

Hengdi Zhao

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EDUCATION

Ph.D. in progress, Physics, University of Colorado at Boulder, 2016 - now

Ph.D. program in University of Kentucky from 2015-2016, Transferred in 2016

Advisors: Dr. Gang Cao

B.S., Physics, University of Kentucky, 2013-2015

Freshman year in Shanghai Ocean University from 2011-2012

Sophomore year in Shanghai University from 2013-2013

TEACHING & RESEARCH EXPERIENCE

Research Assistant, University at Colorado at Boulder, 2016-now

Structural, physical property characterization and single crystal synthesis of 4d-, 5d- transition metal materials under extreme conditions.

Teaching Assistant, University at Colorado at Boulder, 2016-2017

Teaching Assistant, University at Kentucky, 2015-2016

SKILLS

- Single crystal synthesis of 4d- and 5d- transition metal materials with flux, floating zone and chemical vapor transport method.
- Single crystal structure analysis.
- Physically property characterization such as electrical transport, magnetization, heat capacity and chemical composition analysis.
- Proficiency in Quantum Design (Q.D.) PPMS, MPMS and Bruker single-crystal diffractometer operations and maintenances plus experiences of Q.D. dilution refrigerator.

RECENT PUBLICATIONS

1. H. D. Zhao, J. Terzic, H. Zheng, Y. F. Ni, Y. Zhang, F. Ye, P. Schlottmann, G. Cao, Decoupling of magnetism and electric transport in single-crystal $(\text{Sr}_{1-x}\text{A}_x)_2\text{IrO}_4$ ($\text{A} = \text{Ca}$ or Ba). *J. Phys. Condens. Matter.* **30**, 245801 (2018).
2. H. D. Zhao, F. Ye, H. Zheng, B. Hu, Y. Ni, Y. Zhang, I. Kimchi, G. Cao, Ground state in the novel dimer iridate $\text{Ba}_{13}\text{Ir}_6\text{O}_{30}$ with Ir^{6+} ($5d^3$) ions. *Phys. Rev. B.* **100**, 064418 (2019).
3. H. D. Zhao, B. Hu, F. Ye, C. Hoffmann, I. Kimchi, G. Cao, Nonequilibrium orbital transitions via applied electrical current in calcium ruthenates. *Phys. Rev. B.* **100**, 241104 (2019).