

ADVANCED PROGRAM

Thursday, December. 12 9:55 ~ 16:55

<9:55 ~ 10:00>

Opening Remarks by Symposium Chair

S. Oda Tokyo Institute of Technology

<10:00 ~ 10:50>

1. CMOSFETs Using HfO₂ High-k Gate Dielectrics

T.Aoyama Fujitsu Laboratories (invited)

<10:50 ~ 11:15>

2. Mobility Reduction due to Remote Charge Scattering in Al₂O₃/SiO₂ Gate-Stacked MISFETs

S. Saito¹, Y. Shimamoto¹, O. Tonomura¹, K. Torii¹, D. Hisamoto¹, Y. Manabe², M. Caymax³, J. W. Maes⁴, J. Yugami¹, M. Hiratani¹, T. Onai¹, and S. Kimura¹

Hitachi Ltd., Central Rearch Lab.¹, Hitachi Ltd., Semiconductor Group², IMEC³, ASM⁴

<11:15 ~ 11:40>

3. Suppression of silicidation for zirconia, hafnia and silicate on silicon by helium annealing

K.Muraoka Toshiba Corporation

<11:40 ~ 12:05>

4. Oxy-nitride Interface Control in HfO₂ MIS Structures for Improvement of FET Performance

H. Ota¹, N. Yasuda², T. Yasuda¹, Y. Morita¹, N. Miyata¹, K. Tominaga², M. Kadoshima², S. Migita¹, T. Nabatame², and A. Toriumi^{1,3}

¹MIRAI Project, AIST, ²MIRAI Project, ASET, ³University of Tokyo

<12:05 ~ 13:20>

Lunch

<13:20 ~ 14:10>

5. Embedded DRAM Technology on SOI for SoC Applications

K. Inoh Toshiba Corporation (invited)

<14:10 ~ 15:00>

6. Fully-Depleted SOI Device Technology

M. Okihara Oki Electric Industry (invited)

<15:00 ~ 15:25>

7. Floating body effect reduction in the SOI-MOSFET with narrow and shallow halo structure.

R. Koh, Y.Saito, H.Takemura, K.Arai, M.Narihiro, H.Wakabayashi, K.Takeuchi and T.Mogami
NEC Corporation

<15:25 ~ 15:40>

Break

<15:40 ~ 16:05>

8. Metal gettering technique for SOI wafers

H.Naruoka, T.Iwamatsu, T.Ipposhi and N.Hattori
Mitsubishi Electric Corporation

<16:05 ~ 16:55>

9. Development of poly-Si TFTs

T.Sameshima
Tokyo University of Agriculture & Technology (invited)

<17:00 ~ 18:30>

- Banquet

Friday, December. 13 10:00 ~ 16:30

<10:00 ~ 10:50>

10. Creation of Biochips by the Full Use of Semiconductor Micro/Nano Fabrication Technologies

Y. Horiike Univ. of Tokyo (invited)

<10:50 ~ 11:40>

11. Applications of MEMS Technologies for Chemical and Biochemical Fields

Shuichi Shoji Waseda University (invited)

<11:40 ~ 12:05>

12. Formation of Organic Monolayer Templates for Fabricating Semiconductor Biosensing Devices

D. Niwa, Y. Yamada, K. Omichi, T. Homma, and T. Osaka
Waseda University

<12:05 ~ 12:30>

13. Study on the fabrication process of a high sensitive X-ray microcalorimeters by Sn electrodeposition

H. Kobayashi, H. Sato, K.Mori, H. Kudo, T. Arakawa, T. Homma, T. Osaka, S. Shoji, Y. Ishisaki, R. Fujimoto, and K. Mitsuda

Waseda University

<12:30 ~ 13:45>

Lunch

<13:45 ~ 14:35>

14. Examination of Multilevel Interconnect Structure For 65nm-node ULSIs

M.TADA NEC corporation (invited)

<14:35 ~ 15:00>

15. Time-Dependent Dielectric-Constant Increase of Low-k Materials under Bias Stress

D.Ryuzaki, T.Ishida, and T.Furusawa Hitachi, Ltd

<15:00 ~ 15:25>

16. Borazine-Siloxane polymer and it's application

M.Inoue, S.Sekiyama, K.Nakamura, S Shishiguchi, T.Fukuda, H.Yanazawa, Y Uchimaru¹,ano N.Koda¹
ASET, AIST¹

