Corrosion reliability of Electronics Devices

A workshop during EUROCORR 2014
8-12 September 2014, Pisa, Italy

Workshop chairman:
R. Ambat, Technical University of Denmark, Dept. of Mechanical Engineering, Kongens Lyngby/DK

Email: ram@mek.dtu.dk

Co-chairman:
Dr. H. Schweigart, ZESTRON Europe, Germany
Email: H.Schweigart@zestron.com

The miniaturization of electronic systems and the explosive increase in their usage has increased the corrosion reliability issues of electronics devices and components especially having metal/alloys parts exposed on the Printed Circuit Board Assembly (PCBA) surface or embedded within the multi-layer laminate. Problems are compounded by the fact that these systems are built by multi-material combinations and additional accelerating factors such as corrosion causing process related residues, bias voltage, and unpredictable user environment. The overall understanding on the corrosion reliability aspects of electronics is limited within the electronics and corrosion community.

Both industrial electronics and consumer electronics suffer from corrosion problems today, which include applications such as in humid and harsh environments such as offshore wind turbines, solar inverters and other control systems, electronics in automotive systems, consumer electronics such as cell phones and other consumer products etc. Therefore, corrosion reliability of electronic devices and components, and corrosion mitigation issues are relevant today for all industrial sectors and consumer electronic products.

This work shop aims to bring together academics and industry people on various aspects of electronic corrosion issues, failure modes and mechanisms, and mitigation strategies, corrosion issues at material, component, PCBA and device level, enclosure concepts and importance, and specific corrosion issues related various industrial sectors. Papers covering these aspects are invited for abstract submission.