



mi micromeritics
ASAP 2060

ASAP[®] 2060

ACCELERATED SURFACE AREA
AND POROSIMETRY SYSTEM

micro eritics[®]

INTUITIVE OPERATION, PRECISE DATA, GREAT VALUE

ASAP® 2060 Surface Area and Micropore Measurements

With more installed instruments in more countries to more users, the ASAP family of products has proven to be the instruments of choice worldwide for research-grade surface area and porosity analytical results. The newest member of the family, the ASAP 2060, now adds an extremely cost-effective option to our ASAP line of instruments.

The Micromeritics® ASAP 2060 provides highly reliable surface area and micropore data in a single-port, small-footprint platform. This system is designed with an emphasis on affordability and return on investment for you, the user, without compromising the performance or data quality you expect from our family of ASAP products.



Dedicated Micropore and Low-Surface-Area Measurements

The ASAP 2060 is equipped with both 10-mmHg and 0.1-mmHg, high-resolution transducers to permit krypton (low surface area) and micropore measurements, respectively. Increase throughput with the addition of up to three additional units on a shared turbo pumping station, without adding the additional cost of multiple dedicated vacuum systems.

Partnership and Support Network

- Every Micromeritics instrument comes with a world-wide network of dedicated experts to help you achieve your goals
- Technical assistance and timely service response is just a phone call away, ensuring your sample and product development pathways continue to progress
- Reliability, repeatability, and reproducibility are designed into every Micromeritics instrument to ensure accurate and consistent results

MicroActive™ for ASAP 2060

Interactive Data Reduction Software

Micromeritics' innovative MicroActive™ software allows you to interactively evaluate isotherm data. You can easily include or exclude data, fitting the desired range of experimentally acquired data points using interactive, range selection bars. The isotherm can be viewed real-time on either a linear or logarithmic scale, and the isotherm is also displayed as part of each interactive report.

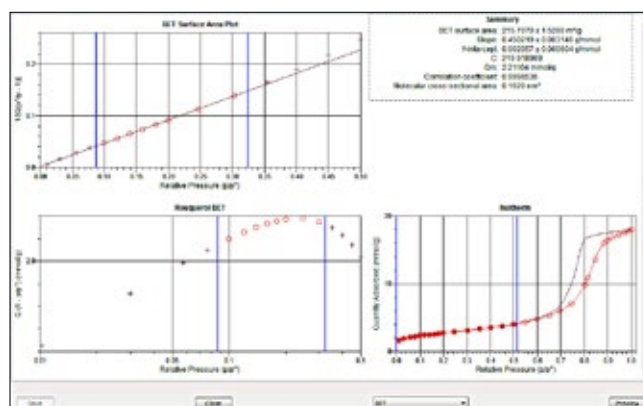
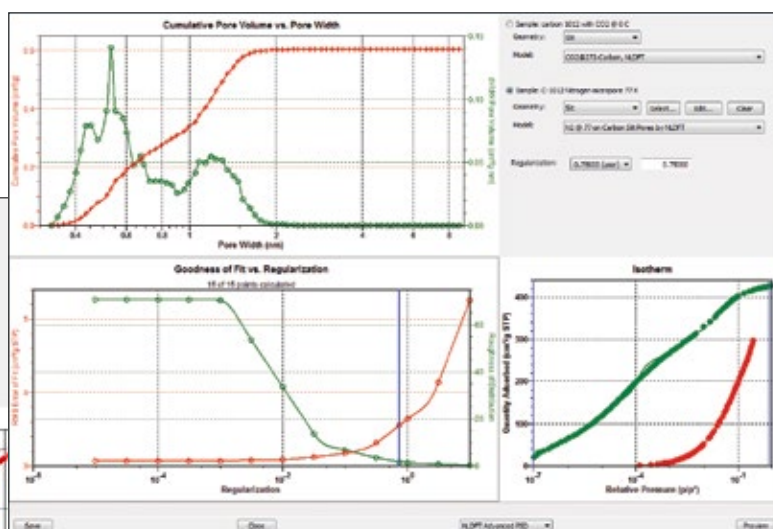
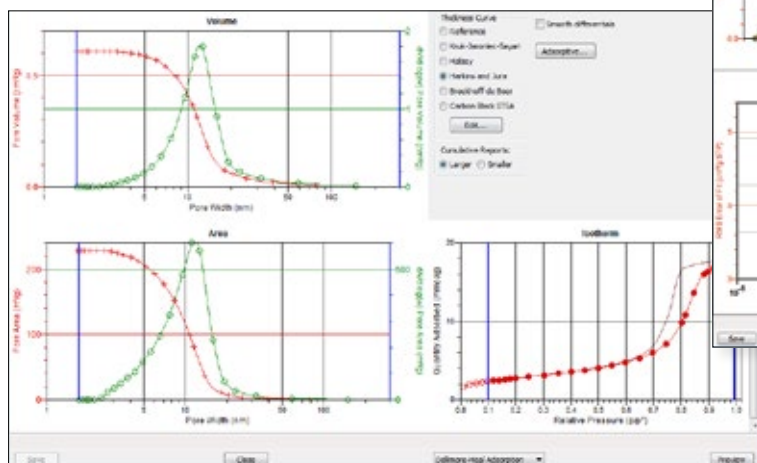
Physisorption Reports

