

- (c) Suppose that during the experiment a significant but unknown amount of solvent evaporates from the test tube. What effect would this have on the calculated value of the molar mass of the solid (i.e., too large, too small, or no effect)? Justify your answer.
- (d) Show the setup for the calculation of the percentage error in a student's result if the student obtains a value of 126 g mol^{-1} for the molar mass of the solid when the actual value is $120. \text{ g mol}^{-1}$.

(i) You take the freezing point and determine the difference and take that number to determine what the substance is

(c) The number would be too small. You have less substance than what you started with and therefore your end number will be smaller than what you should have gotten

(d)
$$\frac{126 - 120}{120} = \#$$
 Multiply that $\#$ $\times 100\%$ and you get the % error

$$\frac{6}{120} = .05 \times 100 \quad 5\% \text{ error}$$