

# DSC - 3100

## Differential Scanning Calorimeter



EPCC / PRODUCTS / APPLICATION / SOFTWARE / ACCESSORIES / CONSUMABLES / SERVICES

**Analytical Technologies Limited**

An ISO 9001 Certified Company

[www.analyticalgroup.net](http://www.analyticalgroup.net)

## ►► Instrument introduction:

Differential scanning calorimeter (heat flow DSC) is a classic thermal analysis method of thermal effects under controllable program temperature. It is used in the research and development, process optimization, quality control and failure analysis of various materials and chemistry fields. It has been widely used in various occasions. Using the DSC method, we can study the phase transition of inorganic materials, the melting of polymer materials, the crystallization process, the polymorphism of drugs, the solid/liquid ratio of foods such as oils and fats.

## ►► Main features:

1. The new fully enclosed metal furnace body design structure greatly improves the resolution and resolution and better baseline stability. To
2. Using professional alloy sensor, it is more resistant to corrosion and oxidation, and the sensor has high sensitivity.
3. Perfect two-way atmosphere control system, precise control of purge gas flow, automatic switching of software settings, and data directly recorded in the database.
4. Using Cortex-M3 core ARM controller, the calculation processing speed is faster, and the temperature control is more accurate.
5. Using USB two-way communication, the operation is more convenient and supports self-recovery connection function.
6. Using 7-inch 24bit color full-color LCD touch screen, real-time display of the status and data of the instrument.
7. The instrument is equipped with standard materials, and users can calibrate each temperature section by themselves to reduce the error of the instrument.
8. Intelligent software design, automatic drawing of the instrument in the whole process, the software can realize various data processing, such as the calculation of enthalpy, glass transition temperature, oxidation induction period, melting point and crystallization of substances, etc.

## ►► Instrument use:

Measure physical and chemical changes related to heat, such as glass transition temperature, melting point, melting temperature, crystallization and crystallization heat, phase transition reaction heat, product thermal stability, solidification/crosslinking, oxidation induction period, etc. To

## ►► Technical parameters:

DSC range	0 ~ ±500mW
Temperature range	-50C ~700°C  (Constant temperature refrigeration)
Heating /Cooling Rates	0.01 °C...300 °C per minute
Temperature resolution	0.01°C
Temperature repeatability	±0.1°C
DSC noise	0.001mW
DSC resolution	0.001mW
DSC accuracy	0.001mW
DSC sensitivity	0.001mW
Temperature control method	heating, constant temperature  (full program automatic control)
Curve scan	heating scan
Atmosphere control	automatic instrument switching
Gas flow rate	0-200mL/min
Gas pressure	0.2MPa
Display mode	24bit color 7-inch LCD touch screen display
Data interface	standard USB interface
Parameter standard	Equipped with standard materials, with one-k  calibration function, users can calibra

	temperature and enthalpy by themselves
Power supply	AC 220V 50Hz or customized
Power	600W
Crucibles	<p>Single digit quantity each of <math>\text{Al}_2\text{O}_3</math>, Ag, steel, glass, Cu, Pt &amp; ceramic crucible of standard size.</p> <p>Minimum 500 number of Aluminium/Aluminium <math>\text{Al}_2\text{O}_3</math> crucibles and Sealing press device for aluminium crucible along with die.</p>
DSC Modulated Software And PC	<p>heat flow, reversing heat flow, non reversing heat flow of the sample and heat capacity.</p> <p>PC with suitable operating system and software for temperature modulate system, installed in it for measurement and analysis.</p>

## HPLC Servicing, Validation, Trainings and Preventive Maintenance :

**HPLC Servicing** :HPLC Servicing : We have team of service engineers who can attend to any make of HPLC promptly @the most affordable cost.

**Trainings** :We also take up preventive Maintenance to reduce downtime of HPLC's Trainings.

**AMC's/CMC** :AMC's/CMC :We offer user training both in-House and at customer sites on HPLC principles, operations, trouble-shooting.

