

[TS10T3]

Nanoelectronic and Quantum Devices 3

Date & Time	July 4(Thu.), 2024 / 09:00–10:30
Place	Room 206A
Session Chair(s)	Hongseok Oh (Soongsil Univ.)

TS10T3_I_1 *Invited 09:00–09:30

Quantum Computing as a Tool for Scientific Research: Era of Quantum Utility

Hanhee Paik

(IBM Quantum)

TS10T3_I_2 *Invited 09:30–10:00

Scaling of Operating Voltage of HZO Ferroelectric Capacitors for Low Power Nonvolatile Memory Applications

Jiyoung Kim¹, MinJong Lee¹, JinHyun Kim¹, SoonMyung Kwon¹, Soham Shirodkar¹, Seongbin Park², Jongmug Kang², and Si Joon Kim²

(¹University of Texas at Dallas, ²Kangwon National University)

TS10T3_O_3 10:00–10:15

Investigating Magnetic Multi-Walled Carbon Nanotubes Irradiated by Swift Heavy Ion Irradiations for Quantum Device Applications: A XAS and XMCD Study

Sanjeev Gautam¹, P. Thakur², Saji Augustine³, Han-Koo Lee⁴, K. Asokan⁵, and Keun Hwa Chae⁶

(¹Panjab University, ²Diamond Light Source Ltd., ³Deva Matha College Kuravilangad, ⁴Pohang Accelerator Laboratory, ⁵Inter-University Accelerator Center, ⁶KIST)

TS10T3_O_4 10:15–10:30

Demonstration of Synaptic Behavior under Identical Pulses in Selector-Less HfO_x-Based RRAM for Neuromorphic Computing Systems

Yunsur Kim and Jiyong Woo

(Kyungpook National University)