

# M3D4(5): Solar Cell Testing

4/30/15

# Plans for today:

1. Teams Purple, Orange, Green go to Belcher lab
2. ~2:30pm Blue and Yellow go to Belcher lab
3. Before & After: work with your co-PI(s) to develop your proposal.

Upcoming office hours:

\* Friday 2-4:30pm (S/I)

\* Monday 3-5pm (S/Y)

\* Skype → Sat afternoon

→ Sun morning

(email me Friday)

\* Monday 2-5pm (S/II)

# Upcoming deadlines:

☆☆☆ LOW STRESS ☆☆☆

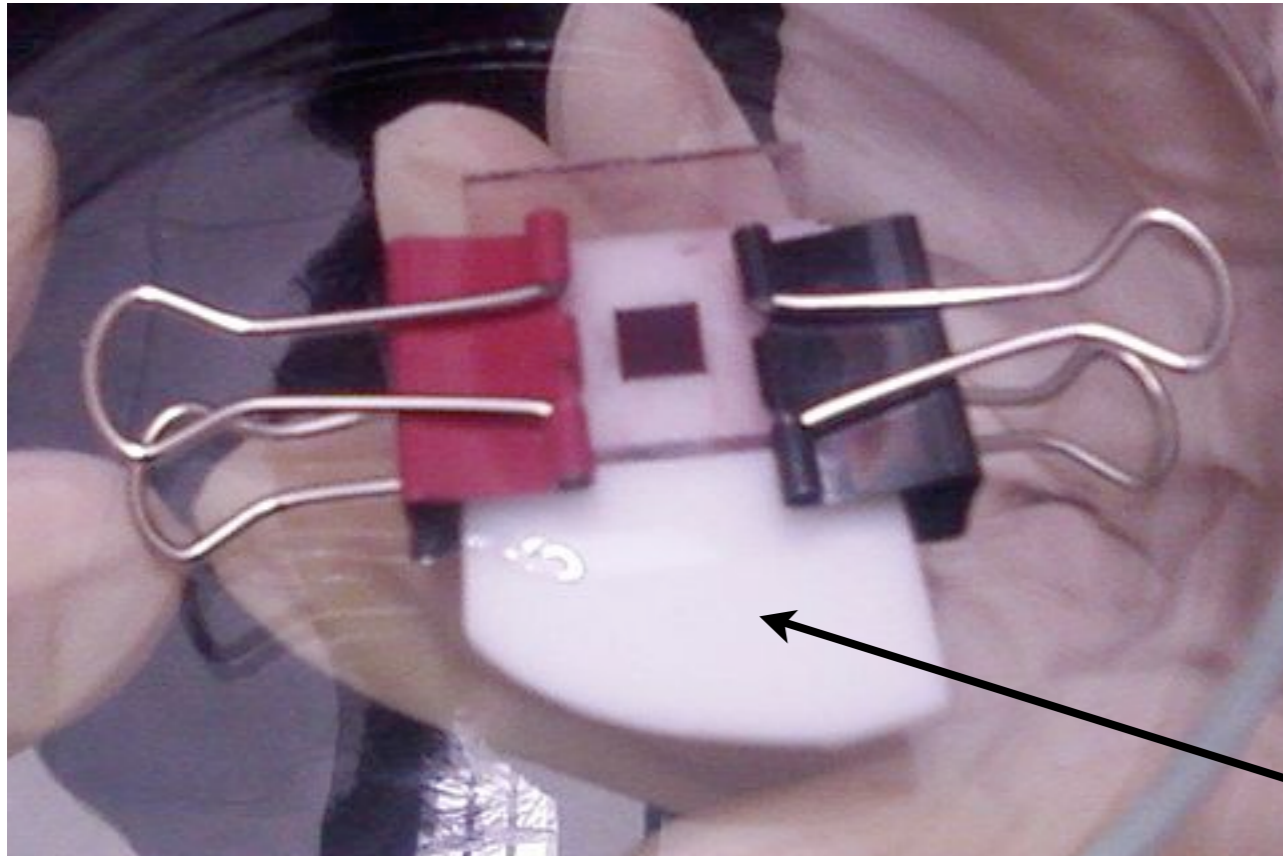
1. **Mod3 mini-report** due at end of M3D6 (5/7, 5pm)
2. **Mod3 notebooks** due on 5/8 at 5pm
3. **Research proposals** due on 5/12 at 1pm (to stellar)  
12 min max — more from Atissa next Thurs (5/7).
4. **Final blog posts** due on 5/13 at 5pm — 4 required  
3 more possible
5. **PARTY!** (and feedback session) on 5/14 at 11am

