



# **Press Release**

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# Spectroscopy anniversaries present new solutions

New series of scanning spectrophotometers UV-2600/-2700 / FTIR spectroscopy: tailor-made system configurations / BioSpec-nano: spectrophotometer for life sciences

Shimadzu, one of the worldwide leading manufacturers of analytical instrumentation and market-leader in UV-VIS-NIR spectroscopy, has been setting milestones for almost 60 years. With the UV-2700, a new series of scanning spectrophotometers is now available – a true double-beam double monochromator system in a compact and attractive design. The installation space requirement of the instrument is 28% less than the UV-2550 predecessor model.

The new compact spectrophotometers ensure high-precision analysis of a wide range of samples, such as organic and inorganic compounds, biological samples, and optical and photovoltaic materials.

## Challenging applications

The high performance level of the optical system is based on Shimad-zu's LO-RAY-LIGH® diffraction grating, combining maximum efficiency with minimum levels of stray light. The UV-2700 operates in the wavelength range of 185 to 900 nm and enables challenging applications such as direct measurement of high-density samples of up to 8 absorbance units without dilution.

#### For the first time in Germany: UV instrument optics

Shimadzu has always manufactured the optics of its UV instruments and now exhibits these for the first time during Analytica 2012. The highly efficient customer-specific components distinguish themselves by their low level of stray light, ensuring maximum quality with highest accuracy of the results measured.

#### UV-2600 single monochromator

The UV-2600 single monochromator version is available for users not needing the extremely low stray light of the UV-2700. Combined with the dual-detector system of the ISR-2600 Plus integrating sphere, a measuring range from 185 nm up to 1,400 nm is possible, allowing determination of optical materials or in-depth analysis of photovoltaic substances.

# Measurement of large-size, solid samples

The large multi-purpose MPC-2600 sample compartment with built-in integrating sphere allows measurements of large samples such as optical components or camera lenses. Various cell holders such as constant-temperature, film or a powder sample cell can be also be installed, enabling an extensive range of measuring options. The instrument is equipped as standard with USB ports and is controlled via the new UVProbe software version 2.40. For pharmaceutical and other applications requiring hardware validation, the UV-2600/2700 series comes as standard with integrated validation software. USP, EP and JP (pharmacopoeia) testing requirements are supported.

#### 55 years of FTIR spectroscopy

Shimadzu celebrates its 55<sup>th</sup> FTIR spectroscopy anniversary. Infrared spectroscopy is the most important analytical method for the unequivocal identification of samples from a wide range of application areas such as pharmaceuticals, foods, polymers and mineral oils. With the IRAffinity-1 and the IRPrestige-21, Shimadzu currently offers modern

system configurations that can be adapted to the most diverse range of sample materials.

## **Spectrophotometer for life sciences**

The dedicated BioSpec-nano spectrophotometer quantifies simple as well as labeled nucleic acids and even proteins. The BioSpec-nano is suitable for genomics research, molecular biology, agriculture, medical diagnostics and quality control of genetically modified foods.

The BioSpec-nano combines accuracy and reproducibility of results with economical use of valuable sample materials. In order to carry out analyses, only ultra-small sample volumes of 1 to 2 µL are needed. Special cuvettes are not necessary. For larger volumes an optional rectangular cell adapter is available.

With its automated precision drive mechanism for cleaning of the measuring positions and its large analytical range, the BioSpec-nano offers easy operation as well as efficient capability for RNA/DNA quantification.



**Image 1**: UV-2700 - a new series of scanning spectrophotometers ensures high-precision analysis of a wide range of samples



**Image 2**: customer-specific optics made by Shimadzu – components guarantee maximum quality and highest accuracy of results measured.



**Image 3**: The IRAffinity is an example of the anniversary year's product portfolio. The system can be adapted to the most diverse range of sample materials.

For further editorial questions, please contact: Uta Steeger, Shimadzu Europa GmbH, Albert-Hahn-Str. 6-10, 47269 Duisburg Tel.: +49 (0) 203-7687-410, e-mail: us@shimadzu.eu

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