



Advance Program Part II

LATE NEWS PAPERS

Wednesday, September 24

Oral Session

Room 202B Area 8

- 17:45 F-2-6L Control of Sn Precipitation and Strain-relaxation in Compositionally Step-graded $\text{Ge}_{1-x}\text{Sn}_x$ Buffer Layers for Tensile-strained Ge Layers
Y. Shimura¹, N. Tsutsui¹, O. Nakatsuka¹, A. Sakai² and S. Zaima¹, ¹Nagoya Univ. and ²Osaka Univ. (Japan)
- 18:00 F-2-7L Roughness Reduction Technique for High Performance Poly-Si TFTs by CW Laser Lateral Crystallization with Cap SiO_2 Thin Films
S. Fujii, S. Kuroki, M. Numata, K. Kotani and T. Ito, Tohoku Univ. (Japan)

Room 405 Area 10

- 17:45 I-2-7L Selective Patterning for Organic Light-Emitting-Diodes by Physical Vapor Deposition of Photosensitive Materials
M. Muroyama^{1,2}, I. Saito¹, S. Yokokura², K. Tanaka² and H. Usui², ¹Sony Corp. and ²Tokyo Univ. of Agri. and Tech. (Japan)

Thursday, September 25

Oral Session

Room 102 Area 3

- 10:20 B-3-5L Principal Guideline of Stress Design Engineering for Drivability Enhancement and Suppression of Variability in PMOSFET with SiGe S/D
M. Nishikawa¹, N. Tamura², Y. Shimamune², A. Hatada¹, K. Ikeda², T. Yamamoto², T. Miyashita², Y. S. Kim², T. Kubo¹, T. Sukegawa¹, M. Fukuda¹, K. Sukegawa², H. Kurata², M. Kase¹ and K. Hashimoto¹, ¹Fujitsu Microelectronics Ltd. and ²Fujitsu Labs. Ltd. (Japan)

Room 202B Area 8

- 17:00 F-5-4L Synthesis of Ternary Compound Sulfide Nanoparticles
S. Hamaguchi, T. Yamamoto and M. Kobayashi
Waseda Univ. (Japan)

POSTER SESSION (13:00-14:45, Multi Purpose Hall)

P-1, Area 1: Advanced Gate Stack/Si Processing Science

- P-1-20L UV Raman Study of Cleavage Effects on Stress Distribution in Si STI Structure
T. Tada, V. Poborchii and T. Kanayama, AIST (Japan)
- P-1-21L Characterization of Strain Relaxation Process during Ge Condensation by Synchrotron Microbeam X-ray Diffraction
T. Inoue¹, D. Shimokawa¹, T. Hosoi¹, T. Shimura¹, Y. Imai², O. Sakata², S. Kimura² and H. Watanabe¹, ¹Osaka Univ. and ²JASRI (Japan)

P-4, Area 4: Advanced Memory Technology

- P-4-8L Writing Disturbance-Free of a Ferroelectric Gate Field-Effect Transistor Memory with an Intermediate Electrode
S. Horita and B. N. Q. Trinh, JAIST (Japan)

P-5, Area 5: Advanced Circuits and Systems

- P-5-11L A 33% Improvement in Efficiency of Wireless Inter-Chip Power Delivery by Thin Film Magnetic Material
K. Niitsu, Y. Yuxiang, H. Ishikuro and T. Kuroda, Keio Univ. (Japan)
- P-5-12L ESD Robustness Improvement for VDMOS Transistors to Harsh Applications
K. Hatasako, F. Yamamoto, A. Uenishi, T. Kuroi and S. Maegawa, Renesas Tech. Corp. (Japan)

- P-5-13L Investigation of Power Double-Diffused MOSFETs for Prevention of SEB
Y. L. Lai¹ and C. Y. Huang², ¹National Changhua Univ. of Edu. and ²Feng Chia Univ. (Taiwan)

