

Thursday, September 25

Room 101 (A)	Room 102 (B)	Room 201A (C)	Room 201B (D)	Room 202A (E)	Room 202B (F)	Room 303 (G)	Room 304 (H)	Room 405 (I)	Room 406 (J)
Area 1: Advanced Gate Stack/Si Processing Science	Area 3: CMOS Devices/Device Physics	Area 12: Spintronic Materials and Devices	Area 5: Advanced Circuits and Systems	Area 7: Photonic Devices and Device Physics	Area 8: Advanced Material Synthesis and Crystal Growth Technology	Area 6: Compound Semiconductor Circuits, Electron Devices and Device Physics	Area 13: Applications of Nanotubes and Nanowires	Area 10: Organic Materials Science, Device Physics, and Applications	
A-3: Nanoscale Characterization (9:00-10:30) Chairs: H. Fukutome (Fujitsu Labs. Ltd.) S. Miyazaki (Hiroshima Univ.)	B-3: FinFET and GAA Devices (9:00-10:35) Chairs: D. Hisamoto (Hitachi, Ltd.) K. Shibahara (Hiroshima Univ.)	C-3: Spintronics (I) (9:00-10:30) Chairs: K. Inomata (NIMS)	D-3: Imaging Devices (9:00-10:30) Chairs: M. Horiguchi (Renesas Tech. Corp.)	E-3: Photo Detectors and Sensors (9:00-10:30) Chairs: Y. Lee (Hitachi, Ltd.)	F-3: Advanced Nitride Growth and Structures (9:00-10:30) Chairs: N. Sritirawisarn (Eindhoven Univ. of Tech.)	G-3: High-speed Devices and Circuits (9:00-10:15) Chairs: S. Tanaka (NEC Corp.)	H-3: Carbon Nano Devices (9:15-10:30) Chairs: K. Matsumoto (Osaka Univ.)	I-3: Organic Photovoltaic Device (9:15-10:30) Chairs: S. Aramaki (Mitsubishi Chemical Group Sci. & Tec. Res. Center, Inc. (MCRC)) K. Fujita (Kyushu Univ.)	
9:00 A-3-1 (Invited) Dopant and Potential Profiling with Atomic Resolution by Scanning Tunneling Microscopy T. Kanayama, M. Nishizawa and L. Bolotov, <i>MIRAI-AIST (Japan)</i>	9:00 B-3-1 Low GIDL Characteristics on Fin-FET with Source/Drain Extension Engineering for 22nm Node Low Power Devices K. Hayashi ¹ , T. Iwamatsu ¹ , R. Tsuchiya ² , K. Ishikawa ¹ , T. Terada ¹ , H. Shinohara ¹ , K. Eikyu ¹ , T. Uchida ¹ , H. Oda ¹ and Y. Inoue ¹ , ¹ Renesas Tech. Corp. and ² Hitachi, Ltd. (Japan)	9:00 C-3-1 Magnetic Properties of Epitaxial Fe ₃ Si/Fin-FET with Source/Drain Extension for Group-IV Semiconductor Spintronic Applications S. Sugawa ¹ , N. Akahane ¹ , S. Adachi ² and K. Mizobuchi ² , ¹ Tohoku Univ. and ² Texas Instruments Japan (Japan)	9:00 D-3-1 (Invited) The Dynamic-Range Enhancement Technologies for CMOS Image Sensors S. Sugawa ¹ , N. Akahane ¹ , S. Adachi ² and K. Mizobuchi ² , ¹ Tohoku Univ. and ² Texas Instruments Japan (Japan)	9:00 E-3-1 Characterization of Ge Photodetectors Fabricated on Vicinal Si Substrate K. Kuriyama, K. Terao and S. Yokoyama, Hiroshima Univ. (Japan)	9:00 F-3-1 (Invited) Low Temperature Epitaxial Growth of Semiconductors on Metal Substrates H. Fujioka, <i>Univ. of Tokyo (Japan)</i>	9:00 G-3-1 An 85-GHz Distributed Amplifier with 15.5-dBm Output Saturated Power using 0.1-μm InP HEMTs Y. Nakasha ¹ , M. Sato ² , T. Ohki ² , T. Takahashi ¹ , K. Makiyama ¹ , Y. Kawano ¹ , T. Suzuki ¹ and N. Hara ¹ , ¹ Fujitsu Ltd. and ² Fujitsu Labs. Ltd. (Japan)	9:15 I-3-1 Semitransparent Inverted Organic Photovoltaic Cells with Laminated Top Electrode J. Y. Lee, S. T. Connor, Y. Cui and P. Peumans, <i>Stanford Univ. (USA)</i>		
9:30 A-3-2 1-nm Spatial Resolution in Carrier Mapping of Ultra-Shallow Junctions by Scanning Spreading Resistance Microscopy L. Zhang, H. Tanimoto, K. Adachi, N. Yasutake and A. Nishiyama, <i>Toshiba Corp. (Japan)</i>	9:20 B-3-2 Physical and Electrical Design of FinFET based SRAM Bitcell for 22nm Node and Below S. C. Song ¹ , M. Abu-Rahma ¹ , B. M. Han ¹ , S. S. Yoon ¹ , J. Wang ¹ , W. Yang ² , C. Hu ² and G. Yeap ¹ , ¹ Qualcomm Inc. and ² Univ. of California Berkeley (USA)	9:15 C-3-2 Formation and Characterization of Self-Organized Ferromagnetic Nanostructures in Epitaxially Grown Mn-Doped Ge Thin Films S. Yada ¹ , S. Sugahara ² and M. Tanaka ¹ , ¹ Univ. of Tokyo and ² Tokyo Tech. (Japan)	9:30 D-3-2 Temporal Noise Analysis and its Reduction Method in CMOS Imager Readout Circuit B. C. Kim, J. Jeon and H. Shin, <i>Seoul National Univ.</i> (Korea)	9:15 E-3-2 Optimization of Gold Line and Space Reduction Method in CMOS Imager Readout Circuit B. C. Kim, J. Jeon and H. Shin, <i>Seoul National Univ.</i> (Korea)	9:30 F-3-2 Growth of InN on Patterned Sapphire Substrate and its Characterization H. Song, D. W. Kim, S. M. Jeong, Y. M. Lee, J. S. Kim and C. R. Lee, <i>Chonbuk National Univ. (Korea)</i>	9:15 G-3-2 Improved Bias Stability of the RTD-Pair Oscillators Integrated on an AlN Ceramic Substrate K. Maezawa ¹ , N. Kamegai ² , S. Nagaso ¹ , Y. Ohno ¹ , S. Kishimoto ² , T. Mizutani ² and K. Akamatsu ³ , ¹ Univ. of Toyama, ² Nagoya Univ. and ³ Nippon Mining and Metals Co., Ltd. (Japan)	9:15 H-3-2 Low-Energy Oxygen Ion Irradiation Effects on Carbon Nanotube Field-Effect Transistors with Passivation Films K. Maehashi ¹ , K. Inoue ¹ , K. Yamamoto ² and K. Matsumoto ^{1,2} , ¹ Osaka Univ. and ² AIST (Japan)	9:30 I-3-2 Solution-Processed Inverted Organic Photovoltaics on Metal Foil Substrates W. Gaynor, J. Y. Lee, S. T. Connor, Y. Cui and P. Peumans, <i>Stanford Univ. (USA)</i>	

