

International Seminar on Metallization of Polymer Surfaces

9-10th September 2010, Trondheim, Norway

Undervisningslab, MTI-building, Richard Birkelands Vei 1A

Metal – polymer interfaces are of major interest for the Microelectronics and Photovoltaics industry. The continuous miniaturization implies that interfacial properties are critical on the micrometer and sub-micrometer scale. There is a need for new and improved models as well as characterization techniques to investigate and understand these phenomena.

The purpose of the seminar is to present the state-of-the-art of the characterization, modification and modeling of the metallization of polymer surfaces and to improve the fundamental understanding of the metal-polymer interface failure mechanisms towards to the application in photovoltaics for solar energy technology.

The seminar is sponsored by NTNU Strategic Research Area Materials, the Norwegian Research Council via the NANOMAT project “From Molecular Structures to Mechanical Properties: Multiscale Modelling for Ugelstad Particles (MS2MP)” and Conpart AS.

You are welcome!

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PROGRAM

Thursday, September 9th

12:00	Lunch for the invited
13:00	Opening Remarks — <i>Zhiliang Zhang</i>
Chairman <i>Jianying He</i>	
13:15	<i>Helge Kristiansen</i> , Conpart AS, Norway Use of metallized polymer particles for Anisotropic Conductive Adhesive
14:00	<i>Wei-Min Li</i> , Picosun Oy, Finland Atomic Layer Deposition for metallization applications
14:45	Coffee Break
Chairman <i>Nuria Espallargas</i>	
15:05	<i>Ionel Halaciuga</i> , Clarkson University, USA Electroless nickel plating of 3-5 micrometer acrylic particles
15:50	<i>Jianying He</i> , NTNU, Norway Mechanical characterization of metallized polymer particles
16:20	Lab visiting: NTNU Nanomechanical Lab
19:00	Dinner for the invited

Friday, September 10th

Chairman <i>Helge Kristiansen</i>	
08:30	<i>Mats Fahlman</i> , Linköping University, Sweden Hybrid interfaces featuring organic semiconductors and conductors
09:15	<i>Øystein Dahl & Ragnar Fagerberg</i> , SINTEF, Norway SINTEF Metallization activities
09:45	Coffee Break
Chairman <i>Keith Redford</i>	
10:05	<i>Ozlem Ozcan & Guido Grundmeier</i> , University of Paderborn, Germany Molecular Understanding and Design of Polymer/Oxide/Metal Interfaces
10:50	<i>Shijo Nagao</i> , NTNU, Norway Atomistic modeling of glassy polymer surface for metalization simulations
11:20	Discussions
11:50	Lunch for the invited