TRACE ANALYSIS

TRACE Analysis offer well-recognised on-line analytical instruments for continuous measurement in High Purity Water, Feed Water, Steam & Condensate, Pharma, Potable Water, Pool and Sanitary Water, Waste Water and Effluents.
The main focus of TRACE Analysis is highest quality product at lowest total ownership cost.

|	Parameter	Colorimetric methode	Ion Selective Electrodes	Luminescence	Photometric	High Purity Water	Feed Water, Steam & Condensate	Drinking & Pool Water	Cooling Water	Waste Water	Brookhaven Instruments
A	Aluminum	X						X		X	
A	Ammonia	X					X			X	
A	Aromatic Hydrocarbons (BTEX)				X	X		X		X	
C	Chloride		X				X	X		X	
C	Chlorine/Ozone/Chlorine Dioxide	X	X		X	X	X	X	X	X	
C	Chromatography										X
C	Chromium	X						X	X	X	
C	Conductivity Specific, Cation & degassed		X				X				
C	Copper	X						X	X		X
C	Cyanide	X	X					X		X	
E	Ethanol (Water in Ethanol)				X					X	
H	Hardness	X				X	X	X	X	X	
H	Hydrazine	–	X			–	X				
H	Hydrogen (Dissolved)	–	X			–	X				
I	Iron	X						X	X	X	
L	Laser Light Scattering										X
M	Molecular Weight										X
M	Manganese	X						X	X	X	
N	Nickel	X									
N	Nitrite	X	X					X	X	X	
N	Nucleic Acide (DNA/RNA)			X				X		X	
O	Oil in Water				X	X	X	X	X	X	
O	Oxygen (Dissolved)		X	X		X	X	X			
O	Ozone		X			X	X	X	X	X	
P	Particule Sizing										X
P	Phosphate	X					X	X	X	X	
P	Protein (Fluorescence/Absorbance)				X	X					
S	Silica	X				X	X		X	X	
S	Sodium		X			X	X				
T	Turbidity				X	X	X	X		X	
W	Water in Ethanol				X	X	X	X		X	
Z	Zeta Potential										X
Z	Zinc	X				X	X	X		X	

Particule Sizing

Zeta Potential

Molecular Weight

Chromatography
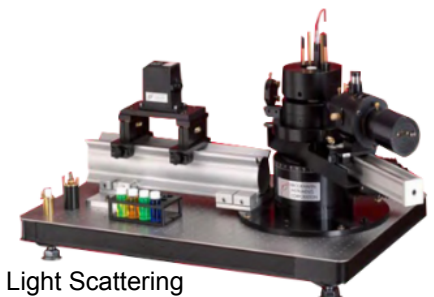
Dynamic Light Scattering

TRACE Analysis offer a full range of reagents and standards ready to use or Powder form.

Brookhaven Instruments Corporation

## The Experts in Particle Characterization for over 40 Years

Brookhaven Instruments was founded in 1981 by doctors Bruce Weiner and Walther Tscharnuter, who met while doing their post doctorate work with Dr. Ben Chu at Stony Brook University. Here, they researched the growing field of Quasielastic Light Scattering, which we now know as **Dynamic Light Scattering (DLS).**

They used their knowledge and their continued research to push boundaries and create breakthroughs in instrumentation such as the development of the high-resolution particle sizing disc centrifuges, the first commercially available Phase Analysis Light Scattering (PALS) instruments, improvements in correlator size and function, and more.

Brookhaven Instruments continues to supply a variety of high-quality particle characterization equipment and service.

Particle Characterization Instruments
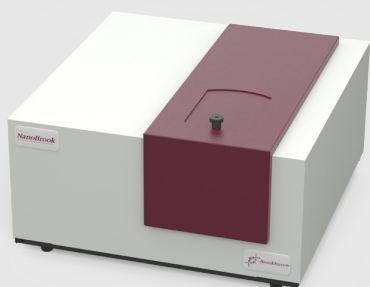
The **NanoBrook** Series size and zeta potential analyzers incorporate all you need for fast, routine, sub-micron measurements of size and zeta potential. Based on the principles of Dynamic Light Scattering (DLS) for particle sizing and distribution, and based on doppler velocimetry (electrophoretic light scattering or ELS) for zeta potential measurement, most measurements only take a minute or two. The instrument also includes Phase Analysis Light Scattering (PALS) measurements for samples with low mobilities.

The **BI-200SM Research Goniometer** has been a powerhouse of particle characterization since the early 1980s. It is capable of a variety of measurement types utilizing Dynamic Light Scattering (DLS) and Static Light Scattering (SLS), including nanoparticle characterization, particle size distributions, protein & polymer characterization, molecular weight, and complex fluid characterization.
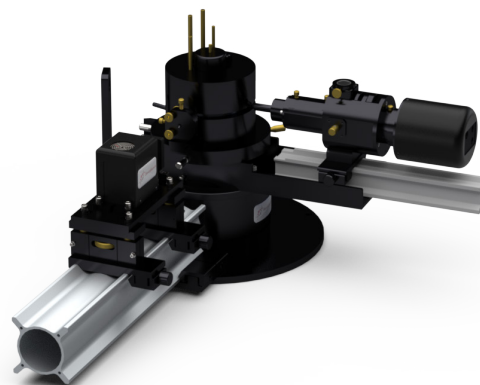
The **BI-DCP** and **BI-XDC** are digitally controlled, high resolution particle size and distribution analyzers that utilize photosedimentation. Our BI-DCP is ideal for organic materials, while our BI-XDC is great for high density, inorganic particles.