- Isotherm
- BET Surface Area
- Langmuir Surface Area
- t-Plot
- Alpha-S Method
- BJH Adsorption and Desorption
- Dollimore-Heal Adsorption and Desorption
- Temkin and Freundlich
- Horvath-Kawazoe
- MP-Method
- DFT Pore Size and Surface Energy
- Dubinin-Radushkevich
- Dubinin-Astakhov
- User Defined Reports

NLDFT Modeling

This advanced NLDFT method allows users to determine the pore size distribution of their sample over an extended range using two isotherms. In the graph below, CO₂ adsorption (red) at 273 K and nitrogen adsorption (green) at 77 K are used to calculate a single pore size distribution. Users do not have to cut and paste distributions from CO₂ and nitrogen—a single distribution is determined using both isotherms.

Calculations can be easily performed and optimized. The selection bars allow for a range of data points to be quickly and easily selected.



Data Reduction Features

- With one-click access to important parameters, interaction with adsorption data is direct. By simply moving the range selection bars, the user is immediately updated with new textural properties.
- Interactive data manipulation minimizes the use of dialog boxes and tunneling of dialogs to specify calculation parameters.
- A file include and exclude feature provides the ability to overlay up to 25 files including mercury intrusion data and data from competitive instruments.
- User-selectable data ranges through the graphic interface allow direct modeling for BET, t-Plot, Langmuir, DFT interpretation, and much more. The MicroActive suite provides an extensive selection of NLDFT models for calculating pore size distributions.
- Report Options editor allows the user to define reports with on-screen previews. Each report processes one summary, tabular, and graphical information pane.
- Powerful Python programming language allows you to develop extensions to the standard reports available within the ASAP 2060 MicroActive application.



Six analysis gas inlets and a dedicated helium free space gas inlet provide greater versatility and automated selection of backfill and analyses gases

Stainless-steel manifold provides optimized internal volumes and superior vacuum performance for highly accurate measurements of sorbed gas volumes

Proprietary transducer system delivers unequalled stability, quick response, and minimized hysteresis resulting in low signal noise and best-in-class accuracy

Proven Isothermal Jacket Cold Zone Control provides accurate and reproducible temperature control

Up to four instruments can share a single turbo vacuum system with optional manifold kit and software control

Dewar maintains cryogen for greater than 80 hours, thus providing long-duration, uninterrupted analyses such as required for micropore determinations

Specifications

Pressure Measurement:

0 to 950 mmHg

Resolution: Up to 1×10^{-7} torr
(0.1 mmHg transducer)

System Capacity:

Single Port, up to four individual instruments can share a single turbo vacuum system

Cryogen System: 3 L, >80 hr. dewar

Electrical Requirements:

150A max, 50/60Hz, 100-240V

Dimensions:

