RESUME

Zhong Lin (Z.L.) Wang

The Hightower Chair in Materials Science and Engineering
Regents' Professor
School of Materials Science and Engineering, Georgia Institute of Technology
Atlanta, GA 30332-0245

Phone: (404) 894-8008 (office); Fax: (404) 894-9140,
e-mail: zlwang@gatech.edu

Personal website: http://www.nanoscience.gatech.edu
SCI publication report: http://www.researcherid.com/rid/E-2176-2011
Google Scholar citation: http://scholar.google.com/citations?user=HeHFFW8AAAAJ&hl=en

Education:

Ph.D. in Physics, Arizona State University, 1987.

B.S. in Applied Physics, Northwest Telecommunication Engineering Institute (now Xidian University), Xian, China, 1982.

Employment History:

Georgia Institute of Tech., School of Materials Science and Engineering	
The Hightower Chair in Materials Science and Engineering	2010-present
Engineering Distinguished Professor	2006-2010
Regents' Professor	2004-present
Full Professor,	1999-2004
Associate Professor	1995-1999
Georgia Institute of Tech., School of Electrical and Computer Engineering	
Ajunct Professor	2011-present
Georgia Institute of Tech., School of Chemistry and Biochemistry	
Ajunct Professor	2001-present
Director, Center for Nanoscience and Nanotechnology ,	2000 - 2005
Director, Center for Nanostructure Characterization,	1998 – 2015
National Institute of Standards and Technology	1993 – 1995
Oak Ridge National Laboratory and University of Tennessee	1990 – 1993
Research Associate Professor, Metals and Ceramics Div.	
Oak Ridge National Laboratory	1989 – 1990
Research Fellow, U.S. Dept. of Energy, Metals Y Ceramics Div.	
University of Cambridge - England, Cavendish Laboratory	1988 – 1989
Research Fellow	
State University of New York at Stony Brook, Materials Science & Eng.	1987 – 1988
Visiting Lecturer	

Honors, organizations and awards:

• 2014 World Technology Award (Materials): www.wtn.net

• 2014 Fellow of Royal Society of Chemistry

• 2014 NANOSMAT prize (http://nanosmat-conference.com/NANOSMATprize.asp, United Kingdom)

• 2014 The 1934 Class Distinguished Professor Award, Georgia Tech (the highest honor for a faculty).

• 2014 The James C. McGroddy Prize in New Materials from American Physical Society.

• 2013 China International Science and Technology Collaboration Award, China,中华人民共和国国际科学技术合作奖

• 2013 World Technology Network Fellows.

• ACS Nano Lectureship, 2013.

• 南京航天航空大学"天问讲坛", April 12, 2013.

• Honorable professor, Southwestern University (西南大学), China, 2013.

• 重庆大学讲座, April 16, 2013.

• Dr. Wang elected as a fellow of Americ Ceramic Society, 2013.

• Dr. Wang: report on triboelectric nanogenerators:
Reuters: http://news.yahoo.com/video/researchers-tap-power-motion-energy-013803650.html
Georgia Tech: http://www.news.gatech.edu/2013/12/07/harvesting-electricity-triboelectric-generators-capture-wasted-power
New Scientists: http://www.newscientist.com/article/mg22129504.400-collapsing-backpack-charges-gadgets-as-you-walk.html#.UsbWhHdu43V

• Dr. Wang's research was featured by NPR radio and Bloomberg fastforward in technology:
http://planetforward.org/tv-segments/nanogeneratorshoes/

Dr. Wang was interviewed by CNN for featuring the top 10 beakthroughs:
http://www.cnn.com/video/#/video/tech/2012/12/29/intv-clancy-battery-breakthrough.cnn

• Self-charging power cell as the top 10 breakthroughs in physical science in 2012 by *Physics World*:
http://physicsworld.com/cws/article/news/2012/dec/14/physics-world-reveals-its-top-10-breakthroughs-for-2012

• Edward Orton Memorial Lecture Award, 2012, American Ceramic Society for his research in "biologically enabled and bioinspired materials; nanomaterials and nanoengineered devices; functional electronic and optical materials; fibers and composites; and multi-scale structural & chemical characterization".

• MRS Medal, 2011, for "seminal contributions in the discovery, controlled synthesis, and fundamental understanding of zinc oxide nanowires and nanobelts, and the design and fabrication of novel, nanowire-based nanosensors, piezotronic devices and nanogenerators for energy harvesting."

• Member of the Editorial board, The Proceeding of Royal Society A, Jan. 1, 2012 – Dec. 30, 2014.

- Editor in Chief and Founding Editor, *Nano Energy* (published by Elsevier) (http://www.nanoenergyjournal.com) 2012 –.
- Dow Lecture, Northwestern University, USA, Feb. 15, 2011.
- Elected foreign member of Chinese Academy of Science (中国科学院外籍院士), 2009.
- Hubei Province Bianzhong award (2009 年湖北省优秀外国专家"编钟奖")。
- Purdy award, American Ceramic Society, 2009.
- Elected as a fellow of Microscopy Society of America, 2010.
- Elected as a fellow of Materials Resarch Society, 2009.
- "From microscopy to nanogenerators and nanopiezotronics", John M. Cowley Distinghuished Lecture, Arizona State University, Feb. 23, 2012.
- "Self-powered nanosystems: from nanogenerators to nanopiezotronics", Lanzhou Centuray Forum (兰大百年讲坛), China, June 28, 2010.
- "科学精神和实践", 南湖讲坛, Huazhong University of Science and Technology, China, May 31, 2010.
- "Self-powered nanosystems: from nanogenerators to nanopiezotronics", Peiyang Forum (北洋讲坛), Tianjin University, China, June 12, 2010.
- "Self-powered nanosystems: from nanogenerators to nanopiezotronics", Beihang Forum (北航论坛), China, Beihang University, China, April 26, 2010.
- Zhongguan Cun Forum lecture, Institue of Physics (中关村论坛), China, March 5, 2009.
- Molecular Science Professorship, Institute of Chemistry （分子科学论坛）, China, March 10, 2009.
- The Sigma Xi Society best paper award, 2009.
- Guangyuan Lectureship, National Tsinghua University, Taiwan, May 28, 2008.
- 27th China Distinguished Materials Forum Lecture （中国材料名师讲坛）, Feb. 29, 2008.
- Fiber nanogenerator elected to be the top 10 most poufounding advances in physics by <<Physics World>> in 2008.
- Fiber nanogenerator elected to be the top 10 most discoveries in science and technology in China in 2008.
- Nanogenerator elected to be the top 10 most poufounding discoveries in science and technology in world in 2006 by the academicians of China
- Nanogenerator elected to be the top 10 most impacting technologies by <<New Scientist>> for the next 10-30 years.
- Nanopiezotronics elected to be the top 10 emergy technologies by MIT Technology Review T10 in 2009.
- Distinguished oversea scholar lectureship (教育部海外名师讲坛计划), Tsinghua University, China, Feb. 25-28, 2008.
- Lee Hsun Lecture Award, Institute of Metal Resarch, China, 2006.
- Scientific Advisor, The Coke-Cola Co., 2006-2009.
- Panelist for review the materials program of the Lawrence Berkeley National lab., Aug. 2006.
- Panelist, Georgia life science sumit, Oct. 4, 2006.

- Honorary Professor, University of Birmingham, UK, Oct. 2006 – Sept. 2013.
- NanoTech Briefs, Top50 award, 2005.
- Sigma Xi 2005 sustain research awards, Georgia Tech.
- The most innovative products of 2007 in MICRO/NANO 25 Competition, *R&D Magazine* and MICRO/NANO Newsletter.
- Symposium entitled of "Workshop on Mesoscopic and Nanometric Materials" in honor of Prof. Z.L. Wang was organized by Universitaire Pierre & Marie Curier, Oct. 12, 2005.
- Georgia Tech faculty outstanding research author award, 2004.
- Fellow, American Physical Society, 2005 - present.
- Fellow, American Association for Advancment of Science (AAAS), 2007 - present.
- Fellow, World Innovation Foundation (www.thewif.org.uk) 2004 - present.
- Elected member of the European Academy of Science (http://www.easinus.us/) in 2002.
- S.T. Li Prize for Distinguished Achievement in Science and Technology, 2001.
- Outstanding Research Author Award, Georgia Tech, 2000.
- Burton Medal, Microscopy Soc. of America, 1999.
- Outstanding Oversea Young Scientists award from NSF China, 1998-2001.
- NSF CAREER award, 1998-2002.
- Best Materials Paper published in *Microscopy and Microanalysis*, 2002.
- The Sigma Xi Society best paper award, 2004.
- The Sigma Xi Society best paper award, 2002.
- The Sigma Xi Society best paper award, 1998.
- The paper on nanobelt was the top second most cited paper in chemistry 2001-2003 (ISI, Science Watch).
- The discovery of nanobalance was selected as the breakthrough advance in nanotechnology by the America Physical Society in 1999.
- Symposium in honor of Prof. Z.L. Wang was organized by L'Institut Universitaire de France (IUF), May 7, 2003.
- The 4th academic most active person at Georgia Tech, 2001.
- Scientific committee/board of governors for the European Academy of Science, 2003.
- Scientific Advisor, Nanophotonic Semiconductors Co., Singapore, 2003.
- Scientific Advisor, Springer, 2003-present.

- Scientific Advisor, Center for Functional Nanomaterials, Brookhaven National Lab., 2004-2006.
- Member of the Editorial Board, *Applied Physics Letters*, 2007-present.
- Editorial Advisor, Hefei National Lab., China, 2005-2007.
- Associate editor, the European Physical Journal – Applied Physics, Jan 1 2003 – Dec. 31, 2004.
- Member of the Int. Advisory Board, the European Physical Journal – Applied Physics, Jan 1 2005 – Dec. 31, 2006.
- Member of the Advisory Board for *Nano Letters*, 2004-2014.
- Member of the Editorial Board, *Nanotechnology*, 2006-present.
- Member of the Editorial Board, *J. Materials Science*, 2004-present.
- Member of the Editorial Board, *Science Bulletin*, 2003-2005.
- Member of the Scientific Advisory Board for Kluwer Academic Publishers, 2003-present.
- Member of the Advisory Board for *Micron*, 1997-present.
- Member of the Advisory Board for *J. Physical Chemistry*, 2004-present.
- Member of the Editorial Board for *J. Nanoscience and Nanotechnology*, 2001-2004.
- Member of the Editorial Board for *Progress in Natural Sciences*, 2000-present.
- Member of the Advisory Board for *Advanced Functional Materials*, 2000-present.
- Member of the Editorial Board for *Frontier of Mordern Sciences*, Chinese High Education Press, 2000-present.
- Member of the Advisory Board for *Encyclopedia of Nanotechnology*, Academic Press, 2000.
- Scientific Advisory board member for the Nanotechnology Center, Brokkhaven National Lab., 2004-2006.
- Editorial Advisory Panel, Nano Today, 2006-present.
- Advisory board for the Nanocenter, Univ. of South Carolina, 2002-3.
- Member of the Editor Board for *Sensor Letters*, 2003-2005.
- Award from 1989 EMAG conference (London) for best scientific poster.
- Regents Graduate Academic Scholarship, 1986-1987.
- Named as outstanding scholar on Dean's list, 1985-1987, Arizona State University.
- President of the Sigma Xi Society at Georgia Tech, 2002.
- Vice President of the Sigma Xi Society at Georgia Tech, 2001.

• Member of the America Chemical Society.

• Member of IEEE.

• Member of the ASM Structures Committee 1995-2002.

Fellowships and honorable/visiting professorships:

• Honorable Professor, Xian Jiaotong University, Chiina, 2011

• Honorable Professor, Weinan Normal University, 2011

• Honorable Chair Professor, 重庆材料研究院, 2011

• Honorable Chair Professor, National Tsinghua University, Taiwan, 2011.01 – 2012.12

• Honorable Professor, Central South University, China (2010).

• Honorable Professor, Lanzhou University, China (2010).

• Honorable Professor, Xidian University, China (2010).

• Honorable Professor, Tianjin University, China (2010).

• Honorable Professor, Guilin University of Technology, China (2010).

• Honorable Professor, Institute of Chemistry, Chinese Academy of Science, China (2004).

• Honorable Professor, Nanjing University of Aerospace and Aeronautics, China (2010).

• Honorable Professor, Institute of Semiconductors, Chinese Academy of Science, China (2005).

• Honorable Professor, University of Shanghai for Science and Technology, China (2005).

• Honorable professor, Sun Yat-Sen University, China (2006).

• Honorable professor, Central China Normal University (2005).

• Visiting Changjiang Chair Professor, Tsinghua University, China (2001-2006).

• Visiting professor in China: Institute of Physics (1999), Xidian University (1999), Harbin Institute of Technology (2002), University of Science and Technology Beijing (2001), Peking University (2000), Nanjing University (2005), Xiamen University (2004), Zhejiang University (2004), Southern China University of Science and Technology (2003), Southern China Normal University (2002).

• Visiting Professor, University of Pierre&Marie Curie (France), Novermber 1-30, 2002.

• DoE SHaRE summer faculty fellowship, 1997.

• Visiting Professor, Swidish Federal Institute of Technology (EPFL), Lausanne, 1997.

• K.C. Wong foundation fellowship (Hong Kong), 1992-1994.

• Research Fellowship from US Department of Energy, 1989-1990.

• Research Fellowship from University of Cambridge UK, 1988-1989.

Students received PhD degrees from Dr. Wang:

[1] Qingshen Jing, "Patterned thin-film triboelectric generator for harvesting micro-meso scale ambient energy for kinematic sensing", Georgia Tech – Peking Univ. joint PhD, July 2015

[2] Long Lin "Nanogeneartors for mechanical energy harvesting and self-powered sensor networks", July 2015.

[3] Xiaonan Wen "Piezotrnics as electromechanical interfacing technology for electronic and optoelectronic applications", Georgia Tech, April 2015.

[4] Yusheng Zhou "Scanning Probe Microscopic study of piezotronics and triboelectrification for their applications in mechanical sensing", Georgia Tech, Jan. 2015.

[5] Ying Liu "Piezo-phototronics – from experiments to theory", Georgia Tech, August 2014.

[6] Sihong Wang "Nanogenerator for mechanical energy harvesting and its hybridization with li-ion battery", Georgia Tech, May 2014.

[7] Guang Zhu "Nanogenerators for self-powered applications", Georgia Tech, May, 2013.

[8] Wenzhuo Wu "Piezotronic devices and integrated systems", Georgia Tech, Dec., 2012.

[9] Chen Xu "Hybrid cell for harvesting multiple type energies", Georgia Tech, Aug. 2012.

[10] Yue Shen "Novel Methods for Morphology and Strain Engineering of one-dimensional nanomaterials and nanodevice fabrication", Peking University, June 2010

[11] Hao Fang "Synthesis and applications of polymer nanowires", Peking University, June 2010

[12] Sheng Xu"One dimensional arrays of oxides: solution growth and functioinal applications" (Georgia Tech Best Thesis award), Dec., 2010

[13] Yudong Gu "One-dimensional ZnO and Si nanostructures, properties and applications", June 2010.

[14] Zhou Li "Biomedical applications of ZnO nanowires", June 2010.

[15] Benjamin A. Weintraub (co-supervised with Yulin Deng) "One-dimensional zinc oxide nanomaterials: synthesis and photovoltaic applications", August, 2010.

[16] Melanie Kirkham (co-supervised with R. Snyder) "The role of the catalyst in the growth of one-dimensional Nanostructures"

[17] Wenjie Mai "Synthesis, Characterization and Application of ZnO Nanomaterials", May, 2009.

[18] Jin Liu (co-supervised with R. Tummala) "Integrated nanogenerators", Dec., 2008.

[19] Jinhui Song "Nanogenerators", Aug. 2008.

[20] Jenny R. Morber (co-supervised with R. Snyder) "1D Nanowires: Understanding Growth And Properties As Steps Toward Biomedical And Electrical Application", Aug. 2008.

[21] Changshi Lao "Transport Properties And Nanosensors Of Oxide Nanowires And Nanobelts", Dec., 2007.

[22] Brent Buchine "Acoustic Nanotechnology", Aug. 30, 2007.

[23] Rusen Yang "Oxide Nanomaterials: Synthesis, Structure, Properties, and Novel Devices", Aug. 2007

[24] Daniel Moore " Novel Zns Nanostructures: Synthesis, Growth Mechanism, And Application", Dec., 2006. [Now CREE, co.]

[25] Will Hughes "Synthesis and characterization of zinc oxide nanostructures for piezoelectric applications", August, 2006. [Now faculty at California Polytechnique Univ.]

[26] Xudong Wang "Large-scale patterned oxide nanostructures: fabrication, characterization and applicationis", November 2005.

[27] Puxian Gao "Piezoelectric Nanostructures of Zinc oxide: From synthesis to characterization and to devices", PhD, November 2005. [Now faculty at Univ. of Conneticut]

[28] Chris Ma "Synthesis of One-dimensional CdSe nanostructures", August 2005. [Now System Planning co., Washington]

[29] Yongqian Wang "Nanometer characterization of compound semiconductor quantum heterostructures grown by MBE", PhD, March 2002. [Now at Intel].

[30] Jinsong Yin "Self-assembly of Ordered Nanostructures", PhD, April 2000. [Now at AMD]

[31] Kojo Appiah "Microstructural and Microanalytical Characterization of Laminated (C-SiC) Matrix Composites Fabricated by Forced-Flow Thermal_gradient Chemical Vapor Infiltration", PhD, February 2000. [Now at AMD]

[32] Yongdong Jiang "Synthesis and Properties of Powder Phosphor Materials for Field Emission Displays", PhD, December 1999. [Now at nGimat]

[33] Steve A. Harfenist "Structure and Characterization of Passivated Ag Nanocrystal Self-Assembed Superlattices", PhD, December 1999. [Now faculty at California Polytechnique Univ.]

Students received MS degrees from Dr. Wang:

[1] 杜伟明"三维立体摩擦纳米发电机的设计及其应用"，中国科学院大学 （2015）

[2] Shu Xiang "Piezoelectric nanomaterials", June 2011.

[3] Yanling Chang (co-supervisor: R.L. Snyder) "ZnO nanocones and nanoplatelets: synthesis and characterization", Aug., 2010.

[4] Minghui Kuang "Catalytically assisted growth of carbon nanotubes", MS, December 1999.

PhD students currently supervised by Dr. Wang:

[1] Fei Xue (2015)

[2] Limin Zhang (2015)

[3] Tao Zhou (2015)

[4] Mengxiao Chen (2015)

[5] Changsheng Wu (March 2015 -)

[6] Ken Pradel, Aug. 2011 –

[7] Jun Chen, May 2012 –

[8] Ruomeng Yu, Jan. 2012

[9] Simiao Niu, Aug. 2011 –

Serving as PhD supervisor or co-supervisor for international institutions:

[1] Hulin Zhang, "Triboelectric nanogenertors for self-powered system", Chongqing University, China, 2014.

[2] Yuanjie Su, "Self-powered systems", University of Electronics of China, 2015.

[3] Peng Bai "Triboelectric nanogenerators", Tsinghua University, China, 2015.

[4] Peng Fei "Fabrication and application of optofluidic Chips", Peking University, Aug. 2012.

[5] Haoying Tang "ZnO nanomaterials and applications", National Center for Nanoscience and Technology, China, 2011.

[6] Xiang Wu "Synthesis of Nanomaterials", National Center for Nanoscience and Technology, China, 2010.

[7] Ming-Yeh Lu "Synthesis and application of 1D nanomaterials", National Tsinghua University, Taiwan, May 2008.

[8] Yi-Feng Lin "One-Dimensional Metal Sulfide Nanowires: Synthesis, Characterization and Applications", National Tsinghua University, Taiwan, May 2008.

[9] Cheng-Lun Hsin "Synthesis and mechanical properties of nanowires", National Tsinghua University, Taiwan, May 2008.

[10] Jun Zhou "Synthesis, Characterization and field emission of Nanowires", PhD, October 2006, Zhongshan University, China.

[11] Jr-Hau He "Synthesis, Characterization and Properties of Semiconductor Nanowires", PhD, October 2005, National Tsinghua Univ., Taiwan. {Now faculty, National Taiwan Univ., Taiwan}

[12] Ruiping Gao "Properties of carbon nanotubes", PhD, March 2002, University of Science and Technology Beijing. [Now, Dupity director, Materials Science and Engineering Division, NSF China]

[13] Zurong Dai "Short-range ordering in ZrO2 ceramics", PhD, March 1996, University of Science and Technology Beijing. [Now Research Scientist, Lawrence Livermore Nat. Lab]

[14] Thomas Stockli "Quantative EELS of carbon nanotubes", PhD, March 1999, EPFL, Lauzanne.

