

Tuesday Afternoon, November 11, 2014

Exhibitor Technology Spotlight

Room: Hall ABC - Session EW-TuA

Exhibitor Technology Spotlight Session

Moderator: Chris Moffitt, Kratos Analytical Limited, UK

4:00pm EW-TuA6 **What's New in AFM for Nanoelectrical and Nanomechanical Characterization**, *Keith Jones*, Oxford Instruments Asylum Research

Oxford Instruments Asylum Research will present the latest AFM innovations for nanoelectrical characterization that provide new information that was inaccessible by previous techniques:

- Scanning Microwave Impedance Microscopy (sMIM) for conductivity and permittivity mapping on insulators, semiconductors and conductors
- Nanoscale time dependent dielectric breakdown (NanoTDDB) with the spatial resolution of an AFM tip
- Dual Gain CAFM to measure current from 1 pA to 10 μ A with sub-pA sensitivity on samples with widely varying conductivity

We'll also present an overview and the latest results of AFM mapping modes that calculate both the elastic and loss modulus:

- AM-FM Viscoelastic Mapping Mode for quantitative nanomechanics with the resolution, ease of use and speed of tapping mode
- Contact Resonance Viscoelastic Mapping Mode for quantitative nanomechanics on materials from 1 GPa to 100's Gpa

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