



# 제 31회 한국반도체학술대회

The 31st Korean Conference on Semiconductors

2024년 1월 24일(수)-26일(금) | 경주화백컨벤션센터(HICO)

2024년 1월 26일(금), 09:00-10:45

Room I(203), 2층

## D. Thin Film Process Technology 분과

### [F11-D] Atomic Layer Deposition - I

좌장: 엄태용 선임(한국화학연구원), 송봉근 교수(홍익대학교)

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| 초청발표<br>F11-D-1<br>09:00-09:30 | Pt Thin Films by Atomic Layer Deposition Using Dimethyl(N,N-Dimethyl-3-Buten-1-Amine-N) Platinum and O <sub>2</sub> Reactant towards Semiconductor Application<br>Woo-Jae Lee<br><sup>1</sup> Department of Nanotechnology Engineering, Pukyong National University                                                                                                                                                                                                                                                                                                                                                |
| F11-D-2<br>09:30-09:45         | Growth of Rutile c-axis Oriented TiO <sub>2</sub> Thin-films with Ultralow Equivalent Oxide Thickness and Leakage Currents<br>Taiky Kim <sup>1</sup> , Jihoon Jeon <sup>1,2</sup> , Myungsu Jang <sup>1,2</sup> , and Seong Keun Kim <sup>1,2</sup><br><sup>1</sup> Electronic Materials Research Center, KIST, <sup>2</sup> KU-KIST Graduate School of Converging Science and Technology, Korea University                                                                                                                                                                                                        |
| F11-D-3<br>09:45-10:00         | Improving Performance of TiO <sub>2</sub> /ZrO <sub>2</sub> /TiO <sub>2</sub> Laminated Capacitor by Layer-by-layer Phase Control Using Atomic Layer Annealing<br>Geongu Han <sup>1</sup> , Kyoungjae Ju <sup>2</sup> , Chanwook Choi <sup>2</sup> , Hyong June Kim <sup>3</sup> , and Jihwan An <sup>2,3</sup><br><sup>1</sup> Department of Manufacturing Systems and Design Engineering, Seoul National University of Science and Technology, <sup>2</sup> Department of Mechanical Engineering, POSTECH, <sup>3</sup> Institute of Energy and Environment, Seoul National University of Science and Technology |
| F11-D-4<br>10:00-10:15         | The Effect of Process Pressure on Improving Resistivity of Ru Thin Films Deposited by Atomic Layer Deposition<br>Na-Gyeong Kang, Min-Ji Ha, and Ji-Hoon Ahn<br>Department of Materials Science and Chemical Engineering, Hanyang University                                                                                                                                                                                                                                                                                                                                                                        |
| F11-D-5<br>10:15-10:30         | Thermal Atomic Layer Deposition of Ru-incorporated MoCx Films as Cu Diffusion Barrier and Seed Layer<br>Ji Sang Ahn and Jeong Hwan Han<br>Department of Materials Science and Engineering, Seoul National University of Science and Technology                                                                                                                                                                                                                                                                                                                                                                     |



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| F11-D-6<br>10:30-10:40 | MoO <sub>2</sub> Film Fabrication via Atomic Layer Deposition with Mo(IV) Precursor and Oxygen and Ozone Reactants for DRAM Applications<br>Ara Yoon, Hae Lin Yang, Sanghoon Lee, and Jin-Seong Park<br>Division of Materials Science and Engineering, Hanyang University |
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