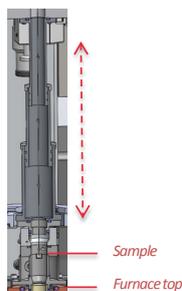
Oxygen Partial pressure

This option allows for the measurement and control of oxygen partial pressure of the gas flowing above the sample. This is especially interesting when studying the phase diagrams of ceramics. An oxygen partial pressure controller is placed upstream of the test gas inlet. A specific flange equipped with an oxygen probe is connected at the furnace outlet.



Quenching / Fast heating

This option allows the sample to be inserted in, or removed from, the hot zone of the furnace during a measurement. The insertion and removal is programmed from the Calisto software.



Oxygen Trap

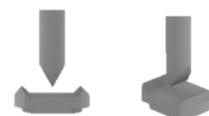
A gas purification system is available to remove trace oxygen from the inert / carrier gas flow. It is based on a zirconium foil placed in a slot in the hot part of the anti-convection tube above the sample.

Protected thermocouple

An alumina sleeved protected thermocouple was designed to prevent corrosion/damage from the gases evolved from the sample. It is available with or without the above mentioned oxygen probe. Various thermocouples types are available up to 1750 °C.

High temperature bending for TMA

A graphite-based, high temperature, 3-point bending accessory is available for work up to 2400 °C+.



Hook for disc shaped samples

Platinum based hooks which allow hanging of disc-shaped samples to the balance are available. Sample diameters vary between 10 and 16 mm.



New ceramic crucibles

Yttria and Yttria Stabilized Zirconia (YSZ) crucibles for TG-DSC and TG-DTA versions, with optional covers are available. The crucible's volume is 100 μ l, diameter 5 mm and height 8 mm.

LABSYS evo

Controlled vacuum option

This option allows for operation under controlled vacuum. One can manually set a controlled pressure down to 30 mbar. Evolved gas analysis by MS coupling is possible at the same time.

Quartz crucibles

DSC or DTA crucibles made of quartz are available. The crucible's volume is 100 μ l, diameter 5 mm and height 8 mm.

Large volume crucible

A large volume 1000 μ l (1ml) alumina crucible, diameter 8 mm and height 27 mm, is available for TGA experiments.

SENSYS evo

Secondary Vacuum

This solution consists of silica tubing connected to a turbomolecular pump via a computer controlled solenoid valve. The vacuum level is measured by a Pirani gauge and acquired by the software.

Crucible, pierced lid

Aluminum crucibles are available with pierced lids to work in TG-DSC mode, along with silica or inconel tubing options, allowing heat of evaporation measurement. The crucible volume is 90 μ l, diameter 4 mm and height 11.3 mm.

SENSYS evo TGA only

A cost effective SENSYS evo TGA was designed without the standard DSC function. Operation remains between -120 and 830 °C.

96 line

Pierced alumina crucibles

Alumina based crucibles pierced with numerous orifices to improve sample / gas interactions are available. 18 ml and 4.5 ml versions are available.

FTIR coupling

A heated MS or FTIR 200 °C coupling was designed for the TG96 line.



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