

Hwansoo Suh, Ph.D.

Nano Electronics Lab. (NEL),
Samsung Advanced Institute of Technology (SAIT),
San 14-1, Nongseo-dong, Giheung-gu,
Yongin-si, Gyeonggi-do
446-712, Korea
Tel (Office) +82-31-280-6755
Tel (Mobile) +82-10-2490-6933
hwansoo@gmail.com
hwansoo.suh@samsung.com

WORK EXPERIENCES

Research Staff Member, Samsung Advanced Institute of Technology— 1 April 2009 - current

Currently working as a research staff member in Nano Electronics Laboratory (NEL) and leading an ultralow temperature scanning probe microscopy (SPM) project at Samsung Advanced Institute of Technology (SAIT).

Researcher, Y. Kuk Lab. and CSNS, Department of Physics, Seoul National University — 2004 - 2009

Worked as a researcher and graduate student in Y. Kuk Lab. and Center for Science in Nanometer Scale (CSNS) in Seoul National University.

Research Assistant, CSNS, Seoul National University — 2000 - 2003

Worked as a research assistant and graduate student in CSNS in Seoul National University

Teaching Assistant, Department of Physics, Seoul National University — 2000 - 2004

Worked as a teaching assistant for undergraduate and graduate classes in Department of Physics of Seoul National University (General Physics, Classical Mechanics, Electromagnetism, Quantum Mechanics, Solid State Physics, *etc.*)

Visiting Researcher, NIMS, Tsukuba, Japan — March 2005 - September 2005

Worked as a visiting researcher in Electro-Nanocharacterization Group, Nanomaterials Laboratories in National Institute for Materials Science (NIMS), Tsukuba, Japan.

Military Service, Korean Augmentation to the U. S. Army (KATUSA), 751st Military Intelligence Battalion, Korea — June 1997 - August 1999

Served in the army as a personnel actions non-commissioned officer in the 751st Military Intelligence Battalion stationed in Camp Humphreys, Korea. Military service is mandatory in Korea.

EDUCATION

Seoul National University, Seoul, Korea — Ph.D. in Physics, 2009

- Thesis Title: “Low Dimensional Superconducting Structures: Scanning Tunneling Microscopy and Spectroscopy Study”
- Thesis Advisor: Professor Young Kuk

Seoul National University, Seoul, Korea — B.S. in Physics, 2000

Seoul Science High, Seoul, Korea — 1994

PUBLICATIONS

Wonhee Ko, Insu Jeon, Hyo Won Kim, Hyeokshin Kwon, Se-Jong Kahng, Joonbum Park, Jun Sung Kim*, Sung Woo Hwang, and Hwansoo Suh*, “Atomic and electronic structure of an alloyed topological insulator, $\text{Bi}_{1.5}\text{Sb}_{0.5}\text{Te}_{1.7}\text{Se}_{1.3}$ ”, *Scientific Reports* **3**, 2656 (2013)

Yeonsang Park, Young-Geun Roh, Un Jeong Kim, Dae-Young Chung, Hwansoo Suh, Jineun Kim, Sangmo Cheon, Jaesoong Lee, Tae-Ho Kim, Kyung-Sang Cho, and Chang-Won Lee*, “Nanoscale patterning of colloidal quantum dots for surface plasmon generation”, *Proc. SPIE* **8613**, Advanced Fabrication Technologies for Micro/Nano Optics and Photonics VI, 861305 (2013)

Yeonsang Park, Young-Geun Roh, Un Jeong Kim, Dae-Young Chung, Hwansoo Suh, Jineun Kim, Sangmo Cheon, Jaesoong Lee, Tae-Ho Kim, Kyung-Sang Cho, and Chang-Won Lee*, “Nanoscale patterning of colloidal quantum dots on transparent and metallic planar surfaces”, *Nanotechnology* **23**, 355302 (2012)

