

# 제22회 한국반도체학술대회

2015년 2월 10일(화) - 12일(목), 인천 송도컨벤시아

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## D. Thin Film Process Technology 분과

Room D  
1F / 107호

2015년 2월 12일(목) 09:00-10:30

[TD1-D] Memory Thin-Film Technologies

좌장: 박태주 (한양대학교)

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| TD1-D-1 | 09:00-09:15 | <b>Evaluating the Top Electrode Material for Achieving an Equivalent Oxide Thickness Smaller than 0.4 nm from an Al-doped TiO<sub>2</sub> Film</b><br>Woojin Jeon, Sijung Yoo, Hyo Kyeom Kim, Woongkyu Lee, Cheol Hyun An, Min Jung Chung, and Cheol Seong Hwang<br>Department of Materials Science and Engineering and Inter-university Semiconductor Research Center, Seoul National University  |
| TD1-D-2 | 09:15-09:30 | <b>Influence of Reduced Al-Doping Concentration with Modified Atomic Layer Deposition Recipes on Electrical Properties of TiO<sub>2</sub> Films</b><br>Cheol Jin Cho <sup>1,2</sup> , Min-Jung Choi <sup>1</sup> , Jin-Sang Kim <sup>1</sup> , Cheol Seong Hwang <sup>2</sup> , and Seong Keun Kim <sup>1</sup><br><sup>1</sup> Electronic Materials Research Center, Korea Institute of Science and Technology, <sup>2</sup> Department of Materials Science and Engineering, Seoul National University   |
| TD1-D-3 | 09:30-09:45 | <b>Atomic Layer Deposition of Chalcogenide Films using Novel Ge Precursor</b><br>Taehong Gwon <sup>1</sup> , Taeyong Eom <sup>1</sup> , Sijung Yoo <sup>1</sup> , Moo-Sung Kim <sup>2</sup> , Iain Buchanan <sup>3</sup> , Manchao Xiao <sup>3</sup> , and Cheol Seong Hwang <sup>1</sup><br><sup>1</sup> Department of Materials Science and Engineering and Inter-university Semiconductor Research Center, Seoul National University, <sup>2</sup> Air Products Korea, <sup>3</sup> Air Products and Chemicals, Inc.  |
| TD1-D-4 | 09:45-10:00 | <b>Conformal Formation of Ge<sub>2</sub>Sb<sub>2</sub>Te<sub>5</sub> Film for Phase Change Memories Realized by Controlling Non-Ideal Behaviors of ALD.</b><br>Taeyong Eom <sup>1</sup> , Taehong Gwon <sup>1</sup> , Sijung Yoo <sup>1</sup> , Byung Joon Choi <sup>2</sup> , Moo-Sung Kim <sup>3</sup> , Iain Buchanan <sup>4</sup> , Manchao Xiao <sup>4</sup> , and Cheol Seong Hwang <sup>1</sup><br><sup>1</sup> Department of Materials Science and Engineering and Inter-university Semiconductor Research Center, Seoul National University, <sup>2</sup> Department of Materials Science and Engineering, Seoul National University of Science and Technology, <sup>3</sup> Air Products Korea, <sup>4</sup> |
| TD1-D-5 | 10:00-10:15 | <b>Electronic Type Self-Rectifying Resistive Switching Memory with Excellent Uniformity and Multi-level Functionality in Pt/Ta<sub>2</sub>O<sub>5</sub>/HfO<sub>2-x</sub>/Ti Structure</b><br>Jung Ho Yoon, Seul Ji Song, Jun Yeong Seok, Kyung Jean Yoon, Dae Eun   |

The 22<sup>nd</sup> Korean Conference on Semiconductors (KCS 2015)

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Kwon, Tae Hyung Park, Young Jae Kwon, and Cheol Seong Hwang

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Semiconductor Research Center, Seoul National University

**TD1-D-6      10:15-10:30      Al-doped ZnO Thin Films as Switching Layers for Nonvolatile Resistive-  
Change Memory Devices**

Won-Ho Lee, Eom-Ji Kim, and Sung-Min Yoon

Department of Advanced Materials Engineering for Information and  
Electronics, Kyung Hee University