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No more guessing: Measure size and shape simultaneously by combined laser diffraction and dynamic image analysis

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Both laser diffraction and dynamic image analysis are proven and widely used tools to monitor particle size distributions. Laser diffraction as an ensemble technique can cover a broad range of particle sizes from as low as 10 nanometer to 2-3 millimeter. Dynamic image analysis typically starts at 1 micrometer and goes up to several millimeters, and can also measure particle numbers in a quantitative way. Furthermore, image analysis allows for the assessment of over 30 optical parameters to reveal morphology and particle identity. Traditionally, these methods are used separately and need their own sample preparation. However, after combining newest tri-laser diffraction technology with state-of-the-art image analysis, it is possible to incorporate these 2 measurement methods in a single device, with just one sample preparation for both methods. This reduces work time and operational cost and cost for equipment acquisition up to 40%. We show examples of simultaneous employment of laser diffraction and dynamic image analysis for several kinds of applications in ceramics and filtration.

Biography

Thomas D Benen started his scientific career as a Researcher in Molecular Biology at University Clinics Regensburg, Germany. He completed his MSc in Bioinformatics and Business Administration from the University of Regensburg and PhD in Virology from the University of Hamburg. He worked as a Marketing Representative for the biotech incubator BioPark Regensburg until 2011. In 2012, he joined NanoSight Ltd., as Technical Sales Engineer. In 2013, he became Application Specialist for Nanometrics at Malvern Instruments and in 2014 Territory Manager. Since 2015, he is the Sales Manager for Microtrac GmbH for Germany, Austria and Switzerland (D-A-CH).

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