



## Future Normal in Semiconductor

2025-02-14(금), 10:55-12:40

좌장: 추후업데이트 예정

### E. Compound Semiconductors 분과

#### [FM2-E] Optoelectronics

<p>FM2-E-1 10:55-11:10</p>	<p><b>Quantum Efficiency Enhancement of LWIR Type-II Superlattice Detectors using Guided-Mode Resonance</b> SEUNG-YEOP AHN<sup>1</sup>, JINHA LIM<sup>1</sup>, DAE-MYEONG GEUM<sup>1,2</sup>, DONGHO GWAK<sup>1</sup>, KANG KO-KU<sup>3</sup>, JUN HO EOM<sup>3</sup>, YOUNG HO KIM<sup>3</sup>, and SANGHYEON KIM<sup>1</sup> <sup>1</sup>School of Electrical Engineering, KAIST, <sup>2</sup>Department of electronic engineering, Inha University, <sup>3</sup>i3system, Inc.</p>
<p>FM2-E-2 11:10-11:25</p>	<p><b>중적외선 검출을 위한 표면 암전류 저감 T2SL 광검출기 array 제작</b> 한재훈<sup>1</sup>, 김상현<sup>2</sup>, 송진동<sup>1</sup>, 강준현<sup>3</sup>, 한일기<sup>3</sup> <sup>1</sup>한국과학기술연구원, 양자기술연구단, <sup>2</sup>한국과학기술원, <sup>3</sup>한국과학기술연구원, 나노포토닉스 연구센터</p>
<p>FM2-E-3 11:25-11:40</p>	<p><b>Short-Wave Infrared Detection Using Quantum-Well Photo-HEMTs</b> Yuna Lee<sup>1,2</sup>, DaeHwan Ahn<sup>1</sup>, Kyunghwan Kim<sup>1</sup>, Kyul Ko<sup>1</sup>, SungHan Jeon<sup>1</sup>, Juwon Seo<sup>3</sup>, JoonHyun Kang<sup>3</sup>, Woo-Young Choi<sup>2</sup>, and Jae-Hoon Han<sup>1</sup> <sup>1</sup>Center for Quantum Technology, KIST, <sup>2</sup>Department of Electrical and Electronic Engineering, Yonsei University, <sup>3</sup>Nanophotonics Research Center, KIST</p>
<p>FM2-E-4 11:40-11:55</p>	<p><b>Comparison of Bi-Layer and Tri-Layer Structures in ZrO<sub>2</sub>/ZnO/HfO<sub>2</sub> Synaptic Devices for Improved Neuromorphic Performance</b> Eungbeom Yeon<sup>1,2</sup>, Seungwan Woo<sup>1,3</sup>, In-Hwan Lee<sup>2</sup>, Daehwan Jung<sup>1</sup>, and Won Jun Choi <sup>1</sup>Center for Quantum Technology, KIST, <sup>2</sup>Department of Materials Science and Engineering, Korea University, <sup>3</sup>Department of Materials Science and Engineering, Seoul National University</p>
<p>FM2-E-5 11:55-12:10</p>	<p><b>Monolithically Integrated SWIR/MWIR Dual-Band Infrared Thin-Film Photodetector</b> Seungwan Woo<sup>1,2</sup>, Eungbeom Yeon<sup>1</sup>, Ho Won Jang<sup>2</sup>, Daehwan Jung<sup>1</sup>, and Won Jun Choi<sup>1</sup> <sup>1</sup>Center for Quantum Technology, KIST, <sup>2</sup>Department of Materials Science and Engineering, Seoul National University</p>



# 제 32회 한국반도체학술대회

The 32nd Korean Conference on Semiconductors

2025년 2월 12일(수)-14일(금) | 강원도 하이원리조트

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<p>FM2-E-6 12:10-12:25</p>	<p>자외선 이중대역내 선택적 검출을 위한 이종접합 GaN/Ga<sub>2</sub>O<sub>3</sub> 기반 광 검출기 연구 김선재<sup>1,2</sup>, 김형윤<sup>2</sup>, 박지현<sup>2</sup>, 전대우<sup>2</sup>, 황완식<sup>1</sup> <sup>1</sup>한국항공대학교 신소재공학과, <sup>2</sup>한국세라믹기술원 디스플레이소재센터</p>
<p>FM2-E-7 12:25-12:40</p>	<p>Optoelectronic Logic Operations based on the Poling Effect of CuO/BaTiO<sub>3</sub> Heterojunction Photodetectors with Ultra-Low Power Consumption Junhyung Cho<sup>1</sup>, Wangmyung Choi<sup>1</sup>, Taehyun Park<sup>1,2</sup>, and Hocheon Yoo<sup>1,2</sup> <sup>1</sup>Department of Semiconductor Engineering, Gachon University, <sup>2</sup>Department of Electronic Engineering, Gachon University</p>