Speaker Profile

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Name Takhee Lee

Title Electronic Transport in Molecular Scale Devices

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Personal profile including his/her education, fields of study, personal experience, etc.

Education

- June 2004 – Present: Gwangju Institute of Science and Technology (GIST), Gwangju, Korea, Assistant Professor in Department of Materials Science and Engineering
- Jul. 2000 – May 2004: Yale University, New Haven, CT, USA, Postdoctoral Associate in Dept. of Electrical Engineering (Supervisor: Prof. Mark Reed)
- Aug.1995 – Jun.2000: Purdue University, West Lafayette, IN, USA, Ph.D. in Physics, Nanoscale Physics Lab, earned in May 2000 (Advisor: Prof. Ron Reifenberger)
- Mar.1992 – Feb.1994: Seoul National University, Seoul, Korea, M.S. in Physics, Compound Semiconductor Lab, earned in Feb 1994 (Advisor: Prof. Byong-Doo Choe)
- Mar.1988 – Feb.1992: Seoul National University, Seoul, Korea, B.S. in Physics, earned in Feb 1992

Fields of study

Research on characterization of the electrical and structural properties of nanostructures involving single molecules, nanoparticles, nanowires, and their arrays and assembly of these nano-building blocks into (opto)electronic devices.

Publications (A few selected)

- [Book] “Molecular Nanoelectronics”, edited by M.A. Reed and Takhee Lee, American Scientific Publishers, Stevenson Ranch, 2003
- [Book Chapter] W. Wang, T. Lee, and M.A. Reed, "Intrinsic Electronic Conduction Mechanisms in Self-Assembled Monolayers", in "Introducing Molecular Electronics" edited by G. Cuniberti, G. Fagas, K. Richter, Springer-Verlag, Berlin, 2005, and three more book chapters.
- [Review Article] Wenyong Wang, Takhee Lee, and Mark A. Reed, “Elastic and Inelastic Tunneling in Alkane Self-Assembled Monolayers”, J. Physical Chemistry B, 108, 18398 (2004).
- W. Wang, T. Lee, I. Kretzschmar, and M.A. Reed, "Inelastic Electron tunneling Spectroscopy of Alkanedithiol Self-Assembled Monolayers", Nano Letters, 4, 643 (2004)
- T. Lee, W. Wang, J. F. Klemic, J. J. Zhang, J. Su, and M.A. Reed, "Comparison of Electronic Transport Characterization Methods for Alkanethiol Self-Assembled Monolayers", J. Physical Chemistry B, 108, 8742 (2004).