

# **EE / CprE / SE 491 - sddec24-21**

## **CdSe Solar Cell**

### **Week 9 Report**

Apr 3 - Apr 9

Client: Vikram Dalal

Faculty Advisor: Vikram Dalal

#### **Team Members:**

Payton Bills – Team Lead | Client Interaction

Anders Peterson – Client Interaction | Component design

Michael Thomas – Individual Component Design | Testing

Drew Jensen – Individual Component Design | Testing

Jacob Steffens – Simulation research | Research aid discovery and distribution

Jonathan Timm – Simulation research | Simulation testing

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#### **Past Week Accomplishments**

- Significant progress was made on BandEngg.
- Fabrication process development has begun.
- Past design reports are being fixed.

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#### **Pending Issues**

- Now that we know what our solar cell design looks like, we need to shift gear and put much more effort into possible fabrication and simulation methods available to us and what factors we can and cannot change during this process to try to make better cells.
  - Previous design reports were not up to standard so we are going back and re-doing those.
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## Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Payton Bills	Busy week so I couldn't do much. Worked a bit on Researching fabrication methods and writing testing procedures.	2	42
Anders Peterson	Worked on improving the quantum efficiency machine we will be using to collect data next semester.	2	47
Michael Thomas	Learned how to make dat files with multiple materials on the Band Engg simulator. Attempted to make accurate simulations however, I am still working on learning how to parameterize the values I need in order to use them in the simulator. Additionally, my role has changed to be doing most of the solar cell testing and I have begun to look into what tests will give us useful information. Additionally, I am looking into whether I can shadow the MRC grad students to learn more about what is available to us.	4	49
Drew Jensen	I was very busy this week and spent a bit of time reworking some of our old design docs and researching manufacturing.	2	36
Jacob Steffens	Attended meetings and assisted where I could.	2	32
Jonathan Timm	Double exam week, managed to spend some time combing through solar farm data but otherwise time spent was with the team.	2	36

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## Plans for Coming Week

We are going to continue working on a fabrication method, simulations, economic tools and past design reports.

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