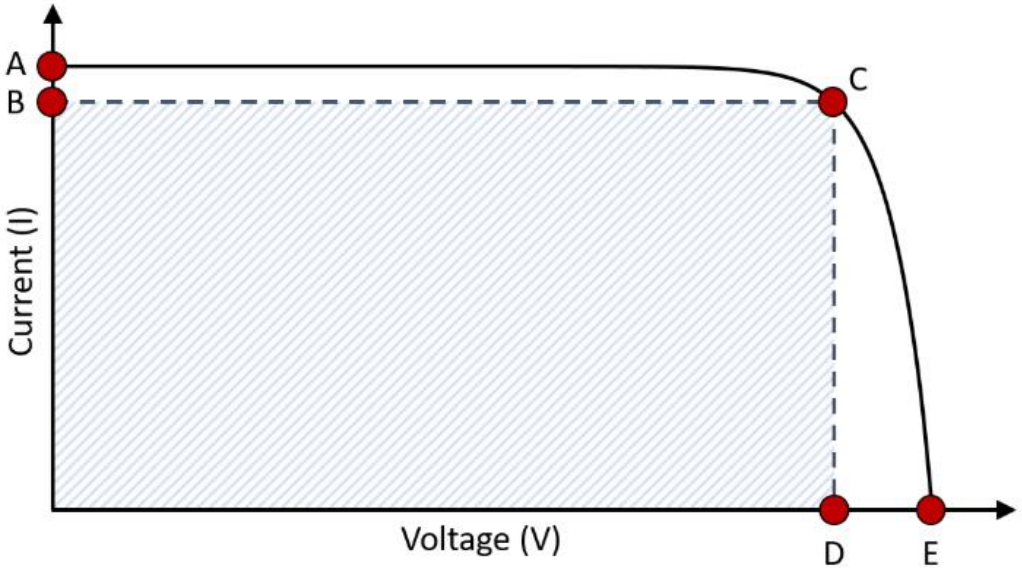
1. **Label the IV curve**



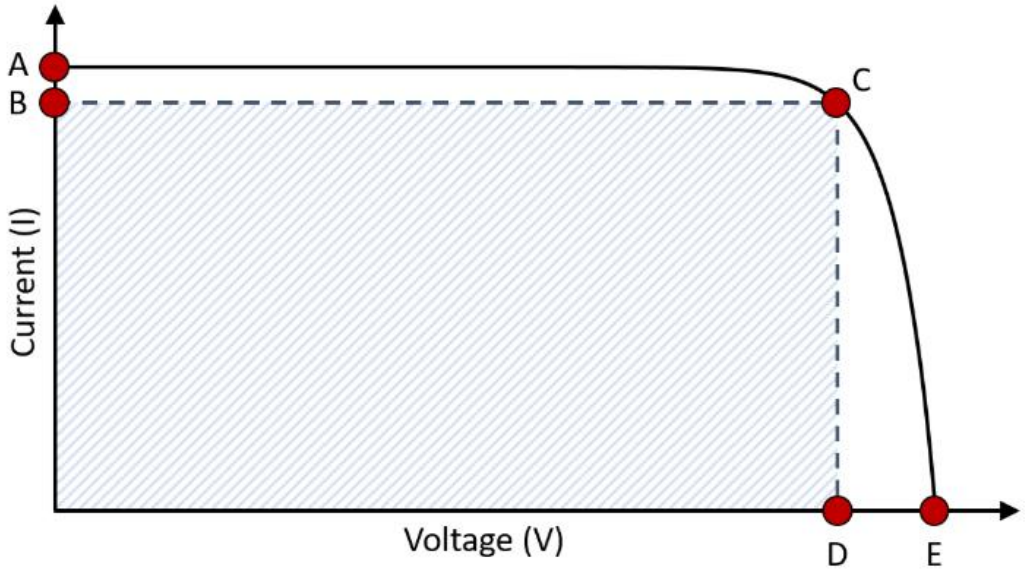
The above IV curve is shown with the following parameters: V_{oc}, I_{sc}, V_{mpp}, I_{mpp}, and MPP.

Which label is associated with D?

- ○ V_{oc} (open circuit voltage)
- ○ I_{sc} (short circuit current)
- ◉ V_{mpp} (maxumum powerpoint voltage)
- ○ I_{mpp}, (maximum powerpoint current)
- ○ MPP (maximum power point)

✓ **Correct**

2. **Label the IV curve**



The above IV curve is shown with the following parameters: V_{oc}, I_{sc}, V_{mpp}, I_{mpp}, and MPP.

Which label is associated with A?

- ○ V_{oc} (open circuit voltage)
- ◉ I_{sc} (short circuit current)
- ○ V_{mpp} (maxumum powerpoint voltage)
- ○ I_{mpp}, (maximum powerpoint current)
- ○ MPP (maximum power point)

✓ **Correct**

3. Select the correct statement(s)

- [x] The I_{SC} is always the maximum current the solar cell can produce

Correct

That is correct

The short circuit current is by definition always the maximum current. If a solar cell had a fill factor of 100% the current at the maximum power point would equal the I_{SC}, however a fill factor of 100% is not physically possible.

- [ ] The power of a solar cell is the product of V_{OC} and I_{SC}
- [ ] The fill factor is the ratio of the used to unused area in a solar module

4. Calculate the efficiency of a solar module with the given parameters:

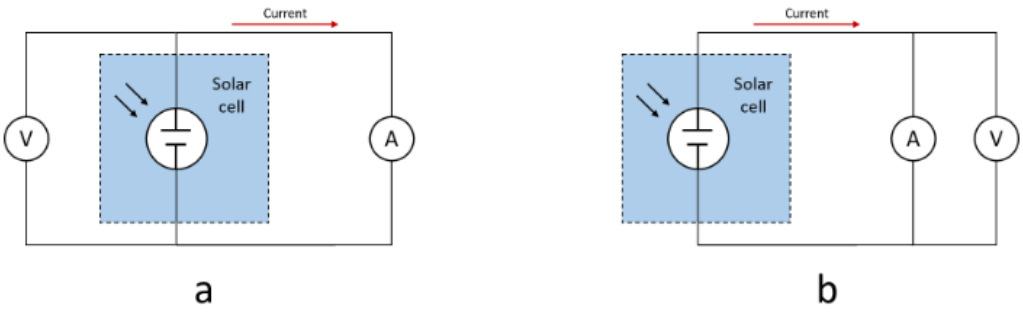
- FF = 59%
- V_{OC} = 5.5 V
- I_{SC} = 37 mA
- Area = 15 cm^2
- Illumination 1000 W/m^2

Please provide the answer in percentage (%), do not write the % sign (example answer 8.5).

8

Correct

5. Select the correct statement(s)



- [ ] The setup in (a) allows for the measurement of I_{SC}
- [x] The circuits in (a) and (b) are identical

Correct

That is correct

There is no difference between the circuits, both the voltmeter and the ampmeter are connected in parallel to the solar cell.

- [ ] The setup in (a) allows for the measurement of V_{OC}

You didn't select all the correct answers

Coursera suggests this material BETA

Was this material helpful? Yes No

Measuring an IV curve