



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

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41G. TCAD for Nano-Scale FET	
Session Date:	March 9(Thu.), 2023
Session Time:	14:45-16:10
Session Room:	Room G (#318)
Session Chair:	Prof. Rock-Hyun Baek (Pohang University of Science and Technology)

[41G-1] [Invited]

14:45-15:10

Deep Learning for Semiconductor Materials and Devices Design

Changwook Jeong¹, Sanghoon Myung², Byungseon Choi², Jinwoo Kim², Wonik Jang², In Huh², Jae Myung Choe², Young-Gu Kim² and Dae Sin Kim²

¹Ulsan National Institute of Science and Technology, ²Samsung Electronics Co., Ltd.

[41G-2]

15:10-15:25

Optimization of Ge Mole Fraction in Sacrificial Layers for Sub-3-nm Node Silicon Nanosheet FETs

Sanguk Lee, Jinsu Jeong, Jun-Sik Yoon, Seunghwan Lee, Junjong Lee, Jaewan Lim and Rock-Hyun Baek

Pohang University of Science and Technology

[41G-3]

15:25-15:40

Investigation of Self-Heating Effect in Forksheet FETs for Sub-3-nm Node

Jaewan Lim, Jinsu Jeong, Junjong Lee, Seunghwan Lee, Sanguk Lee and Rock-Hyun Baek

Pohang University of Science and Technology

[41G-4]

15:40-15:55

Process Condition Effects on Saddle Fin Profile and Its Device Performance below 20nm Advanced DRAM

Yexiao Yu, Zhongming Liu and Hong Ma

ChangXin Memory Technologies, Inc.

[41G-5]

15:55-16:10

Process-Induced Uniaxial Strain in Nanosheet-FET Based CMOS Technology – Is It Still Beneficial?

Ramandeep Kaur and Nihar R. Mohapatra

Indian Institute of Technology Gandhinagar