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9:50 A-3-3 Carrier Density Mapping of Small n-MOSFET Devices by Vacuum-gap Modulation Scanning Tunneling Spectroscopy L. Bolotov, M. Nishizawa and T. Kanayama, <i>MIRAI-AIST (Japan)</i>	9:40 B-3-3 Gate-All-Around 4-nm Silicon Nanowire Schottky Barrier MOSFET with 1-D NiSi Source/Drain J. W. Peng ^{1,2,3} , S. J. Lee ² , G. C. Albert Liang ² , N. Singh ¹ , C. M. Ng ³ , G. Q. Lo ¹ and D. L. Kwong ¹ , ¹ <i>Inst. of Microelectronics, National Univ. of Singapore and ²Chartered Semiconductor Manufacturing Ltd. (Singapore)</i>	9:30 C-3-3 Huge Magnetoresistance Effect in Semiconductor based Nanostructures with Zinc-blende MnAs Nanoparticles P. N. Hai ¹ , B. Yu ¹ , S. Ohya ^{1,2} and M. Tanaka ^{1,2} , ¹ <i>Univ. of Tokyo and ²JST (Japan)</i>	9:50 D-3-3 Reset Level Boosting in Self-Adaptive APS for Wide Output Swing at a Low Voltage Operation J. Lee, C. Cho and K. Yang, <i>KAIST (Korea)</i>	9:30 E-3-3 Sputtered Mg _x Zn _{1-x} O based Metal-Semiconductor-Metal Ultraviolet Photodetector H. Y. Lee ¹ , M. Y. Wang ² and L. R. Lou ¹ , ¹ <i>National Cheng Kung Univ. and ²National Formosa Univ. (Taiwan)</i>	9:45 F-3-3 Performance Enhancement of a-plane Light-emitting Diodes using InGaN/GaN Superlattices S. C. Ling ¹ , T. C. Wang ¹ , T. S. Ko ¹ , J. R. Chen ¹ , T. C. Lu ¹ , H. C. Kuo ¹ , S. C. Wang ¹ and J. D. Tsay ² , ¹ <i>National Chiao Tung Univ. and ²Industrial Tech. Res. Inst. (Taiwan)</i>	9:30 G-3-3 40 Gbit/s Operation of MOBILE using Only RTDs and its Application to 2-bit Flash ADC H. Kim, K. Lee, Y. Kim and K. Seo, <i>Seoul National Univ. (Korea)</i>	9:30 H-3-3 High-density Horizontally-aligned Growth of Carbon Nanotubes for High-performance Field-effect Transistors Y. Ohno ¹ , D. Phokharatkul ¹ , H. Nakano ² , S. Kishimoto ¹ and T. Mizutani ¹ , ¹ <i>Nagoya Univ. and ²ULVAC, Inc. (Japan)</i>	9:45 I-3-3 Study and Fabrication of Flexible Polymer Solar Cells Y. S. Tsai, W. P. Chu, S. Y. Chen, K. L. Wang and F. S. Juang, <i>National Formosa Univ. (Taiwan)</i>	
10:10 A-3-4 Trap Generation in Sc ₂ O ₃ /La ₂ O ₃ High-k Gate Stack by Nanoscale Electrical Stress Y. C. Ong ¹ , D. S. Ang ¹ , S. J. O'Shea ² , K. L. Pey ¹ , C. H. Tung ³ , T. Kawanago ⁴ , K. Kakushima ⁴ and H. Iwai ⁴ , ¹ <i>Nanyang Tech. Univ., ²Inst. of Materials Res. and Eng., ³Inst. of Microelectronics and ⁴Tokyo Tech. (Singapore)</i>	10:00 B-3-4 Erbium/Platinum Silicided Gate-All-Around Silicon Nanowire Schottky Source/Drain MOSFETs E. J. Tan ^{1,2,3} , K. L. Pey ¹ , N. Singh ² , G. Q. Lo ² , D. Z. Chi ³ , Y. K. Chin ¹ and L. J. Tang ² , ¹ <i>Nanyang Technological Univ., ²Inst. of Microelectronics and ³Inst. of Materials Res. and Eng. (Singapore)</i>	9:45 C-3-4 Spin Transport across Indirect Gap Barriers in GaAs-AlGaAs Heterostructures Y. Gyoda, J. Hayafuji, M. Yarimizu, E. J. Tan ^{1,2,3} , K. L. Pey ¹ , N. Singh ² , G. Q. Lo ² , D. Z. Chi ³ , Y. K. Chin ¹ and L. J. Tang ² , ¹ <i>Nanyang Technological Univ., ²Inst. of Microelectronics and ³Inst. of Materials Res. and Eng. (Singapore)</i>	10:10 D-3-4 A CMOS Image Sensor with CDS and Global Shutter for Three-Dimensional Image Processing System K. Makita, K. Kiyoyama, T. Sugimura, T. Fukushima, T. Tanaka and M. Koyanagi, <i>Tohoku Univ. (Japan)</i>	9:45 E-3-4 Using Selective Zn Diffusion to Enhance the Performance of the PD in Monolithically Integrated InP/InGaAs p-i-n PD/ HBT W. K. Huang, S. C. Huang, Y. M. Hsin and J. W. Shi, <i>National Central Univ. (Taiwan)</i>	10:00 F-3-4 Effects of Inhomogeneous Gain and Loss on Nitride-based Vertical-Cavity Surface Emitting Lasers S. W. Chen, T. T. Kao, C. C. Kao, J. T. Chu, L. F. Lin, H. W. Huang, T. C. Lu, H. C. Kuo and S. C. Wang, <i>National Chiao Tung Univ. (Taiwan)</i>	9:45 G-3-4 A Flip-Chip Assembled Cavity Resonator Oscillator on a Thin-Film Substrate S. Song, Y. Kim, Y. Kwon and K. S. Seo, <i>Seoul National Univ. (Korea)</i>	9:45 H-3-4 Optical Identification and Electrical Characterization of Graphene Transferred from Natural Graphite on Thinner (90nm-thick) SiO ₂ S. Nagashio, T. Nishimura, K. Kita and A. Toriumi, <i>Univ. of Tokyo (Japan)</i>	10:00 I-3-4 Investigation of Buffer Layer Modified by Doping Glycerol for Polymer Photovoltaic Devices T. S. Huang, Y. K. Su and J. S. Fang, <i>National Cheng Kung Univ. (Taiwan)</i>	