How we will do it:

1. Add Surllyn®

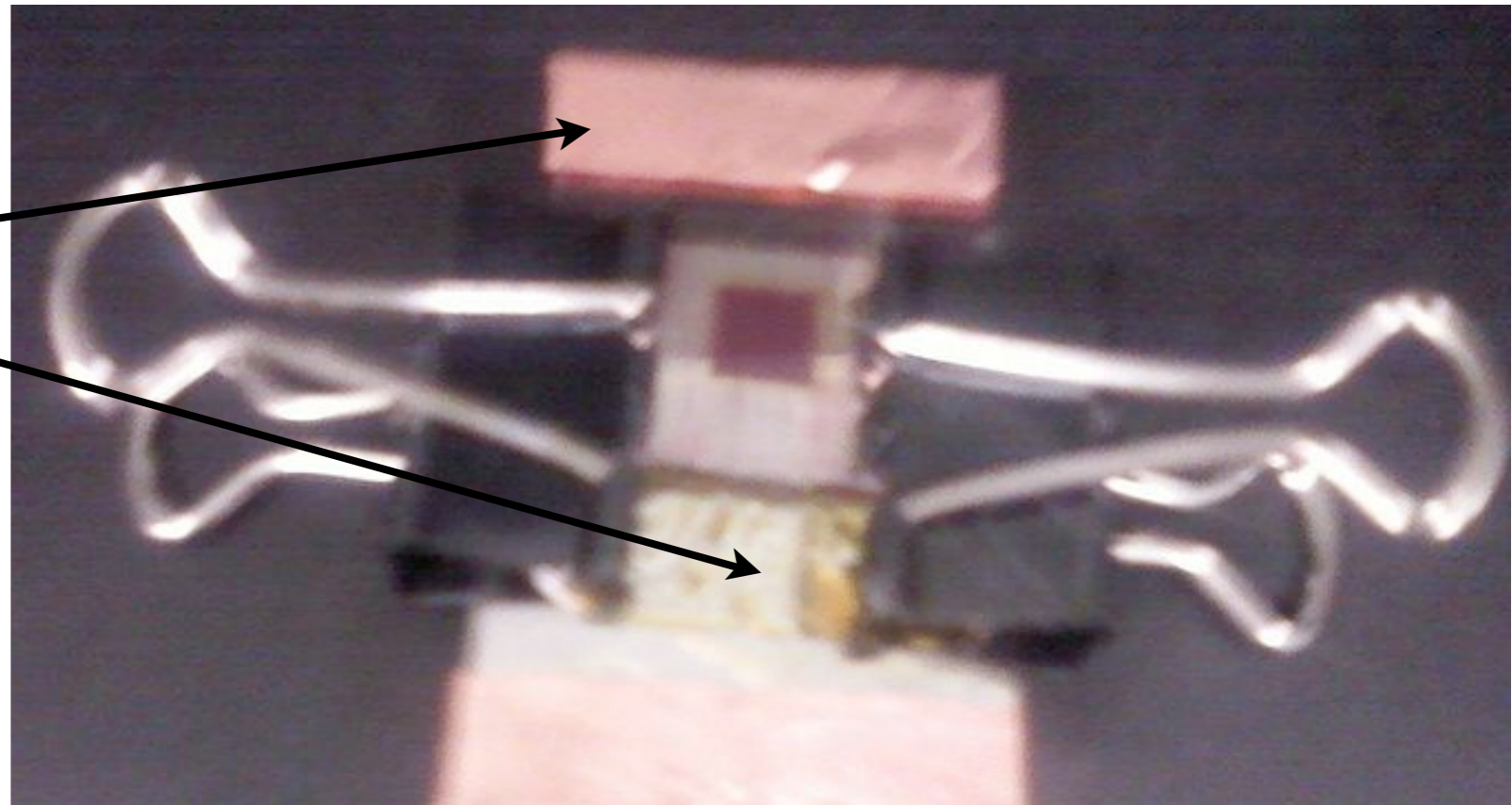


[www.plasticstoday.com](http://www.plasticstoday.com)



