



Agilent Technologies

KPrime Technologies and Agilent Technologies cordially invite you to a free full day meeting focused on the latest cutting edge analytical techniques relevant to the semiconductor industry

Agilent Semiconductor Analytical Technology and Applications SYMPOSIUM

Thursday, April 13th, 2017

8:30 a.m. to 3:30 p.m.

14647 S. 50th Street, Suite B125
Phoenix, AZ 85044

Agilent applications experts will deliver presentations on topics ranging from trace metal analysis in semiconductor-grade chemicals to surface characterization with FTIR microscopy. Additionally, our experts will be on-hand to discuss any of your current needs or analytical challenges.

Seating is limited. If you are interested please contact Rick Sheldon at [480-626-0858](tel:480-626-0858) or email to rick.sheldon@kprime.net

**Additional meeting and schedule details will be provided upon registration*



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Manufacturer Representative for:



Agilent Technologies



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AGENDA

Agilent Semiconductor Analytical Technology and Applications SYMPOSIUM (April 13th, 2017)

8:30 – 8:45 Registration and Coffee

8:45 – 9:00 Welcome to KPrime, Introductions, Schedule

9:00 – 10:30 Bert Woods, *ICPMS Applications and Techniques using the Agilent 7900 Single Quad ICPMS and the revolutionary Agilent 8900 Triple Quad ICPMS using MS/MS*

This presentation will give an overview on the state-of-the-art in trace element analyses of ultrapure semiconductor grade chemicals and will also include single nanoparticle studies.

10:30 – 12:00 Dr. Yanqia Wang, *Damage-free Characterization in electronics and semiconductor industries with Handheld FTIR and FTIR Microscope*

The electronics and semiconductor industries rely heavily on quality, and failure/defect analysis to maximize productivity and minimize expensive downtime. Fourier transform infrared (FTIR) spectroscopy has established itself as a powerful analytical tool for those applications. One of the greatest advantages of FTIR spectroscopy is that it causes minimum or even no damage to the samples. This presentation provides a comprehensive introduction to the FTIR testing techniques and how certain damage-free analysis can be carried out with Agilent's FTIR handheld and Microscope spectrometers.

12:00 – 1:00 Lunch

1:00 – 2:00 Greg Gilleland, *Analysis of Polymer Material in NMP using the Agilent 5110 ICP-OES*

Two unknown polymer materials were dissolved in NMP (n-methyl-2-pyrrolidone) and analyzed for trace impurities using an Agilent 5110 ICP-OES. Instrument set-up, results, detection limits and possible sources of contamination will be discussed.

2:00 – 3:00 David Troiani, *The Cary 7000 UMS for Semiconductor Laboratories*

The Cary 7000 UMS is the ultimate instrument for fully automated, multi-angle measurements. Thin films and silicon wafers are ubiquitous in the semiconductor industry, and as such, robust quality control methods utilizing UV-Vis-NIR spectroscopy play a vital role in these types of laboratories. Clean optical measurements at multiple angles are crucial to accurately quantifying optical performance of said films and wafers. The Cary 7000 UMS fully automates this process, being able to measure transmission (T) and reflection (R) at multiple angles, in both S and P polarization, without requiring any intervention from the end-user. The rotating stage and detector allow both T and R to be measured on the exact same sample spot, eliminating potential inaccuracies from sample non-homogeneity. To top it off, Agilent produces the world's first fully automated Solids Autosampler, capable of producing T and R measurements on bulk samples, or mapping T and R over a large sample by rastering across the surface in as finite steps as the end-user desires.

3:00 – 3:30 Closing Remarks, Completing of Information Sheets and Prize Giveaways



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