



## Description

ISI is proud to introduce our next generation high performance Simultaneous Thermal Analyzer, the **STA** with a 0.1 microgram balance resolution, advanced control algorithms and cutting edge design, the **STA** offers previously unavailable value in a high performance instrument. Our highly sensitive heat flux plate provides accurate and reproducible heat flow data along with simultaneous weight measurement during the entire experiment. The instrument is ideally suited for evolved gas analysis, with its low purge gas flow and excellent sample environment. The **STA** can be configured to meet all your specific thermal analysis testing needs.

The **STA** is controlled by the **Infinity Pro** Thermal Analysis software. This unique Windows based software offers a very simple interface with all of the features you need to analyze your thermal data. The **Infinity Pro** software is available for Windows 7 and Windows XP.

Model	STA 650	STA 1200	STA 1500
Temperature	-125C to 650C	Ambient to 1200C	Ambient to 1500C
Programmed Rate	0.1-100C/min	0.1-40C/min	0.1-40C/min
DSC Sensitivity	<1uW	<4uW	<4uW
TGA Range	400mg	400mg	400mg
TGA readability	.1ug	.1ug	.1ug
Thermocouple	Type K	Type R	Type R
DSC/DTA mode	Yes	Yes	Yes

# Simultaneous Thermal Analyzer STA

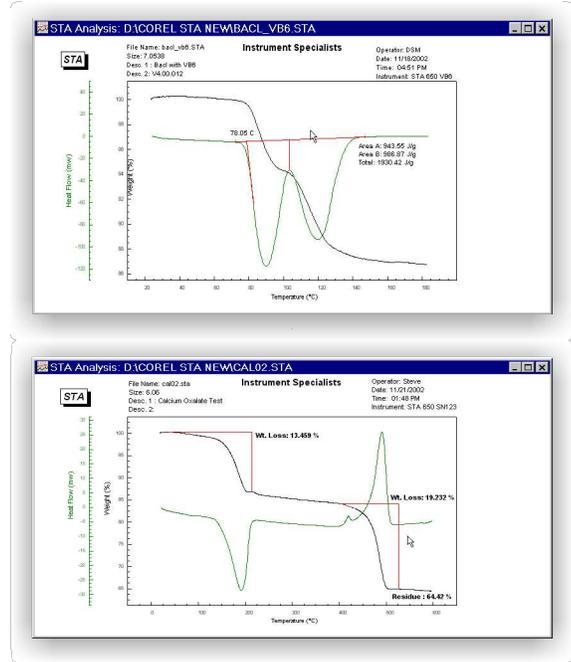
## Applications

### Barium Chloride

This is an example of a reference material that shows temperature and enthalpy accuracy. In addition this represents a good example of a fused peak analysis.

### Calcium Oxalate

Calcium Oxalate is an excellent demonstration material for both DSC and TGA. This sample was run in the presence of Oxygen. The first DSC peak has an associated weight loss and represents bound water.



## Hardware

- USB Interface
- 24 bit resolution on temperature, delta T and weight
- Vertical hangdown system.
- True simultaneous measurement of DSC and TGA
- Option to measure TGA only in a high capacity mode
- 3 furnace options 650C, 1000C, 1500C
- DSC and DTA , K or R type Hangdowns
- Small swept volume 7.5 ml (Furnace Cup)
- Dual purge system
- Motor driven furnace
- Evolved gas compatible
- Optional 4 gas selector system
- Direct sample measurement
- Multiple calibrations
- Water cooled furnace
- LN2 option for low temperature furnace
- Instrument Temperature range -125 to 1500 with optional furnaces.
- Infinity Pro software with advanced analysis features
- Multiple module operation
- Ability to run other manufacturers instruments on the same system.

## Materials

- *Polymers*
- *Chemicals*
- *Petrochemicals*
- *Polymorphs*
- *High temperature superconductors*
- *Ceramics*
- *Glasses*
- *Composites*
- *Metals including advanced engineering alloys*
- *Pharmaceuticals*
- *Catalyst Research*
- *Building Materials*
- *Propellants*
- *Explosive Research*
- *Electronic Components*
- *Coals & other fuels*
- *Catalysts*
- *Nuclear research*
- *Foodstuffs*

**Instrument Specialists Inc.**  
133 East Main Street  
PO Box 280  
Twin Lakes, WI 53181-0280 USA

Phone: 262-877-3600  
Fax: 262-877-3699  
info@instrument-specialists.com  
www.instrument-specialists.com