P-8, Area 8: Advanced Material Synthesis and Crystal Growth Technology

- P-8-13L Synthesis and Characterization of Clusters Assembled Films Composed of Transition-Metal Encapsulating Si Clusters
N. Uchida, H. Kintou, Y. Matsushita, T. Tada, K. Kirihara, H. Oyanagi and T. Kanayama, AIST (Japan)
- P-8-14L Multilayered Graphene from SiC Films via Pyrolysis in Vacuum
Y. Ogawa, A. Nakamura, A. Tanaka and J. Temmyo, Shizuoka Univ. (Japan)

P-9, Area 9: Physics and Applications of Novel Functional Materials and Devices

- P-9-11L Dynamic Characteristics of Graphene Nanoribbon Field-Effect Transistors
M. Ryzhii^{1,3}, A. Satou^{1,3}, T. Otsuji^{2,3} and V. Ryzhii^{1,3}, ¹Univ. of Aizu, ²Tohoku Univ. and ³CREST-JST (Japan)

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

- P-10-20L Instability of Threshold Voltage under DC Drain Bias Stress in Pentacene-based Organic Thin Film Transistors
C. L. Fan, T. H. Yang, C. C. Lin and C. Y. Chiang, National Taiwan Univ. of Sci. and Tech. (Taiwan)

P-11, Area 11: Micro/Nano Electromechanical and Bio-Systems (Devices)

- P-11-10L Embedded Signal Processor Design for Biosensor System-on-a-chip Applications
Y. K. Lai, Y. C. Chung, Y. F. Lai and C. L. Hwang, National Chung Hsing Univ. (Taiwan)

P-12, Area 12: Spintronic Materials and Devices

- P-12-6L Novel Look-Up Table Circuits using Spin MOSFET
H. Sugiyama, T. Tanamoto, T. Marukame, M. Ishikawa, T. Inokuchi and Y. Saito, Toshiba Corp. (Japan)
- P-12-7L Spin Relaxation in InAs Columnar Quantum Dots
T. Umi¹, H. Noshio¹, T. Asami¹, S. Lu², L. Li³, A. Fiore⁴ and A. Tackeuchi¹, ¹Waseda Univ., ²Chinese Academy of Sci., ³Inst. of Photonics and Quantum Electronics and ⁴Eindhoven Univ. of Tech. (Japan)

P-13, Area 13: Applications of Nanotubes and Nanowires

- P-13-3L Electroluminescence from CVD-grown Single-walled Carbon Nanotube
N. Hibino^{1,2}, H. Maki¹, T. Sato¹, S. Suzuki² and Y. Kobayashi², ¹Keio Univ. and ²NTT Corp. (Japan)

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Friday, September 26

Oral Session

Room 202A Area 7

- 16:30 E-10-6L 1 x 3 Silicon Oxynitride Tunable Optical Waveguide Attenuators Based on the Multimode Interference (MMI) Effect
Z. L. Liao¹ and R. W. Chuang^{1,2}, ¹National Cheng Kung Univ. and ²National Nano Device Labs. (Taiwan)
- 16:45 E-10-7L Optimal Configuration of Palladium Hydrogenation Nanogaps for Surface Conduction Electron Emission
H. W. Cheng and Y. Li, National Chiao Tung Univ. (Taiwan)

Room 202B Area 5

- 10:00 F-7-4L Cross-Current SOI MOSFET and Application to Multiple Voltage Reference Circuits
Y. Omura, Y. Mimura and M. Kitagawa, Kansai Univ. (Japan)

Room 202B Area 13

- 12:00 F-8-6L Ethanol Gas Adsorption Effect on Photoluminescence Spectra from Single-Walled Carbon Nanotubes
S. Chiashi, T. Hanashima, K. Nagatsu, K. Kanahori and Y. Homma, Tokyo Univ. of Sci. (Japan)

Room 303 Area 6

- 10:00 G-7-5L Mechanism of Normally-Off Operation in GaN-Based Transistors by Interstitial Fluorine Incorporation
T. Takizawa and T. Ueda, Matsushita Electric Industrial Co., Ltd. (Japan)
- 10:15 G-7-6L Electrical Properties of 4H-SiC CMOS with Wet Processed Gate Oxide
M. Okamoto, T. Yatsuo, K. Fukuda and H. Okumura, AIST (Japan)

