

Room I

하나스퀘어 (아프리움)

일 시 : 2월 17일(금) 09:30-12:35

세션명 : [FP1] Poster I

I. MEMS & Sensors 분과

- FP1-1 09:30-12:35 Novel Biosensor based on MOSFET-BJT Hybrid Mode of Gated Lateral BJT for C-reactive Protein Detection
저자: H. Yuan, B. Wang, S. H. Yeom, H. C. Kwon, and S. W. Kang
소속: School of Electrical Engineering and Computer Science, Kyungpook National University
- FP1-2 09:30-12:35 Electrical Properties of Silicon Nanowire Integrated Highly Sensitive Electrolyte-insulator-semiconductor (EIS) Bio-chemical Sensor
저자: Jinyong Oh¹, M. Saif Islam¹, Hyun-June Jang², Tae-On Bae², and Won-Ju Cho²
소속: ¹University of California Davis, ²Kwangwoon University
- FP1-3 09:30-12:35 Single Photon Detection for Quantum Cryptography Applications
저자: A. Bouzid, J. B. Park, and S. Moon
소속: Nanophotonics Research Center, Korea Institute of Science and Technology
- FP1-4 09:30-12:35 MEMS 공정을 이용한 이중빔 PZT 외팔보 에너지수확소자의 제작 및 특성
저자: 김문근^{1,2}, 황범석¹, 정재화¹, 민남기¹, 이상균², 양일석², 권광호¹
소속: ¹고려대학교, ²한국전자통신연구원
- FP1-5 09:30-12:35 A RF MEMS Tunable Capacitor with Large Tuning Range using Aluminum Nitride Film and Two Air Gap Structure
저자: W. J. Jang, S. J. Cheon, and J. Y. Park
소속: Micro/Nano Devices and Packaging Lab. Department of Electronic Engineering, Kwangwoon University

D. Thin Film Process Technology **분과**

FP1-6 09:30-12:35 **Growth of Conductive SrRuO_x Films by Combined CVD/ALD Process**
저자: Jeong Hwan Han, Woongkyu Lee, Woojin Jeon, and Cheol Seong Hwang
소속: WCU Hybrid Materials Program, Department of Materials Science and Engineering and Inter-university Semiconductor Research Center, Seoul National University

FP1-7 09:30-12:35 **Resistive Switching Characteristics in HfO₂ Thin Films Depending on the Crystalline Structure**
저자: 윤정호, 정형석, 이민환, 김건환, 송슬지, 석준영, 윤경진, 황철성
소속: 서울대학교 재료공학부 유전박막연구실

FP1-8 09:30-12:35 **The Advanced Characteristics of Thermal CVD Silicon Oxide in a Single-wafer Chamber**
저자: 이웅, 김용석, 신현진, 이우성, 임현형, 황기현, 신유균
소속: Semiconductor R&D Center, Samsung Electronics Co., Ltd.

FP1-9 09:30-12:35 **Development of High Performance and High Stability Transistors without Junctions**
저자: 정승민¹, 오진용², M. Saif Islam², 조원주¹
소속: ¹광운대학교, 전자재료공학과, ²Department of Electrical and Computer Engineering, University of California Davis

FP1-10 09:30-12:35 **저온 스퍼터증착법을 이용한 플렉서블 적층 저항변화 메모리의 제작 및 특성 연구**
저자: 한용¹, 조경아², 박석형², 김상식^{1,2}
소속: ¹고려대학교 나노반도체공학과, ²고려대학교 전기전자전파공학과

FP1-11 09:30-12:35 **Mn doped ZnO_xS_{1-x} 저항변화 메모리소자 특성에 미치는 전극물질의 영향**
저자: 한용¹, 조경아², 윤정권², 김상식^{1,2}
소속: ¹고려대학교 나노반도체공학과, ²고려대학교 전기전자전파공학과