The **BI-ZTU Autotitrator** option for the NanoBrook zeta potential analyzers is ideal for automatic determination of the isoelectric point (IEP) of colloidal materials. Four pumps provide unparalleled flexibility for optimizing reagent use. The dramatic savings of reduced labor costs allows for larger scale studies that produce more valuable results.
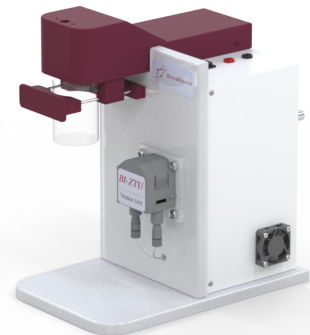

Chromatography Detectors
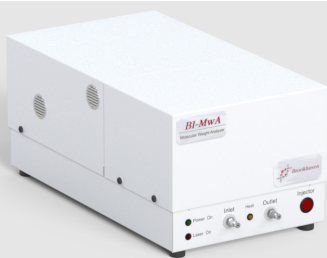
Characterizing dilute polymer solutions using Static Light Scattering (SLS) has never been easier, more accurate, or a better value. The **BI-MwA** uses a 30 mW, 660 nm diode laser and 7 angles to determine the intensity of scattered light as a function of angle and polymer concentration. The BI-MwA has the highest performance/price ratio of any light scattering detector used for molecular weight determination.

The **BI-DNDC** is a deflection type refractometer that may be purchased for use in either batch or GPC/SEC mode. In batch mode, the specific refractive index increment, dn/dc, is determined. This value is required as a parameter in molecular weight measurements using light scattering. In GPC/SEC mode, dn/dc is already known, and the instrument is used as a concentration detector for GPC/SEC applications.
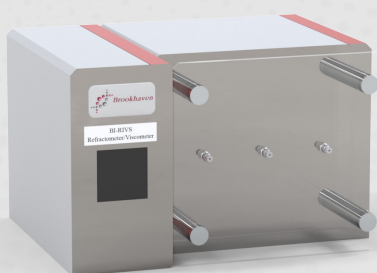

The **BI-RIVS** is a combination RI and Viscometry detector used in SEC/GPC determinations of the MWD using universal calibration. A true Dual-Detector, refractometer and viscometer, the only one of its kind available. The refractometer is an integral component of the viscometer bridge, measurement of concentration AND viscosity take place on the exact same sample segment, at the very same time.

Measurement of dielectric constants has never been so easy with the **BI-870**. Simply insert the probe in the liquid to be measured, adjust the two controls on the front panel and read the dielectric constant from the display. The BI-870 can accurately measure in low and high dielectric solvents, including mixed liquids and solutions.
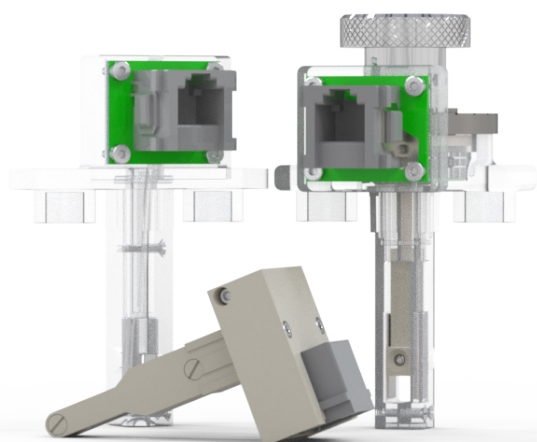
Multiple electrode options are available for measuring zeta potential.

BI-SREL: This solvent-resistant electrode can be used with most organic solvents and aqueous solutions. Check with Brookhaven Instruments for unusual solvents.

BI-SVE175: A small volume electrode for use with small aqueous sample volumes to determine zeta potential. The sample volume minimum is approximately 200 microliter.

BI-SZP: This aqueous electrode is for the determination of surface charges for charged membranes and other solid surfaces.

Multiple consumable cuvette and vial options are available.

BI-SCP: The BI-SCP is a disposable plastic sample cuvette for use with DLS and zeta potential. One box of BI-SCPs contains 100 cuvettes, with caps included. Each cuvette can hold approximately 4.5mL. If properly cleaned, cuvettes can be reused multiple times before needing to be disposed of.

BI-SCGO: The BI-SCGO is a reusable glass square sample cuvette for use with organic solvents. These can be used for both DLS and zeta potential determination. Each box contains 10 cuvettes with caps, and each cuvette can hold approximately 4.5mL.

BI-RC27: The BI-RC27 is a 20mL scintillation vial made of borosilicate glass, with an outer diameter of 27mm. One box of BI-RC27s contains 100 scintillation vials with unfastened polyethylene caps included.

