**Sunday, June 14, 2015**

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<td>16:00 - 17:30</td>
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<td>17:30 - 18:30</td>
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<td>18:30 - 20:00</td>
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Monday, June 15, 2015

07:00 - 08:00  Breakfast

08:00 - 08:10  Yue Kuo, Introduction

**Plenary:**

08:10 – 08:50  Wide band gap semiconductors transistors for power devices and FPD
Eun-Soo Nam, ETRI, South Korea

08:50 – 09:30  TBD
Ramamurthy

09:30 - 10:00  Break

**Oxide TFTs:**
Session Chair: Alex Balandin and Jin Jang

10:00 - 10:30  The Multidisciplinary Approach: a Common Trend for ULSI and Thin Film Technology
Olivier Bonnaud, University of Rennes 1, France

10:30 - 11:00  Advances in Oxide Thin-film Transistors in Recent Decade and Their Future
Hideuya Kumomi, Tokyo Institute of Technology, Japan

11:00 - 11:30  The Behavior of C-axis-aligned a-b-plane-anchored Crystal (CAA Crystal)
Shunpei Yamazaki, Semiconductor Energy Laboratory Co., Ltd., Japan

11:30 - 12:00  Oxide TFTs for future display
Chi-Sun Hwang, ETRI, South Korea

12:00 - 13:30  Lunch

13:30 - 18:30  ad hoc sessions / Free time

18:30 - 20:00  Dinner

20:00 - 21:30  Poster Session / Social Hour
Tuesday, June 16, 2015

07:00 - 08:00  Breakfast

*Memories and materials: Memories and Materials*
*Session Chair: Gennadi Bersuker and Mamoru Furuta*

08:30 - 09:00  **FEDRAM: A Capacitor-less DRAM Based on Ferroelectric-Gated Field-Effect Transistor**
T.P. Ma, Yale University, USA

09:00 - 09:30  **Material features controlling electrical characteristics of hafnia-based non-volatile memories**
Gennadi Bersuker, Sematech, USA

09:30 - 10:00  **Metal-Insulator-Metal devices with High-K dielectric for Nonvolatile or Dynamic Random Access Memories**
Ahmad Bsiesy, Université Grenoble Alpes, France

10:00 - 10:30  **Resistive Memory for Harsh Electronics**
Chih-Hsiang Ho, Department of Electrical and Computer Engineering, Purdue University, USA

10:30 - 11:00  Break

*Xoxide TFT fabrications: Oxide TFT Fabrications*
*Session Chair: Po-Tsun Liu and Shunpei Yamazaki*

11:00 - 11:30  **High Performance Oxide TFT by Solution Process**
Jin Jang, Kyung Hee Univ, South Korea

11:30 - 12:00  **Solution-process oxide TFTs for Hybrid Low-Voltage CMOS Applications**
Yongtaek Hong, Seoul National University, South Korea

12:00 - 12:30  **Doping and Defect Passivation in In-Ga-Zn- by Fluorine**
Mamoru Furuta, Kochi University of Technology, Japan

12:30 - 13:00  **Reliability Enhancement of High-Mobility Amorphous Indium-Tungsten Oxide TFT**
Po-Tsun Liu, National Chiao Tung University/ Department of Photonics, Taiwan

13:00 - 14:30  Lunch

14:30 - 18:30  ad hoc sessions / Free time

18:30 - 20:00  Dinner

20:00 - 21:30  **Panel: Challenges in oxide applications in IC, displays**
Tuesday, June 16, 2015 (continued)

21:30 - 22:30  Social Hour
**Wednesday, June 17, 2015**

07:00 - 08:00  Breakfast

*Etching & Dept. Processes:*
**Session Chair:** Olivier Bonnaud and Chi-Sun Hwang

08:30 - 09:00  Opportunities of high performance Ge CMOS
Akira Toriumi, University of Tokyo, Japan

09:00 - 09:30  Atomically Controlled Processing for Germanium-Based CVD Epitaxial Growth
Junichi Murota, Tohoku University, Japan

09:30 - 10:00  Simulation of Equipment and Processes for Semiconductor Device Manufacturing
Peter Ventzek, Tokyo Electron America Inc., USA

10:00 - 10:30  A New Frontier of Plasma Patterning: Atomic Layer Etch
Ying Zhang, Applied MAterials, USA

10:30 - 11:00  Break

*Oxide and Si TFTs:*
**Session Chair:** T.P. Ma and Akira Toriumi

11:00 - 11:30  Integrated Gate Driver Circuits Using a-Si TFT and Oxide TFT
Yong Ho Jang, LG Display, South Korea

11:30 - 12:00  High Performance Top Gate and Double Gate LT CLC Poly-Si TFTs on Glass Substrate
Akito Hara, Tohoku Gakuin University, Japan

12:00 - 12:30  Influence of Annealing with High Pressures Water for Atomic-Layer-Deposited Al2O3 on GaN
Yukiharu Uraoka, Nara Institute of Science and Technology, Japan

12:30 - 12:50  Analysis for Extremely Low Off-State Current in CAAC-IGZO FETs
Masashi Tsubuku, Semiconductor Energy Laboratry, Japan

13:00  Boxed Lunch available

13:30 - 17:30  Optional Excursion

19:00 - 19:30  Reception

19:30 - 21:30  Banquet

21:30 - 22:30  Panel: Challenges in nano transistors / Free Discussions
Thursday, June 18, 2015

07:00 - 08:00  Breakfast

*New Devices:*
*Session Chair:* Junichi Murota and Ying Zhang

08:30 - 09:00  Thin Film Transistors using 2D Materials for Selective Gas Sensing
Michael Shur, RPI, USA

09:00 - 09:30  Hetero interface of ionic/covalent oxides for Nano-electronics
Toshihide Nabatame, National Institute for Materials Science, Japan

09:30 - 10:00  A New Type of Antifuse Made of High-k Dielectric
Yue Kuo, Texas A&M University, USA

10:00 - 10:30  Graphene Heat Spreaders and Interconnects for Advanced Electronics
Alexander Balandin, University of California - Riverside, USA

10:30 - 11:00  Break

*New Devices Applications:*
*Session Chair:* Michael Shur and Yukiharu Uraoka

11:00 - 11:30  Advanced Germanium Epitaxy for Photonics Application
Yuji Yamamoto, IHP, Germany

11:30 - 12:00  From Thin To Ultra-Thin Film Transistors For Wearable Interactive Electronics
Muhammad Hussain, KAUST, Saudi Arabia

12:00 - 12:30  Silicon CMOS on glass and plastic - Crystallization and layer transfer approaches -
Seiichiro Higashi, Hiroshima University, Japan

12:30 - 12:50  Bulk barrier source-gated transistors with improved drain current dynamic range and temperature coefficient
Radu A. Sporea, University of Surrey, United Kingdom

12:50 - 14:00  Lunch and Departure