



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

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57D. Devices for Emerging Applications	
Session Date:	March 10(Fri.), 2023
Session Time:	13:15-14:50
Session Room:	Room D (#308 bc)
Session Chair:	Dr. Kakushima Kuniyuki (Tokyo Institute of Technology)

[57D-1] [Invited] 13:15-13:40

Phosphosilicate Glass-Based Nanosecond Protonic Programmable Resistors for Analog Deep Learning

Murat Onen, Ju Li, Bilge Yildiz and Jesús A. del Alamo

Massachusetts Institute of Technology

[57D-2] [Invited] 13:40-14:05

Strategy for Low Temperature HZO Ferroelectric Capacitors for Back-End of Line Applications

Jin-Hyun Kim¹, Minjong Lee¹, Seojun Lee^{1,2}, Yong Chan Jung¹, Rino Choi², Hyun Jae Kim³, Si Joon Kim⁴ and Jiyoung Kim¹

¹The University of Texas at Dallas, ²Inha University, ³Yonsei University, ⁴ Kangwon National University

[57D-3] 14:05-14:20

Sharp Turn-On Diode by Steep SS “PN-Body Tied SOI FET” for Ultra-Low Power RF Energy Harvesting

Masayuki Ono¹, Jiro Ida¹, Takayuki Mori¹ and Koichiro Ishibashi²

¹Kanazawa Institute of Technology, ²The University of Electro-Communications

[57D-4] 14:20-14:35

Intercalated Multilayer Graphene / Nickel Hybrid Antenna with Enhanced Inductance Density for Size Reduction

Keigo Hosokawa, Kenta Matsunaga and Kazuyoshi Ueno

Shibaura Institute of Technology

[57D-5] 14:35-14:50

Design and Demonstration of Cu/ Al₂O₃ /Cu RRAM with Complementary Resistance Switching Characteristic

Huanmei Yuan^{1,2,4}, Yang Chai³, Shunqi Dai^{1,2}, Cristine Jin Estrada¹, Yuqing Zhang¹, Annan Xiong^{1,2}, Hao Bai³, Guangyu Du³, Songhua Cai³, Zhimin Li³, Songcen Xu¹ and Mansun Chan^{1,2}

¹ The Hong Kong University of Science and Technology, ²InnoHK Centers, ³The Hong Kong Polytechnic University, ⁴University of Science and Technology Beijing