



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

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33F. Memory for Computing (II)	
Session Date:	March 9(Thu.), 2023
Session Time:	13:00-14:35
Session Room:	Room F (#317)
Session Chair:	Prof. I-Ting Wang (National Yang Ming Chiao Tung University)
	Prof. Tae-Sik Yoon (Ulsan National Institute of Science and Technology)

[33F-1] [Invited] 13:00-13:25

Prospect and Challenges in Hf-Based Non-Volatile Memory Devices for AI Applications Featuring Analog Training

Sun-Ghil Lee¹, S. Consiglio¹, K. Tapily¹, R. D. Clark¹, C. Wajda¹, T. Tsunomura², C. Catano¹, Q. Yang¹, J. Shearer¹, A. Metz¹, D. Triyoso¹, Y. Kim³, P. Jamison⁴, I. Saraf⁴, C. Silvestre⁴, H. Miyazoe³, M. Rasch³, N. Gong³, T. Ando³, V. arayanan³ and Gert L¹

¹Tokyo Electron Limited Technology Center, ²Tokyo Electron Limited, ³IBM T. J. Watson Research Center, ⁴IBM Research

[33F-2] 13:25-13:40

Scheme of Opposite Polarity Assistance De-Trapping (OPAD) to Improve Potentiation Non-Linearity for FeFET Synapse

C.-Y. Liao¹, S.-H. Chang¹, F.-C. Hsieh¹, T.-C. Chen² and M. H. Lee¹

¹National Taiwan Normal University, ²Taiwan Semiconductor Manufacturing Company

[33F-3] 13:40-13:55

Analysis and Design of Stacked-Nanosheet FeFET Synapse Conductance Response under Identical Pulse Scheme for Neuromorphic Applications

Heng Li Lin and Pin Su

National Yang Ming Chiao Tung University

[33F-4] 13:55-14:10

Highly Linear and Symmetric 2T Synaptic Device Composed of IGZO Transistors by Identical Charging and Discharging Characteristics

Suwon Seong, Seongmin Park, Hyunyoung Cho and Yoonyoung Chung

Pohang University of Science and Technology

[33F-5] [Invited] 14:10-14:35

Organic Memristor Devices, Integration and Neuromorphic Computing Applications

Shuzhi Liu, Jianmin Zeng and Gang Liu

Shanghai Jiao Tong University