



PARTICLE ANALYZER

(mod. NanoSight PRO)

VENDOR: ALFATEST SRL

YEAR OF ACQUISITION: 2024

SUPERVISING FACULTY MEMBER: Prof. Fabio Sonvico

Technical features:

- Nanoparticle Tracking Analysis Technology (NTA).
- Vertical microscope built on a motorized-test tube holder wheel, aligned to the acquisition cell.
- Two lasers with wavelengths equal to 488 nm and 532 nm, respectively.
- High sensitivity sCMOS camera, able to acquire signals over to 25 frame/second.
- Focus automatically adjusted by software to optimize video capture.
- Visualization of the nanoparticle scattering using NTA technique.
- Size range: 10 nm – 1000 nm.
- Particle concentration: 10^6 to 10^9 particles/mL.
- Long pass filter 500 nm and long pass filter 565 nm, for the visualization of fluorescent particles.
- Temperature control range: 5 °C below ambient up to 70 °C.
- Continuous sample flow with 1 mL syringes.

Applications:

Measurement of the dimension of particles in submicrobial formulations, starting from their diffusion coefficient in water or diluted biological matrices, providing the measurement for single particles.

Acquired for the Department of Excellence MUR 2023-2027