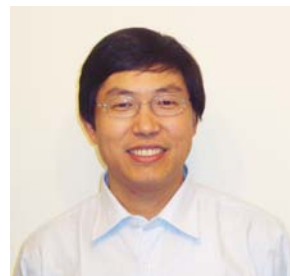


**An-Ping Li**  
R&D Staff  
UHV Probes, Imaging Functionality Group  
Center for Nanophase Materials Sciences  
Oak Ridge National Laboratory  
(865) 576-6502  
[apli@ornl.gov](mailto:apli@ornl.gov)



---

### Education

Chinese Academy of Sciences,  
University of Science and Technology of China      Solid State Physics      M.S., 1991  
Peking University, China      Condensed Matter Physics      Ph.D., 1997

### Professional Experience

2002–present      Research Scientist, Oak Ridge National Laboratory, USA  
2001–2002      Senior R&D Scientist, Project Leader, Galian Photonics, Inc., Canada  
1999–2001      Visiting Scientist, Center for Sensor Materials, NSF MRSEC, Michigan State University, USA  
1997–1999      Max-Planck-Institute Research Fellow, Max Planck Institute of Microstructure Physics, Halle, Germany

### Professional and Synergistic Activities

2011-2012      Organizing Committee Chair, AVS-59 Focus Topic Conference on Electron Transport at the Nanoscale.  
2011-2012      Organizing Committee Member, AVS Focus Topic Conference on Scanning Probe Microscopy.  
2010-2011      Organizing Committee Chair and Session Chair, AVS-58 Focus Topic Conference on Electron Transport in Low-Dimensional Materials.  
2009-present      Adjunct Associate Professor, Department of Physics & Astronomy, The University of Tennessee, USA.  
2010-present      Editorial Board Member, Journal of Nanoscience Letters  
2008      Session Chair, APS March meeting, Oxide Surfaces, Interfaces and Thin Films, DCMP.

### Honors and Awards

2009–present      Adjunct Associate Professor, Department of Physics and Astronomy, The University of Tennessee–Knoxville  
1997-1999      Max Planck Society Fellowship  
1996      Guanghua Award for Graduate Research, Peking University  
1994      Science and Technology Progress Award, The Ministry of Electronics Industry of China

### Publications

Over 50 publications in refereed journals including 3 invited book chapters, and citations of more than 2,200 on Web of Science. Full publication list follows CV.

### Research Synopsis

1. *Electron Transport in Low-Dimensional Materials.*  
We use a cryogenic four-probe scanning tunneling microscope (STM) to study electrical transport at the level of single nanostructure, nanojunction, interface, and grain/domain boundary. The four-probe STM combines STM local imaging and spectroscopy functions, the 4-

point contact electrical transport, scanning electron microscope (SEM), and molecular-beam epitaxy (MBE) in the same cryogenic system. We perform both STM and transport measurements on the same nanostructured materials so that the structure-transport relations could be established down to the atomic scale. A scanning tunneling potentiometry mode is employed to map electronic transport and structural information around individual scattering centers.

2. *Metal-Insulator Transitions and Electronic Inhomogeneity in Multiple Length Scale.*  
We use multiple local probing and transport techniques to image and manipulate of competing electronic phases near the critical point of metal-insulator transitions in complex oxide, and examine the microscopic variations of superconducting transitions in new high  $T_c$  superconducting materials from mesoscopic to the atomic scale.
3. *Self-Assembled Fabrication of Ordered Pore Arrays and Nanowires.*  
We fabricate periodic pore arrays in anodic aluminum oxide using a self-assembly process. We then utilize this porous membrane as template to fabricate semiconducting nanowires and nanotubes and their junctions, and study the study the transport, electronic, and photonic crystal properties of these nanostructures.
4. *Magnetism and Spin-Dependent Transport in Magnetic Semiconductors and Quantum Dots.*  
We grow Mn-doped Ge magnetic semiconductor films and study the magnetic and transport properties, such as impurity segregations, percolative magnetic transitions, metal-insulator transitions, and spin polarizations of the materials. We fabricate magnetic nanodots with MBE and magnetic tunneling junctions with nanofabrication facilities and study the magnetic interactions and spin injection and transport properties.

