

# Surface Area / Pore Size by Gas Sorption



## Instruments for Particles & Porous Materials Characterization



### AUTOSORB® iQ-MP/MP-XR, iQ-AG

Premier, high performance, one or two port surface area and expanded-range pore size analyzer. Very small micropore range possible by virtue of high-vacuum, turbomolecular system and precision low-pressure transducers. MP model has 1000, 10, and 1 torr transducers, MP-XR model uses 1000, 10, and 0.1 torr transducers. Metal O-rings and gaskets in critical measurement zones assure ultra-low pressure capability. Very low surface area materials can be analyzed as standard (ASiQ-MP/MP-XR only); already krypton-enabled, no upgrade necessary. Accuracy assured by dedicated reference (saturation) pressure transducer. Includes two, independent preparation (degassing) stations. Degassing is optimized by inclusion of vapor cold-trap, intelligent PC control, and access to patented, oil-free high vacuum system. Leading-edge data analysis software included as standard, for demanding research application (DFT, NLDFT, QSDFT, GCMC, and classical methods). Available as standard (but upgradable) surface area/mesopore size analyzer with non-turbo vacuum system (Autosorb iQ-AG). Additional options are available for specific applications.

#### recommended extras

- Second station option
- $N_2$ ,  $H_2$  gas regulators
- Computer control module
- Reference material SARM 2005 & 2012



### AUTOSORB® 6iSA

High throughput surface area and pore size analyzer, bench top or floor-standing. Maximum flexibility thanks to six independent sample ports - different sample types and analyses accommodated at one time. Dedicated equilibration pressure transducers and Po cells on each station. Intelligent operating algorithms automatically adapt to different samples to maximize productivity. Automatic data logging, calculation of results and report generation by intuitive, powerful PC software. A range of accessories and preparation units to match individual lab needs is available.

#### recommended extras

- Autosorb, MasterPrep or FloVac degasser
- $N_2$ ,  $H_2$  gas regulators
- Computer control module
- Rolling cart
- Reference material SARM 2005



### QUADRASORB™-evo- MP/Kr

Versatile, four-port surface area and pore size analyzer. Operates in both patented helium-free and classical modes, even at the same time on different ports! Sample independence assured by individual transducers and coolant baths, unique analysis types and even different start-times. Optional krypton capability (for very low surface area materials) and micropore range possible by virtue of high-vacuum turbo pump system, precision low-pressure transducer, and metal to metal seals where appropriate. Also, 2 and 3 station versions are available. A range of accessory sample preparation units match individual lab needs.

#### recommended extras

- FloVac degasser
- 2 x Vacuum pump
- $N_2$ ,  $H_2$  gas regulators
- Computer control module
- Reference material SARM 2005 & 2012

Visit [www.quantachrome.com](http://www.quantachrome.com) for more detailed instruments specifications and downloadable brochures.





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### NOVA<sup>®</sup>e SERIES

High speed surface area and pore size analyzers for quality control and research applications. Meets different throughput needs with single or multi-port (two, three or four sample stations) models. Flexible operation can be run as stand-alone or PC-based. 21CFR part 11 com-patible version is also available.

The optional NOVWin<sup>™</sup> software package can allow the instrument to be controlled directly from a PC without the need to transfer the data obtained from the instrument. This software also doubles as data reduction software which enables users to interpret data, obtain results, and generate custom reports with an easy to use interface.

NOVA's small footprint even includes built-in sample preparation stations! Operates in classical or helium-free mode.

#### recommended extras

- NovaWin<sup>™</sup> software
- Vacuum pump
- N<sub>2</sub>, He gas regulators
- Reference material SARM 2005



### MONOSORB<sup>™</sup>

Rapid, automated single-point BET surface area analyzer uses dynamic flow technique. Direct read out of result in a matter of a few minutes. Reliable and consistent performance with microprocessor controlled calibration. Built-in sample preparation (degassing) station. A selectable flow path accommodates larger samples of high surface area. Can be used with many different adsorbates, including argon, krypton (low surface area), carbon monoxide, carbon dioxide, and other non-corrosive gases.

#### recommended extras

- N<sub>2</sub>, He gas regulators
- Gas blender (requires additional regulator)
- Reference material SARM 2003



### iSORB<sup>™</sup> HP1 | HP2

Automated single or dual station, high pressure, volumetric gas sorption analyzer. The instrument is capable of performing experiments up to 200bar at a wide range of temperatures thanks to various thermostating options. It can be equipped with a furnace, a water bath, a dewar, a cryocooler, etc. The instrument can be used for studies of gas storage properties, hydride formation, heats of adsorption, and more. The iSorbHP can also be equipped with a Booster system to ensure constant delivery pressure of gas to the instrument (up to 200bar), while greatly extending the useful life of the gas tank, resulting in reduced costs and waste of "half-empty" gas cylinders.

#### recommended extras

- Booster
- Turbomolecular pump option
- He gas regulator
- High pressure hydrogen gas regulator
- Computer control module

Visit [www.quantachrome.com](http://www.quantachrome.com) for more detailed instruments specifications and downloadable brochures.

