

DSC-40AE

Differential Scanning Calorimeter



High
Resolution



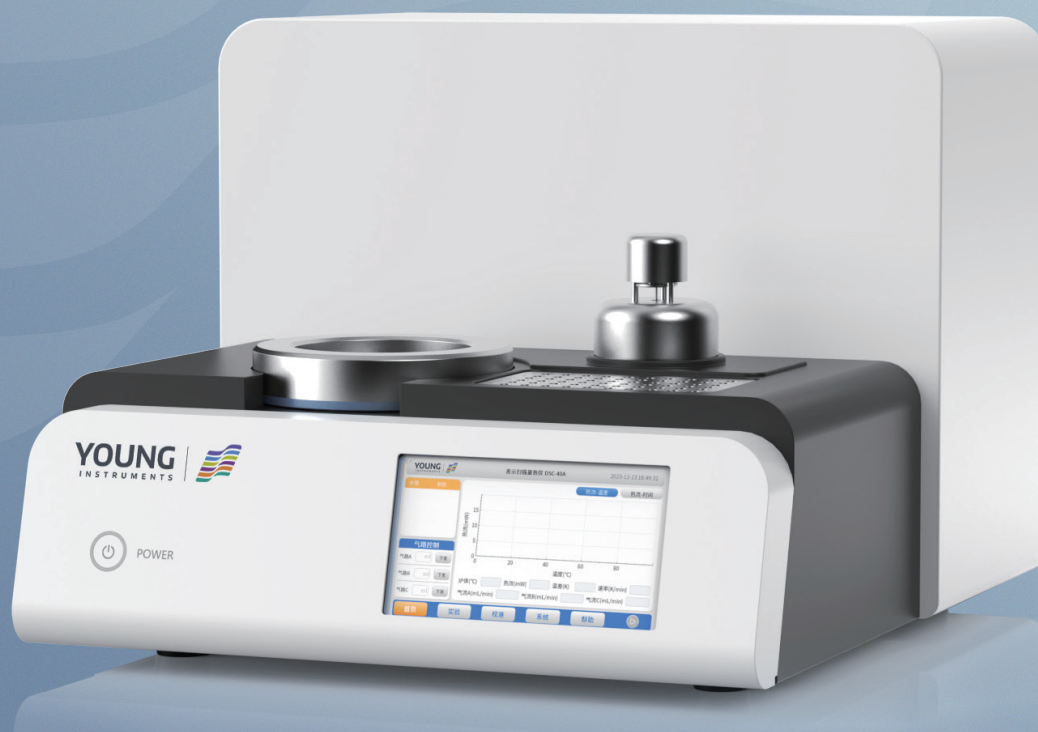
Sensitive Temperature
Control



Intelligent
Operation



Strong
Anti-Interference



The DSC-40AE is a high-performance thermal analyzer based on the tower-type heat flux principle, designed to accurately measure heat flow differences between sample and reference materials under controlled temperature programming. Utilizing milligram-scale samples, it delivers precise measurements of key thermal properties including specific heat capacity, glass transition temperature (T_g), melting point, enthalpy of fusion, reaction heat of thermosetting plastics, curing kinetics, and gel conversion rates.

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Product Features

- Utilizes proven tower-type heat flux technology to enhance instrument resolution and sensitivity.
- High-performance heat flux sensor with oxidation-resistant substrate enables superior sensitivity and dynamic response for precise micro-thermal detection.
- Silver furnace body ensures higher heat transfer efficiency and minimizes reference/sample interference.
- Features both heating and isothermal control modes.
- Includes DSC analysis functions: Onset Point, Start/End set Points, baseline, heat flow peak, Tg, peak area, enthalpy, peak temp, extrapolated temp, specific heat.
- 50Hz data acquisition frequency enhances sensitivity and resolution.
- Optimized structural design ensures reliable baseline stability and improved SNR.
- Equipped with HD touchscreen for intuitive operation.

Test Standards

- GB/T 22232
- GB/T 28724
- GB/T 19466
- GB/T 28723
- GB/T 13464
- ASTM E2253
- ASTM E793
- ASTM E794
- ASTM E1269
- JJG 936

Technical Specifications

Temperature Control Range	RT – 600 °C	Thermal Enthalpy Measurement Accuracy	± 1%
Heating Rate	0.1–200 °C/min	Heat Flow Display Resolution	0.1 μW
Temperature Rise Rate Deviation	Better than 1%	Heat Flow Peak-to-Peak Noise	9 μW
Phase Transition Temperature Accuracy	± 0.1 (In)	Indium Peak Height/Half-Width	15.0 mW/K
Phase Transition Temperature Precision	± 0.02 °C (In)	TAWN Sensitivity	3
Baseline Reproducibility	≤ 40 μW (without crucible)	TAWN Resolution	0.12
Thermal Enthalpy Measurement Precision	± 0.1% (In)	Heat Flow Measurement Range	± 750 mW

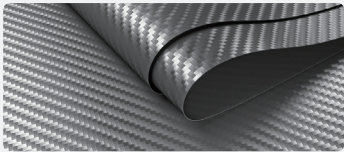
Application Fields



Polymer Materials



Biomedicine



Advanced Materials



Petrochemicals



New Energy