**Postdoctoral Scholars Advised:**

Kendal Clark, 2010-present

Shengyong Qin, 2009-present

TaeHwan Kim, 2006- 2010. Currently: Assistant Professor, in POSTECH, S. Korea

Tho Duc Nguyen, 2008. Currently: Research Assistant Professor, Univ. Utah, USA

Ruifang Wang, 2007. Currently: Professor, Xiamen University, China

**Publications:**

Author of over 50 articles in refereed journals with total citations of more than 2200 on Web of Science, and 3 invited book chapters.

## PUBLICATIONS

**An-Ping Li, Ph.D.**

Center for Nanophase Materials Sciences Division  
Oak Ridge National Laboratory  
Oak Ridge, TN 37831  
[apli@ornl.gov](mailto:apli@ornl.gov)

### Invited Book Chapters

1. “Emergent Metal-Insulator Transitions Associated with Electronic Inhomogeneities in Low-Dimensional Complex Oxides”, An-Ping Li and Thomas Z. Ward, in book *Functional Metal Oxide Nanostructures*, Chapter 4, J. Wu et al. (eds.), Springer Series in Materials Science 1003, 2011.
2. “Electrochemically prepared high-aspect-ratio highly ordered pore arrays and applications”, R.B. Wehrspohn, A.-P. Li, et al., in *Pits and Pores II: Formation Properties and Significance for Advanced Materials*, eds. P. Schumki, D. J. Lockwood, Y. H. Ogata, H. S. Isaacs PV 2000-25, p. 168 (2001).
3. “Highly ordered alumina films: pore growth and applications”, R. B. Wehrspohn, A.P. Li, et al., in *Oxide Films*, eds. K.R. Hebert, R.S. Lillard, B.R. MacDougall, PV-2000-4, Electrochemical Society, Pennington, pg.271, 2000.

### Refereed Journal Publications

*Marked with underline is corresponding author*

*Marked with color is high impact publication*

*Total citations>2200*

- 1 Shengyong Qin, Tae-Hwan Kim, Wenjie Ouyang, Yanning Zhang, Hanno H. Weiering, Chih-Kang Shih, Arthur P. Baddorf, Ruqian Wu, and An-Ping Li, “Metallic Conductance Stabilized by Interwire Coupling in Self-Assembled Quantum Wires”, *Nano letters*, in review.
- 2 Xiangdong Li, Guowen Meng, Shengyong Qin, Qiaoling Xu, Zhaoqin Chu, Xiaoguang Zhu, Mingguang Kong, and An-Ping Li, “Nanochannel-Directed Growth of Multi-Segment Nanowire Heterojunctions of Metallic Au<sub>1-x</sub>Ge<sub>x</sub> and Semiconducting Ge”, *ACS Nano*, ASAP (2012) 10.1021/nn2043466.
- 3 Tae-Hwan Kim, D. M. Nicholson, X.-G. Zhang, B. M. Evans, N. S. Kulkarni, E. A. Kenik, H. M. Meyer, B. Radhakrishnan, and An-Ping Li, “Structural Dependence of Grain Boundary Resistivity in Copper Nanowires”, *Japanese Journal of Applied Physics*, 50 (8), 08LB09 (2011).
- 4 Wangyang Fu, Shengyong Qin, Lei Liu, Tae-Hwan Kim, Sondra Hellstrom, Wenlong Wang, Wenjie Liang, Xuedong Bai, An-Ping Li, and Enge Wang, “Ferroelectric Gated Electrical Transport in CdS Nanotetrapods”, *Nano Letters*, 11 (5), 1913–1918 (2011).
- 5 An-Ping Li, Tae-Hwan Kim, X.-G. Zhang, Don M. Nicholson, B. M. Evans, N. S. Kulkarni, E. A. Kenik, H. M. Meyer, B. Radhakrishnan, “Direct Measurement of Grain Boundary Resistance in Copper Nanowires”, 2011 IEEE International Interconnect Technology Conference and 2011 Materials for Advanced Metallization (IITC/MAM), DOI: 10.1109/IITC.2011.5940291 (2011).
- 6 Xiangdong Li, Guowen Meng, Qiaoling Xu, Mingguang Kong, Xiaoguang Zhu, Zhaoqin Chu, and An-Ping Li, “Controlled Synthesis of Germanium Nanowires and Nanotubes with Variable Morphologies and Sizes”, *Nano Letters*, 11 (4), 1704–1709 (2011).
- 7 Tae-Hwan Kim, X. G. Zhang, Don M. Nicholson, Boyd M. Evans, Nagraj S. Kulkarni, B. Radhakrishnan, Edward A. Kenik & An-Ping Li “Large discrete resistance jump at grain boundary in copper nanowire”, *Nano Letters*, 10 (8), 3096–3100 (2010).

