





Z. L. Wang

The author presented on this page has recently published his 10th article in Angewandte Chemie in the last 10 years:

"A Self-Powered Triboelectric Nanosensor for Mercury Ion Detection": Z.-H. Lin, G. Zhu, Y. S. Zhou, Y. Yang, P. Bai, J. Chen, Z. L. Wang, Angew. Chem. 2013, 125, 5169-5173; Angew. Chem. Int. Ed. 2013, 52, 5065 - 5069.

Zhong Lin Wang

Date of birth:

Position: Regents' Professor and Hightower Chair in Materials Science and Engineering,

Georgia Institute of Technology

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Homepage: http://www.nanoscience.gatech.edu **Education**: 1982 BS, Xidian University

1987 PhD supervised by J. M. Cowley, Arizona State University

1987–1988 Visiting lectureship with R. F. Egerton, State University of New York at Stony Brook 1988-1989 Research fellowship with A. Howie, Cavendish Laboratory, University of Cambridge

2009 Purdy Award from the American Ceramic Society; Foreign member of the Chinese Awards:

Academy of Sciences; 2011 Materials Research Society Medal; 2012 Edward Orton Memorial

Lecture Award from the American Ceramic Society

Nanomaterials, nanogenerators for energy conversion, self-powered systems and active sensors, Current research

interests: piezotronics and piezo-phototronics for electronics and energy science

Hobbies:

My biggest inspiration is ... my love and passion for science.

My favorite saying is ... "doing an experiment is magic, you never know what you will find out next, just do it".

If I could be any age I would ... like to go back and replan my education.

advise my students to ... love science, be excited about what they do, make big dreams, move forward step by step, and make conclusions based on data.

My favorite way to spend a holiday is ... to relax at home and do some writing.

The secret of being a successful scientist is ... to have a talented mind, creative ideas, persistency to reach goals, and to enjoy dedicated hard work.

If I had one year of paid leave I would ... like to spend a year in an industrial R&D lab and see how to develop a product from a feasible idea.

In the future I see myself ... continuing to enjoy my science, and finding technological applications in nanogenerators for self-powered devices and piezotronics.

The principal aspect of my personality is ... I am distinctive and different from others.

What I appreciate most about my friends is ... their honesty and credibility.

When I was eighteen I wanted to be ... a scientist, and what I am doing today fits my personality perfectly.

My first experiment was ... using pilled graphite (called graphene today) as substrate to image single Au atoms using a transmission electron microscope in the summer of 1984 at Arizona State University.

My 5 top papers:

- 1. "Nanobelts of Semiconducting Oxides": Z. W. Pan, Z. R. Dai, Z. L. Wang, Science 2001, 291, 1947-1949. (The discovery of nanobelts and one-dimensional oxide nanostructures.)
- 2. "Piezoelectric Nanogenerators Based on Zinc Oxide Nanowire Arrays": Z. L. Wang, J. H. Song, Science **2006**, *312*, 242 – 246. (The invention of a nanogenerator, and a discussion of its mechanism.)
- 3. "Self-powered nanowire devices": S. Xu, Y. Qin, C. Xu, Y. G. Wei, R. S. Yang, Z. L. Wang, Nature Nanotechnol. 2010, 5, 366 – 373. (Nanogenerator-driven self-powered systems.)
- 4. "Electrostatic Deflections and Electromechanical Resonances of Carbon Nanotubes": P. Poncharal, Z. L. Wang, D. Ugarte, W. A. de Heer, Science 1999, 283, 1513-1516. (Demonstration of nanomechanics by using in situ transmission electron microscopy.)
- 5. "Taxel-Addressable Matrix of Vertical-Nanowire Piezotronic Transistors for Active and Adaptive Tactile Imaging": W. Z. Wu, X. N. Wen, Z. L. Wang, Science 2013, 340, 952-957. (Piezotronic transistor arrays and the piezotronic effect for active flexible electronics and tactile imaging.)

DOI: 10.1002/anie.201304707