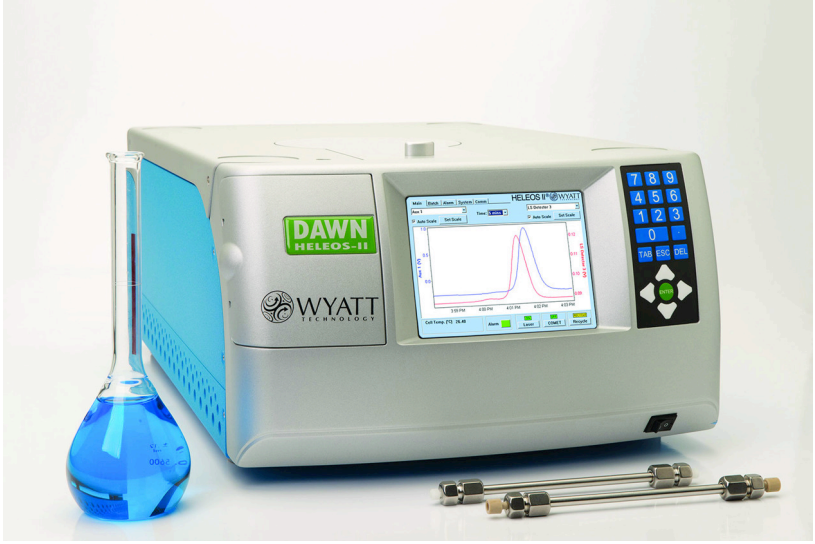
Wyatt Technology Corporation (WTC) is involved in the research and development of techniques, instrumentation and software for absolute macromolecular and nanoparticle characterization. Founded in 1982 by Dr. Philip J. Wyatt, the company was formed around his patents, ideas and inventions in industrial, military, and medical domains and commercialized the first light scattering instrumentation using lasers. To date, WTC has developed the following instruments: classical multi-angle light scattering detectors for determining absolute molecular weights and sizes of proteins, polymers, biopolymers and nanoparticles in solution, differential refractometers, differential viscometers, dynamic light scattering instruments, zeta potential instruments, composition-gradient apparatus, as well as field-flow fractionation separation systems and their software.

Mustafa Kemal Mh. Villa Parselleri 559.Sokak No:33
Yenikent/ANKARA /TÜRKİYE
Tel : +90312 911 23 88
Fax : +90312 911 23 89
info@essa.gen.tr

DAWN HELEOS II



The world's most advanced light scattering instrument for absolute characterization of proteins, conjugates, macromolecules, and nanoparticles.

The DAWN HELEOS II is the premier Multi-Angle static Light Scattering (MALS) detector for absolute characterization of the molar mass and size of

Mustafa Kemal Mh. Villa Parselleri 559.Sokak No:33
Yenikent/ANKARA /TÜRKİYE
Tel : +90312 911 23 88
Fax : +90312 911 23 89
info@essa.gen.tr

macromolecules and nanoparticles in solution, offering the highest sensitivity and widest range of molecular weight, size and concentrations. It is most often used in conjunction with Size Exclusion Chromatography (SEC-MALS) or Field-Flow Fractionation (FFF-MALS) to determine distributions of mass, size and composition independent of column calibration by reference standards.

Included with each DAWN is a copy of ASTRA, the most versatile software package available for analysis of online multi-angle and dynamic light scattering.

Overview

The DAWN and its companion Optilab T-rEX dRI detector are the established benchmarks for MALS analysis, cited in thousands of peer-reviewed publications. With the addition of a ViscoStar II differential viscometer or WyattQELS DLS module, the triple-detection system can analyze molecular conformation and sizes below the r_g limit of 10 nm.

The DAWN may also be used in batch (off-line) mode to characterize the weight-average molar mass, z-average size and second virial coefficient of unfractionated samples.

- M_w from 200 Da to 1 GDa
- Sensitivity: 0.4 µg/mL BSA (66.4 kDa)
- r_g from 10 to 500 nm, up to 1000 nm with shape-specific models
- Ultra-stable, high-power laser

In conjunction with a Calypso II CG-MALS system, the DAWN characterizes macromolecular interactions, label-free

Mustafa Kemal Mh. Villa Parselleri 559.Sokak No:33
Yenikent/ANKARA /TÜRKİYE
Tel : +90312 911 23 88
Fax : +90312 911 23 89
info@essa.gen.tr

and immobilization-free: affinity and absolute stoichiometry of self- and hetero-association of simple or complex molecular systems. The Calypso system also automates the determination of second virial coefficients, cross virial coefficients, average molar masses and sizes.