- 8 Tae-Hwan Kim, M. Angst, B. Hu, R. Jin, X. G. Zhang, J. F. Wendelken, E. Ward Plummer, and **An-Ping Li**, “Imaging and Manipulation of the Competing Electronic Phases near the Mott Metal-Insulator Transition”, *Proc. Nat. Acad. Sci.(PNAS)*, 101, 5272 (2010).
- 9 T.-H. Kim, R. Jin, L.R. Walker, J.Y. Howe, M.H. Pan, J. F. Wendelken, J. R. Thompson, A. S. Sefat, M. A. McGuire, B. C. Sales, D. Mandrus, and **A. P. Li**, “Probing Microscopic Variations of Superconductivity on the Surface of Ba(Fe<sub>1-x</sub>Co<sub>x</sub>)<sub>2</sub>As<sub>2</sub> Single Crystals”, *Physical Review B*, 80, 214518 (2009).
- 10 T.-H. Kim, X.-G. Zhang, J. F. Feng, X. F. Han, and **A. P. Li**, “Enhanced conductance blockade in tunnel junctions with half-metallic electrodes”, *Physics Letters A*, 373, 2782 (2009).
- 11 N. S. Kulkarni, B. M. Evans, Tae H. Kim, **A-P. Li**, E. A. Kenik, and D. M. Nicholson, “Specific Grain Boundary Resistivity Measurements in Thin Film Copper Bicrystals,” in *Proceedings of Advanced Metallization Conference 2008*, *Materials Research Society*, 269-274 (2009).
- 12 J.F. Feng, T.-H. Kim, X.F. Han, X.-G. Zhang, Y. Wang, J. Zou, D.B. Yu, H. Yan, and **A. P. Li**, “Space-charge Trap Induced Conductance Blockade Effect in Tunnel Junctions with Half-Metallic Electrodes”, *Applied Physics Letters*, 93, 192507 (2008).
- 13 Tae-Hwan Kim, John F. Wendelken, **An-Ping Li**, Gaohui Du, and Wenzhi Li, “Probing electrical transport in individual carbon nanotubes and junctions”, *Nanotechnology*, 19, 485201 (2008).
- 14 Changgan Zeng, P.R.C. Kent, Tae-Hwan Kim, **An-Ping Li**, Hanno H. Weitering, “Charge order fluctuations in one-dimensional silicides”, *Nature Materials*, 7, 539 (2008).
- 15 T.-H. Kim, J.F. Wendelken, and **A. P. Li**, “Probing electron transport and structural properties of nanostructures on Si with a quadra-probe scanning tunneling microscope”, *Advanced Metallization Conference 2007*, *Materials Research Society Conference Proceedings* 23, 653-659 (2008).
- 16 Tae-Hwan Kim, Zhouhang Wang, John F. Wendelken, Hanno H. Weitering, Wenzhi Li, and **An-Ping Li**, “A cryogenic quadraprobe scanning tunneling microscope system with fabrication capability for nano-transport research”, *Review of Scientific Instruments* 78, 123701 (2007). **AIP Top 20 Most Downloaded Articles of the Month, December 2007, January 2008.**
