V-Sorb 2800S Surface Area Analyzer

* 2 analysis ports and 2 pretreatment ports;
* Single and multi-point BET surface area determination;
* Fully automatic operation controlled by software;
* Volumetric nitrogen adsorption principle;
* Real time coolant level monitor;
* Multi type reports like PDF, Excel, Txt.

V-Sorb 2800S surface area analyzer introduction

V-Sorb 2800S surface area analyzer is researched and developed for single and multi-point BET (Brunauer-Emmett-Teller) specific surface are a, also with Langmuir surface area and others related with SSA (specific surface area) by using static volumetric principle.

Analyzers designed from the user perspective and equipped with fully automated operation, user-friendly interface makes it easy to learn, impor ted accessories assure stability and prolong life. Perfect design, sophisticated production and strict testing guarantee to meet customer real de mands. High cost performance of V-Sorb 2800S BET surface area analyzer easily ensure your investment profits and flexible equipped peripher al can satisfy different users requests.

V-Sorb 2800S surface area analyzer specifications

1. Analysis Principle: static volumetric nitrogen adsorption
2. Testing Methods: adsorption and desorption isotherms, single and multi-point BET (Brunauer-Emmett-Teller) surface area, Average particle di ameter estimation, t-plot external surface area, true density analysis, Langmuir surface area, carbon black (STSA-Statistical thickness surface a rea), adsorption constant C.
3. Measuring Ranges: 0.01 m2/g (by nitrogen)/ 0.0005m2/g (by krypton) to no known upper limit
4. Accuracy: repeatability errors within 1%
5. Coolant Level Prober: V-Sorb original coolant level control system with temperature probe, ensure the coolant level unchanged when compar es with sample cells in the whole analysis process, completely eliminate the analysis errors caused by dead volume change
6. Sample Pretreatment: the whole pretreatment procedures are controlled by dedicated software, as well with a start time preset function which can realize unattended operation at night
7. Control System: programmable solenoid valve system with high integration and strong anti-interference ability, enhance instrument stability a nd life
8. Sample Ports: two samples analyzing and two samples degassing concurrently
9. Pressure Measurement: imported sectional measuring dual pressure transducer, standard equips 1000Torr (0-133Kpa) transducer, 10 Torr is option
10. Partial Pressure: P/Po controllable accuracy range is 5x10-6-0.998
11. Ultimate Vacuum: 4x10-2Pa (3x10-4 Torr)
12. Vacuum Pump: built-in bipolar vacuum pump controlled by patented software which can auto control pumps start/stop
13. Adsorbate Gas: high purity nitrogen (99.999%), Ar, Kr, CO, CO2, C4H10 etc. non-corrosive gases are optional
14. Data Reduction: Windows-based independent developed Gold APP Instruments software, perfect versatility, produced full featured and mult i-model reports

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V-Sorb 2800S surface area analyzer technical features

A: Vacuum System
1. Unique integral manifolds system, decrease connecting points apparently, reduce leak rate, improve ultimate vacuum.
2. Modularity design can configure as customer requests, benefits future functions extension and instrument maintenance.

B: Control System
1. Industry type programmable solenoid valve system, strong anti-interference ability, convenient for installation and uninstallation.
2. Separated analysis and pretreatment manifolds can prevent foreign matter to contaminate manifolds during sample pretreatment.

C. Measures for Improving Accuracy
1. Imported silicon thin film pressure transducer, accuracy can reach 0.1% of real reading, better than 0.1% of F.S. (full-scale).
2. Original stepping coolant level control system, ensure the coolant level unchanged when compares with sample cells in the whole analysis pr ocess, completely eliminate the analysis errors caused by dead volume change.
3. Pioneered gas outlet and inlet control system can efficiently prevent samples splash in vacuuming and gas inlet procedures, guarantee clean manifolds and sample weight unchanged, avoid zero and liner drifting caused by transducers macro-change.

V-Sorb 2800S surface area analyzer application fields

1. Super micro powder, nano materials, nano-particles and fiber shaped specific surface area analysis.
2. Product quality control for powder, particles etc. materials related companies.
3. Researching institutes, universities for BET (Brunauer-Emmett-Teller) theory teaching.
4. Fuel cells, catalysts, additives, adsorbent, ceramics, magnetic materials, energy storage materials etc. surface area data determination.
5. Other researches concern specific surface area performance.