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10:00 C-3-5 A Fundamental Study Toward the Realization of an SPRAM-based Low Power FPGA M. Sekikawa, K. Kiyoyama, T. Fukushima, T. Tanaka and M. Koyanagi, <i>Tohoku Univ. (Japan)</i>	10:00 E-3-5 Strained and Unstrained InGaAs/InP Quantum-Well Infrared Infrared Photodetectors Prepared by Metal Organic Chemical Vapor Deposition Y. S. Wang ^{1,2} , S. T. Chou ³ , S. Y. Lin ^{3,4} , S. J. Chang ¹ and W. Lin ² , ¹ <i>National Cheng Kung Univ.</i> , ² <i>LandMark Optoelectronics Corp.</i> , ³ <i>Academia Sinica</i> and ⁴ <i>National Chiao Tung Univ. (Taiwan)</i>	10:15 F-3-5 Ultraviolet Distributed Bragg Reflectors Based on AlGaN/AlN Multilayers Grown by Metalorganic Chemical Vapor Deposition J. R. Chen, S. C. Ling, H. M. Huang, T. S. Ko, T. C. Lu, H. C. Kuo and S. C. Wang, <i>National Chiao Tung Univ. (Taiwan)</i>	10:15 G-3-5 Low-Capacitance Low-Voltage Transient Voltage Suppression Circuit by Diode Activated SiGe HBT in SiGe HBT BiCMOS Process S. H. Dai, J. J. Peng, C. C. Chen, C. J. Lin and Y. C. King, <i>National Tsing Hua Univ. (Taiwan)</i>	10:00 H-3-5 (Invited) Carbon based Superconducting Nanostructures for Molecular Spintronics Applications V. Bouchiat ^{1,2} , J. P. Cleuziou ^{1,2} , W. Wernsdorfer ¹ , T. Ondarcuhu ³ , M. Monthioux ³ , C. Girit ² , O. Naaman ² , Y. Zhang ² , M. Crommie ² , A. Zettl ² , J. Clarke ² and I. Siddiqi ² , ¹ <i>Institut Néel</i> , ² <i>Univ. of California, Berkeley</i> and ³ <i>CEMES-Toulouse (France)</i>	10:15 I-3-5 Electron Diffusion Simulation of 3D Porous Structure for Dye-Sensitized Solar Cells K. Ogiya ¹ , C. Lv ¹ , A. Suzuki ¹ , R. Sahnoun ¹ , M. Koyama ¹ , H. Tsuboi ¹ , N. Hatakeyama ¹ , A. Endou ¹ , H. Takaba ¹ , C. A. Del Carpio ¹ , R. C. Deka ² , M. Kubo ¹ and A. Miyamoto ¹ , ¹ <i>Tohoku Univ.</i> and ² <i>Tezpur Univ. (Japan)</i>				
10:15 C-3-6 Fabrication of a Standby-Power-Free TMR-Based Nonvolatile Memory-in-Logic Circuit Chip with a Spin-Injection Write Scheme S. Matsunaga ¹ , J. Hayakawa ² , S. Ikeda ¹ , K. Miura ² , T. Endoh ¹ , H. Ohno ¹ and T. Hanyu ¹ , ¹ <i>Tohoku Univ.</i> and ² <i>Hitachi Advanced Res. Lab. (Japan)</i>	10:15 E-3-6 In(Ga)As Quantum Ring Terahertz Photodetector J. H. Lee, J. H. Dai, Y. T. Chang, C. F. Chan and S. C. Lee, <i>National Taiwan Univ. (Taiwan)</i>								

Break

Short Presentation P-1 (10:45-12:15) Chair: S. Tsujikawa (Sony Corp.)	Short Presentation P-3 (10:45-12:15) Chair: S. Hayashi (Matsushita Electric Industrial Co., Ltd.)	Short Presentation P-2 and P-12 (10:45-12:15) Chair: S. Hayashi (NEC Electronics Corp.)	Short Presentation P-5 and P-11 (10:45-12:15) Chairs: T. Matsuoka (Osaka Univ.)	Short Presentation P-7 (10:45-12:15) Chair: H. Yamada (Tohoku Univ.)
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Short Presentation P-8 (10:45-12:15) Chairs: A. Yamada (Tokyo Tech.)	Short Presentation P-6 (10:45-12:15) Chair: T. Hashizume (Hokkaido Univ.)	Short Presentation P-9 and P-13 (10:45-12:15) Chair: K. Matsumoto (Osaka Univ.)	Short Presentation P-10 (10:45-12:15) Chair: K. Fujita (Kyushu Univ.)	Short Presentation P-4 (10:45-12:15) Chair: M. Moniwa (Renesas Tech. Corp.)
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Break

Main Convention Hall, 2F

15:00 PL-2-1

Bridging Between Science and Engineering

H. Sakaki, Toyota Inst. of Tech., Japan

Break

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A-5: Characterization of High-k Material (16:00-17:00) Chairs: S. Miyazaki (Hiroshima Univ.) K. Shiraishi (Univ. of Tsukuba)	B-5: Advanced Device Optimization and Reliability (16:00-17:20) Chairs: K. Horita (Renesas Tech. Corp.) A. Azuma (Toshiba Corp.)	C-5: Low-k & Damage I (16:00-17:10) Chairs: T. Tatsumi (Sony Corp.) N. Nakano (Keio Univ.)	D-5: MEMS Techniques (16:00-17:10) Chairs: K. Masu (Tokyo Tech.) R. Fujimoto (Toshiba Corp.)	E-5: Bio Imaging & Spectroscopy (16:00-17:15) Chairs: K. Ajito (NTT Corp.) H. Tabata (Univ. of Tokyo)	F-5: Quantum Dots (16:00-17:15) Chairs: B. W. Wessels (Northwestern Univ.) M. Kobayashi (Waseda Univ.)	G-5: GaN Electron Devices and Characterization (16:00-17:15) Chairs: Y. Ohno (Univ. of Tokushima) S. Kuroda (Eudyna Devices Inc.)	H-5: Si-Based Nanowire Devices (16:00-17:15) Chairs: J. Motohisa (Hokkaido Univ.) I. Shorubalko (ETH)	I-5: Organic Electronics & Photonics (16:00-17:15) Chairs: Y. Majima (Tokyo Tech.) K. Kato (Niigata Univ.)	J-5: Flash Memory II (16:00-17:10) Chairs: Y. Shimamoto (Hitachi, Ltd.) Y. C. Chen (Macronix International Co., Ltd.)
16:00 A-5-1 Defect Profiling and the Role of Nitrogen in Lanthanum Oxide-capped High-k Dielectrics for nMOS Applications B. J. O'Sullivan ¹ , R. Mitsuhashi ² , H. Okawa ² , N. Sengoku ² , T. Schram ¹ , G. Groeseneken ^{1,3} , S. Biesemans ¹ , T. Nakabayashi ² , A. Ikeda ² and M. Niwa ² , ¹ IMEC, ² Matsushita Electric Co., Ltd. and ³ Katholieke Univ. (Belgium)	16:00 B-5-1 Design and Optimization of Gate Sidewall Spacers to Achieve 45nm Ground Rule for High-performance Applications T. Miyashita ¹ , K. Ookoshi ² , A. Hatada ² , K. Ikeda ¹ , Y. S. Kim ¹ , M. Nishikawa ² , T. Sakoda ¹ , K. Hosaka ¹ and H. Kurata ¹ , ¹ Fujitsu Labs. Ltd. and ² Fujitsu Microelectronics Ltd. (Japan)	16:00 C-5-1 Molecular Dynamics Simulations of Low-k SiOCH Film Etching by Fluorocarbon Plasmas A. Suzuki ¹ , M. Isobe ¹ , S. Kobayashi ² , M. Fukasawa ² , T. Tatsumi ² and S. Hamaguchi ¹ , ¹ Osaka Univ. and ² Sony Corp. (Japan)	16:00 D-5-1 (Invited) Current Status and Topics of MEMS Sensors K. Maenaka, <i>Univ. of Hyogo (Japan)</i>	16:00 E-5-1 (Invited) THz-wave Generation and Applications K. Kawase ^{1,2} , T. Shibuya ^{1,2} and K. Suizu ¹ , ¹ Nagoya Univ. and ² RIKEN (Japan)	16:00 F-5-1 (Invited) InAs/InP Quantum Dots, Dashes and Ordered Arrays N. Srirawisarn and R. Nötzel, <i>Eindhoven Univ. of Tech. (Netherlands)</i>	16:00 G-5-1 (Invited) GaN HEMTs "Present Status and Future Prospect" T. Kikkawa ¹ and S. Nakajima ² , ¹ Fujitsu Ltd. and ² Eudyna Devices Inc. (Japan)	16:00 H-5-1 (Invited) Device and Technology Platform with Silicon Nanowire G. Q. Lo, N. Singh, S. C. Rustagi, K. D. Buddharaju, N. Balasubramanian and D. L. Kwong, <i>Inst. of Microelectronics (Singapore)</i>	16:00 I-5-1 (Invited) Novel Image Sensor with Organic Photoconductive Films S. Aihara, <i>NHK Sci. and Tech. Res. Labs. (Japan)</i>	16:00 J-5-1 (Invited) Three Dimensional Flash Memory with Bit Cost Scalable Technology for the Future Ultra High Density Storage Devices H. Aochi ¹ , M. Kito ¹ , Y. Fukuzumi ¹ , M. Kido ¹ , H. Tanaka ¹ , Y. Matsuoka ¹ , Y. Komori ¹ , M. Ishiduki ¹ , Y. Nagata ² , R. Katsumata ¹ , Y. Iwata ¹ and A. Nitayama ¹ , ¹ Toshiba Corp. and ² Toshiba Information Systems Corp. (Japan)