Temperature-Controlled Models

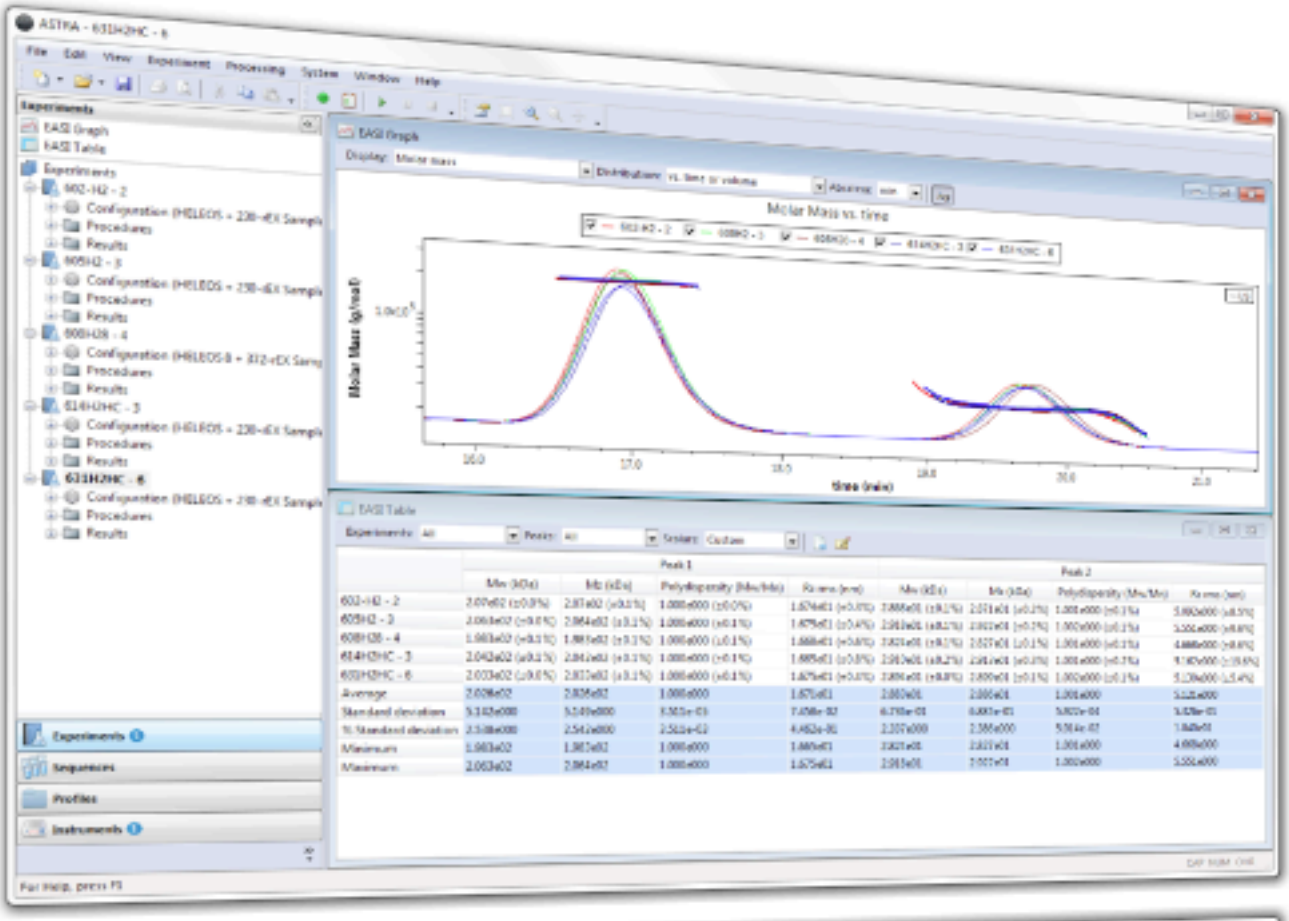
- Ambient model
- Ultra-High-Temperature (UHT) model, from ambient up to +210°C

