

Special Workshop on Celebrating IWJT's Silver Jubilee and the FET Centennial

Program

10:00 Opening remark

from T. Kimoto, B. Zhao

Chairman: K. Ohuchi

Session 1: Keynote and Junction Technology Review 1

Chairman: S. Shishiguchi

10:10 The Centennial of FET and the Silver Jubilee of IWJT: Tracing

the Origins and Evolution of Junction Technology in FETs

Hiroshi Iwai

[International College of Semiconductor Technology National Yang Ming

Chiao Tung University, and Institute of Science Tokyo, Japan]

10:40 A Review of Plasma Doping appeared in past IWJT

-Did Shallow Junction demand a competitive evolution to Super

Low-Energy implantation, Plasma Doping, Solid Phase Diffusion and Epi-doping?"

Bunji Mizuno

[UJT Lab., Japan]

11:00 Gas/Vapor Phase Epi (VPE), Liquid Phase Epi (LPE) & Solid Phase

Epi (SPE) Doping Methods in Si, SiGe and Ge: A Historical Review

John Ogawa Borland

[J.O.B. Technologies, United States]

11:25 Ion Channeling in Si and SiC: A historical review

Michael I. Current¹, Yoji Kawasaki²

[¹ Current Scientific, United States, ² Sumitomo Ion Technologies (SMIT), Japan]

11:50 Photo Session

11:55 Lunch

Session 2: Junction Technology Review 2

Chairman: B. Mizuno

12:45 **Observation of Three-dimensional Atomic Arrangements Corresponding to Electrical Activation/Deactivation of As doped in Si**

Kazuo Tsutsui¹, Tomohiro Matsushita² and Yoshitada Morikawa³

[¹ Institute of Science Tokyo, Japan, ² Nara Institute of Science and Technology, Japan

³ Osaka University, Japan]

13:10 **Implantation Technologies and equipment**

M. Tanjo

[Former Nissin Ion, DC Center Come, Japan]

13:35 **Cluster Ion Beams: Implantation, Sputtering and More**

Jiro Matsuo

[Quantum Science and Engineering Center, Kyoto University, Japan]

14:00 **Silicide Technology for Metal/Semiconductor Contact on ULSI and Nanoelectronics Applications**

Osamu Nakatsuka^{1,2}

[¹ Graduate School of Engineering, Nagoya University, Japan

² Institute of Materials and Systems for Sustainability (IMaSS), Nagoya University, Japan]

14:25 **Device technology**

H. Wakabayashi [Institute of Science Tokyo, Japan]

14:50 **Break**

15:10 **Panel Discussion:**

“25 Years of IWJT History, FET100 and Future Directions in Junction Technology”

Organizers: M. Tanjo, B. Mizuno, S. Shishiguchi, H. Iwai

Moderators: H. Ito and I. Mizushima

Panelist: Short-presenters +M. Current, J. Borland, J. Matsuo, H. Iwai etc.

Short presentations: 7 papers, 24 min

Panel discussions: 1 hour 36 min

17:10 **Closing remark**

from S. Shibata

Chairman: M. Tanjo