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The Real Size of Your Nano Particles – A New Royal Society of Chemistry Book

Anyone involved in particle characterisation will be interested in a new book recently launched by RSC Publishing: ***Analytical Ultracentrifugation – Techniques & Methods*** .

The book contains a chapter ***An Introduction To Differential Sedimentation;*** this outlines a technique called differential sedimentation, which enables ultra high resolution particle size distribution analysis down to around 3nm (depending on particle density). Extremely small differences and changes in particle size distributions can be detected and measured using this technique, and multi-modal distributions with peak maximums as close as 2% of each other can be effectively resolved.

The technique of differential sedimentation has been available for a long time. However, CPS is the only analytical instrumentation manufacturer that has developed the technique in recent years, enabling it to become a routine, easy-to-use, fast measuring, accurate and reliable particle sizing technique, whilst maintaining its unsurpassed resolution capabilities.

The new book is available from Analytik Ltd as well as directly from RSC Publishing. A PDF outlining the RSC book, as well as a brochure on the CPS Disc Centrifuge and many different application details relating to the technique of differential sedimentation, are available from Analytik Ltd.

Applications:

Pharmaceutical & Biological:
- Virus particles/virus-like particles
- Cells (culture) and cell fragments
- Protein clusters
- Liposomes
- Micro-encapsulated drugs
- Particles in diagnostic tests

Chemical:
- Polymer latexes and emulsions
- Fillers ($CaCO_3$, clay, barites, etc.)
- SiO_2 dispersions
- Abrasives (of all types)
- Impact modifier particles
- Oil emulsions

Printing and painting:
- Pigments - water and oil based
- Micro-fiber paint viscosity modifiers
- Printer/copier toner powders
- Inkjet inks
- Titanium dioxide
- Carbon black
- Magnetic iron oxide

Semiconductor:
- Micro-abrasives
- CMP compounds for integrated circuits

Others:
- Micro-spheres
- Agglomeration patterns
- Starch/flour particles

Analytik Ltd
Unit 4 The Acorn Centre
Chestnut Avenue
Biggleswade
Beds SG18 0RA
Tel: +44 (0)870 991 4044
Fax: +44 (0)870 135 2488
Email: info@analytik.co.uk
Web: www.analytik.co.uk