



Inter University Instrumentation Centre Mahatma Gandhi University



THERMAL ANALYSIS REQUESTION

Name of the Applicant :

Designation and institutional address :

Phone No. & E-mail :

Description of Sample :

Nature of the compound : organic inorganic composite

Presence of halogen : YES NO

Sl	Sample Name*	Sample Code (will be used as file name)*	TGA/DTA/ DSC*	Temp. range*	Decomposition temp.*	Expected decomposition products (specify nitrates, oxides etc if any)*
1						
2						
3						
4						
5						

*all fields are mandatory

Terms and Conditions:

1. The samples of thermal analysis should not contain any kinds of corrosive (halides, nitrates etc.) and explosive materials. If any damage occurs to the equipment, it will be the responsibility of the user to suitably compensate IUC for the same.
2. Potentially hazardous sample may not be accepted for analysis

(Tariff and instructions overleaf)

I/We agree to the above terms and conditions.

Date : Name/Signature of the applicant

Name/Signature of the Supervisor

For office Use

Signature of Analyst :
Due Date:

Permitted by :

Tariff for Analytical Work

Sl No.	Thermal Analysis	Charges* (Rs)		
		MG University Campus users	For researchers outside the campus from educational institution	For Industries
1	TGA-DTA up to 700°C	400	1200	2500
2	TGA-DTA above 700°C	850	2400	4800
3	DSC RT to 1300°C	950	2500	4000

Instructions

- *Charges applicable for heating rate 10-20 deg/min. Extra charges will be levied for slower rates.
- About 25 mg of sample is required for analysis.
- The samples may not be stored more than two weeks. Customers are requested to collect the samples in time. Any transit/handling charges should be borne by the user. We will not be responsible for any damage during transit.

Payment Details

- The payment is accepted through Demand Draft.
- For the analysis, *Payments are to be made only money transfer to*

Bank: State Bank of India

Branch: M. G. University Campus Branch

Account Name: Equipment Maintenance Fund (EMF-IUIC)

Account No: 67212747998

IFSC Code: SBIN0070669

Instrument Specifications (SDT Q600, TA instruments)#

System Design	Horizontal Balance & Furnace
Balance Design	Dual Beam [growth compensated]
Sample Capacity	200 mg [350 mg including sample holder]
Balance Sensitivity	0.1 µg
Furnace Type	Bifilar Wound
Temperature Range	Ambient to 1500°C
Heating Rate – Ambient to 1000°C	0.1 to 100°C/min
Heating Rate – Ambient to 1500°C	0.1 to 25°C/min
Furnace Cooling	Forced Air [1500 to 50°C in < 30 min, 1000°C in 50°C in < 20 min]
Thermocouples	Platinum/Platinum-Rhodium [Type R]
Temperature Calibration	Curie Point or Metal Standards [1 to 5 Points]
DTA Sensitivity	0.001°C
Calorimetric Accuracy/Precision	± 2% (based on metal standards)
Mass Flow Controller with Automatic Gas Switching	Included
Vacuum	to 7 Pa [0.05 torr]
Reactive Gas Capability	Included – separate gas tube
Dual Sample TGA	Included
Auto-Stepwise TGA	Included
Sample Pans	Platinum: 40 µL, 110 µL Alumina: 40 µL, 90 µL

#source: <http://www.tainstruments.com/q600/>