Description

The DTA Differential Thermal Analyzer measures temperature differences sample/reference as a function of Temperature or time. The thermocouples monitor the temperature differential between the sample and an inert reference as the sample undergoes a transition or reaction. This temperature differential is reported in differential temperature on the Y axis and temperature or time on the x axis. The Analyzer can be calibrated with reference standard materials for operation in the DSC mode. The design of the DTA systems lend themselves to the higher temperature applications. Its reproducibility is excellent and the signal to noise ratio is excellent due to precision electronics. Equipped with one of the DTA systems and the thermal analysis software, an analyst can measure transition enthalpies, glass transitions temperatures and more.

Features

- Two Temperature Ranges: 1200C and 1600C
- Windows software to control the analyzer, collect data, and calculate results.
- Reproducible high temperature furnace.
- Pt-13%Rh/Pt furnace thermocouple.
- A stable and reproducible baseline over the entire operating range.
- Up to ten program segments to program combinations of heat, hold, or cool cycles.
- Background data collection to free the computer for other uses.
- Alternate DSC mode of operation

DTA System

Specifications

Requirements
· Windows XP, 7 or 10.
· Windows compatible printer

DTA Systems
· Temp range:(DTA 160) typically Ambient to 1600 C
· Temp range:(DTA 120) typically Ambient to 1200 C
· Full dual PID control
· Differential sensors material: DTA 160 type R
· Differential sensors material: DTA 120 type K
· 10 temperature segments each has 1 ramp, 1 isotherm
· Heating and cooling rates of 0.1 - 40 degrees C/min
· Sample Vessels: Alumina or platinum
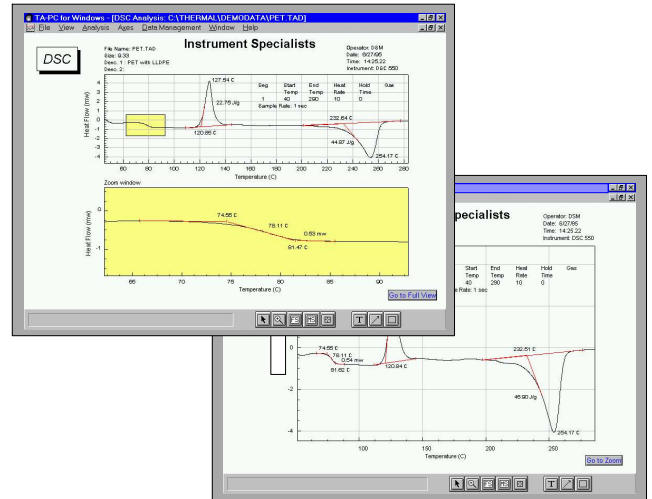
Software

- Real-time color display of data collection
- Auto and manual scaling
- Time vs. temperature profiles
- First and second order derivative plots
- Analysis save feature
- Background, simultaneous and multiple
- On-line help manual
- Individual segment display
- Annotation and drawing tools
- Copy to clipboard function
- Post Collection editing

- Multiple curve/module overlay
- Split screen zoom mode
- Quadratic temperature correcton
- ASCII export
- Data smoothing
- Baseline file subtraction
- Y-axis shift operation
- Subfile operations
- Custom display configuration
- User selectable units
- Quadratic Temperature & Ordinate correction

DTA Software Analysis

· Peak integration
· Onset and peak temperature determination
· Glass transition analysis
· Baseline slope correction
· Linear or sigmoidal baseline constructs
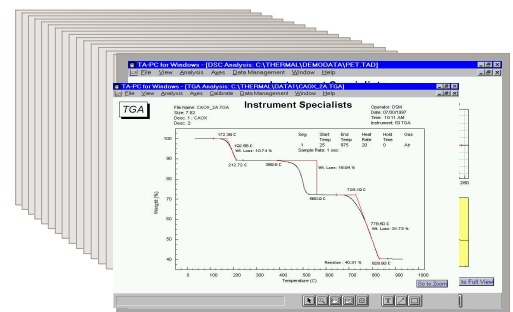
Specifications subject to technical change
DTAv1

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