



# 제 31회 한국반도체학술대회

The 31st Korean Conference on Semiconductors

2024년 1월 24일(수)-26일(금) | 경주화백컨벤션센터(HICO)

2024년 1월 26일(금), 15:40-17:25

Room K(205), 2층

## G. Device & Process Modeling, Simulation and Reliability 분과

### [FK3-G] Device Characterization & Modeling II

좌장: 신흥식 수석(DB하이텍), 최성진 교수(국민대학교)

<p>FK3-G-1 15:40-15:55</p>	<p>Effect of Oxygen Content on the Density of States and Lateral Profile of Dopant Concentration in InGaZnO FETs regarding Oxygen Scavenging Seong Hoon Jeon, Won Jung Kim, Changwook Kim, Jong-Ho Bae, Sung-Jin Choi, Dong Myong Kim, and Dae Hwan Kim School of Electrical Engineering, Kookmin University</p>
<p>FK3-G-2 15:55-16:10</p>	<p>Characterization of the Effects of Hydrogen and Oxygen Contents on Current Stress-induced Instability in the Sub-micron Amorphous InGaZnO Thin-film Transistors based on the AC Bias Real-time Current Probe Do Hun Kim<sup>1</sup>, Jingyu Park<sup>1</sup>, Seoung Joo Myoung<sup>1</sup>, Sangwook Kim<sup>2</sup>, Kwang-Hee Lee<sup>2</sup>, Jee-Eun Yang<sup>2</sup>, Younjin Jang<sup>2</sup>, and Dae Hwan Kim<sup>1</sup> <sup>1</sup>School of Electrical Engineering, Kookmin University, <sup>2</sup>SAIT</p>
<p>FK3-G-3 16:10-16:25</p>	<p>Abnormal Hump Characteristic under Gated-Diode Pulse Stress and its Oxygen Content Effect in Sub-Micron IGZO TFTs Su Han Noh<sup>1</sup>, Jingyu Park<sup>1</sup>, Seoung Joo Myoung<sup>1</sup>, Sangwook Kim<sup>2</sup>, Kwang-Hee Lee<sup>2</sup>, Jee-Eun Yang<sup>2</sup>, Younjin Jang<sup>2</sup>, and Dae Hwan Kim<sup>1</sup> <sup>1</sup>School of Electrical Engineering, Kookmin University, <sup>2</sup>SAIT</p>
<p>FK3-G-4 16:25-16:40</p>	<p>Annealing Process for Improving Electrical Properties of a-IGZO TFTs with Underlap-channel So-Jeong Park<sup>1</sup>, Hanbin Lee<sup>1</sup>, Jeonghee Ko<sup>1</sup>, Yulim An<sup>1</sup>, Hyo-In Yang<sup>1</sup>, Gyoung-Su Min<sup>1</sup>, Jun-Ho Jang<sup>1</sup>, Jeong-Yeon Im<sup>1</sup>, Dong Myong Kim<sup>1</sup>, Dae Hwan Kim<sup>1</sup>, Jong-Ho Bae<sup>1</sup>, Min-Ho Kang<sup>2</sup>, and Sung-Jin Choi<sup>1</sup> <sup>1</sup>School of Electrical Engineering, Kookmin University, <sup>2</sup>Department of Nano-process, NNFC</p>
<p>FK3-G-5 16:40-16:55</p>	<p>Highly Reliable Hump-free Multiple Channel a-InGaZnO Thin-film Transistor on 8-inch Wafer Hyo-In Yang<sup>1</sup>, Hanbin Lee<sup>1</sup>, Jeonghee Ko<sup>1</sup>, Yulim An<sup>1</sup>, Gyoung-Su Min<sup>1</sup>, So-Jeong Park<sup>1</sup>, Jun-Ho Jang<sup>1</sup>, Jeong-Yeon Im<sup>1</sup>, Dong Myong Kim<sup>1</sup>, Dae Hwan Kim<sup>1</sup>, Jong-Ho Bae<sup>1</sup>, Min-Ho Kang<sup>2</sup>, and Sung-Jin Choi<sup>1</sup> <sup>1</sup>School of Electrical Engineering, Kookmin University, <sup>2</sup>Department of Nano-process, NNFC</p>



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<p>FK3-G-6 16:55-17:10</p>	<p>Quantitative Analysis based on Subgap Density-of-States (DOS) for Deuterium Annealing Effect in a-IGZO TFTs by TCAD and Experimental Characterization Seongbin Lim<sup>1</sup>, Hyeonjun Song<sup>1</sup>, Jaewook Yoo<sup>1</sup>, Hongseung Lee<sup>1</sup>, Soyeon Kim<sup>1</sup>, Jo Hak Jeong<sup>1</sup>, Kiyoung Lee<sup>3</sup>, Hyeon-Sik Jang<sup>1</sup>, Minah Park<sup>1</sup>, Seohyeon Park<sup>1</sup>, Keun Heo<sup>1</sup>, Jun-Young Park<sup>2</sup>, Yoon Kyeung Lee<sup>1</sup>, and Hagyoul Bae<sup>1</sup> <sup>1</sup>Jeonbuk National University, <sup>2</sup>Chungbuk National University, <sup>3</sup>Hongik University</p>
<p>FK3-G-7 17:10-17:25</p>	<p>Low-Frequency Noise and DC I-V Characterization for IrradiationInduced Degradation and Trap Behaviors in a-IGZO TFTs Hongseung Lee<sup>1</sup>, Jaewook Yoo<sup>1</sup>, Hyeonjun Song<sup>1</sup>, Soyeon Kim<sup>1</sup>, Seongbin Lim<sup>1</sup>, Seohyeon Park<sup>1</sup>, Minah Park<sup>1</sup>, Kiyoung Lee<sup>2</sup>, Yoon Kyeung Lee<sup>1</sup>, Keun Heo<sup>1</sup>, and Hagyoul Bae<sup>1</sup> <sup>1</sup>Jeonbuk National University, <sup>2</sup>Hongik University</p>