ssdm 2009

Advance Program Part II

LATE NEWS PAPERS

Wednesday, October 7

Oral Session

2F Heisei <Naka> Area 1

17:30 B-2-5L Polarized Raman study of mechanical stress distribution in W/TiN metal gate MOSFETs
T. Tada[1], V. Poborchii[1], T. Matsuki[2], J. Yugami[2] and T. Kanayama[1], *[1]MIRAI-AIST and [2]Selete (Japan)*

17:45 B-2-6L In Situ Si Wafer Surface Temperature Measurement during Flash Lamp Annealing
Y. Yamada[1], T. Aoyama[2], H. Chino[3], K. Hiraka[3], J. Ishii[1], S. Kadoya[3], S. Kato[2], H. Kiyama[4], H. Kondo[4], T. Kuroiwa[4], K. Matsuo[4], T. Owada[5], T. Shimizu[3] and T. Yokomori[5], *[1]AIST, [2]Semiconductor Leading Edge Tech. Inc., [3]Chino Corp., [4]Dainippon Screen Manufac. Co. Ltd. and [5]Ushio Inc. (Japan)*

4F Hirose <Nishi> Area 4

17:50 G-2-6L SONOS-Type Nonvolatile Memory Formed on Epitaxial-Ge Layer on Si Substrate
J. R. Wu, M. L. Wu, L. L. Chen, Y. S. Lin and Y. H. Wu, *National Tsing Hua Univ. (Taiwan)*

18:05 G-2-7L A 1.2V Operation 2.43 Times Higher Power Efficiency Adaptive Charge Pump Circuit with Optimized V_{TH} at Each Pump Stage for Ferroelectric (Fe)-NAND Flash Memories
S. Noda[1], T. Hatanaka[1], M. Takahashi[2], S. Sakai[2] and K. Takeuchi[1], *[1]Univ. of Tokyo and [2]AIST (Japan)*

2F Heisei <Nishi> Area 5

18:00 C-2-6L A 14GHz AC-Coupled Clock Distribution using Single LC-VCO and Distributed Phase Interpolators
K. Niitsu[1], V. V. Kulkarni[1], K. Shinmo[2], H. Ishikuro[1] and T. Kuroda[1], *[1]Keio Univ. and [2]Samsung Electronics Co. Ltd. (Japan)*

6F Hagi Area 6

18:00 J-2-7L High-electron-mobility InAs thin layers down to ~ 100 nm obtained by epitaxial lift-off and normal/inverted van der Waals bonding on flexible substrates
H. Takita, M. Akabori and T. Suzuki, *JAIST (Japan)*

6F Kiri Area 8

17:45 H-2-6L Epitaxy of Graphene on Si substrates toward Three-Dimensional Graphene Devices
H. Fukidome[1], Y. Miyamoto[1], H. Handa[1, 2], R. Takahashi[1], K. Imaizumi[1] and M. Suemitsu, *[1]Tohoku Univ. and [2]CREST-JST (Japan)*

18:00 H-2-7L Micro/nanospheres from polysilsequioxane containing UVB-absorbing group
P. Kidsaneepoiboon and S. P. Wanichwecharungruang, *Chulalongkorn Univ. (Thailand)*

6F Aoi Area 9

17:45 K-2-8L Enhancement of Electroluminescent Refrigeration by Inserting Carrier Blocking Layers
K. C. Lee and S. T. Yen, *National Chiao Tung Univ. (Taiwan)*

18:00 K-2-9L Nanogap size control by room-temperature annealing
T. Hayashi and K. Muraki, *NTT Corp. (Japan)*

4F Hirose <Higashi> Area 10

18:00 F-2-8L Electric double layer gate FETs based on silicon
T. Yanase[1], T. Shimada[1] and T. Hasegawa[1,2], *[1]Univ. of Tokyo and [2]CREST-JST (Japan)*

Thursday, October 8

POSTER SESSION (10:30-12:00, 2F Heisei <Naka & Nishi>)

P-10, Area10: Organic Materials Science, Device Physics, and Applications

P-10-26L Fabrication of Solution-Processed TIPS-Pentacene TFTs with Poly(4-vinylphenol) Bank Layer by using Ink-Jet Printing
S. M. Kim[1], M. J. Kim[1], S. R. Park[1], G. S. Ryu[3], J. S. Park[2] and C. K. Song[1], *[1]Dept. of Electronics Eng., [2]Dept. of Textile Eng. and [3]Media Device Lab.,Dong-A Univ. (Korea)*

Oral Session

2F Heisei <Higashi> Area 1

14:25 A-3-5L Stress variability control by defects suppression of SiGe Source/Drain using novel SiGe epitaxial growth technique
M. Fukuda, Y. Shimamune, M. Nakamura, K. Tanahashi, T. Miyashita, M. Nishikawa, N. Tamura, T. Mori, Y. Nara and M. Kase, *Fujitsu Microelectronics Ltd. (Japan)*

4F Hirose <Higashi> Area 2

13:15 F-3-1L Effect of Electrode Contacts on Transport in Carbon Nanofiber Interconnects
H. Yabutani[1], T. Yamada[1], T. Saito[2] and C. Y. Yang[1], *[1]Santa Clara Univ. and [2]Hitachi High-Technologies Corp. (U.S.A.)*

13:30 F-3-2L Mechanism of electromigration and spontaneous formation of single electron transistors at ultrasmall copper nano-junctions
S. Sakata[1], A. Umeno[1], K. Yoshida[1] and K. Hirakawa[1,2], *[1]Univ. of Tokyo and [2]CREST-JST (Japan)*

