

Olivia Brandt

(she/they)

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EDUCATION:

Doctor of Philosophy – Materials Engineering August 2019 – July 2023 (expected)

Purdue University, West Lafayette, IN

Thesis Topic: Lamination of Ceramic - Filled Thermoplastic Polymers

Advisors: Profs. Rodney Trice & Jeffery Youngblood

Bachelor of Science – Materials Science and Engineering September 2015 – June 2019

University of California Riverside, Riverside, CA

Cum Laude

RESEARCH EXPERIENCE:

Purdue University West Lafayette, IN

Graduate Research Assistant

August 2019 – Present

- Advised by: Profs. Rodney Trice and Jeffery Youngblood
- Investigated using ceramic extrusion to make a counter-flow heat exchanger with improved thermal efficiency
- Studied the effects of lamination parameters to achieve a heat exchanger with no delamination
- Fabricated complex ceramic pieces for the heat exchanger through slip casting.

UC Riverside Riverside, CA

Undergraduate Research Assistant

November 2017 – June 2019

- Advised by: Prof. Suveen Mathaudhu
- Studied the effect of processing variables on the densification of Aluminum-magnesium alloys.
- Fabricated high entropy alloys through cryogenic ball milling.
- Characterized aluminum-magnesium alloys using XRD, SEM, and Rockwell hardness testing

TEACHING EXPERIENCE:

Purdue University West Lafayette, IN

Teaching Assistant

Summer 2020

- Introduction to Materials Engineering (MSE 230) teaching assistant for a class of 150 students
- Assisted in creating and grading quizzes and examinations
- Taught a weekly recitation session

CONFERENCE TALKS:

Brandt, O; Orta R; Trice, RW; Youngblood, JP “Investigation of Lamination Approaches of SiC Ceramic-Filled Polymer Blends of Co-Extrusion”, GWEN Symposium Feb. 2022 West Lafayette, IN

Brandt, O; Orta R; Trice, RW; Youngblood, JP “Investigation of Lamination Approaches of SiC Ceramic-Filled Polymer Blends of Co-Extrusion”, ICACC Jan. 2022 Virtual

Brandt, O; Orta R; Trice, RW; Youngblood, JP “Green State Lamination of Silicon Carbide for High Temperature Applications”, MS&T Oct 2021 Columbus, OH

Brandt, O; Clark, T; Mathaudhu, S, “Spark Plasma Sintering of Aluminum”, PowderMet June 2019 Phoenix, AZ

HONORS AND AWARDS:

Purdue Doctoral Fellowship, *Purdue University* August 2019

Academic Excellence Award, Materials Engineering, *UC Riverside* June 2018

LEADERSHIP EXPERIENCE:

Leadership Team Member *Graduate Women in Engineering Network* July 2020 - Present
Women in Engineering Program

Council Chair *President’s Council of Student Advisors* Oct 2021 - Present
American Ceramics Society

Planning Committee *Winter Workshop* Nov 2021 – Mar 2022
American Ceramics Society

Communications Committee *President’s Council of Student Advisors* Oct 2020 – Oct 2021
American Ceramic Society

VOLUNTEER SERVICE:

DEI Panel Organizer *ICACC Conference* Dec 2021 – Mar 2022

Graduate Student Mentor *Purdue University* Aug 2021 – Mar 2022

Station Leader *Purdue Space Day* Oct 2019

PROFESSIONAL SOCIETIES:

American Ceramics Society (ACerS)