ANDREA WALLACE

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OBJECTIVE

To gain experience and knowledge in the field of electronic packaging with an interest in space application

EDUCATION

University of Arkansas, Fayetteville, AR
B.S. Mechanical Engineering; GPA 3.35

University of Arkansas, Fayetteville, AR
Second-year Graduate Student
PhD Space and Planetary Sciences; GPA 4.0

EXPERIENCE

Summer Internship Ashland Performance Materials
5601 Wheeler Ave. Fort Smith, AR
Summer 2015

Graduate Research Assistant University of Arkansas
Electrical Engineering Department

- Assist with projects related to electronic packaging and packaging reliability
- Attend various webinars and seminars related to power electronics and power electronics packaging

LEADERSHIP

ERC POETS (Power Optimization of Electro-Thermal Systems)
Student Leadership Council Treasurer
Fall 2016-Spring 2017

Student Leadership Council President
Fall 2017-Spring 2018

PROJECTS

Engineering Related Projects:

- Flip Chip MOSFET and Diode – Ongoing Project
  - Started assisting doctoral student with work in Summer 2016
  - Fabrication and processing of flip chip devices

- DOE High Temperature Optocoupler – Ongoing Project
  - Project started in Fall 2016
  - Responsible for packaging and reliability of new high temperature optocoupler being developed

- Other project tasks include:
  - Reliability Testing
  - Thermal Simulations
  - Failure Analysis (Cross sectioning/SAM)

Space Science Related Projects:

- Venus Mission Radar Data Comparison – Fall 2016
  - Compare radar data from Pioneer, Venera and Magellan missions
  - Determine if surface features on Venus have changed between missions
  - No conclusions were made due to poor resolution of data

- Metallic Frost Composition on Venus – Fall 2016
  - Assist with the testing of minerals to determine if they are acceptable candidates for metallic frost on Venus

OUTREACH ACTIVITIES

Thermal Conductivity Demonstration, May 2017

- Tour of 300+ 6th graders from Helstern Middle School, Springdale AR
- Demonstrate the concept of thermal conductivity by using diamond sheets and ice

Solar Eclipse Viewing, August 2017

- Helped set up solar telescopes at Fulton High School, Fulton MO
- Assisted the students with using telescopes and presented information on how to safely watch the eclipse

REFERENCES

Alan Mantooth, Graduate Research Advisor,
Distinguished Professor at University of Arkansas
Electrical Engineering
mantooth@email.uark.edu