

FlowSorb III 2305 / 2310

Surface Area Analyzer

- *Ultra-stable detector eliminates drift and the need for constant readjustment*
- *Cold trap conveniently located in front vs. side placement, as in other instruments. This placement reduces the chance of breakage.*
- *Single injection calibration requires only one control setting. Adaptable to any non-corrosive adsorbate mix.*
- *All controls and displays are at eye/arm level, out of the spill zone*
- *Built-in sample preparation*
- *Rugged construction for day-in, day-out operation*



The FlowSorb III 2305 / 2310 provides single-point and multipoint BET surface area measurements with speed, accuracy, and reliability. Samples having surface areas from 0.01 m²/g to over 1,000 m²/g are easily accommodated.

The FlowSorb III's reproducibility is better than 0.5%. The FlowSorb III 2310 features a built-in Dewar elevator for completely automated analysis and rewarming fan for rapidly warming the sample tube to increase the speed of the sample analysis. Single injection calibration provides fast start-up and high sample throughput.

Specially designed sample holders can be attached and removed from the instrument with one hand. These quick connect/disconnects have a built-in isolation valve to prevent sample contamination.

The FlowSorb III 2305 features a Dewar support latch system that provides one-handed convenience and safe-guards against LN₂ spills.

Simple in design, the Flow-Sorb III requires minimal training time and leaves little chance of operator error.

Automatic mode switching for adsorption and desorption is accomplished without operator attention.

The low purchase price of the FlowSorb III and its accessories make this instrument one of the most inexpensive ways for a laboratory to begin measuring BET surface area.

Five different types of sample tubes, including a monolith type tube for large samples, are available.

Specifications

Applicability

Surface Area:	0.1 m ² (minimum) 280 m ² (maximum)
Specific Surface Area:	Approximately 0.01 m ² /g (minimum)

Accuracy / Reproducibility

Low Specific Surfaces:
Typically better than $\pm 3\%$ (single-point method);
 $\pm 2\%$ (multipoint method) reproducibility within
 $\pm 0.5\%$

Moderate-to-high Specific Surfaces:
Typically better than $\pm 2\%$ (single point method);
 ± 1.5 (multipoint method) reproducibility within
 $\pm 0.5\%$

System Capacity

Sample holder volume: 4.8 cm³; other sizes available

Degas System

Temperature Range:	Ambient to 350 °C
Selection:	Digitally set, 1 °C increments
Accuracy:	Deviation less than ± 10 °C of set point at thermocouple

Gases

Mixtures of helium with nitrogen, argon, krypton, carbon dioxide, ethane, n-butane, and other non-corrosive gases. A mixture of 30% N₂ and 70% He is recommended for single-point analysis. Mixtures of He and approximately 5, 12, 18, and 24% N₂ are suggested for multipoint BET use.

Electrical

Voltage:	100/115/230 VAC ($\pm 10\%$)
Frequency:	50 or 60 Hz
Power:	700 VA, operating (maximum)

Environment

Temperature:	15 - 32 °C, (59 - 90 °F) operating; 0 to 50 °C, (32 - 122 °F) storing or shipping
Humidity:	20 to 80% relative (non-condensing)

Physical

Width:	46.5 cm (18.3 in.)
Depth:	30.5 cm (12 in.)
Height:	53 cm (20.9 in.)
Weight:	FlowSorb III 2305 18 kg (40 lb) FlowSorb III 2310 20 kg (44 lb)