A. Interconnect & Package 분과

[TC1-A] Atomic Layer Deposition and Silicides

Date	Feb. 25, 2014 (Tue.)
Place	Room C / 제1공학관 401호 (# 401, Engineering Building I)

Session Chair: 이원준 교수(세종대학교),

TC1-A-1 **09:30-09:45** **Area-Selective Chemical Vapor Deposition of Co for Reduction of Cu Electromigration**
저자: Jaehong Yoon[1], Soohyeon Kim[1], Han-Bo-Ram Lee[2], Byeongchul Cho[3], and Hyungjun Kim[1]
소속: [1]School of Electrical and Electronic Engineering, Yonsei University, [2]Department of Materials Science and Engineering, Incheon National University, [3]Wonik IPS

TC1-A-2 **09:45-10:00** **Silicidation of Ni prepared by Atomic Layer Deposition with NH_3 Gas Reactant**
저자: Soohyeon Kim, Jaehong Yoon, Han-Bo-Ram Lee, and Hyungjun Kim
소속: Department of Electrical and Electronics Engineering, Yonsei University, Department of Materials Science and Engineering, Incheon National University

TC1-A-3 **10:00-10:15** **Highly Conformal Cu_2O Thin Films by Atomic Layer Deposition using a New Non-Fluorinated Cu Precursor**
저자: Hangil Kim[1], Seung-Joon Lee[1], Taehoon Cheon[2], Sang-Kyung Choi[3], and Soo-Hyun Kim[1]
소속: [1]School of Materials Science and Engineering, Yeungnam University, [2]Senter for Core Research Facilities, Daegu Gyeongbuk Institute of Science & Technology, [3]Center for Research Facilities, Chungnam National University

TC1-A-4 **10:15-10:30** **Growth of Ru Thin Film by Thermal Atomic Layer Deposition using a New Beta-Diketonate Ru Precursor and O_2 or NH3 Molecules as a Seed Layer for Cu Electroplating**
저자: Seung-Joon Lee[1], Minyoung Lee[1], Taehoon Cheon[1,2], Soo-Hyun Kim[1], Masayuki Saito[3], Kazuharu Suzuki[3], and Shunichi Nabeya[3]
소속: [1]School of Materials Science and Engineering, Yeungnam University, [2]Center for Core Research Facilities, Deagu Gyeonbuk institute of Science & Technology, [3]TANAKA Kikinzoku Kogyo K.K

TC1-A-5 **10:30-10:45** **Development of Yb Silicide with Low Schottky Barrier by Forming Epitaxial Layer**
저자: Sekwon Na, Jun-gu Kang, Juyun Choi, Hyoungsub Kim, and Hoo-jeong Lee
소속: School of Advanced Materials Science and Engineering, Sungkyunkwan University

P. Device for Energy 분과

[TD1-P] Device for Energy I

Date	Feb. 25, 2014 (Tue.)
Place	Room D / 제1공학관 402호 (# 402, Engineering Building I)

Session Chair: 정선호 박사(KRICT), 김윤기 박사(삼성전자)

TD1-P-1 **09:30-09:45** **Design of Power MOSFET Merged Poly-Silicon Zener Diode for ESD Protection**
저자: Sin Su Kyoung, Jong Min Geum, Eun Sik Jung, and Man Young Sung
소속: Department of Electrical Engineering, Korea University

TD1-P-2 **09:45-10:00** **Metamaterial Enhanced Power Transfer System for Wireless Charging Applications**
저자: A. L. A. K. Ranaweera, Phu Ho Van Quang, Thuc Phi Duong, Byoung-Suk Lee, and Jong-Wook Lee
소속: Department of Electronics and Radio Engineering, Kyung Hee University

TD1-P-3 **10:00-10:15** **Structural Effect of Triarylamine-Based Multiple Functioned Coadsorbents for Highly Efficient Dye-Sensitized Solar Cells**
저자: Ban-seok You[1], In-Taek Choi[2], Won-Seok Choi[2], Hwan-Kyu Kim[2], and Ji-Woon Yang[1]
소속: [1]Department of Electronics and Information Engineering, Korea University, [2]Department of Advanced Materials Chemistry, Korea University

TD1-P-4 **10:15-10:30** **Performance Enhanced of Inverted Organic Solar Cells with a Ga-Doped ZnO Electron Transport Layer Prepared using a Sol-Gel Method**
저자: Hye-Jeong Park, Kyung-Sik Shin, Gyu Cheol Yoon, and Sang-Woo Kim
소속: School of Advanced Materials Science and Engineering, Sungkyunkwan University

TD1-P-5 **10:30-10:45** **Effect of MoO_X and TiOX Nano-particle Layer on Lifetime Enhancement for PCDTBT:PC_{71}BM Polymer Solar Cell**
저자: Jin-Seong Park[1,2], Seung-Wook Baek[1,2], Ji-Heon Kim[1,2], Jae-Hyoung Shim[1,2], Yun-Hyuk Ko[1,2], Gon-Sub Lee[2], and Jea-Gun Park[1,2]
소속: [1]Department of Electronics and Computer Engineering, Hanyang University, [2]Advanced Semiconductor Materials and Devices Development Center, Hanyang University

H. Display and Imaging Technologies 분과

[TE1-H] Display and Imager Circuit

Date	Feb. 25, 2014 (Tue.)
Place	Room E / 제1공학관 403호 (# 403, Engineering Building I)

Session Chair: 최병덕 교수(한양대학교), 박기찬 교수(건국대학교)

TE1-H-1 **09:30-10:00** **5V Input Level Shifter Circuit for IGZO TFTs**
저자: KeeChan Park[1], HongKyun Lym[1], HwanSool Oh[1], JaeEun Pi[2], Chi-Sun Hwang[2], and Sang-Hee Ko Park[2]
소속: [1]Department of Electronics Engineering, Konkuk University, [2]Oxide Electronics Research Team, Electronics and Telecommunications Research Institute

TE1-H-2 **10:00-10:15** **Scan Driver Considering Stress Characteristics of a-IGZO TFT for FPDs**
저자: Jin-Yeon Kim, Seong-Jin Ahn, Jun-Seok Na, Seong-Kwan Hong, and Oh-Kyong Kwon
소속: Department of Electronic Engineering, Hanyang University

TE1-H-3 **10:15-10:30** **Compensation of Missing Pixel for RGBz CMOS Image Sensor**
저자: Joonho Lee, Daekwan Kim, and Taechan Kim
소속: Development Team, Samsung Electronics Co., Ltd.

TE1-H-4 **10:30-10:45** **Effectively Novel Color Emphasis for Image Enhancement using Image-Dependent Method**
저자: Hosang Cho, Sungmok Lee, Chang-Wan Kim, and Bongsoon Kang
소속: Department of Electronic Engineering, Dong-A University

TE1-H-5 **10:45-11:00** **Oxide TFT-Based Shift Register Circuit Tolerant of Clock Duty Variation**
저자: JaeWon Lee, SangYeon Kim, SeungO Kim, HwanSool Oh, and KeeChan Park
소속: Department of Electronics Engineering, Konkuk University

L. Analog Design 분과

[TF1-L] 아날로그 및 혼성 신호 회로 설계 1

Date	Feb. 25, 2014 (Tue.)
Place	Room F / 제1공학관 404호 (# 404, Engineering Building I)

Session Chair: 박성민 교수(이화여자대학교), 문용 교수(숭실대학교)

TF1-L-1 **09:30-09:45** **Area-Efficient 20-Gbps Optical Receiver Circuit in 65-nm CMOS Technology**
저자: Hyun-Yong Jung, Jin-Sung Youn, and Woo-Young Choi
소속: Department of Electrical and Electronic Engineering, Yonsei University

TF1-L-2 **09:45-10:00** **입력 지터 감소 기법을 적용한 2.5 Gb/s BMCDR 회로 설계**
저자: 정재훈[1], 최정환[1], 백광현[2]
소속: [1]삼성전자 메모리사업부, [2]중앙대학교 전자전기공학부

TF1-L-3 **10:00-10:15** **A Single-Stage 40dB-Linear Digitally-Controlled Variable Gain Amplifier for Ultrasound Analog Front End**
저자: Seong-Eun Cho[1], Ji-Yong Um[2], Byungsub Kim[2], Jae-Yoon Sim[2], and Hong-June Park[1,2]
소속: [1]Division of IT Convergence Engineering, Pohang University of Science and Technology, [2]Department of Electronic and Electrical Engineering, Pohang University of Science and Technology

TF1-L-4 **10:15-10:30** **Constant Off-Time Control with Time Calibration Method for Buck Converter**
저자: Haneul Kim, Kyoungjin Lee, Jehyung Yoon, Hyoung-Seok Oh, and Byeong-Ha Park
소속: Power Device Development Team, System LSI Division, Samsung Electronics Co., Ltd.

TF1-L-5 **10:30-10:45** **A 25-Gb/s Quarter-Rate CDR in 65-nm CMOS Technology**
저자: Dae-Hyun Kwon and Woo-Young Choi
소속: Department of Electrical and Electronic Engineering, Yonsei University

TF1-L-6 **10:45-11:00** **A Multi-Channel 1-Gb/s/ch Inverter Transimpedance Amplifier Array with Replica in 0.18μm CMOS**
저자: Hanbyul Choi, Xiao Ying, Seung-Hoon Kim, and Sung Min Park
소속: Department of Electronics Engineering, Ewha Womans University

O. System LSI Design 분과

[TG1-O] VLSI System Design and Applications I

Date	Feb. 25, 2014 (Tue.)
Place	Room G / 제1공학관 405호 (# 405, Engineering Building I)

Session Chair: 이한호 교수(인하대학교),

TG1-O-1 **09:30-10:00** **Two-Level Cache Organization for a Merge Mode Prediction in a Hardware-Based HEVC Encoder**
저자: Tae Sung Kim[1], Hyuk-Jae Lee[1], and Chae Eun Rhee[2]
소속: [1]Department of Electrical Engineering and Computer Science, Seoul National University, [2]Department of Information and Communication Engineering, Inha University

TG1-O-2 **10:00-10:15** **Hardware Optimization for Low Complexity Edge Detection**
저자: Juseong Lee and Jongsun Park
소속: School of Electrical Engineering, Korea University

TG1-O-3 **10:15-10:30** **NAND Flash Memory Controller using Multi-Rate BCH Codes**
저자: Kijun Lee, Sejin Lim, and Jun Jin Kong
소속: Memory Division, Samsung Electronics Co., Ltd.

TG1-O-4 **10:30-10:45** **WBAN을 위한 저면적 저전력 BCH 복호기**
저자: 정보석, 김철호, 이한호
소속: 인하대학교 정보통신공학부

TG1-O-5 **10:45-11:00** **System Level Exploring of Memory Configuration for Low Power**
저자: Sung Yang, Hoi-Jin Lee, Young-Min Shin, and Jae-Cheol Son
소속: SoC Processor Development Team, System LSI Business, Samsung Electronics Co., Ltd.

G. Device & Process Modeling, Simulation and Reliability 분과

[TJ1-G] Device Physics & Simulation

Date	Feb. 25, 2014 (Tue.)
Place	Room J / 제1공학관 501호 (# 501, Engineering Building I)

Session Chair: 김대환 교수(국민대학교), 이상기 박사(동부하이텍)

TJ1-G-1 **09:30-10:00** **Recent Advances in Deterministic Solvers for the Boltzmann Transport Equation and Future Research Directions**
저자: Sung-Min Hong
소속: School of Information and Communications, Gwangju Institute of Science and Technology

TJ1-G-2 **10:00-10:15** **Simulation of III-V UTB SB-MOSFETs using Tight-Binding Band-Structure Calculations**
저자: Howon Choi, Jaehyun Lee, Yolum Lee, and Mincheol Shin
소속: Department of Electrical Engineering, KAIST

TJ1-G-3 **10:15-10:30** **3D Simulation of Threshold Voltage Variations Due to Random Grain Boundary and Discrete Dopants in Sub-20 nm Gate-All-Around Poly-Si Transistors**
저자: Jungsik Kim[1], Hyeongwan Oh[3], Junyoung Lee[3], Jiwon Kim[3], Chang-Ki Baek[2], and Jeong-Soo Lee[1,3]
소속: [1]Department of IT Convergence Engineering, Pohang University of Science and Technology, [2]Creative IT Engineering and Future IT Innovation Lab, Pohang University of Science and Technology, [3]Electrical Engineering, Pohang University of Science and Technolog

TJ1-G-4 **10:30-10:45** **Simulation of Dual Material Gate InAs Schottky Barrier Field Effect Transistor**
저자: Wonchul Choi, Jaehyun Lee, and Mincheol Shin
소속: Department of Electrical Engineering, KAIST

K. Memory (Design & Process Technology) 분과

[TK1-K] New Memories for Neuromorphic and Reconfigurable Systems

Date	Feb. 25, 2014 (Tue.)
Place	Room K / 제1공학관 502호 (# 502, Engineering Building I)

Session Chair: 민경식 교수(국민대학교),

TK1-K-1 **09:30-10:00** **멤리스터 브리지 시넵스를 사용한 생체형 병렬 영상처리 시스템**
저자: Hyongsuk Kim, Maheshwar Sah, and Changju Yang
소속: Div. of Electronics Engineering, Chonbuk National University

TK1-K-2 **10:00-10:15** **Emulation of Spike-Timing Dependent Plasticity in Phase-Change Memory Cells for Neuromorphic Applications**
저자: Dae-Hwan Kang, Hyun-Goo Jun, Kyung-Chang Ryoo, Jae Hee Oh, and Hongsik Jeong
소속: Flash PA, Memory Div. Semi. Biz. SEC

TK1-K-3 **10:15-10:30** **Improved Synaptic Characteristics of Filamentary ReRAM by Adopting Interfacial Oxide for Neuromorphic Device Application**
저자: Behnoush Attarimashalkoubeh, Sangheon Lee, Daeseok Lee, Amit Prakash, Jeonghwan Song, Kibong Moon, and Hyunsang Hwang
소속: Department of Materials Science and Engineering, Pohang University of Science and Technology

TK1-K-4 **10:30-10:45** **Improvement in the ON/OFF Ratio (~10^7) and Switching Uniformity of an Atom Switch Using TiO_x Layer for Reconfigurable Logic Application**
저자: Behnoush Attarimashalkoubeh, Amit Prakash, Sangheon Lee, Jaesung Park, Jeonghwan Song, Daeseok Lee, Jiyoung Woo, Kibong Moon, Yunmo Koo, and Hyunsang Hwang
소속: Department of Materials Science and Engineering, Pohang University of Science and Technology

J. Nano-Science & Technology 분과

[TL1-J] Graphene & 2D

Date	Feb. 25, 2014 (Tue.)
Place	Room L / 제1공학관 503호 (# 503, Engineering Building I)

Session Chair: 이장식 교수(POSTECH), 박철민 교수(연세대학교)

TL1-J-1 **09:30-10:00** **Transparent Flexible Nanogenerators Based on 1D/2D Piezoelectric and Triboelectric Nanomaterials**
저자: Sang-Woo Kim
소속: School of Advanced Materials Science and Engineering, Sungkyunkwan University Advanced Institute of Nanotechnology, CINAP, Institute of Basic Science, Sungkyunkwan University

TL1-J-2 **10:00-10:15** **Investigation of Gate Bias Stress Effect on MoS_2 Field Effect Transistors**
저자: Kyungjune Cho, Woanseo Park, Tae-Young Kim, and Takhee Lee
소속: Department of Physics and Astronomy, Seoul National University

TL1-J-3 **10:15-10:30** **Ambient Dependent Photonic Response of Graphene Photodetectors for Optical Interconnect**
저자: 유태진[1], 강창구[2], 이상경[2], 최선희[2], 이병훈[2]
소속: School of Materials Science and Engineering, Gwangju Institute of Science and Technology

TL1-J-4 **10:30-10:45** **Monitoring the Electrical Property of Graphene Transistor by the Oxygen Vacancy Generation of Top Oxide Layer**
저자: Taekwang Kim[1], Hyewon Du[1], Somyeong Shin[1], Jong-Hyuk Yoon[2], Eun-Kyu Lee[2], Seungmin Cho[2], and Sunae Seo[1]
소속: [1]Department of Physics, Sejong University, [2]Micro device & machinery solution division, Samsung Techwin R&D center

A. Interconnect & Package 분과

[TC2-A] Plating and Reliability

Date	Feb. 25, 2014 (Tue.)
Place	Room C / 제1공학관 401호 (# 401, Engineering Building I)

Session Chair: 김수현 교수(영남대학교),

TC2-A-1 **11:10-11:25** **Cu Electrodeposition on Ru Seed Layer Prepared by Atomic Layer Deposition**
저자: Seunghoe Choe[1], Myung Jun Kim[1], Hyun Seok Ko[2], Young Kwang Kim[3], Oh Joong Kwon[3], and Jae Jeong Kim[1]
소속: [1]School of Chemical and Biological Engineering, Seoul National University, [2]Department of Material Science and Engineering, Incheon National University, [3]Department of Energy and Chemical Engineering, Incheon National University

TC2-A-2 **11:25-11:40** **Cu-Ag Superfilling for Damascene Metallization**
저자: Myung Jun Kim[1], Taeho Lim[1], Kyung Ju Park[1], Oh Joong Kwon[2], and Jae Jeong Kim[1]
소속: [1]School of Chemical and Biological Engineering, Seoul National University, [2]Department of Energy and Chemical Engineering, Incheon National University

TC2-A-3 **11:40-11:55** **Real-Time Observation of Cu Electroless Deposition: Synergetic Suppression Effect of 2,2'-Dipyridyl and 3-N,N-Dimethylaminodithiocarbamoyl-1-propanesulfonic Acid**
저자: Taeho Lim, Myung Jun Kim, Kyung Ju Park, Kwang Hwan Kim, and Jae Jeong Kim
소속: School of Chemical and Biological Engineering, Seoul National University

TC2-A-4 **11:55-12:10** **Effect of Pulsed Electric Field on Dielectric Breakdown in Damascene Cu Interconnects**
저자: Han-Wool Yeon[1], Jun-Young Song[1], Jang-Yong Bae[2], Yu-Chul Hwang[2], and Young-Chang Joo[1]
소속: [1]Department of Materials Science & Engineering, Seoul National University, [2]Memory Division, Samsung Electronics Co Ltd.

TC2-A-5 **12:10-12:25** **Flexible Cu Barrier of PAH/PSS Laminar Structures using Layer-by-Layer (LbL) Method**
저자: Daekyun Jeong, Chiyoung Lee, and Jaegab Lee
소속: Department of Advanced Materials Engineering, Kookmin University

P. Device for Energy 분과

[TD2-P] Device for Energy II

Date	Feb. 25, 2014 (Tue.)
Place	Room D / 제1공학관 402호 (# 402, Engineering Building I)

Session Chair: 함문호 교수(GIST),

TD2-P-1 **11:10-11:40** **Nanostructured Si for Efficient Solar Energy Conversion**
저자: Jihun Oh
소속: Graduate School of EEWS (Energy, Environment, Water and Sustainability), KAIST

TD2-P-2 **11:40-11:55** **Effect of Size and Depth of Silicon-Nano-Holes on Surface Reflectance Reduction for {111} Pyramid-Textured Silicon Solar-Cells**
저자: Jae-Hyoung Shim, Seung-Wook Baek, Ji-Heon Kim, Yun-Hyuk Ko, Jin-Seong Park, Gon-Sub Lee and Jea-Gun Park
소속: Department of Electronics and Computer Engineering, Hanyang University

TD2-P-3 **11:55-12:10** **Effect of Se&S Composition Ratio on Quantum-Yield, Power-Conversion-Efficiency, Energy-Down-Shifting for CdSe/ZnS Core/Shell Quantum-Dot Implemented Silicon Solar-Cells**
저자: Seung-Wook Baek, Ji-Heon Kim, Jae-Hyoung Shim, Yun-Hyuk Ko, Jin-Seong Park, Gon-Sub Lee, and Jea-Gun Park
소속: Department of Electronics and Computer Engineering, Hanyang University

TD2-P-4 **12:10-12:25** **Silicon Solar-Cells Implemented with Energy-Down-Shifting using CdZnS/ZnS Core/Shell Quantum-Dot**
저자: Yun-Hyuk Koh, Seng-Wook Baek, Gon-Sub Lee, and Jae-Gun Park
소속: Department of Electronics and Computer Engineering, Hanyang University

H. Display and Imaging Technologies 분과

[TE2-H] Display Device

Date	Feb. 25, 2014 (Tue.)
Place	Room E / 제1공학관 403호 (# 403, Engineering Building I)

Session Chair: 정재경 교수(인하대학교), 구본원 박사(삼성전자종합기술원)

TE2-H-1 **11:10-11:25** **Effect of Ultra-Thin Active Layer Thickness on the Subthreshold Slope and Bipolar Bias Stress-Induced Degradation in Amorphous InGaZnO Thin-Film Transistors**
저자: Dongjae Shin, Sungwoo Jun, Kyung Min Lee, Hyeongjung Kim, Chunhyung Jo, Jaeman Jang, Jaewook Lee, Sung-jin Choi, Dong Myong Kim, and Dae Hwan Kim
소속: School of Eletrical Engineering, Kookmin University

TE2-H-2 **11:25-11:40** **Oxide-Based Thin-Film Transistors with Artificial Superlattice Channel Structure**
저자: Cheol Hyoun Ahn and Hyung Koun Cho
소속: School of Advanced Materials Science and Engineering, Sungkyunkwan University

TE2-H-3 **11:40-11:55** **Oxygen Vacancy-Dependent Density-of-States and Its Effect on the Negative Bias Illumination Stress-Induced Degradation in Amorphous Oxide Semiconductor Thin-Film Transistors**
저자: Kyung Min Lee, Sungwoo Jun, Hyeongjung Kim, Chunhyung Jo, Jaeman Jang, Jaewook Lee, Dong Jae Shin, Jun Tae Jang, Sungju Choi, Sung-Jin Choi, Dong Myong Kim, and Dae Hwan Kim
소속: Department of Electrical Engineering, Kookmin University

TE2-H-4 **11:55-12:10** **High Bright Full Color Electroluminescence Device Driven by Alternating Current (AC)**
저자: Sung Hwan Cho, Ihn Hwang, and Cheolmin Park
소속: Department of Materials Science and Engineering, Yonsei University

TE2-H-5 **12:10-12:25** **Effect of the RF Power in Sputter System on Performance and Photoelectric Degradation of Amorphous Indium-Gallium-Zinc-Oxide Thin-Film Transistors**
저자: Jun Tae Jang, Kyung Min Lee, Hyeongjung Kim, Jaeman Jang, Dong Jae Shin, Sungju Choi, Jaewook Lee, Chunhyung Jo, Sungwoo Jun, Sung-Jin Choi, Dong Myong Kim, and Dae Hwan Kim
소속: Department of Electrical Engineering, Kookmin University

TE2-H-6 **12:25-12:40** **Precharging of Counter Electrode in Viologen-Anchored TiO_2 Nanostructure Electrode Based Ultrafast Electrochromic Devices**
저자: Seong M. Cho, Chil Seong Ah, Tae-Youb Kim, Juhee Song, and Hojun Ryu
소속: Next Generation Display Research Department, Electronics and Telecommunications Research Institute

N. VLSI CAD 분과

[TF2-N] CAD & Low Power

Date	Feb. 25, 2014 (Tue.)
Place	Room F / 제1공학관 404호 (# 404, Engineering Building I)

Session Chair: 이종은 교수(UNIST), 김윤진 교수(숙명여자대학교)

TF2-N-1 **11:10-11:40** **Wear-Leveling Algorithm for Phase Change Memory using Danger-Line First Address Randomization**
저자: Dong-gun Kim
소속: Design Technology System Architecture Team, SK hynix

TF2-N-2 **11:40-11:55** **Identifying Redundant Inter-Cell Margins and Its Application to Technology Mapping**
저자: 이유종, 심성보, 신영수
소속: KAIST 전기및전자공학과

TF2-N-3 **11:55-12:10** **PEEC-Based Dynamic IR Drop Analysis with On Chip Decoupling Capacitor of the Double-Gate FinFETs**
저자: Jaemin Lee and Youngmin Kim
소속: School of Electrical and Computer Engineering, Ulsan National Institute of Science and Technology