Data Analysis Software

Particle Solutions is a robust suite of software that integrates five measuring technologies in one package: DLS, ELS, PALS, ASEC and µRhe. Measurements made with earlier versions of Brookhaven Instruments software can be imported into Particle Solutions, and then analyzed with the same powerful tools.
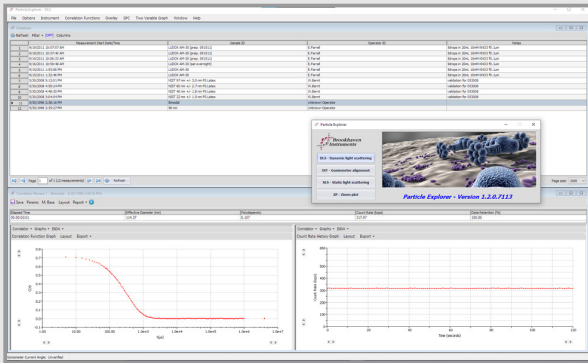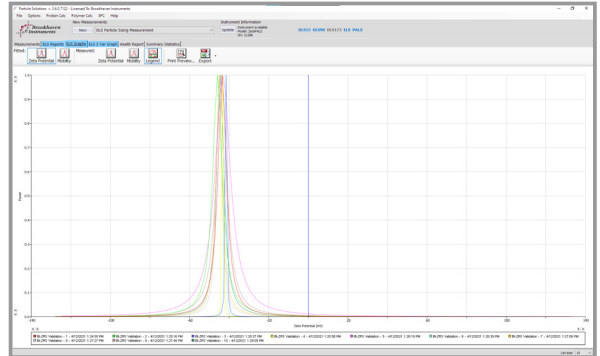
Particle Explorer is an in-depth data acquisition and analysis software, allowing for a deep dive into the measurements you have collected.

ParSEC is a powerful suite of software for multi detector, macromolecular characterization and represents the most significant development in GPC/SEC analysis. ParSEC is compatible with ALL GPC/SEC systems and detectors. Many attractive and practical features have been written into the software for the benefit of chromatographers.

Brookhaven Instruments Corporation

NOVA INSTRUMENTS
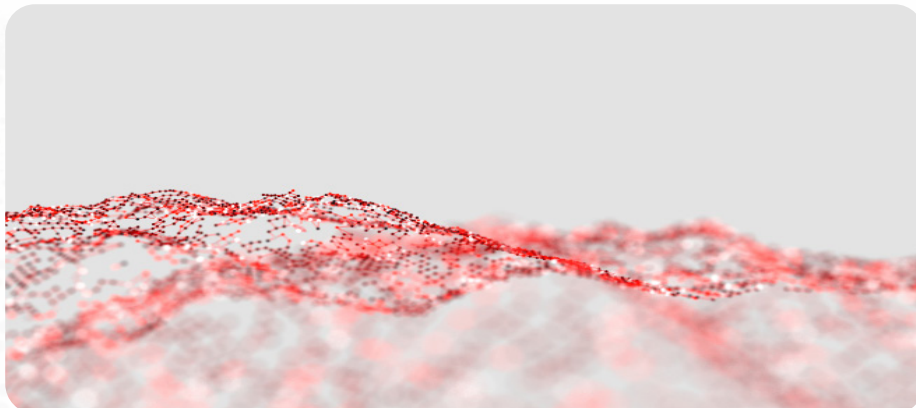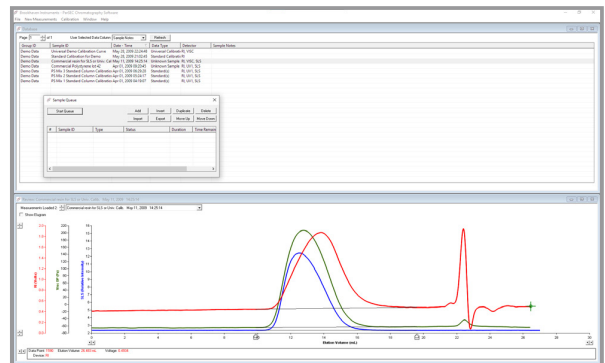
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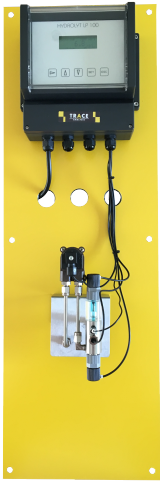
TRACE
ANALYSIS

Passionate Expert since 1990

High Purity Water . Water Steam Cycles . Pharmaceutical Water . Potable Water . Pool and Sanitary

Cooling Water

Particule Sizing . ZetaPotential . Molecular Weight

Specific, Cation and Degassed Cation Conductivity

Hydrogen, Oxygen, Chloride, Cyanide, Chlorine, Ozone, online & QC

Sodium, pH/Conductivity & GrabSample

Chloride by specific electrodes

Silica, Phosphate, Aluminium, Ammonia, Copper, Iron, Manganese, up to 16 parameters by colorimetric method

Luminescent Dissolved Oxygen On Line

Luminescent Dissolved Oxygen Portable