- 17 E.W. Plummer, A.P. Baddorf, S.V. Kalinin, **A.P. Li**, and M. Pan, “Imaging Functionality at the Nano-Scale”, *Microscopy and Microanalysis* 13, Supplement S02, 694 (2007).
- 18 **A.P. Li**, C. Zeng, K. van Benthem, M.F. Chisholm, J. Shen, S.V.S. Nageswara Rao, S.K. Dixit, L.C. Feldman, A.G. Petukhov, M. Foygel, and H.H. Weitering, “Dopant segregation and giant magnetoresistance in manganese-doped germanium”, *Physical Review B (Rapid Communication)*, 75, 201201 (R) (2007). **Times cited: 44**
- 19 Y. Wu, B. Hu, J. Howe, **A.P. Li**, and J. Shen, “Spin injection from ferromagnetic Co nanoclusters into organic semiconducting polymers”, *Physical Review B* 75, 075413 (2007).
- 20 **A.P. Li** and J.F. Wendelken, “Buffer layer-assisted growth of Ge nanoclusters on Si”, *Nanoscale Research Letters*, (invited *Nano Review*) 1, 11 (2006).
- 21 **A.P. Li**, J. F. Wendelken, J. Shen, L. C. Feldman, J.R. Thompson, and H.H. Weitering, “Magnetism in Mn<sub>x</sub>Ge<sub>1-x</sub> semiconductors mediated by impurity band carriers”, *Physical Review B* 72, 195205 (2005). **Times cited: 77**  
Selected for the Virtual Journal of Nanoscale Science & Technology, November 28, 2005, Volume 12, Issue 22.
- 22 M.A. Torija, **A.P. Li**, C. Guan, E.W. Plummer, and J. Shen, “Live” Surface Ferromagnetism in Fe Dot Multilayers on Cu(111)”, *Physical Review Letters* 95, 257203 (2005).
- 23 **A.P. Li**, J. Shen, J.R. Thompson, and H.H. Weitering, “Percolation transition in Mn<sub>x</sub>Ge<sub>1-x</sub> dilute magnetic semiconductors”, *Applied Physics Letters* 86, 152507(2005). **Times cited: 80**
- 24 **A.P. Li**, K. Yoo, M.F. Chisholm, H.H. Weitering, Z. Zhang, J.F. Wendelken, F. Flack, and M.G. Lagally, “Photoluminescence and local structure of Ge nanoclusters on Si without a wetting layer”, *Physical Review B*, 69, 245310 (2004).
- 25 K. Yoo, **A.-P. Li**, Zhenyu Zhang, H. H. Weitering, F. Flack, M. G. Lagally, and J. F. Wendelken, “Fabrication of Ge nanoclusters on Si with a buffer layer-assisted growth method”, *Surface Science Letters*, 546, L803 (2003).

