

Jan 21-8:09 AM

(Ecl) 15g NH₃ in 250g H₂O, $D = \frac{0.974 \text{ g}}{\text{mL}}$

I Mole fraction NH₃ = $\frac{\text{mole NH}_3}{\text{mole NH}_3 + \text{mole H}_2\text{O}}$

$$= \frac{\frac{15}{17}}{\frac{15}{17} + \frac{250}{18}} = 0.06$$

II Molarity NH₃ = $\frac{\text{moles NH}_3}{\text{Kg H}_2\text{O}} = \frac{\frac{15}{17} \text{ mol}}{0.250 \text{ kg}} = 3.529 \text{ M} \approx 3.53 \text{ M}$

III $M = \frac{\text{mole NH}_3}{\text{L of solution}} = \frac{\frac{15}{17}}{0.272 \text{ L}} = 3.26 \text{ M}$

1ml	265g
0.974g soln	= 272.67mp

Solute 15g NH₃ Solvent 250g H₂O

Jan 21-8:25 AM

(E2) — g EG ($C_2H_6O_2$)

1 Kg H_2O . New FP $-5^\circ C$

Normal FP = $0^\circ C$ $\Delta T = 5^\circ C$

$\Delta T = (K_f \times M)$

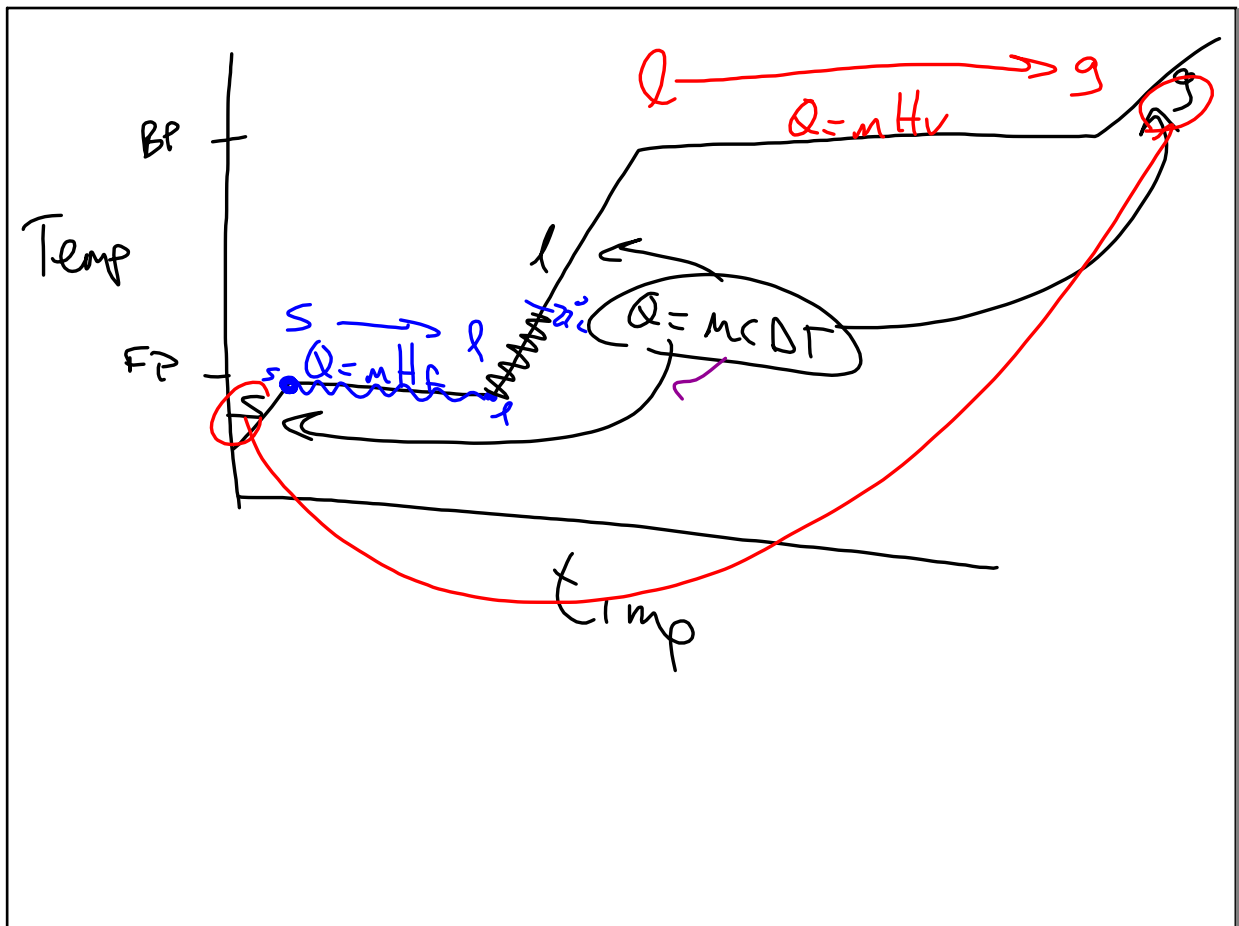
$S = (1.86 \times M)$

$2.69 M$

2.69 mole EG	1 Kg H_2O	62g EG
1 Kg H_2O		1 mole EG = 166.78g

(Note: The value 166.78g is circled in purple in the original image.)

Jan 21-8:33 AM



Jan 21-8:39 AM



Jan 21-8:41 AM

Strong
 ↓
 Weak

ion - ion ← Ionic
 ion - Dipole
 Dipole - Dipole ← Polar
 H. Bonding
 LDF

(F, O, W) = (H)

Jan 21-8:44 AM