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Professional Experience

- **01/2010-Present** **Argonne National Laboratory**
Postdoctoral Research Fellow, Chemical Science and Engineering Division
- **10/2007-12/2009** **Brookhaven National Laboratory**
Postdoctoral Research Associate, National Synchrotron Light Source
- **09/2002 – 10/2007** **University of Vermont**
 - 06/2003-10/2007 Research Assistant, Physics Department and Materials Science Program
 - 09/2002-05/2003 Teaching Assistant, Physics Department
- **03/2001-06/2002** **Beijing University of Technology, China**
Research Assistant, School of Materials Science and Engineering

Education

University of Vermont, Burlington, VT

09/2002 – 10/2007 Ph.D. in Materials Science, 10/2007

Beijing University of Technology, Beijing, China

09/1997 – 06/2002 B.S. in Materials Science & Engineering, 06/2002

Research Highlights

- Probing carbon electrode - fluid electrolytes interfacial processes underlying electrochemical energy storage systems by synchrotron x-ray interfacial scattering
- Atomic structure imaging of complex oxide - oxide interface systems by synchrotron x-ray surface diffraction and phase retrieval methods
- Investigated energetic thin film growth and surface processes *in-situ* and in real-time by synchrotron x-ray scattering
- Prepared boron nitride thin films and investigated field emission properties

Recognition and Honors

NSLS/CFN Poster Session Award Winner	2009
Vermont EPSCoR Graduate Research Fellowship	2003
Summa Cum Laude (BUT)	2002
SONY Award for Merits	2000

Publications

- **H. Zhou** and Y. Yacoby and R. Pindak and V. Butko and G. Logvenov and I. Bozovic, "Anomalous expansion of the copper – apical oxygen distance in superconducting cuprate bilayers", *Proceedings of the National Academy of Sciences of the United States of America*, *in press* (2010).
- R. L. Headrick and **H. Zhou**, "Ripple formation and smoothing on insulating surfaces", *Journal of Physics: Condense Matter* 21, 224005 (2009).
- **H. Zhou** and L. Zhou and R. L. Headrick and G. Özyaydin and K. F. Ludwig Jr., "Mechanisms of ultra-smoothing of oxide surfaces induced by ion-beam erosion", *Physical Review B* 78, 165404 (2008).
- **H. Zhou** and Y. P. Wang and L. Zhou and R. L. Headrick and A. S. Özcan and Y. Y. Wang and G. Özyaydin and K. F. Ludwig Jr., "Wavelength tunability of ion-bombardment-induced ripples on sapphire investigated with small-angle x-ray scattering and atomic force microscopy", *Physical Review B* 75, 155416 (2007).
- Y. P. Wang and **H. Zhou** and L. Zhou and R. L. Headrick and A. Macrander and A. S. Özcan and K. F. Ludwig Jr., "Interface roughness evolution in sputtered WSi₂/Si multilayers", *Journal of Applied Physics* 101, 023503 (2007).
- R. Z. Wang and **H. Zhou** and X. M. Song and B. Wang and H. Wang and H. Yan, "Effects of phase formation on electron field emission from BN films", *Journal of Crystal Growth* 291, 18 (2006).
- A. C. Mayer and R. Ruiz and **H. Zhou** and R. L. Headrick and A. Kazimirov and G. G. Malliaras, "Growth dynamics of pentacene thin films: Real-time synchrotron x-ray scattering study", *Physical Review B* 73, 205307 (2006).
- **H. Zhou** and R. L. Headrick and B. R. Wang and Y. P. Wang and G. P. Carpenter and A. C. Mayer and M. Lloyd and G. Malliaras and A. Kazimirov and J. E. Anthony, "Growth of macroscopic-area single crystal polyacene thin films on arbitrary substrates", unpublished (2005).
- **H. Zhou** and R. Z. Wang and A. P. Wang and M. Wang and H. Wang and B. Wang and H. Yan, "Dependence of oriented BN films on Si(100) substrate temperature", *Journal of Crystal Growth* 241, 261 (2002).
- **H. Zhou** and X. H. Li and A. P. Huang and B. Wang and H. Yan, "Effects of substrate surface electric field on growth of cubic boron nitride films", *Rare Metal Materials and Engineering* 30, 643 Suppl. S (2001).