TF2-N-4 **12:10-12:25** **Design and Optimization of Mesh Clock Network with Multi-Level Clock Gating**
저자: Jinwook Jung, Dongsoo Lee, and Youngsoo Shin
소속: Department of Electrical Engineering, KAIST

TF2-N-5 **12:25-12:40** **Synthesis of Multi-Stage Gate-Level Clock Gating**
저자: Inhak Han and Youngsoo Shin
소속: Department of Electrical Engineering, KAIST

O. System LSI Design 분과

[TG2-O] VLSI System Design and Applications II

Date	Feb. 25, 2014 (Tue.)
Place	Room G / 제1공학관 405호 (# 405, Engineering Building I)

Session Chair: 이채은 교수(인하대학교), 장익준 교수(경희대학교)

TG2-O-1 **11:10-11:25** **Optimized Heterogeneous 3D Networks-on-Chip for High Performance System-on-Chip Design**
저자: Michael Opoku Agyeman and Ali Ahmadinia
소속: School of Engineering and Built Environment, Glasgow Caledonian University

TG2-O-2 **11:25-11:40** **Fault-Tolerant CGRA-Based Multi-Core Architecture**[1]
저자: Seungyun Sohn, Heesun Kim, and Yoonjin Kim
소속: Department of Computer Science, Sookmyung Women's University

TG2-O-3 **11:40-11:55** **A 256-Radix Crossbar Switch using Mux-Matrix-Mux Folded-Clos Topology**
저자: Sung-Joon Lee and Jaeha Kim
소속: Department of Electrical and Computer Engineering, Seoul National University

TG2-O-4 **11:55-12:10** **An Efficient Fault-Tolerant Routing Algorithm for 3D Networks-on-Chip**
저자: Michael Opoku Agyeman and Ali Ahmadinia
소속: School of Engineering and Built Environment, Glasgow Caledonian University

TG2-O-5 **12:10-12:25** **Unified Single-Port Survivor Memory for High-Speed Viterbi Decoder using 3-Unit Packing/Unpacking-Based Data Processing**
저자: Jinil Chung and Jongsun Park
소속: School of Electrical Engineering, Korea University

G. Device & Process Modeling, Simulation and Reliability 분과

[TJ2-G] Device Simulations/Characterization

Date	Feb. 25, 2014 (Tue.)
Place	Room J / 제1공학관 501호 (# 501, Engineering Building I)

Session Chair: 이재규 박사(삼성전자), 이성현 교수(한국외국어대학교)

TJ2-G-1 **11:10-11:25** **Operation and Modeling of Select Gate Lateral Coupling eNVM**
저자: Nam-Yoon Kim[1], Sung-Kun Park[1], In-Wook Cho[1], Kyung-Dong Yoo[1], Eun-Mee Kwon[2], and Sang-Young Kim[2]
소속: [1] TD, Image Development Group, System IC Division, SK hynix, [2] DMR, Research & Development Division, SK Hynix

TJ2-G-2 **11:25-11:40** **Design of New High-Performance Vertical NPN BJT and nLDMOS of Full-Featured BCD Technology**
저자: Yon-Sup Pang, François Hébert, Seongmin Cho, Juho Kim, Sookjin Kwon, Yushin Ryu, Kyungho Lee, Leeyeun Hwang, Sung-Bum Park, Jung Lee, and Taejong Lee
소속: MagnaChip Semiconductor, Corporate Engineering

TJ2-G-3 **11:40-11:55** **A Dual Sweep Transfer Curve Technique for Separate Extraction of Source and Drain Resistances in Advanced FETs without Substrate Contacts**
저자: Jun Seok Hwang, Hagyoul Bae, Hyunjun Choi, Jaeyeop Ahn, Jungmin Lee, Sung-Jin Choi, Dae Hwan Kim, and Dong Myong Kim
소속: School of Electrical Engineering, Kookmin University

TJ2-G-4 **11:55-12:10** **Investigation of Work-Function Variation for FinFET Using a Modified RGG Concept**
저자: Hyohyun Nam and Changhwan Shin
소속: School of Electrical and Computer Engineering, University of Seoul

TJ2-G-5 **12:10-12:25** **Full Characterization of 2T SONOS Nonvolatile Memory for TSC Application**
저자: Taeho Lee[1], Youngjun Kwon[1], Jaegwan Kim[1], Sungkun Park[1], Inwook Cho[1], Kyungdong Yoo[1], Youngdong Joo[2], and Seungdeok Kim[2]
소속: [1]TD, Image Development Group, System IC Division, SK hynix, [2]Wingcore Technology Inc.

TJ2-G-6 **12:25-12:40** **Investigation of the THz Resonant Oscillation in HEMTs by Solving the Pseudo-2D Poisson Equation and the 1D Transport Equation**
저자: Sung-Min Hong[1], Jae-Hyung Jang[1], and Kyung Rok Kim[2]
소속: [1]School of Information and Communications, Gwangju Institute of Science and Technology, [2]School of Electrical and Computer Engineering, Ulsan National Institute of Science and Technology

K. Memory (Design & Process Technology) 분과

[TK2-K] 3D Memory Techniques

Date	Feb. 25, 2014 (Tue.)
Place	Room K / 제1공학관 502호 (# 502, Engineering Building I)

Session Chair: 곽동화 박사(삼성전자),

TK2-K-1 **11:10-11:40** **Scaling Issues and Trends of NAND Flash Memory**
저자: Jaeduk Lee, Youngwoo Park, and Gyoyoung Jin
소속: Semiconductor R&D Center, Samsung Electronics

TK2-K-2 **11:40-11:55** **Towards High Performance Selector Device for 3D Stacked Cross-Point Arrays**
저자: Jiyong Woo, Daeseok Lee, Euijun Cha, Sangheon Lee, Sangsu Park, and Hyunsang Hwang
소속: Department of Materials Science and Technology, Pohang University of Science and Technology

TK2-K-3 **11:55-12:10** **A New Programming Method to Alleviate the Program Speed Variation for Three-Dimensional Channel Stacked Array Architecture**
저자: Joo Yun Seo, Yoon Kim, Sang Ho Lee, and Byung-Gook Park
소속: Inter-university Semiconductor Research Cener and Department of Electrial Engineering, Seoul National Univerisity

TK2-K-4 **12:10-12:25** **3차원 플래쉬 메모리를 위한 매우 얇은 다결정 실리콘 채널 층을 갖는 정션리스 플래쉬 메모리의 특성에 관한 연구**
저자: 박종경[1], 김승윤[1], 이기홍[2], 피승호[2], 이석희[1,2], 조병진[1]
소속: [1]한국과학기술원 전기 및 전자공학과, [2]SK 하이닉스 반도체 메모리 연구소

J. Nano-Science & Technology 분과

[TL2-J] ReRAM

Date	Feb. 25, 2014 (Tue.)
Place	Room L / 제1공학관 503호 (# 503, Engineering Building I)

Session Chair: 김상우 교수(성균관대학교), 이탁희 교수(서울대학교)

TL2-J-1 **11:10-11:40** **Organic Nonvolatile Memory Devices Based on Self-Assembled Nanomaterials**
저자: Jang-Sik Lee
소속: Department of Materials Science and Engineering, Pohang University of Science and Technology

TL2-J-2 **11:40-11:55** **Flexible Graphene-PZT Ferroelectric Field Effect Transistors for Nonvolatile Memory**
저자: Wonho Lee and Jong-Hyun Ahn
소속: School of Electrical & Electronic Engineering, Yonsei University

TL2-J-3 **11:55-12:10** **Characterization of Nanoscale Copper-Oxide Resistive Switching Memory Devices using Self-Assembled Nano-Templates**
저자: Un-Bin Han and Jang-Sik Lee
소속: Department of Materials Science and Engineering, Pohang University of Science and Technology

TL2-J-4 **12:10-12:25** **Hardware Implementation of Associative Memory Characteristics**
저자: Kibong Moon, Sangsu Park, Daeseok Lee, and Hyunsang Hwang
소속: Department of Materials Science and Engineering, Pohang University of Science and Technology

A. Interconnect & Package 분과

[WC1-A] High Performance Mobile Packaging Technology

Date	Feb. 26, 2014 (Wed.)
Place	Room C / 제1공학관 401호 (# 401, Engineering Building I)

Session Chair: 이웅선 박사(SK hynix),

WC1-A-1 **10:50-11:20** **SI/PI Co-Simulation Including Voltage Regulating Circuitry for High-Performance Multi-Chip Packages**
저자: JuHwan Lim, JongJoo Lee, SoYoung Jung, and JoonHee Lee
소속: Memory Division, Samsung Electornics Co., Ltd.

WC1-A-2 **11:20-11:35** **전류 보조 접합 방법에 의한 Cu-Cu 직접 접합 방법**
저자: 마성우[1], 신찬호[1], 안기원[2], 이정환[3], 김기범[3], 서민석[3], 변광유[3], 김영호[1,2]
소속: [1]한양대학교 나노반도체공학과, [2]한양대학교 신소재공학부, [3]SK 하이닉스 반도체

WC1-A-3 **11:35-11:50** **Parametric Study for Optimum Ag wire Bondability**
저자: Kwang-Soo Kim, Jae-Seung Seok, Kyung-Man Kim, Sung-Wook Hwang, Hai-Ick Kim, Joon-Young Oh, and Joon-Hee Lee
소속: Flash Development, Samsung Electronics Co., Ltd.

WC1-A-4 **11:50-12:05** **40 um Pitch Micro Bump의 Interconnection 평가**
저자: Seunghyun Lee, Seongkwon Chin, Sukwoo Jeon, and Namseog Kim
소속: SK hynix Inc.

B. Patterning 분과

[WD1-B] Patterning

Date	Feb. 26, 2014 (Wed.)
Place	Room D / 제1공학관 402호 (# 402, Engineering Building I)

Session Chair: 김현우 교수(한양대학교), 유원종 교수(성균관대학교)

WD1-B-1 **10:50-11:20** **Modeling and Analysis of EUV Mask Defects for Resist Pattern**
저자: Sang-Kon Kim
소속: Department of Applied Physics, Hanyang University

WD1-B-2 **11:20-11:35** **EUV 마스크 검사용 Coherent EUV 광원 개발**
저자: 김용수[1,2], 안준모[1], 성하민[3], 조운조[1], 박민철[1], 김점술[3], 김재헌[1], 우덕하[1], 이석[1], 이주한[2], 김용태[1], 전영민[1]
소속: [1]한국과학기술연구원 센서시스템연구센터, [2]서울시립대학교 전자전기컴퓨터공학과, [3]레이저 스펙트라

WD1-B-3 **11:35-11:50** **Fabrication of Nano-Size Cross Array Patterns by Nano Imprint Lithography**
저자: Dohyung Kim, Youngin Gil, and Changhwan Choi
소속: Division of Materials Science & Engineering, Hanyang University

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D. Thin Film Process Technology 분과

[WE1-D] Thin-Film Transistors

Date	Feb. 26, 2014 (Wed.)
Place	Room E / 제1공학관 403호 (# 403, Engineering Building I)

Session Chair: 윤성민 교수(경희대학교), 정선호 박사(KRICT)

WE1-D-1 **10:50-11:20** **Passivation Layer Effects on Oxide Semiconductor Thin Films during Thermal Annealing**
저자: Chi-Sun Hwang, Sang-Hee Ko Park, Sung-Heang Cho, Min Ki Ryu, Himchan Oh, Jong-Heon Yang, Su Jae Lee, Chunwon Byun, Jonghyurk Park, Jae-Eun Pi, Eunsuk Park, Ohsang Kwon, Hee-Ok Kim, and Jong Woo Kim
소속: Oxide TFT Research Section, Electronics and Telecommunications Research Institute

WE1-D-2 **11:20-11:35** **Double-Layered Vertically Integrated Amorphous-$In_2Ga_2ZnO_7$ Thin-Film Transistor**
저자: Sang Ho Rha[1], Un Ki Kim[2], Jisim Jung[2], Eun Suk Hwang[2], Jung-Hae Choi[3], and Cheol Seong Hwang[2]
소속: [1]Department of Nano Science and Technology, Seoul National University, [2]Department of Materials Science and Engineering and Inter-university Semiconductor Research Center, Seoul National University, [3]Electronic Materials Research Center, Korea Institute o

WE1-D-3 **11:35-11:50** **Nonvolatile Memory Operations of In-Ga-Zn-O TFTs using Conductivity-Modified ZnO Charge-Trap Layers Prepared by Atomic-Layer Deposition**
저자: Jun-Yong Bak[1], Min-Ki Ryu[2], Sang-Hee Ko Park[2], Chi-Sun Hwang[2], and Sung-Min Yoon[1]
소속: [1]Department of Advanced Materials Engineering for Information and Electronics, Kyung Hee University, [2]Oxide TFT Research Team, Electronics and Telecommunications Research Institute

WE1-D-4 **11:50-12:05** **Extraction of Interface Trap Density at Gate Dielectric and Organic Semiconductor from Photo-Conductivity of Organic Thin Film Transistors**
저자: Seung-Hyeon Jeong and Chung-Kun Song
소속: Department of Electronics Engineering, Dong-A University

E. Compound Semiconductors 분과

[WF1-E] Compound Semiconductor I

Date	Feb. 26, 2014 (Wed.)
Place	Room F / 제1공학관 404호 (# 404, Engineering Building I)

Session Chair: 문재경 박사(ETRI), 차호영 교수(홍익대학교)

WF1-E-1 **10:50-11:05** **Fast Recovery Diode Embedded Normally-off AlGaN/GaN MOSHFET**
저자: 박봉렬, 이정연, 이재길, 한상우, 차호영
소속: 홍익대학교

WF1-E-2 **11:05-11:20** **Home Appliance용 전력소자의 스위칭 항복 전압 향상을 위한 p-GaN Gate HFET의 Gate 특성 연구**
저자: 송미선, 김웅선, 신종훈, 장태훈
소속: LG전자 System, IC 연구소 IGBT Part

WF1-E-3 **11:20-11:35** **Home Appliance용 AlGaN/GaN HFET의 Au-Free 공정 적용에 대한 연구**
저자: 조영제, 고화영, 박진홍, 이호중, 장태훈
소속: IGBT Part, System IC R&D, LG Electronics

WF1-E-4 **11:35-11:50** **Role of Thin Al2O3 Dielectric Layer in AlGaN/GaN-Based MISHFET as Gate Insulator and Surface Protection Layer during RTP**
저자: V. Sindhuri, Do-Kywn Kim, Dong-Seok Kim, Chul-Ho Won, Jun-Hyeok Lee, and Jung-Hee Lee
소속: School of Electronics Engineering, Kyungpook National University

WF1-E-5 **11:50-12:05** **Large GaN-SBD with a Symmetric Electrode Structure using an Ohmic Recess Process and Si Ohmic Metal**
저자: W.Y. Jang[1,2], H.G. Jang[1,5], J.H. Na[1], S.C. Ko[1], Y.R. Park[1], J.J. Kim[1,3], W.J. Jang[1], S.B. Bae[1], C.H. Jun[1], S.H. Moon[1], D.K. Kim[2], J.K. Mun[1], H.M. Park[4], and E.S. Nam[1]
소속: [1]Electronics and Telecommunications Research Institute, [2]Sejong University, [3]Chunbuk National University, [4]Dongguk University, [5]University of Science and Technology

F. Silicon Device and Integration Technology 분과

[WG1-F] Emerging Device Technologies

Date	Feb. 26, 2014 (Wed.)
Place	Room G / 제1공학관 405호 (# 405, Engineering Building I)

Session Chair: 노태문 박사(ETRI), 최우영 교수(서강대학교)

WG1-F-1 **10:50-11:20** **SiGeSn Ternary System for Next-Generation Electronic and Photonic Devices**
저자: Seongjae Cho[1], Byung-Gook Park[2], and James S. Harris Jr.[3]
소속: [1]Department of Electronic Engineering, Gachon University, [2]Inter-university Semiconductor Research Center (ISRC) with Department of Electrical and Computer Engineering, Seoul National University, [3]Department of Electrical Engineering, Stanford University

WG1-F-2 **11:20-11:35** **Optimization of Integration Process for Stabilized Graphene MOSFET**
저자: 김윤지, 이영곤, 강창구, 정욱진, 이상철, 이상경, 이병훈
소속: School of Materials Science and Engineering, Gwangju Institute of Science and Technology

WG1-F-3 **11:35-11:50** **Integrate-and-Fire Neuron Circuit and Synaptic Device with Floating Body MOSFETs**
저자: Min-Woo Kwon, Hyungjin Kim, Jungjin Park, and Byung-Gook Park
소속: ISRC and Department of Electrical and Computer Engineering, Seoul National University

WG1-F-4 **11:50-12:05** **Schottky Barrier Tunneling Field-Effect Transistor using Spacer Technique**
저자: Hyun Woo Kim, Jong Pil Kim, Sang Wan Kim, Min-Chul Sun, Garam Kim, Jang Hyun Kim, Euyhwan Park, and Byung-Gook Park
소속: Department of Electrical Engineering and Computer Science, Seoul National University

G. Device & Process Modeling, Simulation and Reliability 분과

[WJ1-G] Thin-Film Transistors/Reliability

Date	Feb. 26, 2014 (Wed.)
Place	Room J / 제1공학관 501호 (# 501, Engineering Building I)

Session Chair: 신민철 교수(KAIST), 최재훈 박사(SK hynix)

WJ1-G-1 **10:50-11:05** **A Novel Characterization Technique for Location of Laterally Distributed Grain Boundary in Polycrystalline Silicon Thin-Film Transistors**
저자: Jaeyeop Ahn, Hagyoul Bae, Hyunjun Choi, Jun Seok Hwang, Jungmin Lee, Sung-Jin Choi, Dae Hwan Kim, and Dong Myong Kim
소속: School of Electrical Engineering, Kookmin University

WJ1-G-2 **11:05-11:20** **The Effect of Passivation on the Positive Bias Stress-Induced Instability of Polymer Thin-Film Transistors**
저자: Jaewook Lee, Jaeman Jang, Hyeongjung Kim, Chunhyung Jo, Sungwoo Jun, Kyung Min Lee, Dong Jae Shin, Juntae Jang, Sungju Choi, Sung-Jin Choi, Dong Myong Kim, and Dae Hwan Kim
소속: School of Electrical Engineering, Kookmin University

WJ1-G-3 **11:20-11:35** **Capacitance-Voltage Technique for Extraction of Intrinsic Subgap DOS in AOS TFTs with Bias-Dependent Channel Conduction Factor Model**
저자: Hyunjun Choi, Hagyoul Bae, Jaeyeop Ahn, Jun Seok Hwang, Jungmin Lee, Sung-Jin Choi, Dae Hwan Kim, and Dong Myong Kim
소속: School of Electrical Engineering, Kookmin University

WJ1-G-4 **11:35-11:50** **Prediction Technique and Mechanism for PCB Pattern Crack in NAND Package of SSD**
저자: JungHoon Kim, JinYoung Choi, JaeWoo Jung, Jin-Hyuk Lee, JongYun Yun, and JoonHee Lee
소속: Solution Development Team, Samsung Electronics Co., Ltd.

WJ1-G-5 **11:50-12:05** **Analysis of Power Integrity of Multi-Layer 3D IC with PEEC-Based PDN**
저자: Seungwon Kim, Ki Jin Han, and Youngmin Kim
소속: School of Electrical and Computer Engineering, Ulsan National Institute of Science and Techology

I. MEMS & Sensors 분과

[WK1-I] Bio Sensor

Date	Feb. 26, 2014 (Wed.)
Place	Room K / 제1공학관 502호 (# 502, Engineering Building I)

Session Chair: 한상욱 박사(KIST),

WK1-I-1 **10:50-11:20** **Gyroscopes using Surface Acoustic Waves for High Shock Tolerance**
저자: Sang Sik Yang
소속: Department of Electrical and Computer Engineering, Ajou University

WK1-I-2 **11:20-11:35** **Graphene Oxide Coupled Sandwiched Immunoassays Based on Surface Plasmon Resonance Biosensing**
저자: Yeonsoo Ryu, Seyoung Moon, Youngjin Oh, Yonghwi Kim, Taewoong Lee, and Donghyun Kim
소속: School of Electrical and Electronic Engineering, Yonsei University

WK1-I-3 **11:35-11:50** **Optical and Electrical Characterization of Hydrogen Peroxide Cytotoxicity using Indium Tin Oxide Electrode**
저자: Yonghyun Choi[1], Jaeyoung Kim[2], and Sungbo Cho[1]
소속: [1]Deparment of Biomedical Engineering, Gachon University, [2]Department of Biological Science, Gachon University

WK1-I-4 **11:50-12:05** **Plasma Enhanced Chemical Vapor Deposition of Amine Layer on Polycarbonate**
저자: Dong-Ho Han[1], Jung-Hwan Lee[3], Heon-Yul Ryu[1], Si-Hyeong Cho[1], and Jin-Goo Park[1,2]
소속: [1]Department of Bionano Technology, Hanyang University, [2]Department of Materials Engineering, Hanyang University, [3]NanoBioSys Inc.

J. Nano-Science & Technology 분과

[WL1-J] 나노구조

Date	Feb. 26, 2014 (Wed.)
Place	Room L / 제1공학관 503호 (# 503, Engineering Building I)

Session Chair: 김웅 교수(고려대학교), 장호원 교수(서울대학교)

WL1-J-1 **10:50-11:20** **Solution-Based Synthesis of Anisotropic Metal Chalcogenide Nanomaterials and the Challenges**
저자: Unyong Jeong
소속: Department of Materials Science and Engineering, Yonsei University

WL1-J-2 **11:20-11:35** **Nano-Imprinted Metal Electrode by Solution-Based Ag Nano Particles with Methanol Capillary Force Effect**
저자: Youngin Gil, DoHyung Kim, and Changhwan Choi
소속: Division of Materials Science & Engineering, Hanyang University

WL1-J-3 **11:35-11:50** **The Relationship between Adsorption Thickness of Polymer Layer on Ceria and Dishing in Shallow Trench Isolation Chemical Mechanical Planarization**
저자: Kijung Kim[1], Jihoon Seo[2], Sunho Moon[2], and Ungyu Paik[1,2]
소속: [1]Department of Nanoscale Semiconductor Engineering, Hanyang University, [2]WCU Department of Energy Engineering, Hanyang University

WL1-J-4 **11:50-12:05** **Nano-Embossing Ceria Abrasive with Polishing Rate Accelerator for Scratch-Less Poly-Si Stop CMP Application**
저자: Sang-su Yun, Eun-bin Seo, Hao Cui, Jin-Hyung Park, and Jea-Gun Park
소속: Advanced Semiconductor Materials & Device Development Center, Hanyang University

A. Interconnect & Package 분과

[WC2-A] 3D & 2.5D Packaging Technology

Date	Feb. 26, 2014 (Wed.)
Place	Room C / 제1공학관 401호 (# 401, Engineering Building I)

Session Chair: 이후정 교수(성균관대학교),

WC2-A-1 **13:05-13:20** **TSV Bumping 공정을 위한 저온 Nitride & Oxide 필름 개발 및 특성 연구 (Study on the Characteristics of Low Temperature Chemical Vapor Deposited Silicon Nitride and Silicon Oxide Film in Through Silicon via Bumping Process)**
저자: 양주헌, 최동진, 정래형, 김진평, 이웅선, 서민석, 변광유
소속: Advanced PKG Development Team, SK hynix Inc.

