

# 제23회 한국반도체학술대회

2016년 2월 22일(월)-24일(수), 강원도 하이원리조트

## I. MEMS & Sensor Systems 분과

Room F  
봉래 I (6층)

2016년 2월 23일(화) 08:30-10:30

[TF1-I] High Efficiency Sensors and Devices

좌장 : 전동환(한국나노기술원), 한상욱(한국과학기술연구원)

- 
- |         |             |   |
|---------|-------------|---|
| TF1-I-1 | 08:30-08:45 | <b>Flexible Inorganic-based Piezoelectric Acoustic Nanosensors by Mimicking Human Cochlea</b><br>Jae Hyun Han, Geon-Tae Hwang, Chang Kyu Jeong, and Keon Jae Lee<br><i>Department of Materials Science and Engineering, KAIST</i>   |
| TF1-I-2 | 08:45-09:00 | <b>Sampling Time and pH-dependences of SiNW ISFET-based Biosensors</b><br>Seohyeon Kim <sup>1</sup> , Jungmok Kim <sup>1</sup> , Hyun-Sun Mo <sup>1</sup> , Jung Han Lee <sup>2</sup> , Dong Myong Kim <sup>1</sup> , Sung-Jin Choi <sup>1</sup> , Byung-Gook Park <sup>2</sup> , Dae Hwan Kim <sup>1,2</sup> , and Jisun Park <sup>1</sup><br><i><sup>1</sup>School of Electrical Engineering (EE), Kookmin University, <sup>2</sup>Inter-university Semiconductor Research Center (ISRC), Seoul National University</i> |
| TF1-I-3 | 09:00-09:15 | <b>Gas-sensing Characteristics of Exfoliated WSe<sub>2</sub> Field-effect Transistors</b><br>Yoonki Hong, Won-Mook Kang, In-Tak Cho, Meile Wu, and Jong-Ho Lee<br><i>Department of Electrical and Computer Engineering and Inter-university Semiconductor Research Center, Seoul National University</i>  |
| TF1-I-4 | 09:15-09:30 | <b>Hydrogen Gas Sensor based on Carbon Nanotube Transistors with Palladium Source/Drain Electrodes using the Pulse Measurement</b><br>Minsu Jeon, Jinsu Yoon, Juhee Lee, Bongsik Choi, Jungmin Han, Yongwoo Lee, Jieun Lee, Dong Myong Kim, Dae Hwan Kim, and Sung-Jin Choi<br><i>School of Electrical Engineering, Kookmin University</i>  |
| TF1-I-5 | 09:30-09:45 | <b>Stress-based Gas Sensing with Functionalized Resonant Microbridges at Critically-buckled State</b><br>Daniel J. Joe <sup>1</sup> , Jeevak M. Parpia <sup>2</sup> , and Harold G. Craighead <sup>3</sup><br><i><sup>1</sup>Department of Materials Science and Engineering, KAIST, <sup>2</sup>Department of Physics, Cornell University, USA, <sup>3</sup>School of Applied &amp; Engineering Physics, Cornell University, USA</i>   |
| TF1-I-6 | 09:45-10:00 | <b>Bio-electronic Nose based on Si MOSFET Having a Horizontal Floating Gate</b><br>Jongmin Shin <sup>1</sup> , So-Ong Kim <sup>2</sup> , Yoonki Hong <sup>1</sup> , Tai Hyun Park <sup>2</sup> , and Jong-  |

# 제23회 한국반도체학술대회

2016년 2월 22일(월)-24일(수), 강원도 하이원리조트

---

Ho Lee<sup>1</sup>

<sup>1</sup>*School of ECE and ISRC, Seoul National University,* <sup>2</sup>*School of chemical and biology Engineering, Seoul National University*

- TF1-I-7      10:00-10:15      Realization of Smart Contact Lenses for Diagnosis and Therapy**  
Beomho Mun<sup>1</sup>, Do Hee Keum<sup>2</sup>, Jahyun Koo<sup>2</sup>, Daniel J. Joe<sup>1</sup>, Hyemin Kim<sup>2</sup>, Jae-Yoon Sim<sup>2</sup>, Sei Kwang Hahn<sup>2</sup>, and Keon Jae Lee<sup>1</sup>  
<sup>1</sup>*Department of Materials Sciences and Engineering, KAIST,*  
<sup>2</sup>*Department of Materials Sciences and Engineering, Pohang University of Science and Technology*
- TF1-I-8      10:15-10:30      Efficient Photon Collection from Nitrogen-vacancy Centers in a Second Order Grating**  
Min-su Kim<sup>1,2</sup>, Jiwon Yune<sup>1</sup>, Youngkyu Sung<sup>1,3</sup>, Sangin Kim<sup>2</sup>, Sang-Wook Han<sup>1</sup>, and Sung Moon<sup>1</sup>  
<sup>1</sup>*Center for Quantum Information, Korea Institute of Science and Technology,* <sup>2</sup>*Department of Electrical and Computer Engineering, Ajou University,* <sup>3</sup>*Department of Electrical and Computer Engineering, Seoul National University*