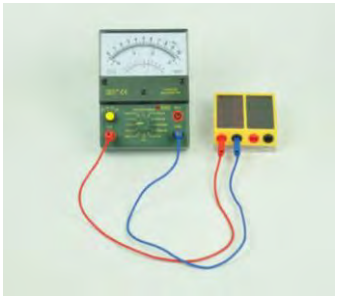
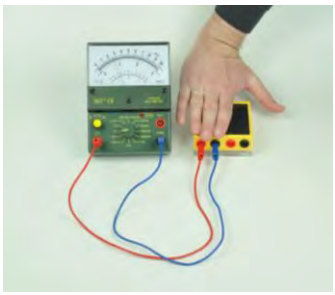
VOLTAGE METERING AND INCIDENCE ANGLE - QUALITATIVELY

AES 6.1

Can electrical energy get derived from sunlight?





Experiment 1:

- Set a measuring range of at least 1.5V (DC) at the meter
- Connect the left solar (by red and blue cables, 75cm) with the meter
- Read off the measured value and transfer it into the chart
- Completely cover the solar cell with your hand
- Read off the measured value and transfer it into the chart

Advice:
If the measured voltage is below 1V, the use of a torch is recommended. In this case we recommend a distance of at least 15cm between the lamp and solar cell.
Danger of overheating!

Experiment 2:

- Execute the experiment at "direct" sun light (e.g to the window)
- Read off the measured value and transfer it into the chart
- Position the solar cell at a right angle (90 °) to the incoming sunbeams
- Read off the measuried value and transfer it into the chart

Types of voltage measurement	Measured value (V DC)
Lying on the table	
Solarcell covered	
Direct sunlight	
Direct sunlight at an angle of 90°	

Analyse the measured values.
When is the highest voltage value reached?

Conclusion:
The highest value of voltage is reached when the sunbeams meet the solarcell at an angle of 90°.

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