

The History of Beckman Coulter Particle Characterization

For over 40 years the Particle Characterization Group (PCG) of Beckman Coulter has provided answers and solutions to those involved in the testing and measurement of the physical properties of particles. Offering a complete family of instruments, including:

History of Innovation

- Coulter Counters – 1954
- Pore Characterization Analyzers – 1975
- Photon Correlation Spectroscopy Analyzers – 1983
- Zeta Potential Analyzers – 1988
- Laser Diffraction Analyzers – 1989
- Surface Area/BET Analyzers – 1993
- Digital Pulse Processing – 1999
- Particle Image Analysis – 2000
- Cellular Imaging Solution – 2002

We are in a unique position to offer solutions for most particle analysis needs. World-class support, including being listed as an ASTM approved laboratory and with service only a company such as Beckman Coulter can provide. Purchasing an instrument from us will deliver performance, versatility and peace of mind.



The Beckman Coulter Technology Center

WORLDCLASS GLOBAL SUPPORT

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(1) 905 819 1234

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(1) 800 523 3713

Visit our web site: www.beckmancoulter.com

THE BECKMAN COULTER ADVANTAGE

With superior back-up such as on-site training of your personnel and reliable technical support, Beckman Coulter has built its reputation on *dedication to quality* manufacturing

and long-standing customer service. We confirm the suitability of our instrument for your *customer service* application with a careful lab analysis of your sample. After purchase, the resources of

Beckman Coulter laboratories worldwide remain as your technical support group for all your technical needs.



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MS Windows is a registered trademark of Microsoft Corp. P/N: 7221560 RevB



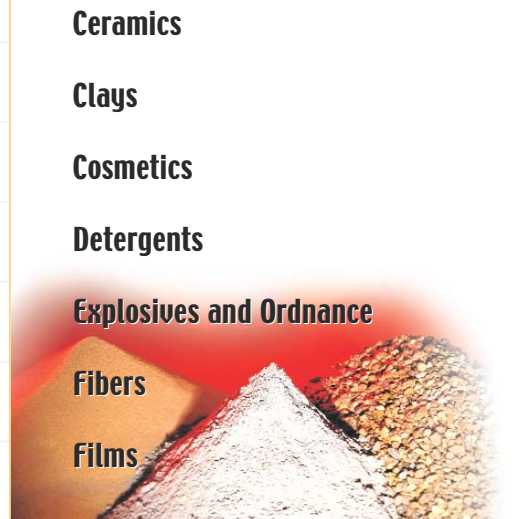
Offering the *broadest* range of *solutions* for particle characterization.



Applications

Beckman Coulter's Particle Characterization Group (PCG) is in a unique position among major suppliers of analytical equipment to offer a variety of solutions to today's particle technologists. At Beckman Coulter we utilize state-of-the-art technologies that deliver the results you require for your demanding product development and quality assurance needs. Our instrumentation is easily controlled via Windows® based software platforms. Whether you are industry or academia we have a solution to match your budgetary and technical requirements.

Adhesives
Alloys
Abrasives
Building Materials
Carbonates
Carbons
Catalysts
Cements



Fertilizers
Filters
Food
Glass
Food Additives
Graphite
Marine Research
Minerals

Paper
Petroleum Related Applications
Pharmaceuticals
Pigments
Polishing Compounds
Polymers
Resins
Soils and Sediments
Water Quality

LS SERIES™

PARTICLE CHARACTERIZATION



N4 PLUS™



MULTISIZER 3™



DELSA 440SX™



VI-CELL™



Z SERIES™



SA 3100™



RapidVUE™



LS series | LASER DIFFRACTION PARTICLE SIZE ANALYZER

The LS series single and multi-wavelength Laser Diffraction Particle Size Analyzers are automated systems that offer unsurpassed reproducibility. These state-of-the-art analyzers can measure a broad range of particle sizes from 0.04µm to 2000µm using patented PIDS technology for high resolution sub-micron sizing. New to the LS series is the **LS 13 320**, whose software is 21 CFR Part 11 compliant, and is designed to meet and exceed

the international standard; ISO/DIN 13320-1. Offering a variety of innovative features from 'Auto-Docking' for switching between modules in seconds, to sophisticated software providing 4 levels of security and a number of functions that simplify the measurement process and provide unique customer support, the **LS 13 320** is a natural choice.

Multisizer 3 | COULTER COUNTER®

This next generation COULTER COUNTER® offers unparalleled resolution for your particle counting and sizing needs. This reference counter provides number, volume and surface area distribution information in the overall size range of 0.4 µm to 1200 µm. A Windows® based platform offering 21 CFR Part 11 compliance for electronic records and signatures. The latest in digital pulse processing technology (DPP) makes the Multisizer 3 the instrument of choice for all your sizing and counting needs.



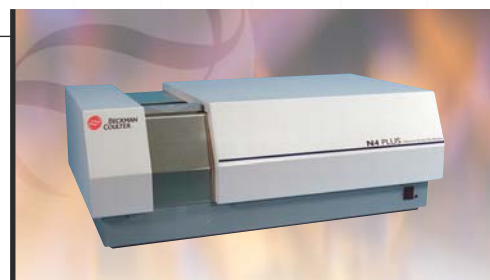
SA 3100 | BET SURFACE AREA ANALYZER

A complete solution for surface area and pore size analysis. Featuring an intuitive touch screen interface this fully integrated gas adsorption and sample preparation system gives you the information you need: BET and Langmuir Surface Area, BJH Adsorption and Desorption Pore Size Distribution, t-Plot Pore Volume and more. Whether you are in a quality control or R&D environment, the SA 3100 is the most versatile and easy-to-use gas adsorption analyzer available today.

Offering the *broadest* range of *solutions* for particle

N4 PLUS | PCS SUBMICRON PARTICLE SIZE ANALYZER

This sub-micron particle size analyzer is a **Photon Correlation Spectroscopy (PCS)** based instrument providing unmatched performance and accuracy with multi-angle capability and a multi-TAU correlator. The N4 PLUS offers six fixed measurement angles allowing detection of any population of particles in the range from 3 nm to 3 µm.





Vi-CELL | CELL VIABILITY ANALYZER

The Beckman Coulter Vi-CELL automates the widely accepted trypan blue cell viability tissue culture protocol. However, in comparison with the manual technique, the number of cells quantified in each analysis is significantly greater and removes operator bias. Hence, the Vi-CELL enhances the statistical reliability of the results. Results are obtained in minutes. The number of parameters for the cell culture is significantly more comprehensive than those available using the hemacytometer.

Z series | PARTICLE/CELL COUNTING AND SIZING ANALYZER

A range of compact and accurate particle/cell counting and size analyzers. The Z series is fully automated and is very simple to use. The different models allow counts above, below and between set thresholds and offer particle size distribution from 1 μm to 120 μm . The Z series incorporates a unique oil displacement pump eliminating the need for mercury.



RapidVUE | IMAGE ANALYZER

This particle shape and size analyzer, with its powerful software package, characterizes fibers, powders, crystals, polymers and many other types of materials. Whatever the particle shape, the RapidVUE provides aspect ratio and size information as well as sieve correlations. Whether you're involved in Research and Development, Process Control or Quality Control, the RapidVUE will let you see your samples in a whole new way.

characterization.

Delsa 440SX | ZETA POTENTIAL ANALYZER

A state-of-the-art **D**oppler **E**lectrophoretic **L**ight **S**cattering **A**nalyzer (DELSA) for the measurement of particle mobility and zeta potential. The patented four simultaneous angles technology delivers the highest resolution in the industry for determining particle heterogeneity and diffusion effects over a wide range of particle sizes.

