



Yu Lei

University of Alabama in Huntsville
Department of Chemical and Materials Engineering
301 Sparkman Dr., EB 117D
Huntsville, AL 35899

Phone: 256-824-6527
E-mail: yu.lei@uah.edu

Current Position

Assistant Professor, Department of Chemical and Materials Engineering, University of Alabama in Huntsville

Background

- Assistant Professor, University of Alabama in Huntsville, Huntsville, AL, 2013-present
- Postdoctoral Researcher, Energy Systems Division, Argonne National Laboratory, Argonne, IL, 2010-2013
- Graduate Researcher, Department of Chemical Physics, Fritz Haber Institute of Max Planck Society, Berlin, Germany, 2009-2010
- Ph.D. Chemical Engineering, University of Illinois at Chicago, Chicago, IL, 2010
- B.S. Chemical Engineering, Nanjing University, China, 2004

Honors

- UAH College of Engineering Outstanding Faculty Award, 2016
- Ralph E. Powe Junior Faculty Enhancement Award, Oak Ridge Associated Universities, 2015
- ACS-PRF New Doctoral Investigator Award, American Chemical Society, 2015
- Kokes Travel Award, North American Catalysis Society, 2009

Activities

- Councilor, ACS North Alabama Section, 2015 - present
- Symposium organizer for ACS and AIChE annual meetings, 2015-present
- Proposal reviewer for CFN/BNL, NSF
- Elected secretary for Catalysis Club of Chicago of North American Catalysis Society, 2012-2013

Interests

- Development of *in situ* x-ray absorption spectroscopy to nanomaterials analysis
- Integration of *in situ* spectroscopy, scattering and microscopy characterization techniques simultaneously to understand geometric and electronic structure of materials
- Catalytic reaction mechanisms under practical reaction conditions in real time
- Design and synthesis of nano materials and thin film materials for energy storage and conversion

Goals

- I have enjoyed an incredible journey with APS since my days as a graduate student. Everyone who has visited APS would agree with me that the top-notch science being done here is remarkable and is making significant impact on many disciplines. Since my first observation at 4-ID, I have extended my experience with the spectroscopy and scattering techniques at 9-BM, 10-BM, 10-ID, 11-ID, 12-BM and 12-ID. Besides the APS, I have been a user of other worldwide x-ray and neutron sources, including CAMD, SSRF, BESSY II and HFIR, as well as other user facilities such as CNM at ANL, CFN at BNL and CNMS at ORNL. Extensive experience with APS and other user facility facilitates me to serve the user community at APS, particularly during the critical period of APS upgrading. My goal is to ensure that users can enjoy working at APS and continue to make a difference in advancing human understanding of the world.