IEEE EDS Kansai Chapter

第**6**回関西コロキアム・電子デバイスワークショップ・プログラム

2006年**10**月**18**日
大阪大学中之島センター
10Ｆ　佐治敬三メモリアルホール

開会挨拶　谷口研二**(**大阪大学**)**
[10:00 – 10:10]

セッション **IA. Silicon Materials and Device Technology [10:00 – 12:00]**

座長：大村泰久（関西大学）

[10:10-10:50]
[**Chapter of the year 2006** 記念講演]
#0 **Fluorine Incorporation into HfSiON Dielectric for Vth Control and Its Impact on Reliability for Poly-Si Gate pFET**
Masahiro Yoneda*, M. Inoue, S. Tsujikawa, M. Mizutani, K. Nomura, T. Hayashi, K. Shiga, J. Yugami, J. Tsuchimoto, and Y. Ohno*
(Renesas Technology)

[10:50-11:10]
#1 **Study of Effects of Metal Layer on Hydrogen Desorption from Hydrogenated Amorphous Silicon Using Temperature-Programmed Desorption.**
Y. Hamaoka, ***Hiromasa Ohmi***, H. Kakiuchi and K. Yasutake
(Dept. of Precision Science and Technology, Graduate School of Eng., Osaka University)

[11:10-11:30]
#2 **Impact of Body Bias Controlling in Partially Depleted SOI Devices with Hybrid Trench Isolation Technology**
Toshiaki Iwamatsu, M. Tsujiuchi, Y. Hirano, T. Ikeda, F. Komatsu, T. Ipposhi, S. Maegawa and Y. Ohji
(Renesas Technology)

―昼食 **[11:30 – 13: 10]**―

セッション **IB. Silicon Materials and Device Technology [13:10 – 13:50]**

座長：渡辺博文（(株)リコー）

[13:10-13:30]
#3 **Active Body-Biasing Control Technique for Bootstrap Pass-Transistor Logic on PD-SOI at 0.5V-**V_{DD}
Masaaki Iijima, M. Kitamura, K. Hamada, K. Fukuoka, M. Numa, A. Tada*, S. Maegawa*
(Kobe University , *Renesas Technology)

[13:30-13:50]
#4 **Study of Factors Effecting Electron Tunneling Mechanism in Si Nanocrystals Floating Gate Memories**
Prakaipetch Punchaipetch, K. Ichikawa, H. Yano, T. Hatayama, Y. Uraoka, T. Fuyuki, E. Takahashi, T. Hayashi, and K. Ogata
(Nara Institute of Science and Technology, Nissin Electric Co. Ltd)

―休憩 **[13:50 – 14:00]**―

セッション **II. Compound Semiconductor Device Technology [14:00 – 14:40]**

座長：松尾直人（兵庫県立大学）

[14:00-14:20]
#1 **High Transconductance of 2.25 S/mm Observed at 16 K for 195-nm-Gate** $In_{0.75}Ga_{0.25}AsIn_{0.52}/Al_{0.48}As$ **HEMT Fabricated on [411]-Oriented InP Substrate**
Issei Watanabe, K. Shinohara, T. Kitada, S. Shimomura, Y. Yamashita, A. Endoh, T. Mimura, T. Matsui, S. Hiyamizu
(Osaka University)

[14:20-14:40]
#2 **Source Resistance Reduction of AlGaN-GaN HFETs with Novel Superlattice Cap Layer**
Tomohiro Murata, Hikita, Y. Hirose, Y. Uemoto, K. Inoue, T. Tanaka, D. Ueda
(Matsushita Electric Industry Co.)

—休憩 **[14:40 – 14:50]**—

セッション III. Emerging Technology [14:50 – 16:35]

座長：小瀧浩（シャープ）

[14:50-15:10]
#1 **Direct Ultrasensitive DNA Sensors Based on Carbon Nanotube Field-Effect Transistors**
Kenzo Maehashi, K. Matsumoto, K. Kerman, Y. Takamura and E. Tamiya
(Osaka University, JAIST)

[15:10-15:30]
#2 **Spintronics Based on ZnO Thin Films**
Hitoshi Tabata, H. Saeki and H. Matui
(The Institute of Scientific and Industrial Research, Osaka University)

[15:30-15:50]
#3 **Improvements in the Characteristics of Blue Polymer Light-emitting Diodes by Polymer Hole Transport Layer**
Jian Li, T. Sano, Y. Hirayama, T. Tomita, H. Fujii, and K. Wakisaka
(SANYO Electric Co., Ltd.)

[15:50-16:10]
#4 **Control of Spectral Photosensitivity in Stacked Color Sensors: Proposal and Theoretical Analysis**
Noriyuki Kakimoto and ***Takahiro Numai***
(Graduate School of Science and Engineering, Ritsumeikan University)

[16:15-17:00]
AWARD 授与

—閉会— 谷口研二**(**大阪大学**)**