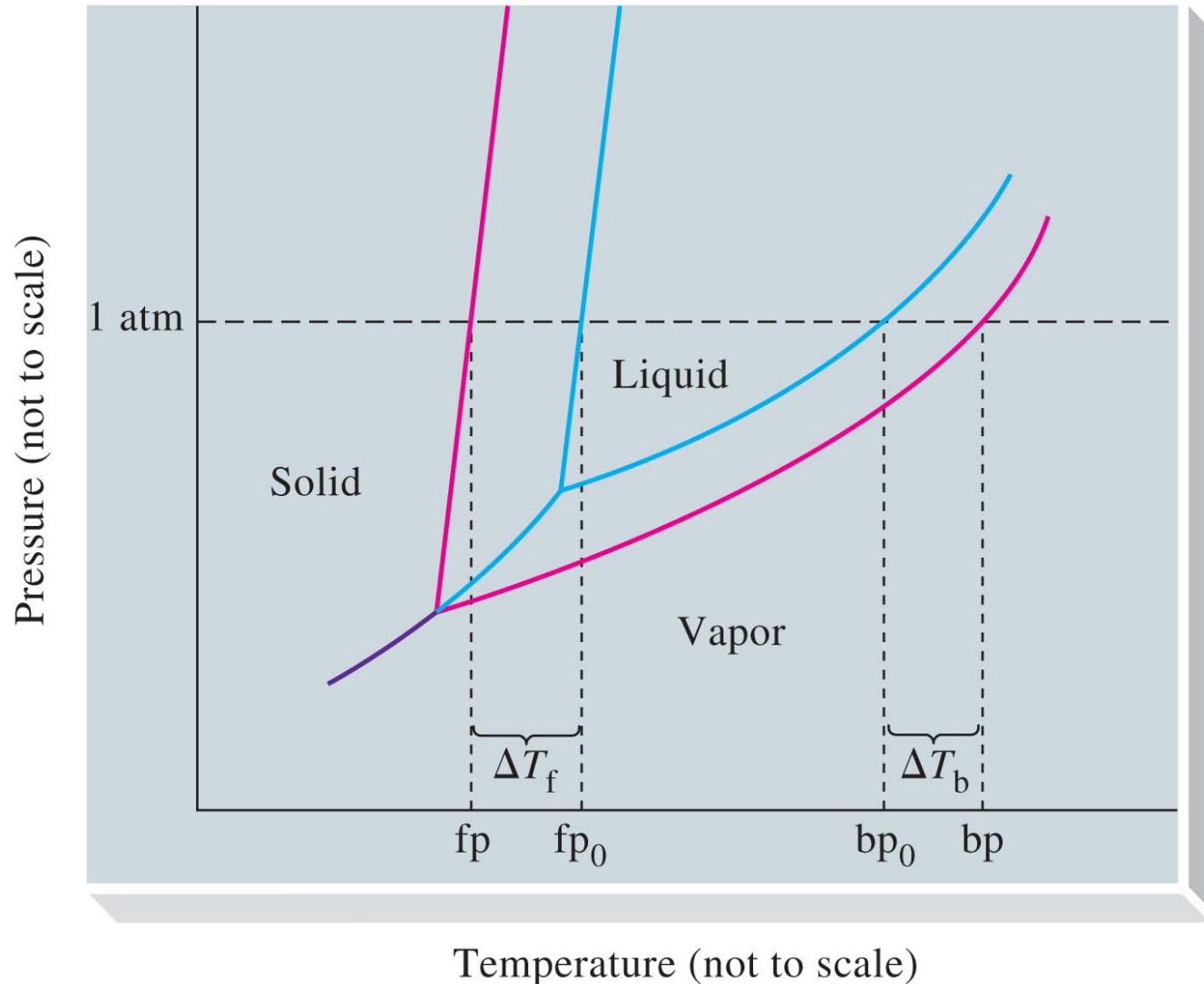


Variación en las temperaturas de solidificación y ebullición



Variación en las temperaturas de solidificación y ebullición

$$\Delta T = K * m$$

$$K_{eb} \neq K_c$$

para el agua

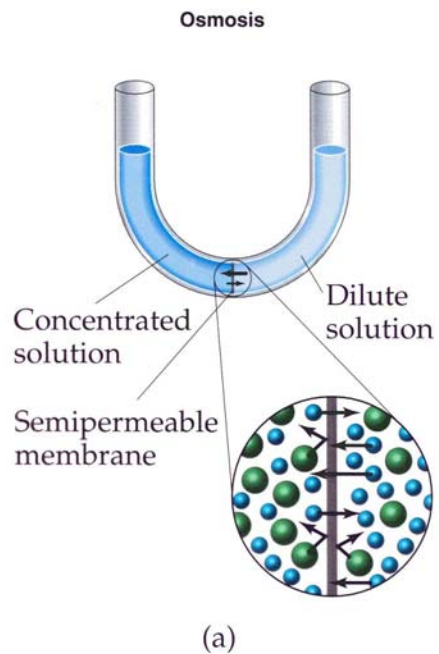
$$K_{eb} = 0,512^{\circ} C * m^{-1}$$

$$K_c = 1,86^{\circ} C * m^{-1}$$

Presión Osmótica

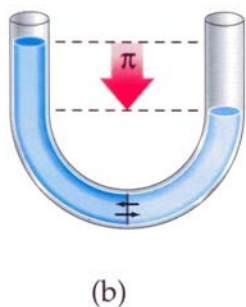
T-130

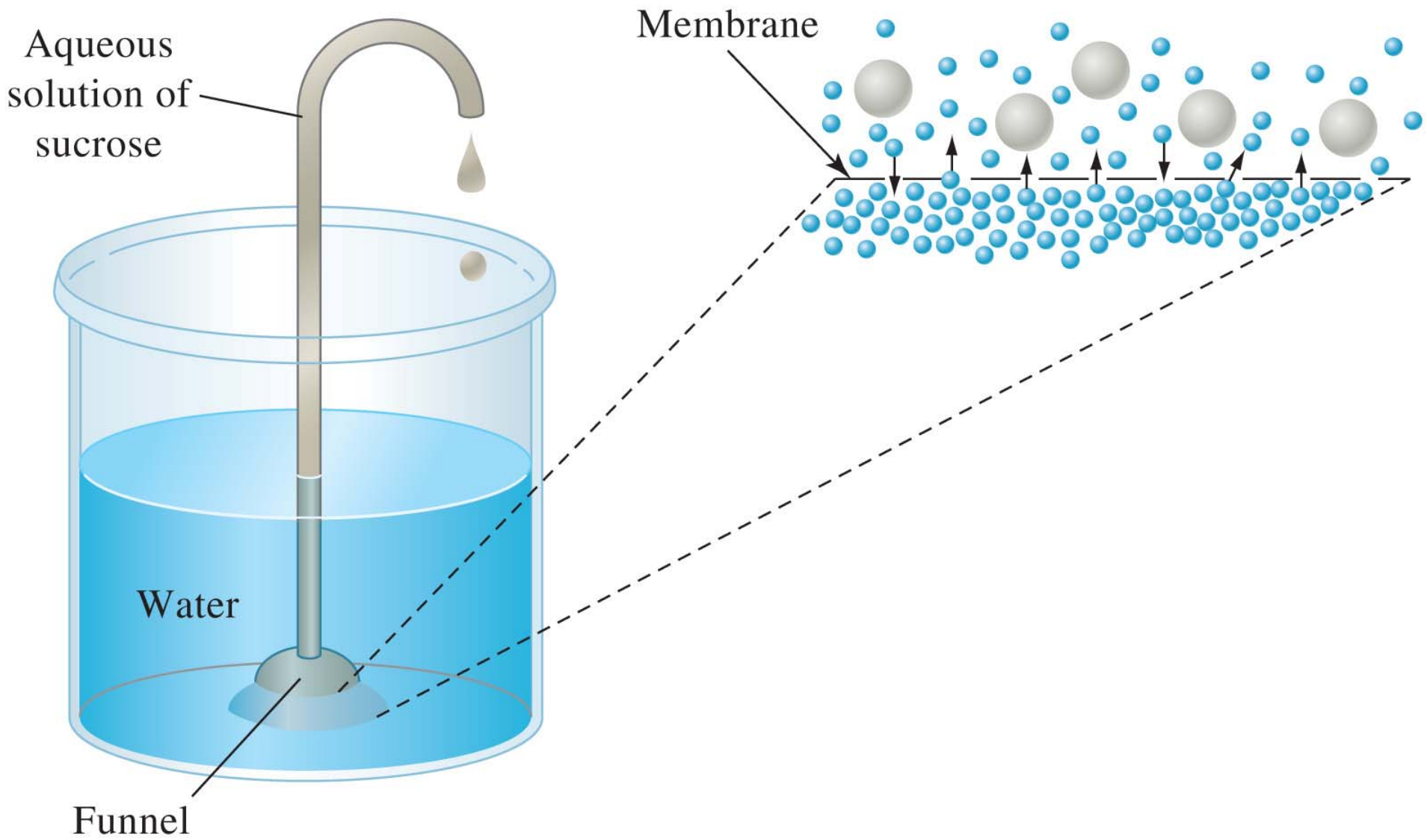
Figure 13.23

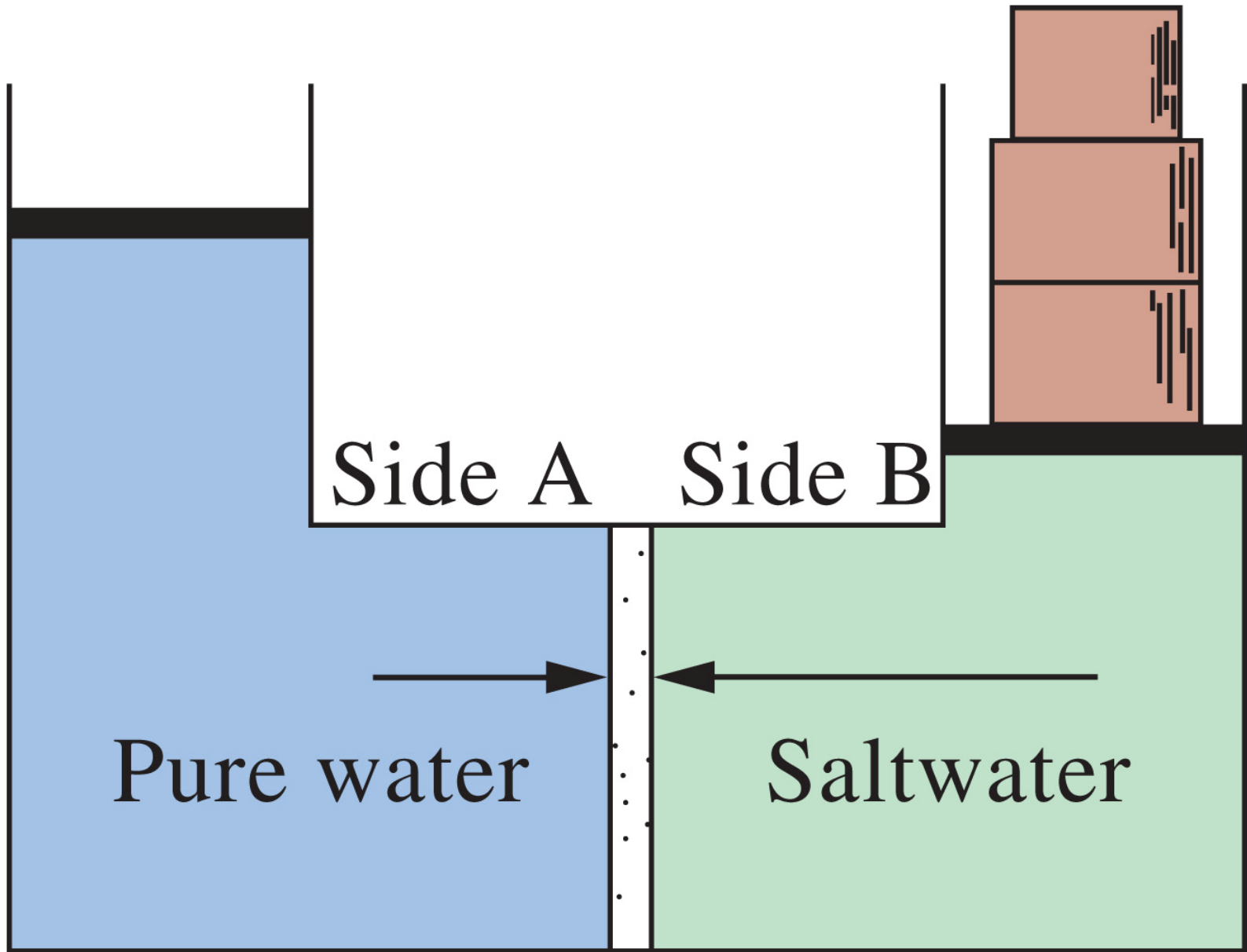


$$\pi * V = n * R * T$$