13:45 F-3-3L Evaluation of Ferromagnetic Thin Film Noise Suppressor Applied to On-Chip Transmission Lines
S. Muroga, Y. Endo, M. Suzuki, T. Inagaki, Y. Mitsuzuka and M. Yamaguchi, *Tohoku Univ. (Japan)*

3F Keyaki Area 3

13:15 E-3-1L A Compact Space and Efficient Drain Current Design for Multi-Pillar Vertical MOSFET's
K. Sakui and T. Endoh, *Tohoku Univ. (Japan)*

13:30 E-3-2L Exploration of Device Design Space to Meet Circuit Speed Targeting 22nm and Beyond
L. Wei[1], F. Boeuf[2], D. Antoniadis[3], T. Skotnicki[2] and H. S. Philip Wong[1], *[1]Stanford Univ., [2]STMicroelectronics and [3]Massachusetts Inst. of Tech. (USA)*

13:45 E-3-3L Variability-Tolerant CMOS Gates Using Functional MOSFETs with Resistive Switching Devices
S. Yamamoto and S. Sugahara, *Tokyo Tech. (Japan)*

14:00 E-3-4L Characteristic Sensitivity of Multi-Gate and Multi-Fin MOSFETs to Random Dopant Fluctuation and Implication for Digital Circuits
H. W. Cheng[1], C. H. Hwang[1] and Y. Li[1,2], *[1]National Chiao Tung Univ. and [2]National Nano Device Labs. (Taiwan)*

6F Kaede Area 5

17:30 I-5-1L Above-CMOS Inductor for Rapid Prototyping of Mixed-Signal SoCs
Y. Omiya, K. Kotani and T. Ito, *Tohoku Univ. (Japan)*

17:45 I-5-2L Highly-reliable One-chip Signal Processor LSI for One Angular-rate and Two Acceleration Sensor using Dual DSPs
H. Iwasawa[1], M. Matsumoto[1], T. Nakamura[1], S. Asano[1], M. Hayashi[2] and Y. Kobayashi[1], *[1]Hitachi, Ltd. and [2]Hitachi Automotive Systems, Ltd. (Japan)*

18:00 I-5-3L A New Differential-amplifier-based Offset-Cancellation Sense Amplifier (DOCSA) for High-speed SRAMs in Scaled-down CMOS Technology
H. Ikeda, K. Takeda, M. Nomura and Y. Hayashi, *NEC Electronics Corp. (Japan)*

18:15 I-5-4L A Continuous-Time Common-Mode Feedback Circuit for High-Gain, Wide-Output-Range Fully-Differential OTAs
T. Konishi, K. Inazu and S. Masui, *Tohoku Univ. (Japan)*

3F Keyaki Area 6

16:00 E-4-1L Monte Carlo Analysis of Optical Pulse Response of Plasmon-Resonant Terahertz Emitter
K. Kubota[1], E. Sano[1], Y. M. Meziani[2] and T. Otsuji[2], *[1]Hokkaido Univ. and [2]Tohoku Univ. (Japan)*

16:15 E-4-2L Excellent stability of GaN-on-Si HEMTs with 5 µm gate-drain spacing tested in off-state at a record drain voltage of 200 V and 200℃
D. Marcon[1,2], M. Van Hove[1], D. Visalli[1,2], J. Derluyn[1], J. Das[1], F. Medjdoub[1], S. Degroote[1], M. Leys[1], K. Cheng[1], R. Mertens, M. Germain[1] and G. Borghs[1,2], *[1]IMEC and [2]Katholieke Universiteit Leuven (Belgium)*

16:30 E-4-3L High Voltage AlGaN/GaN HEMTs Employing Surface Treatment by Deposition and Removal of Silicon Dioxide Layer
Y. H. Choi, S. J. Kim, Y. S. Kim, M. K. Kim, O. Seok and M. K. Han, *Seoul National Univ. (Korea)*

3F Keyaki Area 8

17:45 E-5-2L Effect of drain bias stress on the stability of nanocrystalline silicon thin film transistor with various channel length
S. J. Kim, S. G. Park, S. B. Ji and M. K. Han, *Seoul National Univ. (Korea)*

18:00 E-5-3L Multilayer Epitaxial Lateral Overgrowth of Light Emitting Diode with Anisotropi-cally Etched GaN/sapphire Interface.
M. H. Lo[1], P. M. Tu[1], C. H. Wang[1], H. C. Kuo[1], S. C. Wang[1], H. W. Zan[1], C. Y. Chang[1], S. C. Hsu[2], Y. J. Cheng[2] and S. C. Huang[3], *[1]National Chiao Tung Univ., [2]Res. Center for Applied Sci., Academia Sinica and [3]Advanced Optoelectronic Technology Inc. (Taiwan)*

18:15 E-5-4L InP Ring-shaped Quantum-dot Molecules Grown by Droplet Molecular Beam Epitaxy
W. Jevasuwan, P. Boonpeng, S. Panyakeow and S. Ratanathammaphan, *Chulalongkorn Univ. (Thailand)*

6F Aoi Area 9

18:30 K-5-5L Local Measurements of Photothermal Signals on Polycrystalline Silicon Materials by Dual Sampling Method in Atomic Force Microscopy
K. Hara and T. Takahashi, *Univ. of Tokyo (Japan)*