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16:20 A-5-2 Chemical Bonding-Induced Dipole at the HfO ₂ /Si Interface N. Miyata ^{1,2} , Y. Abe ^{1,2} and T. Yasuda ¹ , ¹ AIST and ² Musashi Inst. of Tech. (Japan)	16:20 B-5-2 Hot-Carrier AC Lifetime Enhancement due to Wire Resistance Effect (WRE) in 45nm CMOS Circuits N. Mizuguchi, K. Takeuchi, H. Tobe, P. Lee and K. Ishibashi, Renesas Tech. Corp. (Japan)	16:20 C-5-2 Low-k Film Damage-Resistant CO Chemistry-based Ash Process for Low-k/Cu Interconnection in Flash Memory Devices N. Mizuguchi, K. Takeuchi, H. Tobe, P. Lee and K. Ishibashi, Renesas Tech. Corp. (Japan)	16:30 D-5-2 Self-Assembly for Heterogeneous Integration with Lateral Interconnections Extending over MEMS and LSI Devices J. Lee ¹ , W. Park ¹ , D. H. Kim ¹ , K. Shin ¹ , J. Choi ¹ and I. Chung ² , ¹ Samsung Electronics Co., Ltd. and ² Univ. of Sungkyunkwan (Korea)	16:30 E-5-2 Microwave Imaging via Beamforming for Early Breast Cancer Detection with Adaptive Antenna Array Y. Kayaba ¹ , X. Xiao ^{1,2} , S. Kubota ¹ , N. Sasaki ¹ and T. Kikkawa ¹ , ¹ Hiroshima Univ. and ² Tianjin Univ. (Japan)	16:30 F-5-2 Molecular Beam Epitaxy of Self-assembled InAs Quantum Dots on (001) and (113)B GaAs Substrates under a Slow Growth Rate Condition T. Takahashi, T. Mukai, K. Morita, T. Kitada and T. Isu, Univ. of Tokushima (Japan)	16:30 G-5-2 V _T -V _{SUB} Characterization of AlGaN/GaN HFET with Regrown Epilayer on p-GaN C. Y. Hu ¹ , K. Nakatani ¹ , D. Kikuta ² , M. Sugimoto ³ , J. P. Ao ¹ and Y. Ohno ¹ , ¹ Univ. of Tokushima, ² Toyota Central R&D Labs., Inc. and ³ Toyota Motor Corp. (Japan)	16:30 H-5-2 Impact of Quantum Effect on Diffusion Layer Resistance of Si Nanowire MOSFETs T. Fukuda, K. Matsuzawa ¹ and S. Odanaka ² , ¹ Toshiba Corp. and ² Osaka Univ. (Japan)	16:30 I-5-2 Wavelength-Selectivity of Organic Photocatalytic Devices by Wet Process J. Fu ^{1,2} , Y. Jiang ^{1,2} , C. X. Zhu ^{1,2} , G. Q. Lo ¹ , N. Balasubramanian ¹ and D. L. Kwong ¹ , ¹ Inst. of Microelectronics and ² National Univ. of Singapore (Singapore)	16:30 J-5-2 Low Temperature GAA Poly-Si Nanowire TFT SONOS Memory for MLC Application J. Fu ^{1,2} , Y. Jiang ^{1,2} , C. X. Zhu ^{1,2} , G. Q. Lo ¹ , N. Balasubramanian ¹ and D. L. Kwong ¹ , ¹ Inst. of Microelectronics and ² National Univ. of Singapore (Singapore)
16:40 A-5-3 Photoemission Study of Chemical Bonding Features and Electronic States of Ultrathin HfTi _x O _y /Pt System A. Ohta ¹ , H. Murakami ¹ , S. Higashi ¹ , S. Miyazaki ¹ , M. Tanioku ² , M. Horikawa ² and A. Ogishima ² , ¹ Hiroshima Univ. and ² Elpida Memory Inc. (Japan)	16:40 B-5-3 Stress Memorization Technique (SMT) for pMOS by Dopant Confinement Layer (DCL) H. Ohta ¹ , K. Ikeda ¹ , H. Fukutome ¹ , M. Tajima ² , K. Okabe ² , K. Ohkoshi ² and S. Satoh ¹ , ¹ Fujitsu Labs. Ltd. and ² Fujitsu Microelectronics Ltd. (Japan)	16:40 C-5-3 (Invited) Plasma Physics for Reducing PID in Nano-structure Patternings T. Makabe, T. Ohba and T. Yagisawa, Keio Univ. (Japan)	16:50 D-5-3 Method for Extracting RF Characteristics of CMOS-MEMS Inductors K. Kuwabara ¹ , K. Ushiyama ² , N. Sato ¹ , H. Morimura ¹ , J. Kodate ¹ and H. Ishii ¹ , ¹ NTT Corp. and ² Shibaura Inst. of Tech. (Japan)	16:45 E-5-3 Confocal Imaging for Breast Cancer Detection using UWB Antenna Array on Si S. Kubota ¹ , X. Xiao ² , N. Sasaki ¹ , Y. Kayaba ¹ , K. Kimoto ¹ , W. Moriyama ¹ and T. Kikkawa ¹ , ¹ Hiroshima Univ. and ² Tianjin Univ. (Japan)	16:45 F-5-3 Optical Properties of GaSb Type-II Dots by Droplet Epitaxy T. Kawazu ¹ , T. Mano ¹ , T. Noda ¹ , Y. Akiyama ¹ and H. Sakaki ^{1,2} , ¹ NIMS and ² Toyota Technological Inst. (Japan)	16:45 G-5-3 High-Temperature Performance of AlGaN/GaN HEMT-Compatible Lateral Field Effect Rectifier K. Y. Wong, W. Chen, W. Huang and K. J. Chen, Hong Kong Univ. of Sci. and Tech. (China)	16:45 H-5-3 Impacts of Cross Section Shape and Dimension on Electron Effective Mass in Silicon Nanowires D. Yao ^{1,2} , G. Zhang ² , G. Q. Lo ² and B. Li ¹ , ¹ National Univ. of Singapore and ² Inst. of Microelectronics (Singapore)	16:45 I-5-3 Effect of Space-Charge Field on Injection Properties in Organic Electronics J. Lin, M. Weis, T. Manaka and M. Iwamoto, Tokyo Tech. (Japan)	16:50 J-5-3 Multi-Gate Metal Nano-crystal Memories with TiN Nano-crystals, High-k Blocking Dielectric and High Work Function Gate Electrode C. P. Lu ¹ , C. K. Luo ¹ , B. Y. Tsui ¹ , C. H. Lin ² , P. J. Tzeng ² , C. C. Wang ² and M. J. Tsai ² , ¹ National Chiao Tung Univ. and ² Industrial Tech. Res. Inst. (Taiwan)