$$\pi = \textit{presión osmótica}$$







Membrane

Disoluciones con soluto iónicos

En estos casos 1 mol de un electrolito fuerte (por ejemplo NaCl), generará:

1 mol de iones Na^+ y un mol de iones Cl^-

“las propiedades coligativas de una disolución con este tipo de electrolito tendrán un efecto más intenso”.

$$\left. \begin{aligned} \pi * V &= i * n * R * T \\ \Delta T &= i * K_{eb} * m \\ \Delta T &= i * K_c * m \end{aligned} \right\} \Rightarrow i = \text{factor de corrección de Van't Hoff}$$

TABLE 13.3 Variation of the van't Hoff Factor, i , with Solution Molality

Solute	Molality, m					
	1.0	0.10	0.010	0.0010	...	Inf. dil. ^a
NaCl	1.81	1.87	1.94	1.97	...	2
MgSO ₄	1.09	1.21	1.53	1.82	...	2
Pb(NO ₃) ₂	1.31	2.13	2.63	2.89	...	3

^aThe limiting values: $i = 2$, 2 , and 3 are reached when the solution is infinitely dilute. Note that a solute whose ions are singly charged (for example, NaCl) approaches its limiting value more quickly than does a solute whose ions carry higher charges. Interionic attractions are greater in solutes with more highly charged ions.