

Osmosis lab report assignment



The start of the experiment consisted of filling up four beakers with De-ionized water to 150 ml. After the beakers were filled to the appropriate amounts they were then labeled with the different sugar concentrations (0.0 M, 0.1 M, 0.2 M, and 0.3 M). Each group member had to obtain one dialysis tube bag from the distilled water and tightly tie one end with string. After one side of the bag was tied, each group member had to fill their tubes up half way with one of the four types of sucrose solutions (each member used a different concentration of solution).

After the tube was filled up halfway, each member then tied up the open ends of the bags tightly with string. Because the bags need room to swell, they were not tied right next to the sugar solution. After each bag was tightly secured each bag was rinsed with De-ionized water to wash away any spilled sugar solution. Then each bag was weighed on a scale and the members recorded the results within the group. Once all four bags were weighed, each bag was placed inside the water with the appropriate labeled beaker at the same exact time.

The trend line that occurred for the rate of osmosis was an upward increase as the solute concentration increased. The class data that was received supported the group members' hypothesis that the rate of osmosis will increase if the sucrose concentration increases as well. The trend line that was received from the data also supported the hypothesis because it increased as the sucrose concentration increased. The initial weight gain percents were all different because all of the groups' sugar concentrations were not completely identical.

The method used wasn't entirely accurate because there could've been some flaws such as some bags weren't secured enough and might have leaked sucrose into the De-ionized water causing the results to be different. The bags might have not been washed thoroughly which could have ultimately allowed sucrose into the De-ionized water. The results could have been more accurate if the baggies were left in the beakers for a longer amount of time than thirty-five minutes. Nonetheless, the rate of osmosis was surely displayed within this experiment.