WC2-A-2 **13:20-13:35** **Electrical Resistance Evolution of Cu Electroplated on a Si Interposer**
저자: Wan-Gyu Lee
소속: Department of Nanodevice, National NanoFab Center

WC2-A-3 **13:35-13:50** **Through-Silicon-Via(TSV) Filling by Electrochemical Deposition with High Frequency Pulsed-Current**
저자: Sanghyun Jin[1], Geon Wang[1], Sungho Seo[2], and Bongyong Yoo[1,2]
소속: [1]Department of Materials Engineering, Hanyang University, [2]Department of Bionanotechnology, Hanyang University

WC2-A-4 **13:50-14:05** **Effect of Design on Thermo-Mechanical Stress in Through-Silicon Via**
저자: Joo-Sun Hwang and Won-Jun Lee
소속: Faculty of Nanotechnology and Advanced Materials Engineering, Sejong University

WC2-A-5 **14:05-14:20** **Solder Thickness Effect on the Interfacial Reaction Characteristics of Cu/Sn-3.5Ag Micro-Bump for 3D Integration**
저자: Byeong-rok Lee[1], Young-ki Ko[2], Chang-woo Lee[2], and Young-bae Park[1]
소속: [1]School of Materials Science and Engineering, Andong National University, [2]Micro-Joining Center, Korea Institute of Industrial Technology

C. Materials Growth & Characterization 분과

[WD2-C] Nitride/Graphene Growth and Applications

Date	Feb. 26, 2014 (Wed.)
Place	Room D / 제1공학관 402호 (# 402, Engineering Building I)

Session Chair: 김성복 박사(ETRI), 박일규 교수(영남대학교)

WD2-C-1 **13:05-13:35** **Applications of Nano-Hybrid Structures for Improvement of Light Extraction Efficiency in Light Emitting Didoes**
저자: Jinsub Park
소속: [1]Department of Electronic Engineering, Hanyang University, [2]Electronics and Computer Engineering, Hanyang University

WD2-C-2 **13:35-13:50** **Acetone-Derived Graphene: Synthesis and Seawater Corrosion Application**
저자: Jae-Hoon Huh[1,2], Seung Hyun Kim[3], Jae Hwan Chu[1], Sung Youb Kim[1,2], Ji Hyun Kim[3], and Soon-Yong Kwon
소속: [1]School of Mechanical and Advanced Materials Engineering, Ulsan National Institute of Science and Technology, [2]Opto-Electronics Convergence Group & Low Dimensional Carbon Materials Center, Ulsan National Institute of Science and Technology, [3]Interdiscipli

WD2-C-3 **13:50-14:05** **Fabrication of Ohmic Contact using Graphene Insertion between AlGaN and Ni/Au in AlGaN/GaN Structures.**
저자: Yoonhyung Kim, Minjun Kim, and Jinsub Park
소속: Department of Electronics Computer Engineering, Hanyang University

WD2-C-4 **14:05-14:20** **Effects of Nickel Cobalt Oxide Nanoparticles on Luminous Efficiency of Light-Emitting-Diodes.**
저자: Do-Hyun Kim , G.Mohan Kumar, and Jinsub Park
소속: Department of Electronics Computer Engineering, Hanyang University

The 21st Korean Conference on Semiconductors
제21회 한국반도체학술대회
February 24-26, 2014 / Hanyang University, Seoul, Korea

D. Thin Film Process Technology 분과

[WE2-D] Memory Thin-Film Technologies

Date	Feb. 26, 2014 (Wed.)
Place	Room E / 제1공학관 403호 (# 403, Engineering Building I)

Session Chair: 민요셉 교수(건국대학교), 전상훈 교수(고려대학교)

WE2-D-1 **13:05-13:20** **Evolution of Phases and Ferroelectric Properties of Thin $Hf_{0.5}Zr_{0.5}O_2$ Films According to the Thickness and Annealing Temperature**
저자: Min Hyuk Park, Han Joon Kim, Yu Jin Kim, Woongkyu Lee, Taehwan Moon, and Cheol Seong Hwang
소속: Department of Material Science & Engineering and Inter-university Semiconductor Research Center, Seoul National University

WE2-D-2 **13:20-13:35** **A New Chemical Route for Vapor Phase Deposition of GeTe for Phase Change Memory**
저자: Taehong Gwon[1], Taeyong Eom[1], Sijung Yoo[1], Moo-Sung Kim[2], Iain Buchanan[3], Manchao Xiao[3], and Cheol Seong Hwang[1]
소속: [1]Department of Materials Science and Engineering and Inter-university Semiconductor Research Center, Seoul National University, [2]Air Products Korea, [3]Air Products and Chemicals, Inc.,

WE2-D-3 **13:35-13:50** **Kinetic Analysis of Atomic Layer Deposition Process of $(GeTe_2)_{(1-x)}(Sb_2Te_3)_x$ Layers for Phase Change Memories**
저자: Taeyong Eom[1], Taehong Gwon[1], Sijung Yoo[1], Moo-Sung Kim[2], Iain Buchanan[3], Manchao Xiao[3], and Cheol Seong Hwang[1]
소속: [1]Department of Materials Science and Engineering and Inter-university Semiconductor Research Center, Seoul National University, [2]Air Products Korea, [3]Air Products and Chemicals, Inc.,

WE2-D-4 **13:50-14:05** **Evaluating the Change in Electrical Conduction Mechanism and Dielectric Properties of TiO_2 Thin-Film by Al Doping**
저자: Woojin Jeon, Woongkyu Lee, Yeon Woo Yoo, Cheol Hyun An, and Cheol Seong Hwang
소속: Department of Materials Science and Engineering and Inter-university Semiconductor Research Center, Seoul National University,

WE2-D-5 **14:05-14:20** **An Investigation of Electrical Characteristics in TiO_x Thin Film by Controlling Oxygen Vacancy**
저자: Jaesung Park, Daeseok Lee, Jiyong Woo, Euijun Cha, Sangheon Lee, Kibong Moon, Yunmo Koo, Jeonghwan Song, and Hyunsang Hwang
소속: Department of Materials and Science Engineering, Pohang University of Science and Technology

E. Compound Semiconductors 분과

[WF2-E] Compound Semiconductor II

Date	Feb. 26, 2014 (Wed.)
Place	Room F / 제1공학관 404호 (# 404, Engineering Building I)

Session Chair: 윤형섭 박사(ETRI), 임종원 박사(ETRI)

WF2-E-1 **13:05-13:35** **Recent Advances in Terahertz Electronics**
저자: Munkyo Seo[1], Miguel Urteaga[2], and Mark Rodwell[3]
소속: [1]College of Information and Communication Engineering, Sungkyunkwan University, [2]Teledyne Scientific Company, [3]University of California

WF2-E-2 **13:35-14:05** **THz Varactors based on III-V High Electron Mobility Transistor Structures**
저자: Seung Heon Shin, Dae-Myeong Gum, and Jae-Hyung Jang
소속: School of Information and Communications, Gwangju Institute of Science and Technology

WF2-E-3 **14:05-14:20** **Improved Current Collapse Phenomenon in AlGaN/GaN HEMTs on Si Substrate by using SiNx Re-Deposition Process**
저자: Minseong Lee, Donghwan Kim, Sukeun Eom, and Kwangseok Seo
소속: Department of Electrical Engineering and Computer Science, Seoul National University

F. Silicon Device and Integration Technology 분과

[WG2-F] Fin FETs, CIS and Power Devices

Date	Feb. 26, 2014 (Wed.)
Place	Room G / 제1공학관 405호 (# 405, Engineering Building I)

Session Chair: 이종호 교수(서울대학교), 이병훈 교수(GIST)

WG2-F-1 **13:05-13:35** **Performance Optimization Study of FinFETs Considering Parasitic Capacitance and Resistance**
저자: SoYoung Kim
소속: Department of Semiconductor Systems Engineering, Sungkyunkwan University

WG2-F-2 **13:35-13:50** **Effect of Hydrogen Induced Gettering on Sensing Margin Enhancement of Si CMOS Image-Sensor Contaminated with Cu and Ni**
저자: Il-Hwan Kim, Seung-Hyun Song, Joo-Hyeong Park, Gon-Sub Lee, and Jea-Gun Park
소속: Department of Electronics and Communication Engineering, Hanyang University

WG2-F-3 **13:50-14:05** **Optimization of 7V to 60V Low Vgs nLDMOS with Enhanced Specific On-Resistance**
저자: Min-Woo Kim, Cheol-Ho Cho, Choul-Joo Ko, Min-Seok Kim, Hyung-Gyun Jung, Hee-Bae Lee, Sun-Kyung Bang, Han-Geon Kim, Sung-Mo Gu, Sun-Kyoung Kang, and Jung-Ho Kang
소속: Product Integration Team, Dongbu Hitek

WG2-F-4 **14:05-14:20** **Proposal of 90V Rated High-Side n-Type LDMOS Utilizing Double-Epi Process**
저자: Joowon Park, Kwangsik Ko, Soonyeol Park, Daehoon Kim, Jina Eum, Kuemju Lee, Sekyung Oh, Sanghyun Lee, Inwook Cho, and Kyungdong Yoo
소속: Technology Development team, SK hynix Inc.

M. RF Design 분과

[WJ2-M] Wireless Transcover

Date	Feb. 26, 2014 (Wed.)
Place	Room J / 제1공학관 501호 (# 501, Engineering Building I)

Session Chair: 박준배 박사(㈜아나패스), 이강윤 교수(성균관대학교)

WJ2-M-1 **13:05-13:35** **GPS와 Compass를 위한 이중 채널용 GNSS 수신기의 설계 기법**
저자: 정연재
소속: ㈜ 지씨티리써치, 아날로그 부서

WJ2-M-2 **13:35-13:50** **A Design of Up-Down Converter for WCDMA Repeater**
저자: Hyo-Bin Jung, Won-Jae Jung, Sang-Kyu Kim, Se-Mi Lim, Ji-Hoon Lee, Kyu-Hyun Nam, and Jun-Seok Park
소속: School of Electrical Engineering, Kookmin University

WJ2-M-3 **13:50-14:05** **Baseband Block Control for Low Power Consumption in Broadcasting RF Receiver System**
저자: Huijung Kim, Sanghoon Kang, Hyeongseok Jeong, Soo-Young Kim, and Chaehag Yi
소속: M&C development, , Samsung Electronics Ci\o., Ltd.

I. MEMS & Sensors 분과

[WK2-I] Physical Sensors

Date	Feb. 26, 2014 (Wed.)
Place	Room K / 제1공학관 502호 (# 502, Engineering Building I)

Session Chair: 김상인 교수(아주대학교),

WK2-I-1 **13:05-13:20** **Quantum-Dot Sensitized Metal Oxide Semiconductor Hybrid Phototransistor for Near Infrared Detection**
저자: Do Kyung Hwang[1], Hee Sung Lee[2], Yun Jae Lee[1], Won Kook Choi[1], and Seongil Im[2]
소속: [1]Interface Control Research Center, Korea Institute of Science and Technology, [2]Institute of Physics and Applied Physics, Yonsei University

WK2-I-2 **13:20-13:35** **Development of Low-Cost and High Speed Coincidence Count Unit using FPGA**
저자: Byung Kwon Park, Min-Soo Lee, Min Ki Woo, Il Young Kim, Osung Kwon, Yong-Su Kim, Sang-Wook Han, and Sung Moon
소속: Center of Nano & Quantum Information Research, Korea Institute of Science and Technology

WK2-I-3 **13:35-13:50** **Temperature Characteristics of Dark and Afterpulse Noise in Single Photon Detector using InGaAs/InP Avalanche Photodiode**
저자: Minsoo Lee, Byungkwon Park, Minki Woo, Il-young Kim, Osung Kwon, Young-su Kim, Sang-wook Han, and Sung Moon
소속: Nano & Quantum Information Research Center, Korea Institute of Science and Technology

WK2-I-4 **13:50-14:05** **Noise Reduction in Graphene Nanopores**
저자: Ashvani Kumar, Kyeong-Beom Park, Hyun-Mi Kim, and Ki-Bum Kim
소속: Department of Materials Science and Engineering, Seoul National University

WK2-I-5 **14:05-14:20** **The Fabrication Method of Tungsten Oxide-Based Sensors using Laser-Induced Oxidation**
저자: Jaeho Shim, Jeong Oen Lee, Kyungmook Kwon, Minkyung Kim, Jun-Bo Yoon, and Kyoungsik Yu
소속: Department of Electrical Engineering, KAIST

J. Nano-Science & Technology 분과

[WL2-J] 나노 융합 소자

Date	Feb. 26, 2014 (Wed.)
Place	Room L / 제1공학관 503호 (# 503, Engineering Building I)

Session Chair: 정운룡 교수(연세대학교), 이탁희 교수(서울대학교)

WL2-J-1 **13:05-13:35** **Nanophotonic Devices for NT-IT Convergence**
저자: Chang-Won Lee, Yeonsang Park, Young-Geun Roh, Jineun Kim, and Sangmo Cheon
소속: Frontier Research Lab, Samsung Advanced Institute of Technology

WL2-J-2 **13:35-14:05** **Three-Dimensional Nanostructures for Photovoltaic Applications**
저자: Jeehwan Kim[2], Oki Gunawan[2], Byungha Shin[1,2], Jae-Woong Nah[2], George Tulevski[2], Augustin Hong[2], Devendra Sadana[2], and Supratik Guha[2]
소속: [1]Department of Materials Science and Engineering, KAIST, [2]IBM T. J. Watson Research Center

WL2-J-3 **14:05-14:20** **A Facile Synthesized 3D Silicon Nano Membrane for Lithium Ion Anode Materials**
저자: Fan Xia, Jung Min Lee, and Won Il Park
소속: Division of Material Science and Engineering, Hanyang University

R. Semiconductor Software 분과

[WC3-R] Software Technique for Persistent Memory

Date	Feb. 26, 2014 (Wed.)
Place	Room C / 제1공학관 401호 (# 401, Engineering Building I)

Session Chair: 원유집 교수(한양대학교), 이소윤 교수(이화여자대학교)

WC3-R-1 **15:50-16:05** **Write-Traffic-Aware Cache Management for Phase-Change Memory**
저자: Seunghoon Yoo[1], Eunji Lee[2], and Hyokyung Bahn[3]
소속: [1]Korea Air Force Academy, [2]Samsung Electronics Co., Ltd., [3]Ewha Womans University

WC3-R-2 **16:05-16:20** **Characterizing Memory References for Smartphone Applications**
저자: Soyoon Lee and Hyokyung Bahn
소속: Department of Computer Science and Engineering, Ewha Womans University

WC3-R-3 **16:20-16:35** **Page Caching of Web Browser using NVRAM**
저자: Taeho Nam and Taeseok Kim
소속: Department of Computer Engineering, Kwangwoon University

WC3-R-4 **16:35-16:50** **Efficient Metadata Management Method for Flash Memory Based Filesystem using BPRAM**
저자: Jinsoo Yoo and Youjip Won
소속: Department of Software Engineering, Hanyang University

C. Materials Growth & Characterization 분과

[WD3-C] Growth of Single Crystalline Semiconductor

Date	Feb. 26, 2014 (Wed.)
Place	Room D / 제1공학관 402호 (# 402, Engineering Building I)

Session Chair: 권순용 교수(UNIST), 박진섭 교수(한양대학교)

WD3-C-1 **15:50-16:05** **Single Crystalline Ge Heteroepitaxy on Hastelloy Substrate via Laser-Induced Melting and Solidification**
저자: Yong-Hoon Son, Sangsoo Lee, and Euijoon Yoon
소속: Department of Materials Science and Engineering, Seoul National University

WD3-C-2 **16:05-16:20** **Seed Shape Dependence of Ingot Crystalline Characteristics in Single-Crystal Sapphire Ingot Grown by Kyropoulos Method**
저자: Jun-Seong Park, Il-Hwan Kim, Gon-Sub Lee, and Jea-Gun Park
소속: Department of Electronics and Communication Engineering, Hanyang University

WD3-C-3 **16:20-16:35** **Strained Si:C Epi 층에서 Dopant 가 Carbon 고용도에 미치는 영향 분석**
저자: Taeone Youn[1], Taekwon Lee[1], Jaegeun Oh[2], Juhee Lee[1], Sujin Kong[1], Won Kim[1], and Hojoung Kim[1]
소속: [1]Analysis Team, SK hynix Inc., [2]NMProcess S-Team, SK hynix Inc.

WD3-C-4 **16:35-16:50** **Plasma Enhanced Atomic Layer Deposition of Low Temperature Silicon Oxide using New Cyclodisilazane Structure Precursors**
저자: 김성기, 양병일, 장세진, 김종현, 김도연, 조성우, 석장현, 이상익, 김명운
소속: ㈜디엔에프

D. Thin Film Process Technology 분과

[WE3-D] Thin-Film Process

Date	Feb. 26, 2014 (Wed.)
Place	Room E / 제1공학관 403호 (# 403, Engineering Building I)

Session Chair: 최창환 교수(한양대학교), 박태주 교수(한양대학교)

WE3-D-1 **15:50-16:05** **Electrical Properties of ALD La2O3-Capped High-K/Metal Gate Device**
저자: Donghwan Lim[1], Woosuk Jung[1], Moon-Suk Choi[1], Dohyung Kim[1], Youngil Gil[1], Chulwon Chung[2], and Changhwan Choi[1]
소속: [1]Division of Materials Science and Engineering, Hanyang University, [2]Department of Energy Engineering, Hanyang University

WE3-D-2 **16:05-16:20** **Oxidizing Agent Effects in Atomic Layer Deposition of HfxZr1-xO2 Thin Films with High Dielectric Constant**
저자: 최민정[1, 2], 박형호[2], 김성근[1]
소속: [1]한국과학기술연구원 전자재료연구센터
[2]연세대학교 신소재공학과

WE3-D-3 **16:20-16:35** **Stabilization of Negative Capacitance in Ferroelectric Thin Films**
저자: Yu Jin Kim, Min Hyuk Park, Han Joon Kim, Tae Hwan Moon, and Cheol Seong Hwang
소속: Department of Material Science & Engineering and Inter university Semiconductor Research Center, Seoul National University

WE3-D-4 **16:35-16:50** **Effect of NH3 Plasma Treatments on Deposition of Nickel Film by Chemical Vapor Deposition**
저자: Jingyu Park[1], Heeyoung Jeon[1], Hyunjung Kim[1], Jinho Kim[2], Woochool Jang[2], and Hyeongtag Jeon[1, 2]
소속: [1]Department of Nano-scale Semiconductor Engineering, Hanyang University, [2]Department of Materials Science and Engineering, Hanyang University,

WE3-D-5 **16:50-17:05** **Analysis of a Reaction Mechanism of Oxide Layer Removal using Reactive Gas**
저자: Hyuntae Kim[1], Jungsoo Lim[1], Min-Su Kim[1], and Jin-Goo Park[1,2]
소속: [1]Department of Bionano Technology, Hanyang University, [2]Department of Materials Engineering, Hanyang University

E. Compound Semiconductors 분과

[WF3-E] Compound Semiconductor III

Date	Feb. 26, 2014 (Wed.)
Place	Room F / 제1공학관 404호 (# 404, Engineering Building I)

Session Chair: 김제원 박사(삼성전자),

WF3-E-1 **15:50-16:05** **Graphene-Silver Nanowire Hybrid Structure as a Transparent and Current Spreading Electrode in Ultraviolet Light Emitting Diodes**
저자: Tae Hoon Seo, Ah Hyun Park, Bo Kyoung Kim, GangU Shin, Seul Bee Lee, Gun Hee Lee, and Eun-Kyung Suh
소속: School of Semiconductor and Chemical Engineering, Chonbuk National University

WF3-E-2 **16:05-16:20** **Tapered Laser Diode with Linear Effective-Refractive-Index Variation Waveguide**
저자: Duchang Heo[1], Seongche Jeon[1], Yun-Seok Kwak[2], Seong-Wook Ryu[2], and Tae-kyung Kim[2]
소속: [1]Korea Electrotechnology Research Institute, [2]QSI laser Co., Ltd.

WF3-E-3 **16:20-16:35** **Current Crowding Improvement of InGaN-based Blue Light-Emitting Diodes by Modifying Metal Contact Geometry**
저자: Garam Kim, Jang Hyun Kim, Euyhwan Park , and Byung-Gook Park
소속: Department of Electrical Engineering and Computer Science, Seoul National University

WF3-E-4 **16:35-16:50** **Role of V-Defect on Internal Quantum Efficiency of InGaN LEDs**
저자: Yong-Hee Cho, Mun-bo Shim, Sangheum Hwang, and Sungjin Kim
소속: Computational Science Group, SAIT, Samsung Electronics

WF3-E-5 **16:50-17:05** **Effects of Surface Damage on Raman Spectrum of Etched InSb(100) Surface**
저자: Chulkyun Seok[1], Minkyung Choi[2], Jinwook Jung[1], Sehun Park[1], Yongjo Park[3], In-Sang Yang[2], and Euijoon Yoon[1]
소속: [1]Department of Materials Science and Engineering, Seoul National University, [2]Department of Physics, Ewha Womans University, [3] Advanced Institutes of Convergence Technology

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O. System LSI Design 분과

[WG3-O] VLSI System Design and Applications III

Date	Feb. 26, 2014 (Wed.)
Place	Room G / 제1공학관 405호 (# 405, Engineering Building I)

Session Chair: 김지훈 교수(충남대학교), 김아름 연구원(삼성전자)

WG3-O-1 **15:50-16:05** **HyperX 구조를 이용한 저전력 256-Radix Crossbar Switch의 -설계**
저자: 백승헌, 김재하
소속: 서울대학교 전기정보공학부, 서울대학교 반도체공동연구소

WG3-O-2 **16:05-16:20** **The New Test Method for Flip-Flops**
저자: 김아름, 박진수, 정건옥, 김민수, 김태형, 김정희, 김용걸, 한상신, 조욱래, 신영민
소속: Samsung Electronics Co., Ltd.

