

Colligative Properties Lab Report Sheet

Name:

Date:

Lab Summary

Colligative properties are those properties of a solution that depend on the number of molecules or ions dissolved in a solution, and not on the identity of the species in solution. Examples of these properties are boiling point elevation, freezing point depression, and osmotic pressure.

This week, you measured the boiling point elevation of salt water solutions. With that information, you should've been able to calculate the van't Hoff Factor from plotting the data and drawing a trend line to connect the points.

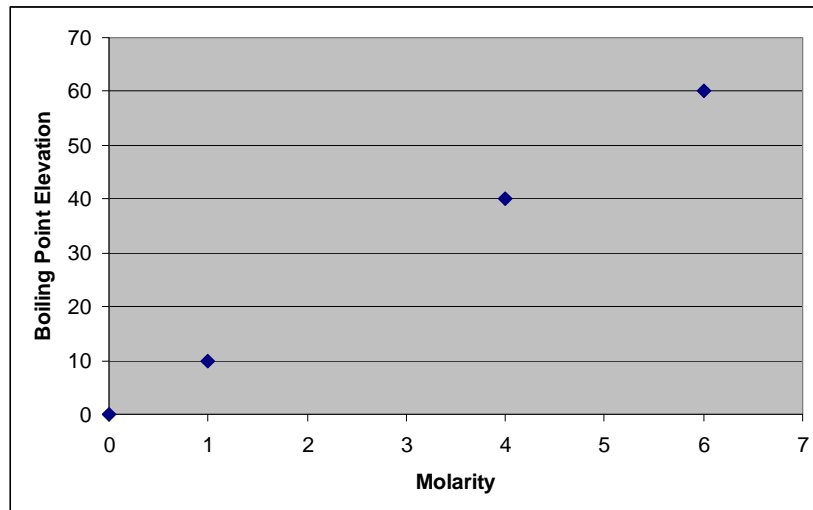
Please answer the following questions on the lab thoroughly and attach all lab notebook pages.

- 1.) Please write out the equation that relates the boiling point elevation to the van't Hoff Factor, and identify what each term means

- 2.) Define the units of molality and identify in this lab which component was the solute and the solvent?

- 3.) For the 2 molal salt water solution, what was your average boiling point, the van't Hoff factor, and your calculated boiling point constant (show calculations)?

- 4.) From the graph below, determine the K_B for the unknown solution. (van't Hoff Factor = 5)
(show calculations)



- 5.) How was this lab overall? Was everything explained well? What could have been done better or explained in more detail?