Room 303 Area 6

- 11:45 G-8-5L Characteristics of an Enzyme-based $\text{ZnO}/\text{Zn}_{0.7}\text{Mg}_{0.3}\text{O}$ Heterojunction Field-Effect Transistor as a Glucose Sensor
K. Koike, D. Takagi, M. Hashimoto, T. Hashimoto, T. Inoue, K. Ogata, S. Sasa, M. Inoue and M. Yano, Osaka Inst. of Tech. (Japan)

Room 304 Area 9

- 16:30 H-10-6L Time-dependent Local Potential Induced by Scanning Gate Microscopy
Z. Wang^{1,2}, D. Chen² and T. Fujisawa¹, ¹NTT Corp. and ²Chinese Academy of Sci. (Japan)

UPDATED INFORMATION AND CORRECTION

Wednesday, September 24

Oral Session

Room 201A Area 2

- 15:10 C-1-4 (Invited)
Aberration Corrected Microscopy and Spectroscopy for Pico-meter Characterization of Device Materials
K. Takayanagi, Y. Kurui, Y. Ohshima and Y. Tanishiro, Tokyo Tech (Japan)

Room 304 Area 9

- 18:00 H-2-7 → 17:00 H-2-3
Observation of a New Isoelectronic Trap Luminescence in Nitrogen δ -doped GaP
M. Ikezawa¹, Y. Sakuma², M. Watanabe¹ and Y. Masumoto¹, ¹Univ. of Tsukuba and ²NIMS (Japan)

Thursday, September 25

Poster Session

- P-4-3
Additional Authors
S. Niel and P. Fornara, STMicroelectronics (France)

- P-8-3
Optical and Electrical Characterizations of ZnMnO Thin Films on $\text{c-Al}_2\text{O}_3$
H. J. Lin¹, D. Y. Lin¹, J. S. Wu¹, C. S. Yang², W. C. Chou³, W. H. Lo⁴ and J. S. Wang⁴, ¹National Changhua Univ. of Education, ²Tatung Univ., ³National Chiao Tung Univ. and ⁴Chung Yuan Christian Univ. (Taiwan)

Friday, September 26

Oral Session

Room 202A Area 7

- 16:00 E-10-4
Additional Author
H. K. Hsu, National Cheng Kung Univ. (Taiwan)

Room 405 Area 10

- 13:15 I-9-1 (Invited)
Organic and Printed Devices for Large Area Electronics
S. Y. Lee, D. H. Kim, B. L. Lee, H. Moon, E. J. Jeong, J. I. Park, B. W. Yoo, B. W. Koo and J. Y. Kim, Samsung Advanced Inst. of Tech. (Korea)

Room 406 Area 4

- 13:15 J-9-1 (Invited)
Additional Author
B. S. Khang, M. J. Lee, Y. D. Park and Y. S. Park, Samsung Electronics Co., Ltd. (Korea)

Session Chair

- C-3 Y. Masumoto (Tsukuba Univ.) → M. Tanaka (Univ. of Tokyo)
H-2 T. Fujisawa (NTT Corp.) → T. Fujisawa (Tokyo Tech.)
H-10 T. Fujisawa (NTT Corp.) → T. Fujisawa (Tokyo Tech.)

Session Time

Room 101	A-1	14:00 - 15:50	Room 303	G-8	10:45 - 12:00
Room 101	A-5	16:00 - 17:00	Room 304	H-1	14:00 - 15:45
Room 102	B-1	14:00 - 15:50	Room 304	H-2	16:15 - 18:00
Room 201A	C-10	15:15 - 16:25	Room 304	H-3	9:15 - 10:30
Room 201B	D-7	9:30 - 10:30	Room 405	I-1	14:00 - 15:30
Room 202B	F-7	9:00 - 10:15	Room 406	J-5	16:00 - 17:10
Room 202B	F-10	15:15 - 16:30	Room 406	J-7	9:00 - 10:20

Withdrawn

- P-8-10
P-6-11
E-2-4

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