

M. H. (Minghu) Pan

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Education

Hunan University, China	Applied Physics	B.A., 1996
Nanjing University, China	Physics	Ph.D., 2001

Professional Experience

2005–p	R&D Staff Member, Center for Nanophase Material Sciences, ORNL
2005	Postdoctoral Associate, Condensed Matter Sciences Division, ORNL
2004	Postdoctoral Associate, Department of Physics & Astronomy, University of Tennessee- Knoxville
2001–2003	Postdoctoral, State Key Laboratory for Surface Physics, Institute of Physics, Chinese Academy of Sciences, China

Professional and Synergistic Activities

2005–p Member: American Physical Society

Honors and Awards

2002	The Best Poster Award in Asia-Pacific Surface & Interface Analysis Conference
2000	Huake Graduate Prize bestowed by Nanjing University
1999	Excellent Graduate Prize bestowed by Nanjing University

Publications (Author of >30 articles in refereed journals):

Research Synopsis

1. *Surface Molecule/Self-assembly.*

We use noble metal surface as the substrate, adsorb or deposit small molecules, through balancing the interactions between molecules and substrate, to fabricate various self-assembled nanostructures.

2. *Graphene Nanostructure.*

We use scanning tunneling microscopy/spectroscopy, to study atomic/electronic structures of graphene film, graphene nanoribbon and the edges of graphene with localized defects or distortions.

3. *Transition Metal Oxide, Surface Structure and Correlative Behaviors.*

We use scanning tunneling microscopy to study the surface and defect structures for Transition Metal Oxide (TMO) materials. By combined the DFT calculation, we are able to investigate the correlations between the surface, electronic structures and correlative properties.

Collaborations Outside ORNL During Past Two Years: S. H. Pan, University of Houston; K. T. Park, Baylor University; E. W. Plummer and J. Zhang, Louisiana State University

Graduate and Postdoctoral Advisors:

Postdoctoral Associates: Qing Li, Center for Nanophase Materials Sciences