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Area 1: Advanced Gate Stack/Si Processing Science	Area 3: CMOS Devices/Device Physics	Area 2: Characterization and Materials Engineering for Interconnect Integration	Area 5: Advanced Circuits and Systems	Area 11: Micro/Nano Electromechanical and Bio-Systems (Devices)	Area 8: Advanced Material Synthesis and Crystal Growth Technology	Area 6: Compound Semiconductor Circuits, Electron Devices and Device Physics	Area 13: Applications of Nanotubes and Nanowires	Area 10: Organic Materials Science, Device Physics, and Applications	Area 4: Advanced Memory Technology
17:00 B-5-4 New High-Voltage and Reliable RF LDMOS Fabricated with Standard Foundry CMOS Technology H. Xiao ¹ , R. Huang ¹ , L. Zhang ¹ , F. Song ¹ , Y. Ai ¹ , R. Wang ¹ , D. Wu ¹ , H. Liao ¹ , W. Wong ² and Y. Wang ¹ , ¹ Peking Univ. and ² SMIC (China)	17:00 E-5-4 In-Situ Surface Infrared Study of DNA Hybridization on Au Island Films Deposited on Si Surfaces A. Hirano-Iwata, K. Tanaka, Y. Kimura and M. Niwano, <i>Tohoku Univ. (Japan)</i>	17:00 G-5-4 GaN Schottky Diodes for Microwave Power Rectification K. Takahashi ¹ , J. P. Ao ¹ , Y. Ikawa ¹ , C. Y. Hu ¹ , H. Kawai ² , N. Shinohara ³ , N. Niwa ⁴ and Y. Ohno ¹ , ¹ Univ. of Tokushima, ² POWDEC K.K., ³ Univ. of Kyoto and ⁴ Kajima Corp. (Japan)	17:00 H-5-4 Uniaxially Strained SiGe/Si Core/Shell Nanowire pFETs Integrated on Bulk Si with Ni _x Si _y Ge _{1-x-y} Source and Drain Contacts Y. Jiang ^{1,2} , N. Singh ¹ , T. Y. Liow ¹ , P. C. Lim ³ , S. Tripathy ³ , S. A. Oh ³ , G. Q. Lo ¹ , D. S. H. Chan ² and D. L. Kwong ¹ , ¹ Inst. of Microelectronics, ² National Univ. of Singapore and ³ Inst. of Materials Res. and Eng. (Singapore)	17:00 I-5-4 Refractive Index along the Molecular Long Axis of an Orthorhombic Thiophene/Phenylene Co-Oligomer Crystal T. Yamao, K. Yamamoto, T. Inoue, Y. Okuda, Y. Taniguchi and S. Hotta, <i>Kyoto Inst. of Tech. (Japan)</i>					

Break

Area 1: Advanced Gate Stack/Si Processing Science	Area 3: CMOS Devices/Device Physics	Area 2: Characterization and Materials Engineering for Interconnect Integration	Area 5: Advanced Circuits and Systems	Area 11: Micro/Nano Electromechanical and Bio-Systems (Devices)	Area 8: Advanced Material Synthesis and Crystal Growth Technology	Area 6: Compound Semiconductor Circuits, Electron Devices and Device Physics	Area 13: Applications of Nanotubes and Nanowires	Area 10: Organic Materials Science, Device Physics, and Applications	Area 4: Advanced Memory Technology
A-6: Source Drain Engineering (17:25-18:45) Chairs: B. Mizuno (UJT Lab. Inc.) Y. Nara (Selete)	B-6: Advanced Booster Technologies (17:25-18:45) Chairs: S. Hayashi (Matsushita Electric Industrial Co., Ltd.) T. Tanaka (Fujitsu Micro-electronics Ltd.)	C-6: Low-k & Damage II (17:25-18:45) Chairs: S. Ogawa (Selete)	D-6: Power Devices (17:25-18:45) Chairs: T. Komuro (Agilent Technologies Japan, Ltd.)	E-6: CMOS Based Bio Sensor (17:25-18:40) Chairs: K. Sawada (Toyohashi Univ. of Tech.)	F-6: Si and Related Materials (17:25-18:40) Chairs: H. Yamaguchi (NTT Corp.)	G-6: GaN Electron Devices and Characterization (17:25-18:40) Chairs: Y. Ohno (Univ. of Tokushima)	H-6: III-V Nanowire (17:25-18:40) Chairs: K. Tateno (NTT Corp.)	I-6: Organic Materials & Characterization (17:25-18:40) Chairs: K. Fujita (Kyushu Univ.)	J-6: Flash Memory III (17:25-18:45) Chairs: R. Shen (eMemory Tech. Inc.) M. Moniwa (Renesas Tech. Corp.)