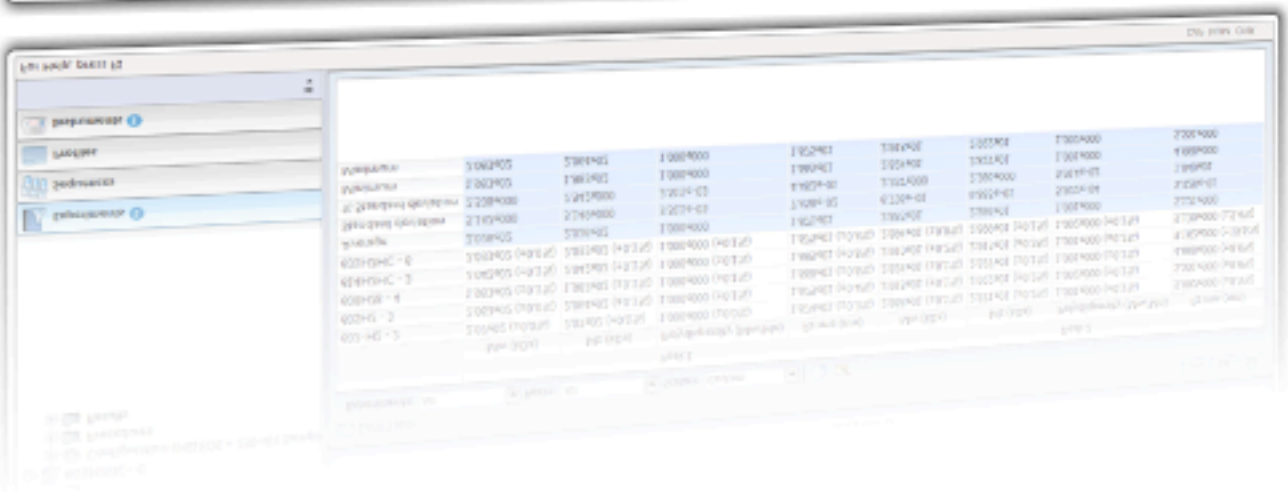
Standard Peltier heated/cooled (H/C) model, temperature control from -15°C to +150°C

ASTRA

Mustafa Kemal Mh. Villa Parselleri 559.Sokak No:33
Yenikent/ANKARA /TÜRKİYE
Tel : +90312 911 23 88
Fax : +90312 911 23 89
info@essa.gen.tr

Mustafa Kemal Mh. Villa Parselleri 559.Sokak No:33
Yenikent/ANKARA /TÜRKİYE
Tel : +90312 911 23 88
Fax : +90312 911 23 89
info@essa.gen.tr



