Rapid, Reliable, and Accurate Particle Sizing

The NanoBrook 90Plus particle size analyzer utilizes Dynamic Light Scattering (DLS) for fast, routine, submicron measurements in research and quality control applications. This is the ideal choice for users who require only DLS particle size measurements but still need rigorous tools for creation of customized reports and multimodal and unimodal size distributions. The instrument can be upgraded later to include zeta potential measurement capability.

Core Functionalities	
Particle Sizing	Yes
Zeta Potential	Upgradeable
Scattering Angles	90°

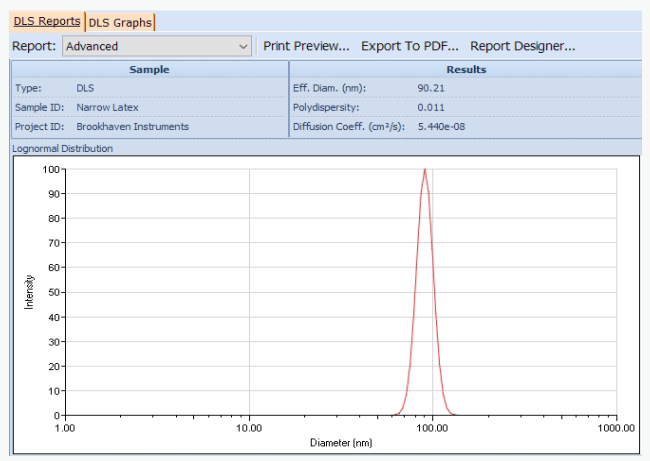
Quick Facts:

» High power 40 mW temperature-controlled semiconductor laser
» Low dead-time avalanche photodiode detector
» Molecular weight determination (relative and absolute through Debye plot)

Routine Particle Sizing, Aggregation Detection, Process Monitoring

The 90Plus particle size analyzer can be used to characterize aggregated particles as part of a standard quality control process. This NanoBrook can effectively determine the size of primary particles and agglomerates. Additionally, the aggregation of nanoparticles and other colloidal particles is easily monitored by DLS.

During a measurement, the display can be switched between any one of the the following: correlation function, lognormal, or multimodal size distribution; each shown live as data are accumulated. The live display is particularly useful in determining the end-point of a measurement where multimodal distribution shape may be important.



The effective diameter and polydispersity are sufficient for many applications, especially for samples with narrow size distributions. The figure above shows results for a mixture of latex particles of known sizes. Positions of the measured particle sizes on the accompanying graph are in excellent agreement with the nominal diameters of 92 and 269 nm.

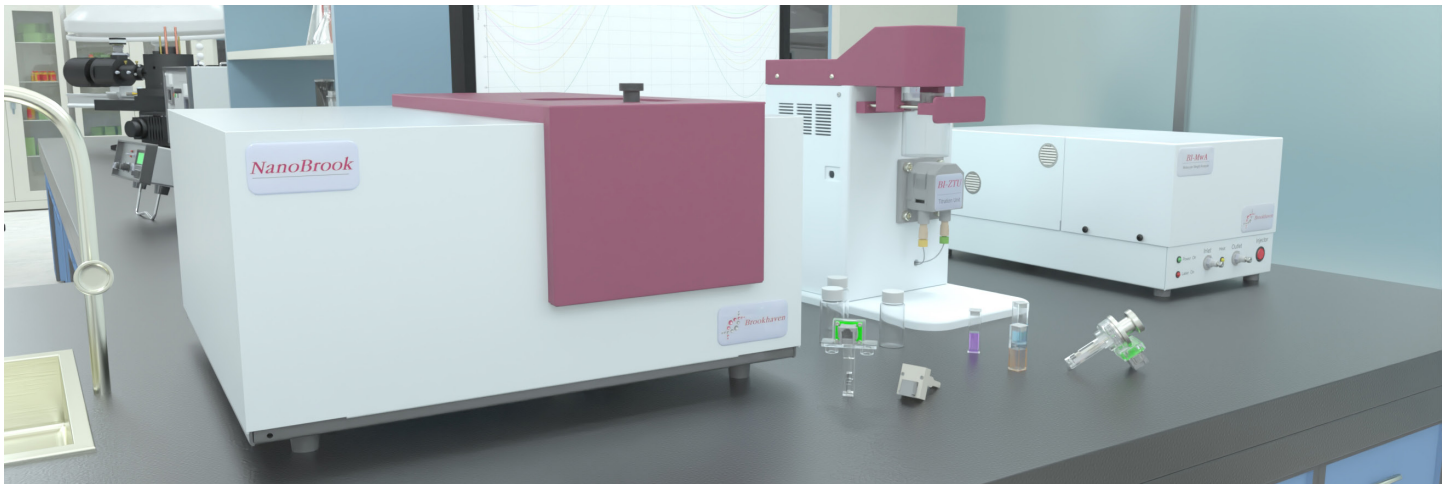
Key Features & Specifications	
Size Range	1 nm to 6 µm diameter*
Concentration Range	2 ppm to 50 mg/mL*
Technique	Dynamic Light Scattering, DLS
Algorithms and Models	NNLS, Contin, Cumulants, Lognormal
Correlator	Brookhaven's TurboCorr, multi-τ, research grade with 510 hardware channels, 100% efficiency, real-time operation over the entire delay-time range.
Precision	± 1% typically
Detection Angles	90°
Test Standards	Conforms to ISO13321 and ISO2241

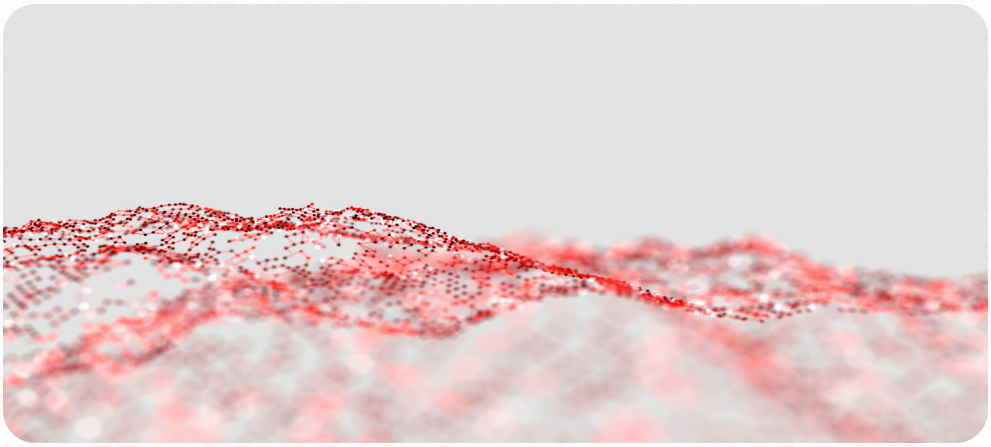
* sample dependent

About Brookhaven Instruments

Our talented team of scientists and engineers is dedicated to delivering the most accurate, reliable, and easy-to-use particle characterization instruments on the market. Our modular instrument design allows us to fully customize every aspect of our products, ensuring that our customers receive precisely what they need to meet their research goals. We are continuously improving our products based on feedback from customers, building on our legacy of innovation in particle science.

We strive to act as partners with our customers to ensure they get the most benefit and maximum value from their Brookhaven equipment. We offer extensive post-sale support to educate and empower customers. Whether you have questions about a specific function or are trying to set up a new experiment, our experts will be there to help you every step of the way.





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