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Room 202B (F)	Room 303 (G)	Room 304 (H)	Room 405 (I)	Room 406 (J)
17:00 G-5-4 GaN Schottky Diodes for Microwave Power Rectification K. Takahashi ¹ , J. P. Ao ¹ , Y. Ikawa ¹ , C. Y. Hu ¹ , H. Kawai ² , N. Shinohara ³ , N. Niwa ⁴ and Y. Ohno ¹ , ¹ Univ. of Tokushima, ² POWDEC K.K., ³ Univ. of Kyoto and ⁴ Kajima Corp. (Japan)	17:00 H-5-4 Uniaxially Strained SiGe/Si Core/Shell Nanowire pFETs Integrated on Bulk Si with Ni _x Si _y Ge _{1-x-y} Source and Drain Contacts Y. Jiang ^{1,2} , N. Singh ¹ , T. Y. Liow ¹ , P. C. Lim ³ , S. Tripathy ³ , S. A. Oh ³ , G. Q. Lo ¹ , D. S. H. Chan ² and D. L. Kwong ¹ , ¹ Inst. of Microelectronics, ² National Univ. of Singapore and ³ Inst. of Materials Res. and Eng. (Singapore)	17:00 I-5-4 Refractive Index along the Molecular Long Axis of an Orthorhombic Thiophene/Phenylene Co-Oligomer Crystal T. Yamao, K. Yamamoto, T. Inoue, Y. Okuda, Y. Taniguchi and S. Hotta, <i>Kyoto Inst. of Tech. (Japan)</i>		

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Area 1: Advanced Gate Stack/Si Processing Science	Area 3: CMOS Devices/Device Physics	Area 2: Characterization and Materials Engineering for Interconnect Integration	Area 5: Advanced Circuits and Systems	Area 11: Micro/Nano Electromechanical and Bio-Systems (Devices)	Area 8: Advanced Material Synthesis and Crystal Growth Technology	Area 6: Compound Semiconductors Circuits, Electron Devices and Device Physics	Area 13: Applications of Nanotubes and Nanowires	Area 10: Organic Materials Science, Device Physics, and Applications	Area 4: Advanced Memory Technology
17:25 A-6-1 Self-limiting Growth Behavior of Epitaxial NiSi ₂ and its Impact on Controlled Silicidation of Metal Source/Drain in Silicon Nanowire MOSFETs S. Migita, Y. Morita, N. Taoka, W. Mizubayashi and H. Ota, <i>AIST (Japan)</i>	17:25 B-6-1 High Mobility SiGe Channel pMOSFETs Epitaxially Grown on Si (100) Substrates with HfSiO ₂ High-k Dielectric and Metal Gate J. Oh ¹ , P. Majhi ¹ , C. Y. Kang ¹ , R. Jammy ¹ , R. Joe ² , T. Sugawara ² , Y. Akasaka ² , T. Kaitsuka ² , T. Arikado ² and M. Tomoyasu ² , ¹ <i>SEMATECH</i> and ² <i>Tokyo Electron Ltd.</i> (USA)	17:25 C-6-1 Diagnostics of Plasma Induced Damages on Low-k SiOCH Films S. Takashima ¹ , R. Saito ¹ , S. Uchida ¹ , K. Takeda ¹ , M. Fukasawa ² , J. Oh ¹ , P. Majhi ¹ , C. Y. Kang ¹ , R. Jammy ¹ , R. Joe ² , T. Sugawara ² , Y. Akasaka ² , T. Kaitsuka ² , T. Arikado ² and M. Tomoyasu ² , ¹ <i>SEMATECH</i> and ² <i>Tokyo Electron Ltd.</i> (USA)	17:25 D-6-1 (Invited) Modeling of High-Voltage MOSFETs for Device/Circuit Optimization M. Miura-Mattausch, M. Yokomichi, N. Sadachika, Y. Oritsuki, T. Sakuda, M. Miyake, T. Kajiwara, H. Kikuchiha, U. Feldmann and H. J. Mattausch, <i>Hiroshima Univ. (Japan)</i>	17:25 E-6-1 (Invited) FET-based Biosensors for Detection of Biomolecules J. K. Shin ¹ , D. S. Kim ² , H. K. Lyu ¹ and G. Lim ³ , ¹ <i>Kyungpook National Univ.</i> ² <i>Samsung Electronics Co., Ltd.</i> and ³ <i>POSTECH (Korea)</i>	17:25 F-6-1 First-principles Analysis of Indirect-to-Direct Band Gap Transition of Ge Under Tensile Strain Y. Hoshina, K. Iwasaki, A. Yamada and M. Konagai, <i>Tokyo Tech. (Japan)</i>	17:25 G-6-1 (Invited) Failure Mechanisms of GaN-based Transistors in On-and Off-State I. Shorubalko ¹ , E. Zanoni ¹ , G. Meneghesso ¹ , C. Dua ² , M. Peroni ³ and M. Uren ⁴ , ¹ <i>Univ. of Padova,</i> ² <i>Alcatel-Thales III-V Lab.,</i> ³ <i>Selex SI and</i> ⁴ <i>QinetiQ Ltd. (Italy)</i>	17:25 H-6-1 (Invited) Tunable Few Electron Double Dots in InAs Nanowires I. Shorubalko ¹ , A. Pfund ¹ , S. Gustavsson ¹ , T. Choi ¹ , R. Leturcq ^{1,2} and K. Ensslin ¹ , ¹ <i>ETH Zürich and</i> ² <i>IEMN-CNRS UMR 8520 (Switzerland)</i>	17:25 I-6-1 Effect of Regioregularity and Alkyl Chain Length on the Depletion Layer Width Formed at the Interface of Al and Poly (3-Alkylthiophene) C. H. Lee ^{1,2} , C. W. Wu ¹ , S. W. Lin ¹ , T. H. Yeh ¹ , S. H. Gu ¹ , K. F. Chen ¹ , Y. J. Chen ¹ , J. Y. Hsieh ¹ , I. J. Huang ¹ , N. K. Zous ¹ , T. T. Han ¹ , M. S. Chen ¹ , W. P. Lu ¹ , K. C. Chen ¹ , T. Wang ^{1,2} and C. Y. Lu ¹ , ¹ <i>Macronix International Co., Ltd</i> and ² <i>National Chiao Tung Univ. (Taiwan)</i>	17:25 J-6-1 Numerical Simulation of the Read Disturb Behavior on the ONO Scaling Margin in SONOS Flash Memory C. H. Lee ^{1,2} , C. W. Wu ¹ , S. W. Lin ¹ , T. H. Yeh ¹ , S. H. Gu ¹ , K. F. Chen ¹ , Y. J. Chen ¹ , J. Y. Hsieh ¹ , I. J. Huang ¹ , N. K. Zous ¹ , T. T. Han ¹ , M. S. Chen ¹ , W. P. Lu ¹ , K. C. Chen ¹ , T. Wang ^{1,2} and C. Y. Lu ¹ , ¹ <i>Macronix International Co., Ltd</i> and ² <i>National Chiao Tung Univ. (Taiwan)</i>

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17:45 A-6-2
Low Temperature Phosphorus Segregation at NiGe/Ge Interface by "Snowplow" Effect
T. Nishimura, S. Sakata, K. Nagashio, K. Kita and A. Toriumi, *Univ. of Tokyo (Japan)*

