

Lab # 14
CHM 1046

Pre-lab questions: 1, 2, 5

Lab Notes: This is the same lab as my Freezing Point Depression Lab, you may want to print out my version, it may be easier to understand

Post-lab questions:

1. Explain why there is a constant temperature plateau in the cooling curve for a pure solvent but not for a mixture.
2. Calculate the molar mass of an unknown if a solution containing 3.56 g of unknown in 56.2 g of water froze at -1.60°C ($T_f(\text{H}_2\text{O}) = 0^{\circ}\text{C}$, $K_f(\text{H}_2\text{O}) = 1.86^{\circ}\text{C kg/mol}$)
3. Pure substance "A" freezes at 72.0°C . A solution of 2.57 g of "B" ("B" molar mass = 132.6 g/mol) and 34.28 g of "A" froze at 53.1°C . Calculate K_f of "A"