4F Hirose <Higashi> Area 10

14:00 F-3-4L Highly Reliable Nano-gap Electrodes for Single Molecule Evaluation
K. Tsutsui, H. Takagi, M. Morita, M. Tokuda, Y. Ito and Y. Wada, *Toyo Univ (Japan)*

14:15 F-3-5L Fabrication of Electrophoretic Display Driven by Membrane Switch Array
K. Senda[1,2] and H. Usui[2], *[1]Sumitomo Precision Co., Ltd. and [2]Univ. of Tokyo Atricul. & Technol. (Japan)*

6F Kaede Area 11

18:30 I-5-5L Deterioration of mechanical characteristics of micro-cantilevers by plasma induced damage
M. Tomura, Y. Yoshida, T. Ono, C. H. Huang and S. Samukawa, *Tohoku Univ. (Japan)*

3F Keyaki Area 14

16:45 E-4-4L Substantial Reduction of Power Loss in a 14kVA SiC-Inverter
S. Nakata, S. Kinouchi, T. Kitamura, H. Sumitani, M. Imaizumi, T. Takami, T. Oi and T. Oomori, *Mitsubishi Electric Corp. (Japan)*

3F Keyaki Area 14

17:30 E-5-1L Defect-free Isolation on High-Thermal-Conductivity SOI Substrates for Complementary BiCMOS Technology
K. Van Wichelen[1], P. Ong[1], A. Moussa[1], D. Radisic[1], K. Devriendt[1], S. Halder[1], K. Kenis[1], W. Lee[1], B. Vandevelde[1], C. Soonekindt[1], S. A. Hadi[1], T. Smet[1], S. Van Huylenbroeck[1], S. Decoutere[1], M. Seacrist[2], M. Ries[2], V. Drobny[3] and R. Wise[3], *[1]IMEC, [2]MEMC and [3]Texas Instruments (Belgium)*

Friday, October 9

Oral Session

2F Heisei <Nishi> Area 3

10:20 C-6-5L Separation of Interface and Bulk traps in Advanced High-k Gate Dielectric MOSFETs from a Low-Leakage Charge Pumping Technique
E. R. Hsieh[1], Y. H. Chu[1], G. D. Lee[1], S. S. Chung[1], W. M. Lin[2], C. W. Yang[2], Y. S. Hsieh[2], L. W. Cheng[2], C. T. Tsai[2] and G. H. Ma[2], *[1]National Chiao Tung Univ. and [2]UMC (Taiwan)*

2F Heisei <Nishi> Area 3

14:35 C-8-5L Random-Dopant-Induced Static Noise Margin Fluctuation and Suppression in 16-nm-Gate CMOS SRAM Cell
T. Y. Li[1], C. H. Hwang[1] and Y. Li[1,2], *[1]National Chiao Tung Univ. and [2]National Nano Device Labs. (Taiwan)*

14:50 C-8-6L A Novel Compact-Model of Quasi-Ballistic Nanowire MOSFETs
K. Natori, *Tokyo Inst. Tech. (Japan)*

6F Kaede Area 7

16:45 I-9-6L 2 x 2 Thermooptic Silicon Oxynitride Optical Switch Incorporating the Cascaded Multimode Interference Waveguides
R. W. Chuang[1,2], M. T. Hsu[1] and Z. L. Liao[1], *[1]National Cheng Kung Univ. and [2]National Nano Device Labs. (Taiwan)*

4F Hirose <Nishi> Area 9

17:00 G-9-6L Charge transport in single and few layer graphene devices
M. F. Craciun[1], S. Russo[1,2], M. Yamamoto[1], J. B. Oostinga[2,3], A. Morpurgo[3] and S. Tarucha[1,4], *[1]Univ of Tokyo, [2]Delft Univ of Tech., [3]Univ of Geneva and [4]Quantum Spin Information Project, International Cooperative Research Project (Japan)*

4F Hirose <Higashi> Area 10

12:00 F-7-6L Characterization of All Printed Single-Wall Carbon Nanotube based Thin-Film Transistor on Plastic Foils using Displacement Current Measurement
M. Jung[1,2], K. Jung[2], S. Y. Lim[2], K. Lee[1], A. Leonard[3], J. M. Tour[3], Y. Majima[1,4] and G. Cho[1], *[1]National Sunchon Univ., [2]Paru Co. Ltd., [3]Rice Univ. and [4]Tokyo Institute of Tech. (Korea)*

4F Hirose <Higashi> Area 10

16:45 F-9-5L Air stable organic semiconductors towards flexible organic field-effect transistors
W. Takashima, T. Nagase, S. Nagamatsu, T. Moriguchi, T. Okauchi, K. Mizoguchi, S. Hayase and K. Kaneto, *Kyushu Inst. Of Tech. (Japan)*

17:00 F-9-6L Electrical Bistabilities of Organic Bistable Device utilzing Hyperbranched Polymer and Gold Nanoparticle composite
H. Ichikawa[1], K. Yasui[2], M. Ozawa[2] and K. Fujita[1], *[1]Kyushu Univ. and [2]Nissan Chemical Industries, Ltd. (Japan)*

6F Hagi Area 11

10:15 J-6-6L RFID sensor chips with anticollision algorithm for simultaneous detection of multiple DNA target
Y. Yazawa, T. Oonishi, K. Watanabe, R. Nemoto and A. Shiratori, *Hitachi, Ltd., (Japan)*

6F Hagi Area 11

17:00 J-9-6L Light-Addressable Potentiometric Sensor with Fluorine Terminated Hafnium Oxide for Sodium Detection
H. Y. Chen, C. E. Lue and C. S. Lai, *Chang Gung Univ. (Taiwan)*

