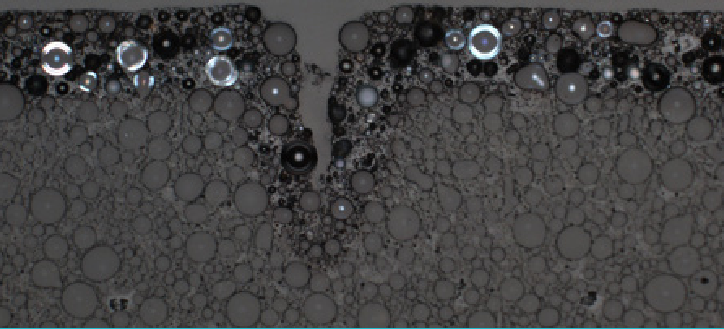

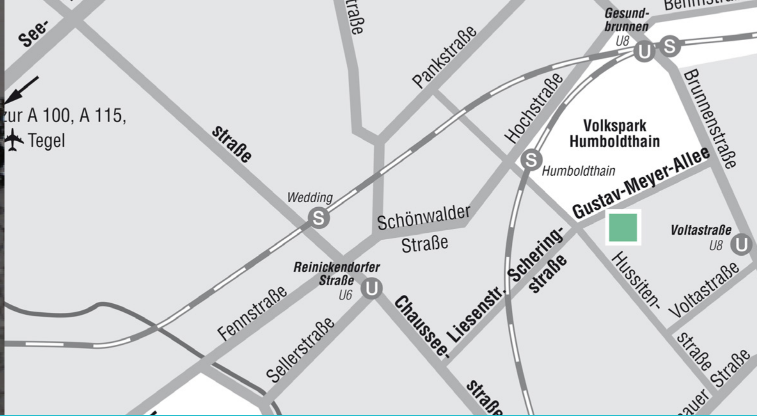

WORKSHOP PROFILE

Contents

- Introduction of Polymers used in Microelectronics
- Encapsulation Technologies for Reliable Packaging
- Ageing Mechanisms of Polymers
- Adhesion and Interface Degradation
- Test Methods and Selection Criteria for Polymers in Microelectronics Packaging
- Overview of State-of-the-Art Measurement Equipment
- Moisture and Temperature Induced Changes in Material Properties
- Lifetime Simulation by FEM taking polymer degradation into account
- Failure Mechanisms Related to Polymer Ageing

Polymer Ageing & Microelectronic Package Reliability

The workshop will give an insight into why polymers are widely used in microelectronics packaging, e.g., as interconnect material, encapsulants or substrate. But polymers age with time, temperature and humidity. Ageing means a change in properties including mechanical, thermomechanical or adhesion characteristics, all of which are key factors for reliable package solutions. Hence, knowledge on materials and their ageing behaviour is essential for developing reliable microelectronic packages and systems.

REGISTRATION

https://www.izm.fraunhofer.de/ws_13

PARTICIPATION FEE

480.00 euro per person, incl. proceedings and buffet

VENUE

Fraunhofer Institute for Reliability and Microintegration IZM
Gustav-Meyer-Allee 25, 13355 Berlin
Building 17.3, Room 60

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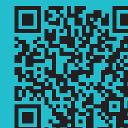
In cooperation with

