

SLD7000 Multi Angle Light Scattering Photometer

Powered by
WINGPC UNITY
Data System

Light Scattering Without Limits



Seven simultaneous angles measured with minimum interference, maximum sensitivity and reliability place the **PSS SLD 7000** in a leading position within the market, to perform the direct determination of the absolute molecular weight distribution of the macromolecular species without previous calibration or any other type of comparison. As long as you know the concentration of your polymer, there are virtually no limitations posed by assumptions or calculations. Characterizing dilute macromolecular solutions is now easier and more accurate.

Absolute molecular weight distributions

Radius of gyration (Rg)

Branching architecture and degree of branching

Structure coefficients with data evaluated with Zimm's, Debye's or Berry's method

Aggregation

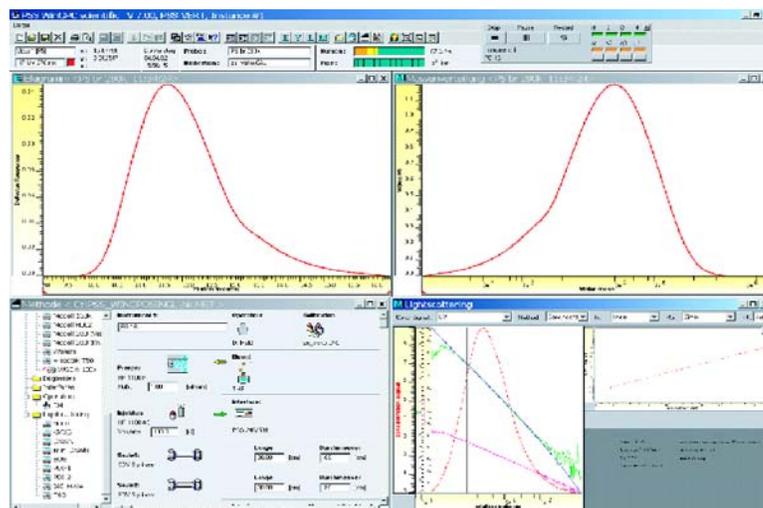
The SLD7000 Multi-angle Light Scattering Photometer uses the latest technological achievements in optics and electronics to ensure easy and reliable operation in all laboratories. It is compatible with any existing instrumentation. The

SLD7000 can be used stand-alone or as a GPC/LC detector. Instrument setup and operation is extremely easy using the plug & play USB hardware and software.

The SLD 7000 is ideal for the measurement of molar mass dependent macromolecular properties of synthetic, natural and biological polymers

PSS **WinGPC Unity** is the only software that seamlessly integrates all molar mass sensitive methods and detectors. Data can be processed/reprocessed online or post-run by simply selecting the appropriate data analysis method or method combination.

PSS WinGPC Unity light scattering module for multi angles yields absolute and reliable measurement of all molar mass averages and their distribution (without molar mass calibration), including dn/dc and recovery determination.



WINGPC Unity bird-eye view showing the chromatogram, method window and LS data for molar mass and Rg.



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Features

Relevance: simultaneous measurement of seven angles between 35° and 145°.

Reliability: by optimized flow paths and separated optics/electronics.

Unique Cell Design: self-venting, cylindrical cell with index matching, small dead volume and high-pressure stability (35 bar 500 psi).

High Sensitivity: from ultra-sensitive CCD detector and fiber-optics.

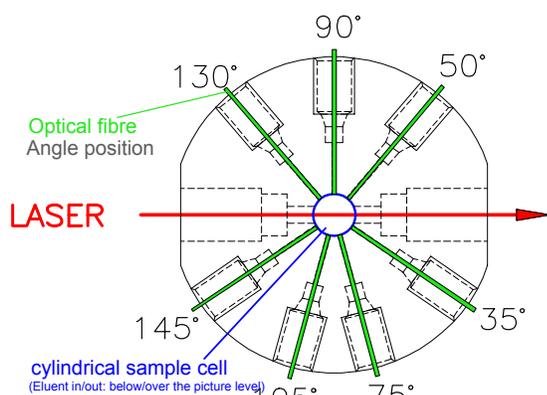
Fiber Optics system: low noise and minimized stray light

Accuracy and precision: resulting from extremely small scattering volume (0.02 µl).

High signal quality: small cell volume prevents band broadening and other artifacts.

Small footprint design: requires minimal bench top space.

Seamless: WINGPC integration.



Fields of Application

Polymer Research

Plastics, rubbers, resins, latex particles.

Biotechnology / Pharmaceutical

Biopolymers, proteins, antibodies, micelles, virus.

Environmental Research

Organic and inorganic particles, humic colloids.

Cell Design

The SLD7000 represents the latest development in light scattering. The unique cell design allows direct detection of scattered light in the cell after only one transition phase. There is no need to correct the scattering angle, even when changing solvent. Furthermore, the positioning of this cell leads to an optimized solvent flow which reduces air bubbles significantly. This in combination with a very small scattering volume of the cell and the optimized fiber optics with ultra-sensitive CCD delivers highest accuracy and sensitivity for any kind of polymer analysis

Specifications		Ordering Information	
Cell type	Cylindrical geometry, index matched	SLD 7000s	MALLS Photometer, static
Static scattering volume	0,02 µl	SLD 7000f	MALLS Photometer Detector
Scattering angles	35, 50, 75, 90, 105, 130, 145 degree	SLD 7000w	MALLS Photometer Detector with WinGPC Software
Typical molar mass range	< 1000 to 100.000.000 g/mol	Option	Temperature control up to 80°C
Relative molar mass	1%		
Typical (Rg) range	10 to 150 nm		
Laser specification	30 mW, 660 nm, vertically polarized		
Data communication	USB, plug & play		
Analog inputs	4 to 16 V, 24 bit resolution		
Manufacturer	Brookhaven Instruments Corporation		



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