Jaeyoung Jang, Sooji Nam, Kyuhyun Im, Jaehyun Hur, Seung Nam Cha, Jineun Kim, Hyung Bin Son, Hwansoo Suh, Marsha A. Loth, John E. Anthony, Jong-Jin Park, Chan Eon Park, Jong Min Kim, and Kinam Kim, “Highly Crystalline Soluble Acene Crystal Arrays for Organic Transistors: Mechanism of Crystal Growth During Dip-Coating”, *Advanced Functional Materials* **22**, 1005-1014 (2012)

Jun Hee Choi, Andrei Zoukharneev, Sun Il Kim, Chan Wook Baik, Min Ho Yang, Sung Soo Park, Hwansoo Suh, Un Jeong Kim, Hyung Bin Son, Jae Soong Lee, Miyoung Kim, Jong Min Kim, and Kinam Kim, “Nearly single-crystalline GaN light-emitting diodes on amorphous glass substrates”, *Nature Photonics* **5**, 763-769 (2011)

Namchul Cho, Byoung-Ki Choi, Hwansoo Suh, Jong-Jin Park, Jong Min Kim, and Kwang-Sup Lee, “Blue organic light-emitting diodes based on solution-processed fluorene derivative”, *Journal of Nanoscience and Nanotechnology* **10**, 6925-6928 (2010)

Youngtek Oh, Jungpil Seo, Hwansoo Suh, Jung Seok Seo, Se-Jong Kahng, and Young Kuk, “Mapping subsurface structure through atomically thin bismuth films on $\text{Si}(111)-(7\times 7)$ with scanning tunneling microscope”, *Surface Science* **602**, 3352-3357 (2008)

Jhinhwan Lee, Hyun Jong Chung, Young Jae Song, Hajin Kim, Yong Dae Park, Hwansoo Suh, Yong Sung Cho, and Young Kuk, “Functionalized one dimensional wires and their interconnections”, *AIP Conference Proceedings* **696**, 86 (2003)

PRESENTATIONS

Hwansoo Suh, Insu Jeon, Hyeokshin Kwon, Hyo Won Kim, Wonhee Ko, Youngtek Oh, JiYeon Ku, and Sung Woo Hwang, “Design and construction of a 10 mK / 15.5 T SPM System”, *International Conference on Surface Engineering (ICSE 2013)*, Busan, Korea, November 2013 (Invited)

Hwansoo Suh, Insu Jeon, Hyeokshin Kwon, Hyo Won Kim, Wonhee Ko, Youngtek Oh, JiYeon Ku, and Sung Woo Hwang, “Design and construction of a 10 mK / 15.5 T SPM System”, *The Korean Physical Society Fall Meeting*, Changwon, Korea, October 2013 (Invited)

Hwansoo Suh and Insu Jeon, “Ultralow temperature scanning probe microscope with high magnetic field”, *The 8th Asian Workshop on Surface Nanoscience*, Pyeong-chang, Korea, January 2012 (Invited)

Hwansoo Suh and Young Kuk, “STM study of niobium deposited on $\text{Si}(111)$ surface”, *American Vacuum Society 54th International Symposium*, Seattle, WA, USA, October 2007

Hwansoo Suh and Young Kuk, “Scanning tunneling microscope study of Nb deposited on $\text{Si}(111)$ surface”, *The 3rd Asian Workshop on Surface Nanoscience*, Muju, Korea, February 2007

Hwansoo Suh and Young Kuk, “Initial growth mode of niobium on $\text{Si}(111)$ surface”, *The Korean Physical Society Fall Meeting*, Daegu, Korea, October 2006

Jhinhwan Lee, Ji-Yong Park, Hajin Kim, Hwansoo Suh, and Young Kuk, “Gd@C₈₂-filled single-walled carbon nanotubes investigated with STM”, *The 11th International Conference on Scanning Tunneling Microscopy/Spectroscopy and Related Techniques*, Vancouver, Canada, July 2001

Jhinhwan Lee, Ji-Yong Park, Hajin Kim, Hwansoo Suh, Young Kuk, H. Kato, T. Okazaki, and H. Shinohara, “Single-walled carbon nanotubes with metallo-phthalocyanine adsorbates investigated with STM”, *The 11th International Conference on Scanning Tunneling Microscopy/Spectroscopy and Related Techniques*, Vancouver, BC, Canada, July 2001