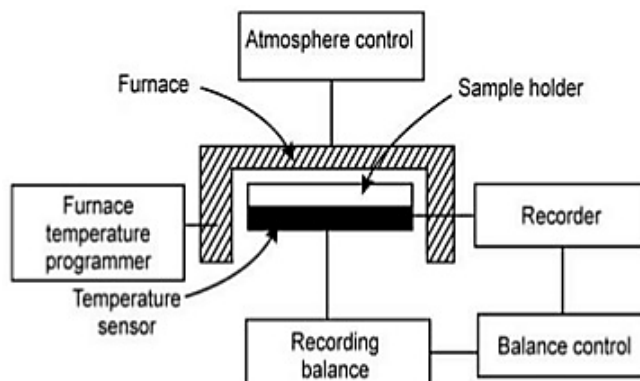
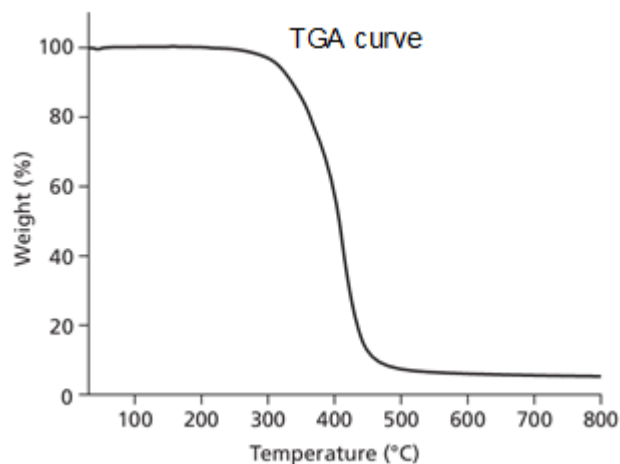


Thermogravimetric Analyzer

Thermogravimetric Analysis is a technique in which the mass of a substance is monitored as a function of temperature or time as the sample specimen is subjected to a controlled temperature program in a controlled atmosphere. Thermogravimetric Analyzer (TGA) is used to characterize materials used in various environmental, food, pharmaceutical, and petrochemical applications. The TGA 4000 is designed with a compact ceramic furnace, which provides the temperature control you need for accurate results. It allows the sensitive measurement of weight changes as small as micrograms.



A TGA consists of a sample pan that is supported by a precision balance. The pan resides in a furnace. The temperature of the sample and the corresponding weight are taken while the furnace temperature is raised slowly during the experiment. A sample purge gas controls the sample environment. This gas may be inert or a reactive gas that flows over the sample and exits through an exhaust. The data collected from a thermal reaction is compiled into a plot of mass on the y axis versus temperature on the x-axis. This plot is referred to as a TGA curve.



TGA is useful for the following types of measurements:

- Compositional analysis of multi-component materials
- Thermal stabilities
- Oxidative stabilities
- Decomposition kinetics
- Moisture and volatiles content

For charging and staff in-charge information, please refer to the [charges for the use of instrument](#).