Press release

Hardness testing of fertilizers? Colourants in pharmaceutical suspensions?

International Workshop Dispersion Analysis & Materials Testing 2016 - First programme information

Berlin, 30 June 2016: The 7th International Workshop Dispersion Analysis & Materials Testing is hosted by LUM GmbH in Berlin, Germany, from 26-27 September 2016. Here, during this now traditional interdisciplinary conference, particle scientists meet product formulators, application engineers meet scholars from extremly different application areas. All have in common the use of STEP-Technology® for particle and dispersion characterization respectively the use of CAT-Technology® for the timesaving determination of adhesion forces and composite strength. Both technologies developed by LUM.

The event provides all participants with the platform to discuss their questions with international experts, to network within the global community and to set future trends in their particular research and development and production fields.

First highlights of the programme are set.

Results from fundamental research of the temperature influence on the density distribution during particle sizing of nanoparticles take centre of the talk of an Israeli scientist from Bar-Ilan-University. The evaluation of particle sizing with analytical centrifugation using a LUMiSizer® within the European Union Project NanoDefine will be presented by a member of Technical University of Dresden. A standard procedure for the characterization of nanoparticle properties and interactions by measuring the Hansen Solubility Parameters (HSP) with the LUMiSizer®, developed in cooperation with Institute of Particle Technology (LFG), FAU Nuremberg, will be introduced by scientists from this institution. The homogeneous dispersion of inorganic fillers in polymeric matrices, e.g. of flame retardants in thermosetting based adhesives for electronic applications, or of inorganic fillers for thermoplastic parts in the automobile industry, was investigated in the European Centre for Dispersion Technologies using a LUMiReader® X-Ray.

LUMiFuge® is applied to understand the aggregation behaviour of red blood cells in solution containing various polymers. A Bulgarian scientist from Sofia university determines important

information on the later use of these molecules as plasma expanders or for organ preservation in transplantation medicine.

Accelerated separation stability testing with LUMiFuge® and LUMiSizer® plays an important role in food, parmaceutical and agrochemical industries, too. GNT Europa, Aachen, report on investigations of carrot-pumpkin-concentrate and about colourants dispersed in oil. Boehringer Ingelheim Vetmedica discuss the separation of pharmaceutical suspensions under accelerated conditions in comparison to storage stability at gravity. A representative of the French company Agronutrition ranks highly concentrated mineral fertilizer dispersions based on their sedimentation kinetics, to benefit from the fast results for formulation development.

Particulate networks in industrial coagulated suspensions and compressibility of particles and sediments are research topics at the University of Melbourne, Australia. Here, an important application area of analytical centrifugation for solid-liquid-separation is exemplarily shown, being of importance e.g. in wastewater treatment. The contribution from Karlsruhe Institute of Technology about the the energy input caused by shearing on the sedimentation velocity and sediment compression of lactic acid bacteria cultures appears in similar context.

The comparison of conventional single-sample vs. multiple-sample hardness testing, as realized in Adhesion Analyser LUMiFrac®, is presented by an expert from the Federal Institute for Materials Research and Testing, Germany (BAM). A comparison of both technologies is made for Brinell and Vickers hardness for different materials, according to the applicable norms.

The conference programme 2016 will be complemented by a course given by LUM experts in German, English, French and Spanish languages. After focussing on particle characterization in the year 2015, this year's course draws attention to aspects of stability characterization of formulations in original concentration. „Reading" raw data, understanding application examples according to ISO/TR 13097 (Guidelines for the characterization of dispersion stability) and practical realization of these guidelines in real-time or accelerated using LUM instruments.
The evening programme including dinner on the first conference day welcomes all participants to experience Berlin city centre in autumn.

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A further highlight of the event will be the session on the second day dedicated to Young Scientist Award 2016. This prize is donated by LUM GmbH for outstanding scientific achievements in the fields of particle and dispersion analysis and materials testing. From many applicants the best candidates were nominated and invited to discuss their results during the special workshop session. The prize winner will be selected by a jury and receives the award in the end of this session.

Online registration: http://workshop2016.lum-gmbh.com/
All information at a glance:
https://www.lum-gmbh.com/tl_files/Veranstaltungen/webflyer_IWDM_2016.pdf
Abstracts:
https://dispersion-letters.com/seminars-and-events/postings-seminars-and-events/abstracts-intl-workshop-dispersion-analysis-materials-testing-2016/

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