

Name: Xiahan Sang
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Position Title: Postdoctoral Researcher

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Education:

Wuhan University, China, B.S. 2005 Materials Science
Institute of Metal Research, China, M.S. 2008 Materials Science
University of Pittsburgh Ph.D. 2012 Materials Science

Professional Experience:

2015–current Postdoc, Center for Nanophase Materials Sciences, ORNL
2013–2015 Postdoc, Material Science Department, North Carolina State University
2012–2013 Postdoc, Material Science Department, University of Pittsburgh
2008-2012 Graduate Research Associate, Material Science Department, University of Pittsburgh

Professional Activities, Honors, Awards:

M&M Postdoctoral Award, 2014, Hartford, CT.
Student Poster First Prize in Instrumentation, Microscopy & Microanalysis 2010, Portland, OR.
Best RA in Department of Materials Science and Engineering, University of Pittsburgh, 2010.

Professional Memberships:

Microscopy Society of America

Selected Peer-Reviewed Publications: (total ~ 20)

Sang, X.; LeBeau, J. M., “Characterizing the response of a scintillator-based detector to single electrons,” *Ultramicroscopy*, **161**, 3 (2016).
Cheng, G.; Yao, S.; Sang, X.; Hao, B.; Zhang, D.; Yap, Y. K.; Zhu, Y., “Evolution of Irradiation-Induced Vacancy Defects in Boron Nitride Nanotubes,” *Small*, **6**, 818 (2016).
Niu, C.; Zaddach, A. J.; Oni, A. A.; Sang, X.; Hurt III, J. W.; LeBeau, J. M.; Koch C. C.; Irving, D. L., “Spin-driven ordering of Cr in the equiatomic high entropy alloy NiFeCrCo,” *Applied Physics Letters*, **106**, 161906 (2015).
Sang, X.; Grimley, E. D.; Schenk, T.; Schroeder, U.; LeBeau, J. M., “On the structural origins of ferroelectricity in HfO₂ thin films,” *Applied Physics Letters*, **106**, 162905 (2015).
Sang, X.; Grimley, E. D.; Niu, C.; Irving, D.; LeBeau, J. M., “Direct Observation of Charge Mediated Lattice Distortions in Complex Oxide Solid Solutions,” *Applied Physics Letters*, **106**, 061913 (2015).
Sang, X.; LeBeau, J. M., “Revolving scanning transmission electron microscopy: Correcting sample drift distortion without prior knowledge,” *Ultramicroscopy*, **138**, 28 (2014).
Sang, X.; Kulovits, A.; Wang, G. F.; Wiezorek J. M. K., “Validation of density functionals for transition metals and intermetallics using data from quantitative electron diffraction,” *J. Chem. Phys*, **138**, 084504 (2013).
Sang, X.; Kulovits, A.; Wiezorek J. M. K., “Simultaneous Determination of Highly Precise Debye-Waller Factors and Structure Factors for Chemically Ordered NiAl by Convergent Beam Electron Diffraction,” *Acta Cryst. A*, **66**, 694 (2010).
Sang, X.; Du, K.; Ye, H. Q., “An ordered structure of Cu₃Sn in Cu-Sn alloy investigated by transmission electron microscopy,” *Journal of Alloys and Compounds*, **469**, 129 (2009).

Collaborators (previous 4 years):

G. Wang, University of Pittsburgh	C. Ye, University of Akron
D. Irving, North Carolina State University	L. Allen, University of Melbourne
C. Koch, North Carolina State University	S. Findley, Monash University
J. Jones, North Carolina State University	T. Nishida, University of Florida
Y. Zhu, North Carolina State University	S. Chambers, Pacific Northwest National Laboratory
U Schroeder, NamLab, Germany	M. Weyland, Monash University

Graduate and Postdoctoral Advisors:

PhD Advisor: Prof. Jorg Wiezorek, University of Pittsburgh
Postdoc Advisor: Prof. James LeBeau, North Carolina State University; Dr. Raymond Unocic, ORNL