

Research and Devlopment Associate Center for Nanophase Materials Sciences Division Oak Ridge National Laboratory (865) 574-9761 Xuy2@ornl.gov



Education

University of Wisconsin-Madison Chemical Engineering Ph.D 2004
Massachusetts Institute of Technology Chemical Engineering B.S. 1999

## **Professional Experience**

2006-present Research and Development Associate, Center for Nanophase Materials

Sciences Division, Oak Ridge National Laboratory.

2004-2006 Postdoctoral Research Associate, Computer Science and Mathematics

Division, Oak Ridge National Laboratory.

## **Professional and Synergistic Activities**

• Member of American Institute of Chemical Engineers (AIChE), American Chemical Society (ACS), and Electrochemical Society (ECS).

- Session chair and co-chair at AIChE and ACS national meetings.
- Peer reviewer for Journal for Physical Chemistry, Journal of the American Chemical Society, Surface Science, Applied Catalysis, Catalysis Today, ACS Catalysis, and Angewandte Chemie International Edition.
- Proposal reviewer for Center for Nanoscale Materials (Argonne) and NSF.

# **Recognitions**

- 2000 NSF Graduate Fellowship Honorable Mention.
- 1999 UW–Madison Chemical Engineering Departmental Fellowship.

#### **Publications**

30 publications including 3 book chapters.

### **Research Interests**

- Computational modeling applied to the investigation of surface/interfacial chemical thermodynamics and kinetics; reaction mechanisms; and material properties.
- Heterogeneous catalysis and electrocatalysis on metals, metal compounds, and nanomaterials.
- Current focuses: i) selective conversion of biomass-derived compounds; ii) rechargeable
  metal-air batteries as next-generation energy storage platform; iii) size-defined clusters as novel
  catalysts.

Graduate advisor: Manos Mavrikakis (Univ. of Wisconsin).

**Postdoctoral advisors:** William F. Schneider (Univ. of Notre Dame); William A. Shelton (ORNL).

**Postdoctoral associates:** Lijun Xu (Univ. Virginia); Lymarie Semidey-Flecha (Procter & Gamble); Gopi Krishna Phani Dathar; Bradley Habenicht.