6F Aoi Area 12

16:45 K-9-4L Observation of Spin Relaxation in InGaAs/AlAsSb Quantum Wells
S. Izumi[1], S. Gozu[2], T. Mozume[2], Y. Saeki[1], T. Nukui[1] and A. Tackeuchi[1], *[1]Waseda Univ. and [2]AIST (Japan)*

3F Keyaki Area 13

16:45 E-9-5L Silicon Thin Film with Si Nanopillar Surface Decoration for Solar Cell Application
S. M. Wong[1,2], H. Y. Yu[1,2], J. S. Li[1,2], G. Zhang[2], G. Q. Lo[2] and D. L. Kwong[2], *[1]Nanyang Tech. Univ. and [2]Inst. of Microelectronics (Singapore)*

UPDATED INFORMATION AND CORRECTION

Wednesday, October 7

Oral Session

2F Heisei <Naka> Area1

17:00 B-2-4→17:10 B-2-4
New Criteria for Suppressing Extrinsic Defect Generation in Ultra Thin SiON Gate Insulator (EOT<1.4nm) for Advanced CMOSFETs
S. Shimamoto[1], H. Kawashima[2], T. Kikuchi[1], Y. Yamaguchi[2] and A. Hiraiwa[2], *[1]Hitachi, Ltd. and [2]Renesas Tech. Corp. (Japan)*

2F Heisei <Higashi> Area3

October 8, 16:00 A-4-1→ October 7, 15:40 A-1-7 (Invited)
The Tunnel Source n-MOSFET: A Novel Asymmetric Device for Low Power Applications
N. Venkatagirish, A. Tura, R. Jhaveri, H. Y. Chang and J. Woo, *UCLA (USA)*

Thursday, October 8

Poster Session

6F Aoi Area9

October 9, 16:45 G-9-5→ October 8, 8:45 P-9-18
Anisotropic Transport in Epitaxial Graphene Transistor on Vicinal SiC Substrate
S. Odaka[1,2,3], H. Miyazaki[1,3], A. Kanda[3,4], K. Morita[5], S. Tanaka[5], Y. Miyata[6], H. Kataura[6], K. Tsukagoshi[1,3,6] and Y. Aoyagi[3,7], *[1]NIMS, [2]Tokyo Tech, [3]CREST-JST, [4]Univ. of Tsukuba, [5]Kyushu Univ., [6]AIST and [7]Ritsumeikan Univ. (Japan)*

Oral Session

2F Heisei <Higashi> Area3

A-4-2→A-4-1
Multiple-Gate Tunneling Field Effect Transistors with sub-60mV/dec Subthreshold Slope
D. Leonelli[1,2], A. Vandooren[1], R. Rooyackers[1], A. S. Verhulst[1,2], S. De Gendt[1,2], M. M. Heyns[1,2] and G. Groeseneken[1,2], *[1]IMEC and [2]Katholieke Univ. Leuven (Belgium)*

A-4-3→A-4-2
Novel Source Heterojunction Structures with Relaxed-/Strained-Layers for Quasi-Ballistic CMOS Transistors using Ion Implantation Induced Relaxation Technique of Strained-Substrates
T. Mizuno[1,2], N. Mizoguchi[1], K. Tanimoto[1], T. Yamauchi[1], T. Tezuka[3] and T. Sameshima[4], *[1]Kanagawa Univ., [2]MIRAINIRC, [3]MIRAI-Toshiba and [4]Tokyo Univ. of Agri. and Tech. (Japan)*

Friday, October 9

Oral Session

4F Hirose <Nishi> Area9

15:30 G-9-1
AFM nanolithography of graphene
L. Weng, L. Zhang, Y. P. Chen, and L. Rokhinson, *Purdue Univ. (USA)*

17:00 G9-6 → 16:45 G-5
Self-Excitation of Terahertz Plasma Oscillations in Optically Pumped Graphene
V. Ryzhii[1,3], M. Ryzhii[1,3], A. Satou[1,3], E. M. Amine[2] and T. Otsuji[2,3], *[1]Univ. of Aizu, [2]Tohoku Univ. and [3]CREST-JST (Japan)*

RUMP SESSIONS

Session A (4F Hirose-Higashi)

Moderator: M. Hane (NEC Corp., Japan)
→ Y. Miyamoto (Tokyo Tech, Japan)
Panelist: S. Okazaki (EUVA)
T. Endoh (Tohoku Univ.)
S. Tanaka (Tohoku Univ.)
T. Kozawa (Osaka Univ.)
T. Uchiyama (NEC Electronics Corp.)

Session B (4F Hirose-Nishi)

Moderator: M. Ishiko (Toyota Central R&D Labs.,Inc, Japan)
→ Y. Yoshida (AIST, Japan)
Panelist: T. Motohiro (Toyota Central R&D Labs. Inc.)
"What We Can Expect from Solar Cells"
S. Sugihara (Shonan Inst. of Tech.)
"Possibility of Practical Solar Car? - Dankichi and Sunflower -"
S. Uchida (RCAST, Univ. of Tokyo)
"Thin, Light-Weight Flexible Dye Sensitized Solar Cells"
S. Yoshikawa (Sharp Corp.)
"Solar Cells for Mobile Phones"

PROGRAM COMMITTEE

[14]Power Electronics
Member: A. Masuda (NAIST)→A. Masuda (AIST)

