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Dye Sensitized Solar Cells

The problem of the project is what type of dye in a dye sensitized solar will produce the most energy. The hypothesis was if the blackberry dye, the eggplant dye, and the silicon cell is tested then the silicon cell will produce more power than the dye cells, the blackberry cell will produce more than the eggplant cell because the silicon cells have higher power output than dye sensitized cells and blackberry dye has more anthocyanins than eggplant dye. The independent variable was the type of dye used. The dependent variable was the efficiency (%) and power (watts) the cells produced. There were many controlled variables. Some of them were the size of the cell and the amount of light going into the cell (somewhat). The procedure used for the experiment was acquiring materials, make conductive glass, and build cells and measure cells using resistors. The eggplant cells produced the least, the berry cells produced more than the eggplant cells, and the silicon produced more than both dye cells. This data supports the second hypothesis. Many things could have affected the results like temperature and quality of the materials used to make the cells. Any further experiments could test those theories.