Postdoctoral fellows, research scientists and visiting students supervised by Dr. Wang and their current positions and affiliations (if known):

[1] Dr. Xin Wang (March 2014, Suzhou)

[2] Xingfu Wang (Aug. 2014 – Donghua University, China)

[3] Po-Kang Yang (Aug. 2014 –Aug. 2015, National Taiwan Univ)

[4] Dr. Min-Hsin Yeh (Aug. 2014 –Aug. 2015, National Taiwan Univ)

[5] Shengming Li (Aug. 2014 – Tsinghua Univ)

[6] Wenbo Peng (Aug. 2014 – Xian Jiaotong Univ)

[7] Zhen Wen (Aug. 2014 – Xian Jiaotong Univ)

[8] Young-Soo Kim (April 2014 – Jan. 2015, UNIST, Korea)

[9] Dr. Sang-Jae Kim (Feb. 2014 – Aug. 2015, Jejun University, Korea)

[10] Dr. Xiuhan Li (Jan. 2014 – Beijing Jiaotong University)

[11] Dr. Ying Wu (Jan. 2014 – Chongqing Univ of Sci and Tech)

[12] Dr. Zhaona Wang (Aug. 2013 – Feb. 2015, Beijing Normal University)

[13] Dr. Li Zheng (Aug. 2013, Shanghai Institute of Electric Power)

[14] Dr. Yufang Li (Aug. 2013 - , Nanjing Univ. of Aeronautics)

[15] Fang Yi (Aug. 2013 -, Beijing University of Sci and Technology)

[16] Dr. Matteo Tonezzer (October, 2013, CNR-IMEM Nanoscience Lab, Italy).

[17] Dr. Max.Migliorato (August, 2013, University of Manchester)

[18] Florent Saunier (June – August, 2013, Grenoble INP / PHELMA / IMEP-Lahc, MINATEC, France).

[19] Alberto Lauri (June – August, 2013, Grenoble INP / PHELMA / IMEP-Lahc, MINATEC, France).

[20] Dr. Gang Cheng (Feb. 2013 – Jan. 2016, Henan University)

[21] Dr. Weiqing Yang (Jan 2013 – Jan. 2014, Univ of Electronic s and Technology)

[22] Dr. Jin Yang (April 2013 – March 2014, Chongqing Univ.)

[23] Yannan Xie (Aug. 2012-July 2014, Xiamen Univ.)

[24] Hulin Zhang (Aug. 2012-Jan. 2014, Chongqing Univ.)

[25] Yuanjie Su (Aug. 2012-July 2014, Univ of Electronics and Technology)

[26] Peng Bai (Aug. 2012-July 2014, Tsinghua Univ)

[27] Dr. Zong-Hong Lin (March 1, 2012-Feb , 2013, National Taiwan Univ.)

[28] Dr. Xiaohong Yang (Oct., 2011- Sept. 2013, Chongqing Normal Univ.)

[29] Ronan Hinchet (March 1 2012- July 1 2012, MINATEC, Greenoble, France)

[30] Scott Hou (March 1, 2012 – Feb. 29 2013, National Tsinghua University, Taiwan)

[31] Georgios Niarchos (Institute of Microelectronics, NCSR "Demokritos", Greece, Jan.1 2012-March 1, 2012)

[32] Rui Zhang (Beihang Univ., Aug. 2011 –July 2012)

[33] Dr. Fang Zhang (Beijing Univ. of Technology, Oct. 2011-March 2013)

[34] Dr. Sangmin Lee (Dec., 2011 – Dec. 2013)

[35] Prof. JongHoon Jung (Korea, Jan. 2011-Jan. 2012)

[36] Prof. Jyh-Ming Wu (Yujia University, Taiwan, May 2011 – May 2012)

[37] Dr. Minbaek Lee (July 2009-Ja. 2012)

[38] Dr. Lin Dong (Zhengzhou Univ, Feb. 2011).

[39] Dr. Ya Yang (Univ Sci Tech Bejing, Feb. 2011-)

[40] Dr. Weihua Han (Lanzhou Univ., March 2011-Feb. 2012)

[41] Dr. Xinyu Xue (Northeaster Univ., China, Feb. 2011)

[42] Dr. Jianjun Chen (Nanjing Univ of Sci and Tech, Feb. 2011)

[43] Dr. Baochang Cheng (Feb. 2011)

[44] Chih-Yen Chen (National Tsinghua Univ., Taiwan, Jan. 2011)

[45] Cheng-Ying Chen (Nat. Taiwan Univ., Jan. 2011)

[46] Wenxi Guo Xiamen Univ., Aug. 30 2010 – Aug. 2012)

[47] Xue Wang (Chongqing Univ., Aug. 20 2010 – Jan. 2012)

[48] Chen-Ho Chen (National Tsinghua, Taiwan, April 1 2010 – March 30, 2011).

[49] Zetang Li (Tsinghua Univ., Dec. 1 2009 – Nov. 30, 2010).

[50] Dr. Caofeng Pan (Sept. 1, 2010 – Dec. 2012)

[51] Dr. Churl Seung Lee (KETI, Korea, Dec. 1, 2009 – Nov. 30, 2010).

[52] Ele Lee (Korea, July 1 2009 – June 30, 2010).

[53] Gonzalo Murillo, (Spain. June 30-Dec. 30, 2010)

[54] Giuseppe Romano (Università di Tor Vergata, Italy) (June 1 – July 30, 2009)

[55] Dr. Qing Yang (Oct. 2009 – April 2012)

[56] Wenhui Wang (Oct 2009 – April 2011)

[57] Der-Hsien Lian (Sept 2009 – May 2010)

[58] Tiejun Zhang (Sept 2009 – present)

[59] Dr. Minbae Lee (july 2009 – Jan. 2012)

[60] Dr. Weihua Liu (July 2009 – Aug. 2010) (Xian Jiaotong University)

[61] Dr. Jun Zhou (June 2007-Dec. 2007) (Huazhong University of Science and Technology)

[62] Dr. Yaguang Wei (April 2008 – Oct. 30, 2010)

[63] Dr. Rusen Yang (July 2007-Aug. 2010) (Now assistant professor, University of Minnesota)

[64] Dr. Youfan Hu (May 2008 – Feb., 2014, associate professor, Peking University).

[65] Dr. Yan Zhang (Dec. 2009 – June 2012).

[66] Fan Bai (Xidian Univ., March 2008 – April 2009)

[67] Giulia Mantini (Aug. 2008-March 2009) (University of Rome, Italy)

[68] Dr. Joon Ho Bae (Aug. 2007-Aug. 2010)

[69] Fengru Fan (Aug. 2008-Aug. 2010) (Xiamen University, China).

[70] Chi-Te Huang (March 2009-Feb-2010) [Nationa Tsinghua Univ. Taiwan].

[71] Zhiyuan Gao (Aug. 2008-March. 2010) (Xidian University, China).

[72] Yi Xi (Aug. 2008-Aug. 2009) (Chongqiang University, China).

[73] Yifan Gao (Jan. 2007-Jan 2009)

[74] Shisheng Lin (Aug. 2008-March 2010) (Zhejinag University, China)

[75] Jingbin Han (March 2009-Feb-2010) (Univ of Chemical Engineering, China)

[76] Te-Yu Wei (March 2009-Feb-2010) [Nationa Tsinghua Univ. Taiwan]

[77] Dr. Min Wei (Feb. 2008- Sept. 2008) (Professor, Univ of Chemical Engineering, China).

[78] Ping-Huang Yeh (Oct. 2007 – Sept. 2008) [Faculty, Tamkung Univ. Taiwan]

[79] Ming-Yeh Lu (Oct. 2007 – Sept. 2008) [Nationa Tsinghua Univ. Taiwan]

[80] Dr. Yuzi Liu (May 2007 – Feb., 2008) (Argonne National Lab)

[81] Dr. Christian Falconi (faculty, University of Rome, Italy)

[82] Ms. Xiaomei Zhang (Oct. 2007 – Sept. 2009) [University of Science and Technology Beijing]

[83] Dr. Aimiao Qin (Sept. 2007 – Aug. 2008) [faculty, Guilin University, China]

[84] Dr. Chengyan Xu (Feb. 2007-Aug. 2007) [faculty, Harbin Institute of Technology]

[85] Mr. Yu-Lun Hsin (Jan. 2007 – Dec. 2007) [Nationa Tsinghua Univ. Taiwan]

[86] Mr. Yi-Feng Lin (Jan. 2007 – Dec. 2007) [faculty, National Chung Kung Univ. Taiwan]

[87] Dr. Yong Qin (Feb. 2007-Sept. 2009) { faculty, Lanzhou University}

[88] Mr. Qin Kuang (Sept 2006 – Aug 2007) [faculty, Xiamen Univ., China].

[89] Dr. Puxian Gao (Jan. 2006 – Jan. 2007) [faculty, Univ. of Conneticut].

[90] Dr. Xudong Wang (Jan. 2006 – Aug. 2007) (faculty, University of Wisconsin Madison).

[91] Dr. Qilong Liao (Jan. 2006 – Aug. 2006) [faculty, Mianyang Univ. Of Sci. And Tech., China].

[92] Dr. Yu-Lun Chueh (February 2006 – Sept, 2007).

[93] Dr. Liqiang Mai (March 2006 – Feb. 2008) [faculty at Wuhan Univ of Sci. and Tech., China].

[94] Dr. Jingyun Huang (Dec. 2005 – Nov. 2006) [faculty at Zhejiang Univ., China].

[95] Dr. Huibiao Liu (July 2006 – Feb. 2007) [faculty at Inst. Of Chemistry, CAS, China].

[96] Dr. Jun Zhou (February 2005 – June 2006) [Zhongsan Univ., China].

[97] Prof. Hong Liu (February 2005 – April 2006) [faculty, Shandong Univ].

[98] Dr. Jr-Hao He (February 2005 – September 2005) {fauclty, National Taiwan Univ., Taiwan}.

[99] Prof. Chenguo Hu (February 2005 – February 2006) [faculty, Chongqing Univ., China].

[100] Dr. Yong Ding (June 2003 – present).

[101] Prof. Yue Zhang (Nov. 2002 – April 2003) [Vice President, Univ of Sci. and Tech. Beijing].

[102] Ms. Yolande Berta (March 1995 - present).

[103] Dr. Xuedong Bai (Dec. 2001 – Dec. 2002) [fauclty, Inst. Of Physics, CAS, China].

[104] Dr. Xiangyang Kong (July. 2002 – Feb. 2004) [faculty, Shanghai Jiaoton Univ., China].

[105] Dr. Kanghua Chen (Feb. 2002 – Aug. 2002) [faculty, SouthCentral Univ of China].

[106] Dr. Jing Li (Nov. 2001 – Jan. 2005) (Research Scientist, Penn State Univ.).

[107] Dr. Zhenchuan Kang (July 1996 – Dec. 1997).

[108] Dr. Yong Wang (Jan. 2001 – June 2001)

[109] Dr. Zhengwei Pan (Jan. 2000 – Feb. 2002) [Faculty, Univ. of Georgia].

[110] Dr. Zurong Dai (Oct. 1999 – Feb. 2003) [Scientist, Lawrence Livermore Nat. Lab.].

[111] Dr. Ruiping Gao (August 1999 – August 2000) [Now, Dupity director, Materials Science and Engineering Division, NSF China].

[112] Dr. Jianbao Li (Dec 1998 – March 1999) [fauclty, Tsinghua Univ., China].

[113] Dr. Lijie Qiao (Dec. 2001 – March 2002) [faculty, Univ. of Sc. And Tech. Beijing].

[114] Dr. Gaiying Yang (Sept. 1999 – Dec. 2000) [Research Scientist, Penn State Univ].

[115] Ms. Yue Du (March 1997 – March 1999).

Awards received by supervised students:

- Yuanjie Su, Top 10 outstanding graduate of University of Electronics of China, 2015.
- Peng Bai, outstanding researcher of Tsinghua (a.k.a. "学术新秀") and Beijing outstanding graduates (a.k.a. "北京市优秀毕业生"), 2015.
- Ruomeng Yu received 2015 SPIE Optics and Photonics Education Scholarship.
- Simiao Niu received the Materials Research Society (MRS) Graduate Student Silver Award, 2015.
- Xiaonan Wen (Special honor award, 7 out of over 500 awardees), Chinese government award for outstanding self-financed students abroad, 2015.
- Yusheng Zhou, , Chinese government award for outstanding self-financed students abroad, 2015
- Long Lin, , Chinese government award for outstanding self-financed students abroad, 2015.
- Ruomeng Yu, GRIDC innovation award, Georgia Tech, 2015.
- Long Lin, GRIDC innovation award, Georgia Tech, 2015.
- Simiao Niu, GRIDC best poster award, Georgia Tech, 2015.
- Ken Pradel, MSE poster competition award (1st place in nanomaterials), Georgia Tech, 2015.
- Long Lin, MSE poster competition award (3rd place in energy/electronic materials), Georgia Tech, 2015
- Xiaonan Wen received the Materials Research Society (MRS) Graduate Student Silver Award, 2014.
- Sihong Wang received the Chinese Government Scholarship for Outstanding Self-financed Students Abroad (China Scholarship Council), 2013
- Ying Liu received the Chinese Government Scholarship for Outstanding Self-financed Students Abroad (China Scholarship Council), 2013
- Sihong Wang received the Certificate of Merit for the oral presentation at 247th ACS National Meeting.

- Sihong Wang received the Materials Research Society (MRS) Graduate Student Silver Award, 2014.
- Peng Bai, Guang Zhu et al. Best poster award from MRS, fall meeting, 2013
- Long Lin received the Materials Research Society (MRS) Graduate Student Silver Award, 2013
- Long Lin received the the Phosphor Tech Best in Show Award in 1st annual MSE Grad Student Poster Competition, 2013
- Jun Chen received the TenCate Protective Fabrics Award in 1st annual MSE Grad Student Poster Competition, 2013
- Guang Zhu received the Materials Research Society (MRS) Graduate Student Silver Award, 2013
- Guang Zhu received the Chinese Government Scholarship for Outstanding Self-financed Students Abroad (China Scholarship Council), 2013
- Wenzhuo Wu received the Materials Research Society (MRS) Graduate Student Silver Award, 2012
- Wenzhuo Wu received the Materials Research Society (MRS) Student Travel Award, 2012
- Wenzhuo Wu received the Chinese Government Scholarship for Outstanding Self-financed Students Abroad (China Scholarship Council), 2012
- Chen Xu received the TSMC Outstanding Student Research Award (gold medal), 2011
- Ken Pradel received the IGERT Fellowship, 2011
- Ken Pradel received the Goizueta Fellowship, 2011
- Wenzhuo Wu received the School of Materials Science and Engineering Research Initiation Publication Award, 2010
- Guang Zhu received the School of Materials Science and Engineering Research Initiation Publication Award, 2009 & 2010
- Chen Xu, TSMC Outstanding Student Research Award (gold medal), 2011.
- Wenzhuo Wu, TSMC Outstanding Student Research Award (finalist), 2011.
- Sheng Xu, Georgia Tech Best PhD Thesis Award, 2010.
- Chen Xu, Fellowship award from Chinese consulator general, 2011.
- Wenzhuo Wu, MRS graduate student award (silver medal), 2010.
- Sheng Xu, TSMC Outstanding Student Research Award (gold medal), 2010.
- Sheng Xu, MRS graduate student award (silver medal), 2009.
- Sheng Xu, Fellowship award from Chinese consulator general, 2010.

- Wenjie Mai, Fellowship award from Chinese consulator general, 2009.
- Jin Liu, Fellowship award from Chinese consulator general, 2009.
- Changshi Lao, Fellowship award from Chinese consulator general, 2008.
- Rusen Yang, Fellowship award from Chinese consulator general, 2006.
- Jinhui Song, Fellowship award from Chinese consulator general, 2007.
- Jinhui Song, MRS graduate student award, fall 2007.
- Xudong Wang, MIT TR 35 award, 2007.
- Will Hughes, NAE Fellowship, 2006.
- Daniel Moore, Fellowship from Molecular Design Institute, 2002.
- Chris Ma, Fellowship from Molecular Design Institute, 2001.
- Will Hughes, Fellowship from Molecular Design Institute, 2003.
- Daniel Moore, Nanotechnology and Nanoscience Fellowship, Georgia Tech, 2003.
- Will Hughes, Nanotechnology and Nanoscience Fellowship, Georgia Tech, 2004.

Classes instructed:

Introduction of engineering materials

Microscopy and materials analysis

Transmission electron microscopy

Advanced transmission electron microscopy

Nanomaterials and Nanotechnology

Publication list

I: Authored Scientific Reference and Text Books:

[1] "*Elastic and Inelastic Scattering in Electron Diffraction and Imaging"*, by Z.L. Wang, Plenum Publishing Co. (New York, 1995). [Cited for 147 times]

[2] "*Reflected Electron Microscopy and Spectroscopy for Surface Analysis*,"by Z.L. Wang, Cambridge University Press (England, May 1996). [Cited for 56 times]

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II: Edited Scientific Reference Books and Conference Proceedings

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V: Commercialization of inventions

Co-Founder: Nanoenergy Sys LLC

VI: Journal publication via peer review (*, [a] corresponding author; total citation > 84,000; h-index = 140; average citation of each publication: 85)

In prints:

[1] Xiandi Wang, Lin Dong, Hanlu Zhang, Ruomeng Yu, Caofeng Pan, Zhong Lin Wang „Recent progress in electronic skin", Advanced Science

[2] Xiaoyi Li+, Mengxiao Chen+, Ruomeng Yu+, Taiping Zhang, Dongsheng Song, Renrong Liang, Qinglin Zhang, Shaobo Cheng, Lin Dong, Anlian Pan, Jing Zhu*, Caofeng Pan*, Zhong Lin Wang*" Enhancing Light Emission of ZnO-Nanofilm / Si-Micropillar Heterostructure Arrays by Piezo-Phototronic Effect", Adv. Mater.

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Wang* "Enhancing Light Emission of ZnO-Nanofilm / Si-Micropillar Heterostructure Arrays by Piezo-Phototronic Effect", Adv. Mater.

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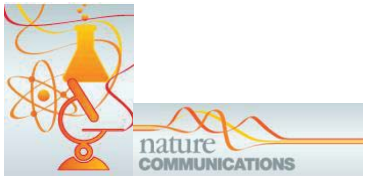

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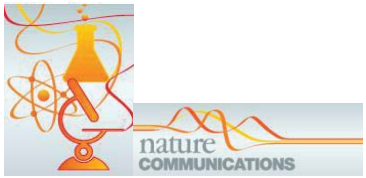

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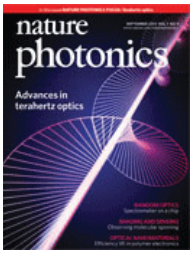

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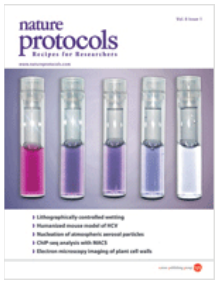

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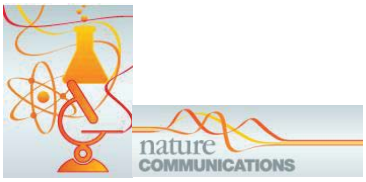

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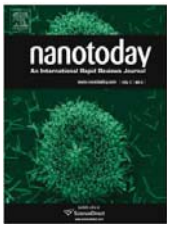

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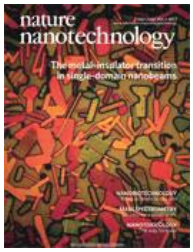

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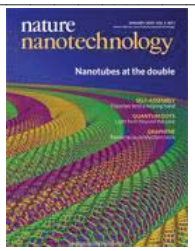

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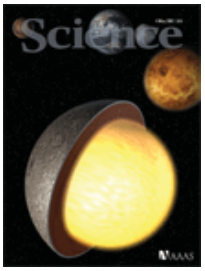

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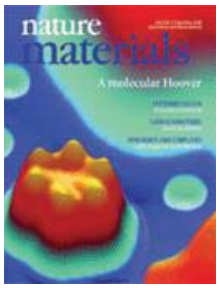

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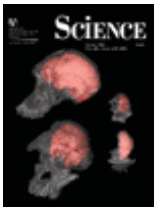

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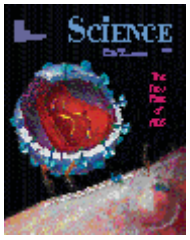

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IIX: Planery, honorable lectures, keynote and invited presentations as well as seminars delivered in national and international conferences and universities/institutes:

[1] "Piezotronics for functional systems and Nanogenerators as new energy technology" (Planery), 2st Intern. Conf. & 3rd Intern/. MacroNano-Colloquium on Challenge and Perspectives of Functional Nanostructures, July 29-31, 2015, Ilmenau, Germany.

[2] "Piezotronics for functional systems and Nanogenerators as new energy technology" (Planery), IEEE International Conference in Nanotechnology, Rome 27-30 July 2015.

[3] "Piezotronics for functional systems and Nanogenerators as new energy technology" (Planery), Nano Korea, June 30-July 2, 2015.

[4] "Nanogenerators as new energy technology and piezotronics for functional systems" (Keynote), 1st Intern. Conf. Advances in Functional Materials, Stony Brook, NY, June 29 – July 3rd, 2015.

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[8] "Triboelectric Nanogenerators - a new energy technology" (plenary), 4th International Symposium on Advanced Materials for Energy & Environmental applications (ISAMEE), June 4-6, 2015 at Ulsan, Korea.

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[11] "Nanogenerators as new energy technology and piezotronics for functional systems", Beijing Jiaotong University, May 21, 2015.

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[13] "Nanogenerators as new energy technology", Institute of Engineering Thermaldynamics, CAS, May 14, 2015.

[14] "Updated progress in nanogenerators and piezotronics", MRS, San Francisco, April 4-10, 2015.

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[18] "Nanogenerators as new energy technology and piezotronics for functional systems" (Distinguished Lecture), KAUST, Saudi Arabia, Feb. 18, 2015.

