SO LUTI ONS

(111. Depression **In freezing** point

$\Delta T_f = K_f$

K RTQ hel,R7$^2_0$
f 1000 I 1C000

{211 Dissodotlori of solute

(N$_o$ met

= 1 + "ex
1 m degree of clisscicigion}

(3). P

(4). Osrnot lc pressure

= C

For Isotonic solution, $\pi_1 = \pi_2$

{&. I werO a-vapour ritessia re

= rrIOIC fr2otlork of solute-)

=PA

; YE =FIB

when y and y_B are mole fractions In 'vapour phase and = : P' = P^5 X,

(84. Elevation. of boiling point

$$\Delta T_b = K_E \cdot m$$

$$K_b = \frac{RT_b^2}{100 \times \text{ur}} \qquad \frac{M_A RT}{104:11)}$$

Where, m = onolalftry

MA, • molecular mass. Df splvent

OIL

$$\text{molality}(m) = \frac{\text{Number mole}}{\text{Weight of solvent (kg)}} = \text{solme male / kg}$$

$$\text{Molarity} = \frac{\text{Number of moles of solute}}{\text{Volume of solution (14}} \text{ mole IL}$$

Normality {NO – $\frac{\text{Number of gram equivalent of solute}}{\text{Volume of solution (L)}}$ equur L

FOrMality (F)= $\frac{\text{Nurnb•er of dam FOrmula rnas-S}}{\text{Voliorne of solo ion. (Q.}}$

(1.0 1. amtHoff factor

= $\frac{\text{Experimental colligative property (observed)}}{\text{Calculated (riorrrvi) IIgm prove-11y}}$

$P_A^0 - P$__ (i n_o)

)

=ixl<$_b$ mrn

=NK, xrfl

Tr = iCRT

{11). ASSOCialinn Of Saute

$i = \frac{(1-\alpha)+\frac{\alpha}{n}}{1}$ = degr.ee aSSOCi▮tiOn.)

(12). Plenty&Law

1p partial pressure cif gas in vapour phase

p - V_H .X IK_H = llenry5 law corfstant

X = Mole fraction Of gas