# CHANGNING NIU

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#### RESEARCH INTERESTS

First-principles atomistic modeling of solid-state materials, thermodynamic properties of materials, kinetic properties of materials.

# Professional Experience

2015— **Postdoctoral Researcher**, Ohio State University, Columbus, OH, USA Materials Science and Engineering (Advisor: Maryam Ghazisaeidi)

## **EDUCATION**

- 2015 **Ph.D.**, North Carolina State University, Raleigh, NC, USA Materials Science and Engineering (Advisor: Douglas L. Irving)
- 2011 **B.Sc.**, University of Science and Technology Beijing, Beijing, China Materials Physics (Minor: Information and Computational Science)

## PEER-REVIEWED PUBLICATIONS

- A. J. Zaddach, C. Niu, A. A. Oni, M. Fan, J. M. LeBeau, D. L. Irving, and C. C. Koch. Structure and magnetic properties of a multi-principal element Ni–Fe–Cr–Co–Zn–Mn alloy. *Intermetallics*, 68:107–112, Jan. 2016
  - C. Niu, A. J. Zaddach, C. C. Koch, and D. L. Irving. First principles exploration of near-equiatomic NiFeCrCo high entropy alloys. *Journal of Alloys and Compounds*, 672: 510–520, July 2016
- 2015 C. Niu, A. J. Zaddach, A. A. Oni, X. Sang, J. W. Hurt III, J. M. LeBeau, C. C. Koch, and D. L. Irving. Spin-driven ordering of Cr in the equiatomic high entropy alloy NiFeCrCo. Appl. Phys. Lett., 106(16):161906, Apr. 2015
  - X. Sang, E. D. Grimley, C. Niu, D. L. Irving, and J. M. LeBeau. Direct observation of charge mediated lattice distortions in complex oxide solid solutions. *Appl. Phys. Lett.*, 106 (6):061913, Feb. 2015
- 2014 K. M. Youssef, A. J. Zaddach, C. Niu, D. L. Irving, and C. C. Koch. A Novel Low-Density, High-Hardness, High-entropy Alloy with Close-packed Single-phase Nanocrystalline Structures. *Mater. Res. Lett.*, 3(2):95–99, Dec. 2014
- 2013 A. J. Zaddach, C. Niu, C. C. Koch, and D. L. Irving. Mechanical Properties and Stacking Fault Energies of NiFeCrCoMn High-Entropy Alloy. *JOM*, 65(12):1780–1789, 2013

## PRESENTATIONS

#### Presented Talks

- 2015 C. Niu, A. J. Zaddach, A. A. Oni, X. Sang, J. W. Hurt III, J. M. LeBeau, C. C. Koch, and D. L. Irving. First principles studies of NiFeCrCoMn high entropy alloys. In *TMS*, Orlando, FL, Mar. 2015
- 2014 C. Niu, A. J. Zaddach, C. C. Koch, and D. L. Irving. First principles simulation of a NiFeCrCoMn high entropy alloy. In *TMS*, San Diego, CA, Feb. 2014

## Contributed Talks

- 2015 C. Niu, A. J. Zaddach, A. A. Oni, X. Sang, J. W. Hurt III, J. M. LeBeau, C. C. Koch, and D. L. Irving. Probing the local structure of NiFeCrCo: synthesis, characterization, and simulation. In *TMS*, Orlando, FL, Mar. 2015
  - A. J. Zaddach, K. M. Youssef, C. Niu, D. L. Irving, and C. C. Koch. A low-density, single-phase high entropy alloy produced by mechanical alloying. In *TMS*, Orlando, FL, Mar. 2015
- 2014 A. J. Zaddach, C. Niu, J. M. LeBeau, C. C. Koch, and D. L. Irving. Low stacking fault energy high entropy alloys. In *TMS*, San Diego, CA, Feb. 2014
  - A. J. Zaddach, C. Niu, K. M. Youssef, D. L. Irving, and C. C. Koch. Stacking fault energies and mechanical properties of fcc high entropy alloys. In *TMS*, San Diego, CA, Feb. 2014
- 2013 D. L. Irving, C. C. Koch, C. Niu, and A. J. Zaddach. Preparation and simulation of fcc high entropy alloys. In *TMS*, San Antonia, TX, Mar. 2013

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