- 26 C. Zeng, S.C. Erwin, L.C. Feldman, **A.P. Li**, R. Jin, Y. Song, J.R. Thompson, and H.H. Weitering, "Epitaxial Ferromagnet on Ge(111)", *Applied Physics Letters*, 83 (24), 5002 (2003).  
**Times cited: 77**
- 27 C. Bednarski, Z. Dai, **A.P. Li**, and B. Golding, "Studies of heteroepitaxial growth of diamond", *Diamond and Related Materials*, 12 (3), 241(2003).
- 28 F. Mueller, A. Birner, J. Schilling, **A.P. Li**, K. Nielsch, U. Goesele, and V. Lehmann, "High aspect ratio microstructures based on anisotropic porous materials", *Microsystem Technologies*, 8 (1): 7-9 (2002).
- 29 Z. Dai, **A.P. Li**, C. Bednarski, L.I. McCann, and B. Golding, "Epitaxial Iridium Growth on Strontium Titanate", *Proceedings of Materials Research Society* 684, P11.35. (2001).
- 30 A. Birner, **A.P. Li**, F. Mueller, U. Goesele, P. Kramper, V. Sandoghdar, J. Mlynek, K. Busch and V. Lehmann, "Transmission of a microcavity structure in a two-dimensional photonic crystal based on macroporous silicon", *Materials Science in Semiconductor Processing*, 3, 487 (2000).
- 31 **A.P. Li**, F. Mueller and U. Goesele, "Polycrystalline and monocrystalline pore-arrays with large interpore distance in anodic alumina", *Electrochemical & Solid-State Letters*, 3, 131(2000).  
**Times cited: 95**
- 32 K. Nielsch, F. Mueller, **A.P. Li** and U. Goesele, "Uniform nickel deposition into ordered alumina pores by pulsed electrodeposition", *Advanced Materials* 12, 582 (2000). **Times cited: 445**
- 33 S.W. Leonard, H.M. van Driel, K. Busch, S. John, A. Birner, **A.P. Li**, F. Mueller, U. Goesele and V. Lehmann, "Attenuation of optical transmission within the gap of thin two-dimensional macroporous silicon photonic crystals", *Applied Physics Letters*, 75, 3063(1999). **Times cited: 57**
- 34 **A.P. Li**, F. Mueller, K. Nielsch, and U. Goesele, "Fabrication and microstructuring of hexagonally ordered two-dimensional nanopore arrays in anodic alumina", *Advanced Materials* 11, 483 (1999). **Times cited: 196.**
- 35 **A.P. Li**, F. Mueller, K. Nielsch, and U. Goesele, "Polycrystalline nanopore arrays with hexagonal ordering on aluminum", *Journal of Vacuum Science and Technology A*, 17, 1428 (1999). **Times cited: 81.**
- 36 **A.P. Li**, F. Mueller, K. Nielsch, and U. Goesele, "Hexagonal pore arrays with 50-420 nm interpore distance formed by self-organization in anodic alumina", *Journal of Applied Physics*, 84, 6023 (1998). **Times cited: 748.**
- 37 Qin GG, Bai GF, **Li AP**, Ma SY, Sun YK, Zhang BR, Ma ZC, Zong WH, "A comparative study of electroluminescence from nanosize Si particle embedded silicon oxide films and that from nanosize Ge particle embedded silicon oxide films", *Thin Solid Films* 338, 131 (1999).
- 38 **A.P. Li**, G.F. Bai, K.M. Chen, Z.C. Ma, W.H. Zong, and G.G. Qin, "Electroluminescence from Au/extra-thin Si-rich  $\text{SiO}_2/n^+\text{Si}$  under reverse biases and its mechanism", *Thin Solid Film* 325, 137 (1998).
- 39 G.G. Qin, **A.P. Li**, L.D. Zhang, Z.C. Ma, W.H. Zong, X. Wang, and X.W. Hu, "Effects of chemical composition of Si oxynitride on electroluminescence from semitransparent Au/extra thin Si oxynitride film/p-Si structures", *Physics of Low-Dimensional Structures*, 1/2, 179 (1998).
- 40 **A.P. Li**, B.R. Zhang, Y.P. Qiao, G.G. Qin, Z. C. Ma, and W. H. Zong, "Gamma-ray irradiation effects on electroluminescence from Au/extra thin Si-rich  $\text{SiO}_2$  film/p-Si structures", *Chinese Physics Letters*, 15, 305(1998).
- 41 G.F. Bai, **A.P. Li**, Y.X. Zhang, Y.K. Sun, S.Y. Ma, G.G. Qin, Z.C. Ma, and W.H. Zong, "Electroluminescence from Au/extra thin nanosize Ge particles embedded silicon oxide film/p-Si and Au/extra thin nanosize Si particles embedded silicon oxide film/p-Si", *Physics of Low-Dimensional Structures*, 1/2, 127 (1998).
- 42 **A.P. Li**, L.D. Zhang, Y.P. Qiao, G.G. Qin, X. Wang, and X.W. Hu, "Electroluminescence From Au/Si oxynitride film/Si structures with the films having different chemical composition", *Journal of Physics: Condensed Matter* 9, 5245(1997).
- 43 Y.X. Zhang, **A.P. Li**, K.M. Chen, G.G. Qin, Z.C. Ma, and W.H. Zong, "Electroluminescence from nanosize Si embedded in  $\text{SiO}_2$  on  $n^+$ -Si and p-Si substrates", *Acta Physica Sinica* 4, 1003(1997).