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[22] "Piezotronics for functional systems and nanogenerators as new energy technology" (plenary), Electronic Materials and Nano Technology for Green Environment, November 16 to 19, 2014 at Jeju, Korea.

[23] "Triboelectric nanogenerator – a new energy technology", 61th AVS national meeting, Nov. 10-14, 2014, Baltimore.

[24] "Nanogenerators and piezotronics based on piezoelectric and triboelectric effects", Henan University, Nov. 2, 2014.

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[26] "Triboelectric nanogenerators as new energy technology and self-powered sensors – principles, problems and perspectives" (perspective talk), 176th Farady Discussion on Next-generation materials for energy chemistry, Xiamen, China, Oct. 29, 2014.

[27] "Piezotronics for functional systems and nanogenerators as new energy technology" (kenote lecture), Ningbo Institute of Materials, CAS, China, Oct. 20, 2014.

[28] "Piezotronics for functional systems and nanogenerators as new energy technology", China Estern University, Shanghai, China, Oct. 18, 2014

[29] "Nanogenerators as new energy technology and piezotronics for functional systems" (Plenery), IEEE NanoMateriald and Device Conf., Oct. 13-15, 2014, Catania, Italy

[30] "Nanogenerators as new energy technology and piezotronics for functional systems" (award talk), NANOSMAT, Sept. 9-12, 2014, Ireland.

[31] "Nanogenerators as new energy technology and piezotronics for functional systems", ACS national meeting, August 10-15, 2014, San Francisco.

[32] "Triboelectric nanogenerator – a new energy technology using organic materials", ACS national meeting, August 10-15, 2014, San Francisco.

[33] "Triboelectric nanogenerator – a new energy technology", IEEE conference on electret, August 11-13, 2014, Baltimore.

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[35] "Nanogenerators as New Energy Technology and Piezotronics for Functional Systems" (Planery), Intn. Conf. on Nanoscience + Technologu, Vail, Colorado, July 20-25, 2014.

[36] "Nanogenerators as New Energy Technology and Piezotronics for Functional Systems" (Planery), 5th Australia-China Symposium on innovative materials and devices and 5th FOCSA Conference on Science and Technology, 23-25, July, 2014 in Wollongong Australia.

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[41] "Nanogenerators as New Energy Technology and Piezotronics for Functional Systems", Xinan Jiaotong University, China, July 2, 2014.

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[43] "Nanogenerators and Piezotronics based on ZnO nanowires", CECAM workshop on Nanostructured Zinc Oxide and related materials, Bremen, Germany, June 23-27, 2014.

[44] "Nanogenerators as New Energy Technology and Piezotronics for Functional Systems", Institut für Werkstoffphysik und Werkstofftechnologie, Technische Universität Hamburg-Harburg, June 25, 2014.

[45] "Nanogenerators as New Energy Technology and Piezotronics for Functional Systems", Int. Conf on Nanostructures and Nanocomposite, Hong Kong, May 25, 2014.

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[47] "Piezotronics and Piezo-phototronics" , MRS Spring, April 21-25, 2014.

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[50] "Piezotronics of ZnO nanomaterials" (McGraddy prize talk), American Physical Soc., Denver, March 2-7, 2014.

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[72] "Nanogenerators as New Energy Technology and Piezotronics for Functional Systems" (Planery), Advanced Inorganic Complex Nanostructures, Namur, Belgium, July 15-19, 2013.

[73] "Nanogenerators as New Energy Technology and Piezotronics for Functional Systems" Xian Jiaotong University, July 5, 2013.

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[80] "Triboelectric Nanogenerators as New Energy Technology ", Nanjing University, April 13-14, 2013.

[81] "Nanogenerators as New Energy Technology and Piezotronics for Functional Systems", Suzhou Institute of Nanotech and Nanobionics, April 11, 2013.

[82] "Nanogenerators and piezotronics – from fundamental science to technological applications" (planery), Colloids and Energy conference, Xiamen, China from 21-24 April 2013.

[83] "Organic Nanogenerators as New Energy Technology", International Symposium on Materials for Sustainable Energy Conversion and Energy Storage, Beijing, China, April 19th, 2013.

[84] "Organic Nanogenerators as New Energy Technology", International Symposium on Materials for Sustainable Energy Conversion and Energy Storage, Chongqing, China, April 15, 2013.

[85] "Organic Nanogenerators as New Energy Technology", International Symposium on Materials for Sustainable Energy Conversion and Energy Storage, Hefei, China, April 17, 2013.

[86] "Nanogenerator and Piezotronics for NEMS" (planery), IEEE International Conference on Nano/Micro Engineered and Molecular Systems (IEEE-NEMS 2013), Suzhou, China, April 8-10, 2013.

[87] "Triboelectric nanogenerators: Harvesting mechanical energy using polymer films", ACS Spring meeting, New Orleans, April 7-13, 2013.

[88] "Hybrid cells for simultaneous harvesting multiple types of energy", ACS Spring meeting, New Orleans, April 7-13, 2013.

[89] "Nanogenerators for self-powered systems and mobile electronics", Spring MRS, San Francisco, April 1-5, 2013.

[90] "Piezotronics – from fundamental science to technological applications", Spring MRS, San Francisco, April 1-5, 2013.

[91] "Nanogenerators and piezotronics – from fundamental science to technological applications", turtorial for Symposium W, Spring MRS, San Francisco, April 1-5, 2013.

[92] "Nanogenerators and piezotronics – from fundamental science to technological applications", University of Minnesota, March 27, 2013.

[93] "Organic nanogenerators as new energy technology and piezotronics for functional system" Institute of Chemistry, CAS, March 5, 2013.

[94] "Nanogenerators as new energy technology", 3rd Internatonal Conference of MANA, NIMS, Japan, Feb. 27-March 1, 2013.

[95] "Nanogenerators and piezotronics – from fundamental science to technological applications", Chemistry Department, Perdue University, Feb. 13, 2013.

[96] "Nanogenerators and piezotronics – from fundamental science to technological applications", SKKU, Korea, Dec. 17, 2012.

[97] "Nanogenerators for self-powered systems and portable electronics", Samsung Electronics Co., Korea, Dec. 18, 2012.

[98] "Nanogenerators and piezotronics – from fundamental science to technological applications", KIST, Korea, Dec. 18, 2012.

[99] "Nanogenerators and piezotronics – from fundamental science to technological applications", Xiamen University, China, Dec. 3, 2012.

[100] "Nanogenerators and piezotronics – from fundamental science to technological applications", Peking University, China, Dec. 10, 2012.

[101] "Nanogenerators and piezotronics – from fundamental science to technological applications", Tsinghua University, China, Dec. 13, 2012.

[102] "Triboelectric Nanogenerators", Fall MRS meeting, Boston, Nov. 26-30, 2012.

[103] "Hybrid cell for harvesting mutypes of energy", Fall MRS meeting, Boston, Nov. 26-30, 2012.

[104] "Nanogenerators and piezotronics – from fundamental science to novel applications" (Planery), Xianghshan Conference on Frontier of Piezotronics and Nanogenerators, Dec. 5-7, 2012.

[105] "Nanogenerators and piezotronics – from fundamental science to novel applications", Dept. of Chemistry, UCLA, Nov. 14, 2012.

[106] "Nanogenerators and piezotronics – from fundamental science to novel applications", Dept. of Electrical Engineering, Univ. of Michigan, Nov. 16, 2012.

[107] "Nanogenerators and piezotronics – from fundamental science to novel applications", Dept. of Electrical Engineering, UIUC, Nov. 12, 2012.

[108] "Updated progress in piezotronics", National Tsinghua University, Nov. 7, 2012, Taiwan.

[109] "Updated progress in nanogenerators", National Tsinghua University, Nov. 6, 2012, Taiwan.

[110] "Nanogenerators and piezotronics – from fundamental science to novel applications", National Chung Kong University, Nov. 8, 2012, Taiwan.

[111] "Nanogenerators and piezotronics – from fundamental science to novel applications", Materials Res. Institute, ITRI, Nov. 5, 2012, Taiwan.

[112] "Nanogenerators and piezotronics – from fundamental science to novel applications" (planery), 14th National conference on dielectrics, Nov. 2-3, 2012, Wuhan, China.

[113] "Nanogenerators for self-powered systems" (planary), The International Conference on Energy and Environment-Related Nanotechnology (ICEEN), October 21-24, 2012, Beijing, China.

[114] "Nanogenerators and piezotronics – from fundamental science to novel applications", Florida State University, Oct. 11, 2012.

[115] "Nanogenerators and piezotronics – from fundamental science to novel applications", the Edward Orton Memorial Lecture Award, Materials Science and Technology conference, Oct. 8-11, 2012, Pittsburgh.

[116] "Nanogenerators for self-powered systems and piezotronics for smart systems" (planary), Materials Science and Engineering Conference, Darmstadt, Germany, Sept. 24-27, 2012.

[117] "Nanogenerators for self-powered systems and piezotronics for smart systems", Univ. of Jena, Germany, Sept. 24, 2012.

[118] "Nanogenerators for self-powered systems and piezotronics for smart systems", Univ. of Conlogne, Germany, Sept. 21, 2012.

[119] "Piezotronics and Piezo-phototronics", 38th Micro and Nano Engineering, Toulouse, France, Sept. 16-20, 2012.

[120] "Nanogenerators and piezotronics" (keynote), 3rd Int. Workshop on Nanoscale Imaging for Energy Applications, Oak Ridge, Sept. 11-13, 2012.

[121] "Nanogenerators for self-powered systems and piezotronics for smart systems" (Plenary), 4th Chinese Workshop on Chemical Engineering, Birmingham, UK, Aug. 26, 2012.

[122] "Piezotronics and Piezo-phototronics" (Plenary), IEEE Nanoelectronics, Birmingham, UK, Aug. 20-23, 2012.

[123] "Piezotronics and Piezo-phototronics", University of Manchester, UK, Aug. 24, 2012.

[124] "Nanogenerators for self-powered systems and piezotronics for smart systems", National High performance computation center, Taiwan, Aug. 9, 2012.

[125] "Nanogenerators and piezotronics", Distinguished Lecture in the Summer camp organized by Wu Ta-You foundation, Taiwan, Aug. 6-10, 2012.

[126] **"**Nanoceramics for new energy and piezotronics", 4th Int. Conference on Ceramics, July 16-19, Chicago, 2012.

[127] "Nanogenerators for self-powered systems", Graduate School of Chinese Academy of Sciences, July 4, 2012.

[128] "Nanogenerators for self-powered systems and piezotronics for active flexible electronics", Peking University, June 29, 2012.

[129] "Nanogenerators for self-powered systems and piezotronics for active flexible electronics", Tsinghua University, June 30, 2012.

[130] "Piezotronics and Piezo-phototronics", Device Research Conference, State College, PA, June 18-19, 2012.

[131] "Nanogenerators for self-powered systems and piezotronics for smart MEMS" (plenary), High-level Intern. Symposium on Applications and Potentials of MEMS, the Chincsc Acadcmy of Engineering, June 28-29, 2012, Beijing, China.

[132] "Nanogenerators for self-powered sensors and systems", 4th Intern. Conf. Smart Materials Structures Systems, Montecatini Terme, Italy, June 10-14, 2012.

[133] "ZnO nanowires for energy harvesting and pizotronics", 4th Intern. Conf. Smart Materials Structures Systems, Montecatini Terme, Italy, June 10-14, 2012.

[134] "Nanogenerators for self-powered systems and portabe electronics" (Planery), Swiss Nano, Lausanne, May 22-23, 2012.

[135] "Nanogenerators for self-powered systems and piezotronics for active flexible electronics", EPFL, Lausanne, May 22-23, 2012.

[136] "Nanogenerators for self-powered systems and piezotronics for active flexible electronics", ETZH, Zurich, May 24, 2012.

[137] "Nanogenerators for self-powered systems and piezotronics for active flexible electronics", IBM Zurich, May 25, 2012.

[138] "Nanogenerators for self-powered devices", The Fred Garland Lecture, Texas A&M University Kingsville, April 5, 2012.

[139] "Piezo-phototronics and its application in optoelectronics and energy", Europe Photonics, SPIE, Brussel, April 16-19, 2012.

[140] "Nanogenerators for self-powered systems and piezotronics for active flexible electronics", Uppsala University, Sweden, April 20, 2012.

[141] "Nanogenerators for self-powered systems and piezotronics for active flexible electronics", Linköping University, Sweden, April 20, 2012.

[142] "Nanogenerators for self-powered devices and piezotronics for active flexible electronics" (Keynote) NanoIsrael, Tel Aviv, March 26-27, 2012.

[143] "Nanogenerators for self-powered devices systems", University of Jerusalaem, March 29, 2012.

[144] "From microscopy to nanogenerators and nanopiezotronics", John M. Cowley Distinghuished Lecture, Arizona State University, Feb. 23, 2012. "Nanogenerators for self-powered devices and piezotronics for active flexible electronics", NIMS, Japan, Feb. 20, 2012.

[145] "Nanogenerators for self-powered devices and piezotronics for active flexible electronics" (Keynote) 2012 Intn. Conference on Nanoscience and Nanotechnology, Perth, Australia, Feb. 5-9, 2012.

[146] "Nanogenerators for self-powered devices and piezotronics for smart system", Chimie ParisTech, France, Feb. 3, 2012.

[147] "Nanogenerators for self-powered devices and piezotronics for smart system", CEA-Leti, MINATEC Campus, GRENOBLE, France, Feb. 1, 2012.

[148] "Nanogenerators for self-powered devices and piezotronics for smart system" (keynote), Guardian Angles workshop, Paris, Feb. 2-3, 2012.

[149] "Nanogenerators for self-powered devices and piezotronics for smart system" (keynote), Nano Today, Hawaii, Dec. 12-15, 2011.

[150] "Nanogenerators for self-powered devices and piezotronics for smart system" (keynote), 4th Int. Conf on One-Dimensional Nanomaterials 9ICON), Beijing, Dec. 7-9, 2011.

[151] "Nanogenerators for self-powered system", ST WW Energy Harvesting Council meeting, Paris, Dec. 1, 2011.

[152] "Nanogenerators for self-powered system", Fall MRS, Nov. 27-Dec. 3, 2011.

[153] "From nanogenerators to Piezotornics – a decade study of ZnO nanostructures" (keynote award talk), Fall MRS, Nov. 27-Dec. 3, 2011.

[154] "Nanogenerators for self-powered devices and piezotronics for smart system", Holland Micro/Nano Conference, Nov. 15-16, 2011.

[155] "Nanogenerators for self-powered devices and piezotronics for smart system" Huazhong University of Sci and Technology, Oct. 25, 2011.

[156] Piezotronics for Interfacing Biomechanical Actions with CMOS" (Keynote),Intn. Workshop on M2M Technology. Taiwan, OCT. 31-NOV. 1, 2011.

[157] "Nanogenerators and Piezotronics: impact of piezoelectric nanomaterials to energy science and electronics" (keynote), 14th Beijing Conference and Exhibition on Instrumental Analysis (BCEIA 2011) to be held in Beijing on Oct. 13-16, 2011.

[158] "Nanogenerators for self-powered devices and piezotronics for smart system" Xian Jiaotong University, Oct. 14, 2011.

[159] "Piezotronics and Piezo-Phototronics", Nano-Bio-Energy with IT for Smart Systems, Yonsei University, Korea, Oct. 17, 2011.

[160] "My practice in science started from Xidian University" (keynote), 85th anniversary of Xidian University, Oct. 15, 2011.

[161] "Biotemplated Nanofabrication and Biomimicking Nanotechnology", Biomimetic materials and devices: structure, dynamics and function, Beijing, Sept. 17-19, 2011.

[162] "ZnO based nanomanufacturing – from nanogenerators to piezotornics", Nanotrend, Hefei, Oct. 12, 2011

[163] "Piezotronics and piezo-phototronics", Shanghai Institute of Ceramics, Oct. 11, 2011.

[164] "Nanogenerators for self-powered devices and piezotronics for smart system" Michigan State University, Sept. 29, 2011.

[165] "Nanogenerators for self-powered devices and piezotronics for smart system" University of Connecticut, Oct. 4, 2011.

[166] "Nanogenerators for self-powered devices and piezotronics for smart system" Harvard University, Sept. 21, 2011.

[167] "Piezotronics and piezo-phototronics", MIT, Sept. 21, 2011.

[168] "Nanogenerators for self-powered sensors", MIT, Sept. 20, 2011

[169] "Piezotronics for smart system", CNMM International Workshop 2011: Impact of Deformation on Nanoscale Properties and Devices, Beijing, Sept. 11-12, 2011

[170] "Nanogenerators for self-powered devices and piezotronics for smart system" Tianjin Univ, China, Sept. 10, 2011.

[171] "Piezotronics for smart system", ChinaNano, Sept. 7-9, 2011.

[172] "Nanogenerators for self-powered devices and piezotronics for smart system" (keynote), Eurosensor XXV, Athens, Greece, Sept. 5-7, 2011.

[173] "Nanogenerators for self-powered devices and piezotronics for smart system" (keynote), IEEE Int. Conf. on fluid power and mechatronics, Beijing, Aug. 17-19, 2011.

[174] "Piezotronics for smart systems" (keynote), Nanoelectronic Devies in Defence & Security Conferences, Role of Nanotechnology in the forensic sciences, Polytechnic Instittue of New York, Aug. 29-Sept. 1, 2011.

[175] "Nanogenerators for self-powered nanosystem", UNIST, Korea, Aug. 12, 2011.

[176] "Piezotronics and piezo-phototronics", UNIST, Korea, Aug. 16, 2011.

[177] "Self-powered nanosystems: nanogenerators, piezotronics on and piezo-phototronics", SKKU Advanced Institute of Nanotechnology (SAINT), Korea, Aug. 13, 2011.

[178] "Nanogenerators for self-powered devices and piezotronics for smart system" (keynote), The 20th IEEE International Symposium on Applications of Ferroelectrics, International Symposium on Piezoresponse Force Microscopy & Nanoscale Phenomena in Polar Materials, Vancouverm July 24-27, 2011.

[179] "Nanogenerators for self-powered devices and piezotronics for smart system", Univ. of Washington,, July 29, 2011.

[180] "How to do good science", Institute Chongqing University, China, July 22, 2011.

[181] "The science, engineering and applications of nanogenerators and piezotronics", Institute of Chonrqing Functional Devices, China, July 21, 2011.

[182] "Thermal diffuse scattering in sub-angstron high resolution TEM: what do we know and what donot we know?", 4th K.H. Kun summer school in Advanced Electron Microscopy, Shenyang, China, July 11-15, 2011

[183] "3D solar cell", in Trinar Solar, Nanjing, China, July 19, 2011.

[184] "Nanogenerators for self-powered nanosystem", Peking University, China, July 12, 2011.

[185] "Nanogenerators for self-powered devices and piezotronics for smart system", Int. Conference on Materials and Technology, Singapore, June 25-31, 2011.

[186] "Nanogenerators for self-powered nanosystem", National Tsinghua University, Taiwan, June 24, 2011.

[187] **"**Nanogenerators for self-powered sensors and piezotronics for smart systems", National Tsinghua University, Taiwan, June 24, 2011.

[188] "Piezotronics for smart systems", National Tsinghua University, Taiwan, June 24, 2011.

[189] "Nanogenerators and piezotronics" (keynote), IEEE Int. Nanoelectronics Conferenec, Taiwan, June 22-24, 2011.

[190] "Emerging applications of ZnO: nanogenerators and piezotronics", Emergy opportunities in nanostructued semiconductors, Northwestern University, June 2-3, 2011.

[191] "The science, engineering and applications of nanogenerators and piezotronics" (keynote), 20 years anniversary of the Chinese, Beijing, May 18, 2011.

[192] "The science, engineering and applications of nanogenerators and piezotronics" (keynote), Int. Conference on Energy and Environment, Shanghai, May 20-22, 2011.

[193] "Piezotronics and Piezo-Phototronics", Spring MRS meeting, San Francisco, April 24-29, 2011.

[194] "Self-powered nanosystem: Piezotronics and Piezo-Phototronics", SPIE conference, Orlando, April 24-29, 2011.

[195] "My research in ZnO – from science to engineering and to technology", Peking University, April 14, 2011.

[196] "My research in ZnO – from science to engineering and to technology", Tsinghua University, April 13, 2011.

[197] "Nanogenerators and Piezotronics ", University of Birmingham, UK, April 8, 2011.

[198] "Nanogenerators for self-powered biosensors and piezotronics for human-computer interfacing", Int. workshop on Bio/Nano-manufacturing and Integration, Tsinghua University, Beijing, April 11-13, 2011.

[199] **"**Novel properties and applications of ZnO nanostructures: nanogenerators and piezotronics", Microscopy of Semiconductor Materials, Cambridge, UK, April 4-8, 2011.

[200] "Hybrid cells for simultaneously harvesting multiple types of energy", ACS annual meeting, Anheime, CA, March 25-30, 2011.

[201] "Hybrid structures for 3D solar cells with much enhanced efficiency", ACS annual meeting, Anheime, CA, March 25-30, 2011.

[202] "Nanogenerators for self-powered nanosystems", ACS annual meeting, Anheime, CA, March 25-30, 2011.

[203] "Harvesting energy from our body", Green Chair Lecture, Texas Christian University, March 25, 2011.