Session Chair

A-3 I. Yamamoto (NEC Corp.)→I. Yamamoto (NEC Electronics Corp.)
B-4 I. Yamamoto (NEC Corp.)→I. Yamamoto (NEC Electronics Corp.)
A-4 Y. Yeo (National University of Singapore)
→H. Wakabayashi (Sony Corp.)
F-5 S. F. Horng (National Tsing Hua Univ.)→K. Kato (Niigata Univ.)
H-7 N. Iwamuro (Fuji Electric Device Tech. Co.,Ltd.)
→Philip A. Mawby (Univ of Warwick)
E-8 Y. Ohno (Nagoya Univ.)→K. Maehashi (Osaka Univ.)
J-8 M. Niwano (Tohoku Univ.)→A. Hirano (Tohoku Univ.)
P-3 A. Azuma (Toshiba Corp.)
→S. Inumiya (Toshiba America Electronic Components Inc.)
P-3 M. Hane (NEC Electronics America)→H. Wakabayashi (Sony Corp.)
P-7 M. Sugawara (Fujitsu Labs. Ltd.)→H. Yamada (Tohoku Univ.)
P-13 J. Motohisa (Hokkaido Univ.)→K. Ishibashi (RIKEN)

Session Time

2F Heisei<Higashi>	A-1	13:30-16:00
2F Heisei<Higashi>	A-4	16:30-17:10
2F Heisei<Naka>	B-2	16:00-18:00
2F Heisei<Naka>	C-6	9:00-10:35
2F Heisei<Naka>	C-8	13:15-15:05
2F Heisei<Nishi>	C-2	16:00-18:15
3F Sakura	E-9	15:30-17:00
3F Sakura	P-4	8:45-9:24
4F Hirose<Higashi>	F-2	16:00-18:15
4F Hirose<Higashi>	F-7	10:45-12:15
4F Hirose<Higashi>	P-10	8:45-10:03
4F Hirose<Higashi>	F-9	15:30-17:15
2F Heisei<Higashi>	P-12	10:00-10:21
4F Hirose<Nishi>	G-2	16:00-18:20
6F Kaede	I-9	15:30-17:00
6F Hagi	J-6	9:00-10:30
6F Hagi	J-9	15:30-17:15
6F Aoi	K-2	16:00-18:15
6F Aoi	K-5	17:30-18:45
6F Aoi	K-5	17:30-18:45
6F Aoi	K-5	17:30-18:45
6F Aoi	P-9	8:45-9:39

Session Title

A-1 SOI/GOI and Channel Engneering
→ A-1 SOI/GOI and Channel Engineering
A-3 Source/Drain Engneering → A3 Source/Drain Engineering
B-4 Hihg-k/Metal Gate I → B-4 High-k/Metal Gate I
B-5 Hihg-k/Metal Gate I → B-5 High-k/Metal Gate II

Withdrawn

P-4-13
P-12-5
I-8-3
P-8-1
P-10-10
P-9-12
P-1-6

SSDM 2009 Time Table

Wednesday, October 7

2F Heisei

10:00-12:00 Opening / SSDM Award / Plenary Session 1

2F Heisei <Higashi>	2F Heisei <Naka>	2F Heisei <Nishi>	3F Sakura	3F Keyaki	4F Hirose <Higashi>	4F Hirose <Nishi>	6F Kiri	6F Kaede	6F Hagi	6F Aoi
13:30-16:00 **Area 3:** A-1: SOI/GOI and Channel Engineering T. Tanaka (Fujitsu Microelectronics Ltd.) K. Shibahara (Hiroshima Univ.)	**13:30-15:40** **Area 1:** B-1: Characterization S. Miyazaki (Hiroshima Univ.) K. Shiraishi (Univ. of Tsukuba)	**13:30-15:40** **Area 5:** C-1: Interconnect-related Circuits Technology M. Horiguchi (Renesas Tech. Corp.) T. Komuro (Kanagawa Inst. of Tech.)	**13:30-15:40** **Area 2:** D-1: 3D Integration J. Kodate (NTT) J. Gambino (IBM Microelectronics)		**13:30-15:45** **Area 10:** F-1: Organic Photonic Photovoltaic Device & Memory K. Fujita (Kyushu Univ.) S. Aramaki (Mitsubishi Chemical Group Sci. & Tech. Res. Center, Inc.)	**13:30-15:20** **Area 4:** G-1: DRAM K. Hamada (Elpida Memory, Inc.) H. Hada (NEC Corp.)	**13:30-15:45** **Area 8:** H-1: SiGe Related Technologies and III-V Nano Structures A. Yamada (Tokyo Tech) H.H.Tan (The Australian National Univ.)	**13:30-15:45** **Area 7:** I-1: Si Photonics and Photonic Crystals H. Yamada (Tohoku Univ.) Y. Lee (Hitachi, Ltd.)	**13:30-15:45** **Area 6:** J-1: GaN FETs and RF Devices M. Kuzuhara (Univ. of Fukui) K. J. Chen (Hong Kong Univ.of Sci. and Tech.)	**13:30-15:45** **Area 9:** K-1: Single Electron and Quantum Transport M. Tabe (Shizuoka Univ.) Martin Brandt S. (Walter Schottky Institut, Technische Universitat Munchen)
16:00-18:20 **Area 3:** A-2: Variability and RTS T. Hiramoto (Univ. of Tokyo) F. Boeuf (STMicroelectronics)	**16:00-18:00** **Area 1:** B-2: Characterization and Process Technology K. Shiraishi (Univ. of Tsukuba) S. Miyazaki (Hiroshima Univ.)	**16:00-18:15** **Area 5:** C-2: Power Management and Advanced Mixed- T. Komuro (Kanagawa Inst. of Tech.) Y. Sato (NTT Microsystem Integration Labs.)	**16:00-18:10** **Area 2:** D-2: RF Device/Process Technology Y. Hayashi (NEC Electronics Corp.) N. Nakano (Keio Univ.)		**16:00-18:15** **Area 10:** F-2: Organic Transistor M. Nakamura (Chiba Univ.) T. Kamata (AIST)	**16:00-18:20** **Area 4:** G-2: Flash Memory I Y. Shimamoto (Hitachi, Ltd.) M. Moniwa (Renesas Tech. Corp.)	**16:00-18:15** **Area 8:** H-2: Graphen and Nanowires H. Hibino (NTT Basic Res. Labs.) K.Horn (Fritz Haber Inst.)	**16:00-18:15** **Area 7:** I-2: Si Lightemitter and THz Laser H. Isshiki (Univ. of Electro-Communications) M. Gotoda (Mitsubishi Electric Corp.)	**16:00-18:15** **Area 6:** J-2: III-V High-mobility S. Tanaka (Shibaura Inst. of Tech.) Y. Miyamoto (Tokyo Tech)	**16:00-18:15** **Area 9:** K-2: Thinfilm Transistor and Memory Y. Uraoka (NAIST) P. W. Li (National Central Univ.)

