



New solutions for characterizing SSL and laser light sources at electronica 2018

At electronica (booth A3/443) from 13–16 November 2018 Instrument Systems will be unveiling its new goniophotometer together with high-resolution spectroradiometers for the characterization of SSL and laser light sources.

Munich, September 2018 – Instrument Systems supports the lighting industry in the development of innovative products by providing state-of-the-art light measurement technology. This applies to both SSL/LED and laser light sources. At electronica 2018, booth A3/443, Instrument Systems will be presenting a new measuring system for solid state lighting applications and LED modules in the form of the new LGS 650 goniophotometer. The latter is a further member of the proven LGS family and in combination with a spectroradiometer it is ideal for the highly precise determination of spectral properties such as color coordinates, color temperature and color rendering index as a function of the angle. For the absolute characterization of narrow-band emission sources, Instrument Systems offers the CAS 140CT-HR high resolution array spectroradiometer. This is also excellently suitable for 24/7 use in the production line, e.g. for fast testing of laser diodes or VCSELs at wafer level.

In all aspects of life, classical light sources are now being superseded by SSL (solid state lighting) sources. The latter enjoy widespread use not only in general lighting, but also in street lighting or growth-stimulating lighting for plant cultivation (urban farming, multi-layer cultivation). In the development and production of these light sources, it is crucial to precisely determine their spatial radiation properties with respect to an eco-friendly application. For this purpose, Instrument Systems developed the array spectroradiometer, which in combination with a goniometer enables angle-dependent measurements. The new LGS 650 goniometer, to be launched at electronica 2018 international, is part of the tried-and-tested LGS family and provides a low-cost alternative for samples up to a diameter of 1300 mm and a weight of 10 kg. Combined with a spectroradiometer, e.g. the CAS 140D or a photometer, all parameters can be determined to the highest degree of precision as a function of the angle.

Besides SSL sources, laser sources are also growing in importance in scientific and hightech applications or in the field of sensing and lighting. They are used, for example, in structure and surface analysis, and in the medical or industrial field. A high-resolution spectroradiometer is required for absolute characterization of these narrow band emission sources. To this end, Instrument Systems developed the CAS 140CT-HR array spectroradiometer, based on the proven CAS 140CT spectroradiometer and optimized for the photometric analysis of laser diodes, etc. It delivers measurement results with a high spectral resolution coupled with short measurement times, and is thus ideally suited to challenging tasks in production and the laboratory. Especially for the fast testing of laser diodes or vertical-cavity surface-emitting lasers (VCSEL) already in the production line, the CAS 140CT-HR offers decisive advantages compared to conventional technologies. Dispersive, scanning or Fourier-transformed IR spectrometers (FTIR) contain moving components that react sensitively to production vibrations. The CAS 140CT-HR consists only of fixed components and is thus highly stable and reliable.

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Caption: The LGS 650 Type C goniophotometer with horizontal optical axis for medium-sized and large SSL products.

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Company profile of Instrument Systems GmbH

Instrument Systems, founded in 1986 and based in Munich, Germany, develops, manufactures and markets turnkey solutions for light measurement. Its main products are high-performance array spectroradiometers, imaging photometers and colorimeters. Key applications are LED/SSL and display measurement, as well as spectroradiometry and photometry. Today Instrument Systems is one of the world's leading manufacturers in this area. Products of the Optronics line for the automotive industry and transport sector are developed and marketed at the Berlin location. Since 2012 Instrument Systems has been a wholly-owned subsidiary of the Konica Minolta Group.

For further information or photos / illustrations:

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