Long-distance Spectrometer

Tiny elliptical microlenses efficiently focus light onto and extract it from nano-sized light emitters, enabling an ultra-long-working-distance measurements.

CRONO is a mobile and reconfigurable fast micro-XRF scanner. Based on the EDXRF technique, it has been designed for in-situ, non-destructive and high speed examination of large objects.

In this paper, a Dyson imaging spectrometer with freeform surface has been designed. The freeform surface is used to enlarge clearance distance and compensate the large residual aberration without ...

This article demonstrates a imaging spectrometer using Fery prism with large working distance and long slit length. Two spherical lenses are inserted between the double-convex lens and ...

In this work, we demonstrate the use of a chromatic confocal sensor for long-distance measurements. The sensor increases the working distance of state-of-the-art confocal sensors by a ...

We present the successful implementation and validation of a dual-frequency comb spectrometer coupled to an atmospheric inversion system (DCS Observing System) for the monitoring of methane ...

One of the major benefits of this long-distance measurement technique is being able to handle samples of various sizes and thicknesses without needing to adjust the laser focus for specific samples.

Our scheme boasts the potential of straightforward chip architecture and minimal detector requirements and provides an advanced method for future high-precision long-distance ...

We have demonstrated absolute distance measurement for distances up to 50 m utilizing thousands of wavelengths from a femtosecond frequency comb, resolved by a VIPA spectrometer.

The angular resolution of existing imaging spectrometers does not vary with the measuring distance. However, existing imaging spectrometers cannot achieve a high spatial resolution for all ...

In this work, we demonstrate the use of a chromatic confocal sensor for long-distance measurements. The sensor increases the working distance of ...

Web: https://prospettivacasa.eu