



**Wyatt Technology - most advanced instruments for particle separation and characterization.**

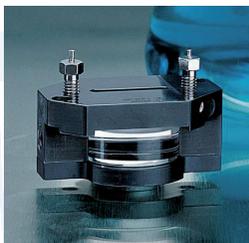
More than 30 years ago, Wyatt Technology's scientists invented the very first commercial light scattering instruments incorporating lasers as their light source. The US government was the first customer of these innovative technologies, designed to meet the need of specific applications including the detection of toxicants in drinking water and monitoring of particles in undersea environments. We've been defining and redefining the state-of-the-art laser light scattering hardware, software, training, and services to meet customer needs for over two decades. Along the way we've added several related technologies to our product line including dynamic light scattering, refractometry, viscometry, and field flow fractionation.

...welcome to the world of light scattering!

## DAWN HELEOS II



The DAWN<sup>®</sup> HELEOS<sup>™</sup> II is the world's most advanced instrument for absolute macromolecular characterization of proteins, conjugates, macromolecules, and nanoparticles. The DAWN<sup>®</sup> may be used either for continuous flow detection following chromatographic separation (connected on-line to HPLC/HPSEC/AFFF) or off-line as a stand-alone unit in batch or microbatch mode.



The integrated flow cell ensures highly reproducible measurements at all angles simultaneously. The patented flow cell design eliminates virtually any stray light.

## DynaPro NanoStar

The DynaPro NanoStar - a brand new Dynamic Light Scattering (DLS) instrument that is used for the analysis of protein solutions, promiscuous inhibitors, buffers, or other products in solution. To make it a uniquely valuable tool for a variety of applications, a Static Light Scattering detector has been added to the NanoStar, so that it can measure not only hydrodynamic radii, but also absolute molecular weights.



18-angle MALS light scattering detector for the measurement of absolute molecular weight, size, and conformation of macromolecules in solution.

The miniDAWN<sup>™</sup> TREOS<sup>™</sup> is a compact, simple-to-use multi-angle light scattering (MALS) detector for high performance liquid chromatography (HPLC). It connects quickly to your existing chromatography equipment and allows you to determine the absolute molar masses and sizes of your polymers or biopolymers without the need for reference standards or column calibration. The TREOS' patented, multi-angle detector array works for molecules of just a few hundred daltons to several million.

## miniDAWN TREOS



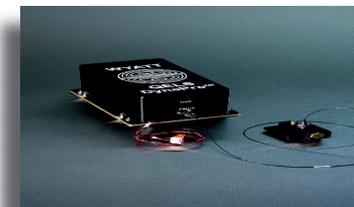
## Wyatt COMET

The patented COMET (Cell Operation and Maintenance Enhancing Technology) may be integrated with the flow cell manifold of any Wyatt light scattering instrument. It applies ultrasonic fields to keep particulates to a minimum.

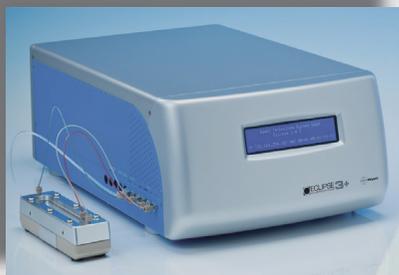


## Wyatt QELS

Wyatt's QELS module for Dynamic Light Scattering (DLS): Interfaces seamlessly inside the miniDAWN TREOS<sup>™</sup> or the DAWN HELEOS to provide you with on-line determination of masses and sizes down to 1 nm.



## Wyatt Eclipse 3+



The Eclipse™ 3+ is a state-of-the-art separation system using the asymmetric flow Field Flow Fractionation (AFFF) technique. The Eclipse™ 3+ integrates easily with Wyatt's multi-angle light scattering (MALS) instruments: DAWN®, miniDAWN™, as well as the Optilab™ rEX. The combined system provides absolute size and molar mass distributions of the particles/molecules separated by the AFFF unit. The combined system solves the most difficult sizing tasks in the macromolecular and colloidal arenas. Its resolution is similar to sedimentation equilibrium, but it surpasses even this benchmark-sizing tool when one considers its flexibility, speed, and ease of use. The Eclipse can be connected to almost any HPLC line.

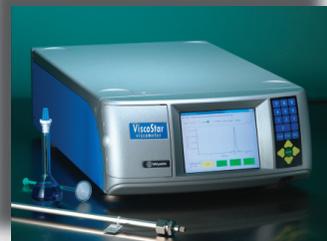


## Multi channel technology

A variety of different separation channels - ranging from small channels up to large ones designed for semipreparative purposes - is available for the Eclipse. This makes the Eclipse an unsurpassed separation system for the analysis of the most complex and demanding samples.

## Viscostar

On-line differential viscometer with unparalleled signal-to-noise ratio, low baseline drift and noise. Accepts external signals for zero, purge, and recycle. Ethernet and USB communications, full color LCD display conveys data at a glance. Transducer Protection System (TPS) and user-selectable delay volumes also included! The Viscostar measures the intrinsic viscosity and Mark Houwink Sakurada (MHS) Parameters of polymers.



## Optilab rEX

The Optilab rEX (refractometer with EXtended range) is an RI detector that stands so far apart from other RI detectors that it is almost misleading to call it one. It has 256 times the detection power and up to 50 times the dynamic range of any RI detector in existence today. The combination of cutting-edge semiconductor photodiode technology and proprietary computer algorithms make the rEX an extraordinary instrument. For example, there are no range or gain settings. The full range of instrument detection is always present, and the full sensitivity exists over the entire range. The Optilab® rEX also has a flow cell with a total volume of only 7.4 µL — 25% less than the leading refractometers available today. This translates into minimized band broadening and better temperature stability.



## DynaPro Plate Reader

Like all Wyatt instruments, the DynaPro Plate Reader has been superbly engineered to provide flexibility in both hardware and software to meet a battery of specific application requirements.



With the DynaPro Plate Reader you can:

- Characterize purified proteins for homogeneity, size, and thermal stability over a wide range of solution conditions automatically;
- Determine simultaneously the kinetics associated with macromolecular assemblies in parallel experiments;
- Screen biotherapeutics for self-association and aggregation over hundreds of solution and thermal conditions.
- Measure the stability and size of liposomes, viral particles, and drug delivery particles in a variety of formulations quickly and easily
- Detect and analyze compound aggregates that may cause false positives.