- FP1-12 09:30-12:35 Effect of Oxygen Plasma Annealing on Electrical Properties of Sol-gel Processed ZrO₂ Films**
저자: Dong-Hyoub Kim, Musarrat Hasan, Tae-Young Jang, Jungwoo Kim, Jun Suk Chang, Manh Cuong Nguyen, and Rino Choi
소속: Inha University
- FP1-13 09:30-12:35 Dipole-induced Conduction Process Change in La-incorporated Hafnium-based Dielectric**
저자: Tae-Young Jang, Dong-Hyoub Kim, Jungwoo Kim, Jun Suk Chang, Cuong Nguyen Manh, Musarrat Hasan, and Rino Choi
소속: Department of Materials Science and Engineering, Inha University
- FP1-14 09:30-12:35 Impacts of Ar/N₂ Flow rates of Sputtered TiN Metal Gate on Electrical Properties in Gate-first Processed MOS Devices**
저자: Dongjun Yoo, Seung-Chan Heo, and Changhwan Choi
소속: Division of Materials Science and Engineering, Hanyang University
- FP1-15 09:30-12:35 Low-temperature Atomic Layer Deposition of Cobalt Oxide Thin Films using Cyclopentadienylcobalt Dicarboxyl and Ozone**
저자: 최규하¹, 한별¹, 박정우², 이원준¹
소속: ¹세종대학교 나노신소재공학과, ²한솔케미칼 박막재료팀
- FP1-16 09:30-12:35 Growth of Zn-Sn-O Films using by Plasma Enhanced Atomic Layer Deposition for TFTs Applications**
저자: B. K. Lee^{1,2}, D. C. Moon¹, E.-A. Jung¹, S. S. Lee¹, B. K. Park¹, J. H. Hwang², T.-M. Chung¹, C. G. Kim¹, and K. S. An¹
소속: ¹Thin Film Materials Research Team, Korea Research Institute of Chemical Technology, ²Department of Material Science and Engineering, Hongik University
- FP1-17 09:30-12:35 ZnO Nano-wire Deposited by Metal Organic Chemical Vapor Deposition (MOCVD) for Anti Reflection Coating (ARC) of Si Solar Cell**
저자: 최은석¹, 장삼석¹, 임소영², 탁성주¹, 김동환¹, 변동진¹
소속: ¹Department of Materials Science and Engineering, Korea

University, ²Department of Nano Semiconductor Engineering,
Korea University

FP1-18 09:30-12:35 Influence of Argon Neutral Particle Beam of High Energy in the Neutral Particle Beam Sputtering System Assisted the Change of Structural Properties on the Amorphous Carbon Film

저자: DongHyeok Lee¹, JinNyoung Jang¹, KwangHo Kwon², SukJae You³, BonJu Lee³, and MunPyo Hong¹

소속: ¹Department of Display and Semiconductor Physics, Korea University, ²Department of Control and Instrumentation Engineering, Korea University, ³National Fusion Research Institute

J. Nano-Science & Technology 분과

FP1-19 09:30-12:35 Fabrication of Silicon Nanowire Based Thermoelectric Device and Temperature Sensor Calibration

저자: Wonchul Choi^{1,2}, Youngsam Park¹, Younghoon Hyun¹, Taehyoung Zyung¹, Jaehyun. Kim^{1,3}, Mincheol Shin², and Moongyu Jang^{1,3}

소속: ¹Convergence Components & Material Research Lab., Electronics and Telecommunications Research Institute, ²Department of Electrical Engineering, KAIST, ³Department of Advanced Device Technology, UST

FP1-20 09:30-12:35 Fabrication of Sub-30nm Pillar Array by Oxygen Plasma Treatment

저자: Bongho Kim¹, Daehong Kim¹, Jihun Kwon¹, Sungwoo Chun¹, Seonjun Choi¹, and Seung-Beck Lee^{1,2,3}

소속: ¹Department of Electronic Engineering, Hanyang University, ²Department of Nanoscale Semiconductor Engineering, Hanyang University, ³Institute of Nano Science and Technology, Hanyang University

FP1-21 09:30-12:35 Thin Film Fabrication and Simultaneous Reduction of Deposited Graphene Oxide Platelets by Electrophoretic Deposition

저자: Sung Jin An

소속: School of Advanced Materials and Systems Engineering, Kumoh National Institute of Technology

