

## Andrew Schlup

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### School Address

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West Lafayette, IN 47907  
ARMS 2210

### Home Address

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Objective: Obtain a doctorate degree in Materials Engineering, emphasizing in transparent ceramics

Education: Purdue University May 2020  
**Ph.D. Materials Engineering** **GPA: 3.5**

Missouri University of Science & Technology Aug. 2011 – May 2016  
**B.S. Ceramic Engineering** **GPA: 3.3/4.0**

Experience: Missouri University of Science and Technology Rolla, MO  
**Student Research Assistant** Aug. 2015 – May 2016

- Researched and developed cemented carbides
- Operated automatic grinding and polishing machines to prepare samples for testing
- Determined dynamic moduli by impulse excitation of vibration
- Performed Vickers hardness and transverse rupture strength tests on cemented carbides
- Assisted graduate student with solid oxide fuel cell research Aug. 2014 – May 2015
- Graded assignments for professor
- Researched and developed e-glass, barium alumino-silicate, and sealing glasses
- Operated fiber elongation, dynamic mechanical analysis, differential thermal analysis, and rotational viscosity instruments to acquire thermal property data
- Researched & developed carbide and diboride ultra-high temperature ceramics (UHTCs') Jan. 2013 – Dec. 2013
- Controlled a plasma arc welder to weld zirconium diboride UHTCs'
- Processed UHTCs' using hot-press and pressure-less sintering furnaces
- Assisted in training new student research assistants

G.E. Aviation Evendale, OH  
**Intern** May 2015 – Aug. 2015

- Processed environmental barrier coatings (EBCs') using ball milling, hydraulic pressing, sintering, and tape-casting techniques
- Utilized optical microscopy and ImageJ to obtain porosity and grain size data of EBCs'
- Worked alongside fellow interns to evaluate coefficient of thermal expansion data of EBCs'
- Analyzed scanning electron microscopy data of SiC-SiC ceramic matrix composites

Dal-Tile International El Paso, TX  
**Intern** Jan. 2014 – Aug. 2014

- Operated ball mills, bell units, and roller hearth kilns to process glazed ceramic wall tiles
- Programmed an X-Ray Fluorescence (XRF) machine for matte and gloss ceramic glazes
- Identified and corrected an issue with a XRF machine that previously provided inaccurate data
- Used a spectrophotometer to gather and analyze tristimulus color data

Computer Skills: MiniTab ImageJ  
FactSage

Honors & Activities: Missouri S&T Chapter Keramos – Nominations Chair (Fall 2015), Vice-President (Spring 2016)  
Missouri S&T Chapter Material Advantage – Member  
Missouri S&T Longboarding Club – Co-founder and President