<15:25 ~ 15:40>

Break

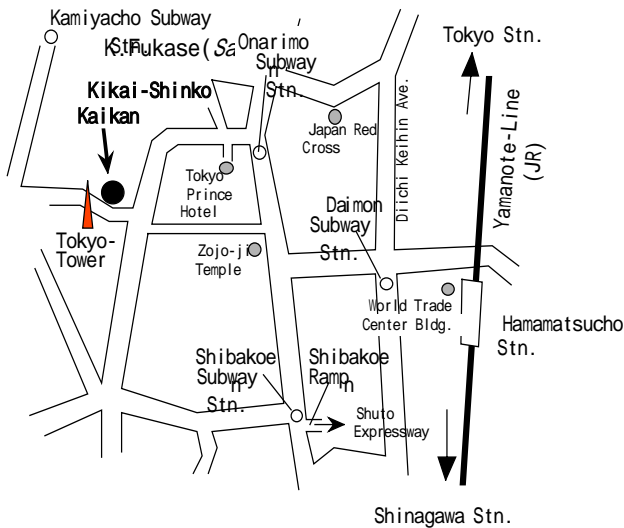
<15:40 ~ 16:30>

17. High-Performance Low-k Dielectric using Advanced EB-Cure Process

Rempei Nakata Toshiba Corporation (invited)

Kikai-Shinko Kaikan, Japan

3-5-8, Shiba Park, Minato-ku, Tokyo, 105-0011, Japan
Tel. +81-3-3434-8216



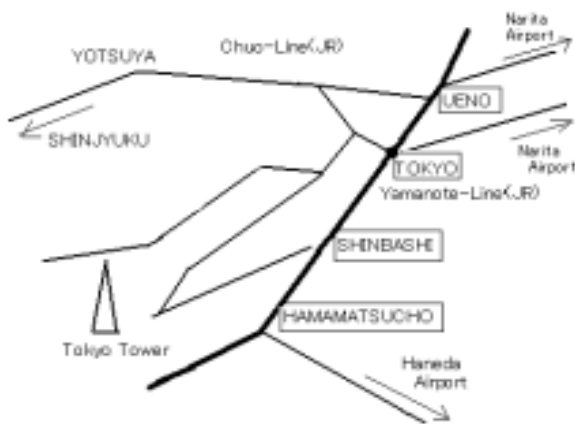
Access to Kikai-Shinko Kaikan Tokyo

Subway: 7 minutes walk from Kamiyacho Station
(Hibiya line)

7 minutes walk from Onarimon Station
(Toei Mita line)

7 minutes walk from Akabanebashi Station
(Toei Oedo line)

JR: 10 minutes walk from Hamamatsucho Station



Symposium Chair; Shunri Oda,
(Tokyo Institute of Technology),

Program Chair; Yoshiyuki Suda
(Tokyo University of Agriculture & Technology)
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T. Tanigawa (NEC),
K. Taniguchi (Osaka Univ.),
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Overseas Member:

I Isub Chung (Samsung)

Secretariat, Electronic Materials Committee,
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Hotels near Kikai-Shinko Kaikan

A: Shiba Park Hotel Tel. +81-3-3433-4141
B: Tokyo Prince Hotel Tel. +81-3-3432-1111



ADVANCED PROGRAM

THE 63RD SYMPOSIUM ON SEMICONDUCTORS AND INTEGRATED CIRCUITS TECHNOLOGY

Kikai Shinko Kaikan,
Tokyo, Japan
December 12-13, 2002

Organized by:

Electronic Materials Committee,
The Electrochemical Society of Japan.

The 63rd Symposium on Semiconductors and Integrated Circuits Technology will be held on December 12-13, 2002 in Tokyo, Japan. This symposium brings together scientists and engineers to discuss advances in the field of semiconductors and integrated circuits technology. The official languages of the symposium are Japanese and English. A proceedings volume will be published. Papers are solicited on "High-k, low-k, SOI and their Related Technologies for New Generation LSI Devices and MEMS Application Technology for New Micro and Integrated Devices".