# TransMIT Project Division for High-Frequency and Laser Technology



#### OUR IDEAS FOR YOUR COMPANY

The TransMIT Project Division for High-Frequency and Laser Technology supports partners in many sectors – from materials engineering to medicine – in the development and implementation of innovative monitoring and diagnostic procedures on the basis of optical and terahertz spectroscopy.

Services focus in particular on

- ultrafast spectroscopy of semiconductor nanostructures,
- · the development of semiconductor disc lasers,
- terahertz systems and applications.

# OUR SERVICES / OUR PRODUCTS

According to our partners' demands we realize thz-based solutions for

- materials testing (e.g. for inline-monitoring in the production process of paper and plastic sheeting),
- the characterization of biological samples (Determination of the water status in plants),
- medical diagnosis' (e.g. of skin changes).

We develop and test user-specific thz measurement devices.

Based on various techniques (photolithography, 3D printing, laser cutting, compression molding) we construct user-specific thz-components, e.g.

- thz lenses
- thz gratings
- thz filter
- thz wave plates
- cost effective delay lines for thz pulses



© Foto: workgroup Prof. M. Koch

Mobile thz measurement device for use in a greenhouse.

## WHO WE ARE

Prof. Martin Koch is head of the TransMIT-project area of High-Frequency and Laser Technology. With around 20 scientific researchers his workgroup at university aims to make thz spectroscopy a standard method for the monitoring processes in industrial production, in the characterization of biological processes in plants, in medical diagnosis, in materials engineering and many other sectors.

## **CONTACT**

TransMIT Gesellschaft für Technologietransfer mbH Kerkrader Straße 3 D-35394 Gießen Tel.: +49 (0)641 94364-26

E-Mail: guenter.mosel@transmit.de

Webseite: www.transmit.de