

Corrosion Reliability of Electronics Devices and Materials



A Workshop during EUROCORR 2016
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Organized by
EFC Task Force “Corrosion Reliability of Electronics Devices”

Today electronic products are exposed to various kinds of climatic conditions. Therefore the protection of interior parts from external conditions is a critical factor. Interaction of humidity with internal parts such as Printed Circuit Board Assembly (PCBA) can cause several functionality issues due to corrosion. Humidity related problems in electronics is a combination of material, corrosion, and electrical issues, which leads to reduced life span of the products and heavy economic loss due to failures. The miniaturization and explosive increase in the use of electronics has increased the demand for climatically reliable electronics. Problems are compounded by the fact that the electronic systems are built by multi-material combinations and additional accelerating factors such as corrosion causing process related residues, bias voltage, and unpredictable user environment.

Both industrial electronics and consumer electronics suffer from reliability issues due to corrosion, which includes application such as in humid and harsh environments. Therefore, incorporating enhanced corrosion performance in the design is relevant for all, which needs interaction between electronics, electrical, and corrosion specialists.

Following the successful workshops from 2013-2015, the aim of this workshop at EUROCORR 2016 is to provide a common platform for material, corrosion, electronics, and electrical specialists to discuss various aspects of electronic corrosion issues. Participants are expected from both academia and industry. EUROCORR 2016 Workshop aims to focus on the following topics and more:

- **Corrosion failure modes and mechanisms in electronics**
- **Physics of failure approach to humidity related issues**
- **Process cleanliness, PCBA design aspects, and water layer formation**
- **Corrosion mitigation and prediction strategies for electronics**
- **Specific corrosion issues related to materials in electronics and components**
- **Issues related to the use of polymers in electronics and corrosion**
- **Reliability of electrical contacts and fretting corrosion**
- **Suitable devices and sensors for corrosion prediction**
- **Importance of enclosure design and packaging for humidity effects**
- **Modelling of humidity effects on electronics**

Abstracts should be submitted online via www.eurocorr2016.org until 17 January 2016. Further information on the conference, the scientific sessions and the venue can also be found there.

We are looking forward to your contribution to and participation in EUROCORR 2016 and would appreciate to meet you in Montpellier.

Workshop Chairs:

R. Ambat and H. Schweigart