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Multi-angle dynamic and static light scattering instrument Photocor Complex

Photocor Complex are based on the static and [dynamic light scattering](#) (photon correlation spectroscopy). This technique is ideal for measurements of nanoparticle size, diffusion coefficient, and molecular weight of polymers in solutions. A

traditional design of the Photocor Complex is optimal for a wide range of applications: from simple industrial tests to the most advanced research tasks. Measurement procedure and powerful software are suitable for any level of users.



Products

[Multi-angle dynamic and static light scattering instrument Photocor Complex](#)

[Particle size and zeta potential analyzer Photocor Compact-Z](#)

[Particle size analyzer Photocor Compact](#)

[Miniature particle size analyzer Photocor Mini](#)

[Correlator Photocor-FC](#)

[Photocor software](#)

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Features

Full-featured multi-angle dynamic and static light scattering, fast measurements, real-time size monitoring of nanoparticles

Modular architecture, rigid design, no optical table needed, easily configurable by user

Easy-to-prepare samples, suitable for various commercial sample cells and vials, replaceable index-matching vat system

Stepper-motor controlled turntable, compatibility with various APD photon counting systems

Unique flex-logic single-board correlator, linear and multiple-tau time scale, upgrade of hardware configurations

Original light-scattering geometry for particle sizing of opaque dispersions

Exceptional quality and reliability with all light scattering features for optimal price

Specifications

Measurement range	Particle size: 0.5 nm to 10 μm ¹ (diameter) Diffusion coefficient: $10^{-5} \dots 10^{-10} \text{ cm}^2/\text{s}$ Molecular weight: $10^3 \dots 10^{12} \text{ g/mol}$
Accuracy	$\pm 1\%$
Sample volume	50 μL to 10 mL
Scattering angle	$10^\circ \dots 150^\circ$, accuracy 0.01° , stepper-motor controlled turntable
Signal processing	Auto- and cross-correlation operation modes. Linear and logarithmic (multiple-tau) time scale. True real-time operation up to the fastest sample-time of 10 ns
Laser	TEC stabilized diode laser 638 nm, 25 mW ³
Thermostat	Temperature range: $5^\circ\text{C} - 100^\circ\text{C}$ (thermoelectric module), accuracy 0.1°C
Dimensions / weight / power	420 x 230 x 200 mm / 14 kg / 100...220 V, 85 W

¹ - depends on the optical characteristics of the samples

² - available option

³ - other models are available upon request

[Advanced Photocor technique for opaque dispersions](#)

[Photocor Complex custom design for University of Maryland](#)