

ZetaView® Evolution

Next generation Nanoparticle Tracking Analyzer -
made to explore the **colorful** nanocosmos



Full nanoparticle characterization:

- Calibration free size and concentration determination
- Concentration Scanning Technology
- Zeta potential measurement
- Sensitivity improved Fluorescence NTA (F-NTA) with up to 4 lasers and 11 fluorescence channels
- Colocalization NTA (C-NTA)

Size



Fluorescence



Colocalization



Zeta
Potential



Sub-
populations

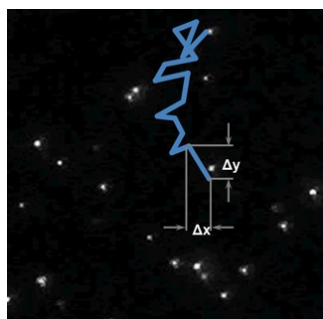


Concentration



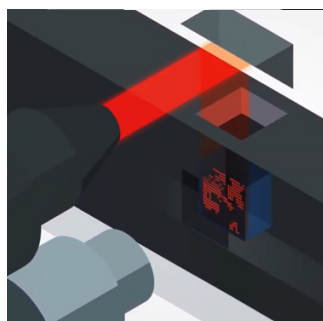
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Nanoparticle Tracking Analysis



Nanoparticle Tracking Analysis (NTA) is a widely used technique to characterize nanoparticles in liquids. It combines laser light scattering and video microscopy to visualize and track the Brownian motion of individual particles. By analyzing their movement, the particle size (hydrodynamic diameter) and concentration can be determined using the Stokes-Einstein equation.

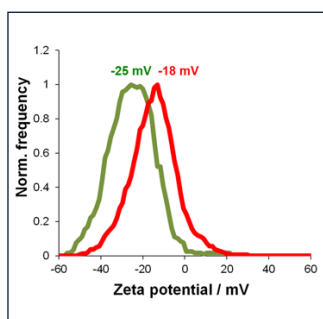
New Concentration Scanning Technology



Our new innovative Concentration Scanning Technology revolutionizes nanoparticle concentration measurements. The advanced technology captures all particles by scanning the entire measurement volume. This enables:

- **Calibration free** measurements
- Direct comparability between different sample types
- Direct comparability between fluorescence and scatter channels
- Precise, reproducible results across a wide concentration range:
 $10^5 - 10^9$ particles/ml

Zeta potential

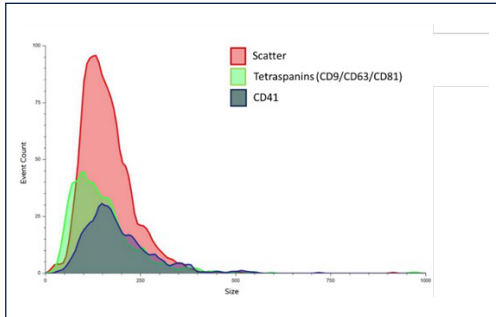


Zeta potential is the electrical potential at the slipping plane of a particle suspended in a fluid. It indicates the degree of electrostatic repulsion or attraction between particles and is a key parameter for predicting the **stability** of colloidal dispersions. A high absolute zeta potential (either positive or negative) suggests strong repulsive forces, which helps prevent particle **aggregation**.

The ZetaView® Evolution can measure Zeta potential directly inside its quartz glass measurement cell – no need for disposables.



F-NTA: measure up to 11 subpopulations in your sample

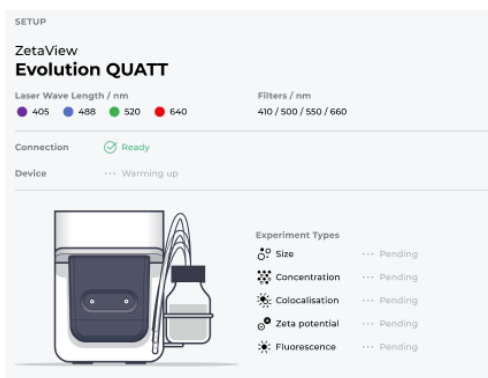


EVs isolated from human platelets, stained with F-NTA
Tetraspanin Detection Kit 520 (700382) and CD41-AF488

By using the fluorescence mode (F-NTA), more specific results can be obtained, since impurities like salt precipitates or protein aggregates do not impact the measurement result. Our ZetaView® Evolution features:

- Up to **4 lasers**: 405nm, 488nm, 520nm and 640nm or 660nm
- Up to **11 fluorescence channels** with customized filters
- Improved sensitivity level: < 20AF488 molecules (<10 binding sites)

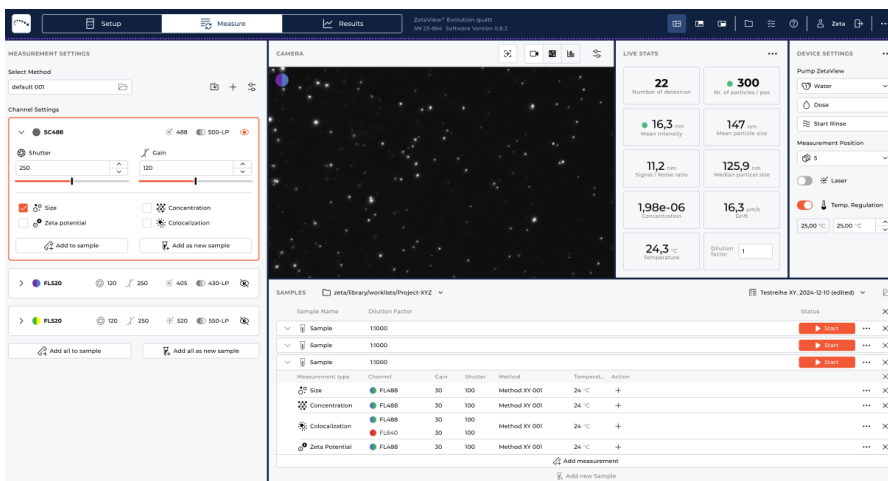
ZetaSphere software – explore the nanocosmos



By combining the popular and **intuitive** ZetaView® software with the requirements for **multi-level** sample analysis, we created the new ZetaSphere software – designed for perfect user experience.

Highlights:

- Predefined settings for different applications
- Live size and concentration statistics
- Complete multiparameter sample reporting
- Switch between lasers with one click
- Database event logging for data integrity



ZetaView® Evolution

Specifications



- Scanning NTA for size determination via Brownian motion tracking
- Concentration determination via Concentration Scanning Technology
- Available lasers: 405nm; 488nm; 520nm; 640nm; 660nm
- Minimum sample quantity: 500µl
- pH range: 1 - 13



Size range:
10 – 1000nm
(sample and laser dependent)



Concentration range:
 $10^5 - 10^9$ particles/ml



Sensitivity level:
Fluorescence
< 20AF488 molecules



Zeta potential working range:
-500mV - +500mV



C-NTA:
Colocalization of two
fluorophores on one particle

**For more information on the ZetaView®, or to discuss your requirements,
please contact us.**

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