



Our Product Family

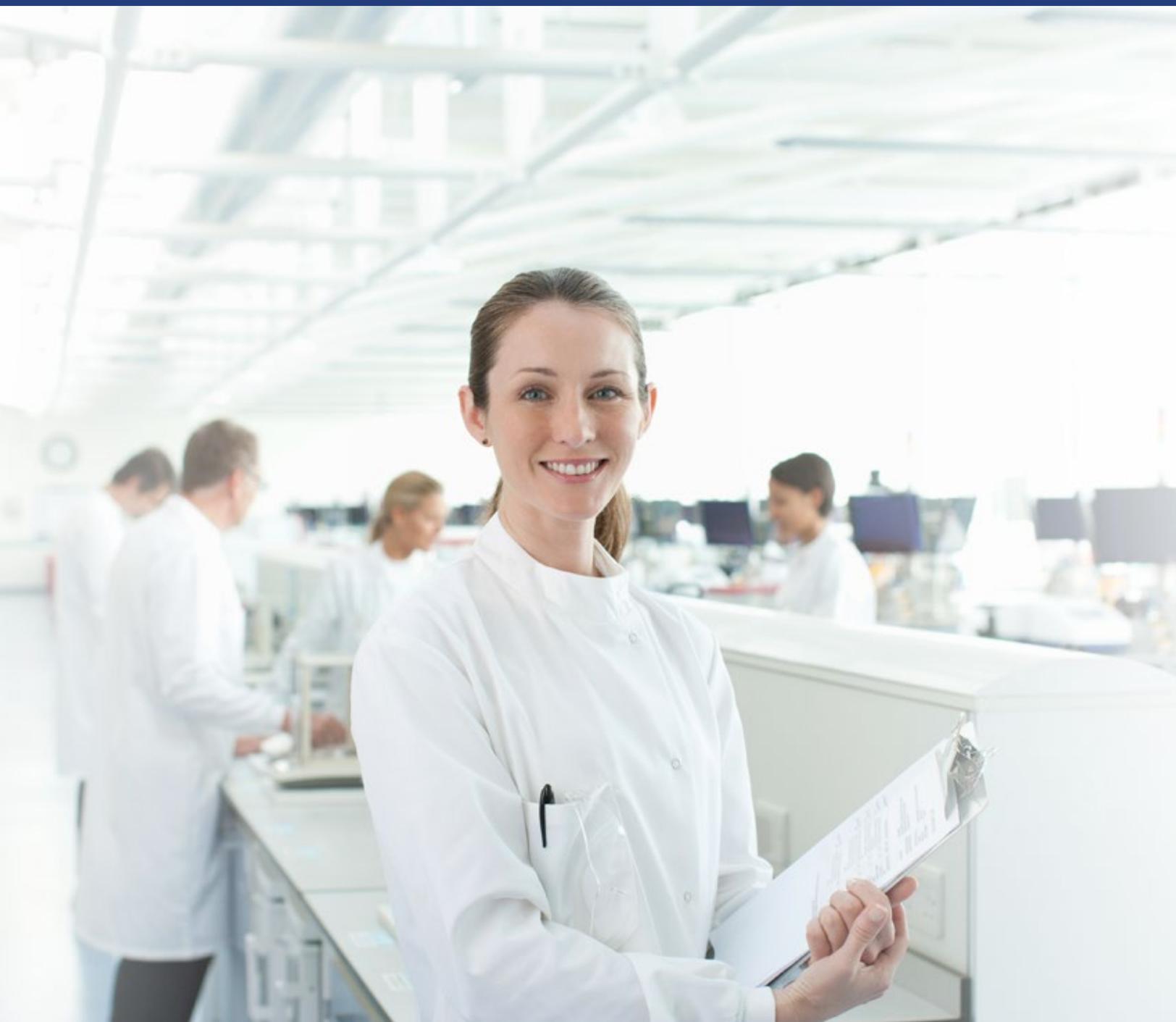


Our Family of Products

Micromeritics® is dedicated to advancing the science of materials characterization by identifying and soliciting new innovative instruments for its Particulate Systems brand. Small companies and

independent innovators with novel instrument designs benefit from Micromeritics' extensive sales and service network while end users are offered new and exciting technology that otherwise

may have remained obscured by more prominent or better funded manufacturers. Each of these instruments provides material characterization solutions complementary to Micromeritics' core product line.



Particle Insight

Dynamic Image / Particle Shape Analyzer

For many years, particle size analyzers have rendered results with the assumption that all particles are spherical. However, not all particles are spherical. Particle shape information about raw materials enables manufacturers to control their process with a much higher level of sensitivity. The Particle Insight is a dynamic image analyzer which is ideal for applications where the particle shape, not just the diameter, is critical information.

- Three size range model options: 1 to 150 μm , 3 to 300 μm , and 10 to 800 μm
- A camera with unique optics, high frame rate, and high resolution enables the analysis of tens of thousands of particles in seconds. Data for all shape parameters are displayed real-time
- Select from 28 size/shape parameters for the best match to the particles being analyzed
- All analyzed particles have thumbnail images saved for post-run viewing and shape filtering to view only a specific selection of particle types
- Recirculating sample module and optics enable statistically valid measurements in a very short amount of time
- The standard system is compatible with aqueous as well as organic and inorganic fluids



NanoPlus HD

Zeta Potential and Particle Size Analyzer

The NanoPlus is a unique instrument that utilizes photon correlation spectroscopy and electrophoretic light scattering techniques to determine particle size and zeta potential. The instrument is compact and easy to use with an extended analysis range, intuitive software, and multiple sample cells to fit the user's application.



