

ANNEXURE A

RFP UJ 60 2023 PROCUREMENT OF A SURFACE AREA AND PORE SIZE ANALYZER

Background:

The BET method uses a measurement of the physisorption of a gas to determine the specific surface area and pore size distribution for a solid sample (e.g., metal oxides, catalysts, pharmaceuticals, and carbon). The current instrument (Micromeritics ASAP 2020) is no longer in production, there is limited support available on the ASAP 2020. Some of the spares are instrument specific spares which is no longer in production. Our ASAP 2020 instrument is approximately 11 years old (delivered on 9 January 2012), while the useful lifespan of such an instrument is about 7 years.

SPECIFICATIONS:

Standard features		Comply / do not Comply	Comments
	Surface area (BET, NSA, STSA, and Langmuir), Pore Size (BJH, DFT) and Pore Volume analyses		
	4 x 40-point mesopore runs in under 8 hours.		
	4 degassing and 4 analysis stations (Independently controlled)		
	Vacuum and flow degassing capabilities at temperatures up to 425 °C		
	2L Liquid Nitrogen Dewar flask		
	Analysis Gases - N ₂ , Argon, CO ₂ , and other non-corrosive gases		
	Relative Pressure Range (P/P ₀): 10 ⁻⁴ to 0.999		
	Pressure Resolution: Absolute: 1.2 x 10 ⁻⁴ Torr Relative: 1.5 x 10 ⁻⁷ p/p ₀		
	Surface Area Reproducibility: 2 %		
	Lower Specific Surface Area Limit From 0.01 m ² /g		
	Pore Size Range - 0.35 - 500 nm (Diameter)		
	Comments		
	INSTALLATION AND COMMISSION		
	Delivery required to the point of operation.		
	The supplier is required to do installations and commissioning of the equipment.		
	The Supplier is required to provide training on how to use the machine.		
	The supplier should include the workstation, software, and applicable licenses for operation.		
Sub Total			
VAT			
Final Total			

Evaluation Criteria

'This tender will be evaluated in three (3) stages:

Stage 1: Tender Compliance

Stage 2: Technical / Functionality

Stage 3: Financial and B-BBEE (80/20)

Technical / Functionality Criteria

A minimum scoring of 70 points must be achieved to be evaluated further for financial and B-BBEE.

	Criteria	Maximum points obtainable	Comments
1	Compliance to product specification	70	
2	2 years' Service Plan and After Sale Service	10	
3	Equipment Warranty – The tenderer to submit a Equipment warranty (1-3) Year's	20	
	Total	100	

A minimum of 70 points is required by any tenderer in terms of the Stage 2

Stage 3: Financial and B-BBEE (80/20)