



7th IEEE Electron Devices Technology and Manufacturing (EDTM) Conference 2023

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52D. Group IV Devices	
Session Date:	March 10(Fri.), 2023
Session Time:	10:40-12:20
Session Room:	Room D (#308 bc)
Session Chair:	Prof. Woo Young Choi (Seoul National University)

[52D-1] [Invited]	10:40-11:05
Building the Path to Ubiquitous Wireless Connectivity, from Materials to Systems	
Luis Andia and Yvan Morandini	
<i>Soitec</i>	
[52D-2]	11:05-11:20
Operation Scheme Optimization for Charge Trap Transistors (CTTs) Based on Fully Depleted Silicon-on-Insulator (FDSOI) Platform	
Wannian Wang ¹ , Bing Chen ¹ , Jiayi Zhao ¹ , Sebastien Loubriat ² , Guillaume Besnard ³ , Christophe Maleville ³ , Olivier Weber ⁴ and Ran Cheng ¹	
¹ Zhejiang University, ² CEA-Leti, ³ Soitec, ⁴ STMicroelectronics	
[52D-3]	11:20-11:35
Variable-Temperature Broadband Noise Characterization of MOSFETs for Cryogenic Electronics: from Room Temperature down to 3 K	
Kenji Ohmori ¹ and Shuhei Amakawa ²	
¹ Device Lab Inc., ² Hiroshima University	
[52D-4]	11:35-11:50
Improved Electrical Characteristics of Ge p-MOSFET with Ti-GeO_x Interfacial Layer by In-Situ Plasma-Enhanced Atomic Layer Deposition	
Hui-Hsuan Li ¹ , Yu-Hsien Lin ² , Tsung-Yen Tu ² and Chao-Hsin Chien ¹	
¹ National Yang Ming Chiao Tung University, ² National United University	
[52D-5]	11:50-12:05
SiGe-Based Nanowire HBT for THz Applications	
Soumya Ranjan Panda ^{1,2} , Sebastien Fregonese ¹ , Anjan Chakravorty ² and Thomas Zimmer ¹	
¹ University of Bordeaux, ² Indian Institute of Technology Madras	
[52D-6]	12:05-12:20
1T FDSOI Based LIF Neuron without Reset Circuitry: A Proposal and Investigation	
V Rajakumari ¹ , S R Panda ² and K P Pradhan ¹	
¹ Indian Institute of Information Technology, Design and Manufacturing Kancheepuram, ² University of Bordeaux	