19:00-21:00 Banquet/Paper Award & Young Researcher Award (Heisei)

Thursday, October 8

2F Heisei <Higashi>	2F Heisei <Naka>	2F Heisei <Nishi>	3F Sakura	3F Keyaki	4F Hirose <Higashi>	4F Hirose <Nishi>	6F Kiri	6F Kaede	6F Hagi	6F Aoi
8:45-10:30 **Short Presentation** **Area 3 8:45 ～ 9:54,** S. Inumiya (Toshiba America Electronic Components Inc.) H. Wakabayashi (Sony Corp.) **Area 12 10:00 ～ 10:21** K. Ito (Hitachi, Ltd.)			**8:45-10:30** **Short Presentation** **Area 4 8:45 ～ 9:24,** M. Moniwa (Renesas Tech. Corp.) T. Eshita (Fujitsu Microelectronics Ltd.) **Area 5 9:35 ～ 10:11** T. Komuro (Kanagawa Inst. of Tech.) S. Ishizuka (Toshiba Corp.)		**8:45-10:30** **Short Presentation** **Area 10 8:45 ～ 10:03** M. Nakamura (Chiba Univ.)	**8:45-10:30** **Short Presentation** **Area 1 8:45 ～ 10:09** S. Tsujikawa (Sony Corp.) H. Umeda (Renesas Tech. Corp.)	**8:45-10:30** **Short Presentation** **Area 7 8:45 ～ 9:48,** H. Yamada (Tohoku Univ.) J. Fujikata (NEC Corp.) **Area 14 9:55 ～ 10:28** M. Ishiko (Toyota Central R&D Labs., Inc.) T. Ujihara (Nagoya Univ.)	**8:45-10:30** **Short Presentation** **Area 2 8:45 ～ 9:30,** Y. Hayashi (NEC Electronics Corp.) K. Ito (Kyoto Univ.) **Area 8 9:40 ～ 10:22** A. Yamada (Tokyo Tech) H. Hibino (NTT Basic Res. Labs.)	**8:45-10:30** **Short Presentation** **Area 6 8:45 ～ 9:39,** T. Hashizume (Hokkaido Univ.) M. Kuzuhara (Univ. of Fukui) **Area 13 9:45 ～ 10:27** K. Ishibashi (RIKEN) S. Sato (Fujitsu Labs. Ltd.)	**8:45-10:30** **Short Presentation** **Area 9 8:45 ～ 9:39,** T. Fujisawa (Tokyo Tech) K. Ono (RIKEN) **Area 11 9:45 ～ 10:21** K. Ajito (NTT Corp.) I. Yamashita (NAIST)

10:30-12:00 Poster Session 2F Heisei <Naka & Nishi>

13:05-14:40 **Area 1:** A-3: Source/Drain Engineering H. Fukutome (Fujitsu Microelectronics Ltd.) I. Yamamoto (NEC Electronics Corp.)				**13:15-14:15** **Area 3:** E-3: Late News Session H. Wakabayashi (Sony Corp.) T. Tanaka (Fujitsu Microelectronics Ltd.)	**13:15-14:30** **Area 2 & 10** F-3: Late News Session M. Matsuura (Renesas Tech. Corp.) K. Fujita (Kyushu Univ.)	**13:15-14:35** **Area 4:** G-3: Flash Memory II R. Shen (eMemory Tech. Inc.) Y. Shimamoto (Hitachi, Ltd.)	**13:15-14:45** **Area 8:** H-3: Oxide Materials M. Nakada (NEC Corp.) T. Fukumura (Tohoku Univ.)	**13:15-14:45** **Area 7:** I-3: LED I M. Gotoda (Mitsubishi Electric Corp.) H. Yamada (Tohoku Univ.)	**13:15-14:45** **Area 6:** J-3: SiC and Diamond Devices R. Hattori (Mitsubishi Electric Corp.) T. Tanaka (Panasonic Corp.)	**13:15-14:45** **Area 9:** K-3: Electron Spin and Quantum Information H. Gotoh (NTT Basic Res. Labs.) Sven Rogge (Delft Univ. of Tech.)

