

Industry-Academia Consortium Workshop on Nano Materials, Components, Packaging and Systems (NanoPack) – April 15, 2008



Microsystems Packaging Research Center, Georgia Institute of Technology • 813 Ferst Drive, NW, Atlanta, Georgia 30332, U.S.A.

Nanoscience and nanotechnology have been buzzwords for more than a decade. Most of the research to date in this area, however, has been focused on materials and devices. Technologies such as carbon nano tubes (CNTs), molecular self assembly, nano imprints, and sensors, etc., are being explored and studied for mechanical, physical, chemical, photonic, electronic and biological properties.

The Packaging Research Center proposes going beyond nano materials and devices to form system level components (chip-to-package interconnections, thin film components conductors, dielectrics, capacitors, resistors, inductors, encapsulants, coatings, power sources, batteries) leading to nano modules. This emphasis is expected to lead to a number of commercial applications during the next decade.

To accomplish these goals, the Packaging Research Center announces a global Industry-Academia consortium on "**Nano Packaging, Components, and Systems (NanoPack)**" to explore a variety of new opportunities and applications.

- Chip-to-Package Nano Interconnections
- Nano-coatings
- Nano Embedded Thin Film Passive Components
- Nano Materials for High Performance Batteries

Info & Online Registration

www.prc.gatech.edu/events/nanopack

Tentative Agenda

8:15am - 8:30am - **Welcome, Introduction and Objectives** -
Prof. Rao Tummala (PRC Director)

Session 1 (8.30am – 10:00am)

Industry Session: Strategic Needs and Challenges

- Nano Materials and Packaging - *Intel*
- Nano Components - *TI*
- Nano Systems - *IBM*

Session 2 (10:30am – 12 noon)

Georgia Tech and Its Partner Capabilities:

- Nano Materials for Packaging - *Profs. CP Wong and Sam Graham*
- Nano Materials For High Performance Battery - *Prof. Merlin Liu*
- Embedded Nano Battery - *Prof. Rao Tummala, Dr. Raj and Prof. M. Liu*

LUNCH: 12 noon – 1pm

Session 3 (1pm – 3:30pm)

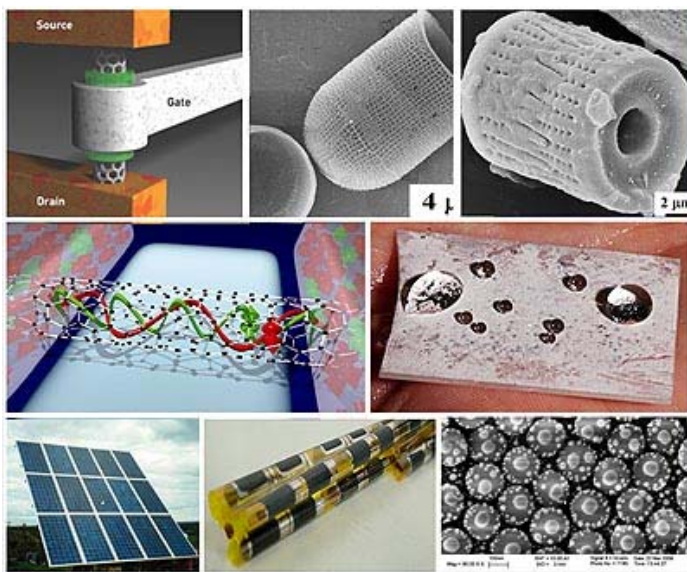
Consortium Development and Project Proposals, Chair - Prof. CP Wong

- Preliminary Project List and Industry Feedback – *Prof. C.P. Wong*
- Membership Bylaws and Costs - *Dean Sutter*
- Timeline for Consortium Development – *Jack Moon*

Session 4 (3:30pm – 4:30pm)

Facility Tour: Nano Facilities at Georgia Tech

Social Hour (4:30pm – 5:30pm)



Who Should Attend

Scientists, engineers and managers from semiconductors, electronic systems, energy, biotech, pharmaceuticals, defense and aerospace industries are invited to attend the exploratory workshop.

Topics

Topics will include the long term strategic industry needs by Industry experts, as well as a review of ongoing and proposed new research to be included in the consortium.

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