More info



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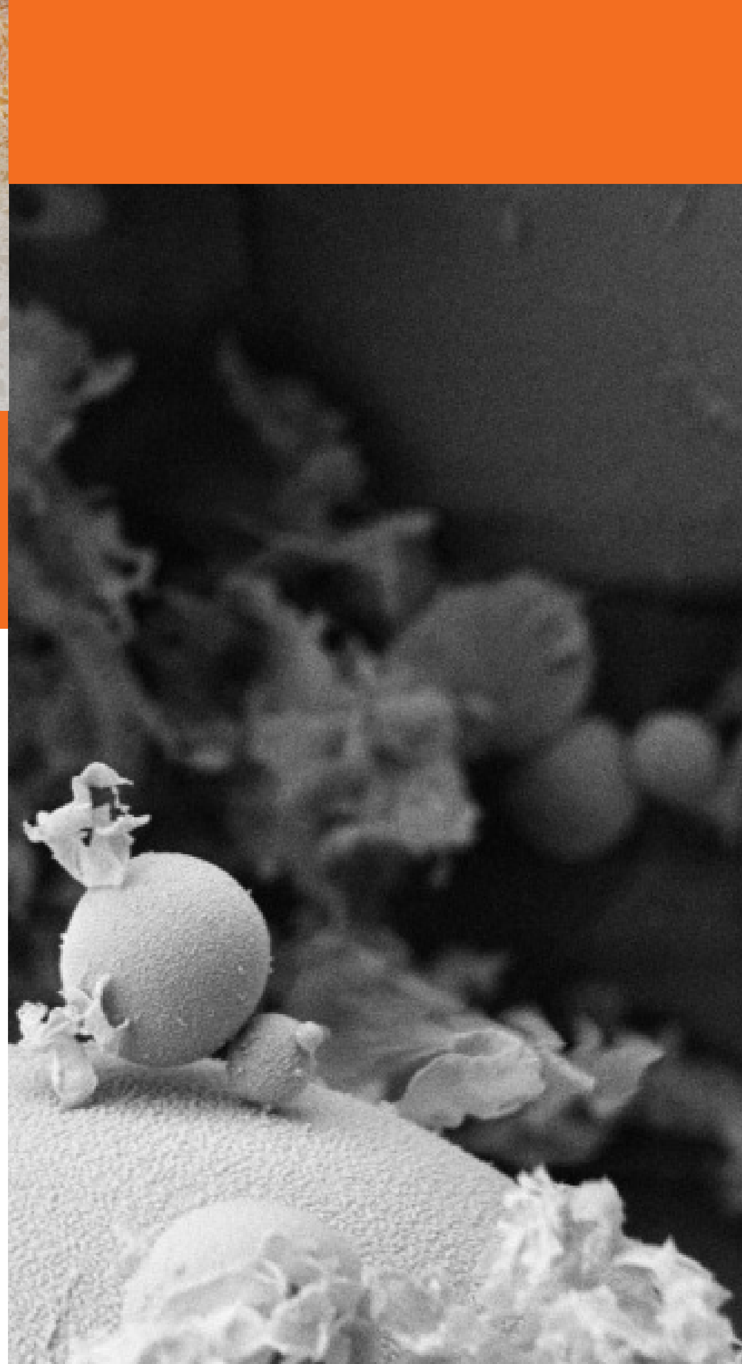
POLYMER AGEING & MICROELECTRONIC PACKAGE RELIABILITY

WORKSHOP - FEBRUARY 12, 2019



PROGRAM

10:00 Welcome and IZM Introduction
Dr. Tanja Braun, Head of Assembly and Encapsulation Technologies

10:15 Polymer in Advanced Packaging
Karl-Friedrich Becker, Head of Assembly and Encapsulation Technologies

10:45 Polymer Ageing
Dr. Ole Hölck, Working Group Assembly and Encapsulation Technologies

11:45 Humidity Uptake - Diffusion Behavior of Polymers
Dr. Tanja Braun, Head of Assembly and Encapsulation Technologies

12:45 Lunch

13:15 Lab Tour

PROGRAM

14:15 Material Ageing and Simulation assisted Lifetime Assessment
Marius van Dijk, Working Group Failure Mechanisms and Technology Analysis

15:00 Coffee Break

15:30 Interface Characterization
Dr. Hans Walter, Department Environmental & Reliability Engineering

16:15 Thin Film Polymer Adhesion
Markus Wöhrmann, Working Group Wafer Level Packaging & Thin Film Polymers

17:00 Application Example - High Temperature Mold Package Evaluation
Tina Thomas, Working Group Assembly and Encapsulation Technologies

17:45 Summary - Q&A

18:00 End