2F Heisei <Higashi & Naka>

15:00-15:45 Plenary Session 2

2F Heisei <Higashi>	2F Heisei <Naka>	2F Heisei <Nishi>	3F Sakura	3F Keyaki	4F Hirose <Higashi>	4F Hirose <Nishi>	6F Kiri	6F Kaede	6F Hagi	6F Aoi
16:30-17:10 **Area 3:** A-4: Novel Device Structure and Physics D. Hisamoto (Hitachi, Ltd.) H. Wakabayashi (Sony Corp.)	**16:00-17:30** **Area 1:** B-4: High-k/Metal Gate I I. Yamamoto (NEC Electronics Corp.) Y. Nara (Fujitsu Microelectronics Ltd.)		**16:00-17:10** **Area 2:** D-4: Scaled-down Cu Metallization S. Matsumoto (Panasonic Corp.) T. Hasegawa (Sony Corp.)	**16:00-17:15** **Area 6 & 14** E-4: Late News Session T. Hashizume (Hokkaido Univ.) M. Ishiko (Toyota Central R&D Labs., Inc.)	**16:00-17:15** **Area 10:** F-4: Organic Transistor S. Aramaki (Mitsubishi Chemical Group Science & Technology Research Center, Inc.) C. K. Song (Dong-A Univ.)	**16:00-17:20** **Area 4:** G-4: Flash Memory III Y. C. Chen (Macronix Int'l Co., Ltd.) R. Shen (eMemory Tech. Inc.)	**16:00-17:15** **Area 8:** H-4: Advanced Nitride Growth and Structures Y. Sakuma (NIMS) T. Iwai (Fujitsu Labs. Ltd.)	**16:00-17:15** **Area 13:** I-4: Compound Semiconductor Nanowires K. Tateno (NTT Basic Res. Labs.) K. Ishibashi (RIKEN)	**16:00-17:15** **Area 6:** J-4: High-frequency Devices S. Yamahata (NTT Corp.) K. S. Seo (Seoul National Univ.)	**16:00-17:15** **Area 9:** K-4: Nanomechanical Systems D. G. Austing (National Res. Council of Canada) K. Ono (RIKEN)
17:30-18:50 **Area 3:** A-5: New Device Technologies K. Horita (Renesas Tech. Corp.) S. Hayashi (Panasonic Corp.)	**17:40-19:00** **Area 1:** B-5: High-k/Metal Gate II J. Yugami (Selete) H. Umeda (Renesas Tech. Corp.)		**17:30-18:40** **Area 2:** D-5: Characterization and Reliability for Metallization G. Beyer (IMEC) M. Kodera (Toshiba Corp.)	**17:30-18:30** **Area 14 & 8** E-5: Late News Session M. Ishiko (Toyota Central R&D Labs., Inc.) A. Yamada (Tokyo Tech)	**17:30-18:30** **Area 10:** F-5: Organic Transistor T. Kamata (AIST) K. Kato (Niigata Univ.)	**17:30-18:20** **Area 4:** G-5: PRAM M. Moniwa (Renesas Tech. Corp.) Y. C. Chen (Macronix Int'l Co., Ltd.)	**17:30-18:45** **Area 8:** H-5: Advanced Nitride Growth and Structures T. Iwai (Fujitsu Labs. Ltd.) Y. Sakuma (NIMS)	**17:30-18:45** **Area 5 & 11** I-5: Late News Session S. Kawahito (Shizuoka Univ.) I. Yamashita (NAIST)	**17:30-18:45** **Area 6:** J-5: Graphen and Oxide Devices K. Maezawa (Univ. of Toyama) Y. Ohno (Univ. of Tokushima)	**17:30-18:45** **Area 9:** K-5: Novel Devices and Matarials B. G. Park (Seoul National Univ.) M. Watanabe (Tokyo Tech)

