

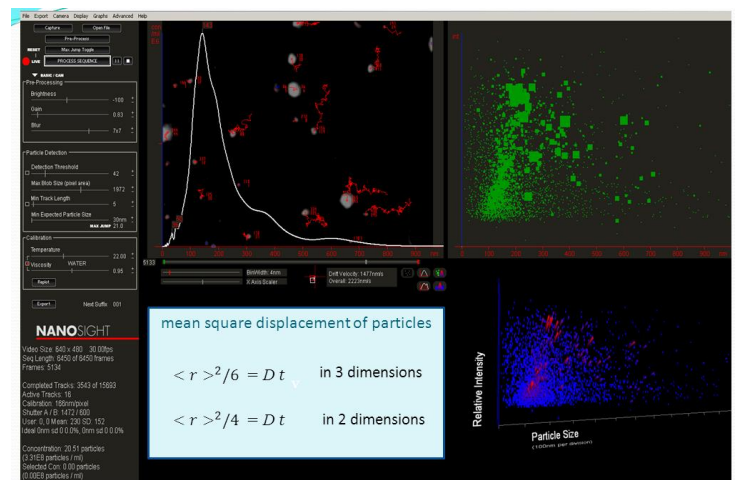
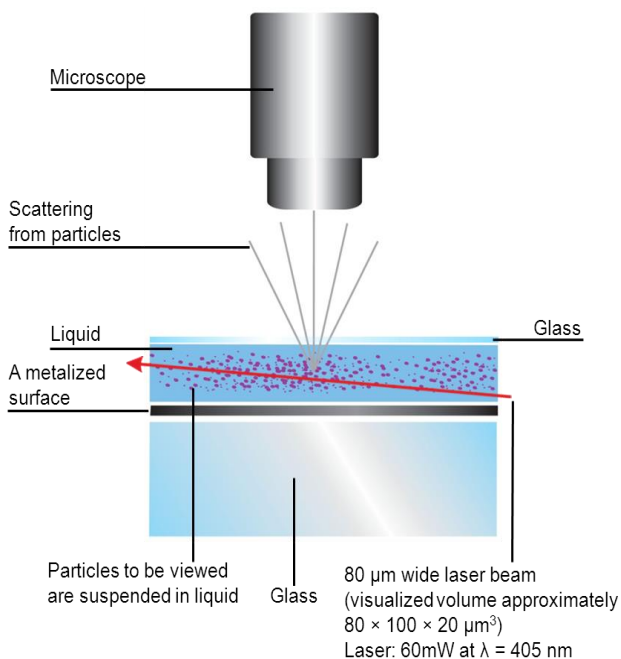
Laboratory of polymer materials

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Nanoparticle tracking analysis system NanoSight LM10:

This device allows visual microscopic tracking of nanoparticles and complex precursor systems in the focused laser beam noninvasively (without necessity of any significant system change due to drying or freezing like in the case of electron microscopy). The monitoring of tracks of individual particle diffusive motion allows creating size distribution based on the calculation of hydrodynamic radii from diffusion coefficients. Indispensable for fluid systems. Allows to measure particle count in absolute units which is not directly possible by using scattering or other non-microscopic methods suitable for fluid systems.

- 60mW laser operating at 405 nm
- observed volume 80 x 100 x 20 microns
- temperature controlled sample chamber
- NANOSIGHT NTA 2.3 image analysis software



Application:

- Two-dimensional visualization of nanostructures in soft matter (liquids, gels, emulsions) using optical microscopy even for subcritical sizes below Abbe limit.
- Particle size distribution measurements in soft matters (liquids, gels, emulsions) without necessity of significant system change like drying or freezing in case of electron microscopy. From 10nm to 2000nm dependent on the type of material.
- Measurement of particle count (concentration) in absolute units.