## 2025년 2월 12일(수)-14일(금) | 강원도 하이원리조트

## Future Normal in Semiconductor

2025년 2월 14일(금), 10:55-12:40 Room H(루비 I), 5층

# F. Silicon and Group-IV Devices and Integration Technology 분과 060\_[FH2-F] Process-Device Characterization

#### 좌장: 백명현 교수(강릉원주대학교), 정규원 교수(서울대학교)

|                        | Low-Temperature Deuterium Annealing for Improved Immunity Against   |
|------------------------|---|
|                        |   |
| FH2-F-1                | Hot-Carrier Injection in HKMG MOSFETs   |
|                        | Ju-Won Yeon, Hyo-Jun Park, Tae-Hyun Kil, Moon-Kwon Lee, Eui-Cheol Yun, Min-Woo  |
| 10:55-11:10            | Kim, Su-Jin Jeon, Dol Sohn, A-Young Kim, Sang-Min Kang, Da-Eun Bang, and Jun-   |
|                        | Young Park  |
|                        | Chungbuk National University  |
|                        | Comprehensive Understanding of Polarization Mechanism and Low   |
| FH2-F-2<br>11:10-11:25 | Operating Voltage by Hf <sub>0.5</sub> Zr <sub>0.5</sub> O <sub>2</sub> Thickness Scaling on Ge Channel   |
|                        | Jai-Youn Jeong <sup>1,2</sup> , Kyul Ko <sup>1</sup> , Changhwan Shin <sup>2</sup> , and Jae-Hoon Han <sup>1</sup>  |
|                        | <sup>1</sup> Center for Opto-electronic Materials and Devices, KIST, <sup>2</sup> Device and Circuit Laboratory,  |
|                        | Korea University  |
|                        | Assessed Madelline of NOFFT December 1975 and Oscillators   |
| FH2-F-3                | Accurate Modeling of NCFET-Based Ring Oscillators   |
| 11:25-11:40            | Jung Su Kim and Changhwan Shin  |
|                        | School of Electrical Engineering, Korea University  |
|                        | Improvement of Current Drivability Through Current Limiter Towards Bulk   |
| FH2-F-4                | DTMOS with Low-Power High-Performance Operation Versatility   |
| 11:40-11:55            | Yeji Lim and Seongjae Cho   |
|                        | Department of Electronic and Electrical Engineering, Ewha Womans University   |
|                        | Multi-Vt Engineering for Logic Devices Using Rare Earth Oxide-Based   |
|                        | Dipole-First Approach with Various Interfacial Layer Formation  |
| FH2-F-5                | Sang Kuk Han <sup>1</sup> , Hyun Jin Lim <sup>1</sup> , Ki Sub Kim <sup>1</sup> , Hyo Jin Ahn <sup>1</sup> , Yeh Been Im <sup>1</sup> , Won Jae Choi <sup>2</sup> , |
| 11:55-12:10            | Young Seo Na <sup>2</sup> , and Changhwan Choi <sup>1,2</sup>   |
|                        | <sup>1</sup> Division of Materials Science and Engineering, Hanyang University, <sup>2</sup> Department of  |
|                        | Semiconductor Engineering, Hanyang University   |



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| FH2-F-6<br>12:10-12:25 | Effects of Thermal Annealing Conditions on IGZO-Based MFMIS  |
|------------------------|--|
|                        | Ferroelectric TFTs   |
|                        | Hyeonjung Park <sup>1</sup> and Changhwan Shin <sup>2</sup>  |
|                        | <sup>1</sup> Department of Electrical and Computer Engineering, Sungkyunkwan University, <sup>2</sup> School                             |
|                        | of Electrical Engineering, Korea University  |
| FH2-F-7<br>12:25-12:40 | Atomic Layer Deposition for High-Mobility and Reliable ITZO Thin Film  |
|                        | Transistors  |
|                        | Hyeonjin Lee <sup>1</sup> , Hyeonho Gu <sup>2</sup> , Minho Park <sup>2</sup> , Yongwoo Lee <sup>2</sup> , and Jimin Kwon <sup>1,2</sup> |
|                        | <sup>1</sup> Graduate School of Semiconductor Materials and Devices Engineering, UNIST,  |
|                        | <sup>2</sup> Department of Electrical Engineering, UNIST   |