



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

March 7 – 10, 2023 / COEX Seoul, Korea

21G. Emerging Devices Modeling I

Session Date:	March 8(Wed.), 2023
Session Time:	15:15-16:25
Session Room:	Room G (#318)
Session Chair:	Prof. Dae Woong Kwon (Inha University)

[21G-1] [Invited]

15:15-15:40

DC and Transient Microscopic Simulation of Nanowire NMOSFETs

Christoph Jungemann¹, Tobias Rippchen¹, Maziar Noei² and Tobias Linn¹

¹RWTH Aachen University, ²Infineon Technologies

[21G-2]

15:40-15:55

Interpolative Device Models for Hafnia-Based FeFETs

Imtiaz Hossen¹, Andreu L. Glasmann², Sina Najmaei² and Gina C. Adam¹

¹The George Washington University, ²DEVCOM Army Research Laboratory

[21G-3]

15:55-16:10

New Understanding of Screen Radius and Re-Evaluation of Memory Window in Cylindrical Ferroelectric Capacitor for High-Density 1T1C FeRAM

Minyue Deng¹, Chang Su¹, Zhiyuan Fu¹, Kaifeng Wang¹, Ru Huang^{1,2} and Qianqian Huang^{1,2,3}

¹Peking University, ²Beijing Advanced Innovation Center for Integrated Circuits, ³Beijing Superstring Academy of Memory Technology

[21G-4]

16:10-16:25

Impact of Device Geometry, Physical Doping and Electrostatic Doping on the Frequency CV-Dispersion of TFT Devices with IWO Channels

Andrea Palmieri¹, Karim Cherkaoui², Khandker Akif Aabrar³, Yaoqiao Hu³, Luca Larcher¹, Kyeongjae Cho⁴, Suman Datta³, Paul Hurley² and Milan Pešić¹

¹Applied Materials, ²Tyndall National Institute, ³Georgia Institute of Technology, ⁴The University of Texas at Dallas