

## Changon Park

Postdoc Research Associates  
Center For Nanophase Materials Sciences Division  
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### Education

Seoul National University, Seoul, South Korea	Physics	Ph.D.	2012
Seoul National University, Seoul, South Korea	Physics	B.S.	2003

### Professional Experience

2012–present Postdoc Research Associates, Center for Nanophase Materials Sciences Division, ORNL

### Honors & Awards

Awarded as an excellent poster, fall meeting, Korean Physical Society (2011)  
Awarded as an Kawazoe prize (poster), ACCMS-6 (2011)  
Awarded as an excellent paper, 21th winter meeting, Optical Society of Korea (2010)

### Research Interest

*Investigation of electronic and mechanical properties of molecular films interfaced with various surfaces*  
Developing and testing accurate exchange-correlation functionals which enable accurate description of van der waals interaction between molecules and various surfaces; accurate molecular level prediction and charge transfer phenomena simulation with ‘beyond DFT methods’

### Graduate and Postdoctoral Advisors:

Ph.D Advisor: Prof. Jisoon Ihm, Seoul National University, Seoul, Korea  
Postdoctoral Advisor: Dr. Mina Yoon, Oak Ridge National Laboratory

### Publications

1. “Formation of unconventional standing waves at graphene edges by valley mixing and pseudospin rotation” **Park, C.**, Yang, H., Mayne, A.J., Dujardin, G., Seo, S., Kuk, Y., Ihm, J., Kim, G., Proceedings of National Academy of Sciences **108**, 18622-18625 (2011)
2. “Tunneling-induced spectral broadening of a single atom in a three-dimensional optical lattice”  
Kim, W., **Park, C.**, Kim, J.-R., Choi, Y., Kang, S., Lim, S., Lee, Y.-L., Ihm, J., An, K., Nano Letters **11**, 729 (2011)
3. “Dissociation of single-Strand DNA: Single-walled carbon nanotube hybrids by Watson-crick base-pairing” Jung, S., Cha, M., Park, J., Jeong, N., Kim, G., **Park, C.**, Ihm, J., Lee, J., Journal of the American Chemical Society **132**, 10964 (2010)
4. “Atomic and electronic structures of amorphous Ge<sub>2</sub>Sb<sub>2</sub>Te<sub>5</sub>; Melt-quenched versus ideal glasses”  
Cho, E., Im, J., **Park, C.**, Son, W.J., Kim, D.H., Horii, H., Ihm, J., Han, S., Journal of Physics Condensed Matter **22**, 205504 (2010)

5. "Controlling half-metallicity of graphene nanoribbons by using a ferroelectric polymer"  
Lee, Y.-L., Kim, S., **Park, C.**, Ihm, J., Son, Y.-W., ACS Nano **4**, 1345 (2010)
6. "Electron emission originated from free-electron-like states of alkali-doped boron-nitride nanotubes"  
Yan, B., **Park, C.**, Ihm, J., Zhou, G., Duan, W., Park, N., Journal of the American Chemical Society **130**, 17012 (2008)
7. "Hierarchical structure and phase transition of  $(\text{GeTe})_n(\text{Sb}_2\text{Te}_3)_m$  used for phase-change memory"  
Im, J., Eom, J.-H., **Park, C.**, Park, K., Suh, D.-S., Kim, K., Kang, Y.-S., Kim, C., Lee, T.-Y., Khang, Y., Yoon, Y.-G., Ihm, J., Physical Review B **78**, 205205 (2008)
8. "Global and local structures of the Ge-Sb-Te ternary alloy system for a phase-change memory device"  
Eom, J.-H., Yoon, Y.-G., **Park, C.**, Lee, H., Im, J., Suh, D.-S., Noh, J.-S., Khang, Y., Ihm, J., Physical Review B **73**, 214202 (2006)
9. "Electronic structure of defects and quantum transport in carbon nanotubes"  
Eom, J.-H., Lee, H., Im, J., **Park, C.**, Wook Jeong, B., Kim, S., Ihm, J., Physica B: Condensed Matter **376-377**, 7 (2006)