- Three model configurations: nano particle sizing, zeta potential, or combination nano particle sizing and zeta potential
- Measures zeta potential of a sample suspension in the range of -500mV to +500mV with concentrations from 0.001% to 40%
- Measures particle size of samples suspended in liquids in the range of 0.6 nm to 10 μ m with sample suspension concentrations from 0.00001% to 40%
- Wide variety of sample cells available

NanoPlus HD
zeta/nano particle analyzer

Subsieve AutoSizer (SAS)

The SAS is a modernized and improved version of the Fisher Model 95 Sub-Sieve Sizer. The SAS has drastically improved the well-established air-permeability particle sizing technique. The SAS uses the principal of pressure drop across a packed bed of powder. By varying the sample height, and hence the “porosity” of the bed, average surface area and particle size can be determined as a function of pressure drop in accordance with the Kozeny-Carman equation. The specific surface area of particles has a significant impact on the physical properties of powders and has been the focus of much attention from pharmaceutical, paint, toner, and geological industries.

- Measures particle size in a range of 0.2–75 μm
- Designed to generate “Fisher number” results identical to that of its predecessor, the Fisher Sub-Sieve Sizer
- Simple set-up and real time data display



HPVA II

High-Pressure Volumetric Analyzer

The HPVA series of gas adsorption analyzers uses the static volumetric method to obtain high-pressure adsorption and desorption isotherms utilizing such gases as hydrogen, methane, and carbon dioxide. The instrument can be used to study and determine the methane capacity of shale at specific pressures and temperatures, coal-bed methane capacity, carbon dioxide sequestration, and the hydrogen storage capacity of materials such as carbon and metal organic frameworks.

- Available in a single-station model or in a four-station version allowing up to four sample runs to be completed simultaneously
- Wide operating pressure range from vacuum to 100 or 200 bar
- Temperature capability from cryogenic to 500°C
- Sample temperature control by means of a recirculating temperature bath, Iso-Controller, cryostat, cryogen dewar, or furnace



Microactivity Effi

This completely automated, compact microreactor is the most advanced modular laboratory system in the world for measuring the activity and selectivity of catalysts. The standard platform can be easily adapted to the users' catalytic testing needs with a variety of configurations and options. It has been designed to save time and resources at both the catalyst development stage and factory report process during catalyst screening.

- Patented control systems provide researchers the ability to operate on a microscale
- Accommodates a wide variety of reactions including hydrocracking, hydrotreating, isomerization, hydrogenation, hydrodesulphurization (HDS), oxidation, hydrodenitrogenation (HDN), reforming (aromatization), steam reforming, Fischer-Tropsch synthesis
- Operates at pressures ranging from vacuum to 100 bar (with the same pressure control valve)
- Reaction temperature can range from room temperature to 1000 °C (using special material reactors)



SPECTester

Segregation Tester

Using state-of-the-art spectroscopic technology, the SPECTester provides data about component concentrations, particle size differences, and product uniformity. The instrument assists in identifying both primary and secondary segregation mechanisms. It can be used in R&D facilities as well as in production plants for on-the-spot, mid-stream quality control. Results are scalable to mimic actual process conditions.

- Capable of measuring segregation by particle size, sifting, fluidization, angle of repose, chemical component, and air entrainment
- Measures mixtures with up to six components reporting how much the material mixture is segregating, allowing quantifiable comparison of formulations
- 50 segregation sample points measured across the sample bed
- Two models: one with visible light detection, one with NIR detection



MA-1040

Magnetic Analyzer

The MA-1040 Magnetic Analyzer detects and measures low levels of metallic iron content in sample materials. The instrument can detect minute quantities of iron in a wide range of materials such as high-purity glass used for fiber optics to plastics used in wiring insulation. It can also be used to detect low magnetic iron levels in food, precious gems, pharmaceuticals, and many other materials.

- Sensitivity down to 0.00001% magnetic content
- Low power consumption and 0.1 ppm resolution
- Small footprint saves laboratory bench space
- Referenced in American National Standards Institute (ANSI) bulletins as well as bulletins for the Abrasive Grain Association



SSSpin Tester

When determining flowability characteristics of fine powders, the yield strength of the material is very important. The sample material will flow as long as the force acting upon the sample to cause the flow of the material is higher than the sample's yield strength value. The SSSpinTester uses the science of centrifugal force to measure the unconfined yield strength of fine powders.

- Fast analysis: less than five minutes per data point
- Small amount of sample required: 0.02 grams to 0.5 grams
- One test per data point: no need for multiple measurements
- Extended pressure range: 0.05 kPa to 72 kPa
- Direct measurement at low pressures eliminates the need to extrapolate data
- Small footprint requires minimal bench top space





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To request a quote or additional product information, visit
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Contact your local Micromeritics sales representative
or our Customer Service Department at
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