



*NEBRASKA CENTER FOR MATERIALS AND
NANOSCIENCE
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Massively Parallel Probe Lithography Toward Ultra-High-Density Nanofabrication

For successful technology transfer of nano materials and device innovations to industrially viable manufacturing levels, high-throughput nanofabrication is essential. While significant advances have been made in the field of nano materials and devices, the progress toward large scale integration into useful electronic devices and system arrays has been rather slow, largely due to the lack of industrially viable and efficient nanofabrication techniques, especially with two major bottleneck issues on how to precisely place nanomaterials/devices in high enough densities, and how to provide convenient high-throughput nanomanufacturing.

In this presentation, some research progress toward such high-throughput nano-manufacturing will be discussed. AFM based or nano-manipulator based, massively parallel nanopattern writing using multi-tip probes can be combined with nano-imprint lithography and associated processes for efficient nanomanufacturing. Advancement of such techniques could lead to a wide use of nano materials and devices for practical applications.

**Host:
Dr. Sy-Hwang
Department of
Physics & Astronomy**

**Wednesday, February 9, 2011
151 Jorgensen Hall, 1:30 p.m.—UNL City Campus**

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