Friday, October 9

2F Heisei <Higashi>	2F Heisei <Naka>	2F Heisei <Nishi>	3F Sakura	3F Keyaki	4F Hirose <Higashi>	4F Hirose <Nishi>	6F Kiri	6F Kaede	6F Hagi	6F Aoi
	9:00-10:20 **Area 1:** B-6: Epitaxy Y. Tsunashima (Toshiba Corp.) B. Mizuno (UJT Lab. Inc.)	**9:00-10:35** **Area 3:** C-6: High-k/Metal-Gate S. Hayashi (Panasonic Corp.) K. Horita (Renesas Tech. Corp.)	**9:00-10:30** **Area 5:** D-6: Image Sensing Devices S. Kawahito (Shizuoka Univ.) T. Hamasaki (Texas Instruments Japan Ltd.)	**9:00-10:30** **Area 13:** E-6: Semiconductor Nanowires (I) J. Motohisa (Hokkaido Univ.) S. Sato (Fujitsu Labs. Ltd.)	**9:00-10:30** **Area 10:** F-6: Organic Transistor H. Usui (Tokyo Univ. of Agriculture and Tech.) K. Fujita (Kyushu Univ.)	**9:00-10:40** **Area 4:** G-6: FeRAM/MRAM T. Eshita (Fujitsu Microelectronics Ltd.) H. Hada (NEC Corp.)	**9:00-10:30** **Area 14:** H-6: Power Devices and Applications S. Matumoto (NTT Energy and Environment Systems Labs.) M. Mori (Hitachi, Ltd.)	**9:00-10:30** **Area 7:** I-6: Quantum Dot Devices O. Wada (Kobe Univ.) M. Sugawara (Fujitsu Labs. Ltd.)	**9:00-10:30** **Area 11:** J-6: NEMS and MEMS M. Sasaki (Toyota Technological Inst.) K. Ajito (NTT Corp.)	**9:00-10:30** **Area 12:** K-6: Spintronics (I): Spintronic Materials & Devices K. Ito (Hitachi, Ltd.) Y. Ohno (Tohoku Univ.)
	10:35-12:15 **Area 1:** B-7: Ge-MOS Y. Tsunashima (Toshiba Corp.) Y. Nara (Fujitsu Microelectronics Ltd.)	**10:45-12:15** **Area 1&3: Joint Session** C-7: FinFETs and Multi-Gate FETs N. Mori (Osaka Univ.) H. Fukutome (Fujitsu Microelectronics Ltd.)	**10:45-12:05** **Area 5:** D-7: Physical Subjects for Low-power Circuit/Device Design T. Matsuoka (Osaka Univ.) T. Koide (Hiroshima Univ.)	**10:45-12:15** **Area 13:** E-7: Si Nanowires K. Nishiguchi (NTT Basic Res. Labs.) S. Akita (Osaka Prefecture Univ.)	**10:45-12:15** **Area 10:** F-7: Organic Electronics & Transistor Y. Majima (Tokyo Inst. of Tech.) S. Aratani (Hitachi, Ltd.)	**10:45-12:15** **Area 4:** G-7: ReRAM K. Ishihara (Sharp Corp.) M. J. Tsai (Industrial Tech. Res. Inst.)	**10:45-12:15** **Area 14:** H-7: Materials for Power Devices M. Ishiko (Toyota Central R&D Labs., Inc.) Philip A. Mawby (Univ of Warwick)	**10:45-12:15** **Area 7:** I-7: Photo Diodes R. Akimoto (AIST) M. Ezaki (Toshiba Corp.)	**10:45-12:15** **Area 11:** J-7: Bio Seosors and Bio Chips I. Yamashita (NAIST) K. Sawada (Toyohashi Univ. of Tech.)	**10:45-12:15** **Area 12:** K-7: Spintronics (II): Magnetic Tunnel Junction M. Yamamoto (Hokkaido Univ.) H. Kano (Sony Corp.)
	13:15-15:05 **Area 1:** B-8: Doping Technology B. Mizuno (UJT Lab. Inc.) J. Yugami (Selete)	**13:15-15:05** **Area 3:** C-8: Transport Physics N. Mori (Osaka Univ.) T. Tanaka (Fujitsu Microelectronics Ltd.)	**13:15-15:05** **Area 2:** D-8: Advanced Material/ Process Technology M. Nihei (Fujitsu Labs. Ltd.) M. Matsuura (Renesas Tech. Corp.)	**13:15-15:15** **Area 13:** E-8: Carbon Nanotubess and Graphene N. Aoki (Chiba Univ.) K. Maehashi (Osaka Univ.)	**13:15-15:15** **Area 10:** F-8: Organic Electronics & Photonics H. Kajii (Osaka Univ.) S. Aratani (Hitachi, Ltd.)	**13:15-15:15** **Area 6:** G-8: GaN Processing and Interface Technologies A. Nakagawa (New Japan Radio Co., Ltd.) S. Kuroda (Eudyna Devices Inc.)	**13:15-15:00** **Area 14:** H-8: New Approaches to High-efficiency Solor Cells A. Masuda (AIST) T. Minemoto (Ritsumeikan Univ.)	**13:15-15:15** **Area 7:** I-8: LED II M. Ezaki (Toshiba Corp.) H. Isshiki (The Univ. of Electro-Communications)	**13:15-15:15** **Area 11:** J-8: Nanotechnology for Bio Sensing J. Ohta (NAIST) A. Hirano (Tohoku Univ.)	**13:15-15:15** **Area 12:** K-8: Spintronics (III): Special Session on Spinrelated Phenomena and Future Devices S. Seo (Samsung Advanced Inst. of Tech.) K. Ando (AIST)
	15:20-17:10 **Area 1&3: Joint Session** B-9: Device Reliability D. Hisamoto (Hitachi, Ltd.) S. Tsujikawa (Sony Corp.)		**15:15-17:05** **Area 2:** D-9: Characterization and Reliability for Low-k Materials S. Ogawa (Selete) K. Ito (Kyoto Univ.)	**15:30-17:00** **Area 13:** E-9: Semiconductor Nanowires (II) K. Ishibashi (RIKEN) K. Maehashi (Osaka Univ.)	**15:30-17:15** **Area 10:** F-9: Organic Transistor & Light Emitting Diode K. Kato (Niigata Univ.) H. Kajii (Osaka Univ.)	**15:30-17:15** **Area 9:** G-9: Physics and Applications of Graphene T. Fujisawa (Tokyo Tech) Y. Takahashi (Hokkaido Univ.)	**15:30-17:00** **Area 14:** H-9: Materials Science for Solor Cells N. Usami (Tohoku Univ.) Stefaan De Wolf (Ecole Polytechnique Fédérale de Lausanne)	**15:30-17:00** **Area 7:** I-9: Nonliner Optical Devices R. Akimoto (AIST) O. Wada (Kobe Univ.)	**15:30-17:15** **Area 11:** J-9: Bio Nano Process H. Tabata (Univ. of Tokyo) K. Ajito (NTT Corp.)	**15:30-17:00** **Area 12:** K-9: Spintronics (IV): Special Session on Spinrelated Phenomena and Future Devices M. Tanaka (Univ. of Tokyo) K. Ando (AIST)