# NOVEMBER 27, 2014 - WORKSHOP " Ultra-Barrier Manufacturing and Testing"

## Fraunhofer-Institut für Werkstoff- und Strahltechnik IWS Winterbergstraße 28, 01277 Dresden

This workshop is jointly organized by Fraunhofer IWS, Fraunhofer FEP and Organic Electronics Saxony (OES).

### November 27th, 2014

08:00 Registration

#### Welcome and opening

09:00 Prof. Dr. Andreas Leson Fraunhofer IWS Dresden

09:10 Markets for flexible encapsulation layers

Khasha Ghaffarzadeh

**IDTechEx** 

## Session I: Ultra-barrier manufacturing

Chair: Dr. Wulf Grählert, Fraunhofer IWS

09:35 ALD for Ultra-barriers

Mikko Söderlund

Beneq Oy

10:00 Borosilicate glass thin films as hermetic moisture barriers

Ulli Hansen

MSG Lithoglas GmbH

10:25 Coffee break and exhibition

11:00 Activities of OIKE in the field of the development of ultra-high barrier materials and

activities of OIKE and Japan regarding standardization of ultra-barrier testing

Singo Nagai

Kansai-OIKE industrial Co., Ltd., Kyoto,

11:25 Roll-to-roll technology for ultra-high permeation barriers for flexible electronics

John Fahlteich

Fraunhofer FEP Dresden

12:00 Lunch break and exhibition

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### Session II: **Ultra-barrier testing** Chair: Dr. John Fahlteich, Fraunhofer FEP 13:00 Ultra-high gas barrier measurements coupled with rapid control procedures Stéphane Cros **CEA LITEN** Thin-film barrier measurements for the encapsulation of organic electronic devices 13:25 based on the electrical Ca-test Lars Müller-Meskamp Technische Universität Dresden Coffee break and exhibition 13:50 14:30 Water vapor transmission rate testing with a coulometric sensor Andreas Roos Paul Lippke Handels-GmbH, Neuwied Reliable measurements of the water vapor transmission rate down to the 10<sup>-6</sup> g m<sup>-2</sup> d<sup>-1</sup> 14:55 level based on a diode laser sensor Harald Beese Fraunhofer IWS Dresden 15:20 Panel discussion & concluding remarks All speakers 15:45 – 16:45 Tour through the labs of the Fraunhofer Institute for Electron Beam-, Plasma

Technology and COMEDD (Pilot-Scale Vacuum Roll-Coaters and Film Handling and Inspection System)
(optional 1h)