Page 40

Values:

Solution	BP(°C)	ΔBP(°C)	FP(°C)	ΔFP(°C)	m_F(m)	m_B(m)
H_20	98.5	xxxxx	0	xxxxx	xxxxx	xxxxx
$C_6H_{12}O_6$	102	3.50	-2.00	2.00	1.08	6.80
KNO_3	100.5	2.00	-3.50	3.50	0.950	1.94

Solution	exp g/mol (F)	exp g/mol (B)	Actual g/mol	% error (F)	% error (B)
H_20	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
$C_6H_{12}O_6$	185	29.4	180.156	2.78	83.7
KNO_3	105	103	101.11	3.96	1.98

Conclusion:

> The purpose of this lab was to practice calculating molecular mass of solutes by comparing the boiling and freezing point of two solutions with a known concentration, and using that to find the molar mass. We achieved this by finding the boiling and freezing points, finding the molality, and then calculating the molar mass. We only needed to measure the boiling point of water and not the freezing point because it is easier to accurately measure the boiling point, as well as more consistent across measurements. The major source of error in our experiment was inaccurate measurements of the temperature and solution. Other sources of error include delayed boiling and crystallization and heat gain/loss to the environment. Ice melts with $CaCl_2$ when the outside environment is below the freezing point of water because adding the salt lowers the freezing as it dissociates and

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