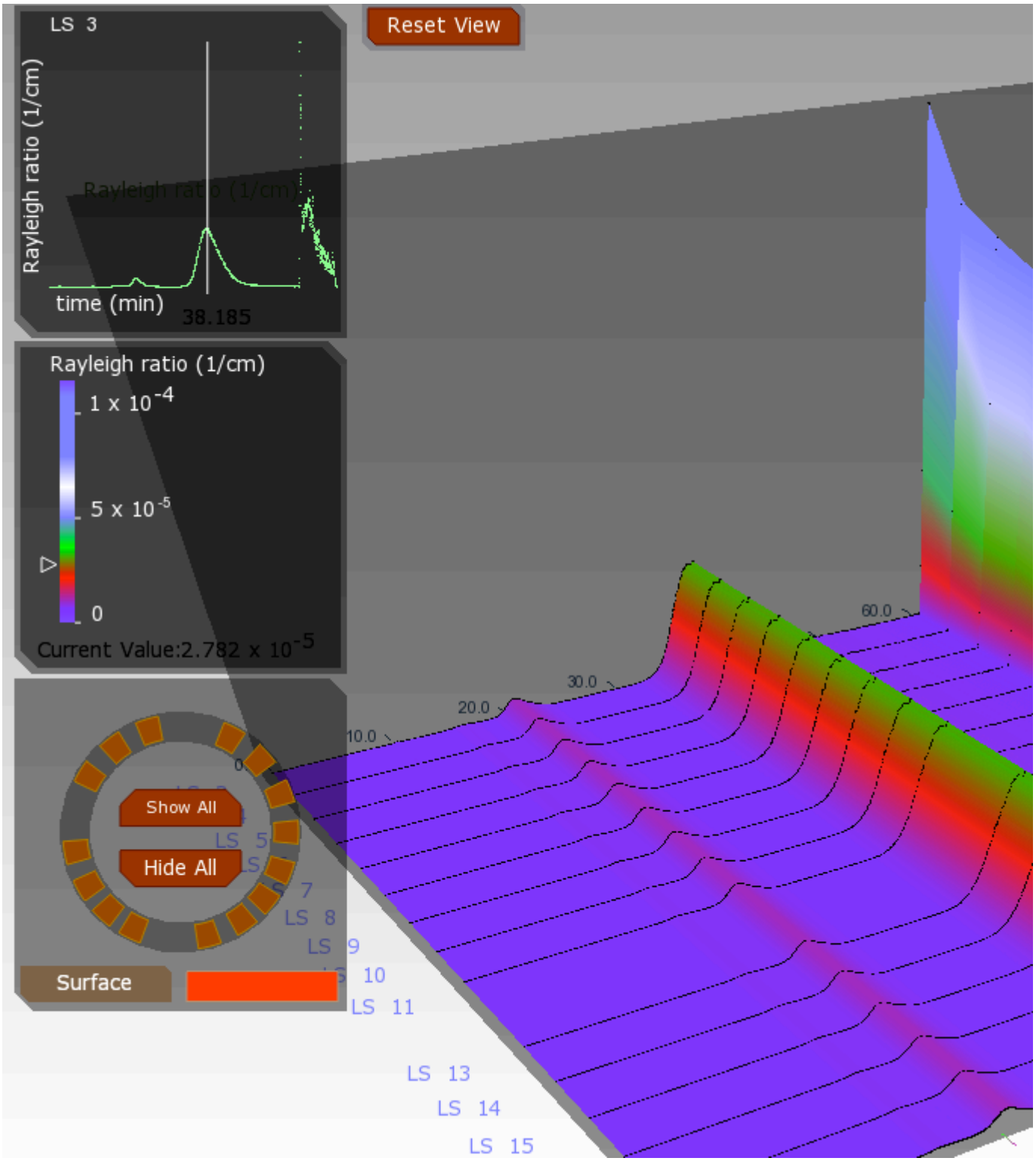


Mustafa Kemal Mh. Villa Parselleri 559.Sokak No:33
Yenikent/ANKARA /TÜRKİYE
Tel : +90312 911 23 88
Fax : +90312 911 23 89
info@essa.gen.tr

Turn your data into results quickly and easily with the ultimate in light scattering software—ASTRA. Included with every Wyatt MALS detector is ASTRA—the most powerful and versatile software available for the characterization of macromolecules and nanoparticles via multi-angle and dynamic light scattering. Offering a suite of basic and advanced analyses, customized reports and optional security and database packages, ASTRA maximizes productivity via automated multi-sequence processing and integration with Waters Empower software.

ASTRA greatly simplifies MALS and DLS analysis, so you can quickly and accurately assess molar mass, size, conformation, conjugation and other essential physical parameters of macromolecules and nanoparticles. But we take you above and beyond: with each analysis, ASTRA provides the quantitative experimental uncertainties that transform mere numbers—into science.

Mustafa Kemal Mh. Villa Parselleri 559.Sokak No:33
Yenikent/ANKARA /TÜRKİYE
Tel : +90312 911 23 88
Fax : +90312 911 23 89
info@essa.gen.tr

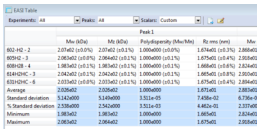


Mustafa Kemal Mh. Villa Parselleri 559.Sokak No:33
Yenikent/ANKARA /TÜRKİYE
Tel : +90312 911 23 88
Fax : +90312 911 23 89
info@essa.gen.tr

Unmatched Analysis.

Use the full power of your multi-core computer for fast, responsive data processing on Wyatt's patented analysis infrastructure.