WG3-O-3 **16:20-16:35** **Adaptive Tracking Algorithm of Autonomous Power Management**
저자: Soo-Yong Kim[1,2], Chaehag Yi[1], Huijung Kim[1], Keunhwi Koo[2], Sang Woo Kim[2], and Suk Won Kim[1]
소속: [1]Modem and Connectivity Business Team, Samsung Electronics Co., Ltd., [2]Department of Electrical Engineering, Pohang University of Science and Technology

N. VLSI CAD 분과

[WJ3-N] Memory & Architecture

Date	Feb. 26, 2014 (Wed.)
Place	Room J / 제1공학관 501호 (# 501, Engineering Building I)

Session Chair: 이종은 교수(UNIST), 김윤진 교수(숙명여자대학교)

WJ3-N-1 **15:50-16:05** **A Dual-Retention Time Architecture towards Secure and High Performance STT-RAM Main Memory Subsystem**
저자: Taemin Lee, Sungjoo Yoo, and Sunggu Lee
소속: Department of Electrical Engineering, Pohang University of Science and Technology

WJ3-N-2 **16:05-16:20** **LPDDR2-NVM 기반의 상변화 메모리 시스템 설계**
저자: Jaehyun Park and Naehyuck Chang
소속: Department of Electrical Engineering and Computer Science, Seoul National University

WJ3-N-3 **16:20-16:35** **New Processing Element for Imperfect Nested Loops on Coarse Grained Reconfigurable Architecture**
저자: Seongseok Seo, Hyeonuk Sim, and Jongeun Lee
소속: School of Electrical & Computer Engineering, Ulsan National Institute of Science and Technology

WJ3-N-4 **16:35-16:50** **Intra/Inter-CGRA Co-Reconfiguration for Efficient CGRA-Based Multi-Core Architecture**[1]
저자: Heesun Kim, Seungyun Sohn, and Yoonjin Kim
소속: Department of Computer Science, Sookmyung Women's University

WJ3-N-5 **16:50-17:05** **FPGA Prototyping of Programmable Regular Iterator Generator**
저자: Hyeonuk Sim, Seongseok Seo, and Jongeun Lee
소속: School of Electrical & Computer Engineering, Ulsan National Institute of Science and Technology

K. Memory (Design & Process Technology) 분과

[WK3-K] Resistive Memory Devices for Cross-Point Array

Date	Feb. 26, 2014 (Wed.)
Place	Room K / 제1공학관 502호 (# 502, Engineering Building I)

Session Chair: 김수길 박사(SK hynix), 백승재 교수(한경대학교)

WK3-K-1 **15:50-16:05** **Excellent Non-Linear I-V Characteristics of Ti/HfOx ReRAM with Ultrathin TiO_y Tunnel Barrier for Cross Point Memory Application**
저자: Nusrat Tamanna, Saiful Haque Misha, Amit Prakash, Daeseok Lee, Jiyoung Woo, Euijun Cha, Jeonghwan Song, Kibong Moon, and Hyunsang Hwang
소속: Department of Materials Science and Engineering, Pohang University of Science and Technology

WK3-K-2 **16:05-16:20** **Characterization of γ-Fe_2O_3 Memristors via Physics-Based Empirical I-V Model**
저자: Yun Hyeok Kim[1], Dae Guen Kim[1], Jae-Deuk Kim[2], Sung-Jin Choi[1], Dong Myong Kim[1], Tae-Sik Yoon[2], and Dae Hwan Kim[1]
소속: [1]School of Electrical Engineering, Kookmin University, [2]Department of Materials Science and Engineering, Myongji University

WK3-K-3 **16:20-16:35** **Identification of Controlling Parameters on Self-Compliance Resistive Switching in a Pt/TaO_x/Ta_2O_5/Pt Structure**
저자: Taehyung Park, Seul Ji Song, Jun Yeong Seok, Jung Ho Yoon, Kyung Jean Yoon, Dae Eun Kwon, and Cheol Seong Hwang
소속: Department of Material Science and Engineering, Seoul National University

WK3-K-4 **16:35-16:50** **Cu_2O-Based Conductive Bridging Random-Access-Memory**
저자: Ki-Hyun Kwon[1], Hyun-Min Seung[1], Kyoung-Cheol Kwon[2], Jong-Sun Lee[1], Myung-Jin Song[1], Han-Vit Jeoung[1], Young-Hye Son[1], and Jea-Gun Park[1,2]
소속: [1]Department of Electronics and Computer Engineering, Hanyang University, [2]Department of Nanoscale Semiconductor Engineering, Hanyang University

WK3-K-5 **16:50-17:05** **Evolution of the Shape of the Conducting Channel in Complementary Resistive Switching Transition Metal Oxides**
저자: Kyung Jean Yoon, Seul Ji Song, Jun Yeong Seok, Jung Ho Yoon, Tae Hyung Park, Dae Eun Kwon, and Cheol Seong Hwang
소속: Department of Materials Science and Engineering and Inter-university Semiconductor Research Center, Seoul National University

J. Nano-Science & Technology 분과

[WL3-J] 에너지

Date	Feb. 26, 2014 (Wed.)
Place	Room L / 제1공학관 503호 (# 503, Engineering Building I)

Session Chair: 김상우 교수(성균관대학교), 신병하 교수(KAIST)

WL3-J-1 **15:50-16:20** **Heater-Less Operation of Chemoresistive Sensors Based on Thin Film Nanostructures: Extremely Low Power Consumption for Mobile Applications**
저자: Ho Won Jang
소속: Department of Materials Science and Engineering, Seoul National University

WL3-J-2 **16:20-16:35** **The Study of Thermoelectric Properties in n- and p-Type Silicon Nanowire Thermoelectric Devices**
저자: Soojung Kim[1,2], Hyojin Jeon[1,2], Wonchul Choi[1,3], Dongsuk Jun[1], and Moongyu Jang[1,2]
소속: [1]Novel Materials and Devices Research center, Electronics and Telecommunications Research Institute, [2]Department of Advanced Device Technology, University of Science & Technology, [3]Department of Electrical Engineering, KAIST

WL3-J-3 **16:35-16:50** **수직자기이방성을 갖는 MgO/Co/Pd 구조에서 열처리를 통한 계면 구조 변화가 스핀-궤도 결합에 미치는 영향**
저자: 김민석, 김상훈, 홍종일
소속: 연세대학교 공과대학 신소재공학과

WL3-J-4 **16:50-17:05** **Influence of Ni and Cu Contaminants in the Colloidal Silica Slurry for Efficient Silicon Wafer Polishing**
저자: Eun-Bin Seo, Hao Cui, Jin-Hyung Park, and Jea-Gun Park
소속: Advanced Semiconductor Materials and Devices Development Center Department of Electronic Engineering, Hanyang University

R. Semiconductor Software 분과

[WC4-R] Software Technique for NAND Flash Based Storage

Date	Feb. 26, 2014 (Wed.)
Place	Room C / 제1공학관 401호 (# 401, Engineering Building I)

Session Chair: 백승제 교수(단국대학교), 김태석 교수(광운대학교)

WC4-R-1 **17:15-17:30** **Clone-Resistant Identity for Non-Volatile Self-Reconfiguring SoC Units**
저자: W. Adi and S. Zeitouni
소속: University of Braunschweig

WC4-R-2 **17:30-17:45** **Reverse Engineering Essential SSD Characteristics**
저자: Seongjin Lee and Youjip Won
소속: Department of Electronics and Computer Engineering, Hanyang University

WC4-R-3 **17:45-18:00** **Effect of Flash-Based SSD in Virtualized Hadoop**
저자: Sangkyu Park, Jae-Ki Hong, Sungyong Ahn, Jongwon Yi, and Wooseok Chang
소속: DS Software R&D Center,Samsung Electronics Co., Ltd.

WC4-R-4 **18:00-18:15** **SSD를 위한 트랜잭션 기반 펌웨어 구현**
저자: 정영진, 김종화, 최종무
소속: Department of Computer Science, Dankook University

Q. Metrology, Inspection, and Yield Enhancement 분과

[WD4-Q] Metrology and Inspection

Date	Feb. 26, 2014 (Wed.)
Place	Room D / 제1공학관 402호 (# 402, Engineering Building I)

Session Chair: 유형원 수석(SK hynix), 김호섭 교수(선문대학교)

WD4-Q-1 **17:15-17:45**

WD4-Q-2 **17:45-18:00** **Wafer Defect Inspection by Multi-Level Thresholding of SEM Images**
저자: Sunghyon Kim[1], Minwoo Kim[2], and Ilseok Oh[1,2]
소속: [1]Department of Nano Technology, Chonbuk National University, [2]Department of Computer Engineering Graduate School, Chonbuk National University

WD4-Q-3 **18:00-18:15** **저전압 TEM 측정을 이용한 그래핀 형상 및 결정립 관찰**
저자: 조영지[1,3], 양준모[1], Do Van Lam[2], 이승모[2], 김재현[2], 박윤창[1], 장지호[3]
소속: [1]나노종합기술원, [2]한국기계연구원, [3]한국해양대학교 응용과학과

WD4-Q-4 **18:15-18:30** **Accelerating Defect Inspection Technology by Next-Generation Inspection Platforms**
저자: Jeongho Ahn, Shijin Seong, Hyungseop Kim, Dong-Ryul Lee, Heewon Sunwoo, Dong-chul Ihm, and Soobok Chin
소속: Process Development Team, Semiconductor R&D Center, Samsung Electronics Co., Ltd.

L. Analog Design 분과

[WF4-L] 아날로그 및 혼성 신호 회로 설계 2

Date	Feb. 26, 2014 (Wed.)
Place	Room F / 제1공학관 404호 (# 404, Engineering Building I)

Session Chair: 안길초 교수(서강대학교), 백광현 교수(중앙대학교)

WF4-L-1 **17:15-17:30** **A Robust DC-DC Converter Protection Scheme for Enhanced PMIC Reliability**
저자: Yoo-Jun Jeong, Sang-Ik Cho, Hyoung-Seok Oh, and Byeong-Ha Park
소속: Power Device Development Team, System LSI Division, Samsung Electronics Co., Ltd.

WF4-L-2 **17:30-17:45** **A Digitally-Controlled, Glitch-Free, 5-GHz Phase Interpolator**
저자: Chang Soo Yoon, Woorham Bae, and Deog-Kyoon Jeong
소속: Chang Soo Yoon, Woorham Bae, and Deog-Kyoon Jeong

WF4-L-3 **17:45-18:00** **저전력 대 출력 신호 스위치드 캐패시터 앰프 설계**
저자: 이현의[1], 최정환[1], Masaya Miyahara[2], and Akira Matsuzawa[2]
소속: [1]삼성전자 메모리사업부, [2]동경공업대학교 이공학연구과

WF4-L-4 **18:00-18:15** **A SUC-Based 10 bit 1 GS/s Current Steering DAC in 0.042 mm^2**
저자: 김시내, 김미란, 류승탁
소속: KAIST, 전기 및 전자공학과

WF4-L-5 **18:15-18:30** **A Single-Inductor Multiple-Output (SIMO) DC-DC Converter with Wide Operation Voltage Range for Mobile Devices**
저자: Whan-Seok Seo, Hyun-A Ahn, Young-Ho Jung, Ki-Soo Nam, Jae-Hyung Jung, Seong-Kwan Hong, and Oh-Kyong Kwon
소속: Department of Electronic Engineering, Hanyang University

N. VLSI CAD 분과

[WJ4-N] Simulation & Testing

Date	Feb. 26, 2014 (Wed.)
Place	Room J / 제1공학관 501호 (# 501, Engineering Building I)

Session Chair: 김윤진 교수(숙명여자대학교), 이종은 교수(UNIST)

WJ4-N-1 **17:15-17:30** **HetNoC3D: A User Friendly Simulation Framework for Homogeneous and Heterogeneous 3D NoC Architectures**
저자: Michael Opoku Agyeman and Ali Ahmadinia
소속: School of Engineering and Built Environment, Glasgow Caledonian University

WJ4-N-2 **17:30-17:45** **Database 성능 평가를 위한 SQLite Trace 추출 환경**
저자: 이성광, 유승주, 이승구
소속: Department of Electronic Engineering, Pohang University of Science and Technology

WJ4-N-3 **17:45-18:00** **Module Regrouping for Minimizing Wrapper Cells in SoC Testing**
저자: 김상민[1], 홍정민[1], 신영수[1], 배상민[2],
소속: [1]KAIST, 전기및전자공학과, [2]LG전자

WJ4-N-4 **18:00-18:15** **Accurate Frequency Spectrum Analysis of Event-Driven Simulation Results of Analog/Mixed-Signal Circuits**
저자: Junsuk Kim, Ji-Eun Jang, and Jaeha Kim
소속: Department of Electrical and Computer Engineering, Seoul National University

K. Memory (Design & Process Technology) 분과

[WK4-K] ReRAM Selectors, PCRAM Model, and DRAM Macro

Date	Feb. 26, 2014 (Wed.)
Place	Room K / 제1공학관 502호 (# 502, Engineering Building I)

Session Chair: 김택승 박사(SK hynix), 조우영 박사(삼성전자)

WK4-K-1 **17:15-17:30** **Highly Uniform, Electroforming-Free, and Self-Rectifying Resistive Memory in Pt/Ta_2O_5/HfO_{2-x}/TiN Structure**
저자: Jung Ho Yoon, Seul Ji Song, Il-Hyuk Yoo, Jun Yeong Seok, Kyung Jean Yoon, Tae Eun Kwon, Tae Hyung Park, and Cheol Seong Hwang
소속: Seoul National University

WK4-K-2 **17:30-17:45** **S-doped TiO_2 as a Selection Diode for ReRAM**
저자: Dae Eun Kwon[1], Jong Ho Lee[2], Jung Ho Yoon[1], Seul Ji Song[1], Kyung Jean Yoon[1], Tae Hyung Park[1], Tae Joo Park[3], and Cheol Seong Hwang[1]
소속: [1]Department of Materials Science and Engineering, Seoul National University, [2]Department of Materials Science and Engineering, University of Pennsylvania, [3]Department of Materials Engineering, Hanyang University

WK4-K-3 **17:45-18:00** **Metal-Insulator-Transition in Nano Scale $SmNiO_3$ for Selector Application with BEOL Compatibility**
저자: Saiful Haque Misha, Nusrat Tamanna, Euijun Cha, Daeseok Lee, Amit Prakash, Jiyong Woo, Jeonghwan Song, and Hyunsang Hwang
소속: Department of Materials Science and Engineering, Pohang University of Science and Technology

WK4-K-4 **18:00-18:15** **Modeling of Crystalline Morphology in Mixed-Phase $Ge_2Sb_2Te_5$ from Electrical Characterization**
저자: Sanghyeon Lee, Gwihyun Kim, Seungwoo Hong, and Seung Jae Baik
소속: Department of Electrical, Electronic and Control Engineering, Hankyong National University

WK4-K-5 **18:15-18:30** **A 1.2-V 2T Embedded DRAM Macro in Generic Logic CMOS Technology**
저자: Weijie Cheng, Baolong Zhou, Huarong Zheng, and Yeonbae Chung
소속: School of Electronics Engineering, Kyungpook National University

[TP1] Poster 1

Date	Feb. 25, 2014 (Tue.)
Place	Room I / 제1공학관 408호 (# 408, Engineering Building I)

TP1-1 **Intercalation of CVD Graphene for interconnects**
저자: 최동철, 박재현, 김혜지, 이원준, 정종완
소속: 세종대학교 나노신소재공학과

TP1-2 **Development of Post-CMP Cleaning Solution for Interconnect Application**
저자: Young-Gil Seo[1], Byoung-Jun Cho[2], Manivannan Ramachandran[1], and Jin-Goo Park[1,2]
소속: [1]Department of Materials Engineering, Hanyang University, [2]Department of Bio-Nano Technology, Hanyang University

TP1-3 **Performance Enhancement for Ag Nanowire-Based Transparent Conductor using TiO_2:Cs Sol-Gel**
저자: Sunho Kim[1], Sekwon Na[1], Jun-gu Kang[1], Haekyoung Kim[2], and Hoo-Jeong Lee[1]
소속: [1]School of Advanced Materials Science and Engineering, SungKyunKwan University, [2]School of Materials Science and Engineeting, Yeungnam University

TP1-4 **Chemical Vapor Deposition of Molybdenum Thin Film for Copper Interconnect**
저자: Jae-Min Park[1], Clement Lansalot-Matras[2], and Won-Jun Lee[1]
소속: [1]Faculty of Nanotechnology and Advanced Materials Engineering, Sejong University, [2]Air Liquide Laboratories Korea

TP1-5 **Atomic Layer Deposition of Highly Conformal and Amorphous W-Si-N Thin Films using a Novel Metallorganic Precursor and Application to a Diffusion Barrier for Advanced Cu Interconnects**
저자: Jae-Hun Jung[1], Taek Mo Jung[2], Chang Gyun Kim[2], So Jeong Yeo[2], Taehoon Cheon[1,3], Sang-Kyung Choi[4], and Soo-Hyun Kim[1]
소속: [1] School of Materials Science and Engineering, Yeungnam University, [2]Advanced Materials Division, Korea Research Institute of Chemical Technology, [3]Center for Core Research Facilities, Deagu Gyeongbuk Institute of Science & Technology, [4]Center for Research Facilities, Chungnam National University

TP1-6 **Enhancement of Thermal Stability of Ytterbium Silicide by Alloying with Molybdenum**
저자: Jun-Gu Kang, Sekwon Na, Juyun Choi, Hyungsub Kim, and Hoo-Jeong Lee
소속: School of Advanced Materials Science and Engineering, Sungkyunkwan University

TP1-7 **Cu Electroless Deposition on the Ta Substrate Through Pd Activation Assisted by Ultrasound**
저자: Kanghoon Kim[1], Taeho Lim[2], Kwang Hwan Kim[2], Hyunjoon Lee[1], Jae Jeong Kim[2], and Oh Joong Kwon[1]
소속: [1]Department of Energy and Chemical Engineering, Incheon National University, [2]School of Chemical and Biological Engineering, Seoul National University

[TP1] Poster 1

Date	Feb. 25, 2014 (Tue.)
Place	Room I / 제1공학관 408호 (# 408, Engineering Building I)

TP1-8 **Effect of Complexing Agents on Internal Stress and Electrical Resistivity of Electroless Copper Layer**
저자: Chang-myeon Lee, Jun-Mi Jeon, and Hong-kee Lee
소속: Incheon Regional Division, Korea Institute of Industrial Technology

TP1-9 **A Study on the Improvement of Adhesion for the Direct Electroless Copper Plating**
저자: Jin-Young Hur, Chang-Myeon Lee, Ho-Nyun Lee, and Hong-Kee Lee
소속: Heat Treatment & Plating Technology Center, Korea Institute of Industrial Technology

TP1-10 **Verilog-A를 이용한 STT-MRAM 셀의 매크로 모델링**
저자: 김경민, 유창식
소속: 한양대학교 전자컴퓨터통신공학과

TP1-11 **Study on Physical Mechanism on the Positive Bias Stress-Induced Degradation of Amorphous InGaZnO Thin-Film Transistors with Density-of-States Based Characterization**
저자: Chunhyung Jo, Hyeongjung Kim, Sungwoo Jun, Dong Jae Shin, Kyung Min Lee, Jaeman Jang, Jaewook Lee, Juntae Jang, Sungju Choi, Sung-Jin Choi, Dong Myong Kim, and Dae Hwan Kim
소속: School of Electrical Engineering, Kookmin University

TP1-12 **Degradation and Breakdown of MgO Magnetic Tunnel Junction**
저자: Jungmin Lee, Chulmin Choi, Kyuhyun Gil, and Yunheub Song
소속: Department of Electronic Engineering, Hanyang University

TP1-13 **Substrate Doping Concentration Dependence of Electron Mobility Enhancement in Uniaxial Strained (110)/<110> nMOSFETs**
저자: Wookyung Sun, Sujin Choi, and Hyungsoon Shin
소속: Department of Electronics Engineering, Ewha Womans University

TP1-14 **Influence of the Poly-Si/SiO_2 Interface Traps on the Program/Erase Characteristics of 3D SONOS NAND Flash Memories**
저자: Jeongsu Lee[1], Seonjun Choi[2], and Seung-Beck Lee[1,2,3]
소속: [1]Department of Nanoscale Semiconductor Engineering, Hanyang University, [2]Department of Electronic Engineering, Hanyang University, [3]Institute of Nano Science and Technology, Hanyang University

TP1-15 **Electrical Characteristic Variations of FinFETs Dependent on the Fin Shape**
저자: Ju Tae Ryu and Tae Whan Kim
소속: Department of Electronics and Computer Engineering, Hanyang University

TP1-16 **Demonstration of Neuron Spike Model using Memristive MTJ Element**
저자: Sungmin Hwang, Dong Ik Suh, Junwoo Lee, and Wanjun Park
소속: Department of Electronic Engineering, Hanyang University

[TP1] Poster 1

Date	Feb. 25, 2014 (Tue.)
Place	Room I / 제1공학관 408호 (# 408, Engineering Building I)

TP1-17 **Device Design of Short Channel Tunneling Field-Effect Transistor for Low Standby Power Application**
저자: Hye Rim Eun[1], Young Jun Yoon[1], Jae Hwa Seo[1], Hee-Sung Kang[1], Eou-Sik Cho[2], Seongjae Cho[2], Jung-Hee Lee[1], and In Man Kang[1]
소속: [1]School of Electronics Engineering, Kyungpook National University, [2]Department of Electronics Engineering, Gachon University

TP1-18 **Simulation of the Installation Process of Solid-State Drives to Improve Their Mechanical Reliability**
저자: Jinwoo Jang, Yusuf Cinar, Juyub Lee, and Gunhee Jang
소속: Department of Mechanical Engineering, Hanyang University

TP1-19 **Theoretical Study on Organic Light Emitting Diodes with Micro-Cavity Structure**
저자: Young-Wook Hwang, Hyeon-Gi Lee, and Tae-Young Won
소속: Department of Electrical Engineering, Inha University

TP1-20 **The Enlargement of Process Window by using Source Optimization**
저자: Du Hyun Beak, Jin Phil Choi, Tony Park, Young Seog Kang, and Hun Hwan Ha
소속: Samsung Electronics Co., Ltd.

TP1-21 **Computational Study on Behaviors of Carrier in OLED Devices with Thin CuPc Layer**
저자: Hyeongi Lee, Youngwook Hwang, and Taeyoung Won
소속: Department of Electrical Engineering, Inha University

TP1-22 **Constant Current Stress-Induced Instability of the Top-Gate IZO TFTs for AMOLED Displays**
저자: Sungju Choi, Jaeman Jang, Hyeongjung Kim, Juntae Jang, Jaewook Lee, Chunhyung Jo, Sungwoo Jun, Kyung Min Lee, Dong Jae Shin, Sung-Jin Choi, Dong Myong Kim, and Dae Hwan Kim
소속: School of Electrical Engineering, Kookmin University

TP1-23 **다층 PCB 휨 거동 예측을 위한 패턴 모델링 및 해석기법 개발**
저자: 김도형[1], 주성준[1], 이준희[2], 곽동옥[2], 김학성[1,3]
소속: [1]Department of Mechanical Engineering, Hanyang University, [2]Memory Division, Samsung Electronics Co., Ltd. [3]Institute of Nano Science and Technology, Hanyang University

TP1-24 **Design and Analysis of Gate-Recessed Double Heterojunction AlGaN/GaN Field-Effect Transistor**
저자: Hye Su Kang[1], Jae Hwa Seo[1], Young Jun Yoon[1], Hwan Gi Lee[1], Gwan Min Yoo[1], Young Jae Kim[1], Sung Yoon Kim[1], Sung Yun Woo[1], Hee Bum Roh[1], Hye Rim Eun[1], Seongjae Cho[2], Jung-Hee Lee[1], and In Man Kang[1]
소속: [1]School of Electronics Engineering, Kyungpook National University, [2]Department of Electronics Engineering, Gachon University

[TP1] Poster 1

Date	Feb. 25, 2014 (Tue.)
Place	Room I / 제1공학관 408호 (# 408, Engineering Building I)

TP1-26 **Pixel Circuit with a-IGZO TFT for AMOLED**
저자: Jae-Pyo Lee[1], Kyeong-Min Yu[1], Jin Nyoung Jang[2], MoonPyo Hong[2], and Byung Seong Bae[1]
소속: [1]Department of Display Engineering, Hoseo University, [2]Department of Display and Semiconductor Physics, Korea University

TP1-27 **Effect of Gate/Drain Voltage Configuration on Electrical Degradation of the Bottom-Gate In-Ga-Zn-O Thin-Film Transistors Driving AMOLED Displays**
저자: Hyeongjung Kim, Jaeman Jang, Jaewook Lee, Chunhyung Jo, Sungwoo Jun, Kyung Min Lee, Dong Jae Shin, Juntae Jang, Sungju Choi, Sung-Jin Choi, Dong Myung Kim, and Dae Hwan Kim
소속: School of Electrical Engineering, Kookmin University

TP1-28 **A Two-Step Set Operation for Reliability of ReRAM with Triple-Layer ReRAM**
저자: Sangheon Lee, Daeseok Lee, Jiyong Woo, Euijun Cha, and Hyunsang Hwang
소속: Department of Materials Science and Engineering, Pohang University of Science and Technology

TP1-29 **Investigation of the Deposition of Sb-Te Phase Change Film Inside the Trench Structure by the Screen Remote Plasma-Enhanced Atomic Vapor Deposition**
저자: Jin Hwan Jeong, Su Bin An, and Doo Jin Choi
소속: Department of Material Science and Engineering, Yonsei University

TP1-30 **Bipolar Resistive Switching of $Ge_2Sb_2Te_5$ and $Ge_2Sb_2Te_7$ Thin Films without Involving Obvious Phase Change**
저자: Sijung Yoo, Taeyong Eom, Taehong Gwon, and Cheol Seong Hwang
소속: Department of Materials Science and Engineering, Seoul National University

TP1-31 **Improvement of Unipolar Resistive Switching Characteristics in Al/$Ge_{0.5}Se_{0.5}$/Pt Structure by using Ag Nanocrystals**
저자: Jang-Han Kim, Ki-Hyun Nam, Won-Ju Cho, and Hong-Bay Chung
소속: Department of Electronic Materials Engineering, Kwangwoon University

TP1-32 **Fabrication of Solution Processed Al-Doped HfO_x ReRAM**
저자: Jung-Hoon Park, Jang-Han Kim, and Won-ju Cho
소속: Department of Electronic Materials Engineering, Kwangwoon University

TP1-33 **Characteristics of Resistive Switching Depending on Localized Conducting Filaments**
저자: Yeon Soo Kim, Sangik Lee, Jihoon Jeon, Chansoo Yoon, Taejun Oh, Keundong Lee, YoonSeung Nam, and Bae Ho Park
소속: Department of Physics, Konkuk University

[TP1] Poster 1

Date	Feb. 25, 2014 (Tue.)
Place	Room I / 제1공학관 408호 (# 408, Engineering Building I)

TP1-34 **Switchable Schottky Diode and Resistive Switching Characteristics in Mn-Doped ZnO Thin Films**
저자: YoonSeung Nam, ChanSoo Yoon, JiHoon Jun, SangIk Lee, KeunDong Lee, TaeJoon Oh, GwangTaek Oh, and Bae Ho Park
소속: Department of Division of Quantum Phases and Devices, Konkuk University

TP1-35 **Effect of Non-Lattice Oxygen Concentration on Non-Linear Resistive Switching Characteristic of HfO_2 Films**
저자: Jonggi Kim, Yongjae Kim, Kyumin Lee, and Hyunchul Sohn
소속: Department of Materials Science & Engineering, Yonsei University

TP1-36 **Non-Linear Resistive Switching Characteristic Based on ZnSe Selector for Eliminating Sneak Current in Cross-Bar ReRAM Device**
저자: Youngjae Kim, Jonggi Kim, Yoonki Min, and Hyunchul Sohn
소속: Department of Materials Science & Engineering, Yonsei University

TP1-37 **Influence of Trap States on Transport and Photoresponse of Resistive Switching Pt/Nb:STO Schottky Junctions**
저자: Yoonjung Kim, Haeri Kim, and Dong-Wook Kim
소속: Department of Physics, Ewha Womans University

TP1-38 **Non-Lattice Oxygen Ion Driven Negative Differential Resistance Behavior for the Future ReRAM Applications**
저자: Yoon Cheol Bae[1], Ah Rahm Lee[1], Gwang Ho Baek[1], Je Bock Chung[1], Won Bae Koo[2], and Jin Pyo Hong[2]
소속: [1]Division of Nano-Scale Semiconductor Engineering, Hanyang University, [2]Department of Physics, Hanyang University

TP1-39 **TiO_xN_y Electrode Interface-Driven Dual-Resistive Switching Behaviors of Pt/Ta_2O_{5-x}/TiO_xN_y Cell for the Future ReRAM Applications**
저자: Ah Rahm Lee[1], Yoon Cheol Bae[1], Gwang Ho Baek[1], Je Bock Chung[1], and Jin Pyo Hong[1,2]
소속: [1]Division of Nano-Scale Semiconductor Engineering, Hanyang University, [2]Department of Physics, Hanyang University

TP1-40 **Area-Efficient, Power-Efficient Program Voltage Generator for 3D Solid State Drive with NAND Flash Memories**
저자: Youngil Kim[1], Sungwook Choi[2], and Sangsun Lee[1]
소속: [1]Department of Nanoscale Semiconductor Engineering, Hanyang University, [2]Flash Development Division, SK hynix Inc.

