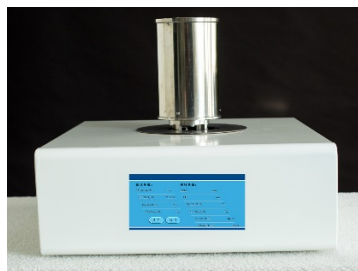


Differential Thermal Analysis (DTA)



DTA-1250

Overview

Differential thermal analysis (DTA) is a technique to measure the relationship between temperature difference and temperature between substance and reference substance under the temperature controlled by program. In DTA test, the change of sample temperature is caused by phase transformation or endothermic or exothermic effect of reaction. It mainly measures physical and chemical changes related to heat, such as melting point, melting heat, crystallization and crystallization heat, phase change reaction heat, thermal stability (oxidation induction period), glass transition temperature, oxidation or reduction reaction, lattice structure damage and other chemical reactions.

Main features:

1. The new fully enclosed metal furnace design structure greatly improves sensitivity, resolution and baseline stability.
2. The advanced alloy sensor, which is more corrosion-resistant, anti-oxidation and high sensitivity.
3. With advanced technology Cortex-M3 core arm controller, the operation speed is faster and the temperature control is more accurate.
4. USB two-way communication is adopted to realize intelligent operation.
5. The 7-inch 24 bit color full-color LCD touch screen is used to display the status and data of the instrument in real time.
6. Intelligent software design, automatic drawing of the whole process of the instrument, software can realize various data processing, such as calculation of enthalpy, glass transition temperature, oxidation induction period, melting point and crystallization of substances, etc.

Technical Specifications:

1. Temperature range: room temperature~1250°C
2. Range: 0~ ±2000 μV
3. Heating rate: 0.1~80°C/min
4. Temperature resolution: 0.01°C
5. Temperature repeatability: ±0.1°C
6. DTA accuracy: 0.01 μV
7. Temperature control mode: temperature rise: programable control
Constant temperature: programable control
8. Curve scan: temperature rise scan
9. Atmosphere control: automatic switching of instrument
10. Gas flow: 0-200mL/min
11. Gas pressure: 0.2MPa

- 12. Display mode: 24 bit color 7 inch LCD touch screen display
- 13. Data interface: standard USB interface
- 14. Parameter standard: equipped with reference material, with one button calibration function, user can self calibrate temperature and enthalpy
- 15. Working power supply: AC 220V 50Hz Or custom
- 16. Power: 600W

Reference standards:

GB/T 19466.2 - 2004 / ISO 11357-2: 1999Part 2: Determination of glass transition temperature;
GB/T 19466.3 - 2004 / ISO 11357-3: 1999Part 3: Determination of melting and crystallization temperature and enthalpy;
GB /T 19466.6- 2009/ISO 11357-3 :1999 Part 6 Determination of oxidation induction time (isothermal OIT) and oxidation induction temperature (dynamic OIT) during oxidation induction period.