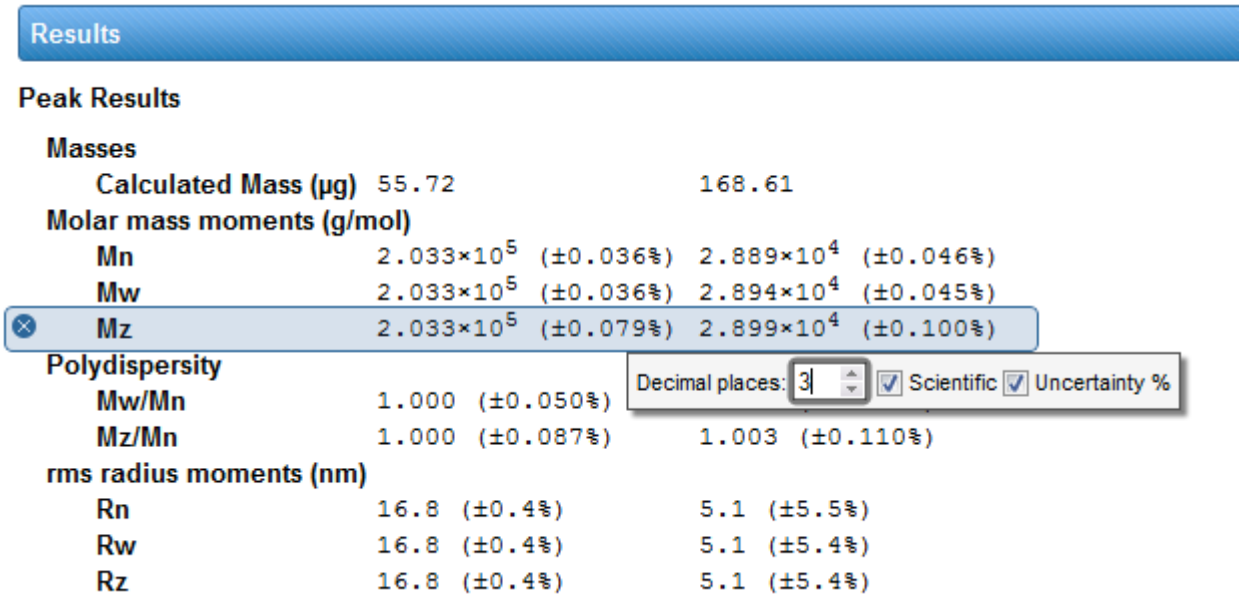
Read more...



High-Throughput Processing.

Let your computer do the work. Process one file yourself, and let ASTRA take care of the rest.

Read more...



State of the Art Reporting.

Find any result in just a few clicks, and incorporate

Mustafa Kemal Mh. Villa Parselleri 559.Sokak No:33
Yenikent/ANKARA /TÜRKİYE
Tel : +90312 911 23 88
Fax : +90312 911 23 89
info@essa.gen.tr

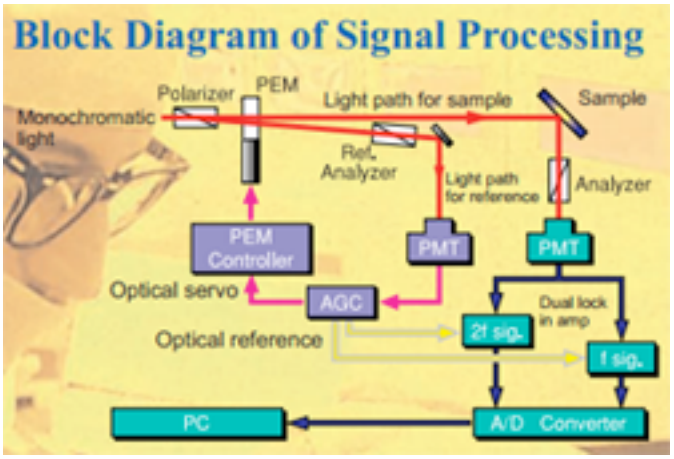
them into your reports. Change number formatting and presentation at will.

Read more...

M-550 Ellipsometer

Ellipsometry is a method for determining the refractive index and extinction coefficients of a sample by measuring the change in polarization state of surface reflected light. Film thickness and optical constants of an adsorption layer or oxide film on a substrate surface can be determined with exceptional sensitivity.
Conventional interference spectroscopy utilizes light passed through separate optical paths, while ellipsometry is a form of interferometry that uses two vibrational components with the same optical path, providing measurements with excellent accuracy and sensitivity.

Mustafa Kemal Mh. Villa Parselleri 559.Sokak No:33
Yenikent/ANKARA /TÜRKİYE
Tel : +90312 911 23 88
Fax : +90312 911 23 89
info@essa.gen.tr



The PEM dual lock-in system of JASCO's ellipsometer provides a stable measurement with additional capabilities including high-speed data sampling and wavelength scanning.

System Features

Automated wavelength scanning

The PEM dual lock-in system (JP Pat. # 2064627) automatically controls the PEM drive voltage for the current wavelength with an optical servo (JP Pat. #2081599) to increase ordinate accuracy during high speed scanning.

High-speed data sampling

Using high-speed electrical modulation, the PEM dual lock-in system enables high-speed data sampling in as little as 1 millisecond (optional 20 microseconds), far faster than systems that mechanically rotate a polarizer/analyzer combination.

High stability and reliability

The PEM dual lock-in system offers a static measurement free from mechanical error with high stability by using the optical servo and an optical reference.

