



The **NanoDLS** is the gateway to absolute nanoparticle sizing including proteins and their aggregates (oligomers), polymers, dendrimers, micelles, and other colloidal materials. Either on-line (ASEC or SEC/GPC), or in batch-mode, it is an excellent tool for determination of hydrodynamic radii from 0.5 to a few microns.

Based on the principles of dynamic light scattering, the **NanoDLS** uses an automatic, variable-power laser at 638 nm, maximum 35 mW power, an optical cell design, a single-mode fiber, a self-protecting avalanche photodiode and a 25ns/522 channel digital autocorrelator. Due to the optical cell, the **NanoDLS** can measure samples from extremely low to high concentrations. Such a design allows for small volumes and a vertical flow pattern, minimizing the effects of bubbles.

For globular proteins and other rate samples, sizes are often small and concentrations low. Because of its unique optical cell design, the **NanoDLS** makes obtaining reliable data from such samples easy. In addition aggregate (oligomer) formation is readily probed because light

Features at a Glance

- Hydrodynamic Radii using Dynamic Light Scattering
- Small-Volume Flow-Cell
- On-line and Batch-mode measurement
- Biological compatible sample cell and tubing

Typical Applications

Flow Mode:

Size Exclusion Chromatography / Gel Permeation Chromatography

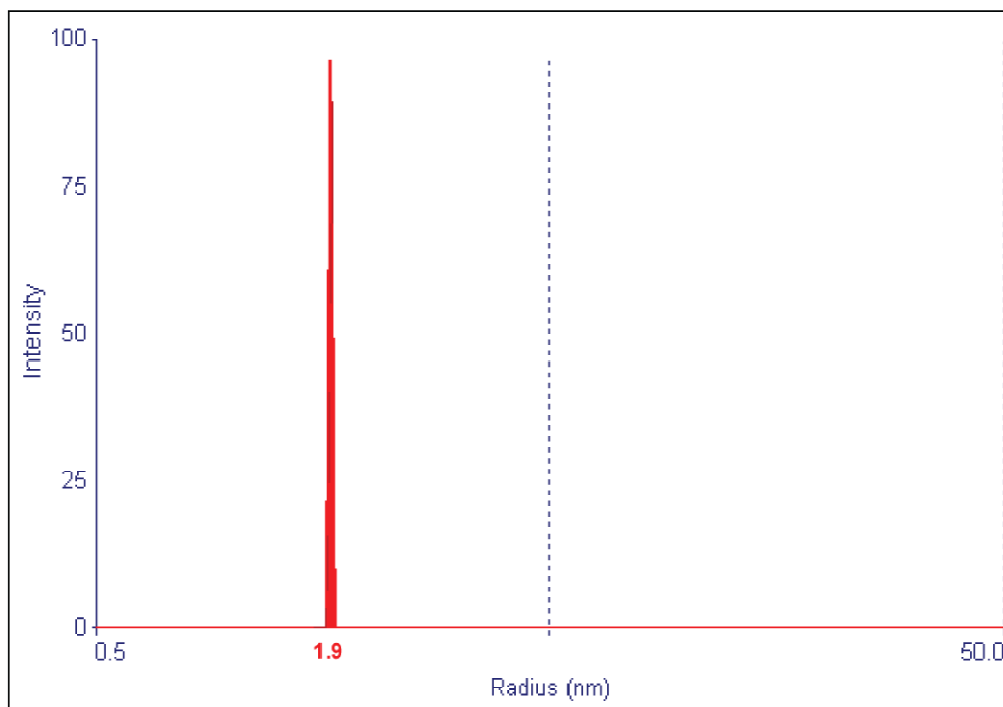
- Monitor Aggregate Formation
- Continuous Size Monitoring During Sample Processing
- Pharmaceutical Preparations

Batch Mode:

- Particle Size and Size Distribution Measurements

NanoDLS

Nanoparticle Size Analyzer



Batch mode NanoDLS results on 0.1 mg/mL lysosome. $R_H = 1.9$ nm

Specifications

The **NanoDLS** is a superb addition to existing and new chromatography systems for the characterization of proteins and polymers since the instrument enables particle sizing without column or instrument calibration. The high sensitivity and small-volume cell allows for low sample concentrations and small injection volumes. These features lead to accurate, absolute data from minute amounts of sample.

Size Range	R_H 0.5 nm to 3 μ m, sample dependent
Cell Volume	2.5 μ L
Concentration Range	0.1 to 100 mg/mL, sample dependent
Laser	Variable up to 35 mW, 638 nm, and temperature stabilized with precision power control
Scattering Angle	90°
Detector	Custom avalanche photodiode, BI-APD
Temperature Range	5 °C to 90 °C
Correlator	Brookhaven Instruments TurboCorr
Fittings	HPLC Inlet/Outlet on front panel. Two sets: batch and flow modes
Analog Inputs	4 standard. Suitable for use with most common RI and UV outputs

A policy of continual improvement may lead to specification changes

With distributors around the world, contact us for details about the office nearest you.



info@brookhaveninstruments.com
www.BrookhavenInstruments.com
Telephone: +1 (631) 758-3200
Fax: +1 (631) 758-3225

