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# Name of the equipment: <u>BET Surface Area Analyzer:</u>

#### **Detailed specifications:**

BET surface area analyzer should be fully automated high -speed, surface area and pore size analyzer, vacuum volumetric, gas sorption system, high throughput, cost effective system tests one sample while degassing one sample and also should be built-in powerful microprocessor and it should make single and multipoint surface area analysis.

- Sample Volume Range: 0.1 135 cm<sup>3</sup>
- **Resolution:**  $0.0001 \text{ g/ cm}^3$

# Accuracy and Reproducibility:

- Large Sample Cell (135 cm<sup>3)</sup> Accuracy - better than +/- 0.02% Repeatability - better than +/-0.01%
- Medium Sample Cell (up to 50 cm<sup>3</sup>) Accuracy - better than +/- 0.03% Repeatability - better than +/ 0.015%
- Small Sample Cell (up to10 cm<sup>3</sup>) Accuracy - better than +/- 0.03% Repeatability - better than +/- 0.015%

Analysis Time: Less than 1 minute per run.

# Purge Modes:

1. Continuous flow with user selectable time; or

2. Pulse with user selectable number of pressurization/depressurization cycles; or

3. Vacuum for user selectable time with automatic valve configuration (vacuum pump supplied separately).

**Flow/Evacuation Rates:** User-selectable with precision needle valve.

Pressure Range: 1-20 psig

#### **Properties should be able to measure:**

- Internal surface area range: 0.1 m<sup>2</sup>/gm 1500 m<sup>2</sup>/gm and extendable up to 2500 m<sup>2</sup>/gm.
- Mean Pore Diameter ~20 nm
- Primary Particle Diameter 2-5 nm
- Pore distribution
- Pore volume

Quote all essential and optional accessories, software and computer.

Quote the all prices for the 1, 2, 3 & 4 analysis stations. Also quote the all essential accessories.

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