



제 31회 한국반도체학술대회

The 31st Korean Conference on Semiconductors

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

2024년 1월 25일(목), 09:00-10:45

Room E(105), 1층

E. Compound Semiconductors 분과

[TE1-E] Compound Semiconductor - InP Electronic Devices

좌장: 이기원 교수(원광대학교)

초청발표 TE1-E-1 09:00-09:30	InP HEMT Based MMICs for Future Quantum Computing Applications Sang-jin Yoon ¹ , Sang-kuk Kim ¹ , Ted Kim ¹ , and Dae-hyun Kim ² ¹ QSI, ² School of Electronic and Electrical Engineering, Kyungpook National University
TE1-E-2 09:30-09-45	$L_g = 60$ nm 5-levels-stacked $\text{In}_{0.53}\text{Ga}_{0.47}\text{As}$ MBCFETs with $Q = 258$ J.-H. Yoo ¹ , H.-B. Jo ^{1,2} , I.-G. Lee ¹ , S.-M. Choi ¹ , H.-J. Kim ¹ , W.-S. Park ¹ , H. Jang ³ , C.-S. Shin ³ , K.-S. Seo ³ , S. H. Shin ⁴ , H.-M. Kwon ⁴ , SK. Kim ⁵ , JG. Kim ⁵ , J. Yun ⁵ , T. Kim ⁵ , J.-H. Lee ¹ , and D.-H. Kim ¹ ¹ Kyungpook National University, ² KETI, ³ KANC, ⁴ Polytech, ⁵ QSI
TE1-E-3 09:45-10:00	Cryogenic InGaAs HEMTs with Nb Superconductor for RF Transistors and Routing Circuits in Quantum Computing Jaeyong Jeong ¹ , Seong Kwang Kim ¹ , Yoon-Je Suh ¹ , Nahyun Rheem ¹ , Jisung Lee ² , Joonyoung Choi ³ , Juhyuk Park ¹ , Joon Pyo Kim ¹ , Bong Ho Kim ¹ , Younjung Jo ³ , Seung-Young Park ² , Jongmin Kim ⁴ , and Sanghyeon Kim ¹ ¹ School of Electrical Engineering, KAIST, ² Center for Scientific Instrumentation, KBSI, ³ Department of Physics, Kyungpook National University, ⁴ KANC
TE1-E-4 10:00-10:15	Experimental Investigation of Scattering Mechanism in $\text{In}_{0.8}\text{Ga}_{0.2}\text{As}$ HEMTs at Cryogenic Temperature Seung-Woo Son ¹ , Ji-Hoon Yoo ¹ , Min-Seo Yu ¹ , Wan-Soo Park ¹ , In-Geun Lee ¹ , Jae-Hak Lee ¹ , Kyounghoon Yang ² , and Dae-Hyun Kim ¹ ¹ School of Electronic and Electrical Engineering, Kyungpook National University, ² KAIST
TE1-E-5 10:15-10:30	A Simple Yet Physical Model for Cutoff Frequency and Maximum Oscillation Frequency of High-electron-mobility Transistors In-Geun Lee ¹ , Su-Min Choi ¹ , Hyeon-Bhin Jo ^{1,2} , Wan-Soo Park ¹ , Ji-Hoon Yoo ¹ , Hyo-Jin Kim ¹ , Takuya Tsutsumi ³ , Hiroki Sugiyama ³ , Hideaki Matsuzaki ³ , Jae-Hak Lee ¹ , and Dae-Hyun Kim ¹ ¹ Kyungpook National University, ² KETI, ³ NTT Device Technology Laboratories
TE1-E-6 10:15-10:45	Improved Thermal Reliability in Base Contact of Full 3-inch InP Double-HBTs with f_T and f_{max} in Excess of 300 GHz Yong-Soo Jeon ¹ , In-Geun Lee ¹ , Yonghyun Kim ² , Jacob Yun ² , Ted Kim ² , Hyuk-Min Kwon ³ , Seung Heon Shin ³ , Jae-Hak Lee ¹ , Kyounghoon Yang ⁴ , and Dae-Hyun Kim ¹ ¹ Kyungpook National University, ² QSI, ³ Korea Polytechnics, ⁴ KAIST