[204] "Piezotronics", Green Chair Lecture, Texas Christian University, March 25, 2011.

[205] "Nanogenerators and Piezotronics ", APS March meeting, March 20-25, 2011, Dallas TX.

[206] "Nanogenerators for self-powered systems and Piezotronics for smart MEMS " (DOW Lecture), Northwestern University, Feb. 15, 2011.

[207] "Nanogenerators and Piezotronics for Self-powered System", Univ. of Chicago, Feb. 14, 2011.

[208] "Nanogenerators and Piezotronics for Self-powered System", Univ. California Berkeley, Feb. 11, 2011.

[209] "Self-powered nanosensors", DARPA workshop on Biomarkers and Biosensors , Feb. 9, 2011.

[210] "Self-powered nanosystems", Navy Research Office, Feb. 8, 2011.

[211] "Nanogenerators for self-powering systems & piezotronics for smart MEMS/NEMS" (keynote), MEMS 2011, Cancun, Jan. 24-27, 2011.

[212] "Nanogenerators and piezotronics" (keynote), Int. Conf. Adcaned Ceramics and Composite, Daytona Beach, , Jan. 23-27, 2011.

[213] "Nanogenerators and piezotronics", Institute of Ceramics, Shanghai, China, Jan. 7, 2011.

[214] "Introduction to nanotechnology: Synthesis and applications of nanostructures" (Tutorial), Fall MRS Conference, Boston, Nov. 29-Dec. 3, 2010.

[215] "Piezotronic and Piezo-phototronic Effects and Applications",Fall MRS conference, Boston, Nov. 29-Dec. 3, 2010.

[216] "Toward Self powered Implantable-nanodevices", Fall MRS Conference, Boston, Nov. 29-Dec. 3, 2010.

[217] "Piezotronic and Piezo-phototronic Effects and Applications",Fall MRS conference, Boston, Nov. 29-Dec. 3, 2010.

[218] "Nanogenerators and piezotronics", Nanjing University, China, Nov. 17, 2010.

[219] "Nanogenerators and piezotronics", University of Science and Technology of China, China, Nov. 18, 2010.

[220] "Heterogenous integration of piezo-electric generators for self-powered micro/nanosystems", panelist on the topic "Heterogeneous Device Integration as Enabler of Functional Diversification for More than Moore", IEDM 2010, Dec. 6-10, 2010, San Francisc.

[221] "Nanogenerators – harvesting body motion energy for powering personal electronics", the National Nanotechnology Initiative at Ten: Nanotechnology Innovation Summit will be held Dec. 8-10 in Washington, DC.

[222] "Ceramic Nanotechnology for Sustainable Energy - Science in Micro/Nano-Systems" (Plenary), 3rd International Congress on Ceramics, Nov. 14-18, 2010, Osaka, Japan.

[223] "Nanogenerators and piezotronics" (special plenary), 23rd International Microprocesses and Nanotechnology Conference, November 9-12, 2010, Fukuoka, Japan.

[224] "Nanogenerators, piezotronics, piezo-phototronics", Tongji University, China, Nov. 9, 2010.

[225] "Toward Self-Powered Nanosystems: Nanogenerators, Piezotronics and Piezo-Phototronics" (plenery), Photonic and Optoelectronic Meeting, Wuhan, China, Nov. 3-5, 2010.

[226] "Self-powered nanosystem: Nanogenerators, piezotronics, piezo-phototronics"(Plenary), 2nd Nanobiotechnology wokshop, China, Nov. 5-7, 2010.

[227] "Self-powered nanosystem: from nanogenerators to piezotronics" (keynote), 10th IEEE International Conference on Solid-State and Integrated Circuit Technology, Shanghai, Nov. 1-4, 2010.

[228] "Self-powered nanosensors for medical science, environmental monitoring and personal electronics" (keynote) 2010 Missouri NanoFrontiers Symposium, St. Louis, Oct. 27, 2010.

[229] "Self-powered nanosystem: Nanogenerators and piezotronics" (Plenary), 8th International Vacuum Electron Sources Conference and NANOcarbon, Nanjing, China, Oct. 14-16, 2010.

[230] "Self-powered nanosystem: Nanogenerators and piezotronics" Nankai University, China, Oct. 14, 2010.

[231] "Functional materials for sustainable energy and new electronics- nanogenerators, piezotronics and piezo-phototronics" (Plenary), 7th Nantional meeting in Functional Materials, Changsha, China, Oct. 16-20, 2010

[232] "Nanogenerators and piezotronics" (keynote), Annual Meeting of the Chinese Microscopy Soc., Hangzhou, China, Sept. 8-12, 2010.

[233] "Self--powered nanosystems: from nanogenerators to piezotronics", Nanowire 2010, Crete, Greece, Sept. 27-30, 2010

[234] "Nanogenerators and piezotronics", Princeton University, Sept. 15, 2010.

[235] "Nanogenerators and piezotronics", Rutgers University, Sept. 16, 2010.

[236] "Nanogenerators and piezotronics", University of Delaware, Sept. 17, 2010.

[237] "Self-powered nanosystems", Lehigh University, Sept. 14, 2010.

[238] "ZnO enabled nanogenerators and piezotronics", 2nd Int. Symposium on Materials Enabled Nanodevices, UCLA, Los Angelos, Sept. 7-9, 2010.

[239] "Self-powered nanosystems: from nanogenerators to piezotronics", Georgia Tech, Aug. 31, 2010.

[240] "Nanotechnologies for solar cell", Trina Solar Ltd., Changzhou, China, Aug. 20, 2010.

[241] "Self-powered nanosystems: from nanogenerators to piezotronics" (Plenary), 中国科学院环境纳米材料与技术学术研讨会, Aug. 25-27, 2010, Hefei, China.

[242] "Toward self-powered nanosystems: nanogenerators, piezotronics, piezo-phototronics", Shandong University, China, Aug. 21, 2010.

[243] "Self-powered nanosystems: from nanogenerators to piezotronics" (Plenary talk), 18th International Vacuum Congress (IVC-18) jointly with the 2010 International Conference on Nanoscience and Technology (ICN+T 2010), the 14th International Conference on Solid Surfaces (ICSS-14), and the 5th Vacuum and Surface Sciences Conference of Asia and Australia (VASSCAA-5), August 23-27, 2010 in Beijing, China.

[244] "Self-Powered Nanodevices and Nanosystems for Biomedical Applications", Institute of Bioengineering and Nanotechnology, Singapore, Aug. 17, 2010.

[245] "Toward self-powered nanosystems: nanogenerators, piezotronics, piezo-phototronics", National University Singapore, Singapore, Aug. 18, 2010.

[246] "Toward self-powered nanosystems: nanogenerators, piezotronics, piezo-phototronics", Nanyang University, Singapore, Aug. 16, 2010.

[247] "Self-powered nanosystems: from nanogenerators to nanopiezotronics", Sandia National Lab., July 22, 2010.

[248] "Self-powered nanosystems: nanogenerators and piezotronics on flexible substrate", 2010 Intern. Workshop on Flexible Signage and Displays, KAIST, Daejeon, Korea, July 1, 2010.

[249] "Self-powered nanosystems: nanogenerators, piezotronics on and piezo-phototronics", SKKU Advanced Institute of Nanotechnology (SAINT), Korea, July 5, 2010.

[250] "Self-powered nanosystems: nanogenerators and piezotronics on flexible substrate", Samsung, Korea, July 6, 2010.

[251] "Self-powered nanosystems: nanogenerators and piezotronics on flexible substrate", Karea Institute of Science and Technology, Korea, July 7, 2010.

[252] Lanzhou University Forum, China, June 28, 2010.

[253] "科学精神和实践"，兰州大学, China, June 28, 2010.

[254] "Self-powered nanosystems: from nanogenerators to nanopiezotronics", Lanzhou University Forum, China, June 28, 2010.

[255] "科学精神和实践"，西安电子科技大学, China, June 16, 2010.

[256] "科学精神和实践"，华中科技大学武昌分校, China, June 1, 2010.

[257] "科学精神和实践"，华中科技大学, China, May 31, 2010.

[258] "科学精神和实践"，桂林理工大学, China, June 4, 2010.

[259] "Toward self-powered nanosystems: from nanogenerators to nanopiezotronics", Guilin University of Technology, China, June 4, 2010.

[260] "Toward self-powered nanosystems: from nanogenerators to nanopiezotronics", Wuhan University of Technology (武汉理工大学论坛), China, May 27, 2010.

[261] "Fibers based green energy technologies", American Asso. Of Textile Chemists and Colorists, Atlanta May 18-20, 2010.

[262] "Innovation and creativity in scientific research" (科学研究中的原创性), Huazhong University of Sci and Tech, China, April 16, 2010.

[263] "Self-powered nanosystems: from nanogenerators to nanopiezotronics", Peking University, China, April 9, 2010.

[264] "Self-powered nanosystems: from nanogenerators to nanopiezotronics", Beihang Forum (北航论坛), Beihang University, China, April 26, 2010.

[265] "Self-powered nanosystems: from nanogenerators to nanopiezotronics", Nanjing University of Aerospace and Aeronautics, China, April 13, 2010.

[266] "Self-powered nanosystems: from nanogenerators to nanopiezotronics", Nanjing University, China, April 12, 2010

[267] "Self-powered nanosystems: from nanogenerators to nanopiezotronics", China Central Normal University, China, April 15, 2010

[268] "Toward Self-powered Nanosystems using Piezoelectric Nanowires", MRS spring meeting, San Francisco, April 5-10, 2010.

[269] "Shape Controlled Nanocrystals for Nanoelectronics and Energy Science", MRS spring meeting, San Francisco, April 5-10, 2010.

[270] "Toward Large Strain Plasticity and Fatigue-free Behavior of Semiconductor Nanowires", MRS spring meeting, San Francisco, April 5-10, 2010.

[271] "Self-powered nanosystems: from nanogenerators to nanopiezotronics", Univ. Wisconsin Madison, April 1, 2010.

[272] "3D fiber based solar cells", ACS annual conference, San Francisco, March 21-26, 2010.

[273] "Nano-enabled energy technologies", Distinguished Lecture, Univ. of S. California, Feb. 25, 2010.

[274] "Nanogenerators and nanopiezotronics", Duke University, Feb. 16, 2010.

[275] "Top emerging technologies: Nanogenerators to nanopiezotronics" (Keynote), IEEE-NEMS, Xiamen, Jan. 20-23, 2010.

[276] "Nano-enabled energy technologies - Nanogenerators, Nanopiezotronics and 3D Solar Cells", Nanxiang Lectureship, Xiamen University, China, Jan. 20, 2010.

[277] "Nano-enabled energy technologies based on ZnO nanowires - Nanogenerators, Nanopiezotronics and 3D Solar Cells", Shanghai Jiaotong University, China, Jan. 15, 2010.

[278] "Nano-enabled energy technologies based on ZnO nanowires - Nanogenerators, Nanopiezotronics and 3D Solar Cells", Fudan University, China, Jan. 15, 2010.

[279] "Nano-enabled energy technologies based on ZnO nanowires - Nanogenerators, Nanopiezotronics and 3D Solar Cells", Zhejiang University, China, Jan. 14, 2010.

[280] "Nano-enabled energy technologies based on ZnO nanowires - Nanogenerators, Nanopiezotronics and 3D Solar Cells", Tsinghua University, Jan. 13, 2010.

[281] "Nano-enabled energy technologies based on ZnO nanowires - Nanogenerators, Nanopiezotronics and 3D Solar Cells" IEEE Confernece on Nanoelectronics, Hong Kong, Jan. 4-8, 2010.

[282] "Nanogenerators for energy harvesting", MRS fall meeting, Nov. 30-Dec. 4, 2009.

[283] "Nanogenerators, nanopiezotronics, nanodevices and 3D solar cell" (keynote), Green Energy NanoCarbons/nanomaterials Forum, Korea, Nov. 4-6, 2009.

[284] "Nanogenerators, nanopiezotronics, nanodevices and 3D solar cell", Seoul National University, Korea, Nov. 10, 2009.

[285] "Nanogenerators, nanopiezotronics, nanodevices and 3D solar cell", Samsung Co., Korea, Nov. 9, 2009.

[286] "Nanogenerators, nanopiezotronics and 3D solar cell" (Keynote), Asia Ceramic Technology, Science, Engineering and Application (ACTSEA), Taiwan, Nov. 2-5, 2009.

[287] "Top emerging technologies: Nanogenerators to nanopiezotronics" (Keynote), The 1st UNIST International Symposium, Ulsan National Institute of Science and Technology, Nov. 12, 2009.

[288] "Nanogenerators, nanopiezotronics, nanodevices and 3D solar cell", National Tsinghua University, Taiwan, Nov. 3, 2009.

[289] "Nanogenerators and nanopiezotronics", Dept. of Materials Science and Engineering, Univ. of Pennsylvania, Oct. 22, 2009.

[290] "Nanogenerators to nanopiezotronics-from science to technology" (Keynote), Institute US-German Research Conference on Sustainable use of nanomaterials for novel engineering solutions, Oct. 14-17, 2009, New York City.

[291] "Top emerging technologies: from nanogenerators to nanopiezotronics", Institute of Mechanics, China, Sept. 16, 2009.

[292] "Nanogenerators, nanopiezotronics and nanodevices", Forum in Condensed Matter, Peking University, China, Sept. 16, 2009.

[293] "Nanogenerators for harvesting biomechanical energy", ACS annual confernece, Washington DC, Aug. 16-21, 2009.

[294] "Nanowire Nanopiezotronics", ACS annual confernece, Washington DC, Aug. 16-21, 2009.

[295] "Biophotonics, bioenergy conversion and biomimicking nanotechnology", (Keynote), Photonic Optoelectronic Meeting, Wuhan, China, Aug. 8-12, 2009.

[296] "Top emerging technologies: from nanogenerators to nanopiezotronics", Nanjing University, China, Aug. 11, 2009.

[297] "Nanogenerators and nanopiezotronics", Microscopy Soc of American, Richmond, July 27-30, 2009.

[298] "Smart structures for nanogenerators and nanopiezotronics" (Plenary), 2nd Int. Conf. on Smart Structures and Nanotechnology in Engineering, Weihai, China, July 8-10, 2009.

[299] "From fundamental electron microscopy to discovery of nanomaterials and to nanotechnology engineering" (Plenary), Chinese Soc. Of Microscopy, July 17-22, 2009.

[300] "Top emerging technologies: from nanogenerators to nanopiezotronics", Sino-US conference in chemistry, July 3, 2009.

[301] "Updated progress in nanogenerators and nanopiezotronics", Institute of Solid State Physics, CAS, July 4, 2009.

[302] "Top emerging technologies: from nanogenerators to nanopiezotronics", Shanghai University, China, July 2, 2009.

[303] "Top emerging technologies: from nanogenerators to nanopiezotronics", MITRE, Washington DC, June 16, 2009.

[304] "Nanogenerators for self-powered nanosystems", Northrop Grumman, Washington DC, June 16, 2009.

[305] "Discovery of nanogenerators and the invension of piezotronics", VCH-Wiley, June 10, 2009.

[306] "Nanogenerator", Spring European MRS conference, Straussboug, France, June 8-12, 2009.

[307] "Nanopiezotronics", Spring European MRS conference, Straussboug, France, June 8-12, 2009.

[308] "Nanogenerators for self-powered nanosystems" (Planery), 3rd forum on NanoPower, San Jose, May 18, 2009.

[309] "Top emerging technologies: from nanogenerators to nanopiezotronics" (Keynote), Ohio Innovation Summit, Dayton 20th forum in optoelectronics, Huazhong University of Science and Technology, April 28, 2009.

[310] "Nanotechnology for energy harvesting – from nanogenerators to nanopiezotronics" (Keynote), Ohio Innovation Summit, Dayton, April 19-21, 2009.

[311] "Nanotechnology for energy harvesting – from nanogenerators to nanopiezotronics", WP Airforce Base, Dayton, April 21, 2009..

[312] "Piezotronic Devices", Spring MRS conference, San Francisco, April 13-17, 2009.

[313] "Nanogenerators", ACS annual conference, Salt Lake City, March 21-26, 2009.

[314] "Shape controlled nanoparticles of Pt and Ceria: synthesis, growth mechanism and applications", ACS annual conference, Salt Lake City, March 21-26, 2009.

[315] "Nanogenerator for energy harvesting", symposium for the Berkeley Sensor & Actuator Center (BSAC) IAB meeting, March 11, 2009.

[316] "Biomechanical energy conversion and bio-inspired technology", Molecular Science Forum, Institute of Chemistry, Beijing, China, March 10, 2009.

[317] "Biomimicking nanotechnology", MANA, NIMS, Japan, 2/25-27, 2009.

[318] "Nano-enabled energy harvesting", Tsinghua University, Beijing, China, March 4, 2009.

[319] "Nano-enabled energy harvesting", Peking University, Beijing, China, March 3, 2009.

[320] "Nano-enabled energy technology", Zhongguan Cun forum, Institute of Physics, Beijing, China, March 5, 2009.

[321] "Nanotechnology for energy harvesting: from nanogenerators to nanopiezotronics", AMRI annual review, Univ. of New Orleans, Feb. 20, 2009.

[322] "Nano-enabled energy technology: from nanogenerators to nanopiezotronics", Distinguished lecture in Frontier of Engineering, University of South Florida, Jan. 30, 2009.

[323] "ZnO nanowire nanogenerator", SPIE, Photonics West, San Jose, Jan. 25-29, 2009.

[324] "Nano-enabled energy technology: from nanogenerators to nanopiezotronics", lecture in Frontier of Materials Science, Pacific Northwestern National Lab, Jan. 26, 2009.

[325] "Nanopiezotronics", IEEE Atlanta chapter, Jan. 13, 2009.

[326] "Nano-enabled energy harvesting technology" (keynote), 7th iNANO, Denmark, Jan. 21, 2009.

[327] "Nanogenerators", Fall MRS Conference, Dec. 1-5, 2008.

[328] "Nanopiezotronics", Fall MRS Conference, Dec. 1-5, 2008.

[329] "Nanogenerators and Nanopiezotronics", Dept. Electrical Engineering, Yale University, Nov. 12, 2008.

[330] "In-situ elastic and plastic properties of nanowires and nanobelts", Hitachi workshop on in-situ microscopy, ORNL, Nov. 18-19, 2008.

[331] "Introduction to nanotechnology", Coke Cola Co., Nov. 6, 2008.

[332] "Nanogenerators and Nanopiezotronics", Institute of Metal Research, China, Nov. 25, 2008.

[333] "Nanogenerators and Nanopiezotronics", Dept. of Materials Science and Engineering, Tsinghua University, China, Nov. 21, 2008.

[334] "Nanogenerators and Nanopiezotronics", College of Chemistry, Peking University, China, Nov. 22, 2008.

[335] "Nanogenerators and Nanopiezotronics", Keynote talk, ASME/ASMS Conference on Smart Materials and Systems, Washington DC, Oct. 27-29, 2008.

[336] "Nanogenerators and Nanopiezotronics", keynote talk, the 7th Chinese Int. Conference on Nanotechnology, Wuhan, Oct. 24-26, 2008.

[337] "Nanogenerators and Nanopiezotronics", Institute of Semiconductor, Oct. 27, 2008.

[338] "Energy harvesting by nanotechnology: Nanogenerators and Nanopiezotronics", University Lecture, Wuhan University of Science and Technology, Oct. 23, 2008.

[339] "Bioinspired nanotechnology" , NIMS, Japan, Oct. 21, 2008.

[340] "ZnO nanowire nanogenerators and nanopiezotronics" , IEEE Nanotechnology Materials and Devices Conference, Kyoto University, Japan, Oct. 20-22, 2008.

[341] "Energy harvesting by nanotechnology: Nanogenerators and Nanopiezotronics" , Distinguished Lecture, Texas A&M University, Oct. 14, 2008.

[342] "Energy harvesting by nanotechnology: Nanogenerators and Nanopiezotronics" , Beijing University of Chemical Technology, Beijing, Oct. 8, 2008.

[343] "Characterization of nanomaterials" , tutorial workshop on transmission electron microscopy and its applications, Cancun, Aug. 21-29, 2008.

[344] "Nanogenerators and Nanopiezotronics" , tutorial workshop on transmission electron microscopy and its applications, Cancun, Aug. 21-29, 2008.

[345] "Growth and characterizations of oxide nanostructures", Turorial class in nanomaterials and electron microscopy, Cancun, Aug. 19-25, 2008.

[346] "Application of nanomaterials in energy science: nanogenerators and nanopiezotronics", Turorial class in nanomaterials and electron microscopy, Cancun, Aug. 19-25, 2008.

[347] "Nanogenerators and Nanopiezotronics" (keynote), 3rd Energy Nanotechnology International Conference sponsored by the ASME Nanotechnology Institute, August 10-14, 2008, Jacksonville, Florida.

[348] "Applications of nanomaterials", Denver X-ray Conference, Aug. 4-8, 2008.

[349] "Growth of oxide nanostructures", Denver X-ray Conference, Aug. 4-8, 2008.

[350] "Nanogenerators and Nanopiezotronics" (keynote), Thin Film 2008, Singapore, July 14-17, 2008.

[351] "Nanogenerators and Nanopiezotronics" (keynote), Annual summer school in materials science, Greece, July 7-18, 2008.

[352] "Oxide nanostructures: from growth to properties and to applications" (keynote), Annual summer school in materials science, Greece, July 7-18, 2008.

