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

# Future Normal in Semiconductor

2025-02-14(금), 09:00-10:45

좌장: 추후업데이트 예정

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

### [FK1-G] Reliability & Packaging Simulation

	Insertion of Protective Layer for Enhancing Effect of N <sub>2</sub> O Plasma
FK1-G-1 09:00-09:15	Treatment on NBS Stability in IGZO TFTs
	Seungyoon Shin, Jinkyu Lee, Hyunjin Choi, Seong-In Cho, and Soo-Yeon Lee
	Department of Electrical and Computer Engineering, Inter-university Semiconductor
	Research Center, Seoul National University
FK1-G-2 09:15-09:30	Degradation modeling of positive bias stress reliability in a-IGZO TFTs
	considering the effects of oxygen and hydrogen
	Do Hun Kim <sup>1</sup> , Seung Joo Myoung <sup>1</sup> , Dong Hyeop Shin <sup>1</sup> , Jung Rae Cho <sup>1</sup> , Donguk Kim <sup>1</sup> ,
	Changwook Kim <sup>1</sup> , Dae Hwan Kim <sup>1</sup> , Narae Han <sup>2</sup> , Jee-Eun Yang <sup>2</sup> , Younjin Jang <sup>2</sup> , and Sangwook Kim <sup>2</sup>
	<sup>1</sup> School of Electrical Engineering, Kookmin University, <sup>2</sup> Samsung Advanced Institute
	of Technology, Samsung Electronics
FK1-G-3 09:30-09:45	Comprehensive Analysis of Proton Collision Effects in SOI MOSFETs
	using Transient and Steady-State Responses
	Hwan Jin Kim <sup>1</sup> , Haesung Kim <sup>1</sup> , Hyojin Yang <sup>1</sup> , Yubin Choi <sup>1</sup> , Sujong Kim <sup>1</sup> , Hyunwook
	Jeong <sup>1</sup> Sung-Jin Choi <sup>1</sup> , Dae Hwan Kim <sup>1</sup> , Dong Myong Kim <sup>2</sup> , Sung Yun Woo <sup>3</sup> , and
	Jong-Ho Bae <sup>1</sup>
	<sup>1</sup> School of the Electronic Engineering, Kookmin University, <sup>2</sup> Department of Advanced
	Technology, DGIST, 3School of Electronic and Electrical Engineering, Kyungpook
	National University
	Uncovering Novel Time Exponent Variations in PBTI of a-IGZO
	Transistors via a 1 <b>µs</b> Ultrafast On-the-Fly Technique
FK1-G-4	Taewon Seo <sup>1</sup> , Changeon Jin <sup>1</sup> , and Yoonyoung Chung <sup>1,2,3</sup>
09:45-10:00	<sup>1</sup> Department of Electrical Engineering, POSTECH, <sup>2</sup> Department of Semiconductor
	Engineering, POSTECH, <sup>3</sup> Center for Semiconductor Technology Convergence,
	POSTECH
	Analysis of Proton?Induced Electrical Degradation in a-IGZO TFTs under
FK1-G-5	Aerospace Environments
10:00-10:15	Yubin Choi <sup>1</sup> , Haesung Kim <sup>1</sup> , Hyojin Yang <sup>1</sup> , Junseong Park <sup>1</sup> , Hyunwook
	Jeong <sup>1</sup> , Sujong Kim <sup>1</sup> , Hwan Jin Kim <sup>1</sup> , Sung-Jin Choi <sup>1</sup> , Dae Hwan Kim <sup>1</sup> , Dong Myong



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	Kim <sup>2</sup> , Sung Yun Woo <sup>3</sup>
	, and Jong-Ho Bae <sup>1</sup>
	<sup>1</sup> School of the Electronic Engineering, Kookmin University, <sup>2</sup> Department of Advanced
	Technology, DGIST, <sup>3</sup> School of Electronic and Electrical Engineering, Kyungpook
	National University
	Data-driven Method for Predicting Thermo-mechanical Property Maps
FK1-G-6	of Patterned Semiconductor Packages Using Machine Learning
10:15-10:30	Jeong-Hyeon Park, Sung Jun Kang, and Eun-Ho Lee
	Sungkyunkwan University
	Development of an In-House Finite Element Method Simulator for Static
FK1-G-7	Structural Analysis of a Warped Wafer
10:30-10:45	Sung-Min Hong
	School of Electrical Engineering and Computer Science, GIST