

Associate Professor Wang Junling, Nanyang Technological University

Academic Qualification:

Ph.D., Materials Science and Engineering, Jan 2005, Univ. of Maryland, College Park, USA

B. S., Materials Science and Engineering, Jul 1999, Nanjing University, China

Working Experience:

2011-present, Associate Professor, School of Materials Science and Engineering, NTU

2006-2011, Assistant Professor, School of Materials Science and Engineering, NTU

2005-2006, Postdoc Research Fellow, Pennsylvania State University, University Park, USA

Awards:

National Outstanding Oversea Student Award (with US\$5,000 prize), 2004

The Ministry of Education of the People's Republic of China

Materials Research Society Graduate Student Award, Fall 2003

"For particularly significant and timely research", MRS awards committee

Professional Qualifications/Memberships:

Member of Materials Research Society, 2002-present

External research funding:

1. AcRF Tier 1, "Lead-free Ferro/piezoelectric Systems", S\$327k+S\$96K (SEP), 2006-2009, **PI**
2. AcRF Tier 2, "Controlling Magnetism with Electric Field", S\$706k + 2 RSS, total project value S\$1.06M, 2008-2011, **PI**
3. CRP, "Toward efficient Sunlight Harvesting", S\$9.97M, **lead Co-PI** of subproject 3 (S\$1.92M), 2010-2015

Invited presentations at scientific meetings/workshops

1. The International Symposium on Integrated Functionalities (ISIF 2012), June 2012, Hong Kong, China
2. The 2012 EMN meeting, April 2012, Orlando, Florida, USA
3. The 5th International Conference on Electroceramics (ICE 2011), Dec 2011, Sydney, Australia

4. The 9th International Meeting of Pacific Rim Ceramic Societies (PacRim 9), July 2011, Cairns, Australia
5. The 3rd workshop of Novel Electronic Materials, June 2011, Wuhan, China
6. C-MRS 2011 meeting, May 2011, Beijing, China
7. 2nd Sino-Singapore Symposium on Advanced Materials-2010 (S3AM-2010), Singapore, Dec 2010
8. ISIF 2010, June 2010, San Juan, Puerto Rico
9. Multifunctional Materials Workshop, January 2009, Copper Canyon, Mexico.
10. The Chinese Physical Society (CPS) Fall meeting, September 2007, Nanjing, China
11. Xiangshan Science Conference, July 2007, Beijing, China

Service as a reviewer

Have served as reviewer for **Nature Nanotechnology**, **Nature Materials**, **Applied Physics Letters**, **Journal of the American Chemistry Society**, **Journal of Applied Physics**, **Journal of the American Ceramic Society**, **Acta Materialia** and **Journal of Materials Research**.

Selected Publications

Journal papers: **63**. Total citation: **>3400** according to Web of Science. H index: **16**

- 1, "Characterization and Manipulation of Mixed Phase Nanodomains in Highly-strained BiFeO₃ Thin Films", Authors: You, Lu; Chen, Zuhuang; Zou, Xi; Ding, Hui; Chen, Weigang; Chen, Lang; Yuan, Guoliang; Wang, Junling*, **ACS Nano**, accepted (2012).
- 2, "Abnormal Poisson's ratio and linear compressibility in perovskite materials", C. W. Huang, Wei Ren, Viet Cuong Nguyen, Zuhuang Chen, Junling Wang, T. Sritharan and Lang Chen, **Adv. Mater.**, accepted, (2012).
- 3, "First-principles prediction of a two dimensional electron gas at the BiFeO₃/SrTiO₃ interface", Zhen Zhang, Ping Wu, Lang Chen, and Junling Wang*, **Appl. Phys. Lett.** 99, 062902 (2011).
- 4, "Uniaxial magnetic anisotropy in La_{0.7}Sr_{0.3}MnO₃ thin film induced by multiferroic BiFeO₃ with stripe ferroelectric domains", Lu You, Chengliang Lu, Pan Yang, Guchang

Han, Tom Wu, Ulrike Luders, Wilfrid Prellier, Kui Yao, Lang Chen, and Junling Wang*, **Adv. Mater.** 22 (44), 4964 (2010).

5, "Density functional theory plus U study of vacancy formations in bismuth ferrite", Zhen Zhang, Ping Wu, Lang Chen and Junling Wang*, **Appl. Phys. Lett.** 96, 232906 (2010).

6, "Temperature-dependent leakage current characteristics of Pr and Mn cosubstituted BiFeO₃ thin films", Zheng Wen, Xuan Shen, Jingxian Wu, Di Wu, Aidong Li, Bin Yang, Zhu Wang, Hengzhi Chen and Junling Wang*, **Appl. Phys. Lett.** 96, 202904 (2010)

7, "Systematic Variations in structural and electronic properties of BiFeO₃ by A-site substitution", Zhen Zhang, Ping Wu, Li Lu, Lang Chen and Junling Wang*, **Appl. Phys. Lett.** 96, 012905 (2010).

8, "Influence of Oxygen Pressure on the Ferroelectric Properties of Epitaxial BiFeO₃ Thin Films by Pulsed Laser Deposition", Lu You, Ngeah Theng Chua, Kui Yao, Lang Chen, and Junling Wang*, **Phys. Rev. B** 80, 024105 (2009).

9, "Multiferroic BaTiO₃-CoFe₂O₄ Nanostructures", H. Zheng, J. Wang, S. E. Lofland, Z. Ma, L. Mohaddes-Ardabili, T. Zhao, L. Salamanca-Riba, S. R. Shinde, S. B. Ogale, F. Bai, D. Viehland, Y. Jia, D. G. Schlom, M. Wuttig, A. Roytburd, R. Ramesh, **Science** 303, 661 (2004).

10, "Epitaxial BiFeO₃ Multiferroic Thin Film Heterostructures", J. Wang, J. B. Neaton, H. Zheng, V. Nagarajan, S. B. Ogale, B. Liu, D. Viehland, D. G. Schlom, U. V. Waghmare, N. A. Spaldin, K. M. Rabe, M. Wuttig, R. Ramesh, **Science** 299, 1719 (2003).