

PRESS RELEASE

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Fraunhofer IPMS launches *SMut* project

A new level of thin-film characterization is within reach

The Fraunhofer Institute for Photonic Microsystems IPMS has launched the publicly funded *SMut* project, in collaboration with its partners CredoXys and SweepMe! to develop an innovative measurement system for precise thin-film characterization. This system will enable experiments to be conducted under variable conditions, setting new standards in the characterization of organic materials.

Fraunhofer IPMS recently presented new chips and measurement adapters for characterizing thin films of materials used in organic electronics and gas sensors. Building on this, the publicly funded project *SMut* has been launched, in which Fraunhofer IPMS and its partners CredoXys and SweepMe! are pooling their expertise to develop a novel measurement system.

This innovative system will comprise a base station and multiple sample carriers that can be loaded with research samples in a glovebox. This will enable various electrical and photoelectric experiments to be conducted under different gases, pressures and temperatures. "The sample carrier should be easy to handle in a glovebox, removable under protective gas and capable of long-term measurements over several weeks," explains Dr Alexander Graf, project manager at Fraunhofer IPMS.

Thanks to SweepMe!'s software development, almost any measuring device and routine can now be configured intuitively. "This project's software solution will enable an intuitive, out-of-the-box characterization platform for the first time," says Dr. Axel Fischer, SweepMe! GmbH's managing director, summarizing the project goals. Dr. Jörn Vahland, a materials developer at CredoXys GmbH, is enthusiastic about the new possibilities that the measurement system will offer. "The effort we currently put into characterizing our OLED materials is enormous. Long-term measurements under controlled atmosphere and temperature conditions are particularly challenging at present. This system will take thin-film characterization to a whole new level. The reproducibility and measurement capabilities are sensational."

The basic concept and the fundamental system design will be presented to interested visitors at the Fraunhofer IPMS booth at Analytica, which can be found in Hall A3#312. Individual appointments can be arranged in advance via the Fraunhofer IPMS [website](#).

Editor

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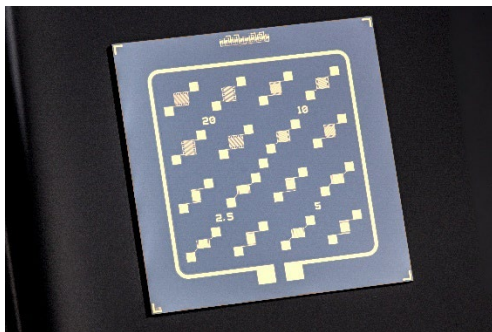
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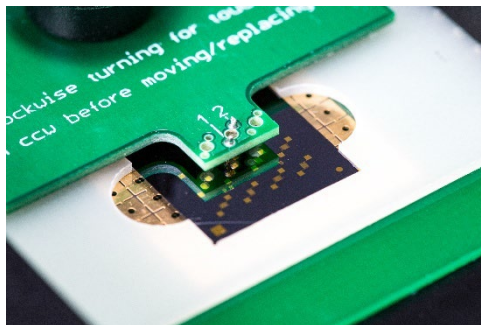
About Fraunhofer IPMS

Fraunhofer IPMS is a leading international research and development service provider for electronic and photonic microsystems in the application fields of Smart Industrial Solutions, Bio and Health, Mobility as well as Green and Sustainable Microelectronics. Research focuses on customer-specific miniaturized sensors and actuators, MEMS systems, microdisplays and integrated circuits as well as wireless and wired data communication. The institute develops systems and components on 200 and 300 mm wafers in their state-of-the-art clean rooms. Services range from consulting and design to process development and pilot production.

Images



Chip as the basis for high-precision electrical examination of layers
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Passive probe for semi-automated measurement at the start of the project. This probe is to be expanded with measurement electronics and software so that material evaluations can be carried out easily and automatically.
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