



Betavoltaics

STEM Sims

Lesson 4: Graphing Sources

A graph can convey a lot of data about the operation of a direct current source. However, many times students struggle with interpreting these graphs. Can you figure out what information is contained in a DC source graph?

Doing the Science

1. Start the Betavoltaics Simulation by clicking on the “Sim” tab.
2. Click on the Ag/Zn direct current sources located at the top of the screen.
3. Click the red “Start” button on the source testing device.
4. Click the “Graph” button on the right side of the screen.
5. Answer question #1 in the Do You Understand section below.
6. Click the “Data” button and review the information provided about the Ag/Zn source.
7. Use the “Graph” and “Data” buttons to determine which information in the graph is different from the written data provided about Ag/Zn.
8. Answer questions #2-4 in the Do You Understand section below.

Do You Understand?

1. How many points currently appear in the graph? What three pieces of information are provided in the graph?
2. Which AG/Zn source information in the Graph does not match the data provided in the written section?
3. Please describe a possible reason for the discrepancy you noted in question #2.
4. Describe how the graph could have been better constructed to avoid the problem of mismatched information in the Graph versus Data displays.