- FP1-22 09:30-12:35 **Ion-gel Gate Dielectrics for Arrayed Si Nanowires Field Effect Transistors**
저자: 최진용, 조경아, 김상식
소속: 고려대학교 전기전자전파공학과
- FP1-23 09:30-12:35 **Fabrication of Beta-phase Poly(9,9-dioctylfluorene) Nanowire Array using Direct Printing Method**
저자: Jangmi Back and Myung M. Sung
소속: Department of Chemistry, Hanyang University
- FP1-24 09:30-12:35 **Graphene Sheets as P-type Transparent Conducting Electrodes in GaN Light Emitting Diodes**
저자: Jung Min Lee, Hae Yong Jeong, and Won Il Park
소속: Division of Materials Science and Engineering, Hanyang University
- FP1-25 09:30-12:35 **Fabrication of Vapor Phase Polymerized PEDOT Nanowire Arrays using Liquid-bridge-mediated Nanotransfer Molding**
저자: Boram Cho, Hyun S. Oh, and Myung M. Sung
소속: Department of Chemistry, Hanyang University
- FP1-26 09:30-12:35 **N-type Carbon Nanotube Network Device Based on Tunneling through SnO₂**
저자: Young Jun Heo, Jun Ho Cheon, Seok Ha Lee, Jaeheung Lim, and Young June Park
소속: School of Electrical Engineering, Seoul National University
- FP1-27 09:30-12:35 **The Predicted Crystal Structure of Li₄C₆O₆, an Organic Cathode Material for Li-ion Batteries: First-principles Multi-scale Computational Study**
저자: Dong-Hwa Seo¹, Hyungjun Kim², Haegyeom Kim¹, William A. Goddard III^{2,3}, and Kisuk Kang¹
소속: ¹Department of Materials Science and Engineering, Seoul National University, ²Graduate School of EEWS, KAIST, ³Materials and Process Simulation Center, California Institute of Technology

- FP1-28 09:30-12:35 **Fabricated Various Metallic Nano-sized Pattern using Ag Ink Printing Technique**
저자: 오상철¹, 신주현², 김진승², 김양두³, 이 현^{1,2,3}
소속: ¹고려대학교 나노반도체공학과, ²고려대학교 신소재공학과, ³고려대학교 바이오-마이크로 시스템 협동과정
- FP1-29 09:30-12:35 **A Graphene/Nanocluster Hybrid Nanomaterial-based Gas Sensor**
저자: I.-S. Kang and C. W. Ahn
소속: National Nanofab Center, Korea Advanced Institute of Science and Technology
- FP1-30 09:30-12:35 **Color Tunable OLEDs using Localized Surface Plasmons**
저자: Ilhwan Lee, Kihyon Hong, Sungjun Kim, and Jong-Lam Lee
소속: Department of Materials Science and Engineering and Division of Advanced Materials Science, Pohang University of Science and Technology
- FP1-31 09:30-12:35 **Analytic Model of Spin-Torque Oscillators(STO) for Circuit-level Simulation**
저자: 안소라¹ 임혜인¹, 서수만², 이경진², 신형순¹, 이승준¹
소속: ¹이화여자대학교 전자공학과, ²고려대학교 신소재공학과
- FP1-32 09:30-12:35 **Porosity Modulated Silicon Nanowires**
저자: Jungkil Kim^{1,2}, and Woo Lee^{1,2}
소속: ¹Korea Research Institute of Standards and Science, ²Department of Nano Science, University of Science and Technology
- N. VLSI CAD 분과**
- FP1-33 09:30-12:35 **Thermal Modeling of 3D Stacked MLC NAND Flash Memory**
저자: 김동기, 유승주, 이승구
소속: 포항공과대학교 전자전기공학과
- FP1-34 09:30-12:35 **System Model for CPU/GPU Architecture**

저자: 이성광¹, 유승주¹, 정재웅², 우동혁², 김대현²
소속: ¹포항공과대학교 전자전기공학과, ²Intel Corporation

FP1-35 09:30-12:35 High-throughput Double-binary MAP Decoder with Reduced Memory Requirement

저자: 김지훈
소속: 충남대학교 전자공학과

FP1-36 09:30-12:35 Promoting Data Reuse on Shared Memory of Hybrid System

저자: Toan X. Mai, YeonghunJeong, and Jongeun Lee
소속: School of Electrical and Computer Engineering, Ulsan National Institute of Science and Technology

