



तेजपुर विश्वविद्यालय / TEZPUR UNIVERSITY
(केंद्रीय विश्वविद्यालय / A Central University)
कुल सचिव का कार्यालय / OFFICE OF THE REGISTRAR
तेजपुर-784028 :: असम / TEZPUR-784028 :: ASSAM

CORRIGENDUM NOTICE

(ET-NIQ-.....3461.....DT-31/10/2019.....)

The technical specifications mentioned in the TechSheet uploaded in our NIQ No. ET-NIQ-3379-DT-25-10-2019 (**Tender ID: 2019_TEZU_514350_1**) is replaced with a Revised TechSheet. Bidders are requested to submit their Bid as per the Revised TechSheet.

Other Terms and Conditions of the NIQ No. **ET-NIQ-3379-DT-25-10-2019** (**Tender ID: 2019_TEZU_514350_1**) remain unaltered.

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30/10/19

Assistant Registrar (GA)
Tezpur University

Memo No: TU/11-24/Pur/Qtn(ET)/2019-20/ 3461

dated:- 31/10/2019

Copy for information to:

1. Webmaster, Tezpur University for uploading the notice in the website.
2. Dr. A.K. Phukan, Chief Coordinator, DST-FIST Programme, Department of Chemical Sciences, Tezpur University.
3. File

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20/10/19

Assistant Registrar (GA)

Technical Specifications cum Compliance Report
(To be submitted on Company's/Firm's Letterhead Signed and Sealed)

Item: DSC

Requirement/Specification		Complied (Yes/No)	Remarks if any;
Principle of operation	Heat Flux, System should provide raw data without mathematical treatment / deconvolution / smoothening / baseline correction		
Temperature range	(-150°C to +700°C in a single run & intra cooler should be serviceable in India.		
Furnace	Low mass single Furnace for rapid heating/cooling and resistant to corrosion made of Silver or similar.		
Temp. accuracy	+/- 0.2°C or better		
Temp. precision	+/- 0.03°C or better		
Heating rate	0.02 to 50°C/min or better		
Controlled Cooling rate	0.02 to 50°C/min or better		
Sensor	Should be non-composite to furnace made of Ceramic or similar, Chemical resistant, Corrosion resistant with multiple thermocouple made of Au-Au/Pd or similar		
Exchangeable type heat flow measurement offering low signal time constant 1 to 2 seconds or better.			
No need to recalibrate the system when using different heating rates or purge gases (inert to oxidizing atmosphere) in same experiment viz. OIT studies etc			
The sensor should not be an integral part of the furnace and the sensor should easily replaceable			
Resolution	0.04µW or better (Not digital)		
Sampling Rate up to 40 value /second or better			
Indium Peak height should be 12 or better			
Purge gas	Inert, reactive & static		
DSC Amplifier range	± 350mW or better		
Baseline Curvature	< ±10 µW (at -50 to 350 °C at 5°C/min) or better		
Enthalpy Precision	± 0.06% or better		
Baseline Repeatability	< ± 25 µW or better		
• Crucible	Twenty (20) packets of Aluminum Pan with lid. Each packet should contain 100 nos.		
Inbuilt Gas controller			
Software	Flexible calibration. No need to recalibrate in heating rate, crucible and gas change .		

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	Updated software for performing DSC Kinetics		
Data acquisition/processing system	Windows based software should enable automatic / manual on-line data acquisition and display of running measurements, Calibration. The multi-tasking software should facilitate storage of both raw DSC data as well as deconvoluted data in the form of standard DSC curves. The s/w should have the facility of choosing different baseline e.g line, tangential, horizontal, spline, Integral tangential, polygon line etc for correct evaluation/integration of peaks. Options for Baseline correction, data smoothing, plot expansion, Curve overlay unlimited, Font selection etc. should be provided. Storage of results in tabular form (ASCII format) should be facilitated. Software must be capable of automatic updation.		
Computer, Printer & UPS	Processor: Core i5 8th (Gen) or better (Preferred Brand Intel), Operating System: Windows 10 Prof, RAM: ≥ 4 GB DDR4, Cache Memory ≥ 3 MB, Graphics ≥ 2 GB, Display ≥ 23 inch, Storage ≥ 500 GB, Warranty ≥ 3 years, DVD drive: Yes, USB: 2 USB 3.0, 2 USB 2.0 Printer: Laser Jet (black & white) UPS: ≥ 1 KV (at least 30 minutes power back-up)		
Service Support	Factory trained Engineers kindly specify no's with their branch wise location		
Application Support	Application Lab in India with qualified personnel to assist in case of application related queries		
Warranty	≥ 3 years		

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Technical Specifications cum Compliance Report
(To be submitted on Company's/Firm's Letterhead Signed and Sealed)

Item: TGA

Requirement/Specification		Complied (Yes/No)	Remarks if any;
Operating temperature range	Room Temperature to 1100°C		
Temp. Accuracy	± 1°C or better		
Temp. Precision	± 0.4°C or better		
Heating rate	0.02 - 50 °C/min or better		
Cooling time	30 min from 1100°C to Ambient approx. 35°C		
Furnace design	Horizontal furnace to give stable weight signal with automatic opening/closing of furnace and easy sample loading		
Balance capacity	1gm		
Resolution	1µg		
Weighing accuracy	0.005 % or better		
Weighing precision	0.0025 % or better		
Balance Repeatability	<0.001 mg or better		
Typical Minimum Weight	0.19 mg or better with minimum 2 ring weights		
Micro Balance	Micro Balance weight change measurements should not be dependent on sample positioning (Parallel Guided Balance). Thermo stated & electrically heated balance housing having auto calibration facility with built-in-weights. Balance have the facility for external calibration with Certified weights. System does not require change of Tare pan while changing Crucibles. Should not be Tare pan dependent calibration. As a safety pre-requisite the Balance continuously purged with Protective Gas (N2)		
Calibration of Balance	Should have fully Automatic Calibration capability with built-in calibration weights. Facility to use certified external weights.		
Balance protection	Thermostated Water cooled to minimize environmental		

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		influence & rapidly cool the furnace as well as protective inert gas to protect the balance from undesired decomposition gases/products		
Resolution		1ug Resolution (Not Digital) for the entire 1gm range without range switching		
TGA Blank curve reproducibility Better than +/-10ug over the whole temperature range				
Temperature Calibration		To be performed easily using Curie point standards with a fixed external position for placing magnet. Magnet for Curie point calibration & Standards supplied with the instrument. System does not need recalibration when changing crucible, gases and heating rates. Software have suitable calibration database with automatic loading of the appropriate calibration set depending on pan and gas selected		
Reactive Gas inlet		Reactive gas inlet is to be close to the sample for introducing reactive and non-explosive gas/gas mixtures should be programmable thru Software and not separately introduced thru a Gas inlet tube		
Crucibles		20pcs of Flat bottom Alumina/Platinum crucibles- 70uL		
Software		Running on Latest Windows version. TGA software supplied as standard with the system. Software allows you to carry out measurements, Evaluations and Compose Methods. 1st / 2 nd Derivative Overlay of >10 TGA Curves simultaneously, Export of data in ASCII / TIF format etc. Updated software for degradation kinetic study. Flexible calibration: No need to recalibrate at change of heating rate, crucible and gas.		
EGA Option		Hyphenated TGA can up-gradable to MS/FTIR of any standard make for EGA techniques applications / requirements with same furnace		
Application Support		Application Lab in India with qualified factory trained personnel to assist in case of application related queries		
Warranty		≥ 3 years		

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