**Validations** :Validations :We have protocols for carrying out periodic Validations as per GLP/GMP/USFDA norms.

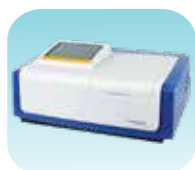
**Instruments** :Instruments :We offer instruments/Renting Services Modules like pumps,detector etc. on Rent.



## About Analytical Technologies

Analytical Technologies is synonymous for offering technologies for doing analysis and is the Fastest Growing Global Brand having presence in at least 96 countries across the global. Analytical Technologies Limited is an ISO:9001 Certified Company engaged in Designing, Manufacturing, Marketing & providing Services for the Analytical, Chromatography, Spectroscopy, Bio Technology, Bio Medical, Clinical Diagnostics, Material Science & General Laboratory Instrumentation. Analytical Technologies, India has across the Country operations with at least 4 Regional Offices, 6 Branch Offices & Service Centers. Distributors & Channel partners worldwide.

## Our Products & Technologies



UV/VIS  
Spectro 2080+  
Double Beam



Infra FTIR



Optima Gas  
Chromatograph  
3007



Optima Gas  
Chromatograph  
2979 Plus



Flash  
Chromatograph



Atomic Absorption  
Spectrophotometer



Liquid Partical  
Counter



Optical Emission  
Spectrophotometer



DSC/TGA



Semi Auto Bio  
Chemistry Analyzer



HEMA 2062  
Hematology  
Analyzer



Micro Plate  
Reader/Washer



URINOVA 2800  
Urine Analyzer



Total Organic  
Carbon 3800



Fully Automated  
CLIA



NOVA-2100  
Chemistry Analyzer



PCR/Gradient PCR/  
RTPCR



TOC  
Analyzer



Laser Particle  
Size Analyzer



Ion Chromatograph



Water purification  
system



## Regulatory compliances



## Corporate Social Responsibility

Analytical Foundation is a nonprofit organization (NGO) found for the purpose of:



**Analytical**  
**Foundation**

1. Research & Innovation Scientist's awards/QC Professional Award : Quality life is possible by innovation only and the innovation is possible by research only, hence ANALYTICAL FOUNDATION is committed to identify such personalities for their contributions across various field of Science and Technology and awarding them yearly. To participate for award, send us your details of research / testing / publication at [Info@analyticalfoundation.org](mailto:Info@analyticalfoundation.org)

2. Improving quality of life by offering YOGA Training courses, Work shops/Seminars etc.

3. ANALYTICAL FOUNDATION aims to DETOXYFY human minds,souls and body by means of yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Camps etc.

## Reach us @



 **Analytical**<sup>®</sup>  
Technologies Limited

HPLC Solutions   MultipleLabs   Analytical Bio-Med   Analytical Distributors   Analytical Foundation (Trust)

**Corporate & Regd. Office:**  
Analytical House, # E67 & E68,  
Ravi Park, Vasna Road, Baroda,  
Gujarat 390 015. INDIA

T: +91 265 2253620  
+91 265 2252839  
+91 265 2252370  
F: +91 265 2254395

E: [info@hplctechnologies.com](mailto:info@hplctechnologies.com)  
[info@multiplelabs.com](mailto:info@multiplelabs.com)  
[info@analyticalgroup.net](mailto:info@analyticalgroup.net)  
[info@analyticalbiomed.com](mailto:info@analyticalbiomed.com)

W. [www.analyticalgroup.net](http://www.analyticalgroup.net)  
[www.hplctechnologies.com](http://www.hplctechnologies.com)  
[www.multiplelabs.com](http://www.multiplelabs.com)  
[www.ais-india.com](http://www.ais-india.com)

Sales & Support Offices:  
across the country :  
Distributors & Channel  
partners World Wide

Note : Company reserves rights to add/delete/modify the contents / technical specifications of the catalogue without prior notice.