# Japan-U.S. Symposium on International Standardization Toward a Low Carbon Society

February 15, 2010 Auditorium (2F) Conference Room AIST Tsukuba Central 1, Tsukuba, Japan



Sponsor:

National Institute of Advanced Industrial Science and Technology (AIST)

This symposium is supported by the Ministry of Economy, Trade and Industry (METI) in the framework of "Japan-US collaboration project toward a novel low carbon society".

## < February 15, 2010>

## 9:45-10:30 Opening

Chair: T. Takatsuji (AIST, Japan)

- Akira Ono, Senior Vice-President, AIST
- Hironori Nakanishi, Director, Technical Regulations, Standards and Conformity Assessment Policy Division, Industrial Science and Technology Policy and Environment Bureau, METI
- Magdalena Navarro, Senior International Program Manager, OIAA, Director's Office, NIST, "*NIST-AIST Research Activities under the MOU*"

## 10:30-12:15 Session 1 [Environment and Energy Standardization]

Chair: T. Takatsuji (AIST, Japan)

## S1-1 Information Security

- Annabelle Lee (via video), Computer Security Division, Information Technology Laboratory, NIST, "Smart Grid and Cyber Security"
- Hirofumi Sakane, Research Center for Information Security, AIST, "FIPS 140-3 Non-Invasive Attack Testing"

## S1-2 Solid State Lighting

- **Tatsuya Zama**, Photometry and Radiometry Division, National Metrology Institute of Japan, AIST, "Development of Photometric Measurement Techniques for Solid State Lighting (SSL)"
- Yoshi Ohno, Optical Technology Division, Physics Laboratory, NIST, "NIST's Role in Standardization of Solid State Lighting"

## S1-3 3D Imaging

- Chris Chinnock, Board Member, 3D@Home Consortium, "3D Trends, Opportunities and Challenges"
- **Hiroyasu Ujike**, Institute for Human Science and Biomedical Engineering, AIST, *"3D Image Safety: R&D for the Guidelines"*

## 12:15-13:20 Lunch

## 13:20-14:45 Session 2 [ Nanotechnology Standardization I ]

Chair: S. Kazaoui (AIST, Japan)

S2-1 Thickness

- **Yasushi Azuma**, Materials Characterization Division, National Metrology Institute of Japan, AIST, "Development of Thin Film Standards for Thickness Metrology by X-ray Reflectometry"
- Donald Windover, Ceramics Division, Materials Science and Engineering Laboratory, NIST, "NIST SI-traceable X-Ray Reflectometry (XRR) Measurement Capabilities for Thin Films: Instrumentation and Data Analysis"

#### **S2-2 Thermal and Mechanical Properties**

- Naoyuki Taketoshi, Material Properties and Metrological Statistics Division, National Metrology Institute of Japan, AIST, "Thermophysical Property Standard for Thin Films in Japan"
- Joshua Martin, Ceramics Division, Materials Science and Engineering Laboratory, NIST, "Thermoelectric and Thermophysical Metrology for Energy Conversion Applications"
- Koichiro Hattori, Acoustics and Vibration Metrology Division, National Metrology Institute of Japan, AIST, "*Nanoindentation and Hardness Standards*"

## 14:45-15:05 Coffee Break

## 15:05-16:50 Session 3 [Nanotechnology Standardization II]

Chair: K. Hattori (AIST, Japan)

#### S3-1 Form and Dimension

- Hiroshi Itoh, Research Institute of Instrumentation Frontier, AIST, "AFM Probe Characterization"
- Ndubuisi Orji, Precision Engineering Division, Manufacturing Engineering Laboratory, NIST, "Traceable AFM Dimensional Metrology at NIST: Applications and Areas of Collaboration"
- Satoshi Gonda, Length and Dimensions Division, National Metrology Institute of Japan, AIST, "Development of Metrological AFMs and Nanoscale Standards"

#### S3-2 Nano-carbon Materials, Carbon Nanotubes and Fullerenes

- Said Kazaoui, Nanotube Research Center, AIST, "Selective Extraction and Properties of Semiconducting Carbon Nanotubes"
- Vivek Prabhu, Polymers Division, Materials Science and Engineering Laboratory, NIST, "Optical Methods to Probe Stable Carbon Nanotube Dispersions and pH-induced Aggregation of Nanoparticles"

- Gerald Fraser, Optical Technology Division, Physics Laboratory, NIST, "Physicochemical Characterization of Engineered Nanoparticles: The measurands that influence Nano EHS"

## 16:50-17:00 Closing

- Mitsuru Tanaka, Research Coordinator, AIST