Instrument Systems
KONICA MINOLTA Group

SUCCESS STORY

Quality Monitoring of Optoelectronics Components & Aging Behavior of OLEDs and LEDs in Lab

Instrument Systems' CAS 140D high-end spectroradiometers, ISP series integrating spheres and luminous intensity measurement adapters are applied in HTV´s state-of-the art light laboratory to scientifically test the aging behavior of OLEDs, amongst other emitters, and for quality monitoring within the scope of long-term storage of optoelectronic components.

Numerous customers make use of the competence and large number of equipment in the HTV light laboratory for services and analyses.

Quality Monitoring

Error analysis

HTV group

Image source © HTV Conservation GmbH

\\ PARTNER INTRODUCTION

www.htv-gmbh.de

HTV, founded in 1986 as a high-performance center and test house for electronic components, is one of the worldwide market leaders in the field of testing, component programming, long-term conservation and storage, analyses and processing of electronic components.

With the help of a multitude of specific procedures and methods such as scanning electron microscopy, x-ray, XRF, scanning acoustic microscopy, Fourier-transform infrared spectroscopy (FTIR), optoelectronic components and assemblies can be examined selectively and reliably in HTV´s laboratories.

> ***With top notch light measurement technology from Instrument Systems, we are able to perform complex measurement tasks, knowing that we get the best possible support and service.***
>
> **Holger Krumme**
> *Managing Director – Technical Operations*

\\ MEASUREMENT CHALLENGE

A single poor-quality component or a bad solder joint can impact the function and quality of an entire electronic assembly. To ensure perfect functionality and quality, the analysis of optoelectronic components and assemblies is becoming increasingly important. Applying customer-specific test concepts, errors can be analyzed comprehensively or potential weak points can be identified in advance.

Due to the constantly increasing number of discontinued products and the frequent lack of availability of electronic components for series production and repair of various end products, the storage of important components is increasing in importance. To ensure perfect functionality and quality, regular photometric analysis of the stored optoelectronic components is essential. The determination of critical optical parameters such as intensity, wavelength, color temperature or color coordinates is of crucial importance, especially for sensitive areas, such as in medical technology, where the optical values of LEDs used in measurement technology must remain constant in absolute terms over the entire service life.

\\ TURNKEY SOLUTION

HTV´s light laboratory is among of other highly sophisticated instruments equipped with Instrument Systems' array-spectroradiometer CAS 140D combined with a 1m integrating sphere from the ISP-series. The CAS 140D is the worldwide established reference for high-precision spectral light measurement. It provides a decisive advantage in the precise spectral measurement of LEDs and luminaires, even over long periods of time. A calibration of the entire system, traceable to PTB or NIST, further guarantees correct and comparable measurement results. This measurement system makes the quality control at HTV extremely reliable and helps the customer to be successful in a challenging market.

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