- 44 G.G.Qin, **A.P. Li**, and Y.X.Zhang, "Effects of contact metals on electroluminescence from embedded nanosize-Si-particle films", *Physical Review B* 54, *Rapid Communication*, R11122(1996).
- 45 **A.P. Li**, L.D.Zhang, Y.X.Zhang, G.Qin, and G.G.Qin, "Electroluminescence from an Au-extra thin Si oxynitride film-Si structure" *Journal of Physics: Condensed Matter* 8, *Letter* 223(1996).
- 46 **A.P. Li**, L.D.Zhang, Y.X.Zhang, G.G.Qin, X.Wang, and X.W.Hu, "Electroluminescence From Au/Si nitride film/Si with the film prepared by electron cyclotron resonance method", *Applied Physics Letters* 69, 4(1996).
- 47 G.G.Qin, **A.P. Li**, B.R.Zhang, and B.C.Li, "Visible electroluminescence from semitransparent Au film/ extra thin Si-rich silicon oxide film/p-Si structure", *Journal of Applied Physics* 78, 2006(1995). **Times cited: 121.**
- 48 K.M.Chen, Y.Q.Jia, Y.Chen, **A.P. Li**, S.X.Jin, and H.F.Liu, "Deep levels in nitrogen-implanted n-type GaAs", *Journal of Applied Physics* 78, 4261(1995).
- 49 **A.P. Li**, and R.G.Zhang, "Photoluminescence and defect centers in semi-insulating-GaAs", *Semiconductor Information*, 30, 37(1993).
- 50 **A.P. Li**, Q.H.Ni, and Q.P. Kong, "Mechanical properties of Ag-doped YBCO superconductors", *Physica Status Solidi A* 127, 187(1991).
- 51 Q.H.Ni, **A.P. Li**, Y.Li, and Q.P. Kong, "Deformation and fracture of YBCO superconductors", *Chinese Physics Letters* 6, 321(1989).

