The Conference

We bring together scientists and engineers interested in all aspects of the characterization technology needed for nanoelectronic materials and device research, development, and manufacturing. All approaches are welcome: chemical, physical, electrical, optical, in-situ, and real-time control and monitoring. The conference summarizes major issues and provides critical reviews of important semiconductor techniques needed as the semiconductor industry moves to silicon nanoelectronics and beyond.

The conference will consist of formal invited presentation sessions and poster sessions for contributed papers. The poster papers should cover new developments in characterization and metrology especially at the nanoscale.

Background

With the semiconductor industry moving beyond standard silicon and further into nanoelectronics, the introduction of new materials and novel devices using innovative processing and assembly brings formidable metrology challenges. We are in an era where nanotechnology is driving us toward ever smaller, faster, cheaper, and more complex devices. Innovative metrology and characterization methods are required.

The 2009 International Conference on Frontiers of Characterization and Metrology for Nanoelectronics is the seventh in a series that began in 1995. It emphasizes the frontiers and innovation in characterization and metrology of nanoelectronics. The proceedings for all six previous conferences were published as hardcover volumes by the American Institute of Physics, New York. The most recent proceedings, Frontiers of Characterization and Metrology for Nanoelectronics: 2007, was published in September 2007 and is available for purchase at proceedings.aip.org/proceedings/confproceed/931.jsp.

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Sponsors

First Announcement

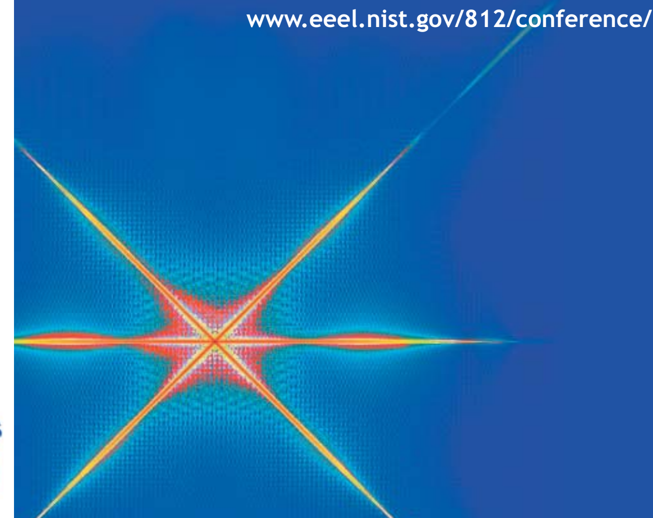
2009 International Conference on Frontiers of Characterization and Metrology for Nanoelectronics

May 11-14, 2009

Albany, NY

College of Nanoscale Science and Engineering
University at Albany

www.eeel.nist.gov/812/conference/



Call for Papers

Call for papers

Papers are solicited to address materials and device characterization and metrology for:

- 300 mm
- Alternative Gate Dielectrics
- Beyond CMOS
- Breakthroughs in Electron Microscopy
- Breakthroughs in Lithography
- Channel Engineering (e.g., strained silicon, 3/5s)
- Contamination, Detection, and Identification
- Critical Analytical Techniques
- Defects
- Device Manufacturing
- Diagnostics
- In-Situ, Real-Time Control and Monitoring
- Integrated Metrology
- Interconnects; Present or Future
- Lab-on-a-Chip
- MEMS/NEMS Metrology Applications
- Modeling/Simulation
- Nanoelectronics Materials and Devices
- Novel Measurement Methods, Break throughs
- Thin-Films
- Ultra-Shallow Junctions
- Wafer Fab
- Wafer Manufacturing and New Substrate Materials

If you plan to submit a paper or are interested in attending the conference, please visit the conference website (www.eeel.nist.gov/812/conference/) to be added to our mailing list.

Abstracts

One-page, camera-ready abstracts must be received by December 17, 2008. The template is available on-line at www.eeel.nist.gov/812/conference/author.html. The cover page must include the name, address, telephone and fax numbers, and e-mail address of the contact author. Please include three key words that best describe your paper at the end of the abstract. Also, you are encouraged to provide at least one figure presenting data. Please note, if your abstract is accepted, it will appear in the conference abstract book and final program as submitted. Notice of acceptance of papers will be given by January 30, 2009.

Manuscripts

Address all abstracts to the conference publications coordinator, Erik Secula (erik.secula@nist.gov). Please send Microsoft Word or Adobe PDF files. If e-mail is not a practical option, please contact Erik Secula at (301) 975-2050 to make alternative arrangements.

The deadline for submission of camera-ready manuscripts is April 14, 2009, prior to the start of the conference.

All manuscripts will be reviewed before acceptance. Instructions for manuscript preparation will be provided when notification of accepted papers is given to the authors. It is considered crucial to the success of the conference that all papers be published in a special proceedings. The American Institute of Physics will again publish the book, along with a CD-ROM.

Best Paper Award

A cash award of $2500 will be presented to the best metrology paper presented at the conference. A second place prize of $750 will also be awarded. Papers must be received by the April 14th deadline in order to be eligible. There will be no exceptions. Committee members and co-chairs are not eligible for the award. Further details such as evaluation criteria will be announced soon.

Register Now!

All payments for advanced registration ($500) and student registration ($250) must be received by April 27, 2009. The registration fee includes coffee breaks, lunches, a reception, two evening dinner events, an extended abstract booklet, and a hardback book containing the workshop proceedings, along with a CD-ROM. Please visit the conference website at www.eeel.nist.gov/812/conference/ for additional details.

Hotel Details

A limited block of rooms is reserved at the Hilton Garden Inn Albany/SUNY Area. The room rate will be the prevailing government rate at the time of the conference (approximately $115 plus applicable taxes per night). Reservations must be made by April 10, 2009, to guarantee a room. Rooms at this special rate are available only on a first-come, first-serve basis, so make your reservation early!

The phone number for reservations is 518-453-1300 . Be sure to indicate that you are with the Metrology Frontiers Conference to ensure you receive the reduced rate.