[353] "Nanogenerators and Nanopiezotronics", 3rd Sino-US nanomaterials Conference, Tsinghua University, China, June 17-18, 2008.

[354] " Shape controlled nanocrystals of ceria and platinum-synthesis and growth mechanism", Advanced Technologies for Advanced Characterizations of Advanced Materials, Beijing, June 16-17, 2008.

[355] "Nanogenerators and Nanopiezotronics" CAS graduate school, China, June 19, 2008.

[356] "Nanogenerators and Nanopiezotronics" (Distinguished lecture), Shandong University, China, June 18, 2008.

[357] "Nanogenerators and Nanopiezotronics" (Distinguished lecture), Hunan University, China, June 14, 2008.

[358] "Innovations in nanotechnology research" (Distinguished lecture), Shandong University, China, June 18, 2008.

[359] "Innovations in nanotechnology research" (Distinguished lecture), Chongqing University, China, June 12, 2008.

[360] "Nanogenerators and Nanopiezotronics" (Distinguished lecture), Hunan University, China, June 14, 2008.

[361] "Nanogenerators and Nanopiezotronics", International MRS, Chongqing, China, June 8-12, 2008.

[362] "Nanogenerators and Nanopiezotronics" (Distinguished lecture), Institute of Solid State Physics, China, June 10, 2008.

[363] "Mechanics in Nanopiezotronics" (keynote), 2nd Int. Conference on Heterogeneous Materials Mechanics, June 3-7, 2008.

[364] "Nanogenerators and Nanopiezotronics" City University of Hong Kong, June 4, 2008.

[365] "Nanogenerators and Nanopiezotronics" (Keynote) 2nd Integration & Commercialization of Micro and Nanosystems, Hong Kong, June 3-5, 2008.

[366] "Optoelectronics of oxide nanobelts and nanowires", 2nd Integration & Commercialization of Micro and Nanosystems, Hong Kong, June 3-5, 2008.

[367] "Nanogenerators and Nanopiezotronics", Guangyuan Lectureship, National Tsinghua University, Taiwan, May 30, 2008.

[368] "Nanoparticles: from shape and size control to applications", Department of Chemical Engineering, National Tsinghua University, Taiwan, May 28, 2008.

[369] "Growth of oxide nanostructures", Department of Materials Science and Engineering, National Tsinghua University, Taiwan, May 29, 2008.

[370] "Nanogenerators and Nanopiezotronics", Institute of Physics, Academica Sinica, Taiwan, May 28, 2008.

[371] "Nanotechnology: from materials designed to device fabrication" (Planery), 2008 Spring Research Conf. on Statistics in Indutry and Technology, Atlanta, May 19-21, 2008.

[372] "Nanogenerators and Nanopiezotronics", University Missori at St. Louise, May 19, 2008.

[373] "Nanogenerators and Nanopiezotronics", symposium on Advanced Materials, Brown University, May 5-7, 2008.

[374] "Nanotechnology for energy harvesting: from nanogenerators to nanopiezotronics", Distinguished Lecture, Pennsovania State University, April 17, 2008.

[375] "Polymer based nanogenerators and nanopiezotronics", Nanomaterials for defence conference, Washington DC, April 21-24.

[376] "Nanogenerators and Nanopiezotronics for Self-Powered Nanotechnology" (Keynote), Ohio Nano Summit, April 10, 2008.

[377] "Nanogenerators and nanopiezotronics", ACS conference, New Orleans, April 6-11, 2008.

[378] "Carbon nanotubes and related one-dimensional nanomaterials" (tutotial course), MRS, March 24, 2008.

[379] "Nanopiezotronics", MRS spring meeting, March 24-28, 2008.

[380] "Planar defects in the formation of oxide nanostructures", MRS spring meeting, March 24-28, 2008.

[381] "Nanogenerators for harvesting mechanical energy", MRS spring meeting, March 24-28, 2008.

[382] "ZnO based nanogenerators and nanopiezotronics", SPIE conference, Orlando, March 18-20, 2008.

[383] "Nanogenerators for self-powered nanotechnology", DOE-BES Contractors' Meetingon Physical Behavior of Materials, March 17-19, 2008.

[384] "From nanogenerators to nanopiezotronics", annual TMS conference, New Orleans, March 9-13, 2008.

[385] "Elasticity and Large Strain Plasticity of Semiconductor Nanowires and Nanobelts", annual TMS conference, New Orleans, March 9-13, 2008.

[386] "Polar surface induced growth of ZnO nanostructures", annual TMS conference, New Orleans, March 9-13, 2008.

[387] "Shape Controlled Nanocrystals of Ceria and Platinum–Synthesis and GrowthMechanism", annual TMS conference, New Orleans, March 9-13, 2008.

[388] "From nanogenerators to nanopiezotronics", 27th China Distinguished Materials Forum Lecture （中国材料名师讲坛）, Feb. 29, 2008.

[389] "Science and Technology of nanoparticles", Distinguished oversea scholar lectureship (教育部海外名师讲坛计划), Tsinghua University, China, Feb. 25, 2008.

[390] "Nanodevices", Distinguished oversea scholar lectureship (教育部海外名师讲坛计划), Tsinghua University, China, Feb. 26, 2008.

[391] "Growth of oxide nanostructures", Distinguished oversea scholar lectureship (教育部海外名师讲坛计划), Tsinghua University, China, Feb. 27, 2008.

[392] "From nanogenerators to nanopiezotronics", Distinguished oversea scholar lectureship (教育部海外名师讲坛计划), Tsinghua University, China, Feb. 28, 2008.

[393] "Nanogenerators for self-powered nanotechnology", Joint Conference on Interaction among nanostructures, Orlando, Feb. 3-7, 2008.

[394] "Nanogenerators and Nanopiezotronics", invited lecture at Universie Pierre et Marie Curie, France, Jan. 25, 2008.

[395] "Science of shape controlled nanoparticles", invited lecture at Universie Pierre et Marie Curie, France, Jan. 26, 2008.

[396] "ZnO nanopiezotronics", fall MRS conference, Boston, Nov. 26-30, 2007.

[397] "Nanogenerators and Nanopiezotronics", Electron device meeting, Washington DC, Dec. 11, 2007.

[398] "Nanogenerators for implantable biosensors", The NCI Alliance for Nanotechnology in Cancer: Creating Next Generation Nano Tools for Cell Biology, American Society for Cell Biology (ASCB) Annual Meeting, Washington DC, Dec. 1, 2007.

[399] "Nanogenerators and Nanopiezotronics", Bio-nano workshop, Georgia Tech, Nov. 29-30, 2007.

[400] "Oxide Nanostructures – from growth to nanogenerators and to nanopiezotronics" (keynote), Asia Conference on Crystallography, Taipei, Taiwan, Nov. 5-8, 2007.

[401] "Nanogenerators and Nanopiezotronics" (keynote), Xian Conference on Nanoscience and Nanotechnology, Chengdu, China, Nov. 20-22, 2007.

[402] "Nanogenerators and Nanopiezotronics" (keynote), 6th Chinese Conference on Functional Mateirals, Wuhan, China, Nov. 15-19, 2007.

[403] "Nanogenerators and Nanopiezotronics" (keynote), a special symposium on Science and Technology in Nanowires dedicated to Prof. C.M. Lieber, Beijing University of Science and Technology, China, Nov. 14, 2007.

[404] "Nanogenerators and Nanopiezotronics" (keynote), a special symposium on Science and Technology in Nanowires dedicated to Prof. C.M. Lieber, Wuhan University of Science and Technology, China, Nov. 15, 2007.

[405] "Nanogenerators and Nanopiezotronics", MIT Media Lab, Oct. 11, 2007.

[406] "Nanogenerators", German Physical Soc. Seminar series in Nanowires, Bonn, Oct. 16-19, 2007.

[407] "Nanogenerators and Nanopiezotronics", 212th Electrochemical Soc. Meeting, Washington DC, Oct. 8-12, 2007.

[408] "Nanogenerators and Nanopiezotronics" (keynote), 6th Conference on Functional Materials, Wuhan, China, Nov. 15-19, 2007.

[409] "From Nanogenerators to Nanopiezotronics" Dept. of Chemistry., Univ. of Wisconson Madison, Aug. 20, 2007.

[410] "From Nanogenerators to Nanopiezotronics" (keynote), The Second International Conference on One-dimensional Nanomaterials, Malmö, Sweden, 26-29 September 2007.

[411] "From Nanogenerators to Nanopiezotronics" Dept. of Materials Sci. Engi., UC Sant Barbara, Sept. 7, 2007

[412] "From Nanogenerators to Nanopiezotronics" (University colloquium), Northern Illinois Univ., Sept. 14, 2007

[413] "From Nanogenerators to Nanopiezotronics", Dept. of Materials Sci. Engi., Cornell University, Aug. 23, 2007

[414] "From Nanogenerators to Nanopiezotronics" (keynote), Texas Nano Summit 2007, Aug. 8, 2007

[415] "From nanogenerators and nanopiezotronics", Dept. of Mechanical Engi., University of Texas Austin, Aug. 9, 2007

[416] "Nanogenerators and Nanopiezotronics", Institute of Solid State Physics, China, Aug. 3, 2007.

[417] "Nanogenerators and Nanopiezotronics", Fudan University, China, Aug. 6, 2007.

[418] "Nanogenerators and Nanopiezotronics", Univ. of Science and Technology China, China, Aug. 3, 2007.

[419] "Nanogenerators for energy harvesting", Workshop on Nanodevices and Solar Energy, Ningbo Institute of Materials Science and Engineering, Aug. 2, 2007.

[420] "Nanogenerators and Nanopiezotronics", Air Force Base and Univ. of Cinccinati, July 24, 2007.

[421] "Nanogenerator – a potential technology for powering in-vivo biosensors", National Center for Medical Rehabilitation Research, National Institutes of Health, July 18, 2007.

[422] "Nanowire Nanogenerators and Nanopiezotronics", European Materials Research Society Conf., Strasbough, France, May 28-June 1, 2007.

[423] "From Nanogenerators to Nanopiezotronics", Tsinghua University, Beijing, June 2, 2007.

[424] "From Nanogenerators to Nanopiezotronics", Distinguished Lecture, Peking University, Beijing, June 7, 2007.

[425] "Plasmon excitation by electrons", workshop on plasmonics, Beijing, June 7, 2007.

[426] "From Nanogenerators to Nanopiezotronics", Annual conference of Int. Center of Quantum Structures, Beijing, June 11-12, 2007.

[427] "From Nanogenerators to Nanopiezotronics", China Nano2007, Beijing, June 4-6, 2007.

[428] "From Nanogenerators to nanopiezotronics" (keynote), Workshop on Multifunctional Nanomaterials and Nanodevices, University at Bufflo, May 18-19, 2007.

[429] "From nanobelts to nanogenerators and to nanopiezotronics", Ceremony in honor Prof. Z.L. Wang as a Distinguished Professor for College of Engineering, Georgia Tech, May 2, 2007.

[430] "From Nanogenerators to nanopiezotronics", MRS Spring conference, San Francisco, April 9-14, 2007.

[431] "Nanobelts/nanowire based nanosensors", MRS Spring conference, San Francisco, April 9-14, 2007.

[432] "Nanogenerators and nano-piezotronics", Clemson Univ, April 5, 2007.

[433] "Nanogenerators – a potential technology for powering in-vivo nanodevices", Gergia Tech-Emory workshop on Nanotechnology for Cancer research, April 2-3, 2007.

[434] "Nanogenerators and nano-piezotronics", Intel R&D Center, Chandler, AZ, March 13, 2007.

[435] "Piezoelectric Nanogenerators for Self-Powered Nanosystems", Nanogenerators and nano-piezotronics", School of Engineering, Univ. California San Diego, March 12, 2007.

[436] "Nanogenerators and nano-piezotronics", School of Engineering, Univ. California Los Angelos, March 9, 2007.

[437] "Nano and Giga Challenges in Electronics and Photonics, From Atoms to Materials to Devices to System Architecture", Symposium and Spring School (Tutorial Lectures), Phoenix, Arizona, March 12-16, 2007.

[438] "Nanogenerators and nano-piezotronics", Division of Engineering, Brown University, Feb. 26, 2007.

[439] "Nanogenerators and nano-piezotronics", Dept. of Materials Sci. Engi, Rensselaer Polytechnique Insitute, Feb. 22, 2007.

[440] "Nanogenerators and nano-piezotronics: from materials synthesis to novel applicatioins", Workshop organized by Defence Science Research Council, Arlington, Feb. 16, 2007.

[441] "Nanogenerators and nano-piezotronics", College of Engineering, University of Arkansas, Feb. 12, 2007.

[442] "Nanogenerator – a potential technology for in-vivo nanodevices, Medical school, Emory University, Feb. 2, 2007.

[443] "Nanogenerators and nano-piezotronics for self-powered nanodevices and nanosystems" (keynote), DOD workshop on Nanotechnology for Chemical and Biological Technology in 2030, Santa Fe, Jan. 30 – Feb. 1, 2007.

[444] "Nanogenerators and nano-piezotronics", Photonics West, San Jose, Jan. 20-25, 2007.

[445] "Nanogenerators and nano-piezotronics", Nanotechnology Center, University of California Berkeley, Jan. 25, 2007.

[446] "Nanogenerators and nano-piezotronics", Dept. of Materials Science and Engineering, Stanford University, Jan. 26, 2007.

[447] "Nanogenerators and nano-piezotronics", fall MRS meeting, Nov. 26-Dec.1, 2006, Boston.

[448] "Shape controlled nanoparticles for nanoelectronics", fall MRS meeting, Nov. 26-Dec.1, 2006, Boston.

[449] "The discovery of piezoe-electric nanogenerator and its working principle" (Keynote), 2006 Meeting of the Materials Science Soc. Taiwan, Nov. 24-25, 2006.

[450] "Novel growth phenomena ao fpolar surface dominated nanostructures", 2006 Meeting of the Materials Science Soc. Taiwan, Nov. 24-25, 2006.

[451] "Nanogenerator and nanodevices", Sun Yat-Sen University, China, Nov. 20, 2006.

[452] "Piezoe-electric Nanogenerator – discovery and applications" (Lee Hsun distinguished lecture), Institute of Metal Research, Shenyang, China, Nov. 13, 2006.

[453] "Piezoe-electric Nanogenerator – discovery and applications", Institute of Semiconductors, Beijing, China, Nov. 14, 2006.

[454] "Piezoe-electric Nanogenerator – discovery and applications", Dept of Materials Science and Engi., Tsinghua University, China, Nov. 11, 2006.

[455] "Semiconducting and piezoelectric oxide nanostructures – from fundamental science to emerging applictions" (University Colloqium), Univer. of Tennessee, Oct. 19, 2006.

[456] "Piezoe-electric Nanogenerator", Materials Science and Technology 2006 Conference, Cincinnati, Oct. 15-19, 2006.

[457] "Semiconducting and Piezoelectric Oxide Nanostructures - From Fundamental Science to Emerging Applications", Materials Science and Technology 2006 Conference, Cincinnati, Oct. 15-19, 2006.

[458] "Piezoelectric nanogenerator based on nanowires", Dept of Chemistry and Biochemistry, Harvard University, Oct. 2, 2006.

[459] "Nanodevices and nanogenerator based on nanobelts and nanowires" (keynote), SPIE, Optics East, Oct. 1-4, 2006.

[460] "Polar surface induced growth phenomena of function oxides", SPIE, Optics East, Oct. 1-4, 2006.

[461] "Nanogenerator – its discovery and updated progress", Wuhan University of Technology, China, Sept. 16, 2006.

[462] "Discovery of nanogenerators", Xidian University, Xian, China, Sept. 13, 2006.

[463] "Nanotechnology – its cutting edge research and future perspectives" (a special lecture), 5th Chinese Forum in Nanotechnology Xian, Xian, China, Sept. 11-13, 2006.

[464] "Nanogenerator – its discovery and updated progress" (keynote), 5th Chinese Forum in Nanotechnology in Xian, Xian, China, Sept. 11-13, 2006.

[465] "Novel Nanostructures of Semiconducting and Piezoelectric Oxides - Synthesis, growth mechanisms and unique applications", 16th Intn. Congrass of Microscopy, Sapporo, Japan, Sept. 3-8, 2006.

[466] "Nanogenerators and nanosensor of nanowires", Oak Ridge National Lab., Aug. 28, 2006.

[467] "Novel nanostructures of functional oxides – from synthesis, growth mechanism, properties to applications", Golden Research Confrerence on Ceremics, Solid State Studies, Protocor Academy, NH, Aug. 14-17, 2006.

[468] "Nanogenerators – from scientific discovery to potential applications", International Symposium *on* Nanomechanics and Nanocomposites, 2-4 August 2006, Beijing, China.

[469] "High temperature nanomaterials – from synthesis, growth mechanism to unique applications", Golden Research Confrerence on High Temperature Mateirals, Processes and Diagnostics, Colby College, ME, July 16-20, 2006.

[470] "ZnO nanowire and nanobelt based piezoelectric nanogenerators and nanodevices" (keynote), annual Confrerence of the Chinese Chemical Society, Changchun, China, July 11-14, 2006.

[471] "Science and Technology of Oxide Based Nanostructures", Eastern China University of Science and Technology, China, July 7, 2006.

[472] "Nanogenerators", the 76th Eastern Forum of Science and Technology, Shanghai, China, July 8-9, 2006.

[473] "ZnO based nanomaterials and nanodevices", Zhejiang University, China, July 10, 2006.

[474] "Science and Technology of Oxide Based Nanostructures" (colloquium for the 50th anniversary of the Institute), Institute of Chemistry, China, July 4, 2006.

[475] "Nanogenerators-from scientific discovery to future applications", Dalian University of Technology, China, May 18, 2006.

[476] "Piezoelectric Nanogenerators", College of Engineering Distinguished Lectures, Pekingi University, China, May 11, 2006.

[477] "Nanogenerators-from scientific discovery to future applications", Hubei University, China, May 16, 2006.

[478] "Nanogenerators-from scientific discovery to future applications", Wuhan University, China, May 17, 2006.

[479] "Nanogenerators-from scientific discovery to future applications", Beijing University of Technology, China, May 12, 2006.

[480] "Nanogenerators", Nankai University, China, May 8, 2006.

[481] "Nanogenerators-from scientific discovery to future applications", Tianjin University of Technology, China, May 9, 2006.

[482] "Nanogenerators-from scientific discovery to technology innovation" (keynote), 2nd Workshop on Nano-Bio-Technolog, April , Xiamen, China, May 3-6, 2006.

[483] "From polar surface dominated growth to nanogenerators", Dept. of Materials Science, Univ. of Delaware, April 26, 2006.

[484] "Nanosensors and Nanogenerators", Nanysys, Palo Alto, April 19, 2006.

[485] "One-dimensional Semiconducting and Piezoelectric Oxide Nanostructures - from synthesis to growth mechanisms and to novel applications", Dept. of Mechanical Engineering, UC Berkeley, April 18, 2006.

[486] "Semiconducting and piezoelectric properties coupled nanodevices – from aligned growth to nanogenerators", Symposium P, Spring MRS meeting, San Francisco, April 18-21, 2006.

[487] "Controlled growth of oxide nanostructures", Symposium P, Spring MRS meeting, San Francisco, April 18-21, 2006.

[488] "How to build the world class materials program", Symposium on Deans' Meeting on Future Materials Science and Engineering Education, Yunnan, China, April 11-12, 2006.

[489] "Nanodevices and nanogenerators based on oxide nanobelts and nanowires – from nanodevices to nanosystems", Workshop on Nanosensors for Nose-Like Sensing, Washington, April 4-5, 2006.

[490] "Nanosensors and electric nano-generators based on nanowires and nanobelts", Emory-Georgia Tech workshop on Nanotechnology for Canter, March 27-28, 2006.

[491] ""Semiconducting and piezoelectric nanostructures – understanding the polar surface dominated nanostructures", Annual ACS meeting, Atlanta, March 26-30, 2006.

[492] "Polar-Surface Induced Novel Growth Configurations of Piezoelectric Nanobelts", TMS annual meeting, San Antonia, March 12-17, 2006.

[493] "Electromechanical coupled nanodevices", TMS annual meeting, San Antonia, March 12-17, 2006.

[494] "Semiconducting and piezoelectric nanostructures – synthesis, growth mechanism and applications", DARPA workshop on "Nanowires for Defence Applications", Napa, March 1-2, 2006.

[495] "Semiconducting and piezoelectric nanostructures – synthesis, growth mechanism and applications", Dept. of Physics, The Ohio State University, Columbus, Feb. 23, 2006.

[496] "Semiconducting and piezoelectric nanostructures – synthesis, growth mechanism and applications", Wright Patterson Airforce Research Lab., Feb. 24, 2006.

[497] "Semiconducting and piezoelectric nanostructures – synthesis, growth mechanism and applications", Dept. of Mechanical Engineering, Univ. of South Carolina, Jan. 13, 2006.

[498] "Understanding the growth process of novel oxide nanostructures", UCLC web based seminar on nanotechnology for global transmission, Northwestern Univ., US, Jan. 3, 2006.

[499] "Nanotechnology and its future impacts", Univ. of Science and Technology Beijing, China, Dec. 13, 2005.

[500] "Updated progress in nanotechnology", Xidian University, Xian, China, Dec. 9, 2005.