#### **Recent Invited Talks and Contributed Conference Presentations (incomplete)**

1. "Probing Electron Transport at the Nanoscale", *Invited Colloquium*, Vanderbilt University, Department of Physics and Astronomy, Nashville, October 6, 2011.
2. "Electron Transport Via Four-Probe Scanning Tunneling Microscopy", *Invited Lecture*, Workshop on Advanced Scanning Probe Microscopies at the CNMS: Materials Structure and Function from Atomic to Micron Scales, Sep 23, 2011.
3. "Correlation of Electron Transport and Structures at the Nanoscale", *Invited Talk*, International Workshop on Atomic Scale Interconnection Machines, Jointly organized by the European Project AtMOL and Institute of Materials Research and Engineering (IMRE), Singapore, June 28-29, 2011.
4. "Electronic Transport Measurements by Four-Probe Scanning Tunneling Microscopy: Correlating Transport to Local Structures at the Nanoscale", *Invited seminar*, Michigan State University, Department of Physics and Astronomy, East Lansing, April 4, 2011.
5. "Electronic Transport Measurements by Four-Probe Scanning Tunneling Microscopy: Correlating Transport to Local Structures at the Nanoscale", *Invited seminar*, RHK Technology, Troy, MI, April 5, 2011.
6. "Electronic Transport Measurements by Four-Probe Scanning Tunneling Microscopy: Correlating Transport to Local Structures at the Nanoscale", *Invited seminar*, Wayne State University, Department of Physics and Astronomy, East Lansing, April 6, 2011.
7. "Electron Transport Study with Cryogenic Four-Probe Scanning Tunneling Microscope", *Invited Talk*, 18th International Vacuum Congress (IVC-18), jointly with the 2010 International Conference on Nanoscience and Technology (ICN+T 2010), the 14<sup>th</sup> International Conference on Solid Surfaces (ICSS-14), and the 5th Vacuum and Surface Sciences Conference of Asia and Australia (VASSCAA-5), Beijing, China, Aug 23-27, 2010.
8. "Electron Transport Study with Cryogenic Four-Probe Scanning Tunneling Microscope", International Center for Quantum Design of Functional Materials (ICQD) and the University of Science and Technology of China (USTC), *Invited Seminar*, Hefei, China, September 1, 2010.
9. "Probing Electron Transport with Cryogenic Four-Probe Scanning Tunneling Microscope", Department of Physics and Astronomy and The Institute for Surface and Interface Science (ISIS), *Invited seminar*, University of California, Irvine, Aug 25, 2009.

10. "Study of electronic property of epitaxial silicide nanowires with a cryogenic quadruprobe scanning tunneling microscope", International Conference on Nanoscience & Technology, Keystone, CO, 07-20-2008.
11. "A cryogenic quadruprobe scanning tunneling microscope for nano-transport research", NSS5/SP-STM2 International Conference, July 15, 2008, Ohio University, Athens, OH, USA
12. "A Cryogenic Four-Probe Scanning Tunneling Microscope: New opportunity for Nano-Science Research", An-Ping Li, Physics Department *Colloquium (Invited)*, Tsinghua University, Beijing, June 11, 2008.
13. "A Cryogenic Four-Probe Scanning Tunneling Microscope: New facility for Nano-Science Research", An-Ping Li, Department of Physics *Colloquium (Invited)*, Utah State Univeristy, Logan, UT, April 22, 2008.
14. "A Cryogenic Four-Probe Scanning Tunneling Microscope: New facility for Nano-Science Research", An-Ping Li, Inaugural Nanoscale Science *Seminar (Invited)*, University of North Carolina Charlotte, April 10, 2008.
15. "Space-charge induced Pauli spin blockade effect in  $\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3/\text{SrTiO}_3/\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3$  tunnel junctions", APS March Meeting 2008, New Orleans, LA.
16. "New materials for spintronics", A.P. Li, University of Tennessee, Department of Materials Science and Engineering, *Invited Colloquium*, Sep. 18, 2007.
17. "Dopant segregation and giant magnetoresistance in manganese-doped germanium", A.P. Li, C. Zeng, K. van Benthem, M.F. Chisholm, J. Shen, S.V.S. Nageswara Rao, S.K. Dixit, L.C. Feldman, A.G. Petukhov, M. Foygel, and H.H. Weitering, *American Physical Society 2007 March Meeting*, Denver, CO, March 5–9, 2007.
18. "Mn Dopant Distribution and Magnetic Ordering in Mn-doped Ge Ferromagnetic Semiconductor," A. P. Li, J. Shen, and H. H. Weitering, *American Physics Society 2006 March Meeting*, Baltimore, MD, March 2006.
19. "Mn Clustering and Magnetic Ordering in Mn-doped Ge Ferromagnetic Semiconductor," A. P. Li, J. Shen, J. R. Thompson, and H. H. Weitering, *Materials Research Society 2005 Fall Meeting*, Boston, MA, November 2005.
20. "Facing the Challenges in Spintronics," Condensed Matter Sciences Division Seminar, Oak Ridge National Laboratory, May 25, 2005. *Invited Talk*.