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Press Release

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analytica

European premiere

Small is beautiful

SALD-7500nano - For small particles and biopharmaceuticals /
Application-specific configuration /
Measurement range from 7 nm to 800 μm

Shimadzu, one of the world leaders in analytical instrumentation, presents its SALD-7500nano particle size analyzer to the professional community during the analytica show in Munich, Germany. This powerful new tool is ideal for research and development in nanotechnology and life sciences. As the successor of the SALD-7101, the SALD-7500nano is the latest product in Shimadzu's particle size measurement series. It has been developed for highly sensitive and accurate measurement in the particle size range of nano to submicron regions. The system configuration can be optimized to address various applications, purposes, measurement objects, environments and conditions.

The SALD-7500nano is aimed at the following target markets.

1. **Evaluation of nanoparticles and nanomaterials**
   Nanoparticles and nanomaterials are used in a wide range of business segments, e.g. cosmetics, food, paint industry and for the development of new advanced technologies such as antireflection coatings. Concerns about the negative effects of nanoparticles and nanomaterials, so-called nano-risks, have

led to regulation in EU and other nations. In all cases, the measurement and evaluation of the particle size distribution is a fundamental challenge. The new SALD-7500nano is able to determine particle size distributions from 7 nm to 800 μm in concentrations from the sub ppm range to 20 %.

2. **Evaluation of aggregation properties in biopharmaceuticals**

   Aggregate Sizer, a specialized version of the instrument, evaluates aggregation properties of biopharmaceuticals. The Aggregate Sizer measures aggregates in the size range from 7 nm to 800 μm. Furthermore, aggregate concentrations in the sub-visible particle range (from 100 nm to 10 μm) can be evaluated quantitatively (in terms of μg/mL).

Specifications, functions and features

The new SALD-7500nano covers the measurement range from 7 nm to 800 μm in a concentration range from 0.1 ppm to 20 %. Sample amount required is just 5 mL (15 μL with accessories). The continuous measurement function allows real time monitoring while saving measurement data at 1s intervals.

Outstanding functions and features of the SALD-7500nano include built-in self-diagnostic functions for easy maintenance and the measurement assistant functions for preparation of SOPs (Standard Operation Procedures) to ensure that measurements are always performed using the same conditions and procedures. Automatic refractive index calculation function eliminates errors and problems in selection of refractive indices. The laser diffraction method complies with ISO 13320 and JIS Z 8825-1 and enables verification of measurement result validity by referencing light intensity distribution data.

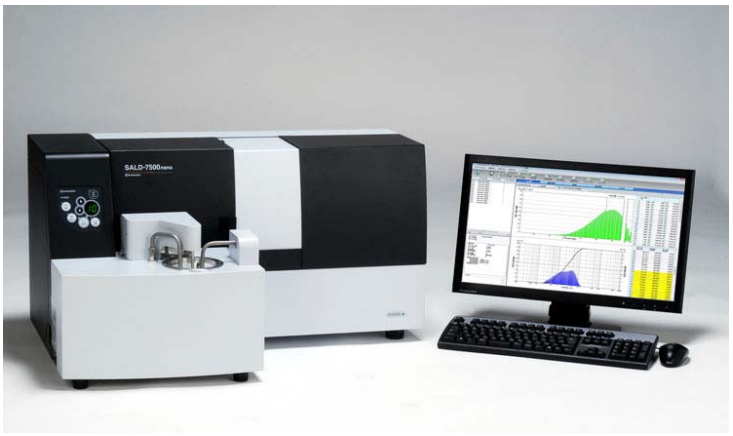

Figure 1: The new SALD-7500nano specifications, functions and features make it the perfect tool for evaluation of nanoparticles and aggregation properties.

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