2. Sandwich with teflon and bake.

3. Add copper tape, add dye with iodide redox mediator, and assemble.



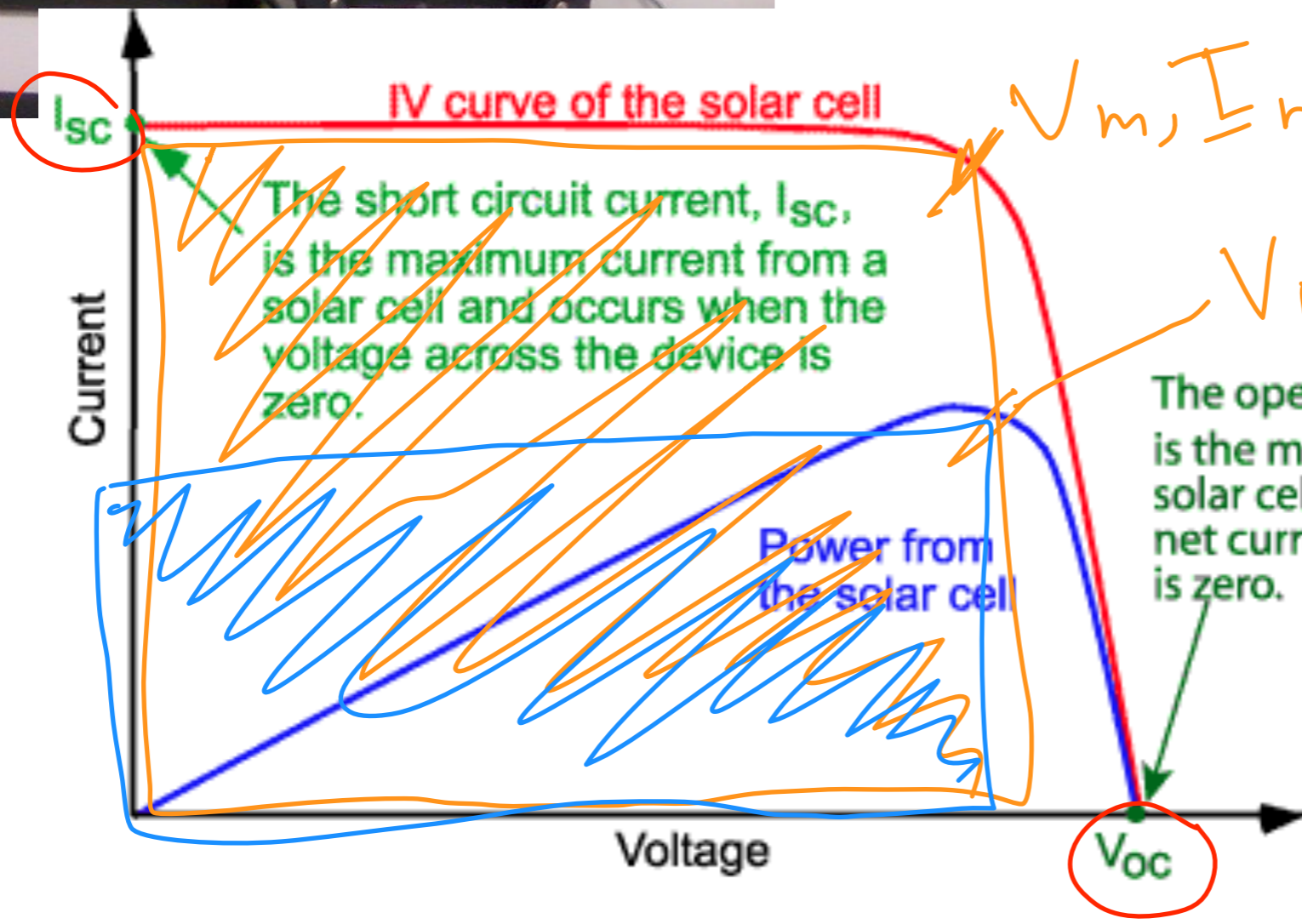


Measure the area of your solar cell (in cm)!

$$P_{\max} = V_{oc} I_{sc} FF$$

$$\text{Efficiency} = P_{\max} / P_{in}$$

*characteristics of your material*



$V_m, I_m$  (theo) B  
 $V_m, P_{\max}$  A (actual)  
 $FF = \frac{A_{\text{actual}}}{B_{\text{(theo)}}$

Post your data on the wiki Talk page for M3D5!