TP1-41 **Selective Etching of MTJ Materials using CO/NH3 Gas Mixture in Pulse-biased Inductively Coupled Plasmas**
저자: Minhwan Jeon and Geunyoung Yeom
소속: Sungkyunkwan University Advanced Institute of Nano Technology, Sungkyunkwan University

[TP1] Poster 1

Date	Feb. 25, 2014 (Tue.)
Place	Room I / 제1공학관 408호 (# 408, Engineering Building I)

TP1-42 **The Study of Scalable Three-Dimensional NAND Flash Structure using Edge Fringing Field**
저자: Hyungjun Yang, Gaehun Lee, and Yunheub Song
소속: Department of Electronic Engineering, Hanyang University

TP1-43 **Current-Induced Synchronized Switching of Magnetization**
저자: Soo-Man Seo[1], Jung-Hwan Moon[1], Seung-Jae Lee[1], and Kyung-Jin Lee[1,2]
소속: [1]Department of materials science and engineering, Korea University, [2]KU-KIST Graduate school of converging science and technology, Korea University

TP1-44 **Ge 기판의 S 처리를 이용한 Charge –Trapping Type 소자의 메모리 특성 연구**
저자: Myungwan Lee, Yong Chan Jung, Sejong Seong, In-Sung Park, and Jinho Ahn
소속: Department of Materials Science and Engineering, Hanyang University

TP1-45 **Improved Reliability of RRAM by Optimizing Pulse Shape to Minimize Current Overshoot**
저자: Jeonghwan Song, Daeseok Lee, Jiyong Woo, and Hyunsang Hwang
소속: Department of Materials Science and Engineering, Pohang University of Science and Technology

TP1-46 **Real-Time PRBS Chaser**
저자: Seok-Min Ye and Deog Kyoon Jeong
소속: Department of Electrical and Computer Engineering, Seoul National University

TP1-52 **High-Accuracy Differential Voltage Amplifier Operating At Wide DC Input Voltage**
저자: Tae-Ho Kim, Jae-Mun Oh, Jong-Hyun Yoon, Jin-Won Mok, Jong-Ho Park, Jae-Hyun Shim, Seong-Yong Kim, and Byung-Do Yang
소속: Graduated School of Semiconductor Engineering, Chungbuk University

TP1-53 **Circuit for Preventing Negative Oscillation of Power-Switch with Wide DC Input Voltage**
저자: Seong-Yong Kim, Jae-Mun Oh, Jong-Hyun Yoon, Jin-Won Mok, Jong-Ho Park, Jae-Hyun Shim, Tae-ho Kim, and Byung-Do Yang
소속: Graduated School of Semiconductor Engineering, Chungbuk University

TP1-54 **Dual-Mode CMOS Image Sensors for Depth Acquisition and Motion Detection**
저자: Kwang-Hyun Lee[1], Yibing M. Wang[2], Hongyu Wang[2], Seunghoon Lee[1], Dong-Ki Min[1], Seokyong Hong[1], Sung-Jae Byun[1], Hyunil Byun[1], Jungbin Yun[1], Deokha Shin[1], Yohwan Noh[1], Wanghyun Kim[1], Ilia Ovsiannikov[2], and Taechan Kim[1]
소속: [1]Image Development Team, System LSI, Samsung Electronics Co., Ltd. [2]Samsung Semiconductor, Inc.

TP1-55 **A Replica-Driving Technique for High Performance SC Circuits**
저자: Chang-kyo Lee[1], Wan Kim[2], Hyun-wook Kang[2], Jung-hwan Choi[1], and Seung-Tak Ryu[2]
소속: [1]Memory Division, Samsung Electronics Co., Ltd., [2]Department of Electrical Engineering, KAIST

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TP1-56 **A High Gain and Small Size Comparator Array for Laser Radar Receiver**
저자: Jongsun An[1,2], Joo-Young Choi[2], Bongki Mheen[2], and Choul-Young Kim[1]
소속: [1]Department of Electronics, Chungnam National University, [2]Eletronics and Telecommunications Research Insitute

TP1-57 **A 16-Channel CMOS Transimpedance Amplifier Array for PSL Systems**
저자: Xiao Ying, Hanbyul Choi, Seung-Hoon Kim, and Sung Min Park
소속: Department of Electronics Engineering, Ewha Womans University

TP1-58 **LED구동 회로용 온도 히스테리시스를 갖고 있는 고온 탐지기 회로**
저자: 김영기, 황재연
소속: 안양대학교 정보통신공학과 대학원

TP1-59 **Cu_2Te as Back Contact Layer in CdS/CdTe Solar Cell**
저자: ShinHaeng Cho, SangSu Kim, MinHyuk Park, and JinKi Hong
소속: Department of Applied Physics, Korea University

TP1-60 **Photovoltaic and Electrical Characterization of Cu(In,Ga)Se_2 Thin Film Solar Cells**
저자: Ji Eun Kim, Yunae Cho, and Dong-Wook Kim
소속: Department of Physics, Ewha Womans University

TP1-61 **Flat and Thin Heat Dissipation Method for High Power Device**
저자: Seok-Hwan Moon[1], Kyu-Ho Lee[1], Soo-Hyun Hong[1], Sang-Choon Ko[1], Chi-Hoon Jun[1], Jae-Kyoung Mun[1], and Hyung-Man Lee[2]
소속: [1]GaN Power Device Research Department, Electronics and Telecommunications Research Institute, [2]Korea Electronics Technology Institute

TP1-62 **Photo-Thermal Current in $SrRuO_3$ Thin Film Device**
저자: Ji Ho Sung, Jin Hong Lee, and Moon-Ho Jo
소속: Advanced Materials Science, Pohang University of Science and Technology

TP1-63 **Estimating Electrical and Optical Properties of 1D Metal Grid Transparent Electrode on SiO_2 Substrate**
저자: Kilbock Lee and Jinho Ahn
소속: Department of Material Science & Engineering, Hanyang University

TP1-64 **Characterization of Degradation in Cu(In,Ga)Se_2 Photovoltaic Modules under Accelerated Damp Heat**
저자: Dong-Won Lee[1,2], Yong-Nam Kim[2], Chi-Hong Park[3], Kyung-Eun Park[3], and Won-Ju Cho[1]
소속: [1]Department of Electronic Materials Engineering, Kwangwoon University, [2]Material Testing Center, Korea Testing Laboratory, [3]Solar Cell Laboratory, LG Innotek Co., Ltd.

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Date	Feb. 25, 2014 (Tue.)
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TP1-65 **Changes in the Characteristics of Cu(In,Ga)Se_2 Photovoltaic Modules under Various Accelerated Environmental Tests**
저자: Dong-Won Lee[1,2], Yong-Nam Kim[2], Chi-Hong Park[3], Kyung-Eun Park[3], and Won-Ju Cho[1]
소속: [1]Department of Electronic Materials Engineering, Kwangwoon University, [2]Material Testing Center, Korea Testing Laboratory, [3]Solar Cell Laboratory, LG Innotek Co., Ltd.

TP1-66 **Ga-Doped ZnO Nanorods using an Aqueous Solution Method for a Piezoelectric Nanogenerator**
저자: Su-HyunYoon and Sang-Woo Kim
소속: School of Advanced Materials Science and Engineering, Sungkyunkwan University

TP1-67 **High-Performance of P-Type Polymer Hybridized ZnO Thin Film Piezoelectric Nanogenerator**
저자: Sung-Soo Kwak[1], Keun Young Lee[1], and Sang-Woo Kim[1,2]
소속: [1]School of Advanced Materials Science and Engineering, Sungkyunkwan University, [2]School of Advanced Materials Science and Engineering, Sungkyunkwan University Advanced Institute of Nanotechnology

TP1-68 **Two-Dimensional Vanadium-Doped ZnO Nanosheet-Based Flexible Direct Current Nanogenerator**
저자: Tae Yun Kim, Manoj K Gupta, and Sang-Woo Kim
소속: Advanced Institute of Nanotechnology, Sungkyunkwan University

TP1-69 **Stretchable Piezoelectric-Pyroelectric Hybrid Energy Harvester Based on P(VDF-TrFE)**
저자: HongJoon Yoon[1] and SangWoo Kim[1, 2]
소속: [1]School of Advanced Materials Science and Engineering, Sungkyunkwan University, [2]School of Advanced Materials Science and Engineering, Sungkyunkwan University Advanced Institute of Nanotechnology

TP1-70 **Microstructure and Electrical Property of Si/Carbon Fiber Hybrid Structure**
저자: Eulyong Chae, Heedo Na, and Hyunchul Sohn
소속: Department of Materials Science and Engineering, Yonsei University

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Date	Feb. 26, 2014 (Wed.)
Place	Room I / 제1공학관 408호 (# 408, Engineering Building I)

WP1-1 **C/H Pattern 의 Photon Shot Noise Effect 정량화를 위한 Stochastic Simulation**
저자: 김정식[1], 이재욱[2], 홍성철[2], 이승민[2], 정시준[3], 안진호[1,2,3]
소속: [1]한양대학교 나노반도체공학과, [2]한양대학교 신소재공학과, [3]한양대학교 나노융합과학과

WP1-2 **The Suggestion of Half-Tone Phase-Shift Mask for High-NA EUVL**
저자: Seongchul Hong[1], Seejun Jeong[2], Jae Uk Lee[1], Seung Min Lee[1], Jung Sik Kim[3], and Jinho Ahn[1,2,3]
소속: [1]Department of Materials Science and Engineering, Hanyang University, [2]Department of Convergence NanoScience, Hanyang University, [3]Department of Nanoscale Semiconductor Engineering, Hanyang University

WP1-3 **Study of Etching Properties of Nickel Absorber for EUV Mask**
저자: Seejun Jeong[1], Seongchul Hong[2], Jae Uk Lee[2], Seung Min Lee[2], Jung Sik Kim[3], and Jinho Ahn[1,2,3]
소속: [1]Department of Convergence NanoScience, Hanyang University, [2]Department of Materials Science and Engineering, Hanyang University, [3]Department of Nanoscale Semiconductor Engineering, Hanyang University

WP1-4 **Electron Beam Lithography on Flexible Polymer Substrates using Metal Discharging Layer**
저자: Joonhyung Cho[1], Hyungyu Lee[1], Eunsuk Choi[1], Soonhyung Hwang[1], Hyunsuk Chun[1], and Seung-Beck Lee[1,2]
소속: [1]Department of Electronic Engineering, Hanyang University, [2] Institute of Nano Science and Technology, Hanyang University

WP1-5 **Comparison of High Density Plasma Etching of MgO Thin Films using Cl_2, CH_3OH and CH_4 Plasmas**
저자: Il Hoon Lee, Su Min Hwang, Adrian Adalberto Garay, Ji Hyun Cho,i and Chee Won Chung
소속: Department of Chemical Engineering, Inha University

WP1-6 **Dry Etching of Magnetic Tunnel Junctions Stacks using a H_2O/CH_3OH based Inductively Coupled Plasma**
저자: Il Hoon Lee, Adrian Adalberto Garay, Su Min Hwang, Ji Hyun Choi, and Chee Won Chung
소속: Department of Chemical Engineering, Inha University

WP1-8 **Mask Heating량 제어를 통한 Overlay Margin 확보**
저자: 김장선, 최진필, 강영석, 하헌환
소속: Samsung Electronics Co., Ltd.

WP1-9 **Plasma Enhanced Atomic Layer Deposition of Low Temperature Silicon Nitride using Ultra Conformal Silicon Precursors with New Chemical Structure Design**
저자: 장세진, 이상도, 김종현, 김도연, 조성우, 석장현, 이상익, 김명운
소속: ㈜디엔에프

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Date	Feb. 26, 2014 (Wed.)
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WP1-10 **Analytical Investigation on Electrical Properties of Atomic Layer Deposited Amorphous Zinc Tin Oxide Thin Film**
저자: Jun Shik Kim, Un Ki Kim, Eun Suk Hwang, Seung-Jun Lee, and Cheol Seong Hwang
소속: Department of Materials Science and Engineering and Inter-university Semiconductor Research Center, Seoul National University

WP1-11 **Large-Area Fabrication of Vertically Oriented ZnO Hexagonal Nanotube-Rod Hybrids Applying a Two-Step Growth Method**
저자: Sungwoong Kim, Sun Sang Kwon, Won Woo Lee, and Won Il Park
소속: Division of Materials Science and Engineering, Hanyang University

WP1-12 **Structural and Perpendicular Magnetic Anisotropy Features of Novel $[CoO/Pd]_n/[Co/Pd]_m$ Multilayer Matrix for the STT-MRAM Applications**
저자: JaBin Lee, GwangGuk An, SeungMo Yang, JaeHong Kim, and JinPyo Hong
소속: Department of Physics, Hanyang University

WP1-13 **Quality Improvement of Epitaxial Graphene Grown on 4H-SiC Surface by Molybdenum Plate Capping during UHV Annealing**
저자: Han Byul Jin[1], Youngeun Jeon[1], Sungchul Jung[2], Hun Han Yoon[1], Hyun Suk Kang[3], Byung Cheol Lee[3], Jae-Hyeon Ko[4], Hyung-Joon Shin[5], Jung-Woo Yoo[5], Sung Youb Kim[5], Soon-Yong Kwon[5], Daejin Eom[6], and Kibog Park[1,2]
소속: [1]School of Electrical and Computer Engineering, Ulsan National Institute of Science and Technology, [2]Department of Physics, Ulsan National Institute of Science and Technology, [3]Korea Atomic Energy Research Institute, [4]Department of Physics, Hallym University, [5]School of Mechanical and Advanced Materials Engineering, Ulsan National Institute of Science and Technology,[6]Korea Research Institute of Standards and Science

WP1-14 **Role of Oxygen-Doped Ta Spacer on the Enhanced Perpendicular Magnetic Anisotropy Features of CoFeB/MgO Interface for the STT-MRAM Applications.**
저자: SeungMo Yang, JaBin Lee, GwangGuk An, JaeHong Kim, and JinPyo Hong
소속: Department of Physics, Hanyang University

WP1-15 **Investigation of Leakage Current Mechanisms for Different Cap Layer on AlGaN/GaN Schottky Diodes**
저자: Minjun Kim[1], Yoonhyung Kim[1], and Jinsub Park[1,2]
소속: [1]Department of Electronics and computer Engineering, Hanyang University, [2]Department of Electronic Engineering, Hanyang University

WP1-16 **GaN 열분해 특성을 이용한 자립형 GaN 기판 제작에 관한 연구**
저자: 김시내[1], 이현재[2], 김시영[2], 구지은[1], 장지호[1]
소속: [1]한국해양대학교 응용과학과, [2]㈜판크리스탈

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Date	Feb. 26, 2014 (Wed.)
Place	Room I / 제1공학관 408호 (# 408, Engineering Building I)

WP1-17 **Enhancement of Light Extraction by Nanostructure Arrays on GaN-Based Vertical Light-Emitting Diode**
저자: Taejoon Son, Seunghwan Yeon, and Jinsub Park
소속: Department of Electronics & Computer Engineering, Hanyang University

WP1-18 **Polar and Non-Polar Single InGaN/GaN MQW Nanowire LED**
저자: Yong-Ho Ra, San Kang, Hee-Il Yoo, Seung-Kyu Lee, Il-Seok Song, and Cheul-Ro Lee
소속: School of Advanced Materials Engineering, Chonbuk National University

WP1-19 **The Growth of GaSb on Silicon (100) with AlGaSb/GaSb SPS Buffer Layers**
저자: Kyu-Hyoek Yoen[1,2], Eun-Hye Lee[2], Min-Han Bae[2], Jun-Young Kim[2], Hye-Joung Jang[3], and Jin-Dong Song[1,2]
소속: [1]Nano-electronic Engineering, University of Science & Technology, [2]Center for Opto-Electronic Convergence Systems, Korea Institute of Science and Technology, [3]Advanced Analysis Center, Korea Institute of Science and Technology

WP1-20 **Single Nanowire Diode Fabricated by *p-n* Junction GaN Nanowire**
저자: Ji Hyeon Park, Jae Kwan Sim, Yong Hyun Choi, Eun A Cho, Dae Yong Um, and Cheul-Ro Lee
소속: School of Advanced Materials Engineering, Chonbuk National University

WP1-21 **Defects States and Dark Currents in InAs/GaAs Quantum Dot Solar Cell Grown by Molecular Beam Epitaxy**
저자: Kyoung Su Lee[1] , Dong Uk Lee[1] , Eun Kyu Kim[1], and Won Jun Choi[2]
소속: [1]Quantum-Function Research Laboratory and Department of Physics, Hanyang University, [2] Opto-Electronic Convergence System, Korea Institute of Science and Technology

WP1-22 **Optical Characteristics of Indium Tin Oxide Thin Films Co-Evaporated with Magnesium Fluoride**
저자: Gyujin Oh and Eun Kyu Kim
소속: Department of Physics, Hanyang University

WP1-23 **Design and Analysis of Sub-10nm Junctionless Fin-Type Field-Effect Transistors**
저자: Sung Yoon Kim[1], Jae Hwa Seo[1], Gwan Min Yoo[1], Young Jae Kim[1], Hye Rim Eun[1], Hye Su Kang[1], Young-Woo Jo[1], Seongjae Cho[2], Jung-Hee Lee[1], and In Man Kang[1]
소속: [1]School of Electronics Engineering, Kyungpook National University, [2]Department of Electronics Engineering, Gachon University

WP1-24 **GOI Improvement of Novel Buried N-Type Capacitor**
저자: Kyungmin Kim[1,2], Ilseok Han[1], Jeongho Cho[1], Junggoo Park[1], Sewoon Kim[1], Jiyoung Huh[1], Sungyoun Kim[1], InWha Choi[1], Sibum Kim[1], and Hi-Deok Lee[2]
소속: [1]SMS Product Engineering, Magnachip Semiconductor, [2]Department of Electronics Engineering, Chungnam National University

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Date	Feb. 26, 2014 (Wed.)
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WP1-25 **Analysis of 90nm RF CMOS Characteristics by Gate Layout Optimization**
저자: Jong Keun Kim, Bong Woo Han, Hee Kyeong Yang, Myoung Jun Jang, In Wook Cho, and Kyung Dong Yoo
소속: Technology Development in Image Development Group, SK hynix Inc.

WP1-26 **Transfer-Printing the Micro-Structure Devices on Flexible Substrates**
저자: Kyu-Bong Choi and Jong-Ho Lee
소속: Department of ECE and ISRC, Seoul National University

WP1-27 **On-State Resistance Instability of Antifuses during Read Operation**
저자: Jae Hwan Han[1], Hyunjin Lee[2], Wansoo Kim[2], Gyuhan Yoon[1], and Woo Young Choi[1]
소속: [1]Department of Electronic Engineering, Sogang University, [2]SK hynix Inc.

WP1-28 **In-Situ Hafnium Capping Process for 0.6 nm EOT on Ge Wafer**
저자: 정원일[1], 신윤상[1], 이충호[2], 손동균[2], 조병진[1]
소속: [1]KAIST 전기전자공학과, [2]삼성전자 S.LSI사업부

WP1-29 **Voltage Scaling of 3-D Stacked NAND Flash String with Vertical Single-Crystal Si Channel Epitaxially Grown on (100) Si-Substrate**
저자: Wan-Gyu Lee[1], Ho Seong Jeon[1], Seung-Dong Yang[2], Ga-Won Lee[2], and Jeoung Woo Kim[1]
소속: [1]Nano- materials and devices, National NanoFab Center, [2]Department of Electronics Engineering, Chungnam National University

WP1-30 **Characterization of Dielectric Relaxation and Reliability of High-k MIM Capacitor**
저자: Ho-Young Kwak[1], Seung-Yong Sung[1], Hyuk-Min Kwon[1], Sung-Kyu Kwon[1], Jong-Kwan Shin[1], Seong-Yong Jang[1], Sun-Man Hwang[1], Su Lim[2], and Hi-Deok Lee[1]
소속: [1]Department of Electronics Engineering, Chungnam National University, [2]Dongbu HiTek

WP1-31 **An Experimental Verification of a Scaled RC-Dominant Interconnect Line Model for High-Speed Wireline**
저자: Jiwon Kim, Taehee Kim, Byungsub Kim, and Jeong-soo Lee
소속: Department of Electrical Engineering, Pohang University of Technology and Science

WP1-32 **High Performance of Graphene Ion-Sensitive Field-Effect Transistors using a Solution-Processed Al_2O_3 Sensing Membrane**
저자: Tae-Eon Bae[1], Jongwan Jung[2], and Won-Ju Cho[1]
소속: [1]Deparment of Electronic Materials Engineering, Kwangwoon University, [2]Institute of Nano and Advanced Materials Engineering, Sejong University

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Date	Feb. 26, 2014 (Wed.)
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WP1-33 **The Stability of Plug and Play Quantum Cryptography System with Double Phase Modulation Method**
저자: Osung Kwon, Min Ki Woo, Min-Soo Lee, Byung Kwon Park, Il Young Kim, Yong-Su Kim, Sang-Wook Han, and Sung Moon
소속: Center of Nano & Quantum Information Research, Korea Institute of Science and Technology

WP1-34 **Low Voltage Operation of an Electrostatically Driven Peristaltic Pump**
저자: Pyohwan Hong[1], Deaseung Pyo[1], Jonghyun Lee[1], Chanseob Cho[1], and Bonghwan Kim[2]
소속: [1]School of Eletronics Engineering, Kyungpook National University, [2]Department of Electronics Engineering, Catholic University of Daegu

WP1-35 **Effect of Microwave Annealing for Stability Improvement of Amorphous InGaZnO Thin-Film-Transistor Based SnO_2 Extended-Gate Field-Effect-Transistor**
저자: In-Kyu Lee and Won-Ju Cho
소속: Deparment of Electronic Materials Engineering, Kwangwoon University

WP1-36 **The Comparison of Noise Characteristics between Si and Pyrex Substrate in Solid-State Nanopore**
저자: Kyeong Beom Park, Ashvani Kumar, Hyun-Mi Kim, and Ki-Bum Kim
소속: Department of Materials Science and Engineering, Seoul National University

WP1-37 **Impedance Characteristics of GSG Electrodes for RLGC Modeling of Cell-Electrode Interface**
저자: Jongmin Shin and Jong-Ho Lee
소속: Department of ECE and ISRC, Seoul National University

WP1-38 **High Sensitive Ge Resistance Temperature Device by Adding Transition Metals**
저자: Jiyoun Choi, Jeongyong Choi, Sungyoul Choi, Yooleemi Shin, and Sunglae Cho
소속: Department of Physics, University of Ulsan