[501] "ZnO – the material for nanotechnology for biotechnology", BioNano the Next Frontier Conference, Brisbane, Australia, Dec. 6-8, 2005.

[502] "Semiconducting and piezoelectric nanostructures for nanotechnology", The University of Shanghai Science and Technology, Dec. 8, 2005.

[503] "Nano-scale measurements by in-situ TEM", Fall MRS meeting, Boston, Nov. 27-Dec. 2, 2005.

[504] "Oxide nanostructures for biosensing", Fall MRS meeting, Boston, Nov. 27-Dec. 2, 2005.

[505] "Semiconducting and piezoelectric nanostructures – from materials chemistry to physical properties" (Plenary), US-Egypt workshop on Synthesis, Characterization and Industrial Applications of Nanoparticles and Nanostructure Materials, Mubarak City for Scientific Research & Technology Applications, Nov. 12-16, 2005

[506] "Semiconducting and piezoelectric nanostructures – from growth to emerging applications" (Plenary), Foresight Nanotech Institute Conference, San Francisco, Oct. 26-27, 2005.

[507] "Oxide Nanobelts for Electromechanical Coupled Nanosensors", Invited talk in SPIE, Boston, Oct. 23-27, 2005.

[508] "Polar-surface induced novel growth configurations of piezoelectric nanobelts", Invited talk in SPIE, Boston, Oct. 23-27, 2005.

[509] "Reports and future plan for the National Center of Nanoscience and Technology, China", a special report to the Dr. Yongxian Lu, President of CAS, China, Oct. 20, 2005.

[510] "ZnO – the nanomaterial after carbon nanotubes", in Advisory Board Meeting, Institute of Semiconductor, CAS, Beijing, China, Oct. 17-18, 2005.

[511] "Helixing of oxide nanobelt", invited lecture at Universie Pierre et Marie Curie, France, Oct. 13, 2005.

[512] "From nanocrystals to nanowires", invited lecture at Universie Pierre et Marie Curie, France, Oct. 14, 2005.

[513] "Polar surface dominated novel nanostructures of ZnO", invited lecture in a Symposium in Honor of Prof. Z.L. Wang Universie Pierre et Marie Curie, France, Oct. 12, 2005.,

[514] "ZnO nanostructures – the material after carbon nanotubes" in workshop on Semiconductor Oxides for UV Optoelectronics, Surface Acoustics and Spintronics (SOXESS), organised within the European Union Commission FP5 Thematic Research Network, Gallipoli, Lecce (Italy) on Sept. 28th - October 1st 2005,

[515] "Semiconducting and piezoelectric nanostructures of ZnO – the material after carbon nanotubes", seminar series in nanotechnology, GE Research Center, Albany, NY, Sept. 27, 2005.

[516] "Discovering and understanding the growth of novel nanostructures by electron microscopy" (Plenary), EMAG-Nano 2005, Institute of Physics (UK), University Leeds, UK, Aug. 31-Sept. 2, 2005.

[517] "Nanostructures and nanodevices of oxide nanobelts", Dept. of Physics, University of Birmingham, UK, Sept. 2, 2005.

[518] "Heix and helixing of ZnO nanobelt", University of Science and Technology of China, Hefei, China, Aug. 9, 2005.

[519] "Updated progress in oxide nanostructures", Institute of Solid State, CAS, China, Aug. 8, 2005.

[520] "Nanostructures of ZnO" (keynote), International Conference on Materials for Advanced Technologies (ICMAT2005), Singapore, July 3-7, 2005.

[521] "Updated progress in one-dimensional oxide nanostructures" (Colloqium in Chemistry), College of Chemistry, Peking Univ., Beijing, July 1, 2005.

[522] "Discovery of oxide nanobelts" (T.D. Lee Lecture), Graduate School of Chinese Academy of Science, Beijing, June 30, 2005.

[523] "Electromechanical coupled nanostructures", IUTAM Symposium on Mechanical behavior and micro-mechanics of nanostructured materials, China, June 28-30, 2005.

[524] "Nanostructures of ZnO – a material after carbon nanotube", Nanjing University, China, June 27, 2005.

[525] "Nanostructures of ZnO – a material after carbon nanotube", Annual meeting on Electronic Materials, TMS, Santa Barbara, June 22-24, 2005.

[526] "Updated progress in one-dimensional oxide nanostructures", Workshop organized by International Center for Quantum Structures, Beijing, June 7-8, 2005.

[527] "Nanotechnology research in my group", Xidian University, Xian, June 6, 2005.

[528] "Nanotechnology – from nature to synthesis", The China Central Normal University, Wuhan, May 27, 2005.

[529] "Updated progress in oxide nanobelt research", Tsinghua University, Beijing, May 25, 2005.

[530] "Oxide nanobelts – a new breakthrough in nanomaterials", The China Central Normal University, Wuhan, May 27, 2005.

[531] "Materials chemistry and physics of one-dimensional oxide nanostructures", Fudan University, May 26, 2005.

[532] "Materials and devices of oxide nanobelts", The 15th Lecture on Semiconductor Electronics, The Institute of Semiconductors, Beijing, May 25, 2005.

[533] "One-dimensional oxide nanostructures", The 1st China-US Workshop on Materials Science, Beijing, May 23-25, 2005.

[534] "Updated progress in oxide nanostructure research", invited lecture at Universie Pierre et Marie Curie, France, May 10, 2005.

[535] "Novel piezoelectric devices based on nanobelts", invited lecture at Universie Pierre et Marie Curie, France, May 12, 2005.

[536] "Vapor phase synthes and characterization of nanostructures", tutorial course offered in Spring MRS conference, San Francisco, March 28 2005.

[537] "Polar surface induced novel growth configuration of piezoelectric nanobelts", Spring MRS conference, San Francisco, March 28-31, 2005.

[538] "Structure analysis of nanowires and nanobelts", Spring MRS conference, San Francisco, March 28-31, 2005.

[539] "Oxide nanobelts for electromechanical coupled nanosensors", Spring MRS conference, San Francisco, March 28-31, 2005.

[540] "Semiconducting and piezoelectric nanostructure – synthesis, characterization and properties", Advanced Materials Res. Institute, Tsukuba, Japan, April 6, 2005.

[541] "Semiconducting and piezoelectric nanostructure – synthesis, characterization and properties", Wuhan University of Technology, April 10, 2005.

[542] "Nanoarchitectures of ZnO", Int. Symp. on Transparent Oxide Thin Films for Electronics and Optics, Tokyo, Japan, April 7-8, 2005.

[543] "Semiconducting and piezoelectric nanoarchitectures of ZnO", America Physical Society March Meeting, Los Angelos, March 21-25, 2005.

[544] "Nanotechnology", IEEE Standards Board Forum, Atlanta, March 19, 2005.

[545] "Nanotechnology", G400 Business Alliance, Microsoft Building, Alpharetta, March 8, 2005.

[546] "Nanotechnology", ASME Regional Section, Atlanta, March 14, 2005.

[547] "One-dimensional nanostructures and devices", Dept. of Chemical Engineering, University of Missori Rolla, March 2, 2005.

[548] "One-dimensional nanostructures and devices", Dept. of Mechanical Engineering, University of Colorado Boulder, March 3, 2005.

[549] "One-dimensional nanostructures and devices", Second International Workshop on Nano and Bio-Electronics Packaging, March 22-23, 2005.

[550] "Semiconducting and Piezoelectric Nanobelts, Nanosprings and Nanorings" TMS annual meeting, San Francisco, Feb. 13-17, 2005.

[551] "Semiconducting and Piezoelectric Nanobelts, Nanosprings and Nanorings" (slecial featured talk for the conference), TMS annual meeting, San Francisco, Feb. 13-17, 2005.

[552] "Structure, Phase Transformation and Twinning of Magnetic Nanocrystals" TMS annual meeting, San Francisco, Feb. 13-17, 2005.

[553] "One-dimensional nanostructures and devices" IBM Watson research center, Yorktown Height, Feb. 10, 2005.

[554] "Nanostructures and nanodevices of functional oxides" Dept. of Mechanical Engineering, University of Illinois Urbana-Champain, Feb. 1, 2005.

[555] "Novel Nanostructures of Oxide- growth and properties" Guangzhou Conference on and Nanotechnology and nano-biotechnology, China, Jan. 15-18, 2005.

[556] "Semiconducting and Piezoelectric Nanostructures" Beijing Institute of Technology, China, Jan. 15, 2005.

[557] "Semiconducting and Piezoelectric Nanostructures" (Keynote) First International conference on one-dimensional nanostructures, Taiwan, Jan. 11-15, 2005.

[558] "Growth and applications of oxide nanostructures", Department of Materials Science and Engineering, National Tsinghua University, Taiwan, Jan. 10, 2005.

[559] "Oxide Nanostructures – updated progress", Dept of Materials Science and Engineering, Tsinghua Univ., China, Jan. 14, 2005.

[560] "Sensors based on oxide nanobelt" University of Brescia, Italy, Jan. 7, 2005.

[561] "Surfaces of nano-scale objects of functional oxides" (Keynote) IVth Conference "International workshop on oxide surfaces", Turin (Italy)-Aussoix (France), Jan. 3-8, 2005.

[562] "ZnO nanostructures and nanodevices", Eastern Analytical Chemistry, Somerset, NJ, Oct. 15-18, 2004.

[563] "Oxide nanostructures for biomedical applications", Department of Physics, University of Rochester, Oct. 17, 2004.

[564] "From Nanotechnology to biotechnology" American Institute of Chemical Engi., Atlanta Section, Nov. 9, 2004.

[565] "Semiconducting and Piezoelectric Nanostructures" (Keynote), SPIE East, Philodophia, Oct. 25-28, 2004.

[566] "Semiconducting and Piezoelectric Nanostructures – materials, properties and novel applications" (Planery), 11th Asia-Pacific Academy of Materials (APAM), Ningbo,China, Oct. 19-21, 2004.

[567] "New progress in nanoscience" Shandong University, China, Oct. 16, 2004.

[568] "Tunable nanostructures of functional oxides" College of Science,Ningbo University, Oct. 18, 2004.

[569] "New development in nanobelt science" Dept. of Chemistry, Xiamen University, Oct. 11, 2004.

[570] "From Nanotechnology to biotechnology" Tongji University, Oct. 9, 2004.

[571] "Nanotechnology and biotechnology – a perspective view" (Distinguished Nanqiang lecture), Xiamen University, Oct. 11, 2004.

[572] " Semiconducting and piezoelectric nanostructures", Shandong University, Oct. 16, 2004.

[573] "Semiconducting and piezoelectric nanobelts, nanorings and nanohelixes" (Planery speaker), 31st Federation of Analytical Chemistry & Spectroscopy Soc., Portland, Oct. 3-7, 2004.

[574] "Semiconducting nanobelts, nanoring and nanohelix", School of Polymer Textile and Fiber Engineering, Georgia Tech, Sept. 27, 2004.

[575] "Semiconducting nanostructures for nanosensors", Eurosensors, Rome, Italy, Sept. 13-15, 2004.

[576] "In-situ measurements in TEM" (keynote), ORNL CNMS Workshop: Microscopy, Metrology & Manipulations *using electrons, ions, and photons* for Nanophase Materials Sciences, September 15-16, 2004.

[577] "Fundamental science in nanotechnology", School of Mathematics, Georgia Tech, Sept. 7, 2004.

[578] "Semiconducting and piezoelectric nanobelts, nanorings and nanosprings" (Planery talk), Int. Conf. Advanced Mater., Cancun, Aug. 22-27, 2004.

[579] "Microscopy for nanotechnology", Microscopy and Microanalysis 2004, Aug. 3-7, Savannah.

[580] "Nanotechnology and biotechnology", T.D. Lee Lecture, Graduate College, Chinese Academy of Sciences, China, July 8, 2004.

[581] "Structure analysis of one-dimensional nanostructures", Department of Electronics, Peking University, China, July 8, 2004.

[582] "Nanotechnology – past, present and future commercialization", Fuling City Government, China, June 24, 2004.

[583] "Nanostructures and nanomeasurements", International Conference on Heterogeneous Materials Mechanics (ICHMM), June 21-26, 2004, Chongqing, China.

[584] "From nanotechnology to biotechnology", Henan University, China, June 21, 2004.

[585] "Semiconducting nanostructures", Nanotechnology Center, Zhejiang University, China, June 9, 2004.

[586] "Oxide nanobelts, nanorings and nanobows", Department of Physics, Peking University, China, June 16, 2004.

[587] "Novel nanostructures", Institute of Solid State Physics, June 11, 2004.

[588] "Piezoelectric nanostructures and applications", University of Science and Technology, China, June 11, 2004.

[589] Instructor for a tutorial course on "Introduction to Nano-Packaging and Systems", The 54th Electronic Components and Technology Conf., Las Vegas, June 1-4, 2004.

[590] "Semiconducting and piezoelectric nanobelts, nanorings and nanosprings", AFOSR workshop on ZnO, Mauri, May 17-19, 2004.

[591] "Structures of oxide nanomaterials", Department of Physics, Univ. of Oklahoma, May 12, 2004.

[592] "Semiconducting and piezoelectric nanobelts, nanorings and nanosprings", Oklahoma EPSCoR's Annual State Conference, May 13, 2004.

[593] "Semiconducting and piezoelectric nanobelts, nanorings and nanosprings", Am. Ceramic Soc. annual meeting, Indiapolis, April 18-21, 2004.

[594] "Semiconducting and piezoelectric nanobelts – materials and applications", Department of Chemistry, Univ. of California Santa Cruze, April 15, 2004.

[595] "Oxide nanobelts, Nanosprings and Nanorings", Department of Nuclear Engineering, University of Michigan, March 25, 2004.

[596] "Semiconducting and Pizoelectric Oxide nanobelts, Nanosprings and Nanorings", Department of Electrical Engineering, University of Southern California, April 2, 2004.

[597] "Nanobelts as nanosensors", Annual ACS concerence, Anaheim, CA, March 28-April 1, 2004.

[598] "Dynamic theory of electron scattering", Department of Chemistry, California Institute of Technology, March 30, 2004.

[599] "Innovative nanotechnology today", in workshop on NanoTech Tomorrow, sponsored by ExP+ Group, Carroll, GA, March 22, 2004.

[600] "Semiconducting and Pizoelectric Oxide nanobelts, Nanosprings and Nanorings", Georgia Tech Res. Institute, March 24, 2004.

[601] "Characterization of one-dimensional nanostructures", Tsinghua University, China, March 12, 2004.

[602] "Semiconducting and Pizoelectric Oxide nanobelts, Nanosprings and Nanorings", The 11th Intern. Symp. On Advanced Materials 2004, Tokyo, March 7-11, 2004.

[603] "Semiconducting and Pizoelectric Oxide nanobelts, Nanosprings and Nanorings", Alabama A&M University, March 3, 2004.

[604] "Semiconducting and Pizoelectric Oxide nanobelts – recent progress", School of Materials Science and Engi., Georgia Tech, Feb. 10, 2004.

[605] "Inovations and directions of nanotechnology" The workshop of the Committee on Geological and Geotechnical Engineering in the New Millennium: Opportunities for Research and Technology Innovation, National Academy of Sciences, February 4 - 5, 2004, Irvine, CA.

[606] "Nanomanufacturing", workshop on Advanced Technology and the Future of US Manufacturing, Georgia Tech, Jan. 30, 2004.

[607] "Nanobelts – from synthesis to emerging applications", Department of Chemical Engineering, Univ. of Texas Austin, Jan. 20, 2004.

[608] "Nanobelts – an exciting new nanomaterials family", Workshop on Physical Properties of Nanostructures, Hong Kong University of Sciecne and Technology, China, Jan. 6, 2004.

[609] "Synthesis and characterization of 1D nanostructures", Department of Chemistry, Hong Kong University of Sciecne and Technology, China, Jan. 5, 2004.

[610] "New progress in nanobelts research", ZhongShan University, China, Jan. 8, 2004.

[611] "Nanotechnology and Biotechnology", Graduate school, Harbin Institute of Technology, China, Jan. 7, 2004.

[612] "Nanobelt – its today and tomorrow", Southern China University of Technology, China, Jan. 9, 2004.

[613] "Recent breakthroughs in nanobelt research", Institute of Chemistry, China, Dec, 22, 2003.

[614] "Recent breakthroughs in nanobelt research", Institute of Theoretical Physics, China, Dec, 22, 2003.

[615] "Recent breakthroughs in nanobelt research", Tsinghua University, China, Dec, 23, 2003.

[616] "Recent breakthroughs in nanobelt research", University of Science and Technology Beijing, China, Dec, 23, 2003.

[617] "From nanotechnology to biotechnology", Tianjin Institute of Technology, China, Dec, 19, 2003.

[618] "Nanobelt – a new materials system", Tianjin University, China, Dec, 19, 2003.

[619] "Nanotechnology and Biotechnology", Harbin Institute of Technology, China, Dec, 15, 2003.

[620] "New progress in nanobelt research", Harbin Institute of Technology, China, Dec, 16, 2003.

[621] "Nanobelt – a new materials system", Natinal Tsinghua University, Taiwan, Dec, 12, 2003.

[622] "Novel nanostructures", NIST, Washington DC, Nov. 20, 2003.

[623] "In-situ nanomeasurement in TEM", Hitachi workshop on nanotechnology, Washington DC, Nov. 19, 2003.

[624] "Functional Oxide Nanobelts-from materials to nanodevices", Southeaster Regional Meeting of APS, Nov. 6, 2003.

[625] "Functional Oxide Nanobelts-from materials to nanodevices", Depart. Of Physics, University of North Coralina Chapel Hill, Nov. 10, 2003.

[626] "Nanotechnology and Biotechnology" (Presidential Lecture), Florida International University, Oct. 24, 2003.

[627] "Functional oxide nanobelts – from materials to nanodevices" (Keynote presentation), Autumn school 2003 on "New developments in nanostructured materials – synthesis, characterization, functionality", Humboldt University of Berlin, Germany, Sept. 27 – Oct. 1, 2003.

[628] "Nanobelts" (Keynote presentation), International Workshop on Micro/Nanotechnology, University of Ilmenau, Germany, Sept. 29 – 30, 2003.

[629] "Novel oxide nanostructures", Department of Physics, Univ. of Gottingen, Germany, Oct. 2, 2003.

[630] "Science and technology of oxide nanobelts", International Materials Research Conference (IMRC2003), Cancun, Aug. 18-21, 2003.

[631] "Nanodevices of semiconducting oxide nanobelts", SPIE annual conference, San Diego, Aug. 4-7, 2003.

[632] "Transmission electron microscopy for nanotechnology", Argonne Nanoschool, Argonner National Lab., Aug. 4-7, 2003.

[633] "Nanotechnology of functional oxide nanobelts", XII International Conference of the Materials Res. Soc., Cancun, Mexico, Aug. 18-21, 2003.

[634] "Nanodevices based on nanobelts", IEEE-Nano 2003, San Francisco, Aug. 12-14, 2003.

[635] "Nanotechnology based on Nanobelts", Xiamen University, Xiamen, China, July 9, 2003.

[636] "Nanotechnology based on Nanobelts: most recent progress", Shanghai Jiaotong University, Shanghai, July 9, 2003.

[637] "In-situ transmission electron microscopy: a powerful tool for nano-scale property measurements" , 77th ACS Colloid and Surface Science Symposium**,** June 15-18, 2003**,** Atlanta, Georgia.

[638] "Nanobelts of functional oxides: From materials to nanodevices", 77th ACS Colloid and Surface Science Symposium**,** June 15-18, 2003**,** Atlanta, Georgia.

[639] "In-situ transmission electron microscopy – a powerful tool for nanomeasurements", the 77th Colloidal and Surface Science Symposium, June 15-18, 2003, Atlanta.

[640] "Nanobelts of functional oxides – from materials to devices", the 77th Colloidal and Surface Science Symposium, June 15-18, 2003, Atlanta.

[641] "Science and technology of semiconducting oxide nanobelts", in the symposium dedicated to Prof. Zhong Lin Wang, Universie Pierre et Marie Curie, France, May 7, 2003.

[642] "In-situ nano-scale measurements", invited lecture at Universie Pierre et Marie Curie, France, May 5-8, 2003.

[643] "Analysis of magnetic core-shell structures", invited lecture at Universie Pierre et Marie Curie, France, May 5-8, 2003.

[644] "Nanosensors based on individual semiconducting oxide nanobelts", AcerS annual meeting, Nashville, April 27-30, 2003.

[645] "Nanostructures and nanodevices of functional oxides", MRS spring meeting, San Francisco, April 21-25, 2003.

[646] "Self-assembly of magnetic nanostructures", MRS spring meeting, San Francisco, April 21-25, 2003

[647] "Nano-scale measurements and nanodevices of semiconducting oxide nanobelts", Materials Research and Technology , Florida State University, April 7, 2003.

[648] "Nanostructure and nanodevices of functional oxides" Microcoating Technology, Atlanta, March 24, 2003.

[649] "Nanotechnology and biotechnology – potential, perspectives and commercialization" (Plenary), Pudong HighTech Development Zone, Shanghai, March 10, 2003.

[650] "Nanotechnology based on nanobelts", Shanghai Jiaotong University, Shanghai, March 11, 2003, China.

[651] "Nanobiotechnology", Shanghai University, Shanghai, March 12, 2003, China.

[652] "Nanotubes and nanobelts", Department of Physics, Fudan University, Shanghai, March 13, 2003, China.

