nlir

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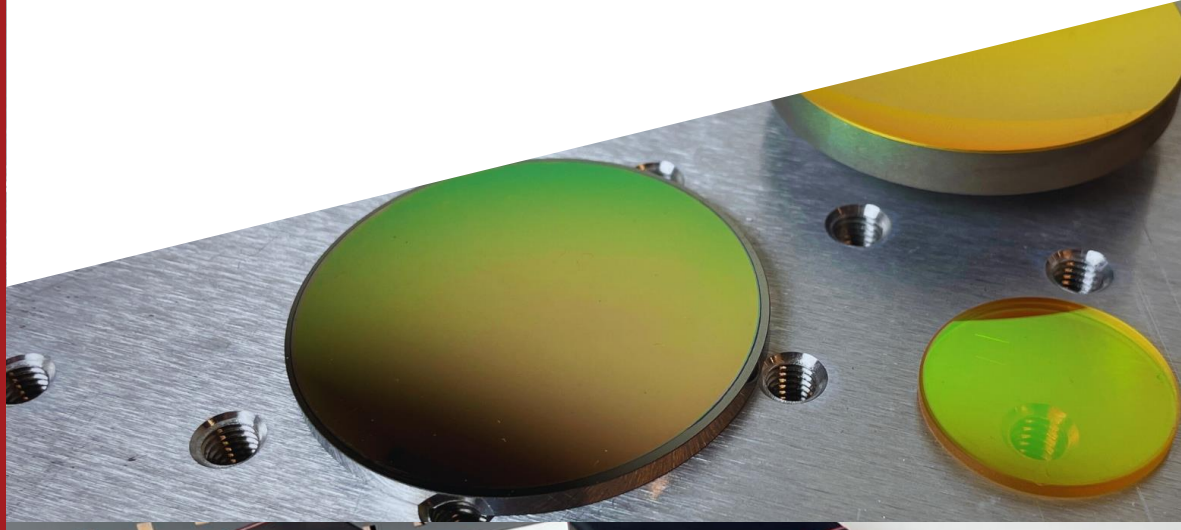

INSPECTION OF INFRARED COATINGS

Don't let the conventional spectrometers slow you down!

Upgrade to a fast and sensitive infrared spectrometer and start achieving accurate and efficient results in no time.

Contact us today to learn more about our cutting-edge technology and easy-to-use optical interfaces.

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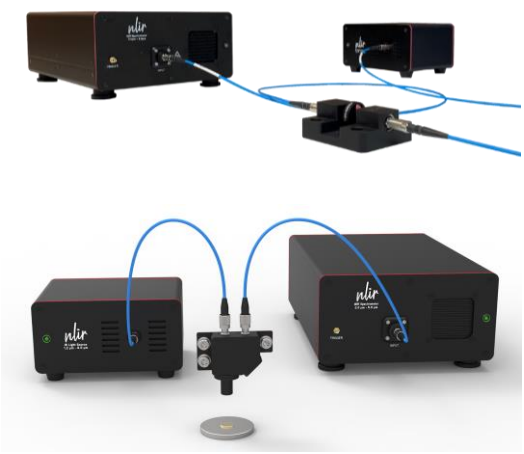
FAST AND SENSITIVE SPECTROSCOPY

Our infrared spectrometer is the perfect tool for inspecting the precision and performance of infrared optical coatings on various optical surfaces. Unlike conventional FTIR spectrometers that can take too long to provide accurate results, our fast and sensitive infrared spectrometer can deliver useful data in just a few milliseconds. Together with a bandwidth of 2.0 – 5.0 µm and a resolution of 6 cm^{-1}, our spectrometer boasts a maximum full-spectrum readout rate of 400 Hz, making it a reliable and efficient solution for coating inspection.

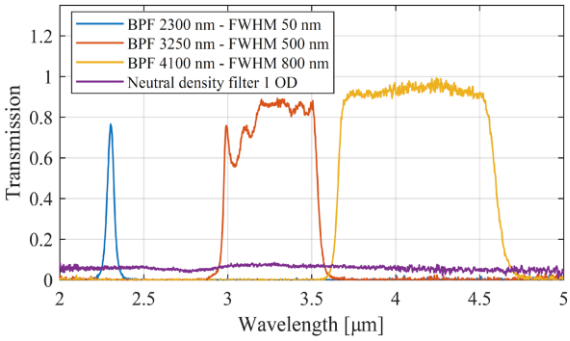
NLIR BUNDLES FOR COATING MEASUREMENTS

One of the biggest challenges in coating inspection is ensuring optimal light guidance to and from the sample. That's why we've developed two simple fiber-coupled interface bundles for optical coating inspection that are specifically designed to address this issue. Whether you need to measure samples in transmission or reflection, our interfaces can help you get started and achieve accurate results quickly. Plus, with a minimum detectable power of only 5 pW/nm in our spectrometer, even dark or low-reflective samples can be measured with ease.



Schematics of NLIR light source and infrared spectrometer setup for coatings; transmission (top) and reflection (bottom)

COATING MEASUREMENTS



Raw data (no smoothing, post-processing, or pixel binning) from a transmission measurement using the transmission interface bundle of three bandpass filters (BPF) and one neutral density filter 1 OD. Each curve is acquired in 10 ms and plotted relative to a reference (empty path in air).

We put our infrared spectrometer and interface bundles to the test by measuring the transmission of three bandpass filters and one neutral density filter, which are available for purchase from major optics components suppliers. With an exposure time of only 10 ms and using the transmission interface bundle, we were able to acquire single-shot data as shown in the accompanying graph. This demonstrates the speed and quality of our infrared spectrometer, making it the perfect solution for fast and reliable coating inspection.