WP1-39 **An Accurate and Efficient Simulation Technique for FET-Type Biosensors**
저자: Bongsik Choi, Jieun Lee, Dong Myong Kim, Dae Hwan Kim, and Sung-Jin Choi
소속: School of Electrical Engineering, Kookmin University

WP1-40 **Characteristics of Robust Infra-Red Photodiode for Harsh Environments**
저자: Dong-Hwan Jun[1], Won-Kyu Park[1], and Jong-In Song[2]
소속: [1]Korea Advanced Nano-Fab Center, [2]School of Information and Communications, Gwangju Institute of Science and Technology

WP1-41 **The Shear Force Transfer Characteristics Dependent on the Height of Bio-Mimetic Fingerprint Structure for Tactile Sensor**
저자: Hyunsuk Chun[1], Eunsuk Choi[1], Soonhyung Hwang[1], Joonhyung Cho[1], Hyungyu Lee[1], and Seung-Beck Lee[1,2]
소속: [1]Department of Electronic Engineering, Hanyang University, [2]Institute of Nano Science and Technology, Hanyang University

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Date	Feb. 26, 2014 (Wed.)
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WP1-42 **ITO와 금속 격자를 이용한 박막 태양 전지 효율 증대**
저자: 허형준, 김상인
소속: 아주대학교 전자공학부

WP1-43 **Influences of Cylindrical Micro-Patterned Ge Substrates on the Characteristics of the Ge Single-Junction Solar Cells**
저자: Kangho Kim, Youngjo Kim, Nguyen Dinh Lam, and Jaejin Lee
소속: Department of Electrical and Computer Engineering, Ajou University

WP1-44 **Particle Swarm Optimization of Grating Enhanced CIGS Solar Cell**
저자: Tran Quyet Thang, Le Duy Khanh, and Sangin Kim
소속: Department of Electrical and Computer Engineering, Ajou University

WP1-45 **Abnormal Electrical Transport Properties of Ferrocene-Alkanethiolate Molecular Electronic Devices on Rigid and Flexible Substrates**
저자: Hyunhak Jeong, Dongku Kim, Hanki Lee, Wang-Taek Hwang, and Takhee Lee
소속: Department of Physics and Astronomy, Seoul National University

WP1-46 **Multi-Level Non-Volatile Polymer Memory with Solution-Blended High *k* Ferroelectric Polymer Insulators for Low Voltage Operation**
저자: Sun Kak Hwang, Insung Bae, Kang Lib Kang, Richard Hahnkee Kim, and Cheolmin Park
소속: Department of Materials Science and Engineering, Yonsei University

WP1-47 **Optical and Electrochemical Properties of Metallic Nanostructured Materials**
저자: Mi Jung, Chulki Kim, Taikjin Lee, Jae Hun Kim, Seok Lee, and Deokha Woo
소속: Sensor System Research Center, Korea Institute of Science and Technology

WP1-48 **Hybrid Complementary Invertor Based on Organic / 2D Layered MoS2 Thin Film Transistors**
저자: Chulseung Jung, Yeonsung Lee, Junyeon Kwon, Yongbok Lee, and Sunkook Kim
소속: Department of Electronics and Radio Engineering, Kyung Hee University

WP1-49 **Bistable Switching of Self-Assembled Photonic Crystal Devices**
저자: Taejoon Park, Sunkak Hwang, Insung Bae, and Cheolmin Park
소속: Department of Materials Science and Engineering, Yonsei University

WP1-50 **Gas Sensing Properties of Pt Nanoparticles Decorated ZnO-Branched Nanowires**
저자: Hyoun Woo Kim, Yong Jung Kwon, and Hong Yeon Cho
소속: Division of Materials Science and Engineering, Hanyang University

WP1-51 **Graphene Nano-Array Fabrication by Mussel-Inspired Directed Block Copolymer Self-Assembly**
저자: Seokhan Park and Sang Ouk Kim
소속: Department of Materials Science and Engineering, KAIST

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Date	Feb. 26, 2014 (Wed.)
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WP1-52 **Layer-by-Layer Growth of Bi_2Te_3-Sb_2Te_3 on h-BN via Van Der Waals Heteroepitaxy**
저자: Hoseok Heo[1,2], Kibum Kang[1], Inchan Hwang[1,3], and Moon-Ho Jo[1,3]
소속: [1]Center for Artificial Low Dimensional Electronic Systems, Institute for Basic Science, Pohang University of Science and Technology, [2] Division of Advanced Materials Science, Pohang University of Science and Technology, [3]Department of Materials Science and Engineering, Pohang University of Science and Technology

WP1-53 **Electrical and Optical Properties of 2D Layered MoS_2 Thin Film Transistor**
저자: Junyeon Kwon[1], Yeonsung Lee[1], Minjung Kim[1], Hyunsung Moon[1], Woong Choi[2], and Sunkook Kim[1]
소속: [1]Department of Electronics and Radio Engineering, Kyung Hee University, [2]School of Advanced Materials Engineering, Kookmin University

WP1-54 **Ultra-Thin Silicon Nanomembrane for Transparent and Flexible Transistor**
저자: Houk Jang[1,2], Wonho Lee[2], and Jong-hyun Ahn[2]
소속: [1]Sungkyunkwan University Advanced Institute of Nano Technology, Sungkyunkwan University, [2]School of Electrical and Electronic Engineering, Yonsei University

WP1-55 **High Sensitive and Flexible Tactile Sensors with a Driving Circuit for Robotics Application**
저자: Min Hoon Park[1], Houk Jang[1], Han Wook Song[3], Min Seok Kim[3], and Jong-Hyun Ahn[2]
소속: [1]School of Advanced Materials Science and Engineering, Sungkyunkwan University, [2]School of Electrical & Electronic Engineering, Yonsei University, [3]Korea Research Institute of Standards and Science

WP1-56 **Superhydrophobic Structures Fabricated by Texturing and PTFE Coating**
저자: Deaseung Pyo[1], Pyohwan Hong[1], Jonghyun Lee[1], Bonghwan Kim[2], and Chanseob Cho[1]
소속: [1]School of Electronics Engineering, Kyungpook National University, [2]Department of Electronics Engineering, Catholic University of Daegu

WP1-57 **Flexible Non-Volatile Ferroelectric Memory on Metal Wire Substrate**
저자: Richard Hahnkee Kim, Sunkak Hwang, and Cheolmin Park
소속: Department of Materials Science and Engineering, Yonsei University

WP1-58 **Enhancing the Electrical Contacts of MoS_2 Field Effect Transistor via Microwave Assisted Ag Nanoparticle**
저자: Sang Jin Lee, Jong Mok Shin, Jae Sung Kim, and Gyu Tae Kim
소속: School of Electrical Engineering, Korea University

WP1-59 **Transfer of Graphene using Au and PMMA and Its Performance**
저자: Jinwoo Choi, Jaehyun Park, Hyeji Kim, Won-jun Lee, and Jongwan Jung
소속: Department of Nanotechnology and Advanced Materials Engineering, Sejong University

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WP1-60 **Controlled Growth of Ge/$Si_{1-x}Ge_x$ Core/Shell Nanowires**
저자: Byongju Kim, Sun-Wook Kim, Hyunchul Jang, Jeong-Hoon Kim, and Dae-Hong Ko
소속: Department of Materials Science and Engineering, Yonsei University

WP1-61 **Interfacial Charge Density Measurement for Graphene Transistor using Discharge Current Analysis (DCA) Method**
저자: 이재은[1], 정욱진[2], 이병훈[2]
소속: [1]Gwangju Institute of Science and Technology College, [2]School of Materials Science and Engineering, Gwangju Institute of Science and Technology

WP1-62 **High-Index Contrast Grating and Its Applications**
저자: Jun Young Kim[1,2], Kyu Hyoek Yoen[1], Jihoon Kyhm[1], Woon Cho Cho[1], Hang Kyu Kang[1], Soo Seok Kang[1], Young Dong Kim[1,2], and Jin Dong Song[1]
소속: [1]Center for Opto-electronic Convergence, Korea Institute of Science and Technology, [2]Nano-optical Properties Laboratory and department of Physics, Kyung Hee University

WP1-63 **Polishing Characteristics of Supercritical Ceria Abrasive for STI CMP**
저자: Jihoon Seo[1], Jinok Moon[1], Kijung Kim[2], and Ungyu Paik[1,2]
소속: [1]WCU Department of Energy Engineering, Hanyang University, [2]Department of Nanoscale Semiconductor Engineering, Hanyang University

WP1-64 **Printed Indium-Tin-Oxide Films for Various Sensor Applications**
저자: Jieun Koo[1], Youngji Cho[1], Sangtae Lee[2], Jung-Yeul Jung[3], and Jiho Chang[1]
소속: [1]Department of Applied Science, Korea Maritime and Ocean University, [2]Department of Mechatronics Engineering, Korea Maritime and Ocean University, [3]Ocean Science and Technology School, Korea Maritime and Ocean University

WP1-66 **Effect of Surface Morphology on Nano Embossing Ceria for CMP Performance**
저자: Young-Hye Son, Hyun-Min Seung, and Jea-Gun Park
소속: Department of Electronics Computer Engineering, Hanyang University

WP1-67 **Nucleation-Controlled Growth of Monolayer MoS_2 by Vapor Phase Transport**
저자: SooHo Choi and Woochul Yang
소속: Department of Physics, Dongguk University

WP1-68 **High Performance Transparent Flexible and Robust Graphene & h-BN Stacked Micro-Heater**
저자: Tae-ho Kim, Kang Hyuck Lee, and Sang-Woo Kim
소속: School of Advanced Materials Science and Engineering, Sungkyunkwan University

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WP1-69 **Correlation between Structural and Electronic Properties of Grapheme Depending on Substrate Roughness**
저자: Min Baik, DeukGong Yoon, PooReum Choi, SooHo Choi, Shaolin Zhang, and Woochul Yang
소속: Department of Physics, Dongguk University

WP1-70 **기계식 박리법으로 분리된 Multilayer MoS_2의 물리적 및 광학적 특성**
저자: 추동일, 이동욱, 김은규
소속: 한양대학교 물리학과

WP1-71 **Improvement in Photoluminescence of Thin-Film Phosphor using Double-Side Patterning**
저자: Chul-Kyun Park[1], Ki-Kang Kim[1], Ki-Young Ko[2], and Jinho Ahn[1]
소속: [1]Department of Materials Science and Engineering, Hanyang University, [2]Korea Institute of Patent Information

[WP2] Poster 3

Date	Feb. 26, 2014 (Wed.)
Place	Room I / 제1공학관 408호 (# 408, Engineering Building I)

WP2-1 **Influence of Gate Dielectrics on Electrical Characteristics of Solution-Processed ZnO Transistors**
저자: Xue Zhang[1], Jaehoon Park[1], Hyunji Shin[2], Dong Wook Kim[2], Jong Sun Choi[2], Jae Eun Hwang[3], and Hong Doo Kim[3]
소속: [1]Department of Electronic Engineering, Hallym University, [2]Department of Electrical, Information and Control Engineering, Hongik University, [3]Deparment of Display Materials Engineering, Kyung Hee University

WP2-2 **Purge-Time-Induced Changes in Preferred Orientation of Zinc Oxide Thin Films Grown by Atomic Layer Deposition**
저자: Hui Kyung Park and Jaeyeong Heo
소속: Department of Materials Science and Engineering, Chonnam National University

WP2-3 **Flexible Micro-Scale Organic Field Effect Transistors Fabricated Achieved via Orthogonal Photolithography**
저자: Jingon Jang[1], Younggul Song[1], Hyuntaek Oh[2], Daekyoung Yoo[1], Jin-Kyun Lee[2], and Takhee Lee[1]
소속: [1]Department of Physics and Astronomy, Seoul National University, [2]Department of Polymer Science and Engineering, Inha University

WP2-4 **Gate Dielectric Effects on Electrical Characteristics of 6,13-Bis(Triisopropylsilylethynyl)-Pentacene Transistors**
저자: Hyunji Shin[1], Dongwook Kim[1], Jaehoon Park[2], and Jong sun Choi[1]
소속: [1] Department of Electrical, Information and Control Engineering, Hongik University, [2] Department of Electronic Engineering, Hallym University

WP2-5 **Deposition of Thicker Ferroelectric (Hf,Zr)O_2 Thin Films using Al_2O_3 Inter-Layer**
저자: Han Joon Kim, Min Hyuk Park, Yu Jin Kim, Taehwan Moon, and Cheol Seong Hwang
소속: Department of Material Science & Engineering and Inter-university Semiconductor Research Center, Seoul National University

WP2-6 **Improving Conformality of $SrRuO_3$ Film Grown by Combined ALD SrO and CVD RuO_2 or Ru Layers**
저자: Cheol Hyun An, Woojin Jeon, Woongkyu Lee, Yeon Woo Yoo, and Cheol Seong Hwang
소속: Department of Materials Science and Engineering and Inter-university Semiconductor Research Center, Seoul National University

WP2-7 **Microwave-Annealing Effects of Solution-Processed HfO_x Thin Film as a Resistive Switching for ReRAM**
저자: Ki-Hyun Jang, Se-Man Oh, Se-Ho Kim, and Won-Ju Cho
소속: Department of Electronic Materials Engineering, Kwangwoon University

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Date	Feb. 26, 2014 (Wed.)
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WP2-8 **Surface Reaction Chemistry during Atomic Layer Deposition of Sc_2O_3 and Gd_2O_3 from Cp-Based Metal Precursors**
저자: Jeong Hwan Han[1,2]
소속: [1]Advanced Materials Division, Korea Research Institute of Chemical Technology, [2]Imec

WP2-9 **Characterization of Charge Trapping and Current Conduction Mechanism in Hf-Aluminate for 3D-Stacked NAND Flash Memory**
저자: Jinho Oh, Heedo Na, and Hyunchul Sohn
소속: Department of Materials Science and Engineering, Yonsei University

WP2-10 **A Novel Low-Temperature Treatment on Solution-Derived Amorphous InGaZnO Thin-Film Transistor for Flexible Display**
저자: Yeong-Hyeon Hwang, Sung-Wan Moon, Ja-Kyung Gu, and Won-Ju Cho
소속: Department of Electronic Materials Engineering, Kwangwoon University

WP2-11 **The Speed Improvement of In_3SbTe_2 Phase Change Material by Doping Bi Element**
저자: Minho Choi[1], Yong Tae Kim[2], and Jinho Ahn[1]
소속: [1]Department of Materials science and engineering, Hanyang University, [2]Semiconductor Materials and Device Laboratory, Korea Institute of Science and Technology

WP2-12 **High Performance Solution-Processed MoS_2 Field Effect Transistor by Two-Step Annealing**
저자: Juyeon Won, Chul-Kyu Lee, Byeong-Geun Son, Hyo Jin Kim, Soyeon Je, and Jae-Kyeong Jeong
소속: Department of Materials Science and Engineering, Inha University

WP2-13 **Solution Processed CuO_x and Its Transport Characteristics**
저자: Si-Hong Kim, Myung-Ji Kim, Ji-Su Ahn, and Deok-kee Kim
소속: Department of Electrical Engineering, Sejong University

WP2-14 **Improvement in Bias Stability of Amorphous IGZO Thin Film Transistors by High Pressure H_2O_2 Annealing**
저자: Ji Hun Song, Chang-Kyu Lee, Ah Young Hwang, and Jae Kyeong Jeong
소속: Department of Materials Science and Engineering, Inha University

WP2-15 **Soluble-Processed Zr-La-O/SiO_2 Gate Dielectrics at 180℃ for Flexible Metal Oxide Transistors**
저자: Soyeon Je, Byeong-guen Son, Hyojin Kim, Juyeon Won, and Jaekyeong Jeong
소속: Department of Materials Science and Engineering, Inha University

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Date	Feb. 26, 2014 (Wed.)
Place	Room I / 제1공학관 408호 (# 408, Engineering Building I)

WP2-16 **Atomic Layer Deposition of Ruthenium Thin Film from Ru Precursor**
저자: Hyo Jun Jung[1,2], Eun Ae Jung[1], Jeong Hwan Han[1], Bo Keun Park[1], Sun Sook Lee[1], Jin Ha Hwang[2], Chang Gyoun Kim[1], Ki Seok An[1]. and Taek Mo Chung[1]
소속: [1]Advanced Materials Division, Korea Research Institute of Chemical Technology, [2]Department of Materials Science and Engineering, Hongik University

WP2-17 **Anomalous Behavior of Oxygen Gas Ratio-Dependent Field Effect Mobility in In-Zn-Sn-O Thin Film Transistor**
저자: Ah Young Hwang, Chang-Kyu Lee, Ji Hun Song, and Jae Kyeong Jeong
소속: Department of Materials Science and Engineering, Inha University

WP2-18 **Effect of HfO_2 Charge Trap Layer and Al_2O_3 Blocking Layer Thickness on MAHAS Structure Memory Characteristics**
저자: Heedo Na, Jinho Oh, Kyumin Lee, and Hyunchul Sohn
소속: Department of Material Science and Engineering, Yonsei University

WP2-19 **The Effects of Post Annealing on the Schottky Behaviors of Atomic Layer Deposited Ruthenium on the Si Substrate**
저자: Donghwan Lim[1], Moon-Suk Choi[1], Dohyung Kim[1], Youngil Gil[1], Woosuk Jung[1], Seong Chan Heo[2], and Changhwan Choi[1]
소속: [1] Division of Materials Science and Engineering, Hanyang University, [2] SK hynix Inc.

WP2-20 **Top-Gate Oxide Thin-Film Transistors using Solution-Processed Gate Stack of PVP/Al-Zn-Sn-O with an Al_2O_3 Capping Layer for Full-Patterning Process**
저자: Kyeong-Ah Kim, Jun-Yong Bak, and Sung-Min Yoon
소속: Department of Advanced Materials Engineering for Information & Electronics, Kyung Hee University

WP2-21 **Improvements in Bias-Stress Stability Characteristics of Solution-Processed Al-In-Zn-O Thin-Film Transistors with Optimizing the Channel Composition**
저자: Minji Park, Jun-Yong Bak, Jeong-Seon Choi, and Sung-Min Yoon
소속: Department of Advanced Materials Engineering for Information and Electronics, Kyung Hee University

WP2-22 **Thickness and Composition Effects of Al-Doped ZnO Channels Prepared by Atomic Layer Deposition on the Device Behaviors of Oxide Thin-Film Transistors**
저자: Eomji Kim, Jun-Yong Bak, Jeong-Seon Choi, and Sung-Min Yoon
소속: Department of Advanced Materials Engineering for information and Electronics, Kyung Hee University

WP2-23 **Effect of Bottom Gate Insulator Thickness on the Threshold-Voltage Tunability and Stress Stabilities of the Fully-Transparent Double-Gate In-Ga-Zn-O TFTs**
저자: Da-Bin Jeon and Sung-Min Yoon
소속: Department of Advanced Materials Engineering for Information and Electronics, Kyung Hee University

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WP2-24 **Effects of Ferrite Core Loss and Permeability at 400 kHz Ferrite Inductively Coupled Plasma**
저자: Sung-Won Cho[1], June Young Kim[2], and Chin-Wook Chung[1]
소속: [1]Department of Electrical Engineering, Hanyang University, [2]Department of Nanoscale Semiconductor Engineering, Hanyang University

WP2-25 **In-Situ Measurement Method of Dielectric-Film Thickness for Processing Chamber Wall Monitoring**
저자: Jin-Yong Kim and Chin-Wook Chung
소속: Department of Electrical Engineering, Hanyang University

WP2-26 **Comparison of Properties of Poly SiGe Deposited by Disilane and Trisilane**
저자: Hyunchul Jang, Sangmo Koo, Byongju Kim, Sun-Wook Kim, and Dae-Hong Ko
소속: Department of Materials Science and Engineering, Yonsei University

WP2-27 **Bipolar Resistive Switching in Amorphous $SrTiO_3$ Films Grown by Atomic Layer Deposition**
저자: Woongkyu Lee, Kyung Jean Yoon, Woojin Jeon, Yeon Woo Yoo, Cheol Hyun An, and Cheol Seong Hwang
소속: Department of Materials Science and Engineering and Inter-university Semiconductor Research Center, Seoul National University

WP2-28 **Distribution of Plasma Parameters at Wafer Level Measured by 2D Plasma Parameter Diagnostic Method in Inductively Coupled Plasmas**
저자: Young-Cheol Kim[1], and Chin-Wook Chung[1]
소속: [1]Department of Nanoscale Semiconductor Engineering, Hanyang University

WP2-29 **Characteristics of Grain Boundary and Interface Traps in Polysilicon Channel Thin Film Transistors**
저자: Yoonseok Jeon, Musarrat Hasan, Cuong Nguyen Manh, Seung-Won You, Duc-Tai Tong, Dong-Hwi Lee, Jae-Kyung Jeong, and Rino Choi
소속: Inha University

WP2-30 **Stress Induced Leakage Current Characteristic of La-Incorporated HfO_2 Gate Dielectric**
저자: Seung-won You, Musarrat Hasan, Manh Cuong Nguyen, Yoon Seok Jeon, Duc-Tai Tong, Dong-Hwi Lee, Jae Kyoung Jung, and Rino Choi
소속: Department of Materials Science and Engineering, Inha University

WP2-31 **A Study on the Enlargement of the Plasma Reactor using a Global Model**
저자: Dong-Hwan Kim[1], Young-Kwang Lee[2], and Chin-Wook Chung[2]
소속: [1]Department of Nanoscale Semiconductor Engineering, Hanyang University, [2]Department of Electrical Engineering, Hanyang University

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Date	Feb. 26, 2014 (Wed.)
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WP2-32 **Conduction Mechanism of Metal-Oxide-Semiconductor Field Effect Transistor with La – Incorporated Hf Based Dielectric**
저자: Dong-Hwi Lee, Musarrat Hasan, Manh-Cuong Nguyen, Yoon-Seok Jeon, Seung-Won You, Duc-Tai Tong, Jae-Kyoung Jeong, and Rino Choi
소속: School of Materials Science and Engineering, Inha University

WP2-33 **Optimization of GZO/Ag/GZO Multilayer Electrodes Obtained by Pulsed Laser Deposition at Room Temperature**
저자: Eunyoung Cheon, Sang Woo Song, Hwan Sun Kim, Dae Hui Cho, Ji Hun Jang, and Byung Moo Moon
소속: Department of Electrical Engineering, Korea University

WP2-34 **Characteristics of Solution Based Oxide TFT with Solution Heating**
저자: Sang-A Oh[1], Kyeong Min Yu[1], So-Hyun Jeong[1], Eui-Jung Yun[2], and Byung-Seong Bae[1]
소속: [1]Department of Display Engineering, Hoseo University, [2]College of IT Engineering and System Control Engineering, Hoseo University

WP2-35 **A Study of Advanced Al RDL Development**
저자: Koeun Cheon, Yonji Park, Yongkuk Kim, Sungwon Yoon, Sangjae Kim, Minki Son, Junhyun Cho, Pilsoon Bae, Jaesung Oh, Jaemyun Kim, and Kwangyoo Byun
소속: SK hynix Inc.