Width: 36.5 cm

Depth: 58.5 cm

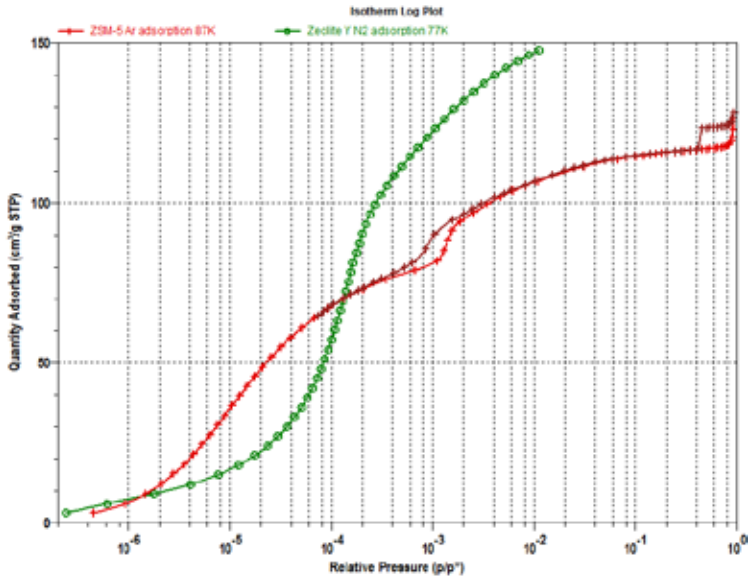
Height: 93.0 cm

Innovative Diagnostic Tests

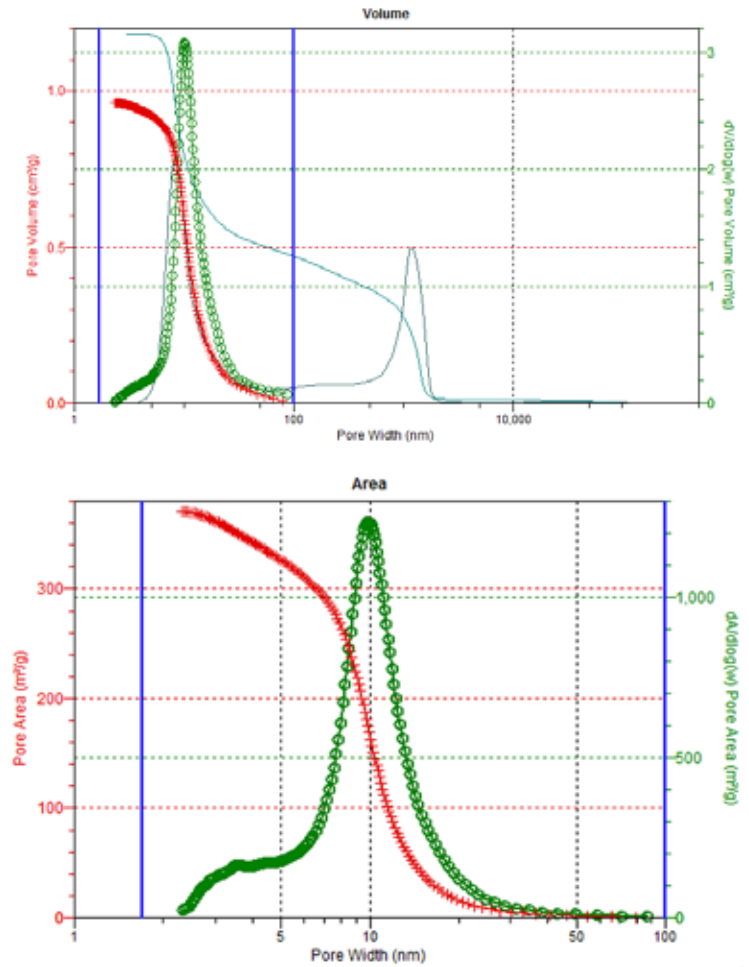
The ASAP 2060 features a suite of diagnostic tests within the supplied control software. A suite of test procedures and information is provided to monitor and confirm that the instrument is performing optimally.

High Resolution Isotherms

With no compromise in performance, the economical ASAP 2060 produces high resolution micropore and low surface area krypton analyses. Choose from dosing options of maximum volume increments or dosing over a specified pressure range.



Zeolites are microporous, alumina silicate minerals commonly used as commercial adsorbents and catalysts. Y-Zeolite is a cracking catalyst. It is used in petroleum refinery catalytic cracking units to increase the yield of gasoline and diesel fuel from crude oil. 13x Zeolite is a synthetically produced microporous molecular sieve used for gas purification, gas separation, sensor technology, etc.



The ASAP 2060 includes MicroActive for the rapid review and display of the texture of porous materials. The pore size distribution of γ -Alumina obtained from the BJH model (o-green) is displayed with an overlay of the pore size distribution obtained by mercury intrusion porosimetry. MicroActive allows users to visualize results from physical adsorption, mercury intrusion porosimetry, and chemical adsorption and this provides a convenient platform for the convergence of textural analysis.

MICROPREP

For In-situ Degassing

For use with the ASAP 2060, the MicroPrep allows in-situ final degassing of micropore samples to assure that the sample is meticulously cleaned of any adsorbed contaminants prior to analysis. The MicroPrep features a high-quality digital control unit to regulate the heating mantle to the desired set point temperature.

Specifications

Temp Range: Ambient to 250°C

Temp Accuracy: +/- 5.0°C

Ramp Rate: 10°C

Electrical: 100-240 VAC, 50-60Hz





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To request a quote or additional product information, visit
www.micromeritics.com

Contact your local Micromeritics sales representative
or our Customer Service Department at
770-662-3636



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