

# 제22회 한국반도체학술대회

2015년 2월 10일(화) - 12일(목), 인천 송도컨벤시아

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## A. Interconnect & Package 분과

Room A  
1F / 104호

2015년 2월 12일(목) 13:10-14:40

### [TA2-A] Barriers for Cu Interconnect

좌장: 이원준 (세종대학교), 김덕기 (세종대학교)

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| TA2-A-1 | 13:10-13:25 | <b>Synthesis of Ru-Mn Alloy Thin Films by Atomic Layer Deposition as a Cu Direct-Plateable Diffusion Barrier</b><br>Hyun-Jung Lee <sup>1</sup> , Seung-Joon Lee <sup>1</sup> , Seungmin Yeo <sup>1</sup> , Yujin-Jang <sup>1</sup> , Taehoon Cheon <sup>1,2</sup> , Tae Eun Hong <sup>3</sup> , and Soo-Hyun Kim <sup>1</sup><br><sup>1</sup> School of Materials Science and Engineering, Yeungnam University, <sup>2</sup> Center for Core Research Facilities, Deagu Gyeonbuk Institute of Science & Technology, <sup>3</sup> Busan Center, Korea Basic Science Institute   |
| TA2-A-2 | 13:25-13:40 | <b>Highly Reliable Cu Interconnect using CVD Ru Liner for 10 nm Node Logic Device and Beyond</b><br>Jin-Nam Kim, Rak-Hwan Kim, Byung-Hee Kim, Tsukasa. Matsuda, Jong-Min Baek, Jong-Jin Lee, Jung-Ha Hwang, Seung-Yong Yoo, Kyung-Min Chung, Eui-Bok Lee, Jin-Seok Kim, Hyun-Jun Choi, Ki-Hyun Park, Sang-Hoon Ahn, Seong-Ho Park, Nae-In Lee, Ja-Hum Ku, Sunhom Steve Paak, Ho-Kyu Kang, and ES Jung<br>Semiconductor R&D Center Process Development Team, Samsung Electronics Co., Ltd.  |
| TA2-A-3 | 13:40-13:55 | <b>Ru Thin Films by Thermal Atomic Layer Deposition using H<sub>2</sub> Molecules as a Non-Oxidizing Reactant</b><br>Seung-Joon Lee <sup>1</sup> , Minyoung Lee <sup>1</sup> , Taehoon Cheon <sup>1,2</sup> , Soo-Hyun Kim <sup>1</sup> , Tae Eun Hong <sup>3</sup> , Masayuki Saito <sup>4</sup> , Kazuharu Suzuki <sup>4</sup> , Shunichi Nabeya <sup>4</sup> , Jeongyeop Lee <sup>5</sup> , Sangdeok Kim <sup>5</sup> , and Seungjin Yeom <sup>5</sup><br><sup>1</sup> School of Materials Science and Engineering, Yeungnam University, <sup>2</sup> Center for Core Research Facilities, Deagu Gyeonbuk institute of Science & Technology, <sup>3</sup> Busan Center, Korea Basic Science Institute, <sup>4</sup> TANAKA Kikinzoku Kogyo K.K., <sup>5</sup> SK Hynix Inc. |
| TA2-A-4 | 13:55-14:10 | <b>Effect of Post-Annealing Treatments on the Interfacial Reliability of Co Capping layer for Advance Cu Interconnects</b><br>Hyeon-Chul Lee <sup>1</sup> , Minsu Jung <sup>1</sup> , Byung-Hyun Bae <sup>1</sup> , Hee-Oh Kang <sup>1</sup> , Wook-Jung Hwang <sup>2</sup> , Jeong-Min Seo <sup>3</sup> , Tak-Soo Kim <sup>3</sup> , and Young-Bae Park <sup>1</sup><br><sup>1</sup> School of Material Science and Engineering, Andong National University,  |