NANOSIGHT LM20

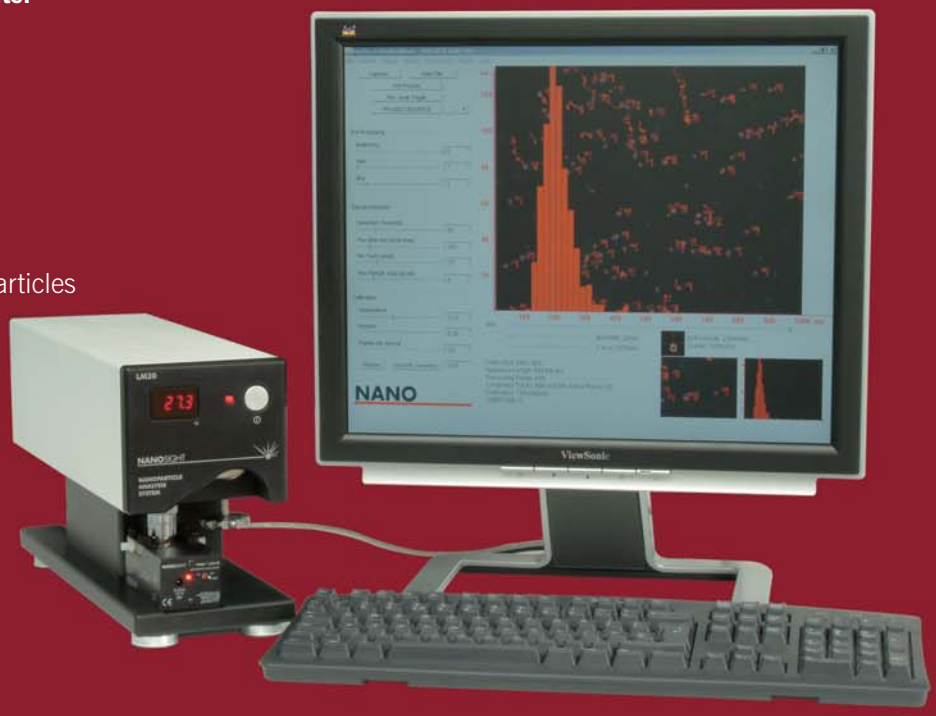
NANOPARTICLE ANALYSIS INSTRUMENT

Unique Nanoparticle viewing and analysis, in real time, at low cost and with virtually no preparation.

The Nanosight system provides both a direct, real time view of nanoparticles and a comprehensive particle-by-particle size distribution analysis. Both these data sets are unique to NanoSight.

The LM20 is proven with most nanoparticle classes, down to 15nm (dependent upon particle type), and dispersed in a wide range of solvents:

- Ceramic and metallic nanoparticles
- Pigments, paints and sun creams
- Pharmaceutical particles
- Viruses
- Carbon nanotubes (multi-walled)
- Colloidal suspensions and polymer particles
- Cosmetics and foodstuffs
- Particles in refined oils (soot, wax etc.)



Nanosight brings unique insight at submicron level, and provides a new and exciting characterisation capabilty, complementary to light scattering and electron microscopy.

NANOSIGHT..... seeing is believing

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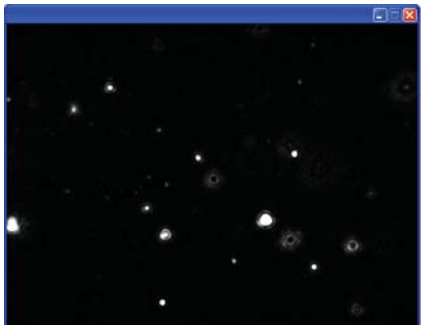
Technology: Nanoparticle Tracking Analysis (NTA)

The LM20 uses a laser light source to illuminate nano-scale particles. Enhanced by a near-perfect black background, particles appear individually as point-scatterers, moving under Brownian motion.

Polydisperse and multimodal systems are instantly recognisable and quantifiable, as are agglomerates and contaminants.

The image analysis NTA software suite allows the user to automatically track and size nanoparticles on an individual basis. Results are displayed as a frequency size distribution graph and output to spreadsheet. Video clips of images can also be retained.



LM20 view of Cerium oxide particles dispersed in organic solvent. The image clearly shows a range of particle sizes with the dimmest particles representing a population of small particles.

Simple in Use

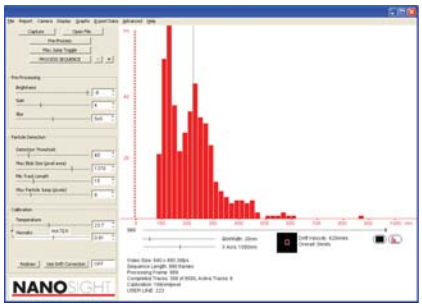
The Instrument consists of LM20 unit + control computer, keyboard + display screen.

500μl of sample of suitable viewing concentration is introduced into the viewing cell with a disposable syringe. A view of particles in motion is seen directly. The NTA image analysis software then rapidly determines the particle size.

Alongside PCS

The LM20 resides in research laboratories world-wide alongside Photon Correlation Spectroscopy (PCS or Dynamic Light Scattering) instruments. NanoSight's technology brings:

- An information-rich view of particles in motion.
- Sizing directly from individual analyses of many particles.
- Polydisperse systems can be better identified and resolved.
- No calibration is required.
- No refractive index data is required.
- No disposables and significantly lower purchase cost.



Particle size distribution of Cerium oxide particles. The distribution shows two peaks at 120nm and 220nm and provides a quantitative result from the qualitative image provided by the system.

LM20 Specification:

Liquid Phase Instrument

- Nano-particle analysis range: typically 15nm – 600nm, dependent on particle material
- Particle type: any
- Solvent: any non-corrosive solvent and water. A range of solvent-resistant seals are available.
- Power requirements: own adapter supplied
- Laser output: 30mW at 650nm (Class 1 Laser Product)
- Sample volume requirements: 500μl

NTA Analytical Software suite provides:

- Real-Time dynamic nano-particle visualisation
- Particle-by-particle analysis
- Particle counting and sizing
- Particle size distributions displayed as histograms, and output to spreadsheet
- Full reporting and batch processing facilities

NanoSight work continuously in product development, so specifications are liable to change. Contact us for latest update and applications information

Distributor Details

About NanoSight:

NanoSight was founded in 2002 to develop nanoparticle detection techniques around a suite of patents. A major international defence contractor was an early licensee, applying NanoSight's technology in virus detection. In 2005 NanoSight was one of a few UK businesses to be awarded a government nanotechnology research grant. NanoSight has a growing base of users and distributors worldwide. See our website for latest details: www.nanosight.co.uk

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