**Curriculum Vitae**

Zachary Gosser

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**Profile:** Dedicated Staff Technician for the Center for Nanophase Material Sciences who for over 6 years has worked alongside multiple groups within the division to support their central mission. As a Lab Space Manager (LSM) of multiple labs, I have maintained a safe laboratory and working environment for all users, and take responsibility for my safety and the safety of those around me. As a Laboratory Operations Supervisor Academy (LOSA) graduate, I have strived to instill the Safety Culture Principles gained from this training to those working in my laboratories.

**Relevant Work Experience and Skills:**

* Serve as point of contact to facilitate interdisciplinary cooperation through multifaceted interactions with crafts, purchasing, as well as other entities within the research group.
* Integral in the development and implementation of a new, more robust Activity-Based Hazard Analysis (ABHA) document and protocol to support safer research practices and more thorough communication for users within our research group.
* Maintain awareness of activities within my lab space, perform regular walk-throughs, perform weekly checklist, convey concerns to management/ESH&Q personnel, and keep the work areas clean.
* Provide site-specific training through assigning, requesting, and supervising completion of appropriate training modules and tasks for new users.
* Evaluate all new activities to ensure that they fall within the scope of the lab’s RSS and that the activity is ESH&Q compliant.
* Maintain the role as HMMIS Custodian for the FHN group’s laboratories and keep up to date records of chemical inventory to support Operations’ yearly chemical stock reconciliation.
* Actively involved in review and revision of RSSs for labs within the research group and attend regular LSM meeting to share work practices and address questions/concerns about laboratory spaces.
* Work with ESH&Q to locate, dispose of and/or test our time sensitive materials and participate in on-site audits of the laboratories and help correct any issues that may be observed.
* Uphold the role of Pressure System Custodian in accordance with the newly revised Pressure System Safety Guidelines.

**Education:**

Indiana University, Bloomington Indiana, M.S. 2012, Physical Chemistry

University of the Cumberlands, Williamsburg Kentucky, B.S. 2008, Major: Chemistry, Minor: Physics and Math

**Additional Training:**

Laboratory Operations Supervisor Academy (LOSA)

**Professional Experience:**

2023-present User Facility Safety & Research Operations Support Professional, Physical Science Directorate, Center for Nanophase Materials Sciences (CNMS)

2016–2022 Technician in Nanoscale, Functional Hybrid Nanomaterials (FHN) Group, Center for Nanophase Materials Sciences (CNMS), Oak Ridge National Laboratory (ORNL)

2013–2015 Analytical Chemist II, Compliance Monitoring Unit (CMU), AIT Laboratories

2008–2012 Research Assistant, Nuclear Chemistry Group, Department of Chemistry, Indiana University

2009–2011 Associate Instructor, Department of Chemistry, Indiana University

**Honors, Awards, and Recognitions:**

Supplemental Performance Award (SPA), 2017

First Year Scholarship Award, Department of Chemistry, Indiana University, 2008-2009

Outstanding Senior in Chemistry Award, University of the Cumberlands, May 2008

George I. Alden Endowed Scholarship Award, 2006-2008

 -Tuition scholarship for those majoring in the scientific areas with distinction

**Professional Associations:**

ACS Member 2009-2012, 2016-Present

Gamma Sigma Epsilon, National Chemistry Honor Society (Local Chapter President 2007-2008)

Sigma Pi Sigma, National Physics Honor Society (Local Chapter President 2007-2008)

Kappa Mu Epsilon, Kentucky Beta Chapter, National Mathematics Honor Society

**Peer-Reviewed Publications:**

“Self-Powered Fast Brazing of Ti-6Al-4V Using Ni/Al Reactive Multilayer Films”, D. Bridges, C. Rouleau, Z. Gosser, C. Smith, Z. Zhang, K. Hong, J. Cheng, Y. Bar-Cohen, A. Hu, Appl. Sci., 8(6), 985, (2018)

“Measuring the fusion cross-section of light nuclei with low-intensity beams”, T. K. Steinbach, M. J. Rudolph, Z. Q. Gosser, K. Brown, B. Floyd, S. Hudan, R. T. deSouza, J. F. Liang, D. Shapira, M. Famiano, Nucl. Inst. Meth. In Phys. Res. A743, 5 (2014)

“Using induced signals to sense position from microchannel plates”, R.T. deSouza, Z. Q. Gosser, S. Hudan, Review of Scientific Instruments Vol 83, Issue 5 (2012)

“Near- and sub-barrier fusion of 20O incident ions with 12C target nuclei”, M. J. Rudolph, Z. Q. Gosser, K. Brown, S. Hudan, R. T. deSouza, A. Chbihi, B. Jacquot, M. Famiano, J. F. Liang, D. Shapira, D. Mercier, Phys. Rev. C85, 024605 (2012)

“Sub-nanosecond time-of-flight for segmented silicon detectors”, R. T. deSouza, A. Alexander, K. Brown, B. Floyd, Z. Q. Gosser, S. Hudan, J. Poehlman, M. J. Rudolph, Nucl. Instr. Meth. In Phys. Res. A632, 133 (2011)