17:45 B-6-2
Thin-Metal Inserted Single-phase Ni-FUSI(MISF) and High-k Gate Stack for Productive LSTP CMOS Application
Y. Yamamoto¹, Y. Nishida¹, K. Satoh¹, T. Kawahara¹, S. Sakashita¹, M. Mizutani¹, S. Yamanari¹, Y. Ariyama¹, Y. Miyagawa¹, N. Murata¹, T. Sakai¹, M. Inoue¹, J. Yugami¹, S. Ogino¹, K. Eikyu¹, T. Hayashi¹, S. Endo¹, T. Yamashita¹, H. Oda¹, Y. Inoue¹, H. Fujimoto², Y. Sato², T. Oosuka², A. Tsudumitani², Y. Moriyama², K. Nakanishi², J. Hirase², T. Yamada², H. Ogawa² and Y. Mori², ¹*Renesas Tech. Corp.* and ²*Matsushita Electric Industrial Co., Ltd.* (*Japan*)

17:45 C-6-2
Electrical Reliabilities of Highly Cross-Linked Porous Silica Film
Y. Kayaba¹, K. Kohmura², H. Tanaka², K. Kinoshita³, S. Chikaki³ and T. Kikkawa¹, ¹*Hiroshima Univ.*, ²*Mitsui Chemicals, Inc.* and ³*Selecte* (*Japan*)

17:55 D-6-2 (Invited)
Power Device Evolution Challenging to Silicon Material Limit
A. Nakagawa, Y. Kawaguchi and K. Nakamura, *Toshiba Corp.* (*Japan*)

17:55 E-6-2
Development of a CMOS Image Sensor for In-situ Brain Functional Imaging in Freely-moving Mouse
A. Tagawa¹, A. Higuchi¹, T. Sugiyama¹, K. Sasagawa^{1,2}, T. Tokuda^{1,2}, H. Tamura^{1,2}, S. Shiosaka^{1,2} and J. Ohta^{1,2}, ¹*NAIST* and ²*CREST-JST* (*Japan*)

Room 202B (F)	Room 303 (G)	Room 304 (H)	Room 405 (I)	Room 406 (J)
Area 8: Advanced Material Synthesis and Crystal Growth Technology	Area 6: Compound Semiconductor Circuits, Electron Devices and Device Physics	Area 13: Applications of Nanotubes and Nanowires	Area 10: Organic Materials Science, Device Physics, and Applications	Area 4: Advanced Memory Technology

17:40 F-6-2
Electrical Characteristics of Ge p-MOSFETs Formed on Si Substrate with Thermal SiON as Gate Dielectric
M. Miczek¹, B. Adamowicz¹, Y. H. Wu, M. L. Wu, J. R. Wu and Y. S. Lin, *National Tsing Hua Univ. (Taiwan)*

17:55 G-6-2
Precise C-V Analysis of Insulated-gate/AlGaN/GaN Interfaces
M. Miczek¹, B. Adamowicz¹, K. Goto¹, M. Mizue² and T. Hashizume², ¹*Silesian Univ. of Tech. and ²Hokkaido Univ. (Poland)*

17:55 H-6-2
One-dimensional and Two-dimensional Spectral Diffusion in InP/InAs/InP Core-Multishell Nanowires Thin Films using Electrochemical-Surface Plasmon Resonance Spectroscopy
S. Tomimoto¹, B. Pal¹, Y. Masumoto¹, P. Mohan², J. Motohisa² and T. Fukui², ¹*Univ. of Tsukuba and ²Hokkaido Univ. (Japan)*

17:40 I-6-2
Detection of Catecholamines with Poly(3-aminobenzylamine) Thin Films using Excellent Data Retention
J. H. Kuo¹, S. S. Chung¹, A. Baba¹, T. Mannen¹, R. Ishigami¹, Y. Ohdaira¹, K. Shinbo¹, K. Kato¹, F. Kaneko¹, N. Fukuda² and H. Ushijima², ¹*Niigata Univ.* and ²*AIST (Japan)*

17:45 J-6-2
A Low Voltage Programming Scheme Feasible for 2-Bit Operation of SONOS Flash Memory with C. S. Lai², Y. Y. Hsu³, E. Ho³, T. Chen³, L. C. Peng³ and C. H. Chu³, ¹*National Chiao Tung Univ.*, ²*Chang Gung Univ.* and ³*ProMOS Tech. Inc. (Taiwan)*

