

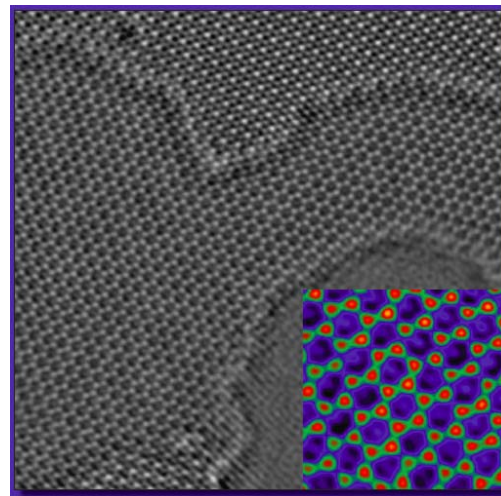
The 38th Annual
**ELECTRONIC
 MATERIALS SYMPOSIUM**

Friday, April 16, 2010,
Network Meeting Center at Techmart
5201 Great America Parkway,
Santa Clara, California

Register (\$100, \$50 students) at
www.electronicmaterialssymposium.org

All presentations in the Silicon Valley room

figure from FEI and Joerg Jinschek



8:30 AM Opening - Prof. Todd Weatherford, 2010 EMS Chair

8:35 AM Dr. Markus Beck, First Solar, *“The Landscape of Photovoltaics - How today’s mature technologies enable tomorrow’s energy security”*

9:20 AM Prof. Roger Falcone, UCB/LBNL
“A New Generation of X-Ray Lasers for Science and Technology”

10:05 AM Refreshments - Exhibits and Posters, Morgan Hill Room

10:45 AM Prof. Alexis Bell, UCB Dept of Chemical Engr.
“Catalysts – Key materials for Producing Fuels and Chemicals”

11:40 AM Prof. Steven Quake, Stanford Dept of Bioengineering,
“Precision Measurement in Biology”

12:15 PM Lunch (Renaissance Room)

1:05 PM Luncheon Presentation - Dr. Lewis Terman, IBM,
“The IEEE at 126”

2:15 PM Dr. Joerg Jinschek, FEI, *“Advanced S/TEM research: Atomic-scale Characterization of Applied Nanostructures”*

3:00 PM Dr. Tom Albrecht, Hitachi Global Storage Tech., San Jose Res. Center, *“Nanopatterned Magnetic Recording Media”*

3:45 PM Refreshments - Exhibits and Posters, Morgan Hill Room

4:30 PM Student Award Presentations

5:00 PM Closing – Dr. Ning Cheng 2011 EMS Chair

1st EMS Student Poster Session – 2010 – Morgan Hill Room

“Growth of textured polycrystalline Ge thin films on glass substrates for photovoltaics”, Shu Hu, P. C. McIntyre, *Dept. of Materials Science & Engineering, Geballe Lab. for Adv. Mat., Stanford University*

“Influence of aluminum microstructure on aluminum induced crystallization (AIC) of sputtered amorphous silicon thin film”, Amirhossein Khalajhedayati, E. Allen, *Chemical and Materials Engineering Dept., San Jose State University*

“Strain relaxation mechanisms in compressively-strained SiGe-on-insulator (SGOI) films grown by Si selective oxidation” Marika Gunji, A. F. Marshall, and P. C. McIntyre *Dept. of Materials Science and Engineering, Geballe Lab. for Adv. Mat., Stanford University*

“Electrical, electrothermal, and optical properties of n- and p-type InN”, Nate Miller, J.W. Ager, H. M Smith, M. A. Mayer, K. M. Yu, M. E. Hawkridge, E. E. Haller, W. Walukiewicz, W. J. Schaff, C. Gallinat, G. Koblmuller, and J. S. Speck, *LBNL, Dept. of Materials Science and Engineering, UC Berkeley, Dept. of ECE, Cornell University, Materials Dept., UC Santa Barbara*

“Manipulating the Easy Axis in Ga_{1-x}Mn_xP: Magnetic Anisotropy in an Insulating Ferromagnetic Semiconductor”

Peter R. Stone, C. Bihler, L. Dreher, J. W. Beeman, K. M. Yu, M. S. Brandt, O. D. Dubon *Dept. of Materials Science & Engineering, UC Berkeley, LBNL, Walter Schottky Institut, Technische Universität München, Germany*

“Domain Wall Injection in Racetrack Memory” Timothy Phung, *Stanford University*

“Nano-composite metal/TiO₂/Si anodes for water oxidation” Yi Wei Chen, J. Prange, S. Duehnen, B. Shin, Y. Park, M. Shandalov, C. E. Chidsey, and P. C. McIntyre, *Dept. of Materials Science & Engineering, Stanford University, Dept. of Chemistry, Stanford University*

“Imaging Charge Transport in Nanowires with Near Field Scanning Microscopy” R. Adam Cole, L. Baird and N. M. Haegel, *Physics Dept., Naval Postgraduate School, Monterey*

“In situ TEM study of electrical switching in lateral phase-change memory cells” Stefan Meister, J. Cha, Y. Cui, *Dept. of Materials Science and Engineering, Stanford University*

“Fabrication of MEMS-based Directional Sound Sensor on SOI Substrate”, Michael Touse, J. Sinibaldi and G. Karunasiri *Dept. of Physics, Naval Postgraduate School, Monterey*

“Cathodoluminescent Lighting Based on Carbon Nanotube Field Emitters” Jovita Tjahjadi, B. Ribaya, J. Silan, D. Niemann, S. Yim, E. Allen, C. V. Nguyen, *San Jose State University, NASA Ames Research Center*

“Science-based modeling of carbon nanotube ultracapacitor” Antonis Orphanou, T. Yamada, and C. Y. Yang, *Center for Nanostructures, Santa Clara University*

“Design of high-absorption Terahertz films” Christos Bolakis, D. Grbovic, and G. Karunasiri *Dept. of Physics, Naval Postgraduate School, Monterey*

“A Terahertz Reverse Micromagnetron”, Michael Aiena, M. Güner, and A. Larraza, *Dept. of Physics, Naval Postgraduate School, Monterey*