[653] "Nanobelts – from materials to properties and to devices", Department of Materials Science, Zhejiang University, Hangzhou, March 14, 2003, China.

[654] "Nanostructures of Oxide Functional Materials", American Physical Soc. Annual Meeting, Austin TX, March 7, 2003.

[655] "Revealing the atomic scale structure of nanocrystals", Ferro Co., Feb. 27, 2003.

[656] "Nanostructures of functional oxides – from materials to nanotechnology", Polymer Engineering Department, Univ. of Akron, Feb. 28, 2003.

[657] "In-situ Nanomeasurements in TEM", Hitachi workshop on nanotechnology, Gaithersburg, Washington, Feb. 18, 2003.

[658] "Novel Nanostructures of Functional Oxides", PPG Co., PA, Feb. 7, 2003.

[659] "Introduction to nanotechnology", Holcome Bridge Middle School, Alpharetta, GA, Jan. 22, 2003.

[660] "Nanotechnology research at Georgia Tech", Georgia Tech Materials Council, Feb. 13, 2003.

[661] "Semiconducting oxide nanobelts – from materials to nanodevices", 2003 Winter Symposium "Recent Developments and Applications of Atomic Resolution Electron Microscopy and Spectroscopy - A Silver Jubilee - ", Arizona State University, January 7-10, 2003.

[662] "In-situ nanomeasurements", Harbin Institute of Technology, Dec. 21, 2002, China.

[663] "Self-assembled nanostructures", Harbin Institute of Technology, Dec. 19, 2002, China.

[664] "Research directions in nanotechnology", Harbin Institute of Technology, Dec. 19, 2002, China.

[665] "Nanobelt technology", Harbin Institute of Technology, Dec. 21, 2002, China.

[666] "Functional nanostructures", Graduate College of Harbin Institute of Technology in Shenzhen, Dec. 13, 2002, China.

[667] "Nanotechnology – current progress and perspectives", Southern China University, Dec. 13, 2002, China.

[668] "Current progress in nanotechnology", Xidian University, Dec. 17, 2002, China.

[669] "Nanotechnology – an introduction", Xian Jiaotong Univ., Dec. 17, 2002, China

[670] "Update progress in nanotechnology", Xidian University, Xian, China, Dec. 17, 2002.

[671] "Nanocrystals – from materials to applications", Harbin Institute of Technology, Harbin, China, Dec. 19, 2002.

[672] "In-situ nanomeasuremets of nanotubes and nanowires", Department of Geoscience, Univ. of New Mexico, Dec. 3, 2002.

[673] "Semiconducting oxide nanostructures – from materials to nanodevices", Nanotechnology Center, Sandia National Laboratory, Dec. 4, 2002.

[674] "Nanostructures of functional oxides – from materials to devices", Graduate school of Harbin Institute of Technology, Shenzhen, China, Dec. 13, 2002.

[675] "Nanostructures of functional oxides – from materials to devices", Hsinchu nanotechnology conference 2002, Hsinchu, Taiwan, Dec. 11-13, 2002.

[676] "Functional oxide nanostructures", Two-straight nanotechnology conference of China, Hong Kong, China, Dec. 10-13, 2002.

[677] "Shapes of nanocrystals", invited lecture at Universie Pierre et Marie Curie, France, Nov. 25-30, 2002.

[678] "Self-assembly of nanocrystals", invited lecture at Universie Pierre et Marie Curie, France, Nov. 25-30, 2002.

[679] "In-situ dynamics of nanocrystals", invited lecture at Universie Pierre et Marie Curie, France, Nov. 25-30, 2002.

[680] "Self-assembly of FePt magnetic nanocrystals", workshop on FePt based magnetic data storage materials, Univ. of Alabama, Nov. 18-19, 2002.

[681] "Nanodevices of functional oxides", Nanotechnology Center, Shanghai Jiaotong University, June 19, 2002.

[682] "Nano-scale property measurements of nanotubes and nanowires", Department of Mechanics, Tsinghua University, May 31, 2002.

[683] "Nanostructures and Nanomeasurements", University of Science and Technology Beijing, May 30, 2002.

[684] "Global nanotechnology initiative – potential and perspective" (Distinguished lecture series in the new century), Southern China Normal Univeristy, June 17, 2002.

[685] "Nanotechnology; potential and perspective ", US-China high-tech conference, Houston, May 11-12, 2002.

[686] "Nanomeasurements by in-situ TEM ", Max Plank Metal Research Institute, Stuttgart, Germany, May 16, 2002.

[687] "Semiconducting oxide nanostructures and nanodevices ", Two-strait conference on nanotechnology, biotechnology and electroptics, National Central University, Taiwan, May 1-2, 2002.

[688] "Chemical and electronic structure of nanocrystals", Lecture series in nanotechnology, Materials Research Institute, ITRI, Taiwan, April 29-May 3, 2002.

[689] "Dynamics of nanocrystals", Lecture series in nanotechnology, Materials Research Institute, ITRI, Taiwan, April 29-May 3, 2002.

[690] "Self-assembly of nanocrystals", Lecture series in nanotechnology, Materials Research Institute, ITRI, Taiwan, April 29-May 3, 2002.

[691] "Shape controlled nanocrystals", Lecture series in nanotechnology, Materials Research Institute, ITRI, Taiwan, April 29-May 3, 2002.

[692] "Structure analysis of nanoparticles", Lecture series in nanotechnology, Materials Research Institute, ITRI, Taiwan, April 29-May 3, 2002.

[693] "The structure-property relations of individual nanoparticles and nanowires", 15th Internaitonal Congress on Electron Microscopy, Durban, South Africa, Sept 1-6, 2002.

[694] "Nanobelts and Nanodiskettes of Semiconducting Oxides – A Structurally Controlled Nanomaterials System", 15th Internaitonal Congress on Electron Microscopy, Duban, South Africa, Sept 1-6, 2002.

[695] "Metallic Magnetic Nanocrystals – Shapes, Self-assembly and Phase Transformation", Annual Meeting of Microscopy Soci. Of America, Quebeck, Aug. 2-6, 2002.

[696] "Self-assembled Nanostructures: from Nanocrystals to Mesopores and to Nanobelts", Annual Meeting of Microscopy Soci. Of America, Quebeck, Aug. 2-6, 2002.

[697] "Scanning Probe Microscopy in TEM : an in-situ Approach for Nano-scale Property Measurements", Annual Meeting of Microscopy Soci. Of America, Quebeck, Aug. 2-6, 2002.

[698] "Nanoparticles and self-assembly" (Tutorial course Instructor), Hsinchu, Taiwan, April 29 – May 3, 2002.

[699] Instructor for a tutorial course on "Nanoscale characterization and metrology", Annual meeting of SPIE, Seattle, July 10, 2002.

[700] "Nanobelts – materials, characterization and devices", Workshop of South Carolina State on Nanotechnology, Univ. of S. Carolina , April 20, 2002.

[701] "Magnetic nanocrystals – self-assembly and properties", Seagate R&D Center, Pittsburgh, May 21, 2002.

[702] "Novel Nanostructures of Functional Oxides", PPG company. Pittsburgh, PA, May 20, 2002.

[703] "Nanotechnology – what is it? Is it new? Why now?" School of Materials Science and Engineering (graduate student special seminar), Georgia Tech, March 21, 2002.

[704] "Semiconducting oxide nanobelts and nanowires", Department of Electrical Engineering, Michigan Tech, Feb. 15, 2002.

[705] "Nanowires and nanomeasurements" (Distinguished lecture on frontier in materials science), Materials Research Lab and Department of Materials Sci. & Engineering, Penn. State Univ., March 19, 2002.

[706] "Nanotubes, Nanowires and Nanobelts - potential and prospects" (Distinguished lecture in Frontier of Chemistry), Department of Chemistry, Case Western Reserved University, March 7, 2002.

[707] "Oxide nanobelts and nanowires – a structurally and morphologically controlled nanomaterials system", Annual meeting of SPIE, Seattle, July 8-11, 2002.

[708] "Nanotechnology in energy and environment science" (Plenary lecture), 2002 Sino-US Symposium on Hi-Tech Development and Applications, Houston between May 11-12, 2002.

[709] "Oxide nanobelts and nanowires – a structurally and morphologically controlled nanomaterials system", Spring MRS conference, San Francisco, April 1-5, 2002.

[710] "Nanobelts – synthesis, characterization and devices", Nanotechnology Center, University of Washington, Seattel, April 9, 2002.

[711] "In-situ characterization of nanotubes and nanowires", Department of Materials Sci. and Engi., University of Washington, Seattel, April 8, 2002.

[712] "Magnetic nanocrystals – self-assembly and properties", Seagate, San Jose, April 7, 2002.

[713] "Nanobelts, Nanowires and Nanodiskettes of Oxide Functional Material", IUMRS-International Conference on Electronic Materials, Xian, China, June 10-14, 2002.

[714] "Physics at Nanoscale Contacts", Workshop on Quantum Phenomenon in Nanostructures, Beijing, China, June 3-4, 2002.

[715] "Nanowire Materials for Nanoelectronics and Nanosensors", Second Annual Conference of the International Center for Quantum Structures, Xian, China, June 6-7, 2002.

[716] "Synthesis and characterization of nanomaterials", Georgia Tech Research Institute, Jan. 4, 2002.

[717] "Nano-scale measurements using in-situ TEM", Department of Physics, University of Anterwerp, Belgium, Jan. 10, 2002.

[718] "Semiconducting oxide nanobelts – a materials for nano-scale electronics and optoelectronics" (keynote), Workshop on Nanoscience, organized by Royal Society of Belgium, Brussell, Jan. 11-12, 2002.

[719] "Structurally controlled nanowire materials," 3nd International Symposium on Electronic and Atomic Structures, Tamkang University, Taiwan, December 14, 2001.

[720] "Science of Nanocrystals and Nanobelts," Department of Nuclear Engineering, National Tsinghua University, Taiwan, December 13, 2001.

[721] "Nanotechnology – the 3rd industrial revolution," Department of Physics, Tamkang University, Taiwan, December 18, 2001.

[722] "Nano-scale science of nanocrystals and nanobelts" Institute of Molecular Sciences, Taiwan University, Taiwan, December 21, 2001.

[723] "In-situ nanomeasurement – a direction for future microscopy", Taiwan-Mainland China Electron Microscopy Conference, Hsinchu, Taiwan, December 8, 2001.

[724] "Splendid nanomaterials world", Industrial Technology Research Institute, Hsinchu, Taiwan, December 11, 2001.

[725] "Nanowire materials for nanoelectronics and MEMS" (keynote), Workshop on Nanoelectronics and MEMS, Industrial Technology Research Institute, Hsinchu, Taiwan, December 11, 2001.

[726] " Nanotechnology – the 3rd industrial revolution", Taiwan Normal University, Taiwan, December 19, 2001.

[727] "Advancing nano-scale science, technology and education by collaboration" (Keynote), Workshop on Nano-scale Science, Organized by Oak Ridge National Lab., Oct. 25, 2001.

[728] "Nanoscience and Nanotechnology – challenges and opportunities" (Keynote), Forum on Research and Education in the 21st Century, Xidian University, Xian, China, Oct. 21, 2001.

[729] "Nanobelts, Nanowires and Nanotubes – Potential and prospects" (Keystroke to bedside), Lecture series for Frontiers in Chemistry, Case Western Reserve University, March 07, 2002.

[730] "Property measurements of individual carbon nanotubes by in-situ TEM", Tsukuba Symposium on Carbon Nanotube in Commemoration of the 10th Anniversary of its Discovery, Tsukuba, Japan, Oct. 3-5, 2001.

[731] "Nanotubes, Nanobelts and Nanowires", National Institute for Materials Science, Tsukuba, Oct. 2, 2001.

[732] "Nanoscience and Nanotechnology – potential and prospects" (Keynote), Guangzhou Forum on Nanotechnology and its Industralization, Guangzhou, China, Sept. 26-29, 2001

[733] "Nanobelts – science and Technology", Air Products Co., Allentown, PA, September 11, 2001.

[734] "Nanostructures and nano-scale properties", Milliken Co., South Carolina, August 21, 2001.

[735] "Nanostructures and nanotechnology", Air Products Co., PA, Sept. 11, 2001.

[736] "Semiconductive oxides and carbon nanotubes – potential and prospects", The second Louisiana Conf. on Microfabrication & Materials Science, Louisiana State University, August 20-22, 2001.

[737] "Novel properties of nanowires", 2nd Louisiana Conference on Microfabrication and Materials Science, Boston, Aug. 21-23, 2001.

[738] "Structures and properties of nanotubes and nanobelts", Rowland Research Institute for Sciences, Boston, Aug. 3, 2001.

[739] "Semiconductive oxide nanobelts", Golden Reseach Conf. On Clusters, Nanocrystals & Nanostructures, Conneticut College, CT, July 29 – Aug. 2, 2001.

[740] "Nanotechnology, what is it? Is it new? Why now?" (Keynote), Ceremony for establishing the Center of Surface Nanotechnology, University of Science and Technology of Beijing, Beijing, July 19, 2001.

[741] "Nanotechnology, what is it? Is it new? Why now?" (Keynote), First International Workshop on Nanoscience and Nanotechnology, Beijing, July 16-18, 2001.

[742] "Nanotechnology" Xian High Tech Development zone, Xian, July 13, 2001.

[743] "Nano-scale science and technology – current and future prospects", Guanzhou City Municipal of Science and Technology (Guangzhou, China), May 18, 2001.

[744] "Semiconducting oxide nanobelts and carbon nanotubes – potential and prospects" University of Science and Technology of China (Hefei, China), May 26, 2001.

[745] "Semiconducting oxide nanobelts – a new nanomaterials system", Institute of Solid Matters, Chinese Academia of Science (Hefei, China), May 25, 2001.

[746] "Nanomaterials of semiconducting oxides", Second annual conference of the International Quantum Structure Center (Chinese Academia of Science, Beijing, China), May 22-24, 2001.

[747] "Nanoscience and Technology – what is it and how important is it", Materials Forum, Tsinghua University (Beijing, China), May 24-25, 2001.

[748] "Carbon nanotubes and semiconducting oxide nanobelts", Dept. of Electronics, Peking University (Beijing, China), May 30, 2001.

[749] "Nanomechanics", Institute of Mechanics (Beijing, China), May 31, 2001.

[750] "Quantum structures and quantum devices", Institute of Semiconductors (Beijing, China), May 4, 2001.

[751] "Quantum phenomena at nano-scale", Dept. of Physics, Tsinghua University (Beijing, China), May 31, 2001.

[752] "Self-assembly of magnetic nanocrystals", American Ceramic Soc. Meeting, Indiapolis, April 22-25, 2001.

[753] "Semiconducting oxide nanobelts and carbon nanotubes – potential and prospects" (keynote), Nanotechnology workshop sponsored by Industrial Technology Research Institute (ITRI) (Taiwan), San Jose, April 20-21, 2001.

[754] "Contacts And Self-Assembly Of Shape-Controlled Nanocrystals", Particles 2001, Feb. 24-27, 2001, Orlando.

[755] "Nano-Scale Property Measurments of Individual Carbon Nanotubes And Nanowires", Int. Conf. On Metallurgical Coatings and Thin Films (ICMCTF-2001), April 30- May 4, 2001, San Diego.

[756] "Carbon nanotubes and oxide nanobelts", Department of Materials Science and Engineering, University of Illinoise at Urbana-Champian, March 5, 2001.

[757] "Nanomeasurements by in-situ TEM", Center for Solid State Science, Arizona State University, March 26, 2001.

[758] "Structure and Properties of One-Dimensional Nanostructures", Department of Materials Science and Engineering, University of Virginia, April 16, 2001.

[759] "Nanostructures and nano-scale measurements", Department of Materials Science and Engineering, Clemson University, April 5, 2001.

[760] "Nanostructure and Nanocontacts", Xiangshan Conference on Nanoscience, Beijing, China, Oct. 31, 2000.

[761] "Electrical and Mechanical Properties of Individual Carbon Nanotubes and Nanowires", Dept. of Physics, Rensselaer Polytechnic Institute, Sept. 12, 2000.

[762] "Towards Property Nanomeasurement of Individual Carbon Nanotubes by In-Situ TEM", 8th Conference on Frontiers of Electron Microscopy in Materials Science, Nov. 13-17, 2000, Matsue, Japan.

[763] "Physical Properties of Individual Nanostructures", NEC R&D Center, Tsukuba, Nov. 17, 2000.

[764] "Electrical and Mechanical Properties of Individual Carbon Nanotubes and Nanowires", Chemistry Division, Argonne National Lab., Sept. 18, 2000.

[765] "Property Measurements of Nanowire Materials by In-Situ TEM", Department of Materials Science and Engineering, Northwestern Univ., Sept. 19, 2000.

[766] "Mechanical and ballistic transport properties of one-dimension quantum structures"(featured speaker), Nanoscience and Nanotechnology Symposium, Pacific Northwest National Lab., June 21-23, 2000.

[767] "Low-dimension materials – structures, properties and applications", Institute of Metal Research, Chinese Academia of Sciences, June 7, 2000.

[768] "Nanotechnology initiatives in the US", Chinese Academia of Sciences, Beijing, June 15, 2000.

[769] "Shape controlled nanocrystals – kinetics and thermodynamics", University of Science and Technology China, June 2, 2000.

[770] "Properties of Nanowire structures", University of Science and Technology China, June 1, 2000.

[771] "Nanowire quantum structures", Institute of Solid State Physics, Chinese Academia of Sciences, June 2, 2000.

[772] "Nanomaterials and Nanoscience", University of Science and Technology Beijing, June 15, 2000.

[773] "Property measurments of nanomaterials", Center for Nanoscience, Peking University, Beijing, June 16, 2000.

[774] "Kinetics and thermodynamics of shpae controlled nanocrystals", Department of Materials Science, Tsinghua University, June 16, 2000.

[775] "Nano-scale sciene and technology"(keynote talk), First International Science Symposium on Nanoscience and Economic Development, Armstrong Atlantic State University, May 23, 2000.

[776] "Nanomanipulation and nanomeasurments", Department of Chemistry, University of California at Los Angelos, May 19, 2000.

[777] "Nanomanipulation and nanomeasurments by in-situ TEM", Department of Chemistry, University of Tennessee Knoxville, May 3, 2000.

[778] "Probing the nanoworld by transmission electron microscopy", School of Chemistry and Biochemistry, Georgia Tech, April 6, 2000.

[779] "Quantifying The Valence States of Co And Mn In Nanostructured Functional Materials", Int. Symposium on Ferroelectrics, Nanjing University, May 29-June 2, 2000.

[780] "Nanomaterials for Nanoscience and Nanotechnology " Int. Symposium on Materials Science and Engineering, Harbin Institue of Technology, June 5-6, China, 2000.

[781] "Nanomechanics Of Individual Carbon Nanotubes And Nanowires " IUMRS-6th International Conference in Asia, July 23-26, Hong Kong, 2000.

[782] "In-Situ Structural Transformation of Shape-Controlled Nanocrystals " IUMRS-6th International Conference in Asia, July 23-26, Hong Kong, 2000.

[783] "Nanomaterials for Nanoscience and Nanotechnology," MicroCoating Technologies, Chamblee, GA, March 2, 2000.

[784] "Towards Property Nanomeasurements by In-Situ TEM," International Union of Microbeam Analysis Societyieties, July 14-20, 2000, Hawaii.

[785] "Measuring the Physical Properties of Individual Nanostructures by In-Situ TEM," America Physical Society Meeting, March 20-24, 2000, Minneapolis, MN.

[786] "Quantifying the Structures of Smart Materials," Department of Physics, Tamkang University, Taiwan, December 23, 1999.

[787] "In-Situ Structural Transformation of Shape Controlled Nanocrystals and Their Assembly," Department of Physics, Tamkang University, Taiwan, December 21, 1999.

[788] "Mechanical and Electrical Properties of Carbon Nanotubes," Institute of Atomic and Molecular Sciences, Academia Sinica, Taiwan, December 22, 1999.

[789] "Probing the Properties of Individual Carbon Nanotubes," Institute of Physics, Academia Sinica, Taiwan, December 22, 1999.

[790] "Transmission Electron Microscopy - A Technique for Probing the Properties of Individual Carbon Nanotubes," 2nd International Symposium on Electronic and Atomic Structures, Tamkang University, Taiwan, December 18, 1999.

[791] "Mechanical and Electrical Properties of Carbon Nanotubes," National Tsinghua University, Taiwan, December 20, 1999.

[792] "Nanomaterials and Nanosciences," Laboratory of Physical Sciences, University of Maryland, October 13, 1999.

[793] "Probing the Properties of Individual Nanostructure by TEM," 2nd Annual Southern Illinois Materials Chemistry Conference, Carbodale, IL, October 21-24, 1999.

[794] "Nanomaterials for Nanoscience and Nanotechnology," Workshop in the Reviewing Meeting of the Outstanding Young Scientists supported by CNSF, Beijing, June 9, 1999.

[795] "Measuring the Mechanical and Electric Properties of Individual Carbon Nanotubes by In-Situ TEM," Department of Materials Science and Engineering, Tsinghua University, July 8, 1999, Beijing, China.

[796] "In-Situ TEM of Shape-controlled Nanocrystals," Nanomaterials Center, Peking University, July 9, 1999, Beijing, China.