FP1-37 09:30-12:35 쓰기 데이터의 특성 파악을 통한 Wear-leveling

저자: 유태희, 박상훈, 서혁준, 정의영
소속: 연세대학교 전기전자공학과

FP1-38 09:30-12:35 Interleaved Garbage Collection Schemeusing Dynamic Channel/Way Allocation for Solid-state Drive

저자: 김동건, 박상훈, 서혁준, 정의영
소속: 연세대학교 전기전자공학과

Q. Metrology, Inspection, and Yield Enhancement 분과

FP1-39 09:30-12:35 초음속 나노입자빔을 이용한 실리콘 웨이퍼 표면오염입자(10nm) 제거 실험

저자: 김인호, 이진원
소속: 포항공과대학교 기계공학과

FP1-40 09:30-12:35 Characterization of Overlay Error Induced by Film Stress using Local Stress Monitoring Tool

저자: C. H. Lee¹, J. T. Kim¹, J. H. Kim¹, H. Y. Yoo¹, I. K. Han¹, and W. S. Yoo²
소속: ¹Hynix Semiconductor Inc., ²WaferMasters, Inc.

FP1-41 09:30-12:35 The Pattern Wiggling CD Metrology using Flexible Scan & Dense Function

저자: 김종태¹, 이창환¹, 유형원¹, 한일근¹, 고경보², 곽동수³
소속: ¹하이닉스 반도체 MI팀, ²하이닉스 반도체 DRAM공정AP팀,
³Hitachi High-Technologies Corporation

- FP1-42 09:30-12:35 Electron Beam Inspection of Cell Mat Edge using Image Averaging and Comparison Metho**
저자: G. Kwon¹, J. H. Oh¹, D. Y. Mun¹, J. C. Jo², J. S. Koo², M. Nozoe², T. Ninomiya², T. Hiroi², H. Okuda², and H. W. Yoo¹
소속: ¹Hynix Semiconductor Inc.,
²Central Research Laboratory, Hitachi High-Technologies Corporation
- FP1-43 09:30-12:35 The Measurement of OCD (Optical critical dimension) for Yield Enhancement at Edge Die**
저자: Seok Park, Won Sik Yun, Chang Hwan Lee, Sung Su Kim, Hyung Won Yoo, and Il Keoun Han
소속: Hynix Semiconductor Inc.
- FP1-44 09:30-12:35 The MASK CD Control (CDC) using OCD applications**
저자: Hyun Chul Shin, Seok Park, Won Sik Yun, Chang Hwan Lee, Hyung Won Yoo, and Il Keoun Han
소속: Hynix Semiconductor Inc.
- FP1-45 09:30-12:35 The In-Line Monitoring Method of ZAZ Thickness Using WD-XRF**
저자: Jun Soo Kim, Sang Hoon Son, Shin Wang Ju, Hyung Won Yoo, and Il Keoun Han
소속: Hynix Semiconductor Inc.
- FP1-46 09:30-12:35 Substrate Materials Dependent Growth Characteristics of the Initial Stage of ALD Ruthenium Films using Synchrotron Radiation X-ray Scattering**
저자: Y. J. Park¹ and D. R. Lee²
소속: ¹Pohang Accelerator Laboratory, Pohang University of Science and Technology, ²Department of Physics, Soongsil University
- FP1-47 09:30-12:35 Improvement of Measurement Resolution for Determining Geometrical Thickness of a Silicon Wafer using a Femtosecond Pulse Laser**
저자: 맹새름^{1,3}, 박정재¹, 진종한^{1,2}, 김재완^{1,2}, 강주식^{1,2}, 김종안¹, 오병성³

소속: ¹한국표준과학연구원 길이센터, ²과학기술연합대학원대학교,
³충남대학교 물리학과

FP1-48 09:30-12:35

다결정성텅스텐 나노팁의 저전압 전계방출 안정성 평가

저자: 정재은, 안상정, 박창준, 김주황, 송운, 김달현, 배문섭, 이확주,
조양구

소속: 한국표준과학연구원 나노이미징기술센터