

Nano-particle Characterisation: Particle Size and Shape

The synthesis and use of nano-particles is currently a very strong theme both scientifically and in industry. New possible uses are discussed regularly in the press and projections of the size of the potential market in the future are impressively large.

Intertek MSG is a core provider to the DTI-funded NanoCentral initiative and has recently bought and commissioned new equipment in the particle sizing area that adds to its already-impressive array of equipment.

Characterisation of nano-particles can be quite a difficult process, one that requires access to a suite of techniques in order to fully understand the characteristics of the particles or droplets in your system; Intertek MSG can provide that suite of techniques. The following exemplify the capability of Intertek MSG in specific areas. Many of the techniques are described in more detail in further sheets which are available on request.

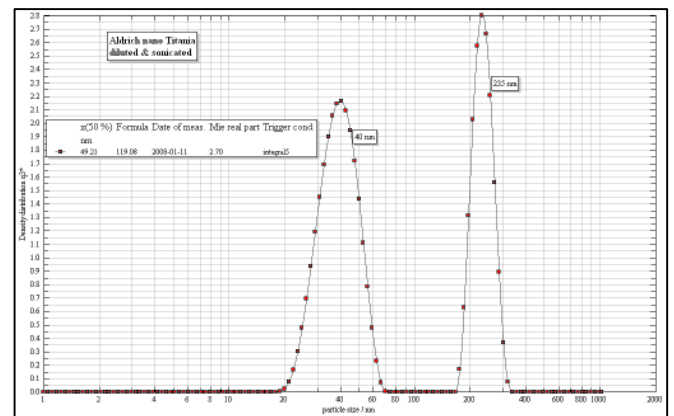
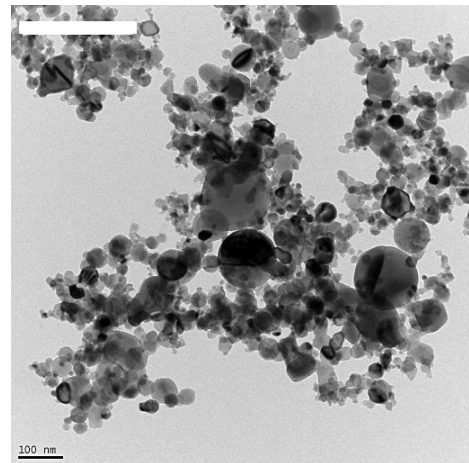
Particle Sizing

- Laser diffraction (LALLS – Beckman Coulter LS230 instrument)
- PCCS (Photon cross-correlation spectroscopy - a modern development of PCS or DLS)
- CPS Disc Centrifuge (24,000 rpm max operating speed)
- TEM/ new FEG SEM plus image analysis

Particle Shape

- TEM/ new FEGSEM plus image analysis

Figure: Inorganic particles dispersed in water plus a PCCS particle size distribution



To discuss particle sizing/shape issues, contact:
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