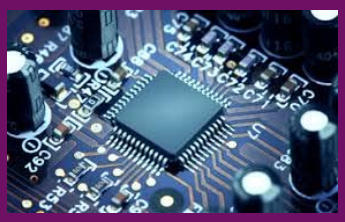


TGA N-1000/1250/1500

Thermo Gravimetric Analyzer

Description

The SCINCO's TGA Series (Thermogravimetric Analyzer) measures mass changes as a function of temperature or time. The system allows for multiple heating, cooling, and isothermal segments to be linked together to achieve a complex profile. (Automatic gas switching is also supported during the temperature program.) The vertical hangdown design offers stable and smooth mass readings to be recorded during the experiment. The TGA's small mass furnace responds quickly to changes in the temperature profile and cools down quickly for fast turn around between experiments. Typical analysis for the TGA includes percent mass loss, onset temperature calculations and residual mass.

The TGA utilizes the advance easy-to-use software. The acquisition program sets up the experiment and plots the real time data. The Analysis program performs all calculations and provides hard copy outputs.

Applications

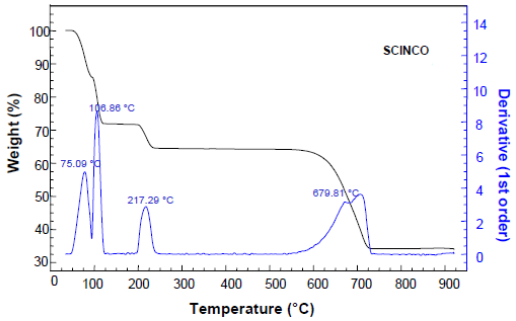
- Thermal Stability
- Pyrolysis
- Oxidation
- Dehydration
- Decomposition
- Kinetics
- Combustion
- Moisture
- Residue or Ash
- Research
- Quality control

Difference

The SCOINCO's TGA Series utilize a small micro furnace with a very small swept volume. This allows for rapid heating rates and excellent atmosphere control. The dual purge system allows for quick gas switching and is plumbed in full stainless to keep Oxygen out of the system. A variety of TGA pans gives the user a choice of sizes and materials to best suit the materials being tested. The proprietary micro balance is very stable and has excellent precision making for smooth high resolution weight results.

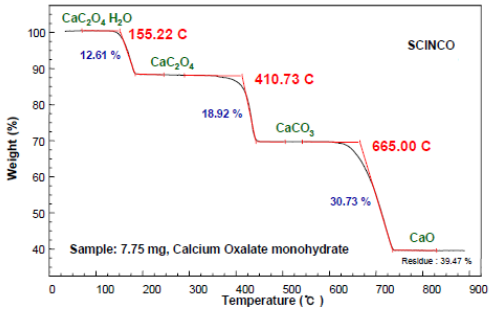
Copper Sulphate Pentahydrate

Blue hydrated copper sulphate is a very well known material and has been used to demonstrate many thermal techniques. The graph shows a mass loss starting below 100 °C, closely followed by a further loss up to 110 °C.



Decomposition of Calcium Oxalate Monohydrate

Calcium Oxalate monohydrate, $CaC_2O_4H_2O$, loses all its water around 200 °C and remains stable as CaC_2O_4 until just above 400 °C at which point it decomposes to calcium carbonate, $CaCO_3$. And it slowly decomposes to CaO which remains stable until its melting point at 2614 °C.

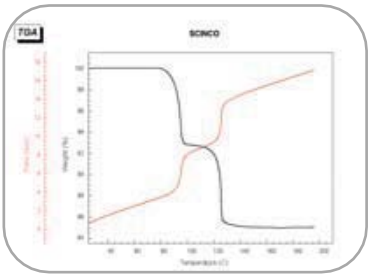


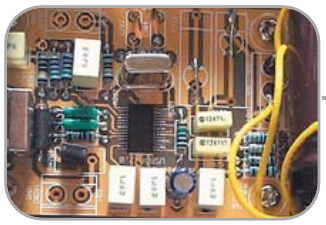
Key Features

● **Balance**
- High sensitivity micro balance

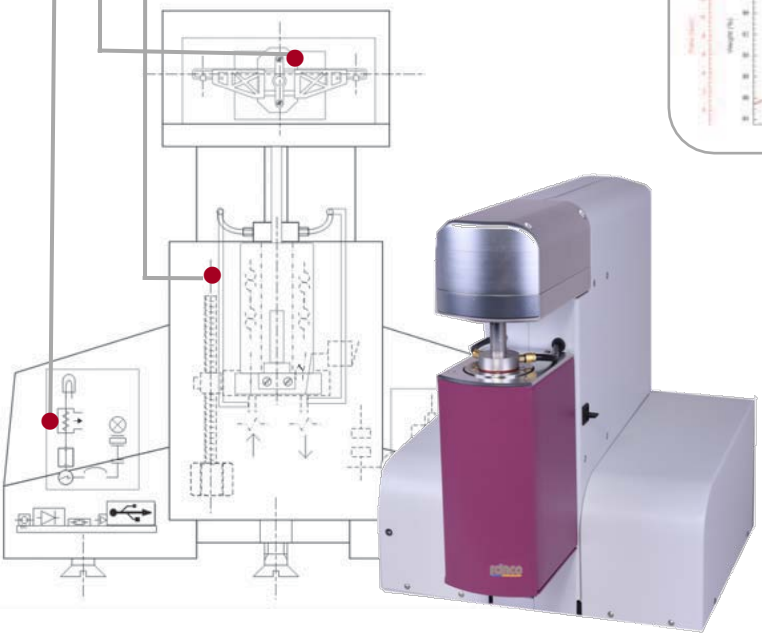
● **Furnace**
- Motor driven
- Water cooled type for high speed cooling and safety of electronics
- Fast sample turn around
- Corrosion resistant system
- Small swept volume

Options
- Automatic GSA (Gas Switching Accessory) up to 4 gases
- Step ISO software
- Heated transfer line and controller for EGA





● **Facilities**
- Very easy to operate
- 24 bit USB interface
- Easy sample loading
- Evolved gas analysis available
- Dual PID loop



Specifications

Model	TGA N-1000	TGA N-1250	TGA N-1500
Temperature range	Ambient to 1000 ℃	Ambient to 1250 ℃	Ambient to 1500 ℃
Programmed Rate	0.1 – 300 ℃/min	0.1 – 60 ℃/min	0.1 – 60 ℃/min
Mass range	400 mg	400 mg	400 mg
Sensitivity	0.1 μg	0.1 μg	0.1 μg
Thermocouple	Type K	Type K	Type R
Furnace	Nichromel	Kanthol	Platinum Rhodium
Dimensions	535mm (W) x 390mm (D) x 470mm (H)		

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