

# Wednesday Afternoon, October 22, 2008

## Exhibitor Workshops

Room: Exhibit Hall - Session EW-WeA

## Exhibitor Workshops

Moderator: R.A. Childs, MIT

3:20pm **EW-WeA1 The What, Why and How of Self-Assembly of Alkanethiols: A Practical Tutorial.** *D.J. Graham*, Asemblon Inc.

Alkanethiols are used in an ever increasing number of applications throughout a wide range of fields. These applications span from simple control of surface chemistry to the elaborate dreams of nanotechnology. Almost equal to the variety of their uses are the methods employed to create alkanethiol SAMs. This presentation will provide an overview tutorial of practical information on how to use alkanethiols to create homogenous, mixed, and patterned SAMs using methods such as solution assembly, microcontact printing, and other patterning methods. Learn about the what, why and how of using alkanethiols and avoiding some of the common pitfalls of creating SAM surfaces.

3:40pm **EW-WeA2 Real Time Film Thickness Monitoring on Roll to Roll Coaters.** *E. Teboul*, HORIBA - Jobin Yvon Inc.

Flexible substrates have been increasingly used to support deposition of thin films for packaging, pharmaceutical and solar industries where cost efficient production and consistent quality coatings are the drivers. Real time thickness monitoring of the deposited layers present several challenges such as mechanical alignment, unrolling speed of the substrate and complex material properties of the substrate, that need to be overcome in order to perform a successful measurement. HORIBA Jobin Yvon has developed an in-line configuration of its UVISEL spectroscopic ellipsometer that address the measurements difficulties encountered on a roll to roll coater. The UVISEL is capable of measuring a spectral range from 190 nm to 880 nm in just fifty milliseconds (50 ms) that makes it suitable for most rolling speed currently used. New fitting algorithms have been developed in order to characterize accurately complex substrate materials. Example of real time dielectric film thickness and optical constants deposited on moving Polyethylene Terephthalate (PET) and Aluminum (Al) flexible substrates are presented.

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**Bold page numbers indicate the presenter**

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