

International Workshop on Materials and Devices for Safety and Security 2009 (IWMD-SS 2009)

— How Reliability, Safety and Security are Considered and Incorporated
in the Selection and Design of New Materials for Device and System Development —



Date & Time: Friday, February 20th, 2009 9:30-17:20

Place: Digital Hall of Graduate School of Decision Science and Technology
West Building 9, Ookayama Campus, Tokyo Institute of Technology
2-12-1 Ookayama, Meguro-ku, Tokyo, 152-8550, JAPAN
(In front of Ookayama Station on Tokyu Meguro Line or Ooimachi Line)
<http://www.titech.ac.jp/access-and-campusmap/e/o-okayama-campus.html>

Admission: Free

Sponsor: Integrated Research Institute, Tokyo Institute of Technology

Co-Sponsor: Materials and Structures Laboratory, Tokyo Institute of Technology
Global Center of Excellence: Photonics Integration-Core Electronics
Tokyo Institute of Technology

Frontier Research Center, Tokyo Institute of Technology
Interdisciplinary Graduate School of Science and Engineering
Tokyo Institute of Technology

IEEE EDS Japan Chapter

Technical-Sponsor: IEEE Electron Devices Society

Silicon Technology Division, Japan Society of Applied Physics

In Cooperation with: The Electrochemical Society of Japan

<Program>

Opening Remarks (9:30-10:00)

Sadayuki Ueha, Director, Solutions Research Organization
Integrated Research Institute, Tokyo Institute of Technology
Ken-ichi Kondo, Director, Materials and Structures Laboratory
Tokyo Institute of Technology
Masamichi Ishikawa, Professor, Integrated Research Institute
Tokyo Institute of Technology

Part 1: "Safety Design in the Development of Batteries"(10:00-11:50)

Key Note



"Technological Management for Realizing Safety and Reliability in Fuel Cells"
by Prof. Takuya Homma, Advisor, Fuel Cell Development
Information Center (FCDIC)

Invited



"Materials Science for Lithium Batteries: Toward the Safe and Reliable Battery System"
by Prof. Ryoji Kanno, Tokyo Institute of Technology

Invited



"Battery Material Development for Securing Safety of Advanced Secondary Batteries"
by Dr. Tetsuo Sakai, Leader of Secondary Battery System
Group, Advanced Industrial Science and Technology (AIST)

Lunch (11:50-13:30)

Panel Discussions (15:45-17:15)

"Issues in 'Matching' Reliability, Safety, Security and Technology Management in the Material, Device and System Development"
Moderator: Masamichi Ishikawa, Tokyo Institute of Technology
Panelists: All the speakers

Closing (17:20)

Organization:

General Chair: Masamichi Ishikawa, Tokyo Institute of Technology
Technical Program Co-chairs: Yotaro Yamazaki, Tokyo Institute of Technology
Hiroshi Iwai, Tokyo Institute of Technology
Treasurer: Akeshi Kouno, Tokyo Institute of Technology
Publication Chairs: Kuniyuki Kakushima, Tokyo Institute of Technology
Parhat Ahmet, Tokyo Institute of Technology
Secretary: Masakatsu Akedo, Tokyo Institute of Technology

Part 2: "Reliability Management in the Development of Semiconductor Devices" (13:30-15:45)

Invited



"Integration of Emerging Materials into CMOS Technology Platform for Novel Applications: Opportunities, and Reliability & Safety Challenges"
by Dr. Dim-Lee Kwong, Executive Director, IME, Singapore

Invited



"Safety and Reliability Issues for Introducing New Materials in a 300 mm Si R&D Process Line"
by Prof. Cor Claeys, Director, Advanced Semiconductor Technologies, IMEC, Belgium

Invited



"On Meeting the Reliability Requirements of Logic and Memory Chips for Computer Systems"
by Dr. Tak Ning, Fellow, IBM, USA

Break (15:15-15:30)

Invited



"MPU and System Design Strategy for Safety and Reliability"
by Dr. Mitsuo Saito, Chief Fellow, VP of Engineering, Toshiba Semiconductor Company, Japan

Registration: Can be made through the following URL. Please fill in the form with necessary information.

<http://www.iri.titech.ac.jp/securematerial/form.html>

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