



**UNITED STATES – JAPAN
SYMPOSIUM
ON STANDARDS FOR EMERGING
TECHNOLOGIES**



**Monday, March 7, 2011
National Institute of Standards and Technology (NIST)
Department of Commerce**

AGENDA

9:00 – 9:20 Opening Venue: Bldg. 101/Portrait Gallery Room

Chair: M. Navarro (IAAO, NIST)

- Dr. Patrick Gallagher, NIST Director
- Dr. Toshiyuki Fujimoto, Deputy Director (NMIJ/AIST, Japan)

9:20-10:30 Session I [Nanotechnology Standardization] (10 minutes each)

Chair: M. Navarro (IAAO, NIST)

S1-1 Thickness

- Yasushi Azuma, Research Scientist, Materials Characterization Division, National Metrology Institute of Japan, AIST, Title: *“Collaborative Work between NIST and NMIJ/AIST for thickness evaluation by X-ray Reflectometry”*
- Donald Windover, Ceramics Division, Material Measurement Laboratory (MML), NIST, Title: *“NIST SI-traceable X-Ray Reflectometry (XRR) Measurement Capabilities for Thin Films: Instrumentation and Data Analysis”*

S1-2 Thermal and Physical Properties

- Takashi Yagi, Researcher, Material Properties and Metrological Statistics Division, National Metrology Institute of Japan, AIST, Title: *“Thermal diffusivity measurement on thin films”*, Collaborators: Takashi Yagi, Naoyuki Taketoshi and Tetsuya Baba
- Joshua Martin, Physicist, Ceramics Division, Material Measurement Laboratory (MML), NIST, Title: *“Development of Thermoelectric Measurement Standards and Protocols”*

S1-3 Nano indentation

- Hattori Koichiro, Senior Research Scientist, Vibration and Hardness Section, Inorganic Analytical Chemistry Division, NMIJ, Title: *“Nanoindentation standard and uncertainty evaluation at NMIJ”*
- Robert Cook, Leader, Nanomechanical Properties Group and Deputy Chief, Ceramics Division, Material Measurement Laboratory (MML), NIST, Title: *“Measuring and Mapping Mechanical Properties with Nano-Scale Resolution”*

10:30-10:50 Coffee Break

10:50-12:30 Cont.- Session I [Nanotechnology Standardization] (15 minutes each)

Chair: T. Fujimoto (NMIJ/AIST)

S1-4 Form and Dimension

- Hiroshi Ito, Senior Research Scientist, Research Institute of Instrumentation Frontier, AIST, Title: *“Influence of effective AFM probe shape for accurate morphology”*

- Ndubuisi Orji, Research Engineer, Mechanical Metrology Division, Physical Measurement Laboratory (PML), NIST, Title: “*SI Traceable Critical Dimension Metrology with Atomic Force Microscopes*”
- Satoshi Gonda, Chief, Length and Dimensions Division, National Metrology Institute of Japan, AIST, Title: “*Improvement of metrological AFMs for nanometer-scale dimensional standards*”

S1-5 Nano-Carbon Materials, Carbon Nanotubes and Fullerenes

- Said Kazaoui, Assistant Director International Relations Office and Nanotube Research Center, AIST, Title: “*Aggregation/Agglomeration of carbon nanotubes: problems and solutions to measure their sizes by DLS*”, collaborators: S. Kazaoui and T. Okazaki
- Kalman Migler, Physicist and Leader, Complex Fluids Group, Polymers Division, Materials Measurement Laboratory (MML), NIST, Title: “*International Comparison of Chirality Distribution Measurement in a Single-Wall Carbon Nanotube Sample*”
- Angela Hight-Walker, Chemist, Optical Technology Division, Physical Measurement Laboratory (PML), NIST, Title: “*Reference Materials and Documentary Standards for Single-Wall Carbon Nanotubes (SWCNTs)*”

12:30-1:30 Lunch Location: Heritage Room

1:30-3:10 Session II [Environment and Energy Standardization] (15 min each)

Chair: Jerry Fraser (PML, NIST)

S2-1 Solid State Lighting

- Kenji Godo, Researcher in Optical Radiation Section, Photometry and Radiometry Division, National Metrology Institute of Japan, AIST, Title: “*Investigation of photometric measurement for Solid State Lighting*”
- Yoshi Ohno, Group Leader, Optical Sensor Group, Optical Technology Division, Physical Measurement Laboratory (PML), NIST, Title: “*Progress in Standardization of Solid State Lighting in USA and NIST Research Work*”.

S2-2 3D Imaging

- Hiroyasu Ujike, Group Leader, Human Technology Research Institute, AIST, Title: “*Visual fatigue and motion sickness in 3D images*”
- Paul Boynton- Physical Scientist, Quantum Electrical Metrology Division, Physical Measurement Laboratory (PML), Title: “*Multiple dimensional (nD) Medical Display Metrology*”

S2-3 Information Security

- Hirofumi Sakane, Research Center for Information Security, AIST, Title: “*Research Center for Information Security, AIST "FIPS 140-3 Non-Invasive Attack Testing*”
- Matthew Scholl, Group Manager, Security Management and Assurance, Computer Security Division, Information Technology Laboratory, NIST, Title: *The NIST Information Technology Lab, Computer Security Division Overview*”

3:10-3:30 Coffee/Tea Break

3:30-4:50 Session III Biometrology & Lab Accreditation (15 min each)

Chair: M. Navarro (IAAO, NIST)

S3-1 Biometrology

- Yuji Sekiguchi, Group Leader, Biomedical Research Institute, AIST, Title: “*DNA purity on biologically synthesized artificial DNAs used as standards for nucleic acid measurement*”

- Michael Tarlov, Deputy Chief, Biochemical Science Division, Material Measurement Laboratory (MML), NIST, *Title: "Overview of the Biomanufacturing Metrology Program at NIST"*
- Shinya Honda, Group Leader, Biomedical Research Institute, AIST, *Title: "Synthesis of protein particles as measurement standards for submicron aggregates of pharmaceutical proteins"*

S3-2 Lab Accreditation

- Katuo Seta, Deputy Director of NMIJ, AIST, *Title: "Role of AIST for standardization and conformity assessment activities"*
- Sally Bruce, Chief, National Voluntary Laboratory Accreditation Program (NVLAP), Physical Measurement Laboratory (PML), NIST, *Title: "NVLAP accreditation and linkage to NIST measurement capabilities"*

4:50-5:00 Closing

- Magdalena Navarro, Senior International Program Manager, International and Academic Affairs Office, Office of the Director, NIST

5:30-7:00 Reception Location: Heritage Room