WP2-36 **Effect of ALD Grown Aluminum Oxide Film on the IGZO TFT**
저자: Heeok Kim[1], Jong-Heon Yang, Sung Haeng Cho, Minki Ryu, Jae-Eun Pi, Jong-woo Kim, Oh Sang Kwon, Eun Suk Park, Chi-Sun Hwang, and Sang-Hee Ko Park
소속: Oxide TFT Research Section, Electronics and Telecommunications Research Institute

WP2-37 **Suppression of Current Collapse Effect by Insertion of Mo on Ni/Au Based Schottky Contacts in AlGaN/GaN HEMT**
저자: Su-Keun Eom, Neung-Hee Lee, and Kwang-Seok Seo
소속: Department of Electrical and Computer Engineering, Seoul National University

WP2-38 **Improvement of Device Characteristic on Solution-Processed InGaZnO Pseudo Metal-Oxide-Semiconductor Field-Effect-Transistor using Microwave Annealing.**
저자: Sung-Wan Moon, Ja-Gyeong Gu, and Won-Ju Cho
소속: Department of Electronic Materials Engineering, Kwangwoon University

WP2-39 **Effect of Baking Temperature on Device Characteristics in TFT Based Solution Processed Amorphous ZnSnO**
저자: Kwang-Won Cho, Young-Hyun Hwang, and Won-Ju Cho
소속: Department of Electrical Material Engineering, Kwangwoon University

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WP2-40 **선택적 리세스 게이트 소자의 공정 및 특성 분석**
저자: 김정진[1,2], 박영락[1], 고상춘[1], 문재경[1], 장우진[1], 장우영[1], 배성범[1], 양전욱[2]
소속: [1]한국전자통신연구원, [2]전북대학교 반도체화학공학부

WP2-41 **Electrical Characteristics and Instability of Solution-Derived An-Zn-Sn-O Thin-Film Transistors**
저자: Yeong-Hyeon Hwang and Won-Ju Cho
소속: Department of Electronic Materials Engineering, Kwangwoon University

WP2-42 **Systematic Analysis of Electrical Traps at Surface, AlGaN Barrier, and GaN Buffer of AlGaN/GaN HFET Device**
저자: Seung Yup Jang[1], Jong-Hoon Shin[1], Myeong-Kyu Eo[2], Hyo-Seung Choi[2], Hyuck-In Kwon[2], and TaeHoon Jang[1]
소속: [1]IGBT part, System IC R&D Laboratory, LG Electronics, [2]School of Electronic and Electrical Engineering, Chung-Ang University

WP2-43 **RF Characteristics of GaN on SiC for Different Device Topology**
저자: Youngrak Park, Woojin Jang, Sangchoon Ko, Jungjin Kim, Wooyoung Jang, Sungbum Bae, Jongwon Lim, Hogyun Ahn, and Jaekyung Mun
소속: GaN Power Electronics Research Section, Electronics and Telecommunications Research Institute

WP2-44 **에피텍셜 방법으로 성장된 In-Situ SiN 의 Surface Trap 감소 효과 연구**
저자: 조성무, 황의진, 김재무, 김준호, 장태훈
소속: LG전자, System IC 연구소 IGBT Part

WP2-45 **Structural Optimization of Field-Plated Normally-off AlGaN/GaN-on-Si MOSHFETs**
저자: Jae-Gil Lee, Bong-Ryeol Park, and Ho-Young Cha
소속: School of Electronic and Electrical Engineering, Hongik University

WP2-46 **Effect of Basal-Plane Stacking Faults on X-Ray Diffraction of Nonpolar *a*-Plane GaN Films**
저자: Ji Hoon Kim[1], Sung-Min Hwang[2], Kwang Hyeon Baik[3], and Jung Ho Park[1]
소속: [1]School of Electrical Engineering, Korea University, [2]Photonics Convergence Research Center, Korea Electronics Technology Institute, [3]Department of Materials Science and Engineering, Hongik University

WP2-47 **Ammonium Polysulfide Passivation for Interface between GaN and Atomic-Layer-Deposited $HfAlO_x$**
저자: Donghwan Lim, Woosuk Jung, and Changhwan Choi
소속: Division of Materials Science & Engineering, Hanyang University

WP2-48 **A Study on Crystalline ZnTe Channel Characteristics for Thin Film Transistor Device**
저자: Yoonki Min, Jonggi Kim, Heedo Na, and Hyunchul Sohn
소속: Department of Materials Science & Engineering, Yonsei University

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WP2-49 **Study of N-contact Hole Number of via Hole Vertical LEDs for Electrical and Optical Properties**
저자: Chi Gyun Song[1], Hyung-Jo Park[2], Tak Jeong[2], Sang Hern Lee[2], and Joon Seop Kwak[1]
소속: [1]Department of Printed Electronics Engineering, Sunchon National University, [2]LED Device Team, Korea Photonics Technology Institute

WP2-50 **Growth of Semi-Insulating C-Doped/Undoped GaN Multiple-Layer Buffer**
저자: Chul-Ho Won, Sang-Min Jeon, Dong-Seok Kim, Soo-Jin Yu, Hee-Sung Kang, Young-Woo Jo, Do-Kywn Kim, Ryun-Hwi Kim, Dong-Hyeok Son, You-Mi Kwon, Vodapally Sindhuri, Jun-Hyeok Lee, Ji-Hyun Kim, Young-Jo Kim, and Jung-Hee Lee
소속: School of Electronics Engineering, Kyungpook National University

WP2-51 **Suppression of Current Collapse in AlGaN/GaN MISHFET with a Novel Buffer Structure**
저자: Young-Jo Kim, Hee-Sung Kang, Dong-Seok Kim, Young-Woo Jo, Do-Kywn Kim, You-Mi Kwon, Dong-Hyeok Son, Ji-Hyun Kim, Jun-Hyeok Lee, Young Jun Yoon, Yong Soo Lee, and Jung-Hee Lee
소속: School of Electronics Engineering, Kyungpook National University

WP2-52 **Characteristics of AlGaN/GaN HEMTs on SiC with Pt-Based Schottky Contacts**
저자: Hyung Sup Yoon, Byoung Gue Min, Ho Kyun Ahn, Jong Min Lee, Dong Min Kang, Sung Il Kim, Chul Won Ju, Hae Cheon Kim, and Jong Won Lim
소속: RF Convergence Components Research Section, IT Components & Materials Research Laboratory, Electronics and Telecommunications Research Institute

WP2-53 **Bias-Dependent Characteristics of AlGaN/GaN HEMTs on SiC with T-Shaped Gate of 0.25 um Gate Length**
저자: Jong-Min Lee, Byoung-Gue Min, Hyung Sup Yoon, Ho-Kyun Ahn, Dong Min Kang, Seong Il Kim, Sang-Heung Lee, Chul Won Ju, Hae Cheon Kim, and Jong-Won Lim
소속: RF Convergence Components Research Section, IT Materials and Components Laboratory, Electronics and Telecommunications Research Institute

WP2-54 **A Study on the Scalability of a Threshold Type Cell Select Device using Amorphous GeSe, and the Experimental Ways for Reduction of Threshold Voltage**
저자: Hyung-Woo Ahn, Suyoun Lee, Doo Seok Jeong, Sang-Yeol Shin, and Byung-ki Cheong
소속: Electronic Materials Research Center, Korea Institute of Science and Technology

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WP2-55 **Dependence of Output Power Density on Gate width of AlGaN/GaN HEMT on SiC Substrate at 9.3GHz**
저자: Byoung-Gue Min, Hyung Sup Yoon, Ho-Kyun Ahn, Seong-Il Kim, Jong-Min Lee, Haecheon Kim, Dong-Min Kang, Chul-Won Ju, Sang-Heung Lee, and Jong-Won Lim
소속: RF Convergence Components Research Section, IT Components & Materials Research Laboratory, Electronics and Telecommunications Research Institute

WP2-56 **RF Performance of 13 nm-thick AlGaN/GaN HEMT with Thin Al_2O_3 Surface Protection Layer**
저자: Jun-Hyeok Lee[1], Ryun-Hwi Kim[1], Do-Kywn Kim[1], Chul-Ho Won[1], Ji-Hyun Kim[1], Young-Jo Kim[1], Bok-Hyung Lee[2], Byeong-Ok Lim[2], Gil-Wong Choi[2], In-Pyo Hong[3], and Jung-Hee Lee[1]
소속: [1]School of Electronics Engineering, Kyungpook National University, [2]Samsung Thales Co., Ltd, Korea, [3]Agency for Defense Development

WP2-57 **Ultra-Violet Sensitivity of n-ZnO/p-GaN Hetero-Junction Diode**
저자: Seong Gook Cho, Woong Tak Moon, and Eun Kyu Kim
소속: Department of Physics and Research Institute for Natural Sciences, Hanyang University,

WP2-58 **Photoluminescence Anisotropy in InP Quantum Dot Strings**
저자: Yongmin Kim[1], Yong Ho Shin[1], and Jindong Song[2]
소속: [1]Department of Applied Physics and Institute of Nanoscience and Biotechnology, Dankook University

WP2-59 **Optical Study of Non-Polar *a*-Axis ZnO Single Crystal for Light Emitting Applications**
저자: Younghun Hwang and Youngho Um
소속: Department of Physics, University of Ulsan

WP2-60 **Unusual Photoluminescence Peak Shift of InSb Epitaxial Layers Grown by LP-MOCVD**
저자: Jinwook Jung[1], Sehun Park[1], Chulkyun Seok[1], Yongjo Park[2], Xiren Chen[3], Jun Shao[3], and Euijoon Yoon[1]
소속: [1]Department of Materials Science and Engineering, Seoul National University, [2]Energy Semiconductor Research Center, Advanced Institutes of Convergence Technology, Seoul National University, [3]Shanghai Institute of Technical Physics, Chinese Academy of Sciences

WP2-62 **A Pipelined Digital Predistorter using CORDIC Processor**
저자: Jong Kang Park, Kyunghoon Kim, Youngoo Yang, and Jong Tae Kim
소속: School of Electronic and Electrical Engineering, Sungkyunkwan University

WP2-63 **Spectroscopic Ellipsometer를 이용한 CVD Graphene 의 광학특성 평가**
저자: 손우식[1], 문정훈[2], 현문섭[1], 양준모[1], 조병진[2]
소속: [1]나노종합기술원 특성평가사업실, [2]한국과학기술원 전기전자공학과

[WP2] Poster 3

Date	Feb. 26, 2014 (Wed.)
Place	Room I / 제1공학관 408호 (# 408, Engineering Building I)

WP2-64 **Monte Carlo Simulation of Scanning Electron Microscopic Images of Specimens for Structural and Compositional Analysis**
저자: Myeong Chun Song and Jin Seung Kim
소속: Department of Nano Science and Technology, Graduate School, Chonbuk National University

WP2-65 **Electronic Structure of Graphene: EELS and DFT Calculation**
저자: Yun Chang Park and Jun-Mo Yang
소속: National NanoFab Center

WP2-66 **유성펜을 이용한 FIB 손상 방지용 보호층 증착 및 특성**
저자: 박윤창[1], 박병천[2], Sergey Romankov[3], 박경진[1], 유정호[1], 이용복[1], 양준모[1]
소속: [1]나노종합기술원, [2]한국표준과학연구원, [3]전북대학교 신소재공학과

WP2-67 **집속이온빔(FIB)을 이용한 GaN 계 LED 의 3 차원 전위분석**
저자: 박경진, 곽상희, 유정호, 박윤창, 양준모
소속: 나노종합기술원 특성평가실

WP2-68 **전계방출 전자빔의 전자광학계 정렬기술 연구**
저자: 최성웅[1], 이영복[1], 김대욱[1], 오태식[1], 김영정[2], 김호섭[1]
소속: [1]선문대학교 나노과학과, [2]선문대학교 신소재공학과

WP2-69 **회절광 현미경을 이용한 극자외선 마스크의 이미징 성능측정**
저자: 이재욱[1], 홍성철[1], 이승민[1], 김종석[2], 정시준[3], 김정식[4], 안진호[1,2,3,4]
소속: [1]한양대학교 신소재공학과, [2]한양대학교 정보디스플레이공학과, [3]한양대학교 나노융합과학과, [4]한양대학교 나노반도체공학과

WP2-70 **GPA를 이용한 Strained Silicone의 응력분포 해석에 대한 시편제작 방법의 영향**
저자: 이용복, 박윤창, 유정호, 박경진, 이완규, 양준모
소속: 나노종합기술원 특성평가실

WP2-71 **고속 검사를 위한 멀티전자빔 검사장비 연구**
저자: 이승범[1], 정원영[1], 조현우[1], 이준호[1], 이영복[2], 최성웅[2], 김대욱[2], 오태식[2], 김호섭[2]
소속: [1]LIG 에이디피, [2]선문대학교 나노과학과

WP2-72 **대면적 스캔을 위한 Quadrupole Einzel Lens 구조 연구**
저자: 이영복, 김대욱, 오태식, 김호섭
소속: 선문대학교 나노과학과

WP2-73 **멀티 전자칼럼 제어방식에 대한 연구**
저자: 이순용[1,2], 임선종[1], 김호섭[2]
소속: [1]한국기계연구원 광응용기계연구실, [2]선문대학교 나노과학과

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[CDC] Chip Design Contest

Date	Feb. 25, 2014 (Tue.)
Place	Room M/ 제1공학관 508호 (# 508, Engineering Building I)

CDC001 **A 60/120 GHz Push-push Voltage Controlled Oscillator in 65 nm CMOS Technology**
저자: Namhyung Kim, Jongwon Yun, and Jae-Sung Rieh
소속: School of Electrical Engineering, Korea University

CDC002 **A 60 GHz Injection-Locked Frequency Divider in 65 nm CMOS Technology**
저자: Namhyung Kim, Jongwon Yun, and Jae-Sung Rieh
소속: School of Electrical Engineering, Korea University

CDC003 **A 5 GHz Phase Locked Loop in 0.11-μm CMOS Technology**
저자: Namhyung Kim, Jongwon Yun, and Jae-Sung Rieh
소속: School of Electrical Engineering, Korea University

CDC004 **A Low-Power Low-Noise CMOS Instrumentation Amplifier for Versatile Biopotential Signal Acquisition**
저자: 최종환, 이욱준, 신현철
소속: 광운대학교 전파공학과

CDC005 **A 1 W, 68 % PAE Stacked RF Power Amplifier Using 0.18-μm SOI CMOS**
저자: Jung-Lin Woo, Sunghwan Park, and Youngwoo Kwon
소속: Department of EECS and INMC, Seoul National University

CDC006 **A 14-b Ratio-Independent Algorithmic ADC**
저자: Seunghuen Song, Kichang Jang, Chulkyu Park, and Joongho Choi
소속: Department of Electrical and Computer Engineering, University of Seoul

CDC007 **Designed Opamp Sharing SDM with FDPA(Feedback Delay Path Addition) Technique**
저자: Euihoon Jung, Kisang jung, Jaebung Kim, and Seongik Cho
소속: Div. of Electronic & Information Engineering, Chonbuk National University

CDC008 **Design and Implementation of BPSK Modem in 0.35 um CMOS Process**
저자: Cheolmin Ahn, Youngsik Kim
소속: Department of Information and Technology, Handong Global University

CDC009 **Vibration Induced Self-startup for Dual-source Energy Harvesting Interface**
저자: Young-Sub Yuk, Hui-Dong Gwon, Sung-Won Choi and Gyu-Hyeong Cho
소속: Department of Electrical Engineering, KAIST

CDC010 **A 2.4μW 400nC/s Constant Charge Injection for Wirelessly-Powered Electro-Acupuncture**
저자: Hyungwoo Lee, Yongsu Lee, and Hoi-Jun Yoo
소속: Department of Electrical Engineering, KAIST

CDC011 **An ANN-Searching Processor for Full-HD 30fps Video Object Recognition**
저자: Gyeonghoon Kim, Jinwook Oh, Dongjoo Shin, and Hoi-Jun Yoo
소속: Department of EE, KAIST

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Date	Feb. 25, 2014 (Tue.)
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CDC012 **채널간 전류 오차를 보상하는 PLL구조를 이용한 Current regulator의 설계**
저자: 임을수, 황인철
소속: 강원대학교 전기전자공학과

CDC013 **H+ Ion-sensitive Transistor based on Gated Lateral Bipolar Junction Transistor (GLBJT)**
저자: Hyeon-Ji Yun[1], Hyun-Min Jeong[2], Hyurk-Choon Kwon[2], and Shin-Won Kang[1]
소속: [1]Department of Sensor and Display Engineering, Kyungpook National University, [2]School of Electronics Engineering, College of IT Engineering, Kyungpook National University

CDC014 **A Hough Transform-Based Line Detection Accelerator**
저자: Jeong-Rok Lee, Hyeon-Sik Son, Kyeong-ryeol Bae, and Byungin Moon
소속: School of Electronics Engineering, Kyungpook National University

CDC015 **Wide dynamic range CMOS Linear-Logarithmic active pixel sensor**
저자: Sung-Hyun Jo[1], Myunghan Bae[1], Minho Lee[1], Jeongyeob Kim[2], Byoung-Soo Choi[1], Pyung Choi[1] and Jang-Kyoo Shin[1,2]
소속: [1]School of Electronics Engineering, College of IT Engineering, Kyungpook National University, [2]Department of Sensor and Display Engineering, Kyungpook National University

CDC016 **Design of Analog-Digital Signal Processing Circuit for γ-ray Detection**
저자: You Mi Kwon[1], Hee-Sung Kang[1], Ji-Hyun Kim[1], Soo-Jin Yu[1], Ju-Yeung Kim[1], Minho Lee[1], Young-Kyu Kwon[2], Deok-Hwan Hyun[3], Jung-Hee Lee[1] and Yong Soo Lee[1]
소속: [1]School of Electronics Engineering, Kyungpook National University, [2]Department of Electronics Engineering, Uiduk University, [3]Department of Electrical Energy and Electronic Engineering, Gyeongju University

CDC017 **320MHz ~2.2GHz 32분주 다이나믹 D-플립플롭 디바이더**
저자: 정재상, 하정완, 김창우
소속: 경희대학교 전자전파공학

CDC018 **Understanding CMOS Amplifier Design Issues in D-band by Fabricating Conventional Amplifier**
저자: S.H. Choi, K.J. Lee, and M. Kim
소속: School of Electrical Engineering, Korea University

CDC019 **Low Area / Power Viterbi Decoder Enabled by Logic Compatible eDRAM**
저자: Woong Choi, Gyuseong Kang and Jongsun Park
소속: School of Electrical Engineering, Korea University

CDC020 **Low Area FFT Processor with Logic Compatible Embedded DRAM**
저자: Gyuseong Kang, Woong Choi, and Jongsun Park
소속: School of Electrical Engineering, Korea University

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[CDC] Chip Design Contest

Date	Feb. 25, 2014 (Tue.)
Place	Room M/ 제1공학관 508호 (# 508, Engineering Building I)

CDC021 **Varification of Low Power and Ultra High Speed On-Chip CMOS Temperature Sensor**
저자: Jiwoong Jang, Jinse Kim, Reum Oh, Man Young Sung
소속: Department of Electrical Engineering, Korea University

CDC022 **A 6-Level Signaling Driver for High Speed Interface**
저자: Tae-Hoon Lee, Seong-Ju Lee, Suki Kim
소속: School of Electrical Engineering, Korea University

CDC023 **Design of a successive approximation registered ADC with a modified capacitor switching method**
저자: Jung-Min Lee, and Jong-In Song
소속: School of Information and Communications, GIST

CDC024 **A Chopper-Stablized Current-Feedback Instrumentation Amplifier with a Tunable Gain and Low-cutoff Frequency for EEG Acquisition Applications**
저자: Chung-Jae Lee, and Jong-In Song
소속: School of Information and Communications, GIST

CDC025 **Characterization of Interface States based on the Sub-bandgap Photonic Subthreshold Current in MOSFETs**
저자: Jungmin Lee, Jun Seok Hwang, Jaeyeop Ahn, Hyunjun Choi, Hagyoul Bae, Sungwoo Jun, Jinsu Yoon, Sung-Jin Choi, Dae Hwan Kim and Dong Myong Kim
소속: School of Electrical Engineering, Kookmin University

CDC026 **Oscillation RF-DC Converter for Wireless Energy Harvesting**
저자: Jihoon Lee, Wonjae Jung, Hyobin Jung, Yoonjae Nam, Donggyun Yoo, Yongki hur and Junseok Park
소속: School of Electronical Engineering, Kookmin University

CDC027 **An Active Switching DC-DC Converter for wireless energy harvester**
저자: Jihoon Lee, Wonjae Jung, Hyobin Jung, Snaggu Yoon, Donggyun Yoo, Yongki Hur and Junseok Park
소속: School of Electronical Engineering, Kookmin University

CDC028 **A Design of High Efficiency Microwave Wireless Power Acceptor IC**
저자: Jihoon Lee, Wonjae Jung, Hyobin Jung, Anggu Yoon, Yoonjae Nam, Yongki hur and Junseok Park
소속: School of Electronical Engineering, Kookmin University

CDC029 **A Design of Up-Down Converter for WCDMA Repeater**
저자: Hyo-Bin Jung, Won-Jae Jung, Sang-Kyu Kim, Se-Mi Lim, Ji-Hoon Lee, Kyu-Hyun Nam, Jun-Seok Park
소속: School of Electrical Engineering, Kookmin University

[CDC] Chip Design Contest

Date	Feb. 25, 2014 (Tue.)
Place	Room M/ 제1공학관 508호 (# 508, Engineering Building I)

CDC030 **A Design of Transceiver for Advanced UHF band RFID Reader**
저자: Hyo-Bin Jung, Won-Jae Jung, Sang-Kyu Kim, Se-Mi Lim, Ji-Hoon Lee, Kyu-Hyun Nam, Jun-Seok Park
소속: School of Electrical Engineering, Kookmin University

CDC031 **16-channel LED Driver IC for Full-Color LED Display**
저자: Hyobin Jung, Wonjae Jung, Sanggu Yoon, Yoonjae Nam, Donggyun Yoo and Jun-Seok Park
소속: School of Electronical Engineering, Kookmin University

CDC032 **A Design of Wideband Programmable Gain Amplifier(PGA) for LTE Repeater System**
저자: Hyo-Bin Jung, Jun-Seok Park
소속: School of Electrical Engineering, Kookmin University

CDC033 **A 10-bit 10-MS/s Asynchronous Successive Approximation Register ADC using MOM Capacitive DAC**
저자: Yeon-Ho Jeong, Sang-Min Park, and Young-Chan Jang
소속: Department of Electronic Engineering, Kumoh National Institute of Technology

CDC034 **2조 동선에서 500 Mbps 이더넷 전송이 가능한 물리적 부호계층의 설계**
저자: 전성배, 박해원, 정해
소속: 금오공과대학교 전자공학과

CDC035 **A CMOS Conductometric Sensor Readout Circuit Design Using Single-Wall Carbon Nanotube Sensor Arrays**
저자: JongHo Park[1], Cheolhwan Lim[2], Sujith S Dermal[2], Sungyong Jung[2] and Hoon-Ju Chung[1]
소속: [1]School of Electronic Engineering, Kumoh National Institute of Technology, [2]Electrical Engineering Department, The University of Texas at Arlington

CDC036 **On-Chip Spectral Analyzer**
저자: Woo-Hun Hong, Byeong-Ho Kang, Kyung Ki Kim
소속: School of Electronic and Electrical Engineering, Daegu University

CDC037 **An 8b 2GS/s Time-Interleaved Folding-Interpolation ADC with Self-Calibration**
저자: Donggwi Choi, Daeyun Kim and Minkyu Song
소속: Department of Semiconductor Science Dongguk University

CDC038 **A CMOS Image Sensor based on a Cyclic ADC with a Digital Logarithmic Counter**
저자: Kyungtae Kim, Daeyun Kim and Minkyu Song
소속: Department of Semiconductor Science, Dongguk University

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Date	Feb. 25, 2014 (Tue.)
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CDC039 **6-bit 1GS/s Fully Differential Current Steering DAC**
저자: GeunYeong Park, ChaeYeol Lim and MinKyu Song
소속: Department of Semiconductor Science, Dongguk University

CDC040 **An Implementation of H.264 Decoder with Reference Frame Access Optimization**
저자: Eunchong Lee, Youngsuk Kang, Donggil Kang, Jeongwoo Yoo and Youpyo Hong
소속: Division of Electronics and Electrical Engineering, Dongguk University

CDC041 **GPS/Galileo를 동시 지원하는 멀티밴드 저전력 65-nm CMOS RF 수신기**
저자: 최치훈[1], 최준우[2], 김민수[1], 남일구[1]
소속: [1]부산대학교 전기공학과, [2]SK하이닉스 Mobile 개발본부

CDC042 **A 1-4Gb/s All Digital CDR**
저자: Isak Hwang and Jinwook Burm
소속: Department of Electronic Engineering, Sogang University

CDC043 **CMOS rectifier circuit for Piezoelectric Energy Harvesting Device**
저자: Dongjae Han, Seunghwan Song and Kwang-Seok Yun
소속: Department of Electronic Engineering, Sogang University

CDC044 **94 GHz Resistive Mixer**
저자: Jihoon Kim, Hongjong Park, Sangho Lee, and Youngwoo Kwon
소속: Department of EESC and INMC, Seoul National University

CDC045 **V-band Low Noise Amplifier for 60GHz WPAN Applications**
저자: Hongjong Park, Sangho Lee, and Youngwoo Kwon
소속: Department of EECS and INMC, Seoul National University

CDC046 **26-GHz VCO와 주파수 3 체배기를 이용한 77-GHz QVCO 설계**
저자: 송재훈, 남상욱
소속: 서울대학교 뉴미디어 통신공동연구소

CDC047 **A CMOS Integrated Carbon Nanotube Biosensor Array with AC Measurement Capability**
저자: Seok Hynag Kim, Jin-Hong Ahn and Young June Park
소속: Department of Electrical and Computer Engineering, Seoul National University

CDC048 **A 4.0-6.0GHz All-Digital Phase-Locked Loop with a Digitally Controlled Oscillator Using Digitally Controlled Current Source**
저자: Sungwoo Kim, Taeho Kim, Sungchun Jang, Sanghyeok Chu, Deog-Kyoon Jeong
소속: Department of Electrical and Computer Engineering, Seoul National University

CDC049 **Implementation of Multiple Event Handling Processor**
저자: Dabujin Lee, Sehyun Song, Kichul Kim
소속: School of Electrical and Computer Engineering, University of Seoul

[CDC] Chip Design Contest

Date	Feb. 25, 2014 (Tue.)
Place	Room M/ 제1공학관 508호 (# 508, Engineering Building I)

CDC050 **Current-Mode SAR ADC for Resistance Variation Analysis Aimed at Adaptive Reference Control in Cross-Point ReRAM**
저자: Se-Jin Baik[1], Jong-Min Baek[1], Sang-Yun Kim[1,2], Jae-Koo Park[1], Kee-Won Kwon[1]
소속: [1]College of Information and Communication Engineering, Sungkyunkwan Univ., [2]Memory Division, Samsung Electronics Co., LTD.

