



● LUMOS II FTIR Imaging Microscope

LUMOS II features:

- Superior focal-plane array (FPA) technology
- High-definition spectroscopic and visual data
- Ultrafast data acquisition in FPA imaging
- FTIR imaging in ATR/transmission/reflection
- Fully automated measurements in all modes
- TE-MCT detector as standard
- Software guided measurements
- Analyze samples up to 40 mm in height
- Huge field of view at submicron resolution
- All hardware motorized and software controlled for your convenience
- Complies to cGMP, Pharmacopoeias and FDA 21 CFR part 11
- Automated OQ/PQ/pharmacopeia tests
- Always reliable performance with PermaSure+

What is the LUMOS II?

The LUMOS II is as an easy-to-use, stand-alone FTIR imaging microscope with peak performance in any measurement mode. Whether it is transmission, reflection or attenuated total reflectance (ATR), the LUMOS II is always the right choice.

What are the benefits of FTIR microscopy?

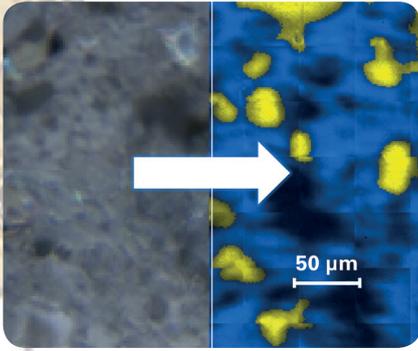
Conventional microscopy is clearly one of the most widespread analytical techniques in research, forensics, failure analysis, life-science and electronics.

Combine it with FTIR and you get a precise and even more powerful tool for a comprehensive microanalysis. Detect and immediately characterize tiny particles, product defects or tissue anomalies.

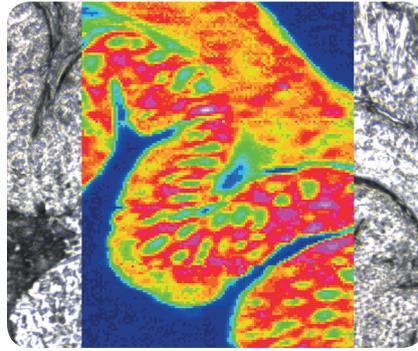
Why go for FPA imaging?

Focal Plane Array (FPA) detectors record IR data at ultra high speed with maximum spectral detail. They are the ultimate choice for FTIR imaging and recording large amounts of data in minimal time.

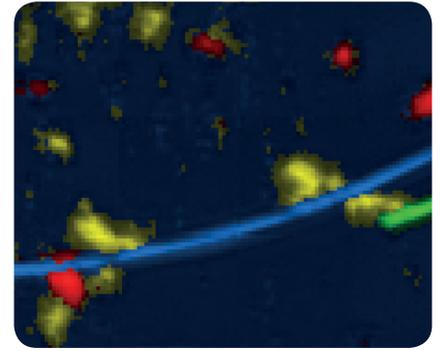
We call it true imaging. Why? Because it is so straightforward and offers all users great benefits in spectral analysis. It is applicable in all measurement modes and offers almost unlimited possibilities.



Microscopic contaminations in this polymer sample were chemically identified.



A microtome tissue section was examined for protein and fat distribution.



Micro particles and fibres with different chemical compositions were highlighted in a false color plot.

Product Highlights

▪ FPA imaging

LUMOS II offers exclusive focal-plane array (FPA) imaging technology. Access superb spatial resolution, peak sensitivity and collect 1024 spectra in a single scan.

▪ Automation

The hardware is fully motorized and software controlled. Change measurement modes and switch detectors in seconds with a mouse-click.

▪ Detector

The standard TE-MCT detector requires no liquid nitrogen and still delivers high sensitivity for small samples. Equip up to three detectors (incl. FPA).

▪ Software

Software guided measurement workflows help you perform an efficient microanalysis. The OPUS IR software is intuitive, practical and productive.

▪ Sample view

LUMOS II delivers sub-micron visual resolution and high definition visual images of an exceptionally large sample area.

▪ PermaSure+

Revolutionary calibration technology that offers wavenumber accuracy and precision for imaging on par with single-element detectors (patent pending).

Applications

- Particle identification
- Root cause and failure analysis
- Quality control of products
- Product development
- Surface investigations

Industries

- Polymer
- Chemical
- Automotive
- Life-science
- Pharmaceutical
- Arts and restoration
- Forensic-sciences
- Environmental

Technologies used are protected by one or more of the following patents:
DE102004025448; DE19940981

**Bruker Optik is ISO 9001
and ISO 13485 certified.**

Laser class 1 product

www.bruker.com/optics ● **Bruker Optics Inc.**

Billerica, MA · USA
Phone +1 (978) 439-9899
Fax +1 (978) 663-9177
info.bopt.us@bruker.com

Bruker Optik GmbH

Ettlingen · Germany
Phone +49 (7243) 504-2000
Fax +49 (7243) 504-2050
info.bopt.de@bruker.com

Bruker Shanghai Ltd.

Shanghai · China
Phone +86 21 51720-800
Fax +86 21 51720-899
info.bopt.cn@bruker.com