

# DSC-40AE

## Differential Scanning Calorimeter



High  
Resolution



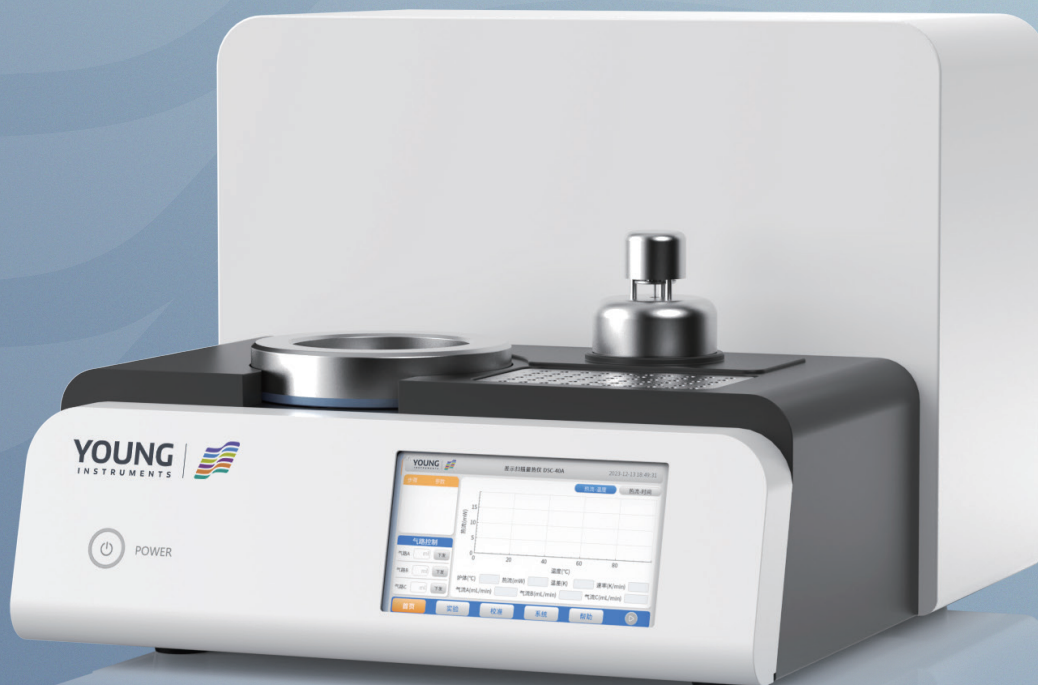
Sensitive Temperature  
Control



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

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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, T<sub>g</sub>, 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

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## Technical Specifications

Temperature Control Range	RT – 700 °C
Temperature Control Method	Heating, isothermal (RT – 400 °C)
Heating Rate	0.05 – 200 °C/min
Temperature Rise Rate Deviation	Better than 1%
Refrigeration Method	Air cooling
Phase Transition Temperature Precision	± 0.02 °C (In)
Phase Transition Temperature Accuracy	± 0.1 °C (In)
Baseline Stability	≤100 μW (100 – 300 °C, without subtraction)
Baseline Reproducibility	≤ 40 μW

Heat Flow Peak-to-Peak Noise	Better than 8 μW
Enthalpy Measurement Precision	± 0.08 % (In)
Enthalpy Measurement Accuracy	± 0.8 % (In)
Indium Peak Height/Half-Width	≥ 20.0 mW/K
Sampling Frequency	50 Hz
Heat Flow Measurement Range	± 750 mW
Gas Control Module	3 gas lines with switchable inert/oxidizing and static/dynamic atmospheres, 0 – 300 mL/min

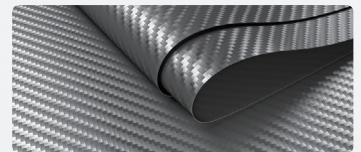
## Application Fields



Polymer Materials



Biopharmaceuticals



Advanced Materials



Petrochemicals



New Energy

