



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

March 7 – 10, 2023 / COEX Seoul, Korea

3C. Emerging Materials and Devices	
Session Date:	March 8(Wed.), 2023
Session Time:	10:55-12:15
Session Room:	Room C (#307 a)
Session Chair:	Prof. Chun-Jung Su (National Yang Ming Chiao Tung University)
	Prof. Kiyong Lee (Hongik University)

[3C-1] [Invited]

10:55-11:20

Material Challenges for Next Generation Memory and Logic Devices

Kong-Soo Lee, Sung-Uk Jang, Suk Yang, Sanghoon Ahn, Young-Geun Park, Bong Jin Kuh, and Jong Myeong Lee

Samsung Electronics Co., Ltd

[3C-2] [Invited]

11:20-11:45

Multi-Layer Stacked Nanosheet Hetero-Structure Realized by Layer Transfer Technology for CFET Application (Invited)

Wen Hsin Chang¹, Xin Ren Yu², Tzu Chieh Hong^{3,4}, Hiroyuki Ishii¹, Toshifumi Irisawa¹, Yao Jen Lee^{3,4}, Tien Sheng Chao³, Yeong Her Wang² and Tatsuro Maeda¹

¹National Institute of Advanced Industrial Science and Technology, ²National Cheng Kung University, ³Taiwan Semiconductor Research Institute, ⁴National Yang Ming Chiao Tung University

[3C-3]

11:45-12:00

Demonstration of MoS₂ Memtransistor with Poly-Si Source/Drain Featuring Tunable Conductance States and Boosted I_{ON}

K. S. Li¹, M. K. Huang², Y. H. Wang², Y. C. Tseng¹ and C. J. Su^{1,3}

¹National Yang Ming Chiao Tung University, ²National Cheng Kung University, ³Taiwan Semiconductor Research Institute

[3C-4]

12:00-12:15

Van der Waals Metal-Semiconductor Contacts for High-Performance Polymer Field-Effect Transistors

Xilin Lai¹, Chunyan Zhao¹, Ru Huang^{1,2} and Ming He^{1,2}

¹Peking University, ²Beijing Advanced Innovation Center for Integrated Circuits