



# 제 30회 한국반도체학술대회

The 30th Korean Conference on Semiconductors

2023년 2월 13일(월)~ 15일(수) | 강원도 하이원리조트(그랜드호텔 컨벤션타워)

2023년 2월 14일(화), 09:00-10:45

Room L (다이아몬드 II, 6층)

## G. Device & Process Modeling, Simulation and Reliability 분과

### [TL1-G] Ab-initio Simulation

좌장: 장지원 교수(연세대학교), 정창욱 교수(UNIST)

<p>TL1-G-1 09:00-09:30 [초청]</p>	<p><b>First-Principles Simulations of Surface Chemical Reactions during Atomic Layer Deposition Processes</b> Bonggeun Shong <i>Department of Chemical Engineering, Hongik University</i></p>
<p>TL1-G-2 09:30-09:45</p>	<p><b>Reduction of Device Hamiltonian with Automatic Differentiation</b> Yeongjun Lim and Mincheol Shin <i>School of Electrical Engineering, KAIST</i></p>
<p>TL1-G-3 09:45-10:00</p>	<p><b>Finite-Bias First-Principles Calculations of Contact Resistance of Transition Metal Dichalcogenides</b> Tae Hyung Kim, Juho Lee, and Yong-Hoon Kim <i>School of Electrical Engineering, KAIST</i></p>
<p>TL1-G-4 10:00-10:15</p>	<p><b>Morphotropic Phase Transition Derived from Strain on <math>\text{Hf}_{0.5}\text{Zr}_{0.5}\text{O}_2</math> Thin Film by TiN Electrode</b> Il Young Lee<sup>1,2</sup> and Jae Jun Yu<sup>1,2</sup> <sup>1</sup><i>Center for Theoretical Physics, Seoul National University, </i><sup>2</sup><i>Department of Physics and Astronomy, Seoul National University</i></p>
<p>TL1-G-5 10:15-10:30</p>	<p><b>First-Principles Analysis on Surface Reaction Kinetics of Precursors for Atomic Layer Deposition of Hafnium Oxide</b> Jinwoo Lee and Bonggeun Shong <i>Department of Chemical Engineering, Hongik University</i></p>
<p>TL1-G-6 10:30-10:45</p>	<p><b>Silicon Passivation of Zigzag Graphene Edge Enabling Robust Spinpolarized Nanogap Quantum Transport</b> Seunghyun Yu, Juho Lee, and Yong-Hoon Kim <i>School of Electrical Engineering, KAIST</i></p>