Mustafa Kemal Mh. Villa Parselleri 559.Sokak No:33
Yenikent/ANKARA /TÜRKİYE
Tel : +90312 911 23 88
Fax : +90312 911 23 89
info@essa.gen.tr

Highly sensitive thin film analysis

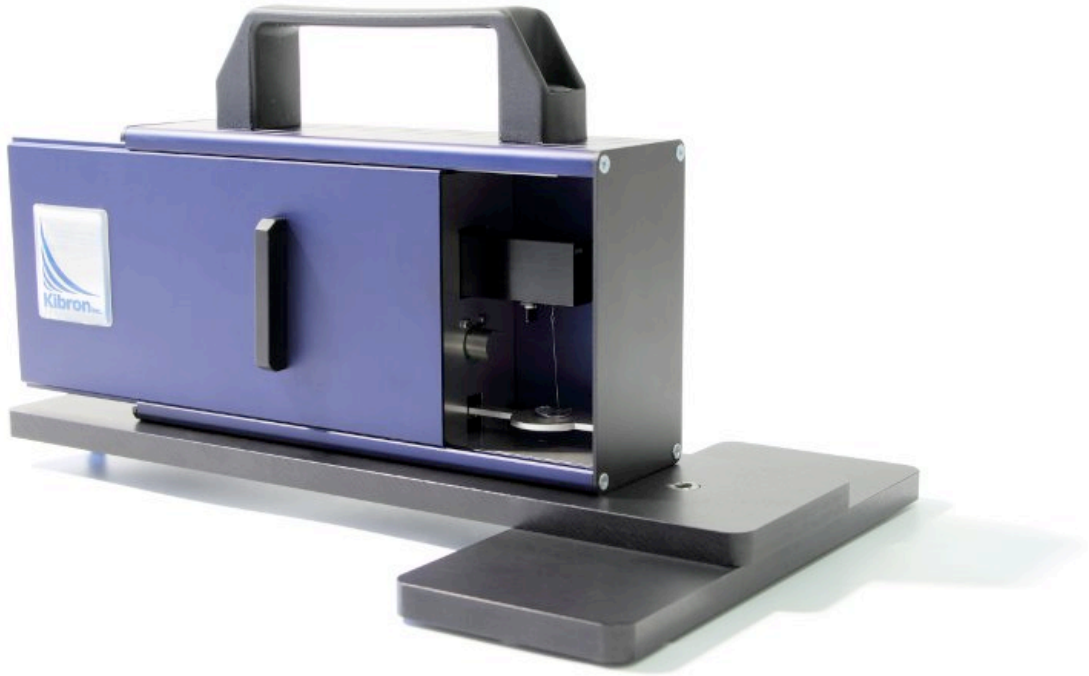
The PEM dual lock-in system employs a proprietary polarizing configuration offering maximum sensitivity for extremely thin dielectric and semiconductor films.

Click here to view JASCO's Ellipsometer Application Note PDF.

Click here to view JASCO's Material Science Application Note PDF.

Mustafa Kemal Mh. Villa Parselleri 559.Sokak No:33
Yenikent/ANKARA /TÜRKİYE
Tel : +90312 911 23 88
Fax : +90312 911 23 89
info@essa.gen.tr

Kibron SuperG - ultra microbalance



Kibron's ultra microbalance allows precise measurement of biomaterials and nanomaterials. A precise measurement of materials like lipids are needed to conduct cutting-edge lipodomics research. Kibron's ultra microbalance allows precise measurement of biomaterials and nanomaterials. The SuperG weighs lipid dry mass at 200 nanogram reproducibility.

The unit is delivered complete and ready-to-use with -

- Kibron SuperG ultramicrobalance
- USB stick with SuperG software and recommended measurement procedure
- USB cable to connect the SuperG to a computer
- 20 Kibron Nanopans
- Kibron Nanopan handling box

Mustafa Kemal Mh. Villa Parselleri 559.Sokak No:33
Yenikent/ANKARA /TÜRKİYE
Tel : +90312 911 23 88
Fax : +90312 911 23 89
info@essa.gen.tr

• Kibron Nanopan handling tool

Note: The SuperG requires a connection to computer or laptop with Windows XP/Windows 7 operating system

Mustafa Kemal Mh. Villa Parselleri 559.Sokak No:33
Yenikent/ANKARA /TÜRKİYE
Tel : +90312 911 23 88
Fax : +90312 911 23 89
info@essa.gen.tr