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Area 1: Advanced Gate Stack/Si Processing Science	Area 3: CMOS Devices/Device Physics	Area 2: Characterization and Materials Engineering for Interconnect Integration	Area 5: Advanced Circuits and Systems	Area 11: Micro/Nano Electromechanical and Bio-Systems (Devices)	Area 8: Advanced Material Synthesis and Crystal Growth Technology	Area 6: Compound Semiconductor Circuits, Electron Devices and Device Physics	Area 13: Applications of Nanotubes and Nanowires	Area 10: Organic Materials Science, Device Physics, and Applications	Area 4: Advanced Memory Technology
18:05 A-6-3 Formation of Low Resistive S/D-Extension using Atorically Flat Gate Insulator Film/Silicon Carborane Molecular Ion Implantation for Sub-45-nm PMOSFET S. Endo, Y. Kawasaki, T. Yamashita, H. Oda and Y. Inoue, <i>Renesas Tech. Corp. (Japan)</i>	18:05 B-6-3 CMOSFET Featuring Atorically Flat Gate Insulator Film/Silicon Interface on (100) Orientation Surface R. Kuroda ¹ , A. Teramoto ¹ , T. Suwa ¹ , Y. Nakao ¹ , S. Sugawa ¹ and T. Ohmi ^{1,2} , ¹ Tohoku Univ. and ² WPI Research Center (Japan)	18:05 C-6-3 Low-k Impact on Circuit Performance Demonstrated in High-Speed LSIs M. Tada ² , N. Inoue ¹ , R. Kuroda ¹ , A. Teramoto ¹ , H. Yamamoto ¹ , F. Ito ¹ , T. Fukai ¹ , M. Ueki ¹ , S. Miyake ¹ , T. Takeuchi ¹ , S. Saito ¹ , M. Tagami ¹ , N. Furutake ¹ , K. Hijioka ¹ , T. Ito ¹ , Y. Shibue ¹ , T. Senou ¹ , R. Ikeda ¹ , N. Okada ¹ and Y. Hayashi ¹ , ¹ NEC Electronics Corp. and ² NEC Corp. (Japan)	18:25 D-6-3 Capability of Electro-thermal Simulation for Automotive Power Application using Novel LDMOS Model T. Kojima ¹ , T. Kajiwara ² , M. Miyake ² , U. Feldmann ² and M. Miura-Mattausch ² , ¹ Toyota Central R&D Labs., Inc. and ² Hiroshima Univ. (Japan)	18:10 E-6-3 A BioCMOS LSI Circuit with Extended-gate FET Sensor Array K. Nakazato, M. Ohura, H. Ozawa and S. Uno, <i>Nagoya Univ. (Japan)</i>	17:55 F-6-3 Comparative Stability Characterization of Bottom Gate a-IGZO Thin Film Transistor Grown by R.F and D.C Sputtering S. S. Park ¹ , W. H. Choi ¹ , D. H. Nam ¹ , K. I. Choi ¹ , H. D. Lee ¹ , J. K. Jeong ² , J. S. Oh ³ and G. W. Lee ¹ , ¹ Chungnam National Univ., ² Samsung SDI Co., Ltd. and ³ National Nanofab Center (Korea)	18:10 G-6-3 Near-midgap Deep Levels in MOVPE-grown AlGaN Thin Film Transistor K. Sugawara, J. Kotani and T. Hashizume, <i>Hokkaido Univ. (Japan)</i>	18:10 H-6-3 Effect of Growth Condition on Well-arranged InGaN/GaN Nanocolumns Resonance and Quartz Crystal Area Growth (SAG) of rf-Plasma-Assisted Molecular-Beam Epitaxy H. Sekiguchi ^{1,2} , K. Kato ¹ , F. Kaneko ¹ and N. Miyadera ² , ¹ Niigata Univ and ² Hitachi Chemical Co., Ltd. (Japan)	17:55 I-6-3 A Hybrid Sensing Method Utilizing Surface Plasmon Resonance and Quartz Crystal Microbalance K. Shinbo ¹ , Y. Tsurugai ¹ , K. Aida ¹ , Y. Ohdaira ¹ , A. Baba ¹ , J. M. Portal ² , R. Bouchakour ² , P. Mazoyer ¹ and T. Skotnicki ¹ , ¹ STMicroelectronics, ² IM2NP and ³ Univ. de Nice Sophia Antipolis (France)	18:05 J-6-3 A New Embedded NVM Thin Film Cell for Low Voltage Applications G. Bossu ^{1,2} , A. Demoliens ^{1,2} , S. Puget ^{1,2} , P. Masson ³ , J. M. Portal ² , R. Bouchakour ² , P. Mazoyer ¹ and T. Skotnicki ¹ , ¹ STMicroelectronics, ² IM2NP and ³ Univ. de Nice Sophia Antipolis (France)
18:25 A-6-4 Schottky-Barrier Height Tuning of Nickel Silicide on Epitaxial Silicon-Carbon Films with High Substitutional Carbon Content P. S. Y. Lim ¹ , R. T. P. Lee ¹ , A. E. J. Lim ¹ , A. T. Y. Koh ¹ , M. Sinha ¹ , D. Z. Chi ² and Y. C. Yeo ¹ , ¹ National Univ. of Singapore and ² Inst. of Materials Res. and Eng. (Singapore)	18:25 B-6-4 A Comprehensive Study of Coulomb Scattering Mobility in Short-Channel Process-Induced Strain NMOSFETs W. P. N. Chen ^{1,2} , P. Su ² and K. Goto ¹ , ¹ Taiwan Semiconductor Manufacturing Co., Ltd. and ² National Chiao Tung Univ. (Taiwan)	18:25 C-6-4 Dielectric Reliability of 50 nm $\frac{1}{2}$ Pitch Structures in Aurora [®] LK S. Demuynck ¹ , H. G. Kim ² , C. Huffman ¹ , M. Darnon ¹ , K. Goto ¹ , ¹ Taiwan Semiconductor Manufacturing Co., Ltd. and ² National Chiao Tung Univ. (Taiwan)	18:25 E-6-4 CMOS Optical Polarization Analyzer Chip for μ TAS K. Minakawa, H. Yamada, K. Sasagawa, T. Tokuda and J. Ohta, <i>NAIST (Japan)</i>	18:25 F-6-4 Carrier Transport Mechanism in Poly-Si TFTs with One-Dimensionally Long Grains K. Minakawa, H. Yamada, K. Sasagawa, T. Tokuda and J. Ohta, <i>NAIST (Japan)</i>	18:10 G-6-4 On the Stability of Fluorine Ions in AlGaN/GaN System: a Theoretical Study L. Yuan, M. Wang and K. J. Chen, <i>Hong Kong Univ. of Sci. and Tech. (China)</i>	18:25 H-6-4 Spectroscopy and Imaging of GaAs/InGaAs/GaAs Nanowires Grown by Selective-area Metalorganic Vapor Phase Epitaxy J. Motohisa, M. Fukui, Y. Kobayashi and T. Fukui, <i>Hokkaido Univ. (Japan)</i>	18:25 I-6-4 Statistical Representation of Intrinsic Electronic Tunneling Characteristics through Alkyl Self-Assembled Monolayers W. H. Choi ¹ , S. S. Park ¹ , I. S. Han ¹ , H. M. Kwon ¹ , O. S. Yoo ¹ , ¹ Gwangju Inst. of Sci. and Tech. and ² Electronics and Telecommunications Res. Inst. (Korea)	18:25 J-6-4 New Charge Pumping Method for Extraction of Nitride Trap Energy Distribution in SONOS Flash Memory W. H. Choi ¹ , S. S. Park ¹ , I. S. Han ¹ , H. M. Kwon ¹ , O. S. Yoo ¹ , M. K. Na ¹ , K. I. Choi ¹ , D. H. Nam ¹ , J. C. Om ² , S. S. Lee ² , H. S. Joo ² , H. D. Lee ¹ and G. W. Lee ¹ , ¹ Chungnam National Univ. and ² Hynix Semiconductor Inc. (Korea)	

Thursday, September 25

Room 101 (A)	Room 102 (B)	Room 201A (C)	Room 201B (D)	Room 202A (E)
Area 1: Advanced Gate Stack/Si Processing Science	Area 3: CMOS Devices/Device Physics	Area 2: Characterization and Materials Engineering for Interconnect Integration	Area 5: Advanced Circuits and Systems	Area 11: Micro/Nano Electromechanical and Bio-Systems (Devices)

Thursday, September 25

Room 202B (F)	Room 303 (G)	Room 304 (H)	Room 405 (I)	Room 406 (J)
Area 8: Advanced Material Synthesis and Crystal Growth Technology	Area 6: Compound Semiconductor Circuits, Electron Devices and Device Physics	Area 13: Applications of Nanotubes and Nanowires	Area 10: Organic Materials Science, Device Physics, and Applications	Area 4: Advanced Memory Technology

18:25 F-6-5

Porous Silicon Fabrication for Visible Light Emissions and its White Light Responses
 J. C. Lin¹, W. C. Tsai²,
 K. M. Huang³ and
 S. J. Wang²,
¹*St. John's Univ.*,
²*National Cheng Kung Univ. and*
³*Chinese Culture Univ. (Taiwan)*

18:25 I-6-5

Chemisorbed Gold Nanoparticles by Dithiol Molecules Inserted in Alkanethiolated Monolayer Characterized by Scanning Tunneling Microscopy (STM) and Spectroscopy (STS)
 X. Li, Y. Yasutake, K. Kono, N. Kobayashi and Y. Majima, *Tokyo Tech. (Japan)*

19:00-21:00 Rump Session

Room 101(A) "Can Power Semiconductor Technology Contribute to Sustainable Future?"

R00m 102(B) "Nano-Device and Materials Innovations: What Novel Systems Are You Dreaming of?"

19:00-21:00 Rump Session

Room 101(A) "Can Power Semiconductor Technology Contribute to Sustainable Future?"

R00m 102(B) "Nano-Device and Materials Innovations: What Novel Systems Are You Dreaming of?"