[797] "Nanobalance Based on Carbon Nanotubes," Nanomaterials Center, Peking University, July 9, 1999, Beijing, China.

[798] "Growth and Characterization of Shape-controlled Nanocrystals," Institute of Physics, Chinese Academia of Sciences, July 12, 1999, Beijing, China.

[799] "Nanobalance and Nanomechanics," Institute of Physics, Chinese Academia of Sciences, July 12, 1999, Beijing, China.

[800] "Self-assembly of Shape-controlled Nanocrystals," Institute of Chemistry, Chinese Academia of Sciences, July 13, 1999, Beijing, China.

[801] "Properties of Carbon Nanotubes and Nanobalance," Institute of Chemistry, Chinese Academia of Sciences, July 13, 1999, Beijing, China.

[802] "Mapping Cation Valences of Functional and Smart Materials," Tianjin University of Science and Technology, June 14, 1999, Tianjin, China.

[803] "Characterizing Properties of Individual Carbon Nanotubes," Tianjin University of Science and Technology, June 14, 1999, Tianjin, China.

[804] "Observing the Thermodynamic Properties of Nanocrystals," Tianjin University of Science and Technology, June 14, 1999, Tianjin, China.

[805] "Measuring the Mechnical and Electrical Properties of Individual Carbon Nanotubes," Xidian University, June 25, 1999, Xi'an, China.

[806] "Mechanisms for Stimulating the Growth of Young Scientists," Physics Department, Xidian University, June 24, 1999, Xi'an, China.

[807] "In-Situ Melting and Shape Transformation of Shape-controlled Nanocrystals," Physics Department, Nanjing University, July 5, 1999, Nanjing, China.

[808] "Characterizing the Mechnical and Electrical Properties of Individual Carbon Nanotubes," Physics Department, Nanjing University, July 5, 1999, Nanjing, China.

[809] "Nanomaterials for Nanoscience and Nanotechnology," Workshop in Strategic Southeastern Partnerships, Georgia Tech, May 6, 1999.

[810] "Nanocrystal Structured Materials," Hong Kong University of Science & Technology, Physics Department, July 15, 1999.

[811] "Probing the Properties of Individual Carbon Nanostructure by In-Situ TEM," National Institute of Standards and Technology, April 8, 1999.

[812] "Probing the Properties of Individual Carbon Nanostructure by In-Situ TEM," Department Physics, Swiss Federal Institute of Technology (EPFL), Lausanne, Switzerland, March 29, 1999.

[813] "Mapping Cation Valences in Magnetic Oxides Using Energy-Filtered TEM," The Fifth International Union of Materials Research Society Conference, June 13-18, 1999, Beijing, China.

[814] "Characterizing Properties of Individual Carbon Nanotubes," The Fifth International Union of Materials Research Society Conference, June 13-18, 1999, Beijing, China.

[815] "In-Situ Thermodynamic Properties of Nanocrystals," The Fifth International Union of Materials Research Society Conference, June 13-18, 1999, Beijing, China.

[816] "Materials Education for the 21st Century - The Georgia Tech approach," The fifth International Union of Materials Research Society Conference, June 13-18, 1999, Beijing, China.

[817] "Characterization of Carbon Spheres, Spheroids and Nanotubes," Colombian Co., Feb. 9, 1999, Marietta, Georgia.

[818] "Measuring the Properties of Individual Carbon Nanostructure by In-Situ TEM," The Fifth International Union of Materials Research Society Conference, June 13-18, 1999, Beijing, China.

[819] "Measuring the Properties of Individual Carbon Nanostructure by In-Situ TEM," Workshop on "New Directions in Chemistry," organized by the International Union for Pure and Applied Chemistry, July 15-17, 1999, Hong Kong.

[820] "Mapping the Valence States of Mn and Co Using Energy-loss Near Edge Structure in EFTEM," Annual Meet of Microscopy Society of America, Portland, August 1-6, 1999.

[821] "Probing the Localized Properties of Individual Nanostructures by In-Situ TEM," Materials Council, Georgia Tech, Jan. 26, 1999.

[822] "Nanocrystal Structured Materials," University of Wisconsin, Milwaukee, October 9, 1998.

[823] "Nanocrystal Engineered Materials," Instituto Nacional de Investigaciones Nucleares, Mexico, Sept. 7, 1998.

[824] "Diffuse Scattering in Electron Diffraction and Imaging," Instituto Nacional de Investigaciones Nucleares, Mexico, Sept. 8, 1998.

[825] "Nanocrystal Self-Assembled Superlattices - A New State of Materials," 14th International Congress in Electron Microscopy, Cancun, Mexico, August 31-Sept. 5, 1998.

[826] "Ordered Assembling of Size and Shape Selected Nanocrystals," Annual Meet of Microscopy Society of America, Atlanta, GA, July 12-16, 1998.

[827] "Nanocrystal Structured Materials," Beijing Laboratory of Electron Microscopy, Institute of Physics, August 23, 1998.

[828] "Mapping the Valence State of Transition Metal Elements," College of Chemistry and Biochemistry, Peking University, China, August 21, 1998.

[829] "Nanocrystal Structured Materials," College of Chemistry and Biochemistry, Peking University, China, August 25, 1998.

[830] "Shape Transformation and Melting of Nanocrystals," College of Materials Science and Engineering, Tsinghua University, China, August 24, 1998.

[831] "Electric Properties of Carbon Nanotubes," College of Materials Science and Engineering, Tsinghua University, China, August 24, 1998.

[832] "Nanocrystal World - Small is Different," Xidian University, Xian, China, August 17, 1998.

[833] "Teaching and Research in an US University," Xidian University, Xian, China, August 18, 1998.

[834] "Structure Analysis of Colossal Magnetoresistance Oxides," Beijing Laboratory of Electron Microscopy, Beijing, China, August 23, 1998.

[835] "Nanocrystal Assembled Structures," 3rd Outstanding Young Scientist Conference, Beijing, China, August 20-12, 1998.

[836] "Nanocrystal Assembled Structures - A New Materials System," Chemistry and Biochemistry Seminar Series, Oak Ridge National Lab., June 15, 1998.

[837] "Self-Assembled Superlattices of Nanocrystals," 1997 Fall Materials Research Society Meeting, Boston, December 1-5, 1997.

[838] "Synthesis and Characterization of Carbon Spheres and Tubes," Annual Meeting of New England Microscopy Society, Boston, December 5, 1997.

[839] "Ordered Self-Assembling Of Faceted Nanocrystals," Materials Research Center, University Nebraska, Lincoln, October 24, 1997.

[840] "Quantitative Structure Determination of Oxide Functional Materials Using TEM," School of Physics, Georgia Tech, May 21, 1997.

[841] "Diffuse Scattering and Absorption Effect in Energy Filtered Electron Diffraction and Imaging of Surfaces and Interfaces," Swiss Federal Institute of Technology (EPFL), Lausanne, Switzerland, August 27, 1997.

[842] "Ordered Self-Assembling of Faceted Nanocrystals," Swiss Federal Institute of Technology (EPFL), Lausanne, Switzerland, August 22, 1997.

[843] "Delocalization and Absorption Effects in Energy Filtered Electron Images," Swiss Federal Institute of Technology (EPFL), Lausanne, Switzerland, August 26, 1997.

[844] "Delocalization and Absorption Effects in Energy Filtered Electron Images," Swiss Federal Institute of Technology (EPFL), Lausanne, Switzerland, Sept. 12, 1997.

[845] "Delocalization and Absorption Effects in Energy Filtered Electron Images" Max Plank Institute, Stuttgart, Germany, Sept. 2, 1997.

[846] "Diffuse Scattering and Absorption Effect in Energy Filtered Electron Diffraction and Imaging of Surfaces And Interfaces," Max Plank Institute, Stuttgart, Germany, Sept. 2, 1997.

[847] "Ordered Self-Assembling of Faceted Nanocrystals," Department of Physics, University of Anterwerpen, Belgium, Sept. 8, 1997.

[848] "Valence and Structure Analysis of Oxide Functional Materials," Department of Physics, University of Anterwerpen, Belgium, Sept. 8, 1997.

[849] "EELS Study of Valence State and Oxygen Vacancies in Magnetoresistive Oxides," Annual Meeting of the Microscopy Society of America, Cleveland, August 13 1997.

[850] "The State-of-the-Art Research at Georgia Tech," Institute of Physics, Beijing, China, August 2, 1996.

[851] "Energy Filtering and its Applications," Beijing Lab. of Electron Microscopy, Beijing, China, July 10, 1996.

[852] "Moonodispersive Nanosize Graphitic Carbon Spheres - Structure, Property and Spplications," in US - China Young Investigators in Advanced Mechanics and Materials Processing workshop, Beijing, China, August 7-9, 1996.

[853] "Characterization of Highly Ordered Molecular Nanocrystal Arrays," Department of Physics, Peking University, Beijing, China, August 5, 1996.

[854] "Highly Ordered Molecular Nanocrystal Arrays," Microelectronic Research Institute, Xidian University, Xian, China, July 12, 1996.

[855] "Oxide Functional Materials," Microelectronic Research Institute, Xidian University, Xian, China, July 11, 1996.

[856] "Structure and Properties of Monodispersive Nanosize Graphitic Carbon Spheres," Microelectronic Research Institute, Xidian University, Xian, China, July 10, 1996.

[857] "Monodispersive Nanosize Graphitic Carbon Spheres - Microstructure, Properties and Applications," in the 6th Asian Pacific Conference on Electron Microscopy, (Hong Kong), July 1-5, 1996.

[858] "Thermal Diffuse Scattering in Energy-Filtered Electron Diffraction and Imaging," in the 15th Pfefferkorn Conference on Electron Image and Signal Processing organized by Scanning Microscopy International (keynote speaker), (Silver Bay, NY), May 18-22, 1996.

[859] "Delocalization in Energy-Filtered High-Resolution Images"," in the Conference on Frontiers of Electron Microscopy, in Materials Science (Oakland, IL) (Planery speaker), June 3-7, 1996.

[860] "Energy-Filtered High-Resolution Electron Microscopy of Nanostructured Materials," in the 53rd Annual Meeting of Microscopy Society of America (Kansas City), August 1995.

[861] "Energy-Filtered High-Resolution Electron Microscopy," Metallurgy and Ceramics Division, NIST, Nov. 4, 1994.

[862] "Reflection Electron Microscopy of Ceramic Surfaces," Metallurgy and Ceramics Division, NIST, Sept. 5, 1994.

[863] "Analytical Microscopy of High Temperature Superconductors," Metallurgy Division, NIST, June 21, 1993.

[864] "Analytical microscopy of high temperature superconductors," Department of Materials Science and Engineering, University of Utah, Feb. 20, 1993.

[865] "Transmission Electron Microscopy of High Temperature Superconductors," Department of Materials Science and Engineering, UC Santa Barbara, April 15, 1993.

[866] "Imaging and Spectrometry of Bulk Crystal Surfaces and Surface Dynamical Processes at High Temperatures," The 5th Asian Pacific Electron Microscopy Conference, Beijing, August 1-6, 1992.

[867] "Characterizing Materials by Phonon Scattered High-Energy Electrons,"(keynote talk) The 5th Asian Pacific Electron Microscopy Conference, Beijing, August 1-6, 1992.

[868] "Stacking Faults Near the Y_2BaCuO_5 / $YBa_2Cu_3O_{7-x}$ Interface and its Effect on Flux-pinning in Melt Textured $YBa_2Cu_3O_{7-x}$," in the 5th Asian Pacific Electron Microscopy Conference, Beijing, August 1-6, 1992.

[869] "Surface Analysis by Reflection EELS," Summer Workshop on Analytical Electron Microscopy, Feb. 18-19, 1992 Australia.

[870] "In-Situ Reflection Electron Microscopy" in the 49th Annual Meeting of Electron Microscopy Society of America, (San Jose), August 5-10, 1991.

[871] "Theory and Computing for Simulations Including Inelastic Scattering," The 10th Pfefferkorn Conference on Signal and Image Procession in Microscopy and Microanalysis," Cambridge, England, Sept. 6-12, 1991.

[872] "Theory of Reflection Electron Microscopy," Department of Physics, University Alberta, Canada, Jan. 15, 1990.

[873] "Reflection Electron Microscopy and Reflection Electron Energy-loss Spectroscopy for Surface Studies," Oak Ridge National Laboratory, August 3, 1989.

[874] "Analytical Electron Microscopy for Analysis of Supported Catalysts," R&D Center, Phillip Morris, August 21, 1989.

[875] "Transmission Electron Microscopy for Surface Science," Department of Geology, University of New Mexico, July 13, 1989.

[876] "Reflection Electron Energy-loss Spectroscopy for Surface Analysis," Cavendish Laboratory, University Cambridge, UK, October 10, 1988.

[877] "Inelastic Scattering in Reflection High Energy Electron Diffraction," Department of Materials Science and Engineering, SUNY Stony Brook, March 14, 1988.

[878] "Reflection Electron Energy-loss Spectroscopy for Surface Studies," Center for Solid State Science, Arizona State University, May 9, 1987.

IIIX. As Symposium Organizer and Conference Chair/organizers in National and International Conferences

- Chair, 2nd Int. Conference on Nanogenerators and Piezotronics, Atlanta, June 9-11, 2014.
- Chair, First Intern. Conference on Nanoenergy Nanosystems 2014, Beijing, China, Dec. 8-10, 2014.
- Co-Chair, ChinaNano, Beijing, China, Sept. 5-7, 2013.
- Co-Chair, 6th Photonics and Optoelectronics Meeting (POEM), Wuhan, China, May 24-27, 2013.
- Co-Chair, Forum on Piezotronics and Nanogenerator, Xiangshan conference, Beijng, China, Dec. 5-7, 2012.
- Co-Chair, Commercialization of Nanotechnology, the Chinese Academy of Sciences (CAS), July 22-24, 2012.

- Co-Chair, ICON 2011, Dec. 7-9, 2011, Beijing, China.
- Co-Chair, ChinaNano 2011.
- Co-Chair, Photonic and Optoelectronic Meetiing, Wuhan, China, Nov. 3-5, 2010.
- Conference Chair, Int. Conference on One-dimensional Nanomaterials, Atlanta, Dec. 7-9, 2009.
- Conference Chair, 7th Nanotechnology conference, Wuhan, Nov. 20-22, 2008.
- Symposium organizer on Characterization of Nanomaterials, Annual Conference of Microscopy Society of American, July 27-31, 2009.
- Co-Chair, ChinaNano 2009.
- Conference Program Chair, 6th Xian Nanotechnology conference, Nov. 20-22, 2007.
- Conference Program Chair, 6th Xian Nanotechnology conference, Nov. 20-22, 2007.
- Conference co-organizer, One dimensional nanostructures, Nanchang, June 28-30, 2007.
- Conference co-organizer, One-dimensional nanostructured materials: properties, devices and NEMS, Nanchang, China, June 24-29, 2007.
- Conference Co-Chair, 6th China conference on functional materials, Wuhan, China, Nov. 15-19, 2007.
- Conference Co-ViceChair, China Nano2007, Beijing, China, June 4-6, 2007.
- Conference Program Chair, 5th Xian Nanotechnology conference, China, Sept. 11-13, 2006.
- Organizer, Oak Ridge National Lab, Imperial College London and Georgia Tech workshop on nanotechnology, Oak Ridge, TN, Nov. 7-8, 2005.
- Session Chair, MRS spring meeting, San Francisco March 27-31 2005.
- Conference co-Chair, China Nano2005, June 9-11, 2005, Beijing.
- Symposium organizer, China Nano2005, June 9-11, 2005, Beijing.
- Session Chair, "Phase Transformations Within Small-Size Systems: Order-Disorder Transformations", TMS annual meeting, Feb. 13-17, 2005.
- Conference co-Chair, Second International Workshop on Nano and Bio-Electronics Packaging, March 22-23, 2005.
- Conference co-Chair, Guangzhou Conference on Nanotechnology and nano-biotechnology, China, Jan. 15-18, 2005.
- Conference Chair, The 5th Georgia Tech Conference on Nanoscience and Nanotechnology, Nov. 10 - 11, 2004.
- Symposium co-organizer on *Advanced Microsystems—Integration with Nanotechnology and Biomaterials*, Spring MRS meeting, 2004.

- Symposium co-organizer on Quantum Dots, Nanoparticles and Nanowires, Fall MRS meeting, 2003.
- Chaired session in 1t International Workshop on Nano & Bio-Electronics Packaging, Atlanta, March 22-23, 2004.
- Co-organizer, Mini-symposium Nanomedicine, Georgia Tech and Emory University, Jan. 21, 2004.
- Chaired session in conference 5244 on "Nanomaterials and their applications in optics", XII International Conference of the Materials Res. Soc., Cancun, Mexico, Aug. 18-21, 2003.
- Organized and chaired a symposium on "Nanomaterials" in the Annu. Meeting of Microscopy Soc. of America, San Antonio, Aug. 4-7, 2003.
- Workshop organizer on Starting and Building a Nanotech Company: financing and protecting nanotechnology, March 26, 2003, Georgia Tech.
- Symposium organizer, Symposium on Frontiers in Nanotechnology: Challenges and Opportunities, SPIE Nanotechnology Workshop, June 2003.
- Symposium organizer, Symposium on Nanowires, Nanoparticles, and Quantum Dots, fall MRS meeting, Boston, Dec. 1-5, 2003.
- Conference and Symposium organizer, 77th ACS Colloid and Surface Science Symposiums, Georgia Tech, June 15-18, 2003.
- Conference Chair, Conference on Nanoscience and Nanotechnology, Georgia Tech, Oct. 30-Nov. 1, 2002.
- Session co-chair on Magnetic and superconducting materials, Microscopy of America, Quebeck, Aug. 4-9, 2002.
- Conf. Co-chair, "Nanostructures and Quantum Phenomena II", Xian, China, June 6-7, 2002.
- Conf. Co-chair, "Nanostructures and Quantum Phenomena I", Beijing, China, June 3-4, 2002.
- Co-organizer, Symposium on Physical Chemistry of Interfaces and Nanomaterials, SPIE , The Intern. Soc. For Optical Engi., Seattle, July 6-10, 2002.
- C-organizer, Symposium on Nanomaterials, IUMRS conference on electronic materials, Xian, China, June 10 – 14, 2002.
- Organizer, tutorial lectures on "Nanoparticles and self-assembly", Hsinchu, Taiwan, April 29 – May 3, 2002.
- Conference co-organizer: Battelle Technical Conference and a workshop on nanotechnology, Georgia Tech, March 4-6, 2002.
- Conference co-chair, Workshop on Quantum Phenomenon in Nanostructures, Beijing, China, June 3-4, 2002.
- Conference co-chair: Second Annual Conference of the International Center for Quantum Structures, Xian, China, June 6-7, 2002.

- Symposium co-organizer on Physical Chemistry of Nanostructures, Annual meeting of SPIE, Seattle, July 8-11, 2002.
- Session Chair, "Electron Microscopy Society Annual Meeting", Taiwan, Dec. 8-9, 2001.
- Conference Chair, "The Second Georgia Tech Conference on Nanoscience and Nanotechnology", Atlanta, Sept. 19-21, 2001.
- Conference Chair, "International Workshop on Nanoscience and Nanotechnology", Beijing, July 16-18, 2001.
- Co-organizer of the symposium entitled of "Synthesis and Processing of Nanostructured Materials", America Ceramic Soc. Meeting, April 22-25, Indiapolis, 2001.
- Chair, Organizering Committee, The First Georgia Tech Conference on Nanoscience and Nanotechnology, Atlanta, October 16-18, 2000.
- Co-organizer of the International Symposium of Small Particles and Inorganic Clusters, Atlanta, October 11-15, 2000.
- Chair, Organizering Committee, Georgia Tech Internal Workshop on Nanoscience and Nanotechnology, December 13 & 14, 1999.
- Session chair, Annual Meeting of the Microscopy Society of America, Symposium on ceramics, Portland, Oregon, August 1-5, 1999.
- Session chair, "Fullerenes and Related Materials," Symposium C, The Fifth International Union of Materials Research Society Conference, June 13-18, 1999, Beijing, China.
- Session chair, "Mesoporous and Microporous Materials: Applications," Symposium II, The Fifth International Union of Materials Research Society Conference, June 13-18, 1999, Beijing, China.
- Session chair, "Advanced Materials Characterization and Imaging," Symposium GG, The Fifth International Union of Materials Research Society Conference, June 13-18, 1999, Beijing, China.
- Session chair, "First IUPAC Workshop on Advanced Materials: Nanostructured systems," July 14-18, Hong Kong, China
- Session chair, "Nanocrystals V: Metal Oxides," America Phys. Society Meeting, Los Angeles, March 15-20, 1998.
- Organizer of "Amorphous and Nanophase Materials," Annual Meeting of Microscopy Society of America, Atlanta, GA, July 12-16, 1998.
- Session chair, "Advanced Techniques in Electron Microscopy" in Asian Pacific Conference on Electron Microscopy, July 1-5, 1996 (Hong Kong).
- Session chair, "Surface Analysis," Annual Meet of Microscopy Society of America, Boston, August 6, 1992.
- Session chair, "Convergent Beam Electron Diffraction," Annual Meet of Microscopy Society of America, New Orleans, August 1994.
- Session chair, "Analytical Electron Microscopy," 6th Asian Pacific Conference on Electron Microscopy, Hong Kong, July 3, 1996.