- RLVP of solution $= \frac{P^\circ - P_s}{P^\circ}$
  ⇓
  Relative lowering in Vapor Pressure

- $\frac{P^\circ - P_s}{P^\circ} = X_{solute} = \frac{n}{n+N}$

  where P° is Vapour Pressure of pure solvent
  P_s is the Vapour Pressure of solution having non-volatile solute

- $\boxed{\Delta T_b = K_b m}$ where $\Delta T_b = BP_{solution} - BP_{solvent}$
  and Unit of m is (mol/kg)

  and $K_b \rightarrow$ molal elevation constant or ebullioscopic constant
  and $\Delta T_b \rightarrow$ Elevation in Boiling point

- $K_b = \frac{RT^2}{1000\, L_{vap}} = \frac{RT^2}{1000 \frac{\Delta H_{vap}}{\text{GMM of Solvent}}}$

  where T = Boiling point of Solvent
  L_{vap} = latent heat of vaporisation of 1g solvent
  ΔH_{vap} = latent heat of vaporisation of 1 mol solvent.

- Depression in freezing point $(\Delta T_f) = FP_{solvent} - FP_{solution}$
  $\boxed{\Delta T_f = K_f m}$ where Unit of m is (mol/kg)
  and $K_f \rightarrow$ molal depression constant or Cryoscopic constant

- $K_f = \frac{RT^2}{1000\, L_{fusion}} = \frac{RT^2}{1000 \cdot \frac{\Delta H_{fusion}}{\text{GMM of solvent}}}$.

  Here GMM stands for Gram Molecular Mass.

  where T = freezing point of solvent
  L_f = latent heat of fusion of 1g solvent
  ΔH_f = latent heat of fusion of 1 mol solvent

- Relative Humidity (RH) $= \frac{P_s}{P^\circ}$.
  where $P^\circ \rightarrow$ VP of pure solvent
  $P_s \rightarrow$ VP of solution having non-volatile solute