

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

### **CdSe Solar Cell**

#### **Week 1-2 Report**

08/26/24 – 9/6/24

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**

- Held our first semester team meeting where we did the following:
    - Set the schedule for our meeting times.
    - Created a google doc to outline the entirety of our final report that will detail our findings based on our research including results, and reports on economic and resource viability.
    - Due to unforeseen circumstances, we are required to change one of the layers of our design as the method of fabrication needed for this is no longer available to us as was initially planned (amorphous silicon, a-SiC). We began researching other possible solutions.
  - Began respirator training as needed for cell fabrication.
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## Pending Issues

- We still need to determine focused roles for this semester of the project.
- The redesign of the cell must be a priority as the economic and viability portions of the final report can not begin until we have determined all changes to be made.
- At some point we will need to set up a meeting with Professor Dalal to discuss the project and getting access to materials and the labs needed for fabrication.

## Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Payton Bills	Met with faculty advisor, attended team meetings and assigned tasks to team members. Made plans to shadow graduate students during fabrication steps so that within a few weeks we can begin fabricating our first cell.	3	3
Anders Peterson	Met with faculty advisor, attended team meetings. Began learning the fabrication process and being trained on equipment function. Obtained respirator training and ordered respirator	8	8
Michael Thomas	Class meeting, Team meeting, worked on outline of the final document, began looking into potential materials for new p-type layer design	3	3
Drew Jensen	Attended team meeting. Helped work on economic analysis	1	1
Jacob Steffens	Helped organize the outline for final report.	1	1
Jonathan Timm	Worked on breaking down the components of a solar farm that would play into the cost benefit analysis.	2	2

## Plans for Coming Week

- Finish google doc with outline of final report.
- Establish main roles for all portions of the project.

- Set goals for our timeline.
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## **Gitlab Activity Summary**

Nothing to report.

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