CDC051 **PFM/PWM Dual Mode Feedback LED BLU Driver IC**
저자: Hong-Jin Kim, Young-Jun Park, Chang-Jae Yoo, and Kang-Yoon Lee
소속: IC Lab, SungKyunKwan University

CDC052 **V-band PLL용 60GHz VCO의 설계**
저자: 이종석, 문용
소속: 숭실대학교 전자공학과

CDC053 **Supply Modulator with Compact Size**
저자: Seokhyun Yoon, Changhyun Lee, and Changkun Park
소속: School of Electronic Engineering, Soongsil University

CDC054 **Improved Layout of LC Tank for Voltage Controlled Oscillator**
저자: Milim Lee, and Changkun Park
소속: School of Electronic Engineering, Soongsil University

CDC055 **넓은 입력 범위를 갖는 가변 이득 시간 증폭기**
저자: Doohyun Shon and Taewook Kim
소속: Department of Electrical & Electronic Engineering, Yonsei University

CDC056 **77 GHz 90°, 45°, 22.5° 위상 변위기 설계**
저자: 이효성, 민병욱
소속: 연세대학교 전기전자공학부

CDC057 **발룬을 이용한 C-Band 마이크로파 스위치 설계**
저자: 김경원, 민병욱
소속: 연세대학교 전기전자공학과

CDC058 **Step Response Calculation of a Single-Ended Buffer with Arbitrary Power-Supply Voltage Fluctuations**
저자: Eunkyeong Park, Junho Lee, Jingook Kim
소속: School of Electrical and Computer Engineering, UNIST

CDC059 **초소형 센서노드를 위한 MPPT 제어기능을 갖는 삼중입력 에너지 하베스팅 회로 설계**
저자: 윤은정, 박종태, 유종근
소속: 인천대학교 전자공학과

[CDC] Chip Design Contest

Date	Feb. 25, 2014 (Tue.)
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CDC060 **MEMS 가속도센서를 위한 CMOS Readout 회로**
저자: 윤은정, 박종태, 유종근
소속: 인천대학교 전자공학과

CDC061 **MPPT 제어 기능을 갖는 열에너지 하베스팅 회로**
저자: 윤은정, 박종태, 유종근
소속: 인천대학교 전자공학과

CDC062 **Low power Non-Coherent BPSK recovery circuit for Implantable Biomedical Devices**
저자: Tae-Gwon Yun, Benjamin P. Wilkerson, Jin-Ku Kang
소속: Department of Electronic Engineering, INHA University

CDC063 **Design of High Dimming Ratio Power-LED Driver with Preloading inductor current methodology**
저자: Woo-Seong Kang, Tae Jin Jeong, Ji-San Choi, and Gwang-Sub Yoon
소속: Department of Electronic Engineering, Inha University

CDC064 **Design of a 3rd order Delta-Sigma Modulator with a Frequency Detector Circuit**
저자: Han-Ul Lee, Su-Hun Yang, Gi-yoon Lee, and Gwang-Sub Yoon
소속: Department of Electronic Engineering, Inha University

CDC065 **Hardware Implementation of Keypoint Detection Block in SIFT**
저자: Byungjun Choi, Sangyoung Lee, Dong Sun Park, Jong Yeol Lee
소속: Department of Electronic Engineering, Chonbuk National University

CDC066 **Cognitive Radio 시스템의 NC-OFDM을 위한 저전력 FFT 설계**
저자: 박서진 정진균
소속: 전북대학교 전자공학부

CDC067 **Implement of Ring Oscillator for ISM bandwidth**
저자: Moonho Lee, Hanggeun Jeong
소속: Chonbuk National University

CDC068 **Implement of 3-Bit Flash A/D Converter in 0.18 um CMOS**
저자: Junsik Park, Sanghun Jung, Minji Han, Sungik Cho
소속: Department of Electronic Engineering, Chonbuk National University

CDC069 **2bit MDAC for Pipelined ADC in 0.18um CMOS**
저자: Seyoung Oh, Hyundeok Kim, Sungik Cho
소속: Chonbuk National University

CDC070 **CIFB 구조를 갖는 저전력 3차 시그마-델타 변조기**
저자: Minwoong Lee, Sanghun jeong, Jaebung Kim, and Seongik Cho
소속: Division of Electronic & Information Engineering, Chonbuk National University

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CDC071 **Band Pass Filter with Pseudo-Resistor for Biosensor signal detection**
저자: Nam Pyo Hong, Chung-Gun Kim, and Young Wan Choi
소속: School of Electrical and Electronics Engineering, College of Engineering, Chung-Ang University

CDC072 **Noise analysis of CMOS pre-amplifier design**
저자: In-Il JUNG[1] and Young-Wan Choi[2]
소속: [1]Rare Isotope Science Project, Institute for Basic Science, [2]School of Electrical and Electronics Engineering, Chung-Ang University

CDC073 **A Light Amplitude Modulated Neural Stimulator with Photodiode for Visual Prostheses**
저자: Kyomuk Lim, Jindeok Seo, Changho Seok, Hyounho Kim, Seunghyun Im, and Hyoungho Ko
소속: Department of Electronics, Chungnam National University

CDC074 **9 bit SAR ADC with Kickback Noise Reduced Comparator**
저자: 임승현, 서진덕, 임교묵, 석창호, 김현호, 고형호
소속: 전자공학과 충남대학교, 차세대전자기판회로학과 충남대학교

CDC075 **A Digital Hearing Aid SoC in 65nm CMOS**
저자: Wooseok Byun, Hyeji Kim, Yeon-Tae Kim, and Ji-Hoon Kim
소속: Department of Electronics Engineering, Chungnam National University

CDC076 **Kogge-Stone 바이패싱 덧셈기 설계**
저자: 안종훈, 최성림, 남병규
소속: 충남대학교 컴퓨터공학과

CDC077 **A capacitance multiplier using the current conveyors**
저자: Dae-Hwan Lee, Min-Su Kim, and Yeong-Seuk Kim
소속: Department of Semiconductor Engineering, Chungbuk National University

CDC078 **HV EDMOS with LNDC (laterally Non-uniform Doped Channel)**
저자: Min-Hyuk Sung[1], Min-Su Kim[1], Ki-Ju Baek[1], Yeong-Seuk Kim[1] and Kee-Yeol Na[2]
소속: [1]Department of Semiconductor Engineering, Chungbuk National University, [2]Department of Semiconductor Electronics, Chungbuk Provincial College

CDC079 **프로세서 침입탐지를 위한 아날로그 센서 회로 설계**
저자: 고강호, 신상진, 김석만, 조경록
소속: 충북대학교 정보통신공학과

CDC080 **Highly efficient supply modulator for Envelope Tracking RF Power Amplifier (ET RF PA)**
저자: Jimin Kwon, Jungjoon Kim, and Bumman Kim
소속: Department of Electrical Engineering, POSTECH

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CDC081 **Highly efficient quadrature transmitter using RF Digital-to-Analog Converter (RF DAC)**
저자: Hadong Jin, Dongsu Kim, and Bumman Kim
소속: Department of Electrical Engineering, POSTECH

CDC082 **A 0.4 V Driving Multi-Touch Capacitive Sensor with the Driving Signal Frequency set to (n+0.5) Times the Inverse of the LCD VCOM Noise Period**
저자: Jae-seung Lee, Dong-Hee Yeo, Jae-Yoon Sim, Byung-Sub Kim, and Hong June Park
소속: Pohang University of Science and Technology (POSTECH)

CDC083 **1축 진동형 MEMS 자이로의 구동회로 제작**
저자: 김민서[1], 임을수[3], 권혁진[2], 황인철[3], 임근배[2]
소속: [1]포항공과대학교 융합생명공학부, [2]포항공과대학교 기계공학과, [3]강원대학교 전기전자공학과

CDC084 **6.2 – 9.7 GHz LNA Using Series RLC Input Matching and Resistive Feedback**
저자: Ji An Park, Choon Sik Cho
소속: School of Electronics, Telecommunication and Computer Engineering, Korea Aerospace University

CDC085 **10-bit, 40 MS/s, 30 mW Pipelined ADC in 0.18 um CMOS Technology**
저자: Cheolmin Ahn, Youngsik Kim
소속: Department of Information and Technology, Handong Global University

CDC086 **Design and Implement of 8-bit Segmented Type DAC in 0.35 um Technology**
저자: Cheolmin Ahn, Youngsik Kim
소속: Department of Information and Technology, Handong Global University

CDC087 **An Envelope Tracking Modulator for the Mobile Power Amplifiers**
저자: Minchul Kim and Junghyun Kim
소속: Department of the Electronics and System Engineering, Hanyang University

CDC088 **PFM-PWM Dual-mode Circuit using CMOS OTAs**
저자: Min-Hye Kang, Fan Zhang, and Hee-Jun Kim
소속: Department of Electronic Systems Engineering, Hanyang University

CDC089 **Wide gain Range Variable Gain Amplifier**
저자: Chang-Woo Lim and Tae-Yeoul Yun
소속: Department of Electrical Engineering and Computer Science, Hanyang University

CDC090 **A High-Image-Quality Data Driver IC for Flat Panel Displays**
저자: Jong-Seok Kim and Byong-Deok Choi
소속: Department of Electronic Engineering, Hanyang University

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CDC091 **A CMOS Temperature Sensor Using Multi-Core Structure**
저자: Tai-Soon Park, and Sang-Gyu Park
소속: Department of Electronics Computer Engineering, Hanyang University

CDC092 **High-Linearity Variable-Gain Drive Amplifier**
저자: Jun-Young Park and Tae-Yeoul Yun
소속: Department of Electrical Engineering and Computer Science, Hanyang University

CDC093 **Capacitive Touch Screen Panel Readout Circuit against Display Noise**
저자: Duhyun Jeon, Hyun-Woo Kim, and Byong-Deok Choi
소속: Department of Electronic Engineering, Hanyang University

CDC094 **10-bit Two-Step Single Slope ADC for A Low-Power CMOS Image Sensor**
저자: Duhyun Jeon, Don-gu Lee, and Byong-Deok Choi
소속: Department of Electronic Engineering, Hanyang University

CDC095 **Energy/Power efficient Multimedia Processor for Low-Level Image Processing with DVFS and Dynamic gating**
저자: Jun-Seok Park, Hyo-Eun Kim, Sang-Hye Chung, Jaehyeong Sim, Wongyu Shin, Dongil Lee, Jeongmin Yang, and Lee-Sup Kim
소속: Department of Electrical Engineering, KAIST

CDC096 **An Inductorless Wideband LNA in 0.18-μm CMOS Technology**
저자: Yang Hun Lee, Sun Yool Kang, and Chul Soon Park
소속: Department of Electrical Engineering, KAIST

CDC097 **BER optimum adaptive reference calibration ADC**
저자: Sejun Jeon, Hyeon-Min Bae
소속: Department of Electrical Engineering, KAIST

CDC098 **A Low-Power Parallel Multiplier based on Optimized Bypassing Architecture**
저자: Sunjoo Hong, Hyunki Kim, and Hoi-Jun Yoo
소속: Department of Electrical Engineering, KAIST

CDC099 **A Dynamic Electrode Impedance Matched Acupuncture-Type Diagnosis System**
저자: Kiseok Song, Taehwan Roh, Minseo Kim, and Hoi-Jun Yoo
소속: Division of Electrical Engineering, School of EE, KAIST

CDC100 **Adaptive Output-Voltage Boost Converter for Compact Electro-Acupuncture System**
저자: Hyungwoo Lee, Yongsu Lee, and Hoi-Jun Yoo
소속: Department of Electrical Engineering, KAIST

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CDC101 **A 34.1fps Scale-space Processor with Two-dimensional Cache for Real-time Object Recognition**
저자: Youchang Kim, Junyoung Park, Gyeonghoon Kim, Jin-Mook Lee, and Hoi-Jun Yoo
소속: Department of Electrical Engineering, KAIST

CDC102 **A 37.5 μW Body Channel Communication Wake-up Receiver with Injection-locking Ring Oscillator for Wireless Body Area Network**
저자: Hyunwoo Cho, Joonsung Bae, Jaeeun Jang, and Hoi-Jun Yoo
소속: Department of Electrical Engineering, KAIST

CDC103 **High-speed Support Vector Machine Processor**
저자: Junyoung Park, Kyeongryeol Bong, and Hoi-Jun Yoo
소속: Department of Electrical Engineering, KAIST

CDC104 **Retinex Image Enhancement Processor for Robust Illumination Adaptation**
저자: Junyoung Park, Sung-Pill Choi, and Hoi-Jun Yoo
소속: Department of Electrical Engineering, KAIST

CDC105 **A Low-Power Integrator Circuit Design for Infrared Sensor**
저자: Yeong Seon Kim, Hee Chul Lee
소속: Department of Electrical Engineering, KAIST

CDC106 **Self-bias controlled ROIC for Uncooled Infrared sensors**
저자: Y. M. Jo, D. H. Woo and H. C. Lee
소속: Department of Electrical Engineering, KAIST

CDC107 **Emulated zero-inductor current sensor for buck-type DC-DC converter**
저자: Sung-Wan Hong
소속: Department of Electrical Engineering, KAIST

CDC108 **CMOS Band-gap Reference with High PSRR and Low TC**
저자: Seki Kim, Gyu-Hyeong Cho
소속: KAIST

CDC109 **적혈구 응집능 측정 Read-Out IC 설계**
저자: 최석환, 조규형
소속: 한국과학기술원 전기및전자공학과

CDC110 **5 Level Audio Power Amplifier for reducing the switching noise and EMI effect**
저자: Young-Sub Yuk, Hui-Dong Gwon, Sung-Won Choi, and Gyu-Hyeong Cho
소속: Department of Electrical Engineering, KAIST

CDC111 **40V 16 channels PWM LED current driver for display applications**
저자: Park, Changbyung
소속: Department of Electrical Engineering, KAIST

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CDC112 **PWM LED Current Diver Feedback Voltage Generator for Boost Converter in LED BLU**
저자: Park, Changbyung
소속: Department of Electrical Engineering, KAIST

CDC113 **On Chip PID Compensation**
저자: Sung-woo Lee, Gyu-Hyeong Cho
소속: KAIST

CDC114 **Digitally Aided Analog Multiplier Based on a Resistor-String Digital to Analog Converter**
저자: Seungchul Jung and Gyu-Hyeong Cho
소속: KAIST

CDC115 **A Novel Current Balancing Technique for the Four-Phase Buck**
저자: Jun-Han Choi, and Gyu-Hyeong Cho
소속: Department of Electrical Engineering, KAIST

CDC116 **A Layout Technique for the Highly-Matched Current Bias Cell**
저자: Jun-Han Choi, and Gyu-Hyeong Cho
소속: Department of Electrical Engineering, KAIST

CDC117 **Streaming ISO18000-6 Type C RFID Tag Design**
저자: Joon Goo Lee, Seon Wook Kim, Jae-Sung Rieh, Jongsun Park, and Chulwoo Kim
소속: School of Electrical and Computer Engineering, Korea University

CDC118 **저 복잡도를 가지는 2Gbps급 IEEE 802.11ac용 LDPC 인코더의 FPGA 구현**
저자: 박효빈, 김나래, 이성주
소속: 세종대학교 정보통신공학과

CDC119 **Design of a Fractional-N Frequency Synthesizer for Near Field Communication**
저자: Hyuk Ryu, Keum-Won Ha, Joonhong Park, and Donghyun Baek
소속: School of Electrical Engineering, Chung-Ang University

CDC120 **용량형 입력 임피던스 증가 루프를 적용한 생체 신호 측정 회로**
저자: 석창호[1], 임교묵[2], 서진덕[1], 김현호[1], 임승현[1], 고형호[1,2]
소속: [1]충남대학교 전자공학과, [2]충남대학교 차세대전자기판회로학과

CDC121 **트위스티드 연결구조를 이용한 small 스윙 도미노 회로**
저자: 안상윤, 김석만, 조경록
소속: 충북대학교 정보통신공학

CDC122 **M2M authentication module based on PUFs**
저자: Piljoo Choi and Dong Kyue Kim
소속: Department of Electronics Engineering, Hanyang University

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CDC123 **Offline User Authentication Method of Smart Card using PUF**
저자: Jae Seong Lee and Dong Kyue Kim
소속: Department of Electronics and Computer Engineering, Hanyang University

CDC124 **AES hardware module with masking against side channel attacks**
저자: Jae Seong Lee and Dong Kyue Kim
소속: Department of Electronics and Computer Engineering, Hanyang University

CDC125 **Low-Power Design of Hardware One-Time-Password Generators for Card-Type OTPs**
저자: Sung-Jae Lee, Jae Seong Lee, Mun-Kyu Lee, Sang Jin Lee, Doo-Ho Choi and Dong Kyue Kim
소속:Hanyang University

CDC126 **Built-in Hardware Pseudo-Random Test Module for Physical Unclonable Functions**
저자: Jae Seong Lee, Piljoo Choi, Song-Ju Kim, Byong-Deok Choi, and Dong Kyue Kim
소속:Hanyang University

CDC127 **Benzene Gas Detection using A Mosfet-BJT Hybrid Mode Operated Gated Lateral BJT**
저자: H. Yuan, H.M. Jeong, J.S. Lee, B.H. Kang, S.H. Yeom, S.W. Lee,
S.H. Kim, J.K. Shin, and S.W. Kang
소속:Kyungpook National University

CDC128 **0.18㎛ CMOS 공정을 이용한 12-bit 1MSps 연속 근사화 아날로그-디지털 변환기 설계**
저자: 성명우, 최성규, 김성우, 김신곤, 이주섭, 오세명, 서민수, 류지열
소속:Pukyung National University

CDC129 **CMOS 스위치를 이용한 디지털 이득 제어 구조의 PGA 설계**
저자: 김철환, 박승훈, 이정훈, 임재환, 이주섭, 최근호, 임윤성, 류지열
소속:Pukyung National University

CDC130 **A New Low-Power Programmable CMOS Gain Amplifier**
저자: Seung-Hun Park, Jung-Hoon Lee, Sung-Woo Kim, Seung-Kyu Choi, Cheol-Hwan Kim,
Myeong-U Seong, Shin-Gon Kim, and Jee-Youl Ryu
소속:Pukyung National University

CDC131 **PET Detector with Adaptive Circuits**
저자: Himchan Park, Kyunghoon Kim and Jinwook Burm
소속:Sogang University

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CDC132 **An Arbitrary Waveform 16 Channel Neural Stimulator with Adaptive Supply Regulator in 0.35 μm HV CMOS for Visual Prosthesis**

저자: Jindeok Seo, Kyomuk Lim, Sangmin Lee, Jaehyun Ahn, Seokjune Hong, Hyungjung Yoo, Sukwon Jung, Sunkil Park, Dong-il"Dan"Cho, and Hyoungho Ko
소속:Seoul National University

CDC133 **Multi-Channel Stimulator IC using a Channel Sharing Method for Retinal Prostheses**

저자: Jae-Hyun Ahn, Sang-Min Lee, Seok-June Hong, Hyung-Jung Yoo, Suk-Won Jung, Sun-Kil Park, Hyoung-Ho Ko, anse Dong-il"Dan"Cho
소속:Seoul National University

CDC134 **A 2.0GHz Sub-Harmonically Injection-Locked Ring PLL with Self-Coordinated Injection Timing**

저자: Kyoung-Ho Kim, Chi-Hun Song, and Kee-Won Kwon
소속:Sungkyunkwan University

CDC135 **An Improved Supply Regulator for Ring Oscillator in Split-Tuned Phase-Locked Loops**

저자: Chi-Hun Song, Jong-Moon Choi, Kyoung-Ho Kim, and Kee-Won Kwon
소속:Sungkyunkwan University

CDC136 **초광대역 임펄스 라디오를 위한 CMOS 펄스발생기**

저자: 김원종, 권익진
소속:Ajou University

CDC137 **A 6-bit 500MS/s CMOS A/D Converter with a Digital Input Range Detection Circuit**

저자: Dai Shi, Gi-Yoon Lee, Sang Min Lee, and Kwang Sub Yoon
소속:Inha University

CDC138 **뉴런 신호 자극을 위한 8비트 전류 구동형 DAC**

저자: 박지현, D. Shi, 윤광섭
소속:Inha University

CDC139 **Design of High-Linear CMOS Circuit using a Constant Transconductance Method for Gamma-Ray Detection System**

저자: In-Il Jung, Ju Hahn Lee, Chun Sik Lee and Young-Wan Choi
소속:Chung-Ang University

CDC140 **Low Power 20-GHz Current-Mode Frequency Divider in 0.18-μm CMOS Phase-Locked Loop**

저자: Jungwoong Park and Namsoo Kim ,Hyeim Jeong, Kyeongrok Lee, and Hoyong Choi
소속:Chungbuk National University

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CDC141 **A Single-Chip Time-Interleaved 32-Channel Analog Beamformer for Ultrasound Medical Imaging**

저자: Ji-Yong Um, Jae-Hwan Kim, Eun-Woo Song, Yoon-Jee Kim, Jae-Yoon Sim, Hong-June Park
소속:Pohang University of Science and Technology

CDC142 **전치 증폭기 공유 기법을 이용한 8-bit 10-MSample/s Folding & Interpolation ADC**

저자: 안철민, 김영식
소속:Handong Global University

CDC143 **동시 양방향 통신이 가능한 2-Gbps 인덕터 결합 링크**

저자: 전민기*, 유창식**
소속:Hanyang University

CDC144 **A Simultaneous Multithreading Heterogeneous Object Recognition Processor with Machine Learning Based Dynamic Resource Management**

저자: JinWook Oh, Gyeonghoon Kim, Junyoung Park, Injoon Hong, Seungjin Lee, Joo-Young Kim, and Hoi-Jun Yoo
소속:KAIST

CDC145 **내방사선용 Shift Register의 제작 및 양성자를 이용한 SEU 측정 평가**

저자: 강근훈, 노영탁, 이희철
소속:KAIST

CDC146 **우주용 ADC의 누적방사선량 영향 분석**

저자: 김태효 , 이희철
소속:KAIST

CDC147 **Emulated Multi-Path PID Compensator for Buck Converters with Large Step-Down Ratio**

저자: Se-Won Wang, Young-Jin Woo, Gyu-Ha Cho, Gyu-Hyeong Cho
소속:KAIST

CDC148 **An 8-bit Compact Hybrid DAC for Current-Mode Driving AMOLED Displays**

저자: Jin-woo Kim,Jin-Chul Lee, Hyun-Sik Kim, Jun-Hyeok Yang, Sang-Hui Park and Gyu-Hyeong Cho
소속:KAIST

CDC149 **A 0.791mm2 Fully On-Chip Controller with Self-Error-Correction for Boost DC-DC Converter Based on Zero-Order Control**

저자: Tae-Hwang Kong, Sung-Wan Hong, Sungwoo Lee, Jong-Pil Im, Gyu-Hyeong Cho
소속:KAIST